SHIMANO

# 2018-2019

# Products Technical Information

- Frame Requirement
- Product Information
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- Compatibility
- Technical Notes
- Update History

All information in this Products Technical Information is confidential
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**After the assembly of SHIMANO components, the bicycle manufacturer should fully check the performance of the bicycle.**
This information should not be photo copied.
Specifications are subject to change without prior notice.

**Visit SHIMANO PRODUCT WEBSITE for the latest information.**

Ver. 1.8, Jan. 9, 2018, SHIMANO INC.

# Word definitions

| | |
|---|---|
| **Line D** | Line D goes thru bottom bracket center and FREEHUB center. In case of rear suspension type, line D should be determined by riding height such as 1G sag. |

| | | | |
|---|---|---|---|
| **BB** | Bottom bracket | **HP** | Head parts |
| **BC** | Brake cable | **HRB** | Hub roller brake |
| **BCC** | Battery cable | **I-SPEC** | Integration mounting system of brake and shifting lever |
| **BCR** | Battery charger | | |
| **BH** | Disc brake hose | **ID** | CI-DECK |
| **BL** | Brake lever | **JC** | Junction |
| **BM** | Battery mount | **LP** | Light |
| **BR** | Brake caliper | **MF** | Multiple freewheel |
| **BTC** | Battery case | **MU** | Motor unit |
| **BTH** | Battery holder | **O.L.D.** | Over Locknut Dimension |
| **BTR** | Battery | **OT** | Outer casing |
| **CB** | Coaster brake | **P.C.D.** | Pitch Circle Diameter |
| **CD** | Chain device | **PCE** | PC Linkage device |
| **CG** | Chain guard | **PD** | Pedal |
| **CJ** | Cassette joint | **PM** | POWER MODULATOR |
| **CN** | Chain | **QR** | Quick release |
| **CP** | Spoke protector | **RD** | Rear derailleur |
| **CR** | Chainring | **RT** | Disc brake rotor |
| **CS** | Cassette sprocket | **RTAD** | Disc brake rotor adapter |
| **CT** | Chain tensioner | **SB** | REVOSHIFT shifter integrated with brake lever |
| **DH** | Hub dynamo | | |
| **DU** | Drive unit | **SC** | Cycle computer<br>System information display |
| **EC** | Battery charger | | |
| **EW** | Electric wire | **SF** | Single freewheel |
| **EWC** | Cord cover | **SG** | Internal geared hub |
| **EWEX** | DI2 adapter | **SL** | Shifting lever |
| **EWW** | Wireless unit | **SPD** | SHIMANO PEDALING DYNAMICS |
| **FC** | Front chainwheel<br>Crankarm | **SPD-SL** | SHIMANO PEDALING DYNAMICS-SL |
| **FD** | Front derailleur | **ST** | DUAL CONTROL LEVER / shifting lever integrated with brake lever |
| **FH** | FREEHUB | **SW** | Switch unit |
| **GM** | Grommet | **WH** | Wheel |
| **HB** | Front hub | | |

# Frame Requirement

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# Technical Notes


## si.shimano.com C-474

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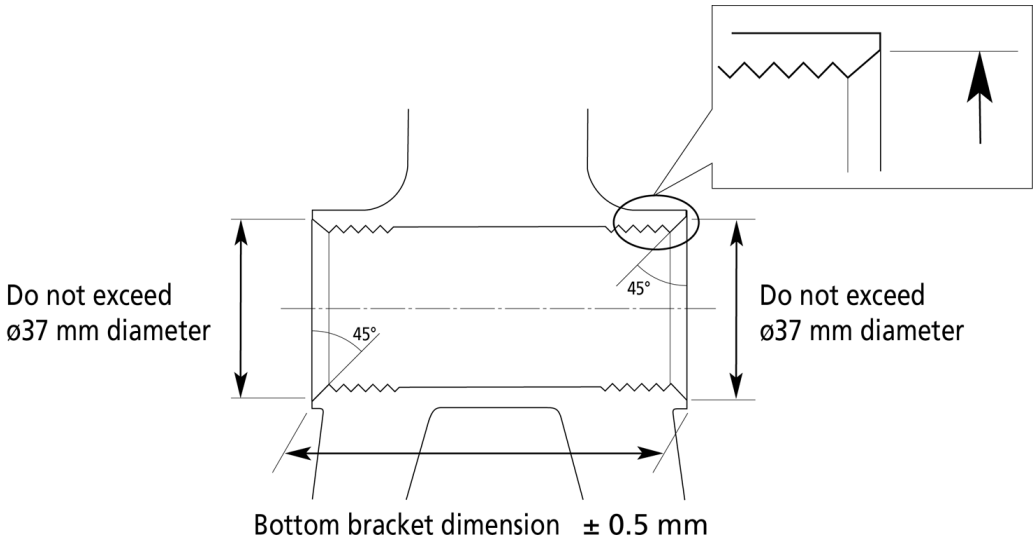
## Sealed cartridge type C-002

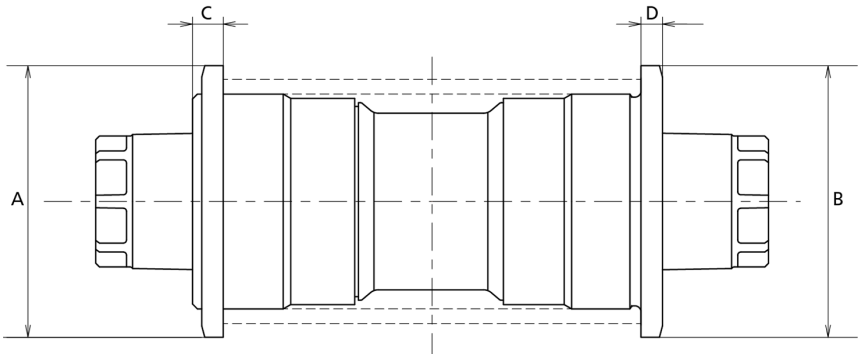
The inside diameter of the bottom bracket face chamfer should not be over 37 mm for SHIMANO sealed cartridge type bottom brackets. If this dimension is exceeded, there is a possibility that the bottom bracket cartridge may over-insert and skew the chain line.




## Cartridge type bottom bracket dimensions C-515

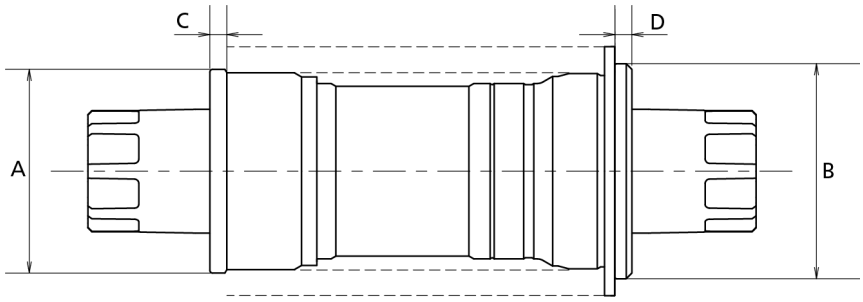
A: Outer diameter of left hand adapter
B: Outer diameter of right hand adapter 1
C: Protrusion of left hand adapter when bottom bracket assembled on frame bottom bracket hanger
D: Protrusion of right hand adapter when bottom bracket assembled on frame bottom bracket hanger
E: Outer diameter of right hand adapter 2 (BB-UN100)
G: Flat area of protrusion of right hand adapter when bottom bracket assembled on frame bottom bracket hanger
T: Chain case stay / E-type plate thickness

### BB-7700



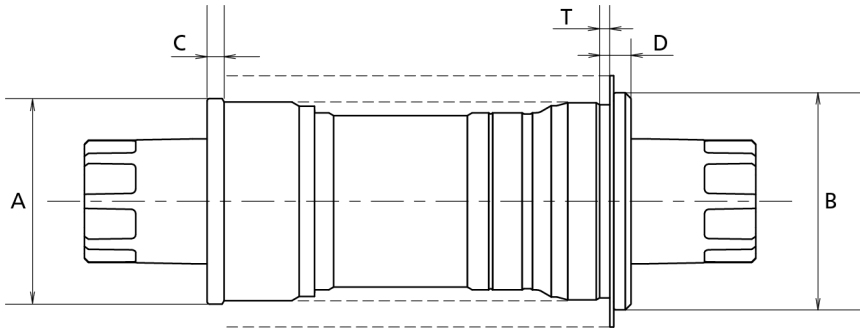

| Model No. | Spindle type | Structure type | Axle length (mm) | Shell width (mm) | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|---|
| BB-7700 | OCTALINK | Standard | 109.5 | 68 (BC1.37) | ø44 | ø44 | 5 | 3.5 |
| | | | | 70 (M36) | | | 4 | |
| | | | | 68 (BC1.37) | | ø38 | 2.5 | 3 |

## BB-5500 / BB-ES51 / BB-ES300




| Model No. | Spindle type | Structure type | Axle length (mm) | Shell width (mm) | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|---|
| BB-5500 | OCTALINK | Standard | 109.5 | 68 (BC1.37) | ø39.8 | ø37.8 | 3.6 | 3.1 |
| | | | | 70 (M36) | | | | |
| | | | 118.5 | 68 (BC1.37) | | | | |
| | | | | 70 (M36) | | | | |
| | | | 129 | 73 (BC1.37) | | | | |
| BB-ES51 | | | 113 | 68 (BC1.37) | ø36.1 | | 3.75 | |
| | | | | 73 (BC1.37) | | | | |
| | | | 118 | 68 (BC1.37) | | | | |
| | | | | 73 (BC1.37) | | | | |
| | | | 121 | 68 (BC1.37) | | | | |
| | | | | 70 (M36) | | | | |
| | | | 126 | 68 (BC1.37) | | | | |
| BB-ES300 | | | 113 | 68 (BC1.37) | | | | |
| | | | | 70 (M36) | | | | |
| | | | | 73 (BC1.37) | | | | |
| | | | 118 | 68 (BC1.37) | | | | |
| | | | | 70 (M36) | | | | |
| | | | | 73 (BC1.37) | | | | |
| | | | 121 | 68 (BC1.37) | | | | |
| | | | | 73 (BC1.37) | | | | |
| | | | 126 | 68 (BC1.37) | | | | |
| | | | | 73 (BC1.37) | | | | |

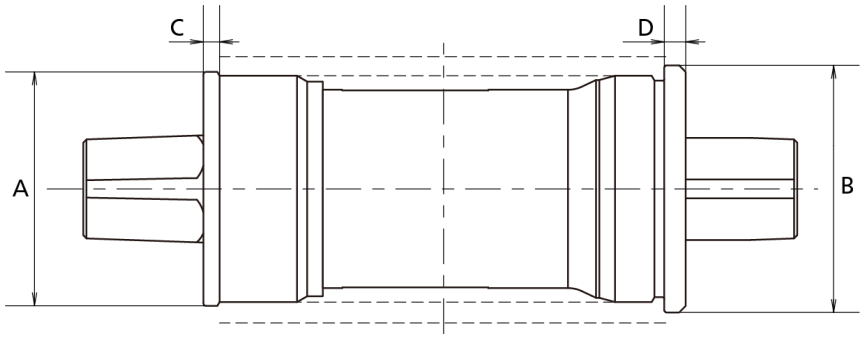
## BB-ES300-E / BB-ES300-K / BB-ES300-AK




| Model No. | Spindle type | Structure type | Axle length (mm) | Shell width (mm) | A (mm) | B (mm) | C (mm) | D (mm) | T (mm) |
|---|---|---|---|---|---|---|---|---|---|
| BB-ES300-E | OCTALINK | E-type | 113 | 68 (BC1.37) | ø36.1 | ø37.8 | 3.8 | 5.65 | 2.5 |
| | | | 118 | | | | | | |
| | | | 121 | 68 (BC1.37) | | | | | |
| | | | 121 | 73 (BC1.37) | | | | | |
| | | | 126 | 68 (BC1.37) | | | | | |
| | | | | 73 (BC1.37) | | | | | |
| BB-ES300-K | | For chain case | 121 | 68 (BC1.37) | | | 4.75 | 5.2 | 2.1 |
| | | | 126 | | | | 4.15 | 6 | 2.9* |
| BB-ES300-AK | | | 121 | | | | 4.75 | 5.2 | 2.1 |

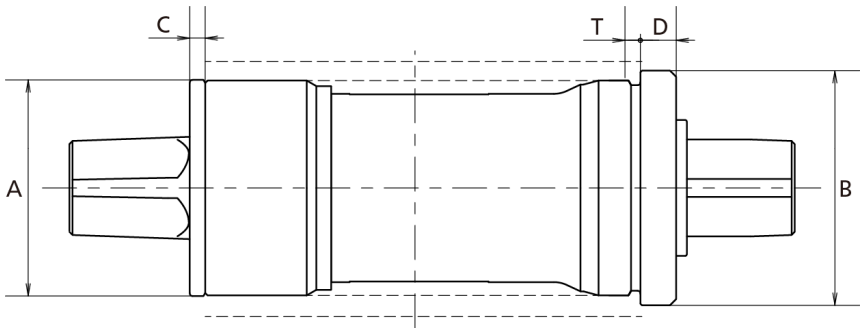
* with 0.7mm washer

## BB-UN55 / BB-UN26




| Model No. | Spindle type | Structure type | Axle length (mm) | Shell width (mm) | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|---|
| BB-UN55 | Square | Standard | D-H | 68 (BC1.37) | ø36.1 | ø37.8 | 3.67 | 3.4 |
| | | | | 70 (M36) | | | | |
| | | | XL118 | 68 (BC1.37) | | | | |
| | | | | 70 (M36) | | | | |
| | | | | 73 | | | | |
| | | | D-NL 122 | 68 (BC1.37) | | | | |
| | | | | 70 (M36) | | | | |
| | | | | 73 (BC1.37) | | | | |
| | | | D-EL 127 | 68 (BC1.37) | | | | |
| BB-UN26 | | | MM110.0 | 68 (BC1.37) | | | 3.65 | |
| | | | | 70 (M36) | | | | |
| | | | LL113.0 | 68 (BC1.37) | | | | 5.9 |
| | | | | 70 (M36) | | | | 3.4 |
| | | | YL117 | 68 (BC1.37) | | | | 5.9 |
| | | | 117.5 | | | | | 3.4 |
| | | | D-NL 122 | | | | | 5.9 |
| | | | D-EL 127 | | | | | 3.4 |
| | | | LL123 | 68 (BC1.37) | | | | 5.9 |
| | | | | 70 (M36) | | | | 3.4 |
| | | | 123SP | 68 (BC1.37) | | | 6.15 | |

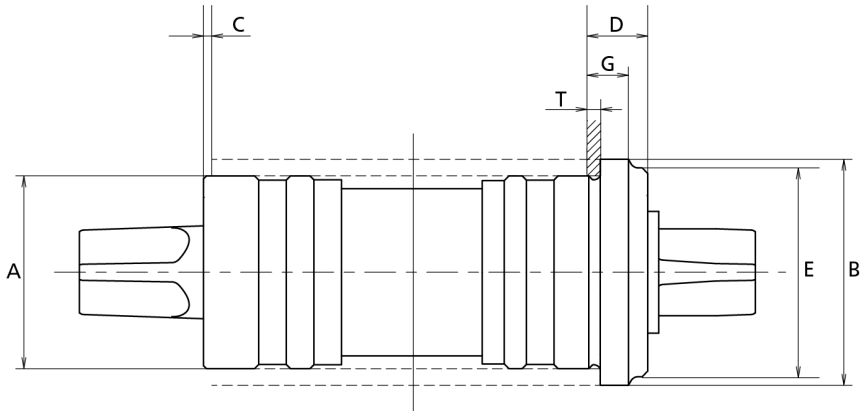
## BB-UN26-E / BB-UN26-K




| Model No. | Spindle type | Structure type | Axle length (mm) | Shell width (mm) | A (mm) | B (mm) | C (mm) | D (mm) | T (mm) |
|---|---|---|---|---|---|---|---|---|---|
| BB-UN26-E | Square | E-type | YL117 | 68 (BC1.37) | ø36.1 | ø37.8 | 3.7 | 3.4 | 2.5 |
| | | | LL123 | 68 (BC1.37) | | | 3.9 | | 5** |
| | | | | 73 (BC1.37) | | | 3.7 | | 2.5 |
| BB-UN26-K | | For chain case | YL117 | 68 (BC1.37) | | | 5-T | 5.9 | ≦2.5 |
| | | | 117.5 | | | | | 3.4 | |
| | | | D-NL 122 | | | | | 5.9 | |
| | | | LL123 | | | | 4.05 | 3.4 | 2.9* |

* with 0.7mm washer

** with 2.5mm washer



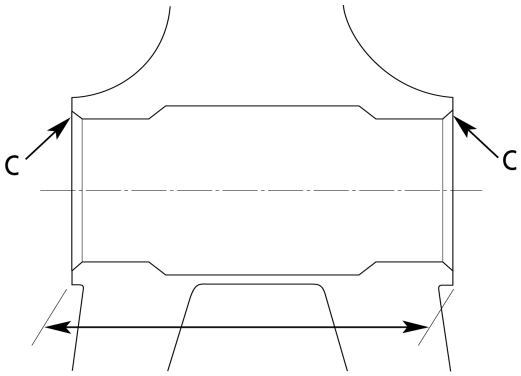

| Model No. | Spindle type | Structure type | Axle length (mm) | Shell width (mm) | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | G (mm) | T (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BB-UN100 | Square | Standard | D-NL 122 | 68 (BC1.37) | ø34.8 | ø40.8 | 4 | 8.5 | ø37.9 | 5 | - |
| | | | LL123 | 68 (BC1.37) | | | 2.5 | | | | |
| | | | | 73 (BC1.37) | | | 0 | | | 2.5 | |
| BB-UN100-K | | For chain case | D-NL 122 | 68 (BC1.37) | | | 4-T | 8.5+T | | 5+T | ≦2.5 |
| | | | LL123 | | | | 2.5 | 11 | | 5 | 2.5* |

* with 0.7mm washer

# Press-Fit type

C-003

## Frame / bottom bracket hanger C-513




Bottom bracket hanger width

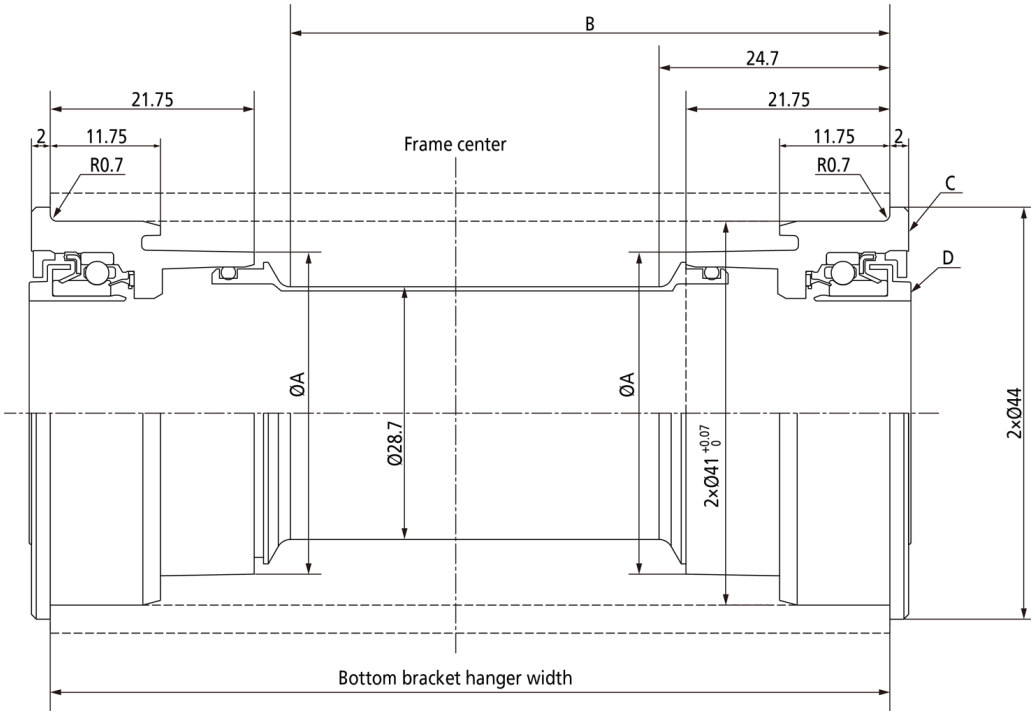
1. Due to variations in material properties and the structure of bicycle bottom bracket shells, SHIMANO does not have recommendation on the frame dimension that is the inner diameter of bottom bracket hanger. Therefore, please study and check it's quality. SHIMANO does not guarantee the fitting quality between frame and bottom bracket unit. SHIMANO guarantees the outer diameter of bottom bracket which is ø41.00-41.07mm. ( refer to C-004, C-005, C-514 )
2. Frame bottom bracket hanger has to have chamfering at inner diameter.
3. Front derailleur E-type (w/ bottom bracket plate) can not use with Press-fit bottom bracket, due to dimension difference and also less fix torque by press in.

**NOTE**

* Please take special care for X4, Y4 dimension of the crankset dimensions (refer to C-115) to avoid interference between inner ring chainring and outer side of the bottom bracket shell of the frame.

* If the frame has openings inside the bottom bracket shell, it should be installed with the inner cover sleeve to prevent possible contamination.

# Press-Fit type bottom bracket dimensions C-004

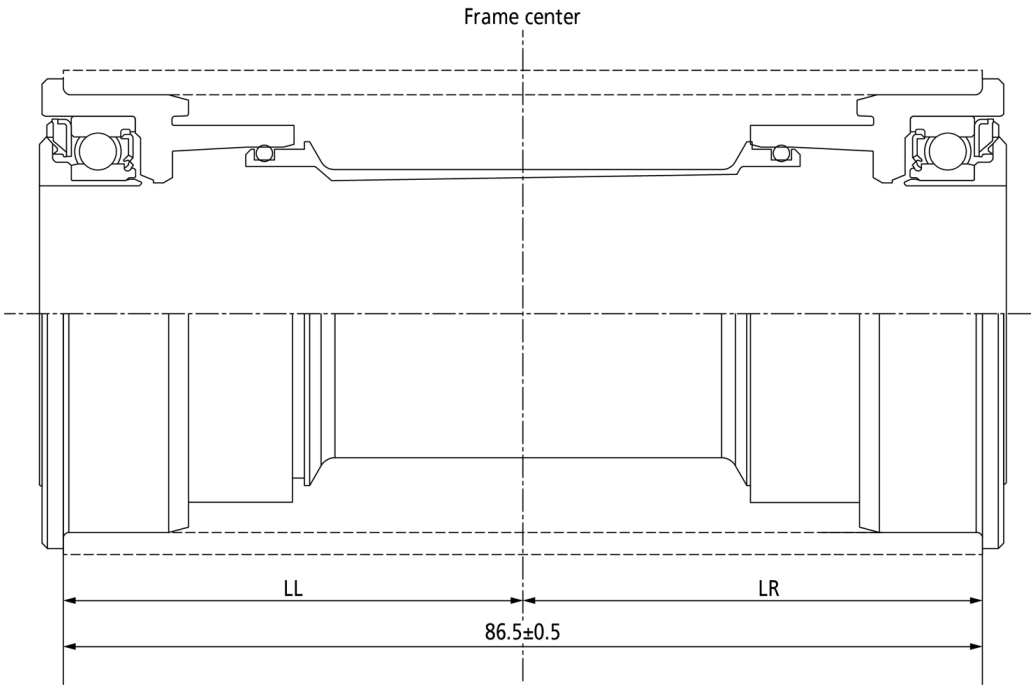



Surface D is higher than surface C (See above drawing). So,be careful not to press surface D for pressing adapter into the frame.

| | Model No. | øA | B |
|---|---|---|---|
| ROAD | SM-BB72-41B | ø34.4 | 60.8 |
| | SM-BB71-41B<br>BB-RS500-PB | ø35.4 | |
| MTB & Others | SM-BB94-41A<br>BB-MT800-PA | ø34.4 | 65.8 |
| | SM-BB71-41A<br>BB-MT500-PA | ø35.4 | |
| | SM-BB71-41C<br>BB-MT800-PC | ø35.4 | 80.8 |

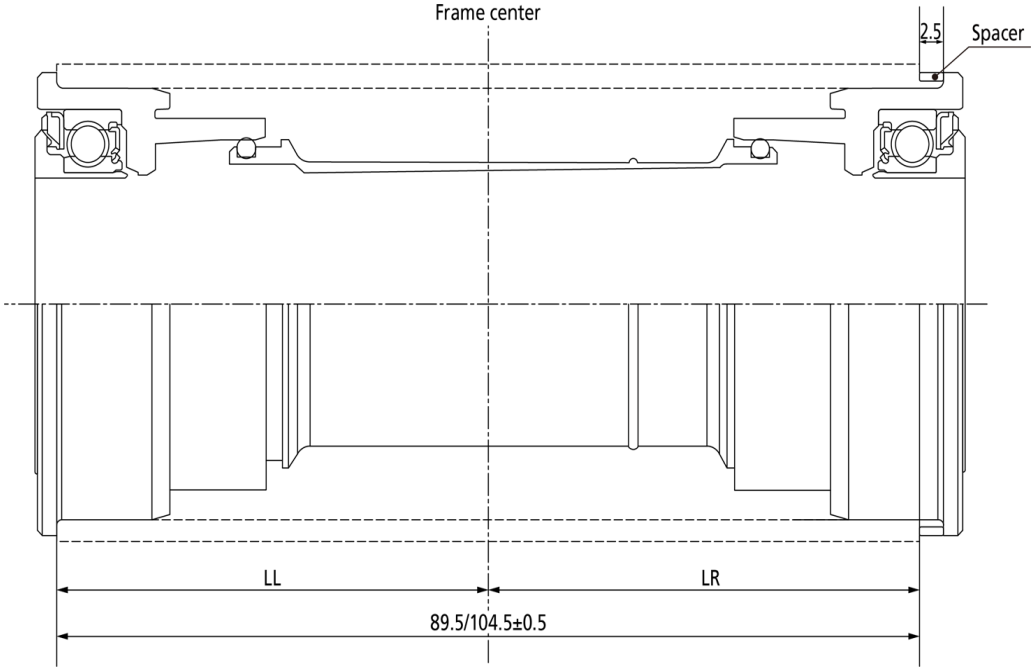
# Press-Fit type Assemble dimensions [ROAD] C-005

**Symmetric frame**

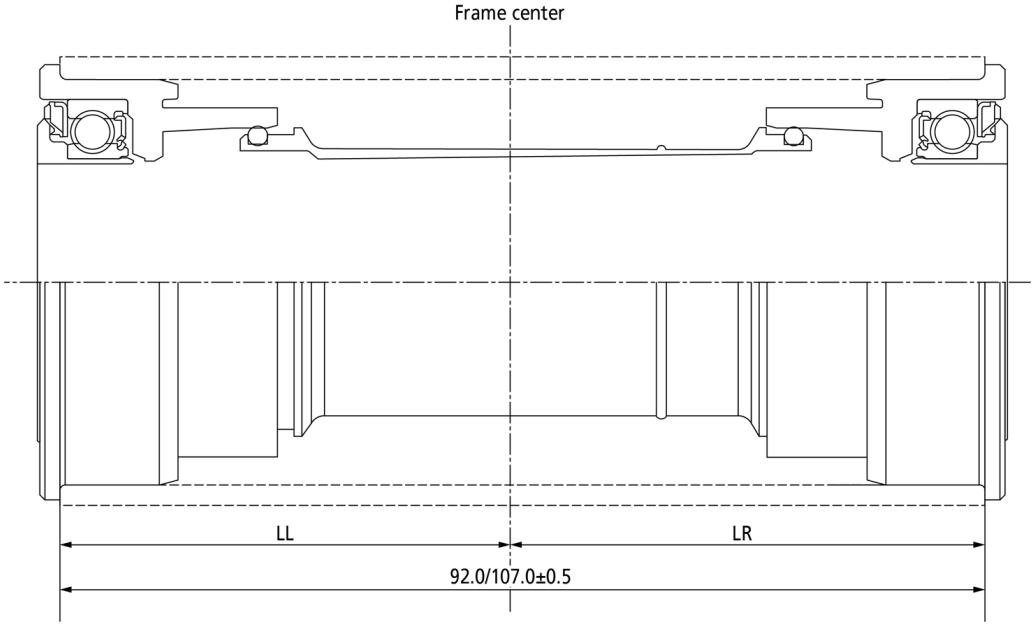


# Press-Fit type Assemble dimensions [MTB, OTHERS] C-514

## Symmetric frame




## Asymmetric frame

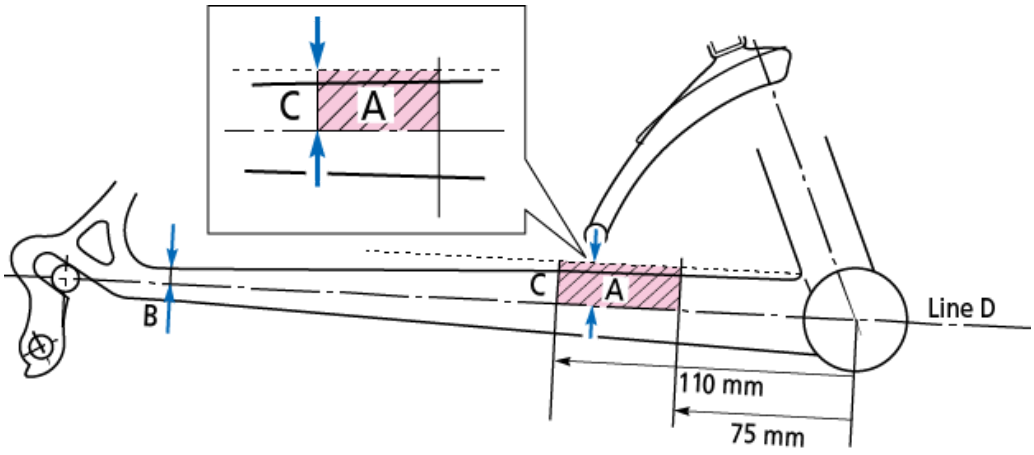



| | Model No. | Frame (Bottom Bracket hanger) | | | Spacer (2.5mm) | LL (mm) | LR (mm) |
|---|---|---|---|---|---|---|---|
| | | Width (mm) | Symmetric | Asymmetric | | | |
| ROAD | SM-BB72-41B<br>SM-BB71-41B<br>BB-RS500-PB | 86.5 | X | - | - | 43.25 | |
| MTB & Others | SM-BB94-41A<br>BB-MT800-PA<br>SM-BB71-41A<br>BB-MT500-PA | 89.5 | X | - | X | 44.75 | |
| | | 92 | - | X | - | 44.75 | 47.25 |
| | SM-BB71-41C<br>BB-MT800-PC | 104.5* | X | - | X | 52.25 | |
| | | 107 | - | X | - | 52.25 | 54.75 |

* For FC-M825 / FC-M645 w/SM-BB71-41C

## Chainstay dimensions C-008

*Dimension's B and C are general dimensions for reference.
Please check each product for detail.




## Dimension B C-009

**B ≤ 7 mm**

In order to keep the chainstay from interfering with the chain, design the frame so that dimension B (the area that the chain comes closest to the chainstay) is 7 mm or less.

## Dimension C [ROAD] C-010

**C ≤ 15 mm**

In order to keep the front derailleur plate from touching the chainstay, design the frame at area A (cross hatched section in diagram) so that the dimension C (distance from line D to top edge of the chainstay) is 15 mm or less.

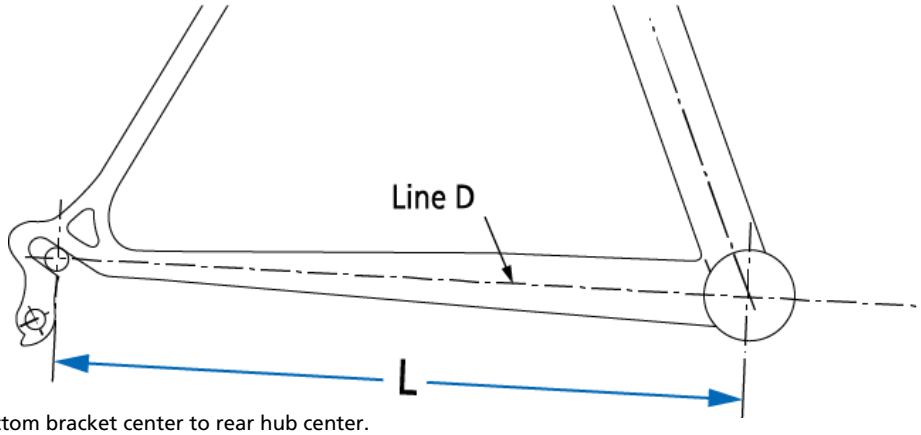
## Dimension C [MTB] C-011

Please refer to C-053, C-054, C-055, C-056.

# Chainstay length

C-013

The SHIMANO shifting system is designed on the chainstay dimensions given below. (when using frames that do not meet these dimensions, be sure to confirm that the system operates without problems.)




L: The length from bottom bracket center to rear hub center.

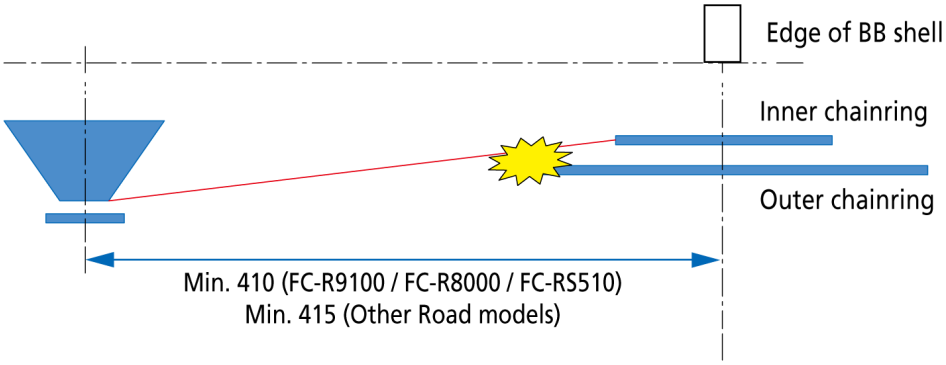
**NOTE**

It is recommended that chainstay dimension "L" when using road 2x, 3x drivetrain products with 135 / 142 mm O.L.D. frames be shown below chart. Please be sure to follow these recommendations.

| Drivetrain component type | Rear speed | Dimension (mm) |
|---|---|---|
| MTB | 12,11,10, 9, 8, 7, 6-speed | L ≥ 420 |
| TOURNEY | Triple (Front speeds) | L ≥ 430 |
| TOURNEY | Single | L ≥ 405 |
| Trekking | 10, 9, 8, 7, 6-speed | L ≥ 450 |
| Road | 11, 10, 9, 8, 7-speed | L ≥ 405 |
| Cyclocross | 11, 10-speed | L ≥ 425 |
| Urban Sport | 2/1x11-speed | L ≥ 415 |
| E8000 series | 11, 10-speed | L ≥ 420 |
| E6000 series | INTER-11/8, 11, 10, 9-speed | L ≥ 460 |

## Inner/Top [ROAD] C-014

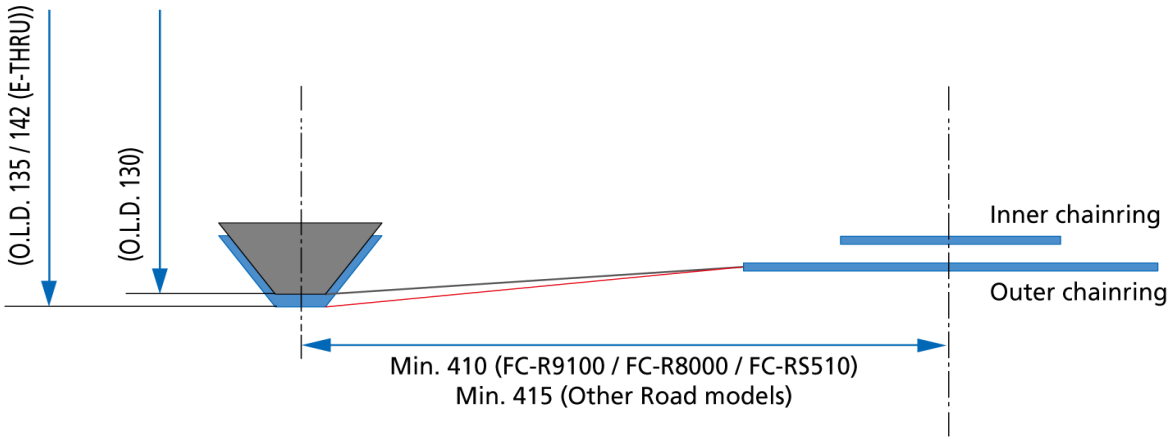
It is related O.L.D.135 mm / 142 mm (E-THRU) road, cyclocross and urban sport, set the dimensions max. 35mm from edge of bottom bracket shell to edge of rear end. When the chain is on the front inner chainring x top position of cassette sprocket, reduced clearance between chain and leading teeth might cause chain to spontaneously shift to outer chainring, which may lead to loss of control of bicycle.




| | Bottom bracket width (mm) | OFFSET (mm) (MAX) |
|---|---|---|
| BC | 68 | 35 |
| ITALIAN | 70 | 34 |
| Press-Fit | 86.5 | 25.75 |

## Outer/Top [ROAD] C-015

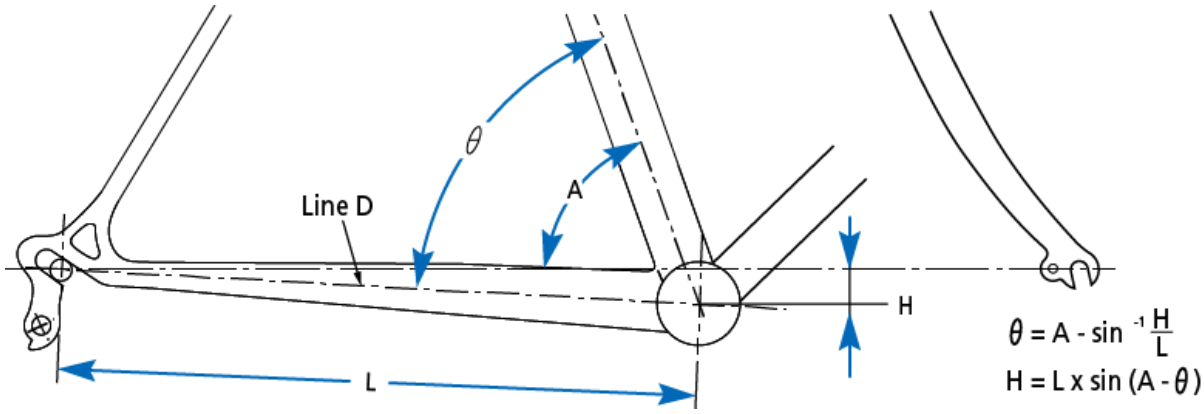
With the chain on the front outer chainring x top position of cassette sprocket. Test to make sure chain does not drop from outer chainring by physically testing.
(Increased chain angle might cause the chain to drop off of the outer chainring under very high pedaling loads, which may lead to loss of control of bicycle.)



# Chainstay angle

C-016

In order for the front SIS shifting system to function properly, set the chainstay angle θ within the range supported by the front derailleur.



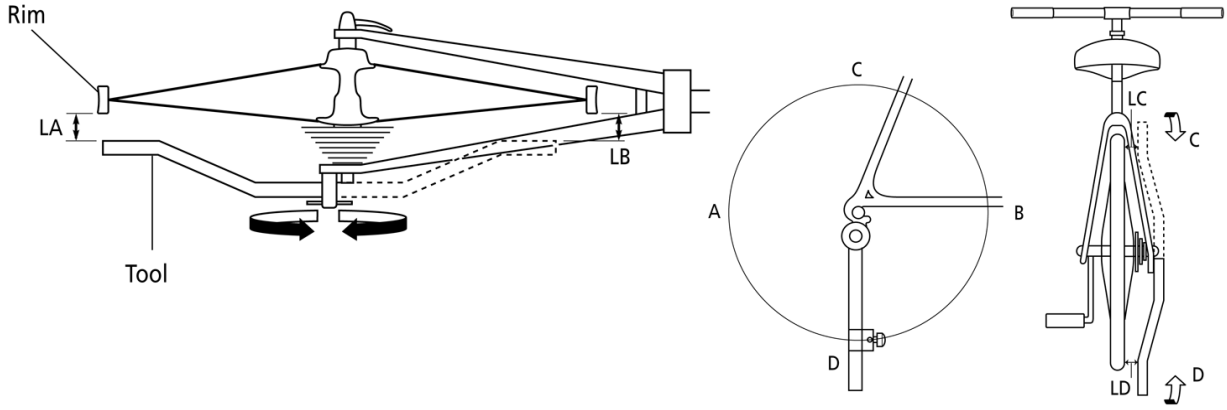

θ: Chainstay angle (FD mount angle)
A: Seat tube angle
H: Hanger drop

**NOTE**

Please refer to specification of the front derailleur on Spec Hand Book for chainstay angle information.
In the case of full-suspension bikes, in the SAG position, set the angle θ within the recommended range.

## Fork end dimensions C-018

Rear fork end alignment is set in relation to the frame centerline. To check alignment of the fork end, use the tool.

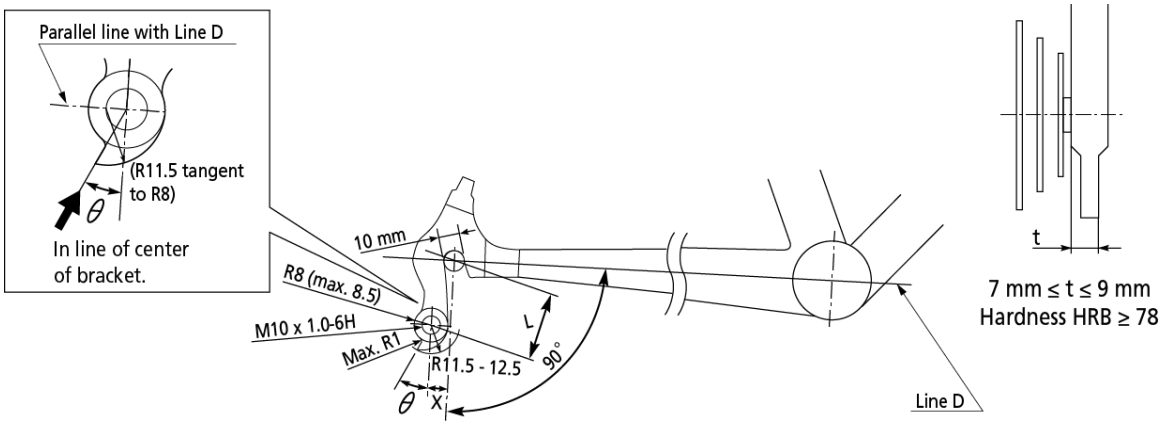



Adjust the fork end so that
| LA-LB | and | LC-LD | ≤ 10 mm
| LA-LB | and | LC-LD | = 0 mm is optimum setting

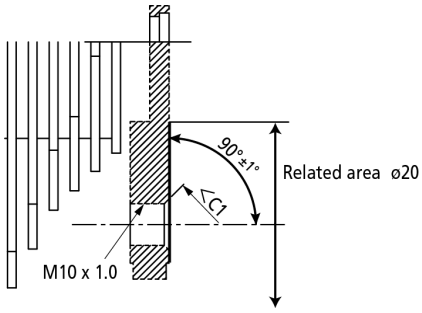
# Fork end dimensions [MTB] C-019

## Rear fork end (with derailleur hanger) C-020

In order to maintain optimum shifting performance of SHIMANO INDEX SYSTEM, set dimensions as shown below.




| Fork end type | L (mm) | X (mm) | Angle θ |
|---|---|---|---|
| MTB recommendation | 28 to 30 | 6 to 10 | 25° to 30° |

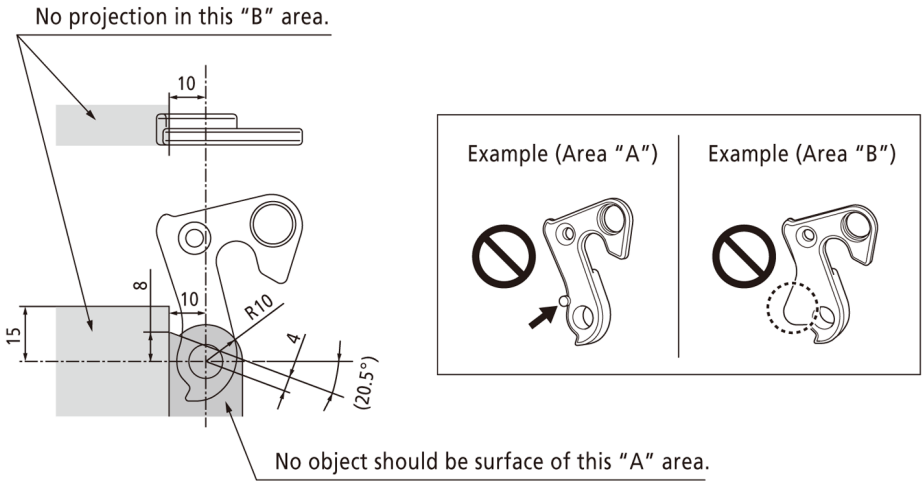



This information also applies all fork ends.

**NOTE**

If a fork end that does not conform to the dimensions above is used, optimum shifting performance of SHIMANO INDEX SYSTEM may not be obtained.

## Fork end for SHIMANO SHADOW RD C-495

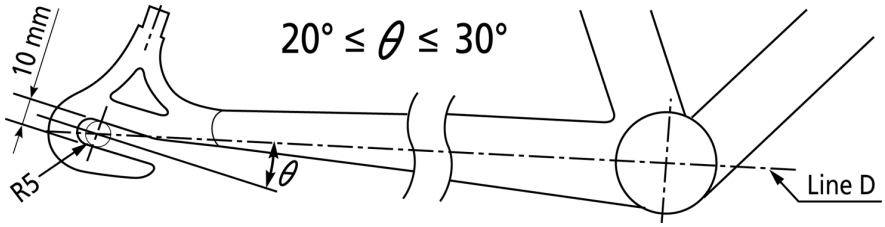



These dimension must be maintained to prevent contact between the fork end surface and rear dereilleur.

# Rear fork end (without derailleur hanger) C-021

In order to maintain optimum shifting performance of SHIMANO INDEX SYSTEM, Set dimensions as shown in below.
QR can not be used for fork end without derailleur hanger.

**Normal (Road) type fork end**




Thickness: 4mm<t<5mm
Hardness (Over locknut contact portion): HRB≥65

**Reversed (BMX, Track) type fork end**

Thickness: 4mm<t<5mm
Hardness (Over locknut contact portion): HRB≥65

Make sure fork end should not be deformed during assembly and transportation. Less stiff fork end may deform and cause bad shifting performance.

# Direct mount fork end dimensions [MTB]

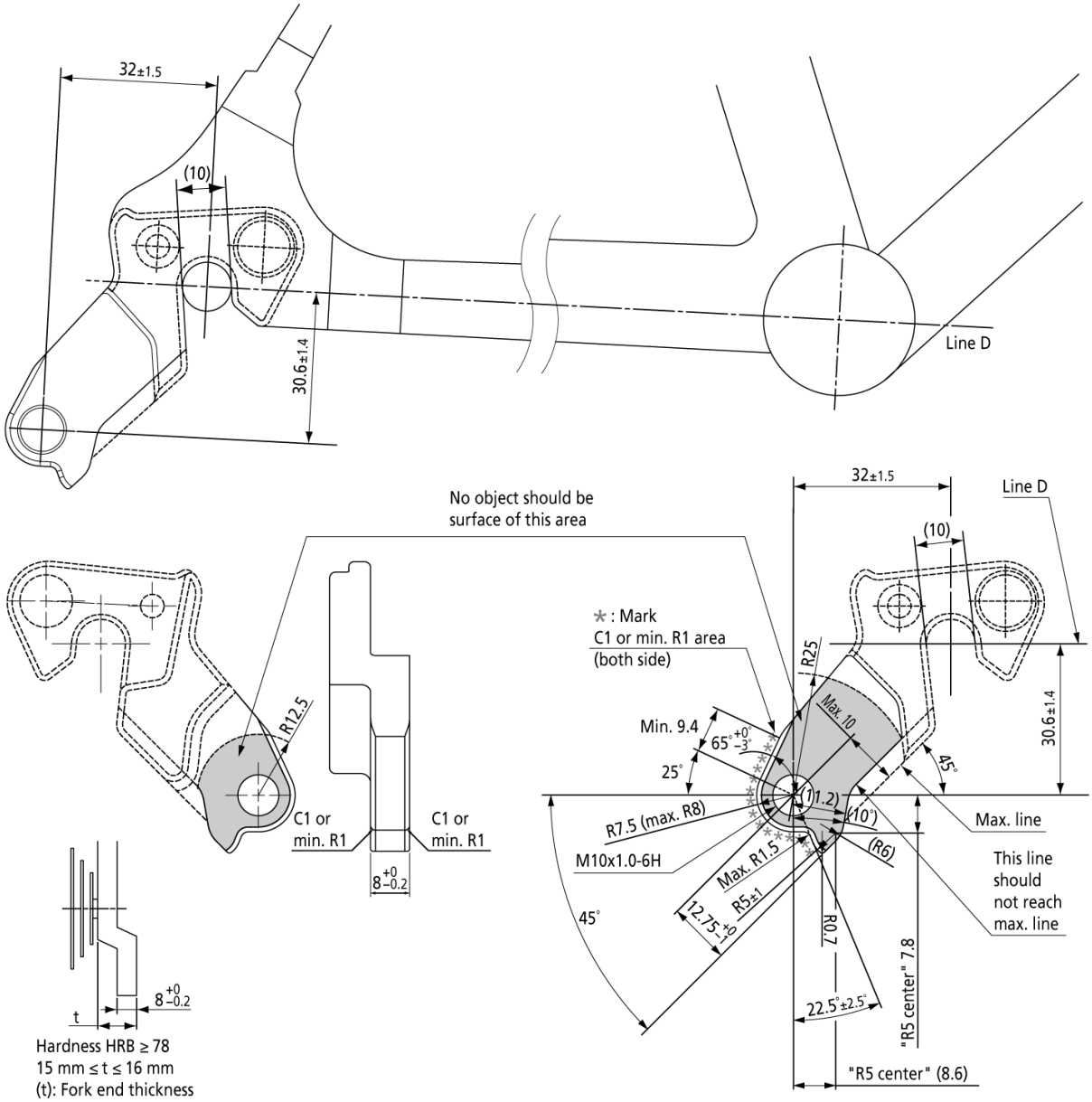
C-022

## Dimensions for wide ratio cassette sprocket (Low gear bigger than 32T)

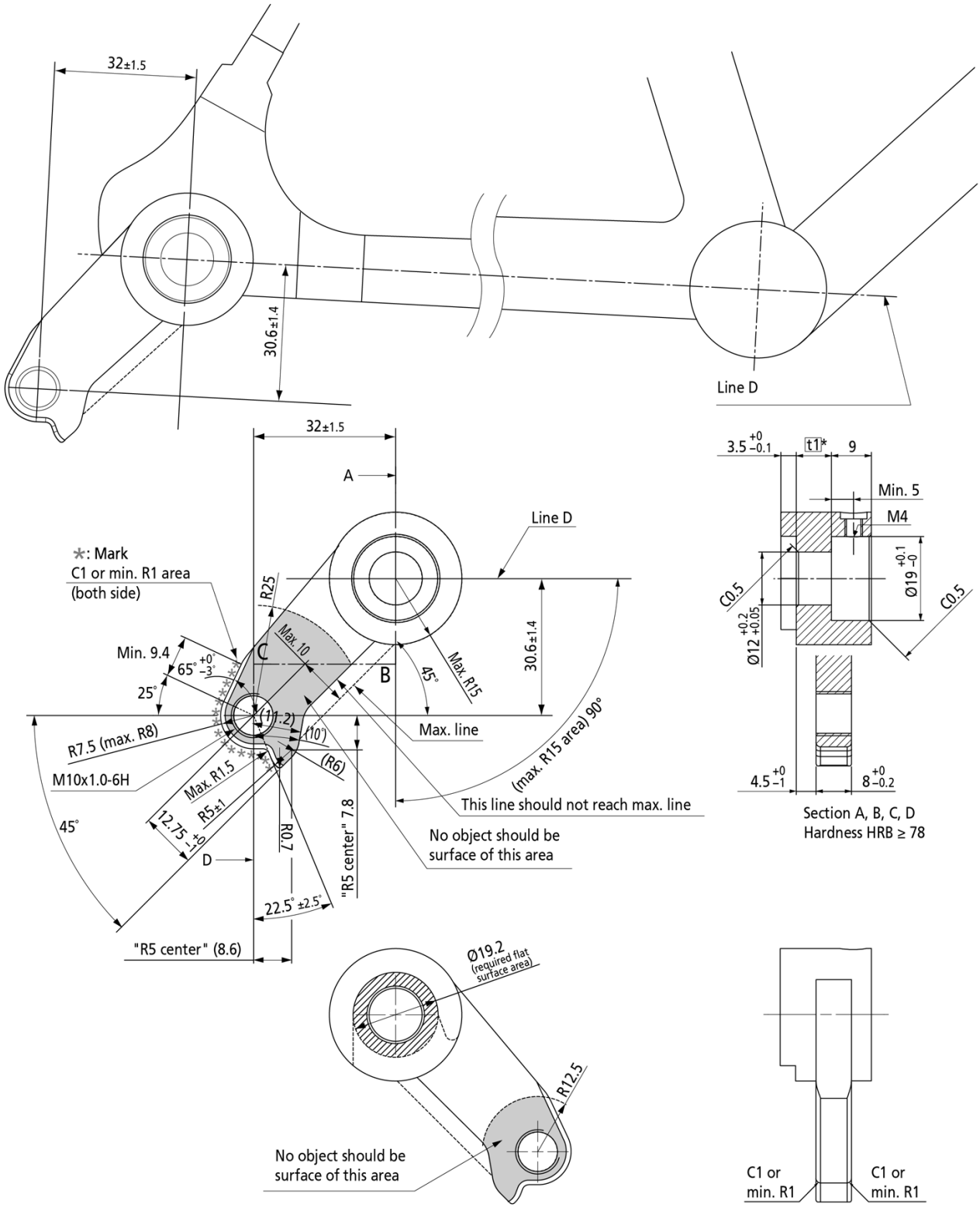
C-023

**RD-M9000 / RD-M9050 / RD-M986 / RD-M820 / RD-M8000 / RD-M8050 / RD-M7000-11 / RD-M7000-10 / RD-M786 / RD-M781 / RD-M670 / RD-M640 / RD-M610 / RD-M4000 / RD-M3000 / RD-M2000**

### QR type



## E-THRU type (O.L.D. 142 mm / 148 mm)




* Please refer to C-025 for more rear E-THRU system information.

# Dimensions for close ratio cassette sprocket (Low gear smaller than 32T)

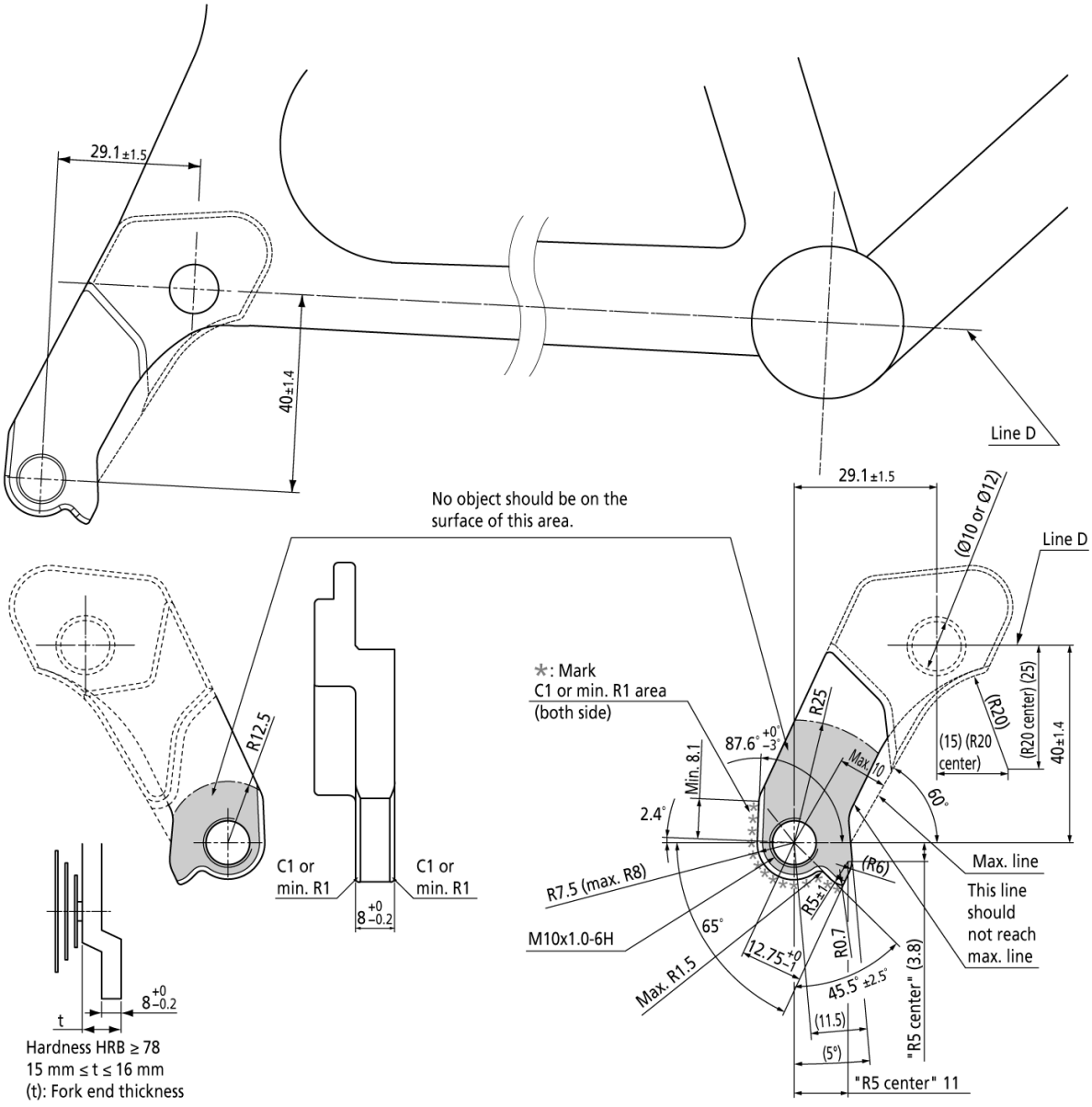
C-024

### RD-M820 / RD-M640

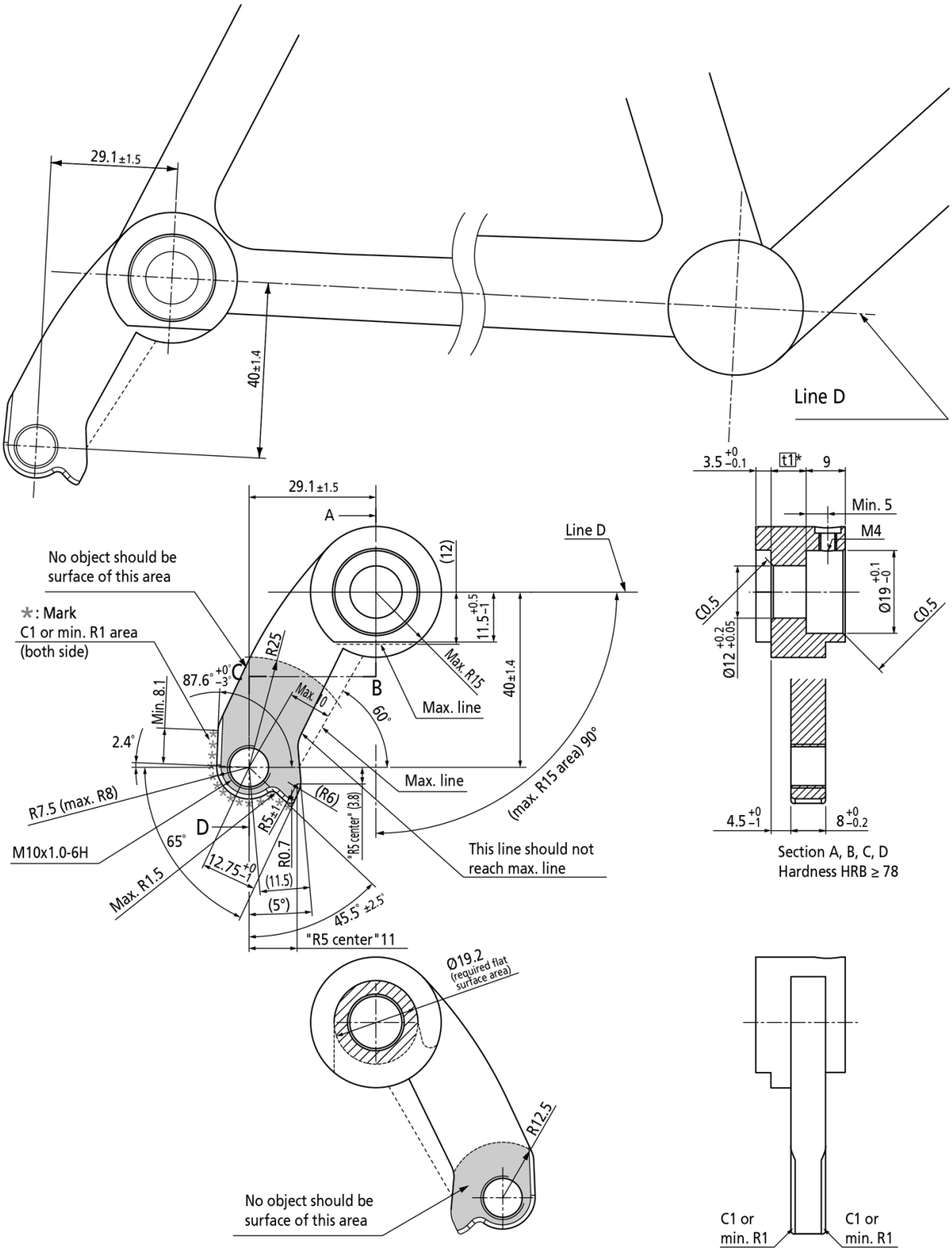
Please refer to C-175 for more information.

> **NOTE**
> This dimensions for close ratio cassette sprocket (downhill spec.) is different from it for wide gear ratio cassette sprocket (freeride spec.)

## Thru axle type (O.L.D. 135 / 150 mm)



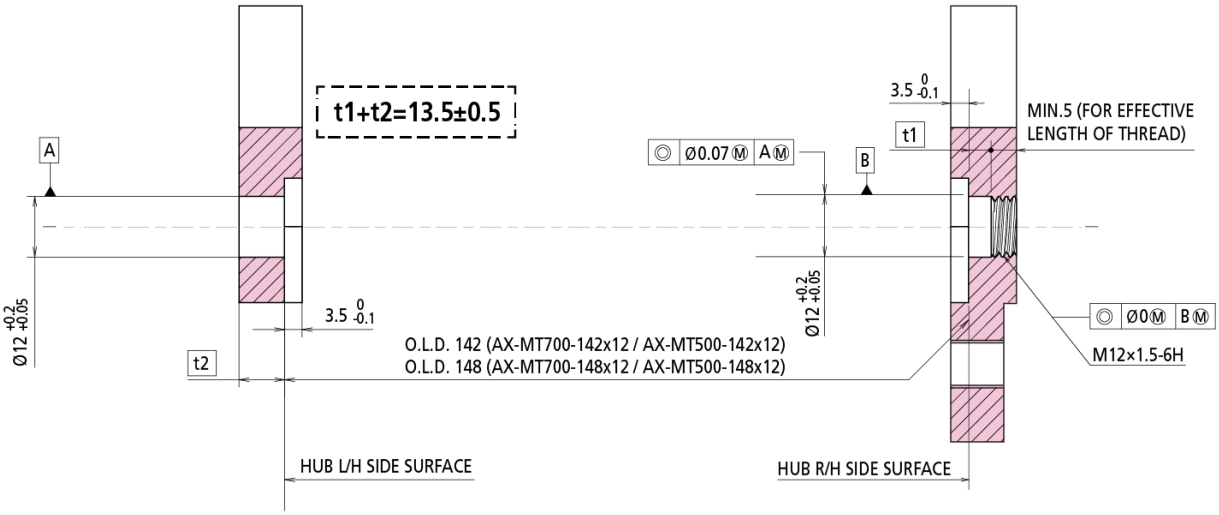
## E-THRU type (O.L.D. 142mm / 148mm)




* Please refer to C-025 for more rear E-THRU system information.

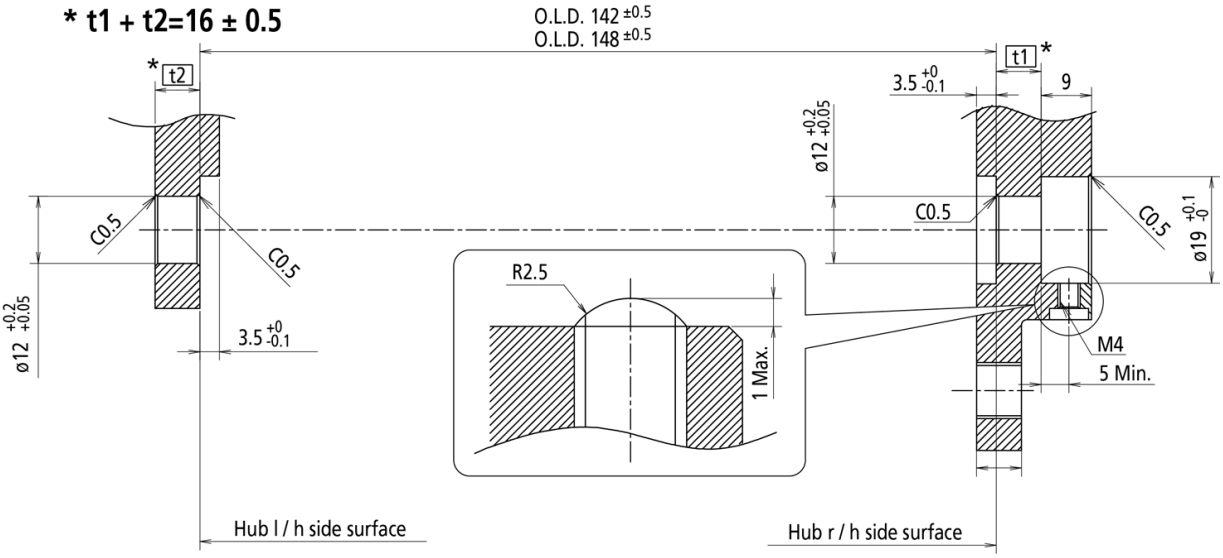
# Rear E-THRU system C-025

## AX-MT700-142x12 / AX-MT500-142x12 / SM-AX78 / SM-AX58(O.L.D. 142mm, I-type)
## AX-MT700-148x12 / AX-MT500-148x12 / SM-AX78-B / SM-AX58-B(O.L.D. 148mm, I-type)



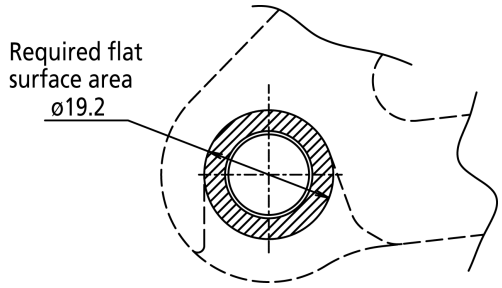

- Total fork end thickness t1 + t2 should be in 13.5 ± 0.5 mm.
- Upper drawing shows an example of fork end.
  Please design and consider for fork end as a whole by your frame design .
- Total axle length (refer to C-265)

## SM-AX76 / SM-AX56(O.L.D. 142mm)
## SM-AX76-B / SM-AX56-B(O.L.D. 148mm)




- Total fork end thickness t1 + t2 should be in 16 ± 0.5 mm.
- SM-AX76 / SM-AX56 / SM-AX76-B/ SM-AX56-B specification is lever axle with adjust nut set.
- SM-AX76 / SM-AX56 / SM-AX76-B / SM-AX56-B total axle length (refer to C-264)
- Upper drawing shows an example of fork end and nut keeper.
- Please design and consider for fork end and nut keeper as a whole by your frame design.
- Please design nut keeper section which doesn't give side force to adjust nut.
- If adjust nut is given unnecessary side force, SM-AX76 / SM-AX56 / SM-AX76-B / SM-AX56-B screwing and rescrewing operation will be heavy.

### Required flat surface area



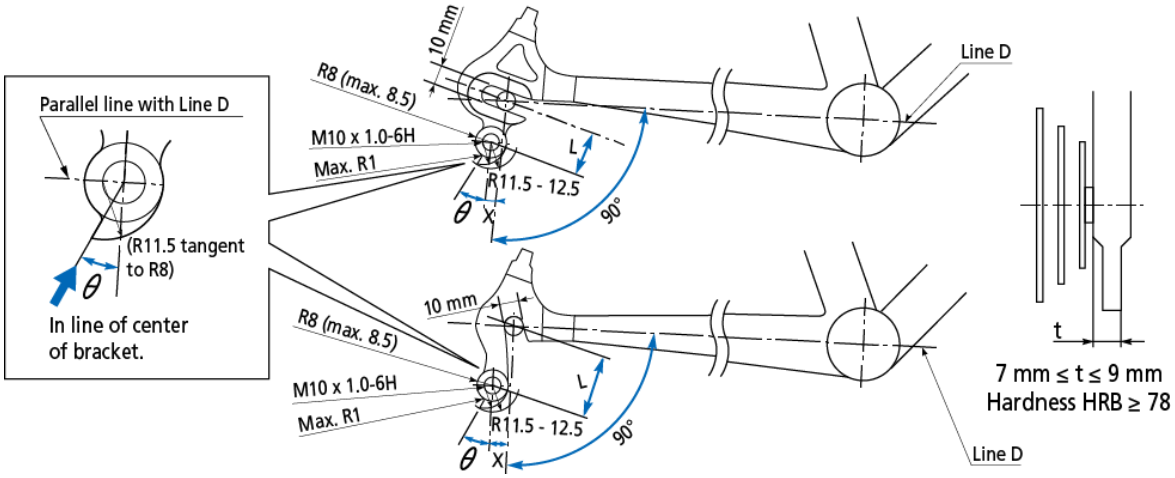

Other information about 12 mm rear E-THRU / Thru axle FREEHUB
(AX-MT700 / SM-AX78 / SM-AX76 / AX-MT500 / SM-AX58 / SM-AX56 / SM-AX78-B / SM-AX76-B/ SM-AX58-B / SM-AX56-B are not recommended for downhill usage with SAINT and ZEE hubs.)

- About clearance between the smallest sprocket (top gear) and fork end is explained at C-037.
- Fork end configuration and SHIMANO SHADOW RD fork end dimension are explained at C-024.
- There are variety of frame design as well as tire width, so when deciding frame dimensions, please be put attention of rear wheel install and removal operation.

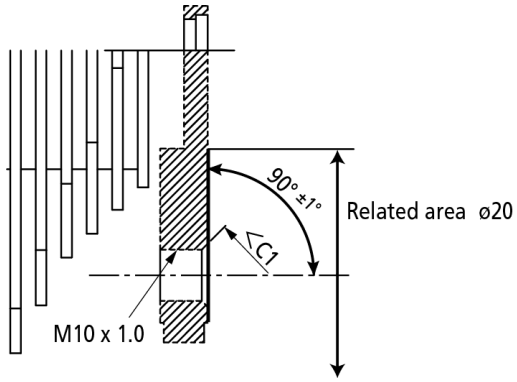
# Fork end dimensions [Road, URBAN SPORT] C-027

## Rear fork end (with derailleur hanger) C-534

### RD-9000 / RD-6800 / RD-4700 / RD-U5000-SS / RD-U5050-SS




| Fork end type | L (mm) | X (mm) | Angle θ |
|---|---|---|---|
| Road bike recommendation | 24 to 28 | 7 to 10 | 30° to 35° |




This information also applies all fork ends.

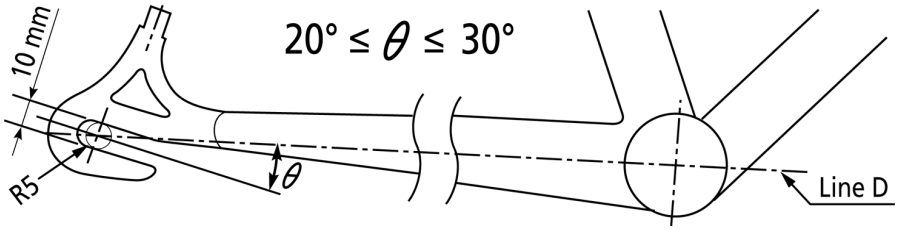
**NOTE**

* If a fork end that does not confirm to the dimensions above is used, optimum SIS shifting performance may not be obtained.

# Rear fork end (without derailleur hanger) C-029

In order to maintain optimum SIS shifting performance, Set dimensions as shown in below.
QR can not be used for fork end without derailleur hanger.

**Normal (Road) type fork end**




Thickness: 4mm<t<5mm
Hardness (Over locknut contact portion): HRB≥65

**Reversed (BMX, Track) type fork end**

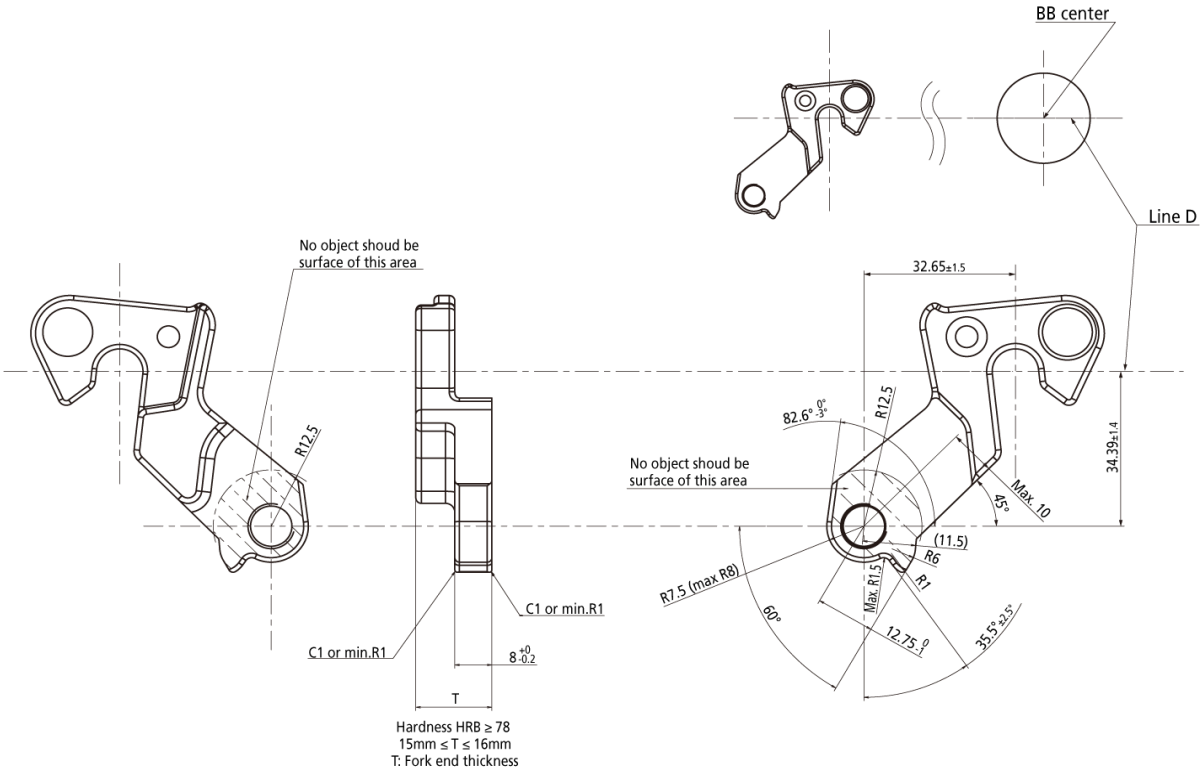
Thickness: 4mm<t<5mm
Hardness (Over locknut contact portion): HRB≥65

Make sure fork end should not be deformed during assembly and transportation. Less stiff fork end may deform and cause bad shifting performance.

# Direct mount fork end dimensions C-028

In order to maintain optimum SIS shifting performance, set dimensions as shown below.

**RD-R9100 / RD-R9150 / RD-R8000 / RD-R8050 / RD-R7000 / RD-RX800 / RD-RX805**



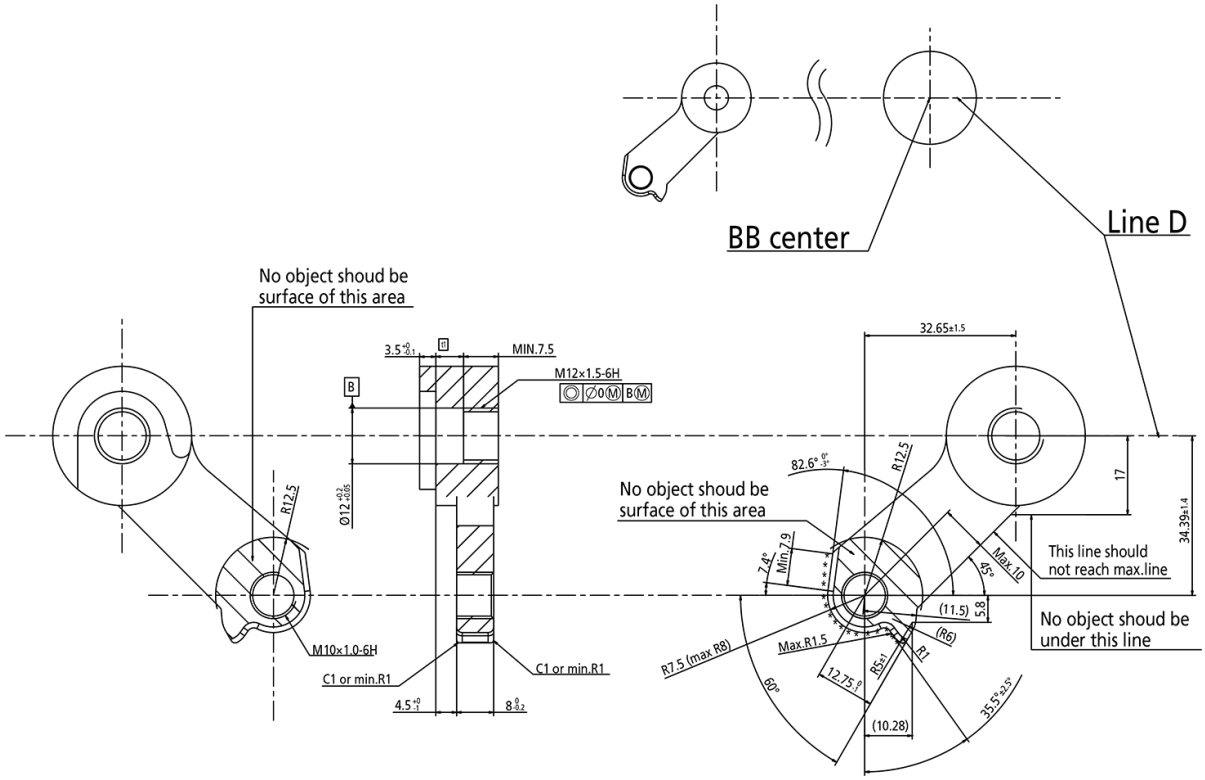

**NOTE**

* RD-R9100 / R9150 / RD-R8000 / RD-R8050 / RD-R7000 / RD-RX800 / RD-RX805 are compatible with conventional fork end too.

# Direct mount fork end dimensions (with derailleur hanger, E-THRU type)

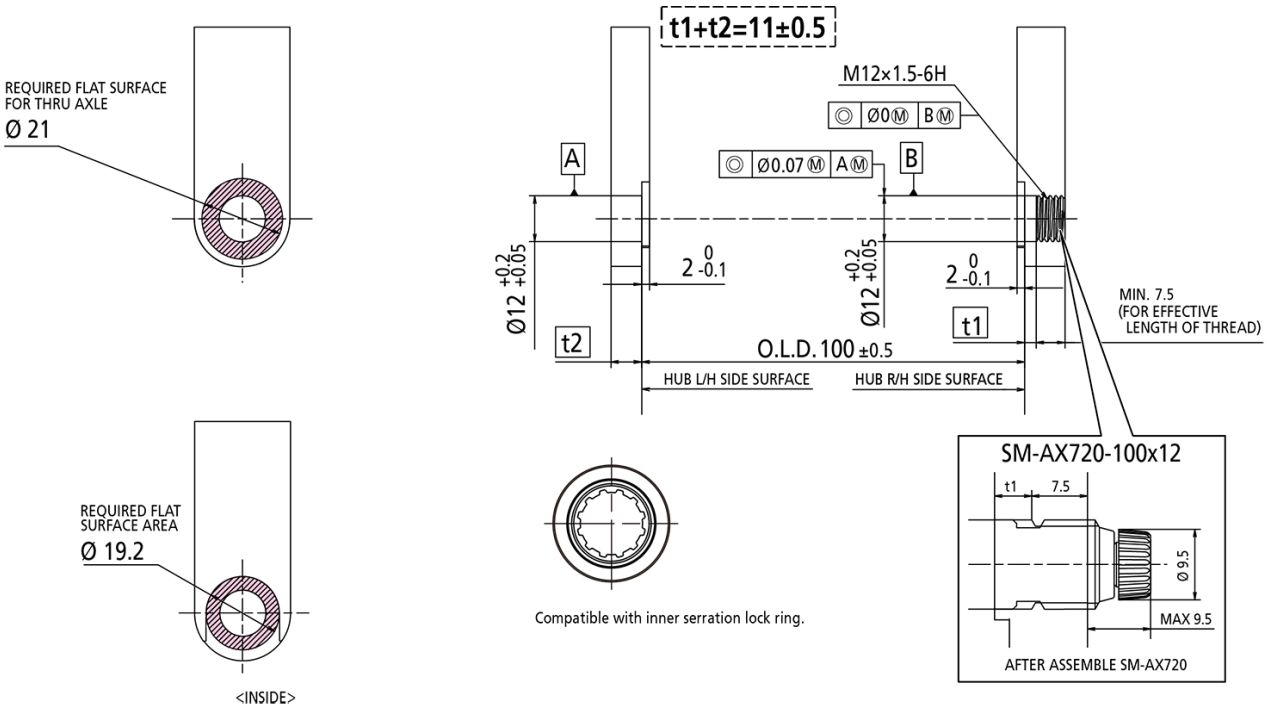
C-526

**RD-R9100 / RD-R9150 / RD-R8000 / RD-R8050 / RD-R7000 / RD-RX800 / RD-RX805**

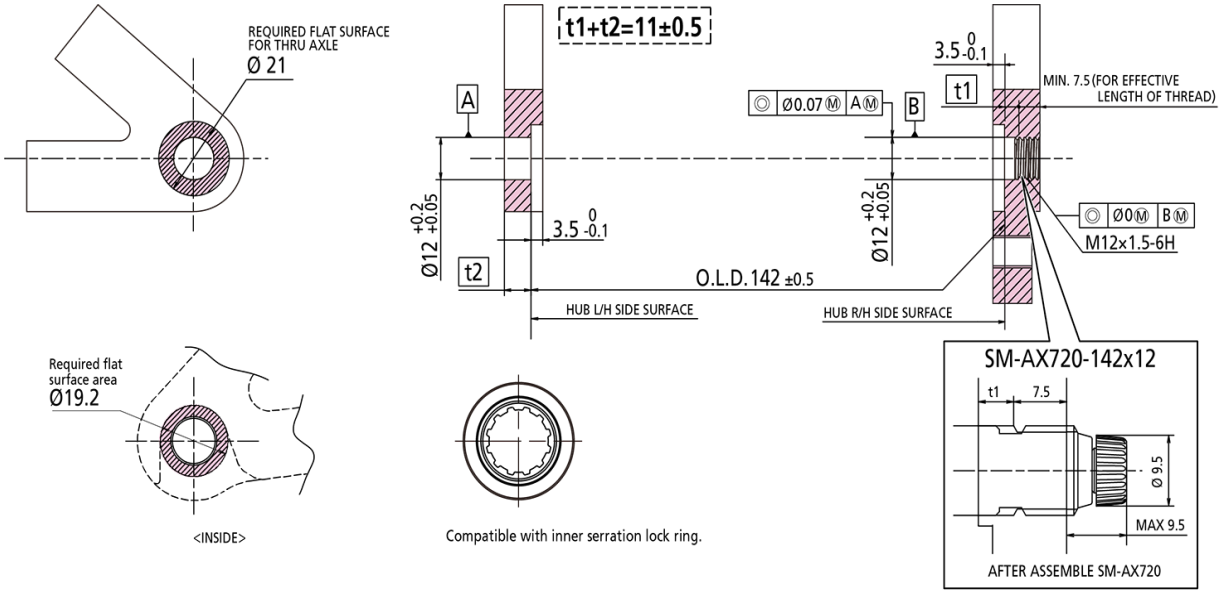



# E-THRU system for road disc brake C-481

## Front 12mm E-THRU system C-482



# Rear 12mm E-THRU system C-483

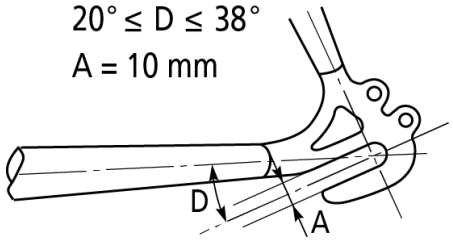


# Fork end dimensions [COMFORT] C-030

## COMFORT C-032

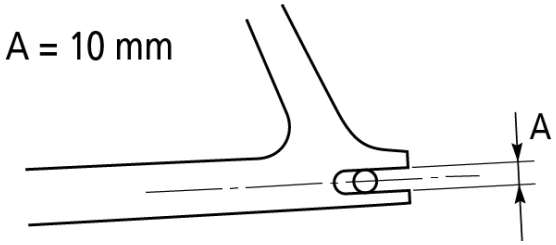
SHIMANO internal geared hub is designed to be compatible with the following shapes of fork end.

## Standard fork end C-033



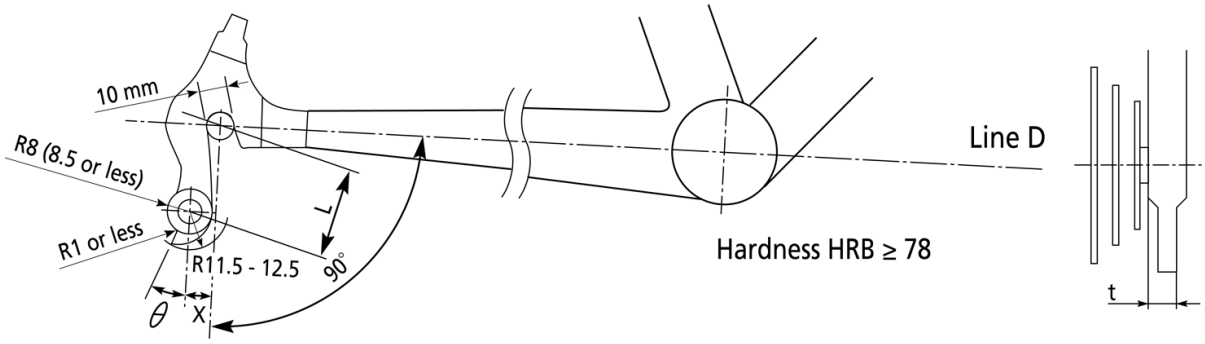

4 mm ≤ t ≤ 7.5 mm
(t): Fork end thickness

## Reversed fork end (use with the chain adjuster) C-034




4 mm ≤ t ≤ 7.5 mm
(t): Fork end thickness

The CT-S500 is compatible with fork end of the following sizes.



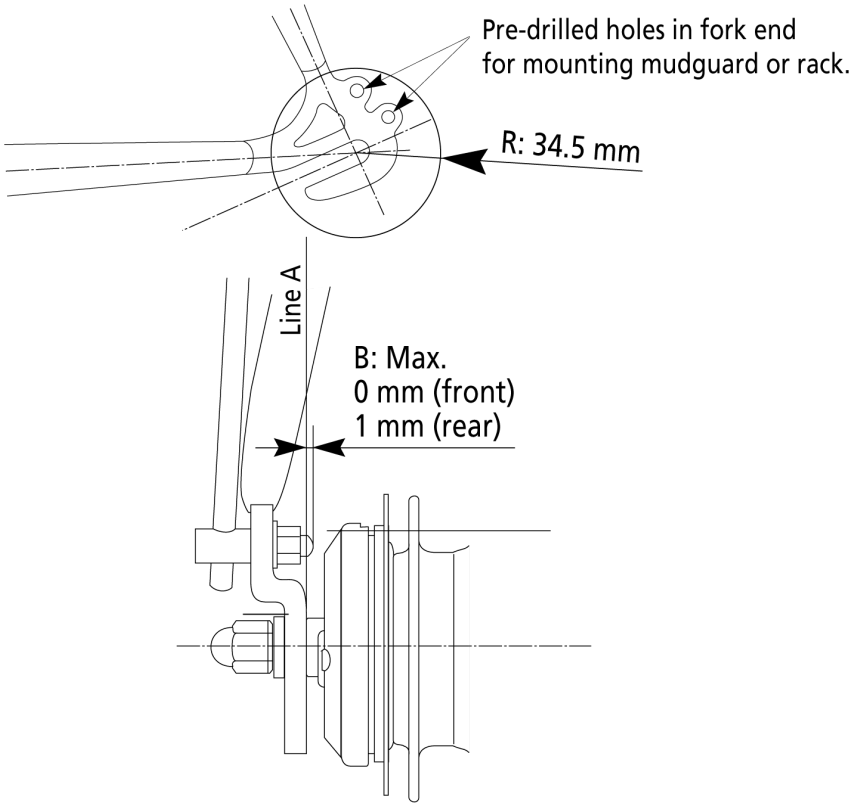

5 mm ≤ t ≤ 9 mm
(t): Fork end thickness

| Fork end | L (mm) | X (mm) | θ |
|---|---|---|---|
| Recommended for CT-S500 | 24 | 4-10 | 30° - 35° |
| | 26 | 6-10 | 30° - 35° |

# Cautionary points for installing mudguards and carrier racks [COMFORT]

C-035

Verify the dimensions shown in the diagrams below when installing mudguards or carrier racks.
If the pedestal of carrier racks is within R:34.5 mm, please confirm the length of bolt jutted shown as B.




**NOTE**
Also please confirm that mount bolt will not contact brake body after screwing it.

# Fork end thickness and QR skewer length

C-036

**Rear FREEHUB QR skewer length adaptation with fork end thickness**

8

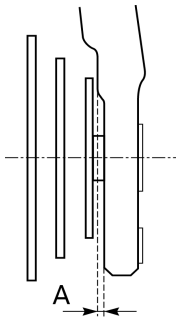
| | | O.L.D. (mm) | Fork end thickness (mm) | | | QR skewer length (mm) | |
|---|---|---|---|---|---|---|---|
| | | | Left hand fork end | Right hand fork end | Left/Right Total | Alloy QR lever | Steel QR lever |
| Rear | MTB | 141 | 6 - 8 | 6 - 8 | 12 - 16 | - | 172 |
| | | | 8 - 10 | 8 - 10 | 16 - 20 | - | 176 |
| | | 135 | 6 - 8 | 6 - 8 | 12 - 16 | 168 | 166 |
| | | 135 | 8 - 10 | 8 - 10 | 16 - 20 | 173 | 170 |
| | | 130 | 6 - 8 | 6 - 8 | 12 - 16 | - | 161 |
| | Road Cyclocross | 135 | 6 - 8 | 6 - 8 | 12 - 16 | 168 | 166 |
| | | 135 | 8 - 10 | 8 - 10 | 16 - 20 | 173 | 170 |
| | | 130 | 6 - 8 | 6 - 8 | 12 - 16 | 163 | 161 |
| | | 130 | 8 - 10 | 8 - 10 | 16 - 20 | 168 | - |
| | URBAN SPORT | 135 | 6 - 8 | 6 - 8 | 12 - 16 | 168 | 166 |
| | | 135 | 8 - 10 | 8 - 10 | 16 - 20 | 173 | 170 |
| Front | MTB Road Cyclocross URBAN SPORT Comfort | 100 | 5 - 6 | 5 - 6 | 10 - 12 | 129 | 129 |
| | | | 6 - 8 | 6 - 8 | 12 - 16 | 133 | 133 |
| | | | 7.5 - 9.5 | 7.5 - 9.5 | 15 - 19 | 136 | 136 |

# Clearance between the smallest sprocket and fork end

C-037

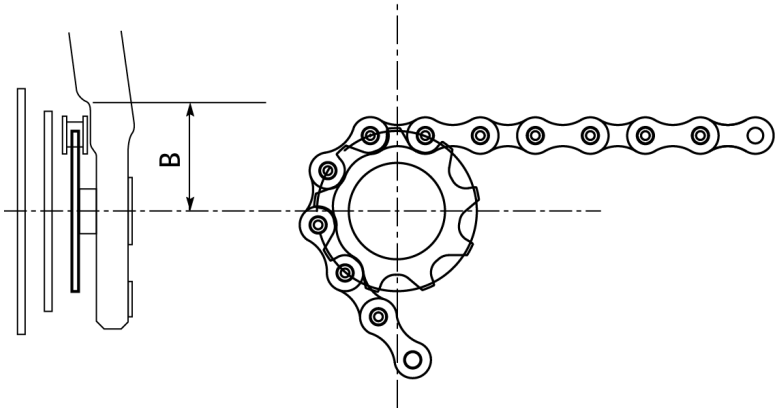
Set the distance between the smallest sprocket (top gear) and the rear fork end as explained below.

The top gear position of SHIMANO 11, 10, 9-speed cassette sprocket is the same as 8-speed HG cassette sprockets.




| Speed | Dimension “A” (mm) |
|---|---|
| 12, 11, 10, 9, 8-speed | 1.1 (max.) |
| 7, 6-speed | 2.2 (max.) |

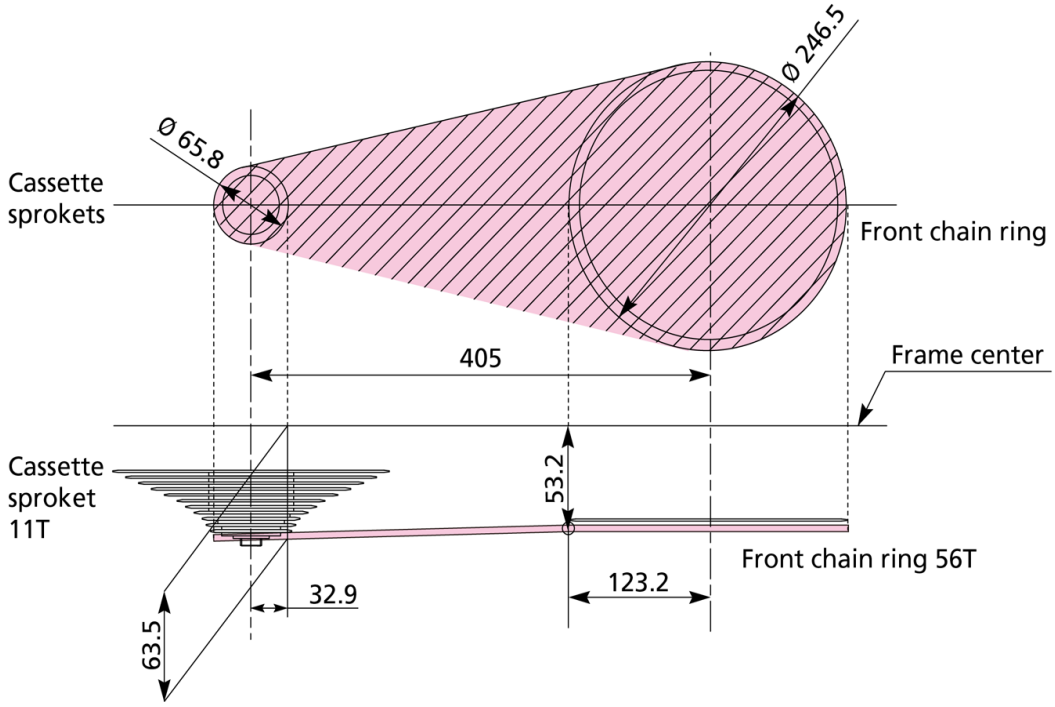
These dimensions must be maintained to prevent contact between the seat stay, and the chainstay and the chain when the chain is on the smallest sprocket. (the dimensions will differ depending on the number of teeth on the smallest sprocket.)




| Teeth | Dimension “B” (mm) |
|---|---|
| 10T | 30.7 (min.) |
| 11, 12T | 32.7 (min.) |
| 13T | 34.7 (min.) |
| 14T | 36.7 (min.) |
| 15T | 38.7 (min.) |
| 16T | 40.7 (min.) |

## Interference area of the frame (for T T or Triathlon) for 11-speed with the maximum chain line (56 - 11T) C-038

Please make sure that there is no interference with the frame.

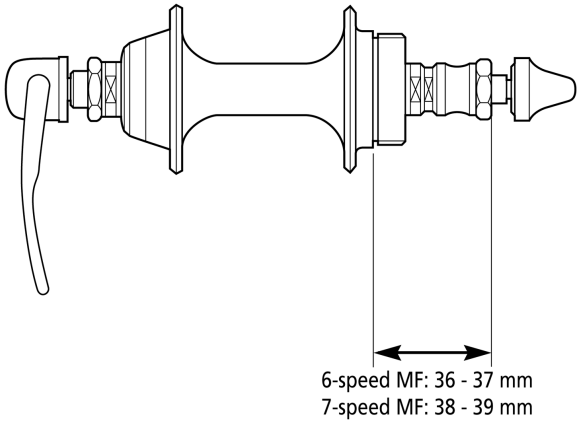



**NOTE**

Interference area does not include the margin of clearance and includes 11-speed chain dimension.

## Rear hub dimensions [MTB] C-040

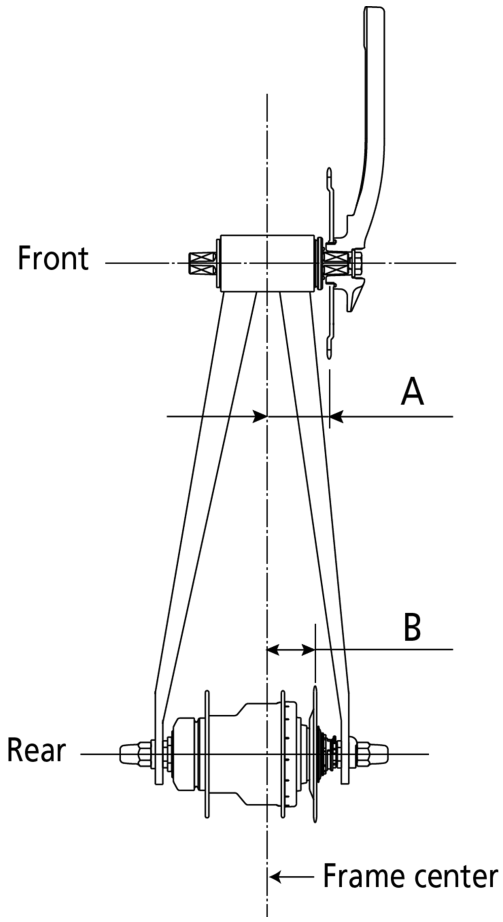
Be sure to observe the dimensions shown in the illustration when assembling 7, 6-speed multiple freewheels.



## Chain line for internal geared hub C-042

| A - B | ≤ 5 mm
In case of 24 inches or less wheel bicycle; | A - B | ≤ 3 mm

A: Actual front chain line
B: Actual rear chain line




**NOTE**

Without following spec.

- For Mechanical SG
  FC-S501 Double guard spec. x CS-S500 (with Guard plate) inward assembly.
- For DI2 SG
  FC-S501 Double guard spec. x CS-S500 (with Guard plate) inward assembly x MU-UR500
  FC-S501 Double guard spec. x SM GEAR inward assembly x MU-UR500

# Band type [MTB, ROAD]

C-044

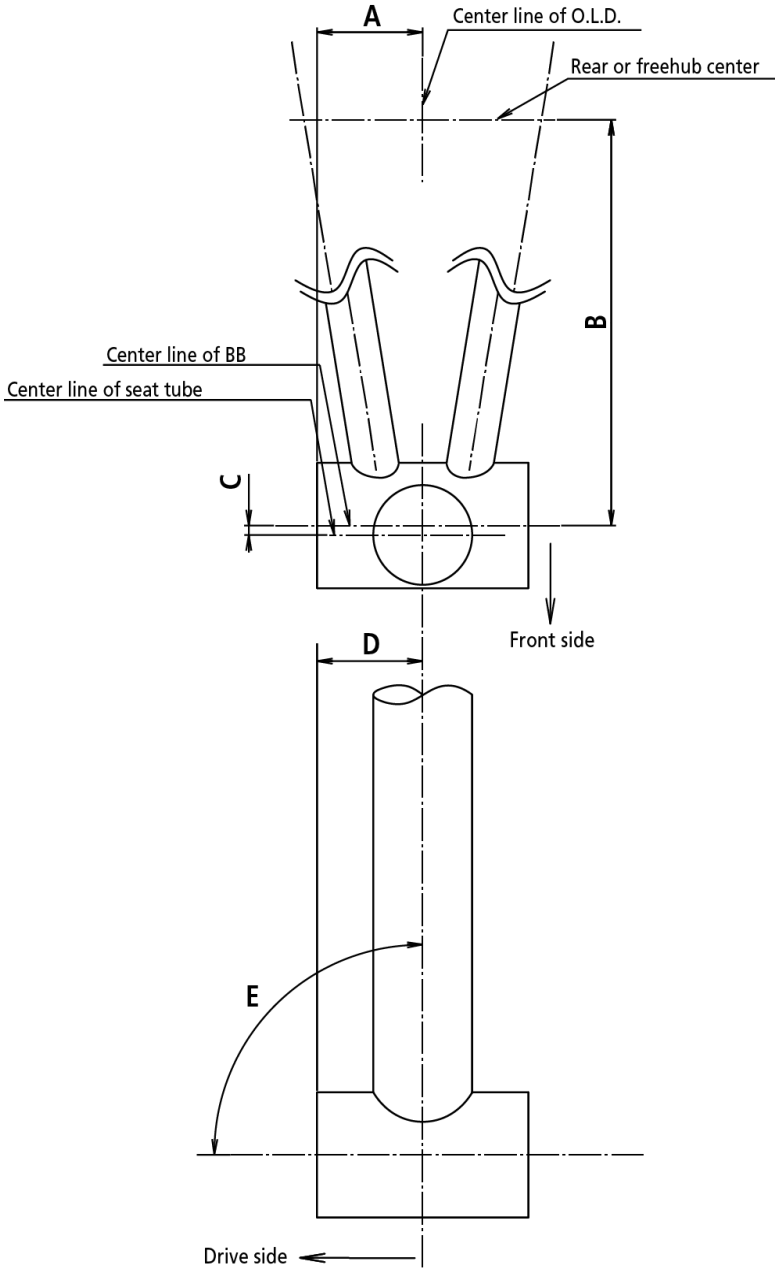
**Recommended seat tube diameter**

**For FD-R9100-B / FD-R9150( + SM-AD91) / FD-R7000-B / FD-R2000-B / FD-R2030-B / FD-R3000-B / FD-R3030-B / FD-M9100-M / FD-M8000-L/M/H /FD-M8020-L/M/H / FD-M7000-10-L/M/H / FD-M7020-11-L/M/H / FD-M6000-L/M/H /FD-M6020-L/M/H / FD-M617-L/H / FD-R8000-B / FD-5801-B**

S : ø28.6 +0.4/-0.1(ø28.5 - 29.0)
M : ø31.8 +0.4/-0.1(ø31.7 - 32.2)
L : ø34.9 +0.4/-0.1(ø34.8 - 35.3)

**For other new and conventional FD**

S : ø28.6 +0.2/-0.3(ø28.3 - 28.8)
M : ø31.8 +0.2/-0.3(ø31.5 - 32.0)
L : ø34.9 +0.2/-0.3(ø34.6 - 35.1)

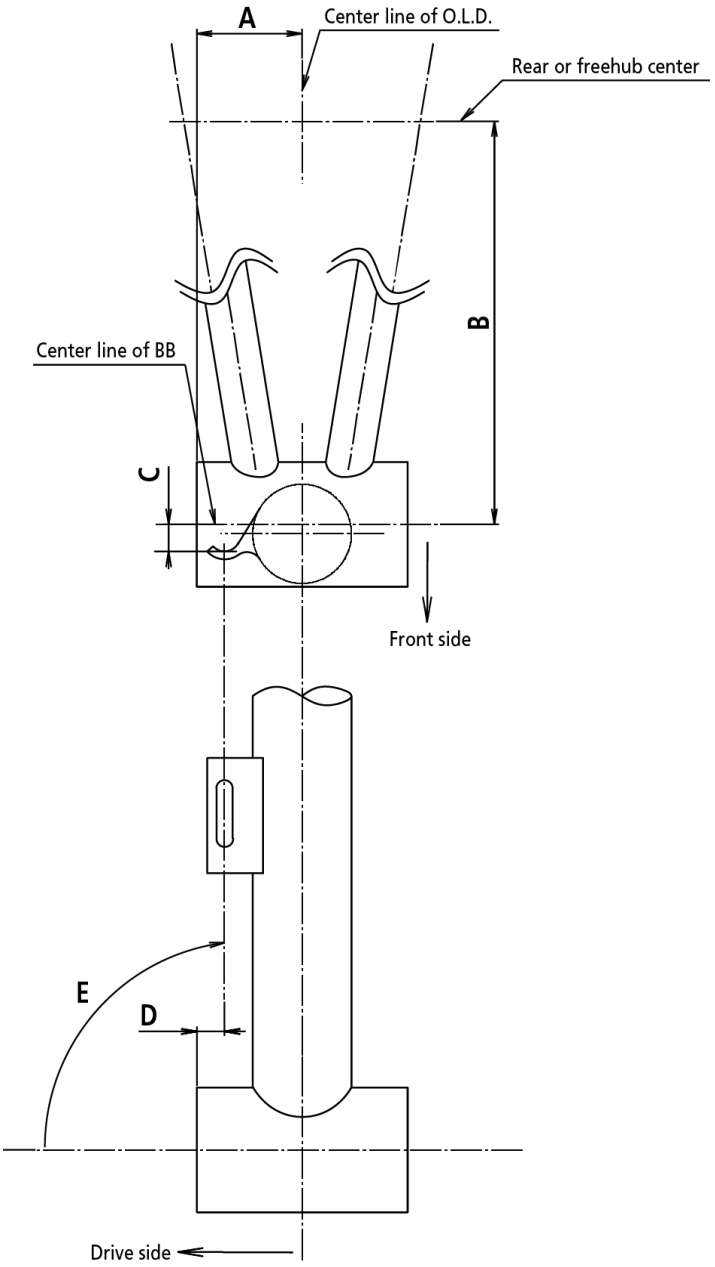


A: Dimension for right surface of bottom bracket shell and center of O.L.D.
B: Dimension for bottom bracket center and FREEHUB center (chainstay length)
C: Dimension for seat tube center and bottom bracket center
D: Dimension for seat tube center and right surface of bottom bracket shell
E : Angle between seat tube center and bottom bracket center

| | | BB width (mm) | A ± 1.5 (mm) | B min. (mm) | C ± 0.5 (mm) | D ± 0.5 (mm) | E ± 0.2 | Remarks |
|---|---|---|---|---|---|---|---|---|
| MTB | BC68 | 68.0 | 34.0 | Refer to C-013, C-014, C-015 | 0 | 34.0 | 90° | |
| | BC73 | 73.0 | 36.5 | | 0 | 36.5 | 90° | |
| | BC83 | 83.0 | 41.5 | | 0 | 41.5 | 90° | |
| | Press-Fit 92 | 92.0 | 47.25 | | 0 | 47.25 | 90° | SM-BB94-41A<br>SM-BB71-41A<br>BB-MT800-PA<br>BB-MT500-PA |
| | Press-Fit 89.5 | 89.5 | 44.75 | | 0 | 44.75 | 90° | SM-BB94-41A<br>SM-BB71-41A<br>BB-MT800-PA<br>BB-MT500-PA |
| ROAD | BC | 68.0 | 34.0 | | 0 | 34.0 | 90° | |
| | ITALIAN | 70.0 | 35.0 | | 0 | 35.0 | 90° | |
| | Press-Fit 86.5 | 86.5 | 43.25 | | 0 | 43.25 | 90° | SM-BB71-41B<br>SM-BB72-41B<br>BB-RS500-PB<br>SM-BB92-41B |

# Brazed-on type [ROAD, URBAN SPORT]





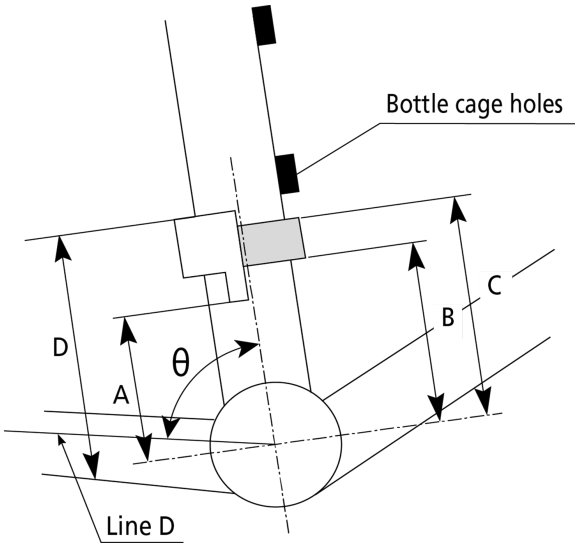

A: Dimension for right surface of bottom bracket shell and center of O.L.D.
B: Dimension for bottom bracket center and FREEHUB center (chainstay length)
C: Dimension for brazed-on boss
D: Dimension for brazed-on boss
E: Angle between brazed-on boss

| | BB width (mm) | A ± 1.5 (mm) | B min. (mm) | C ± 0.5 (mm) | D ± 0.5 (mm) | E ± 0.2 | Remarks |
|---|---|---|---|---|---|---|---|
| BC | 68.0 | 34.0 | Refer to C-013, C-014, C-015 | 8.7 | 9.0 | 90° | |
| ITALIAN | 70.0 | 35.0 | | 8.7 | 10.0 | 90° | |
| Press-Fit 86.5 | 86.5 | 43.25 | | 8.7 | 18.25 | 90° | SM-BB92-41B<br>SM-BB72-41B<br>SM-BB71-41B<br>BB-RS500-PB |

## Band type [MTB] C-047

The clamp band for the front derailleur is secured on the seat tube at the location marked “e”.

Make sure that the seat tube at “e” where the band is secured is circular. Do not place tapered or bended seat tube, the bottle cage holes, etc. in this vicinity “e” where they may interfere with the clamp band.




A: From bottom bracket center to bottom of rear clamp band.
B: From bottom bracket center to bottom of clamp band.
C: From bottom bracket center to top of clamp band.
D: From bottom bracket center to top of rear clamp band.

### Recommended seat tube diameter

| | Min. (mm) | Max. (mm) |
|---|---|---|
| S | Refer to C-044 | |
| M | | |
| L | | |

# Low clamp type C-048

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 11 | 66-69 | FD-M9000-L<br>FD-M8000-L | 40T | 68 | 68 | 90 | 90 |
| | | FD-M9050-L | 40T | 68 | 68 | 90 | 91 |
| | | FD-M9020-L<br>FD-M8020-L<br>FD-M7020-11-L | 34T | 60 | 60 | 82 | 82 |
| | | | 36T | 64 | 64 | 86 | 86 |
| | | | 38T | 68 | 68 | 90 | 90 |
| | | FD-M9025-L<br>FD-M8025-L<br>FD-M7025-11-L | 34T | 60 | 60 | 83 | 85 |
| | | | 36T | 64 | 64 | 87 | 89 |
| | | | 38T | 68 | 68 | 91 | 93 |
| | | FD-M9070-L | 34T | 60 | 60 | 82 | 83 |
| | | | 36T | 64 | 64 | 86 | 87 |
| | | | 38T | 68 | 68 | 90 | 91 |
| 10 | | FD-M7005-10-L | 40T | 57 | 58 | 81 | 82 |
| | | FD-M7000-10-L<br>FD-M6000-L | 40T | 68 | 68 | 90 | 90 |
| | | | 42T | 72 | 72 | 94 | 94 |
| | | FD-M675<br>FD-M615 | 38T | 60 | 60 | 83 | 85 |
| | | | 40T | 64 | 64 | 87 | 89 |
| | | | 42T | 68 | 68 | 91 | 93 |
| | | | 44T | 72 | 72 | 95 | 99 |
| | | FD-M617-L | 36T | 64 | 64 | 86 | 86 |
| | | | 38T | 68 | 68 | 90 | 90 |
| | | FD-M618-L | 36T | 64 | 64 | 87 | 89 |
| | | | 38T | 68 | 68 | 91 | 93 |
| | | FD-M6020-L | 34T | 60 | 60 | 82 | 82 |
| | | | 36T | 64 | 64 | 86 | 86 |
| | | | 38T | 68 | 68 | 90 | 90 |
| | | FD-M6025-L | 34T | 60 | 60 | 83 | 85 |
| | | | 36T | 64 | 64 | 87 | 89 |
| | | | 38T | 68 | 68 | 91 | 93 |
| | | FD-T8000-L-6<br>FD-T6000-L-6 | 48T | 58 | 60 | 83 | 84 |
| | 63-66 | FD-T8000-L-3<br>FD-T6000-L-3 | 48T | 58 | 60 | 83 | 84 |

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 9 | -3 / -TS3: 63-66<br>-6 / -TS6: 66-69 | FD-M4000-TS6 | 40T | 52 | 55 | 78 | 79 |
| | | FD-T4000-TS3<br>FD-T4000-TS6 | 44T | 60 | 63 | 86 | 89 |
| | | | 48T | 68 | 71 | 94 | 97 |
| | | FD-M3000-TS6 | 40T | 52 | 55 | 78 | 79 |
| | | FD-T3000-TS3<br>FD-T3000-TS6 | 44T | 52 | 52 | 75 | 76 |
| | | | 48T | 60 | 60 | 83 | 84 |
| | | FD-M2000-TS3<br>FD-M2000-TS6 | 40T | 52 | 55 | 78 | 79 |
| | | FD-M370-3<br>FD-M370-6 | 44T | 52 | 52 | 75 | 76 |
| | | | 48T | 60 | 60 | 83 | 84 |
| 8, 7 | | FD-M310-3<br>FD-M310-6 | 42T | 48 | 48 | 71 | 72 |
| | | | 48T | 60 | 60 | 83 | 84 |
| | | FD-TX800-TS3<br>FD-TX800-TS6 | 42T | 48 | 48 | 71 | 72 |
| | | | 48T | 60 | 60 | 83 | 84 |
| | | FD-TY700-TS3<br>FD-TY700-TS6 | 42T | 48 | 48 | 70 | 72 |
| | | FD-TY710-TS3<br>FD-TY710-TS6 | 48T | 60 | 60 | 82 | 84 |
| 7, 6 | | FD-TY500-TS3<br>FD-TY500-TS6 | 42T | 48 | 48 | 70 | 72 |
| | | FD-TY510-TS3<br>FD-TY510-TS6 | 48T | 60 | 60 | 82 | 84 |

# High clamp type C-049

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 11 | 66-69 | FD-M9000-H<br>FD-M8000-H | 40T | 128 | 128 | 151 | 151 |
| | | FD-M9050-H | 40T | 128 | 128 | 151 | 151 |
| | | FD-M9020-H<br>FD-M8020-H<br>FD-M7020-11-H | 34T | 120 | 120 | 143 | 143 |
| | | | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| | | FD-M9025-H<br>FD-M8025-H<br>FD-M7025-11-H | 34T | 120 | 120 | 143 | 143 |
| | | | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| | | FD-M9070-H | 34T | 120 | 120 | 143 | 143 |
| | | | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| 10 | | FD-M7000-10-H<br>FD-M6000-H | 40T | 128 | 128 | 151 | 151 |
| | | | 42T | 132 | 132 | 155 | 155 |
| | | FD-M617-H | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| | | FD-M618-H | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| | | FD-M6020-H | 34T | 120 | 120 | 143 | 143 |
| | | | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| | | FD-M6025-H | 34T | 120 | 120 | 143 | 143 |
| | | | 36T | 124 | 124 | 147 | 147 |
| | | | 38T | 128 | 128 | 151 | 151 |
| | 63-66 | FD-T8000-H-3<br>FD-T6000-H-3 | 48T | 131 | 131 | 154 | 155 |

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 9 | 63-66 | FD-M773 | 44T | 129 | 133 | 157 | |
| | -3 / -DS3: 63-66<br>-6 / -DS6: 66-69 | FD-M4000-DS3<br>FD-M4000-DS6 | 40T | 128 | 128 | 152 | 152 |
| | | FD-T4000-DS3 | 44T | 123 | 127 | 150 | 152 |
| | | | 48T | 131 | 135 | 158 | 160 |
| | | FD-M2000-DS3 | 40T | 128 | 128 | 152 | 152 |
| | | FD-M2000-DS6 | 40T | 128 | 128 | 152 | 152 |
| | | FD-M371-3<br>FD-M371-6 | 44T | 125 | 128 | 150 | 153 |
| | | | 48T | 133 | 136 | 158 | 161 |
| 8,7 | | FD-M313-3<br>FD-M313-6 | 42T | 116 | 116 | 138 | 148 |
| | | | 48T | 128 | 128 | 150 | 160 |
| 7,6 | 66-69 | FD-TY300-DS6 | 42T | 109 | 117 | 135 | 137 |
| | | FD-TZ500 | 42T | 108 | 116 | 135 | 135 |
| | | FD-TZ510 | 48T | 115 | 122 | 140 | 140 |

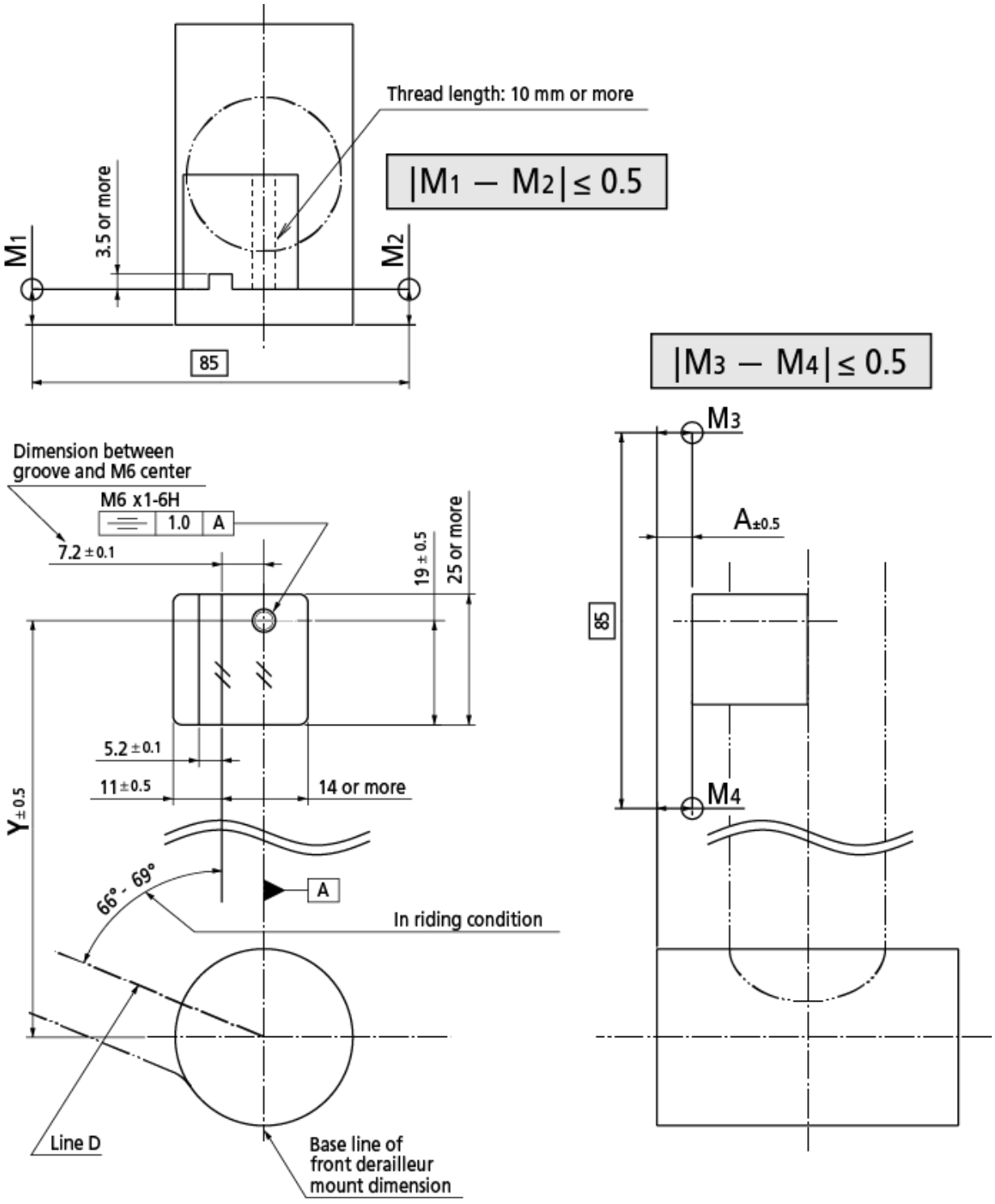
# Middle clamp type C-540

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 12 | 66-69 | FD-M9100-M | 38T | 93 | 93 | 116 | 117 |
| 10 | 66-69 | FD-M6000-M | 40T | 93 | 93 | 116 | 117 |
| | | | 42T | 97 | 97 | 120 | 121 |
| | | FD-M6020-M | 34T | 85 | 85 | 108 | 109 |
| | | | 36T | 89 | 89 | 112 | 113 |
| | | | 38T | 93 | 93 | 116 | 117 |
| 9 | 66-69 | FD-M4000-M | 40T | 92 | 93 | 118 | 115 |
| | 64-69 | FD-M4020-M | 36T | 92 | 89 | 109 | 107 |
| | 64-69 | FD-M4020-M-B | 36T | 92 | 89 | 109 | 107 |

# Direct mount type [MTB] C-050

## Frame requirement and compatibility [MTB] C-051

Please refer to SHIMANO recommended MTB direct mount part on seat tube below.




| BB type | BB shell width (mm) | A dimension (mm) |
|---|---|---|
| Threaded | 68.0 | 8.0 |
| | 73.0 | 10.5 |
| Press-Fit | 89.5 (symmetric) | 18.75 |
| | 92.0 (asymmetric) | 21.25 |

## Chain line 3mm outboard spec.

| BB type | BB shell width (mm) | A dimension (mm) |
|---|---|---|
| Threaded | 68.0 | 5.0 |
| | 73.0 | 7.5 |
| Press-Fit | 89.5 (symmetric) | 15.75 |
| | 92.0 (asymmetric) | 18.25 |

**NOTE**

*Please refer to technical information of crankset dimension which is 3mm outboard spec.
*It also requires new dimension of frame which cassette position is 3mm outboard

| FD type | Mount (Y) | Speed | Gear | Model No. |
|---|---|---|---|---|
| | | | | FD-M9025-D<br>FD-M8025-D<br>FD-M7025-11-D |
| Down Swing | 155.5 mm | 11 | 38-28T | X |
| | | | 36-26T | X |
| | | | 34-24T | X |
| | 159.5 mm | 11 | 38-28T | X |
| | | | 36-26T | X |
| | | | 34-24T | – |

| FD type | Mount (Y) | Speed | Gear | Model No. | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | | FD-M781-A-D<br>FD-M671-A-D<br>FD-M611-D | FD-M618-D | FD-M786-D<br>FD-M616-D | FD-M6025-D | FD-M661-D |
| Down Swing | 155.5 mm | 10 | 40-30-22T | X | – | – | – | – |
| | | | 42-32-24T | X | – | – | – | – |
| | | | 36-22T | – | X | – | – | – |
| | | | 38-24T | – | X | – | – | – |
| | | | | | – | X | – | – |
| | | | 38-26T | – | – | X | – | – |
| | | | 40-28T | – | – | X | – | – |
| | | | 42-30T | – | – | X | – | – |
| | | | 44-30T | – | – | – | – | – |
| | | | 38-28T | – | – | – | X | – |
| | | | 36-26T | – | – | – | X | – |
| | | | 34-24T | – | – | – | X | – |
| | 159.5 mm | 10 | 40-30-22T | – | – | – | – | – |
| | | | 42-32-24T | X | – | – | – | – |
| | | | 36-22T | – | X | – | – | – |
| | | | 38-24T | – | X | – | – | – |
| | | | 38-26T | – | – | – | – | – |
| | | | 40-28T | – | – | X | – | – |
| | | | 42-30T | – | – | X | – | – |
| | | | 44-30T | – | – | X | – | – |
| | | | 38-28T | – | – | – | X | – |
| | | | 36-26T | – | – | – | X | – |
| | | | 34-24T | – | – | – | – | – |
| | 155.5mm | 9 | 40-30-22T | – | – | – | – | X |

3

| FD type | Mount (Y) | Speed | Gear | Model No. | | |
|---|---|---|---|---|---|---|
| | | | | FD-M9000-D<br>FD-M8000-D | FD-M9020-D<br>FD-M8020-D<br>FD-M7020-11-D | FD-M9100-D |
| SIDE SWING | 155.5 mm | 12 | 38-28T | – | – | X |
| | | 11 | 40-30-22T | X | – | – |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | X | – |
| | 159.5 mm | 11 | 40-30-22T | X | – | – |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | – | – |

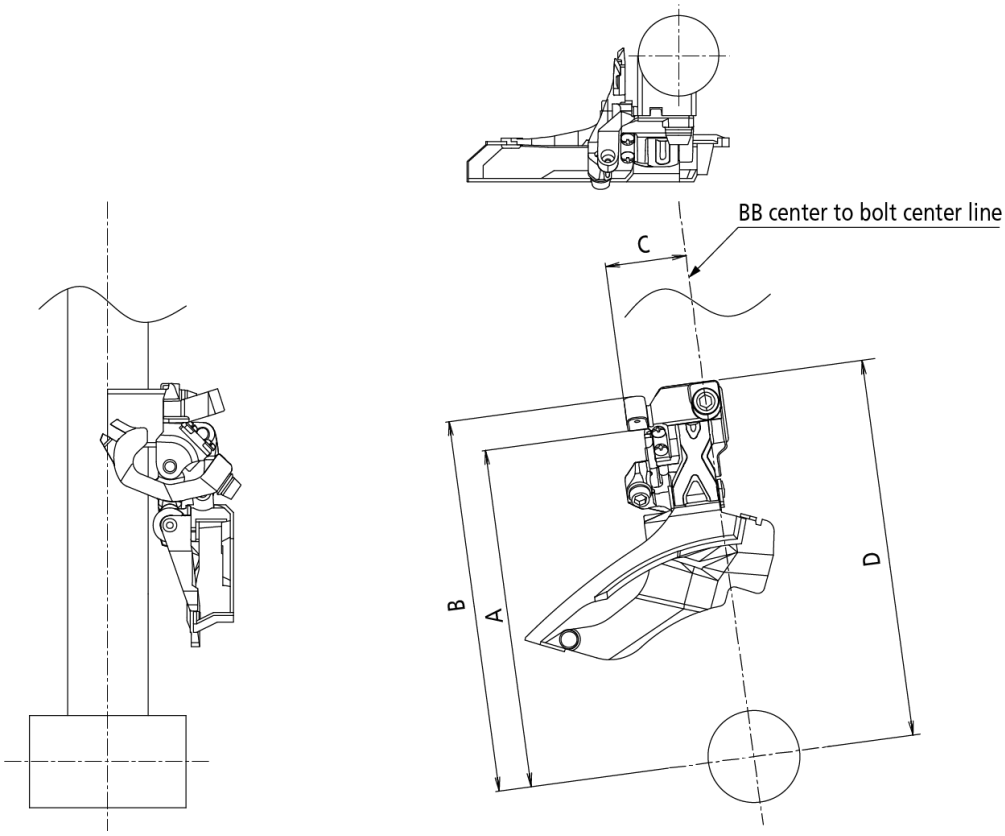
| FD type | Mount (Y) | Speed | Gear | Model No. | | |
|---|---|---|---|---|---|---|
| | | | | FD-M7000-10-D<br>FD-M6000-D | FDM6020-D | FD-M617-D |
| SIDE SWING | 155.5 mm | 10 | 40-30-22T | X | – | – |
| | | | 42-32-24T | X | – | – |
| | | | 38-24T | – | – | X |
| | | | 36-22T | – | – | X |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | X | – |
| | 159.5 mm | 10 | 40-30-22T | X | – | – |
| | | | 42-32-24T | X | – | – |
| | | | 38-24T | – | – | X |
| | | | 36-22T | – | – | X |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | – | – |

| FD type | Mount (Y) | Speed | Gear | Model No. |
|---|---|---|---|---|
| | | | | FD-M4020-D |
| SIDE SWING | 155.5 mm | 9 | 36-22T | X |
| | 159.5 mm | 9 | 36-22T | X |

| FD type | Mount (Y) | Speed | Gear | Model No. | |
|---|---|---|---|---|---|
| | | | | FD-M9050<br>+ SM-FD905-D | FD-M9070 / FD-M8070<br>+ SM-FD905-D |
| DI2 | 155.5 mm | 11 | 40-30-22T | X | - |
| | | | 34-24T | - | X |
| | | | 36-26T | - | X |
| | | | 38-28T | - | X |
| | 159.5 mm | 11 | 40-30-22T | X | - |
| | | | 38-28T | - | X |
| | | | 36-26T | - | X |
| | | | 34-24T | - | - |

**CAUTION**

155.5 mm dimension is compatible with 10,9-speed, except for 10-speed 44-30T.
159.5 mm dimension is compatible with 10-speed only, except for 10-speed 40-30-22T, 38-26T, 38-24T.
Please contact to SHIMANO sales office before using this option.



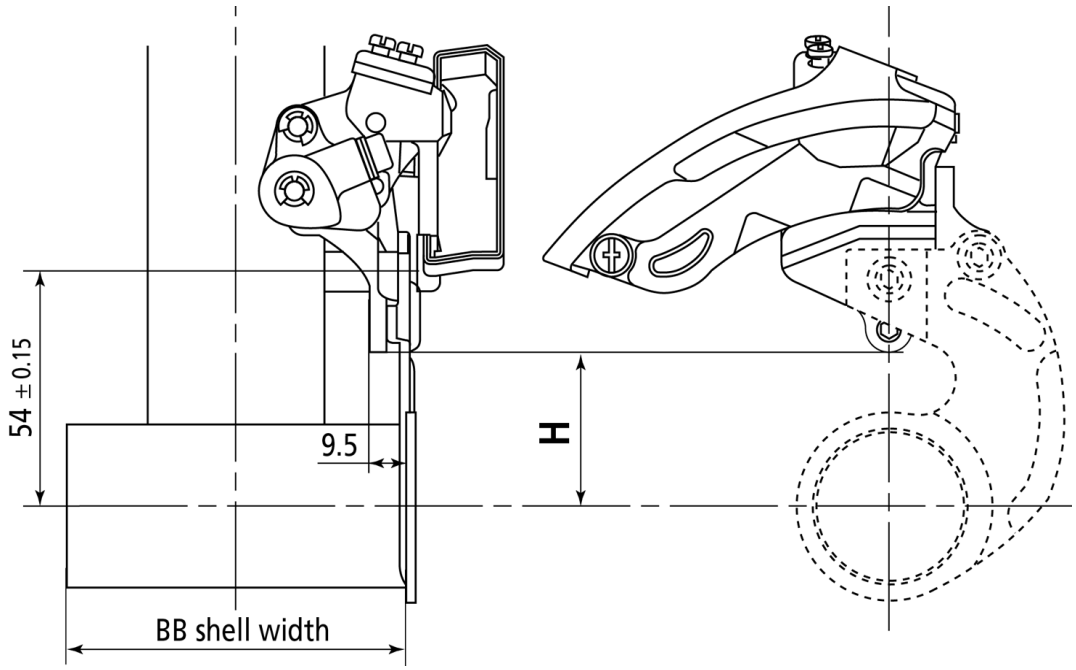

Please refer to C-054 for other dimensions.

| FD type | Speed | Model No. | Gear | A(mm) | B (mm) | C (mm) | D(mm) |
|---|---|---|---|---|---|---|---|
| Down Swing (dual pull) | 11 | FD-M9025-D<br>FD-M8025-D<br>FD-M7025-11-D | 34T | 136 | 155 | 35 | 166 |
| | | | 36T | 140 | 159 | 35 | 170 |
| | | | 38T | 144 | 163 | 35 | 174 |
| | 10 | FD-M611-D<br>FD-M671-A-D<br>FD-M781-A-D | 40T | 137 | 154 | 36 | 167 |
| | | | 42T | 141 | 158 | 36 | 171 |
| | | FD-M786-D | 38T | 137 | 154 | 36 | 167 |
| | | | 40T | 141 | 158 | 36 | 171 |
| | | | 42T | 145 | 162 | 36 | 175 |
| | | | 44T* | 149 | 166 | 36 | 179 |
| | | FD-M618-D | 36T | 140 | 159 | 35 | 170 |
| | | | 38T | 144 | 163 | 35 | 174 |
| | | FD-M6025-D | 34T | 136 | 155 | 35 | 166 |
| | | | 36T | 140 | 159 | 35 | 170 |
| | | | 38T | 144 | 163 | 35 | 174 |

# Bottom bracket mount type [MTB]



The dimensions are as shown below. Please make sure that there is no interference with the frame.

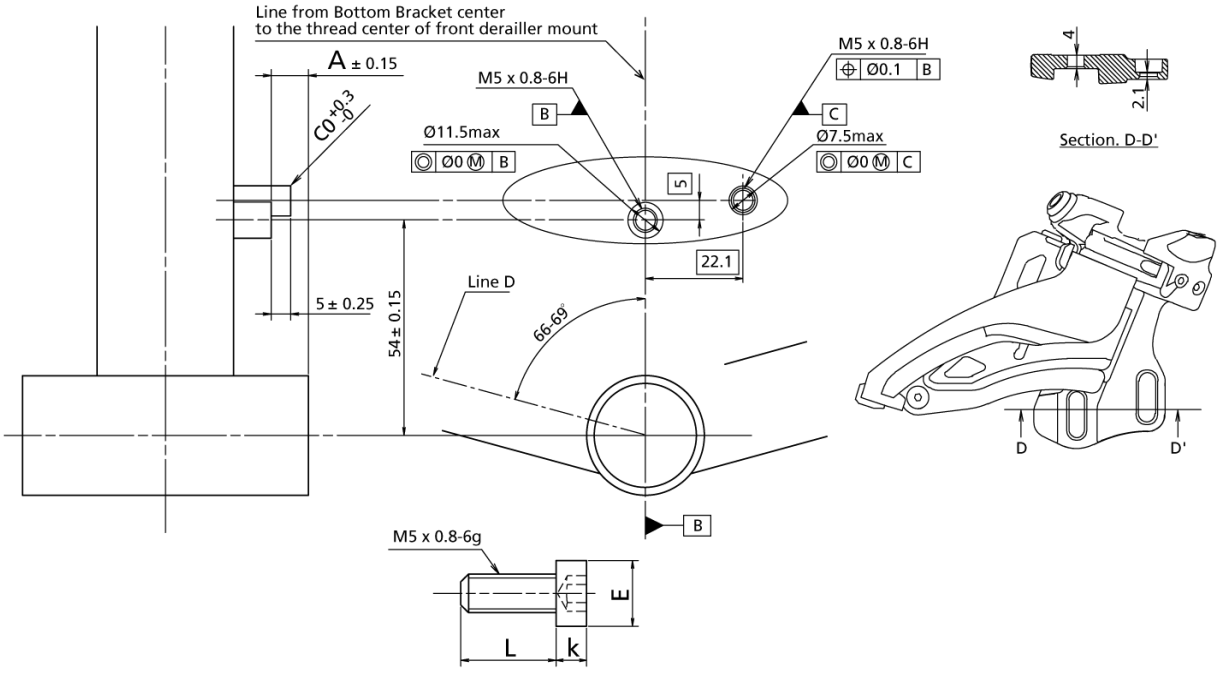



3

| FD type | Speed | Model No. | Outer chainring teeth | Dimension H (mm) | BB shell width (mm) |
|---|---|---|---|---|---|
| SIDE SWING | 12 | FD-M9100-E | 38T | 46 | 68,73 |
| | 11 | FD-M9000-E<br>FD-M8000-E | 40T | 46 | |
| | | FD-M9020-E<br>FD-M8020-E<br>FD-M7020-11-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| TOP SWING<br>(down pull only) | | FD-M9025-E<br>FD-M8025-E<br>FD-M7025-11-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| DI2<br>(with SM-FD905-E / SM-FD805-E) | | FD-M9050 | 40T | 46 | |
| | | FD-M9070<br>FD-M8070 | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| SIDE SWING | 10 | FD-M7000-10-E<br>FD-M6000-E | 40T | 42 | |
| | | | 42T | 46 | |
| | | FD-M617-E | 36T | 42 | |
| | | | 38T | 46 | |
| | | FD-M6020-E | 34T | 6 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| TOP SWING | | FD-M610-E | 40T | 42 | |
| | | | 42T | 46 | |
| | | FD-M785-E2<br>FD-M675-E2<br>FD-M615-E2 | 38T | 42 | |
| | | | 40T | 46 | |
| TOP SWING<br>(down pull only) | | FD-M618-E | 36T | 42 | |
| | | | 38T | 46 | |
| | | FD-M6025-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| SIDE SWING | 9 | FD-M4020-E | 36T | 42 | |

## Without BB plate

If you use w / o BB-plate E-type, the frame should be kept as following dimensions.




9.0 ≤ E ≤ 13.5
k ≤ 4.0

| BB type | BB shell width (mm) | A dimension (mm) |
|---|---|---|
| Threaded | 68.0 | 7.0 |
| | 73.0 | 9.5 |
| Press-Fit | 89.5 (symmetric) | 17.75 |
| | 92.0 (asymmetric) | 20.25 |

Please set proper "L" length based on the material and surface treatment of the thread.
There are no damages to the bolt after tightening by the following torque. Tightening torque: 5.0 - 7.0 N·m (44 - 60 in.lbs.)
* SHIMANO does not provide this fitting bolt, so please use the bolt like this size.

**CAUTION**

Please contact to SHIMANO sales office before using this option.

## Chain line 3mm outboard spec.

| BB type | BB shell width (mm) | A dimension (mm) |
|---|---|---|
| Threaded | 68.0 | 4.0 |
| | 73.0 | 6.5 |
| Press-Fit | 89.5 (symmetric) | 14.75 |
| | 92.0 (asymmetric) | 17.25 |

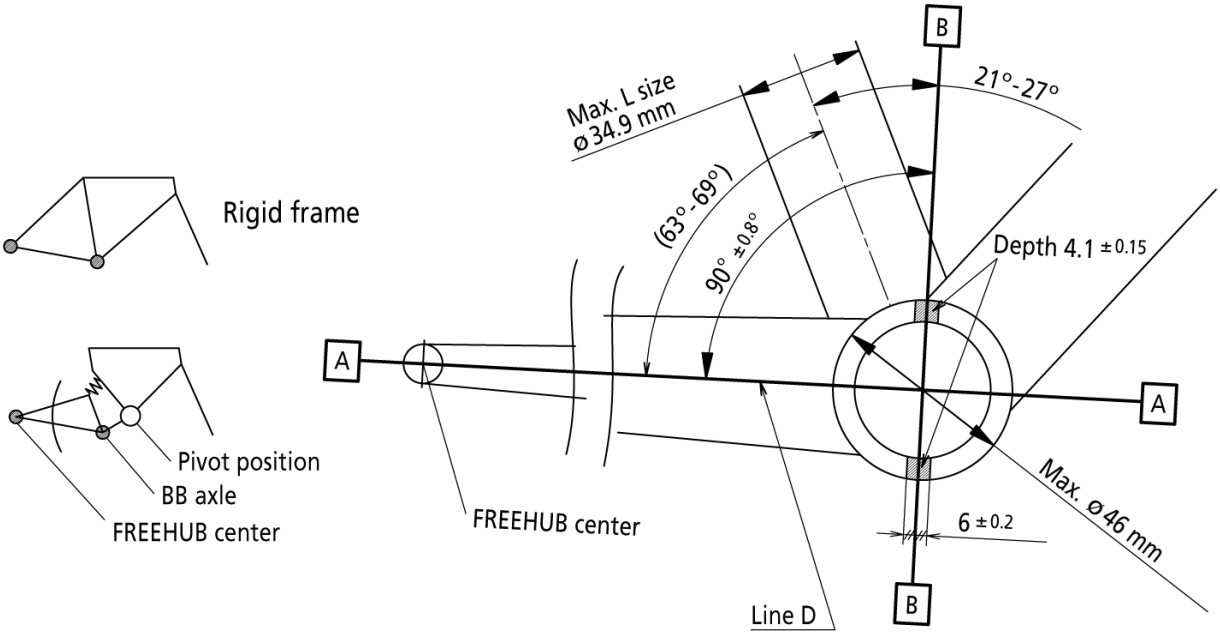
**NOTE**

*Please refer to technical information of crankset dimension which is 3mm outboard spec.
*It also requires new dimension of frame which cassette position is 3mm outboard

## Frame dimensions for FD-M410-E

The FD-M410-E is a front derailleur which is designed according to new specifications. This front derailleur can be used with frames that have the dimensions listed below.

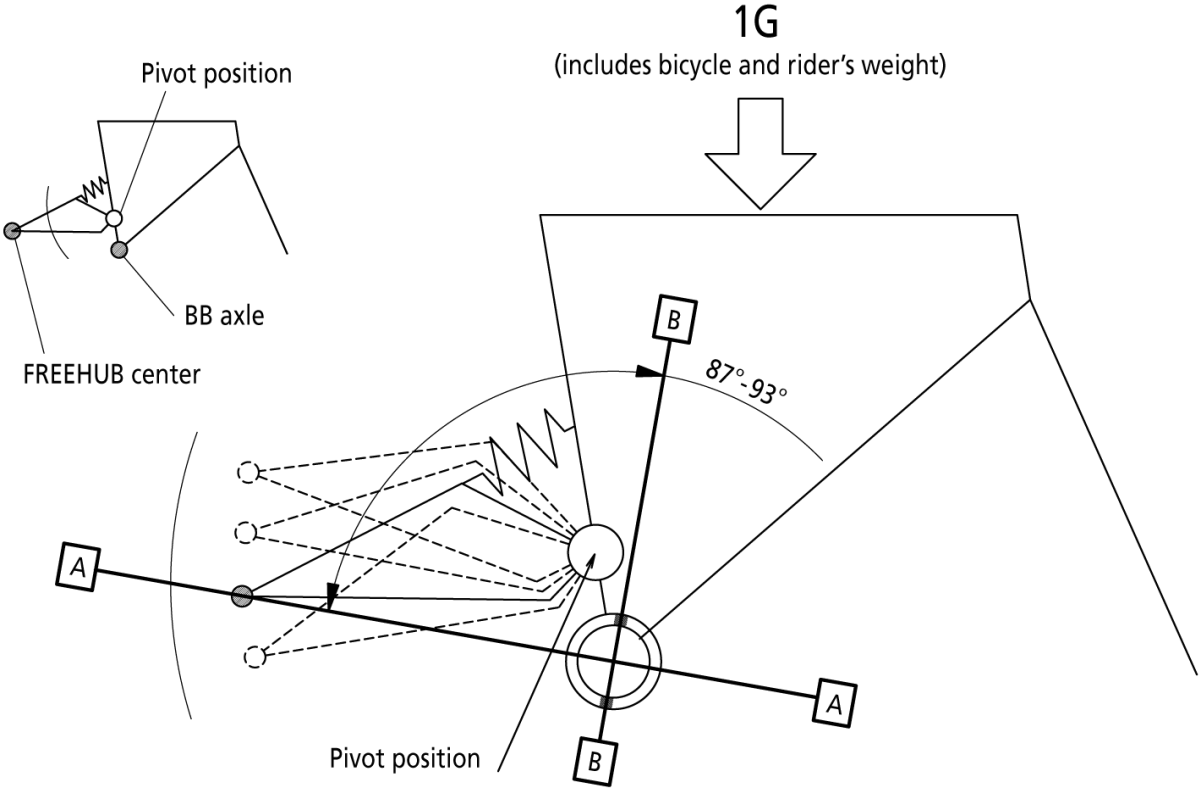
Due to new installation system adopted, slits are required on the right side edge of bottom bracket shell as following.
A new bottom bracket mount system can allow one specification of front derailleur to fit various frame design as well as it achieves precise shifting.




Line A: The straight line that joins the bottom bracket and FREEHUB axes.
Line B: The straight line that joins the upper and lower bottom bracket slits.

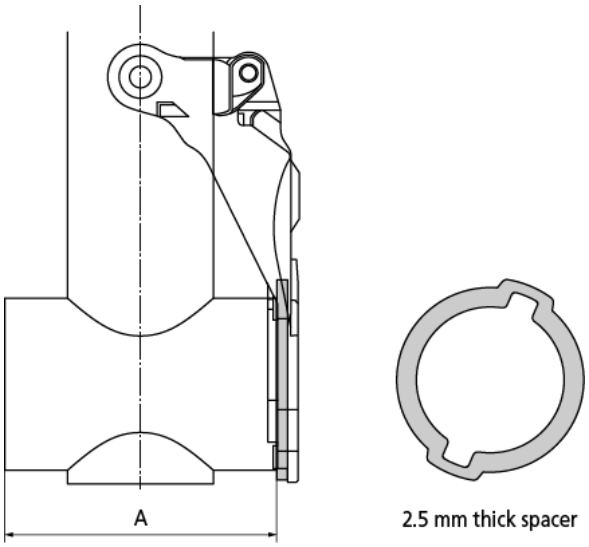
With this type, the straight line that joins the bottom bracket and FREEHUB axes is not affected by the movement of the rear suspension (like a rigid bike and this diagram).

The angle between the seat tube and line B should be 21° to 27°.




With this type, the straight line that joins the BB and FREEHUB axes is affected by the movement of the rear suspension (like this diagram). Provide slits, as shown in the diagram, so that the angle between the line A and line B is between 87° and 93° even if the suspension moves when riding. Also, bearing in mind the situation when riding, adjust the front derailleur within a range of 87° and 93°.
If road conditions cause the suspension to move greatly, the chain and front derailleur might touch.

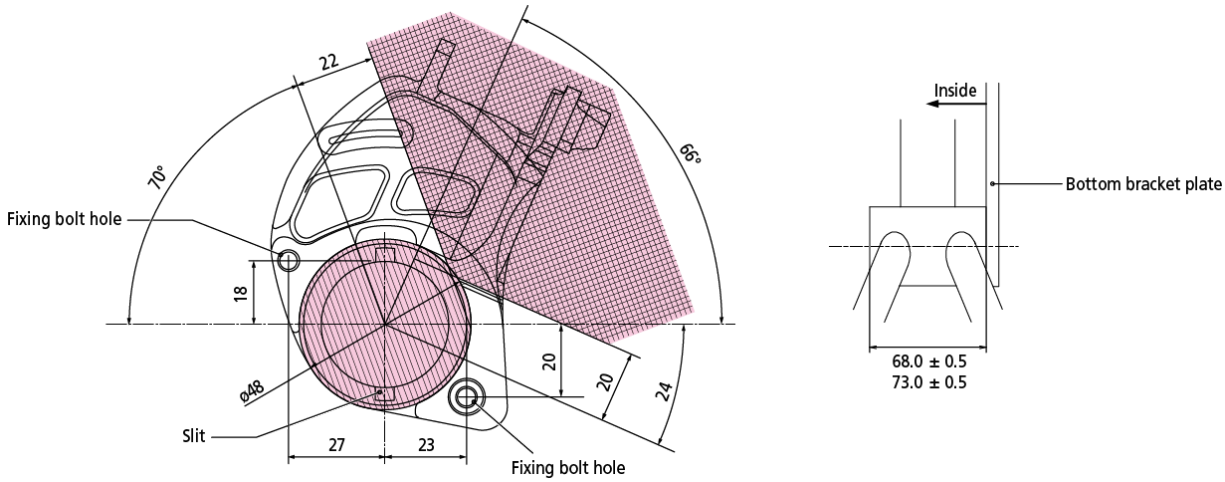
## Combinations




| A | 2.5 mm thick spacer |
|---|---|
| 68 ± 0.5 mm | x |
| 73 ± 0.5 mm | - |

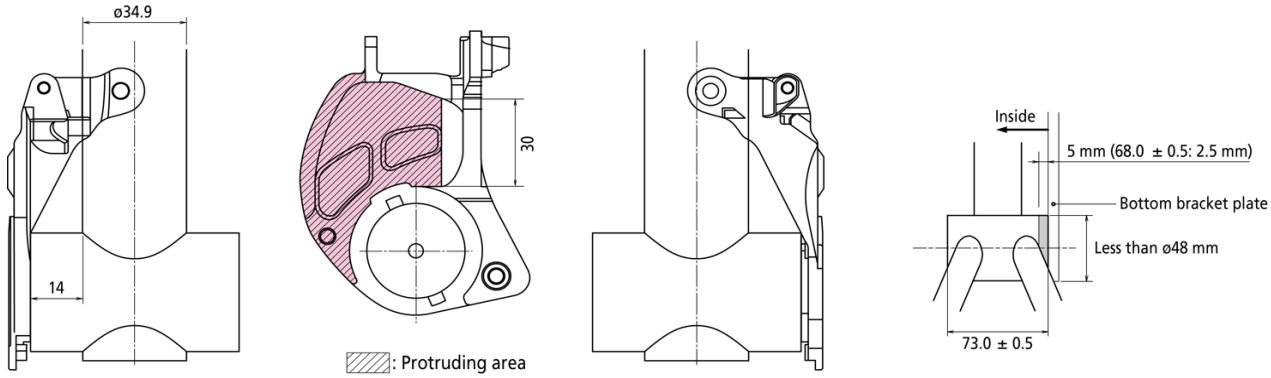
X: Yes

## When using with a chain case



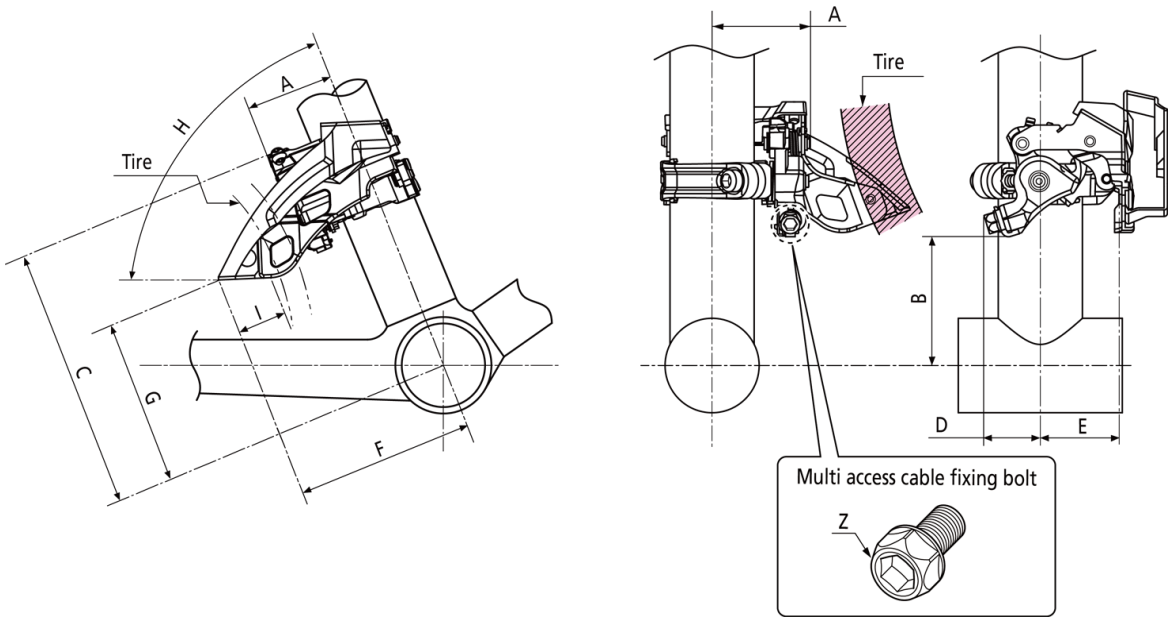

- Ensure that there are no protruding parts in the hatching area to avoid interference with the front derailleur or bottom bracket.
- The chain case needs to be fixed onto the frame or the bottom bracket plate using the fixing bolt holes.
- The chain case must not be placed in between the bottom bracket shell and the slit of the bottom bracket plate.
- The chain case must be inside the edge of the bottom bracket shell to avoid touching the bottom bracket plate of the front derailleur.

## Interference dimensions




Ensure that there are no protruding parts in the hatching area to avoid interference with the bottom bracket plate.

# TOP SWING [MTB]




A: From seat tube center to inner link head.
B: From bottom bracket center to inner link head lowest position during movement.
C: From bottom bracket center to most critical point for interference with tire,mud guard.
D: From bottom bracket center to inner link head most left position during movement.
E: From bottom bracket center to back side of the cage most critical point for interference with tire.
F,G: From bottom bracket center to edge of cage for interference with chainstay.
H,I: Dimension of bottom side of cage for interference with chainstay.

Dimension of E-type is same as band type of its model.
X: Yes

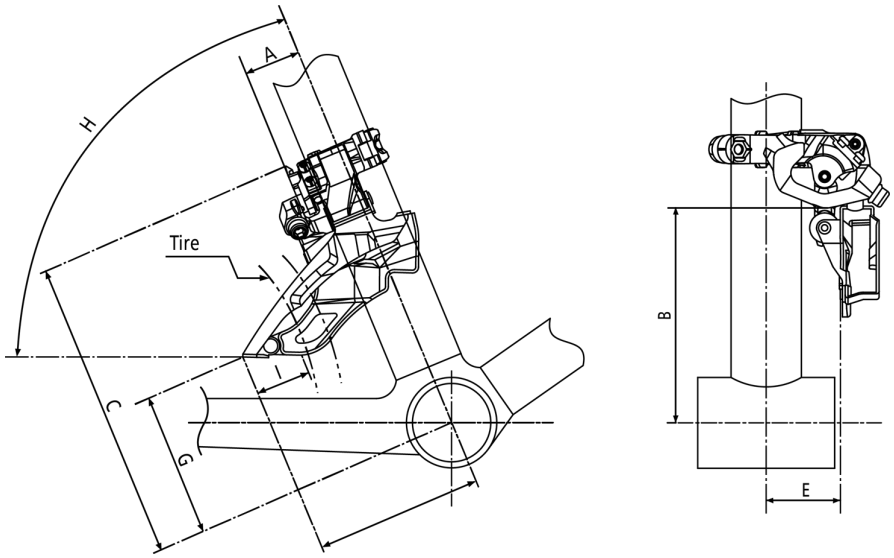
| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (deg.) | I (mm) | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP SWING (dual pull) | 11 | FD-M9025 (-L/E)<br>FD-M8025 (-L/E)<br>FD-M7025-11 (-L/E)<br>(down pull only) | 34T | 41 | 58 | 114 | 12 | 32 | 70 | 52 | 72.6 | 19 | - |
| | | | 36T | 41 | 62 | 118 | 12 | 32 | 70 | 56 | 72.6 | 19 | |
| | | | 38T | 41 | 66 | 122 | 12 | 32 | 70 | 60 | 72.6 | 19 | |
| | 10 | FD-M7005-10 (-L)<br>(down pull only) | 40T | 41 | 42 | 106 | 32 | 30 | 84 | 54 | 70 | 25 | X |
| | | FD-M610 (-E) | 42T | 41 | 46 | 110 | 32 | 30 | 84 | 58 | 70 | 25 | |
| | | FD-T8000-L-6<br>FD-T6000-L-6 | 44T | 41 | 46 | 110 | 32 | 31 | 91 | 57 | 70 | 28 | |
| | | FD-T8000-L-3<br>FD-T6000-L-3 | 44T | 41 | 46 | 110 | 32 | 31 | 91 | 57 | 67 | 28 | |
| | | FD-M785 (-E2)<br>FD-M675 (-E2)<br>FD-M615 (-E2) | 38T | 41 | 47 | 112 | 31 | 28 | 74 | 57 | 70 | 24 | |
| | | | 40T | 41 | 53 | 116 | 32 | 30 | 74 | 61 | 70 | 24 | |
| | | FD-M618 (-L/E)<br>(down pull only) | 36T | 41 | 62 | 118 | 12 | 32 | 70 | 56 | 72.6 | 19 | - |
| | | | 38T | 41 | 66 | 122 | 12 | 32 | 70 | 60 | 72.6 | 19 | |
| | | FD-M6025 (-L/E)<br>(down pull only) | 34T | 41 | 58 | 114 | 12 | 32 | 70 | 52 | 72.6 | 19 | |
| | | | 36T | 41 | 62 | 118 | 12 | 32 | 70 | 56 | 72.6 | 19 | |
| | | | 38T | 41 | 66 | 122 | 12 | 32 | 70 | 60 | 72.6 | 19 | |
| | 9 | FD-M4000-TS6<br>FD-M3000-TS6 | 40T | 37 | 39 | 92 | 28 | 30 | 73 | 56 | 63 | 17 | - |
| | | FD-M2000-TS3<br>FD-M2000-TS6 | 40T | 37 | 39 | 92 | 28 | 30 | 73 | 56 | 63 | 17 | |
| | | | 40T | 37 | 39 | 92 | 28 | 30 | 73 | 56 | 63 | 17 | |
| | | FD-T4000-TS3<br>FD-T3000-TS3 | 44T | 44 | 52 | 106 | 29 | 29 | 84 | 61 | 63 | 16 | |
| | | | 48T | 44 | 60 | 114 | 29 | 29 | 84 | 69 | 63 | 16 | |
| | | FD-T4000-TS6<br>FD-T3000-TS6 | 44T | 44 | 52 | 106 | 29 | 29 | 87 | 57 | 66 | 17 | |
| | | | 48T | 44 | 60 | 114 | 29 | 29 | 87 | 65 | 66 | 17 | |
| | | FD-M370-3 | 44T | 44 | 51 | 106 | 29 | 29 | 84 | 61 | 63 | 16 | |
| | | | 48T | 44 | 59 | 114 | 29 | 29 | 84 | 69 | 63 | 16 | |
| | | FD-M370-6 | 44T | 44 | 51 | 106 | 29 | 29 | 87 | 57 | 66 | 17 | |
| | | | 48T | 44 | 59 | 114 | 29 | 29 | 87 | 65 | 66 | 17 | |

8

| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (deg.) | I (mm) | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP SWING (dual pull) | 8, 7 | FD-M310-3 FD-M310-6 | 42T | 46 | 47 | 99 | 28 | 27 | 82 | 56 | 63 | 10 | - |
| | | | 48T | 46 | 57 | 111 | 28 | 24 | 82 | 66 | 63 | 10 | |
| | | FD-TX800-TS3 FD-TX800-TS6 | 42T | 46 | 47 | 99 | 28 | 27 | 82 | 56 | 63 | 10 | |
| | | | 48T | 46 | 57 | 111 | 28 | 24 | 82 | 66 | 63 | 10 | |
| | | FD-TY700-TS3 | 42T | 42 | 45 | 98 | 28 | 24 | 81 | 54 | 63 | 14 | |
| | | FD-TY700-TS6 | 42T | 42 | 45 | 98 | 28 | 24 | 83 | 51 | 66 | 15 | |
| | | FD-TY710-TS3 | 48T | 42 | 57 | 100 | 28 | 24 | 81 | 66 | 63 | 14 | |
| | | FD-TY710-TS6 | 48T | 42 | 57 | 110 | 28 | 24 | 83 | 63 | 66 | 15 | |
| | 7,6 | FD-TY500-TS3 | 42T | 42 | 45 | 98 | 28 | 24 | 81 | 54 | 63 | 14 | |
| | | FD-TY500-TS6 | 42T | 42 | 45 | 98 | 28 | 24 | 83 | 51 | 66 | 15 | |
| | | FD-TY510-TS3 | 48T | 42 | 57 | 110 | 28 | 24 | 81 | 66 | 63 | 14 | |
| | | FD-TY510-TS6 | 48T | 42 | 57 | 110 | 28 | 24 | 83 | 63 | 66 | 15 | |

# Down Swing type [MTB]






A: From seat tube center to inner link head.
B: From bottom bracket center to inner link head lowest position during movement.
C: From bottom bracket center to most critical point for interference with tire,mud guard.
D: From bottom bracket center to inner link head most left position during movement.
E: From bottom bracket center to back side of the cage most critical point for interference with tire.
F,G: From bottom bracket center to edge of cage for interference with chainstay.
H,I: Dimension of bottom side of cage for interference with chainstay.

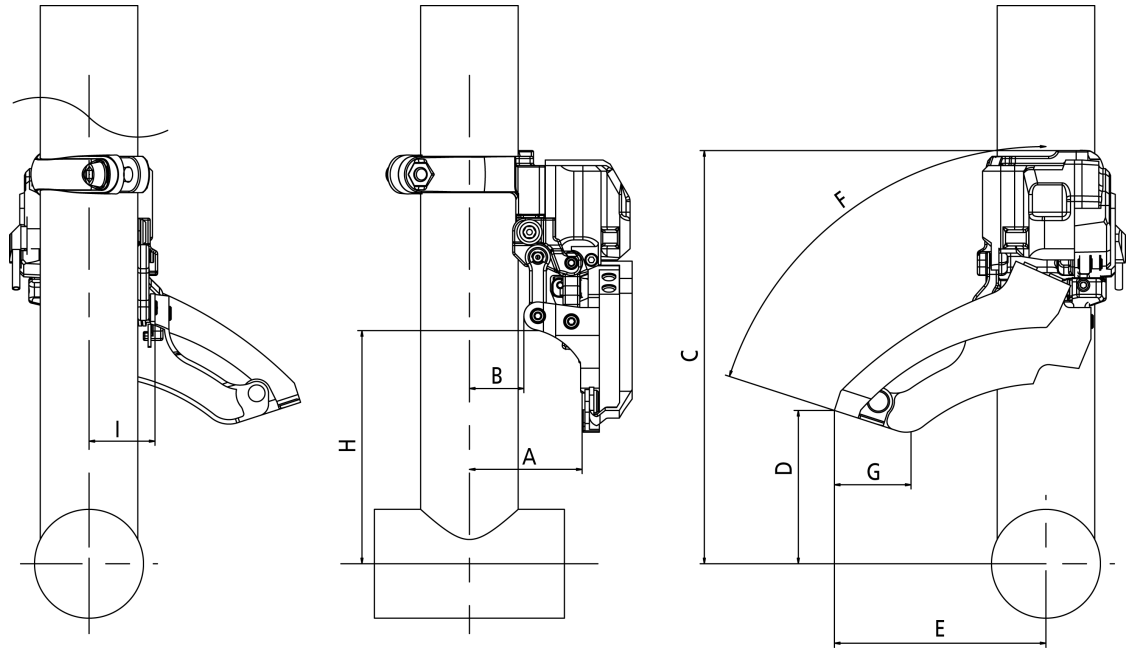
Dimension of D-type is same as band type of its model.
X: Yes

| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (deg.) | I (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Down Swing (dual Pull) | 11 | FD-M9025 (-H/D)<br>FD-M8025 (-H/D)<br>FD-M7025-11 (-H/D) | 34T | 30 | 100 | 137 | - | 32 | 70 | 52 | 72.6 | 18 |
| | | | 36T | 30 | 104 | 141 | - | 32 | 70 | 56 | 72.6 | 18 |
| | | | 38T | 30 | 108 | 145 | - | 32 | 70 | 60 | 72.6 | 18 |
| | 10 | FD-M781-A<br>FD-M671-A<br>FD-M611 (-D) | 40T | 30 | 100 | 145 | - | 30 | 85 | 58 | 66 | 27 |
| | | | 42T | 30 | 104 | 149 | - | 30 | 85 | 62 | 66 | 27 |
| | | FD-M786 (-D) | 38T | 30 | 99 | 146 | - | 31 | 77 | 57 | 72 | 33 |
| | | | 40T | 30 | 103 | 150 | - | 31 | 77 | 61 | 72 | 33 |
| | | | 42T | 30 | 107 | 154 | - | 31 | 77 | 65 | 72 | 33 |
| | | | 44T | 30 | 111 | 158 | - | 31 | 77 | 69 | 72 | 33 |
| | | FD-M618(-H/D) | 36T | 30 | 104 | 141 | - | 32 | 70 | 56 | 72.6 | 18 |
| | | | 38T | 30 | 108 | 145 | - | 32 | 70 | 60 | 72.6 | 18 |
| | | FD-M6025(-H/D) | 34T | 30 | 100 | 137 | - | 32 | 70 | 52 | 72.6 | 18 |
| | | | 36T | 30 | 104 | 141 | - | 32 | 70 | 56 | 72.6 | 18 |
| | | | 38T | 30 | 108 | 145 | - | 32 | 70 | 60 | 72.6 | 18 |
| | | FD-T8000-H-3<br>FD-T6000-H-3 | 44T | 30 | 111 | 155 | - | 31 | 89 | 66 | 63 | 31 |

| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (deg.) | I (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Down Swing (dual pull) | 9 | FD-M773 | 44T | 30 | 114 | 165 | - | 26 | 88 | 67 | 61 | 13 |
| | | FD-M591-6 | 44T | 30 | 110 | 160 | - | 29 | 88 | 67 | 62 | 13 |
| | | | 48T | 30 | 118 | 168 | - | 29 | 88 | 71 | 62 | 13 |
| | | FD-M4000-DS3<br>FD-M4000-DS6 | 40T | 26 | 102 | 137 | - | 30 | 73 | 55 | 63 | 21 |
| | | FD-T4000-DS3 | 44T | 31 | 108 | 155 | - | 30 | 77 | 63 | 63 | 10 |
| | | | 48T | 31 | 116 | 163 | - | 30 | 85 | 71 | 63 | 10 |
| | | FD-M2000-DS3<br>FD-M2000-DS6 | 40T | 28 | 107 | 137 | - | 30 | 73 | 55 | 63 | 21 |
| | | FD-M371-3 | 44T | 31 | 111 | 153 | - | 30 | 77 | 63 | 63 | 10 |
| | | | 48T | 31 | 119 | 161 | - | 30 | 85 | 71 | 63 | 10 |
| | | FD-M371-6 | 44T | 31 | 111 | 153 | - | 30 | 82 | 59 | 66 | 21 |
| | | | 48T | 31 | 119 | 161 | - | 30 | 90 | 67 | 66 | 21 |
| | 8, 7 | FD-M313-3 | 42T | 31 | 107 | 149 | - | 28 | 84 | 60 | 62.7 | 12 |
| | | | 48T | 31 | 119 | 163 | - | 26 | 96 | 72 | 62.7 | 12 |
| | | FD-M313-6 | 42T | 31 | 107 | 149 | - | 28 | 88 | 56 | 65.7 | 12 |
| | | | 48T | 31 | 119 | 163 | - | 26 | 88 | 68 | 65.7 | 12 |
| Down Swing | 7, 6 | FD-TY300-DS6 | 42T | 32 | 89 | 164 | - | 28 | 84 | 55 | 66 | 17 |
| | | FD-TZ500 | | 32 | 89 | 164 | - | top pull: 32<br>down pull: 24 | 81 | 51 | 66 | 14 |
| | | FD-TZ510 | 48T | 32 | 104 | 168 | - | | 94 | 60 | - | 10 |

# Down Swing type SEIS spec.[MTB]





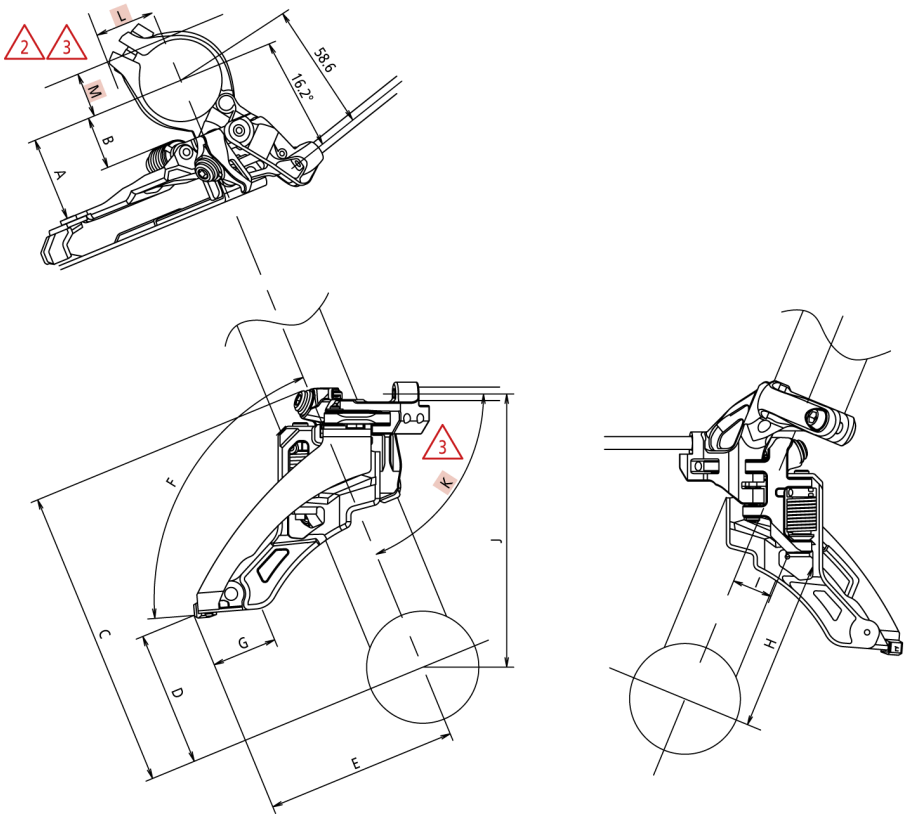

A: From bottom bracket center to back side of the cage most critical point for interference with tire.
B: From bottom bracket center to cage most inside position during movement.
C: From bottom bracket center to motor unit highest position.
D,E: From bottom bracket center to edge of cage for interference with chainstay.
F,G: Dimension of bottom side of cage for interference with chainstay.
H: From bottom bracket center to lowest position of inner link.
I: From bottom bracket center to outline of the cage.

| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DI2 | 11 | FD-M9050 | 40T | 31 | 11 | 151 | 55 | 77 | 72.1 | 29 | 83 | 23 |
| | | FD-M9070<br>FD-M8070 | 34T | 33 | 13 | 143 | 54 | 66 | 72.6 | 22 | 74 | 23 |
| | | | 36T | 33 | 13 | 147 | 58 | 66 | 72.6 | 22 | 78 | 23 |
| | | | 38T | 33 | 13 | 151 | 62 | 66 | 72.6 | 22 | 82 | 23 |

# SIDE SWING type [MTB]



There are variety of frame design as well as tire width, so when deciding frame dimension please be put attention of following figure to have enough clearance from tire and frame (suspension link).




A: From frame center to back side of the cage most critical point for interference with tire.
B: From frame center to spring most inside position during movement.
C: From bottom bracket center to cable fixing part highest position during movement. (E,L spec only)
D,E: From bottom bracket center to edge of cage for interference with chainstay.
F,G: Dimension of bottom side of cage for interference with chainstay.
H,I: From bottom bracket center to lowest position of inner link.

△1 △3

| FD type | Speed | Model No. | Crank set | A (mm) Chain line (mm) | | | B (mm) Chain line (mm) | | | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) | J (mm) | K (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 48.8 | 50 | 51.8 | 48.8 | 50 | 51.8 | | | | | | | | | |
| SIDE SWING | 12 | FD-M9100-D<br>FD-M9100-E<br>FD-M9100-M | 38T | 32 | – | 35 | 21 | – | 24 | 124 | 61 | 71 | 72.6 | 21 | 75 | 21 | 98 | 57.6 |
| | 11 | FD-M9000-H<br>FD-M9000-L<br>FD-M9000-D<br>FD-M9000-E<br>FD-M8000-H<br>FD-M8000-L<br>FD-M8000-D<br>FD-M8000-E | 40T | – | 31 | – | – | 18 | – | 129 | 52 | 83 | 72 | 26 | 75 | 15 | 115 | 67.6 |
| | | FD-M9020-H<br>FD-M9020-L<br>FD-M8020-H<br>FD-M8020-L<br>FD-M7020-11-H<br>FD-M7020-11-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | 67.6 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M9020-D<br>FD-M9020-E<br>FD-M8020-D<br>FD-M8020-E<br>FD-M7020-11-D<br>FD-M7020-11-E | 34T | 33 | – | 36 | 22 | – | 25 | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | 67.6 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | 10 | FD-M7000-10-H<br>FD-M7000-10-L<br>FD-M7000-10-D<br>FD-M7000-10-E<br>FD-M6000-H<br>FD-M6000-M<br>FD-M6000-L<br>FD-M6000-D<br>FD-M6000-E | 40T | – | 32 | – | – | 18 | – | 129 | 54 | 83 | 72 | 26 | 76 | 15 | 115 | 67.6 |
| | | | 42T | | | | | | | 133 | 58 | 83 | 72 | 26 | 80 | 15 | 119 | |
| | | FD-M617-H<br>FD-M617-L | 36T | 32 | – | – | 21 | – | – | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | 67.6 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M617-D<br>FD-M617-E | 36T | 32 | – | 35 | 21 | – | 24 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M6020-H<br>FD-M6020-M<br>FD-M6020-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M6020-D<br>FD-M6020-E | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | |
| | | | 36T | | | 36 | | | 25 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | 9 | FD-M4000-M | 40T | – | 26 | – | – | 11 | – | 134 | 54 | 88 | 72 | 33 | 74 | 10 | 116 | 67.6 |
| | | FD-M4020-M | 36T | 30 | – | – | 13 | – | – | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |
| | | FD-M4020-M-B | 36T | – | – | 33 | – | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |
| | | FD-M4020-D | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |
| | | FD-M4020-E | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |

* Only E/D type FD are compatible with chain line 3mm outboard spec.

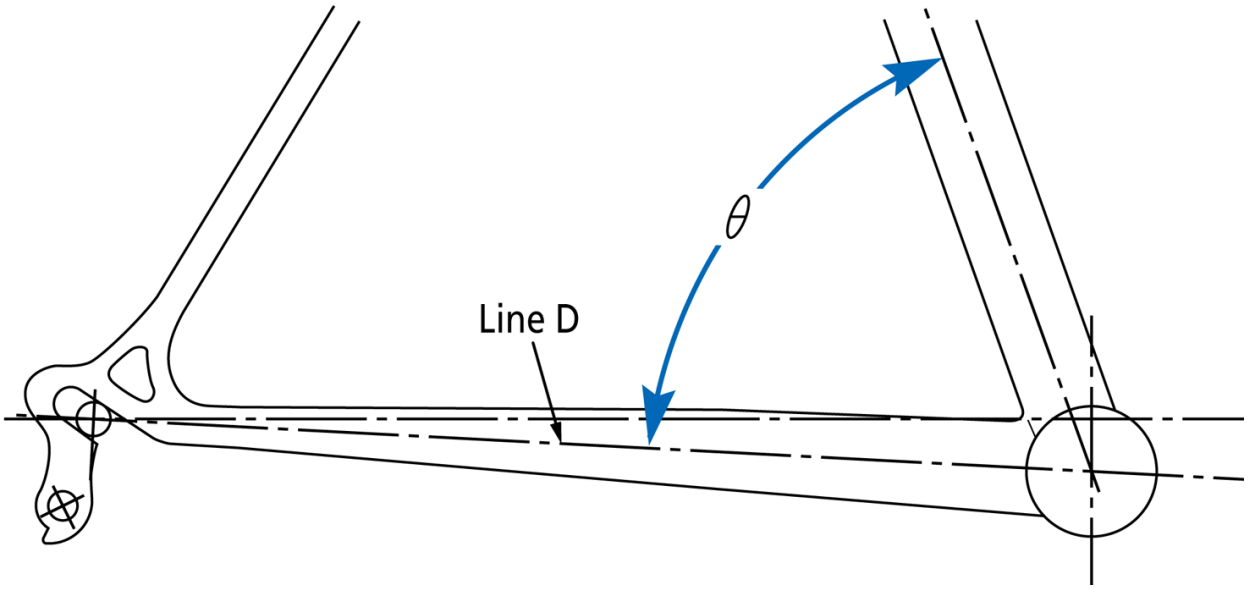
△2 △3

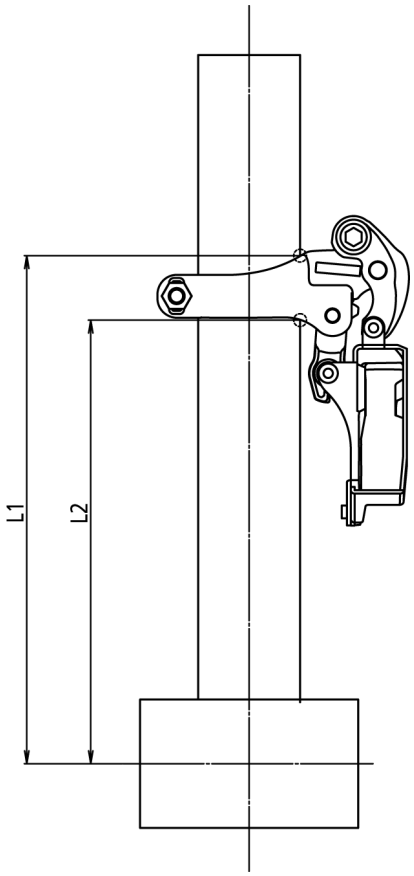
| FD type | Speed | Model No. | Crank set | L (mm) | M (mm) |
|---|---|---|---|---|---|
| SIDE SWING | 12 | FD-M9100-D<br>FD-M9100-E | 38T | – | – |
| | | FD-M9100-M | | 27 | 14 |
| | 11 | FD-M9000-H | 40T | 25 | 18 |
| | | FD-M9000-L | | 26 | 18 |
| | | FD-M9000-D | | – | – |
| | | FD-M9000-E | | – | – |
| | | FD-M8000-H | | 27 | 15 |
| | | FD-M8000-L | | 27 | 14 |
| | | FD-M8000-D | | – | – |
| | | FD-M8000-E | | – | – |
| | | FD-M9020-H | 34T | 25 | 18 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M9020-L | 34T | 26 | 18 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M8020-H<br>FD-M7020-11-H | 34T | 27 | 15 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M8020-L<br>FD-M7020-11-L | 34T | 27 | 14 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M9020-D<br>FD-M9020-E<br>FD-M8020-D<br>FD-M8020-E<br>FD-M7020-11-D<br>FD-M7020-11-E | 34T | – | – |
| | | | 36T | | |
| | | | 38T | | |
| | 10 | FD-M7000-10-H<br>FD-M6000-H | 42T | 27 | 15 |
| | | FD-M7000-10-L<br>FD-M6000-M<br>FD-M6000-L | | 27 | 14 |
| | | FD-M7000-10-D<br>FD-M7000-10-E<br>FD-M6000-D<br>FD-M6000-E | 40T | – | – |
| | | | 42T | | |
| | | FD-M617-H | 36T | 27 | 15 |
| | | | 38T | | |
| | | FD-M617-L | 36T | 27 | 14 |
| | | | 38T | | |
| | | FD-M617-D<br>FD-M617-E | 36T | – | – |
| | | | 38T | | |
| | | FD-M6020-H | 34T | 27 | 15 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M6020-M<br>FD-M6020-L | 34T | 27 | 14 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M6020-D<br>FD-M6020-E | 34T | – | – |
| | | | 36T | | |
| | | | 38T | | |
| | 9 | FD-M4000-M | 40T | 30 | 14 |
| | | FD-M4020-M<br>FD-M4020-M-B | 36T | 30 | 14 |
| | | FD-M4020-D<br>FD-M4020-E | 36T | – | – |

# Band type [ROAD, URBAN SPORT]



Avoid attaching anything that causes interference with the clamp band, please refer to dimensions in the area between L1 and L2.



# For front double C-058

| Gear teeth # | | 46T | 48T | 50T | 52T | 53T | 54T | 55T | Chain stay angle θ (deg.) |
|---|---|---|---|---|---|---|---|---|---|
| FD-R9100 | L1 (mm) | *144 | - | 152 | 156 | 158 | 160 | 162 | 61-66<br>*63-66 |
| | L2 (mm) | *122 | - | 130 | 134 | 136 | 138 | 140 | |
| FD-R9150-F<br>+ SM-AD91 | L1 (mm) | *152 | - | 155 | 159 | 161 | 163 | 165 | |
| | L2 (mm) | *122 | - | 127 | 131 | 133 | 135 | 137 | |
| FD-9000 | L1 (mm) | - | - | 151 | 155 | 157 | 159 | 161 | |
| | L2 (mm) | - | - | 130 | 134 | 136 | 138 | 140 | |
| FD-R8000<br>FD-R7000 | L1 (mm) | *144 | - | 152 | 156 | 158 | 160 | 162 | |
| | L2 (mm) | *122 | - | 130 | 134 | 136 | 138 | 140 | |
| FD-R8050-F<br>+ SM-AD91 | L1 (mm) | *152 | - | 155 | 159 | 161 | 163 | 165 | |
| | L2 (mm) | *122 | - | 127 | 131 | 133 | 135 | 137 | |
| FD-6800 | L1 (mm) | *145 | - | 153 | 157 | 159 | - | - | |
| | L2 (mm) | *123 | - | 131 | 135 | 137 | - | - | |
| FD-4700 | L1 (mm) | *145 | *149 | 153 | 157 | 159 | - | - | |
| | L2 (mm) | *123 | *127 | 131 | 135 | 137 | - | - | |
| FD-6870-F<br>+ SM-AD91 | L1 (mm) | *152 | - | 160 | 164 | 166 | - | - | |
| | L2 (mm) | *122 | - | 130 | 134 | 136 | - | - | |
| FD-CX70-T | L1 (mm) | *151 | *155 | 159 | 163 | - | - | - | |
| | L2 (mm) | *129 | *133 | 137 | 141 | - | - | - | |
| FD-CX70-D<br>FD-R3000<br>FD-R2000 | L1 (mm) | *148 | *152 | 156 | 160 | - | - | - | |
| | L2 (mm) | *126 | *130 | 134 | 138 | - | - | - | |
| FD-A070-A | L1 (mm) | - | - | 154 | - | - | - | - | |
| | L2 (mm) | - | - | 130 | - | - | - | - | |
| FD-A050 | L1 (mm) | - | - | 147 | 151 | - | - | - | |
| | L2 (mm) | - | - | 118 | 122 | - | - | - | |
| FD-U5000-F<br>+ SM-AD91 | L1 (mm) | 152 | - | - | - | - | - | - | |
| | L2 (mm) | 122 | - | - | - | - | - | - | |
| FD-U5050-F<br>+ SM-AD91 | L1 (mm) | *152 | - | - | - | - | - | - | |
| | L2 (mm) | *122 | - | - | - | - | - | - | |

**NOTE**

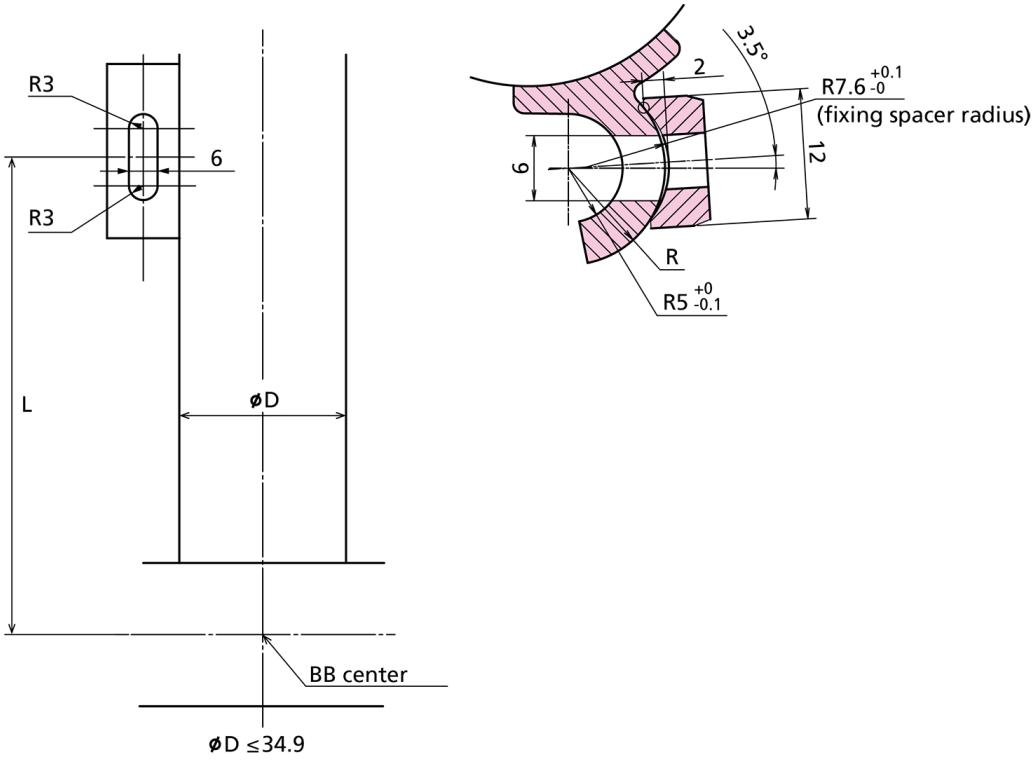
For models marked with an asterisk (*), the recommended chain stay angle is between 63° and 66°.

# For front triple C-059

| Gear teeth # | | 50T | 52T | 53T | Chain stay angle θ (deg.) |
|---|---|---|---|---|---|
| FD-5703 | L1 (mm) | 160 | - | - | 63-66 |
| | L2 (mm) | 138 | - | - | |
| FD-4703 | L1 (mm) | 162 | | - | |
| | L2 (mm) | 139 | - | - | |
| FD-R3030<br>FD-R2030 | L1 (mm) | 160 | - | - | |
| | L2 (mm) | 138 | - | - | |
| FD-R353 | L1 (mm) | 160 | - | - | |
| | L2 (mm) | 138 | - | - | |
| FD-A073 | L1 (mm) | 160 | - | - | |
| | L2 (mm) | 138 | - | - | |

## Position of front derailleur (Brazed-on type) C-477

The position of a brazed-on front derailleur mounting boss has a significant effect on shifting performance. Please refer to the points shown below with regard to the correct positioning of the front derailleur mounting boss.



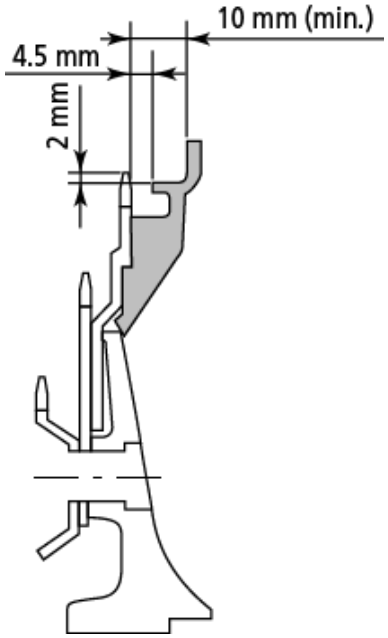

L: refer to the table of optimum dimension below.

| | | Optimum dimension L (mm) | | | | | | | R (mm) |
|---|---|---|---|---|---|---|---|---|---|
| | Gear teeth # | 46T | 48T | 50T | 52T | 53T | 54T | 55T | |
| For front double | FD-R9100 | - | - | 141 | 145 | 147 | 149 | 151 | 7.6 - 8.9 |
| | FD-R9150 | - | - | 141 | 145 | 147 | 149 | 151 | |
| | FD-9000 | - | - | 141 | 145 | 147 | 149 | 151 | |
| | FD-R8000 | 133 | - | 141 | 145 | 147 | 149 | 151 | |
| | FD-R8050 | 133 | - | 141 | 145 | 147 | 149 | 151 | |
| | FD-R7000<br>FD-6800<br>FD-6870<br>FD-4700 | 133 | 137 | 141 | 145 | 147 | - | - | |
| | FD-CX70-T | 138 | 142 | 146 | 150 | - | - | - | 7.6 - 8.4 |
| | FD-CX70-D | 135 | 139 | 143 | 147 | - | - | - | |
| | FD-R3000<br>FD-R2000 | 135 | 139 | 143 | 147 | - | - | - | 7.6 - 7.9 |
| | FD-U5000<br>FD-U5050 | 133 | 137 | 141 | 145 | 147 | - | - | 7.6 - 8.9 |
| For front triple | FD-R3030<br>FD-R2030 | - | - | 143 | - | - | - | - | 7.6 - 7.9 |
| | other model | - | - | 148 | 148 | - | - | - | 7.6 - 8.4 |

# Chain guard

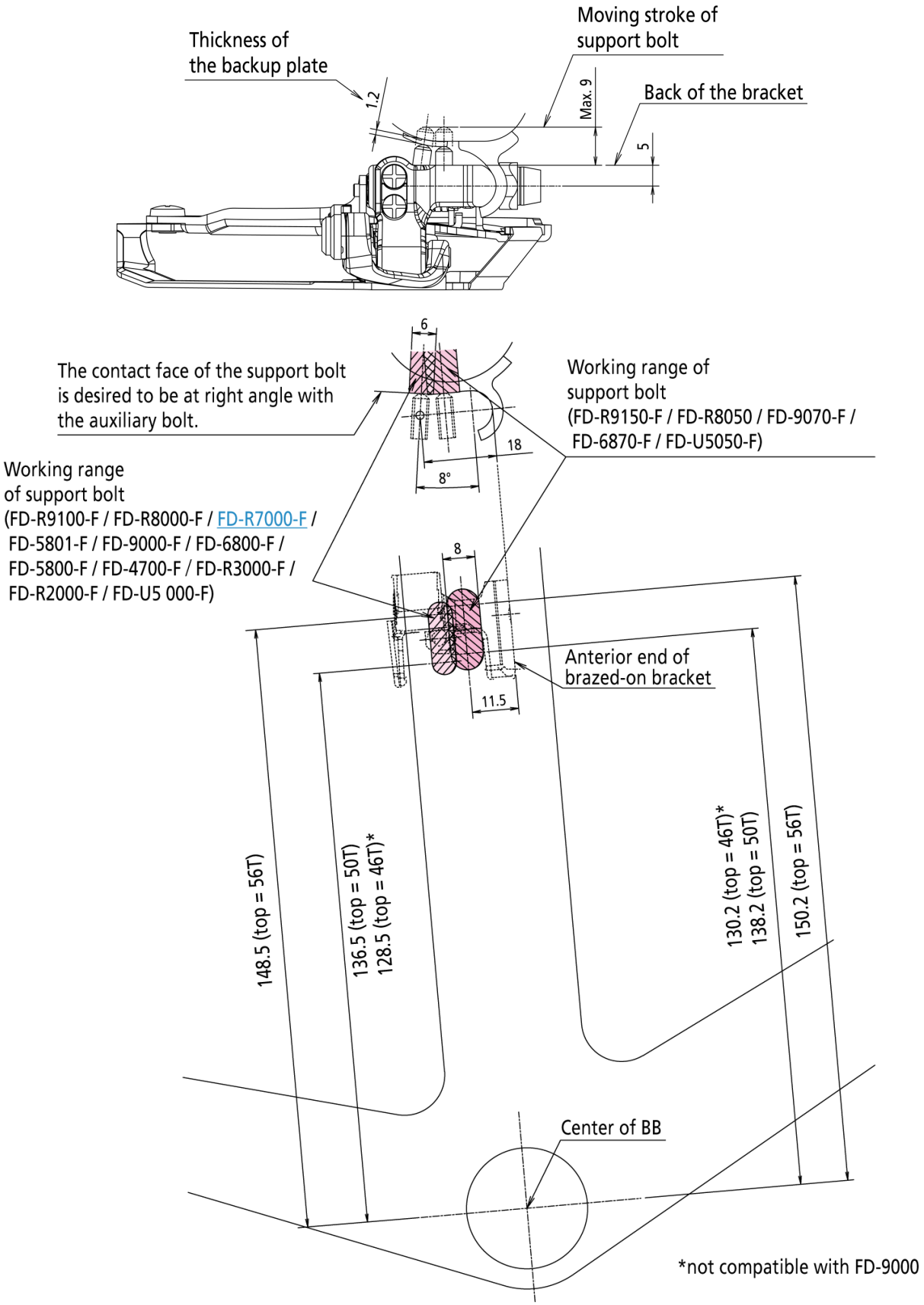
C-061

When using a non-SHIMANO chain guard in combination with a SHIMANO front derailleur, make sure that the chain guard meets the specifications shown below in order to avoid interference with the derailleur operation.



# Dimensions for support bolt [ROAD, URBAN SPORT]





# Installation with seat tube [ROAD, URBAN SPORT]



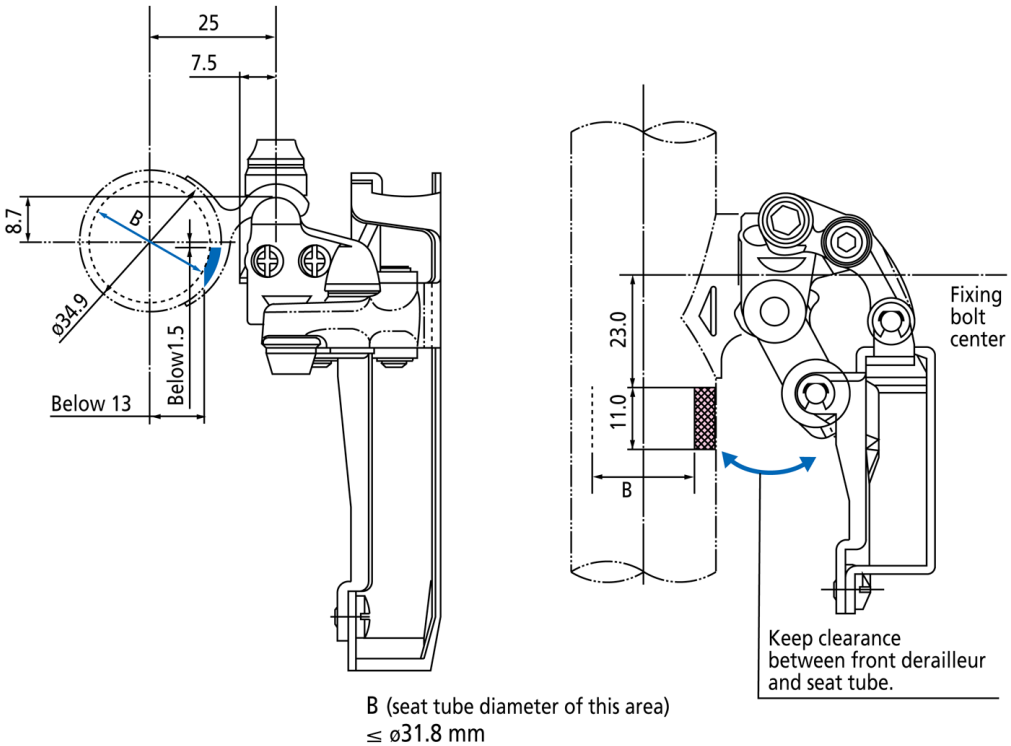
| FD | Model No. | Dimension (mm) | Band type | Brazed-on type | Brazed-on + SM-AD11 | Brazed-on + SM-AD15 | Brazed-on + SM-AD91 |
|---|---|---|---|---|---|---|---|
| Double | FD-R9100<br>FD-R8000<br>FD-R7000 | S (ø28.6) | X* | X | - | - | X* |
| | | M (ø31.8) | X | X | - | - | X |
| | | L (ø34.9) | X | X | - | - | X |
| | FD-9000<br>FD-6800<br>FD-CX70-T<br>FD-CX70-D<br>FD-4700 | S (ø28.6) | X* | X | - | - | X* |
| | | M (ø31.8) | X | X | X | - | X |
| | | L (ø34.9) | X | X | - | X | X |
| | FD-R9150<br>FD-R8050<br>FD-6870<br>FD-U5050 | S (ø28.6) | - | X | - | - | X* |
| | | M (ø31.8) | - | X | - | - | X |
| | | L (ø34.9) | - | X | - | - | X |
| | FD-R3000<br>FD-R2000 | S (ø28.6) | X* | X | - | - | X* |
| | | M (ø31.8) | X* | X | - | - | X |
| | | L (ø34.9) | X | X | - | - | X |
| | FD-U5000 | S (ø28.6) | - | X | - | - | X* |
| | | M (ø31.8) | - | X | X | - | X |
| | | L (ø34.9) | - | X | - | X | X |
| Triple | FD-5703<br>FD-4703 | S (ø28.6) | X* | X | - | - | X* |
| | | M (ø31.8) | X | X | X | - | X |
| | | L (ø34.9) | X | X | - | X | X |
| | FD-A073 | S (ø28.6) | X* | - | - | - | - |
| | | M (ø31.8) | X* | - | - | - | - |
| | | L (ø34.9) | X | - | - | - | - |
| | FD-R3030<br>FD-R2030 | S (ø28.6) | X* | X | - | - | X* |
| | | M (ø31.8) | X* | X | - | - | X |
| | | L (ø34.9) | X | X | - | - | X |

X: Yes

* Need adapter S or adapter M

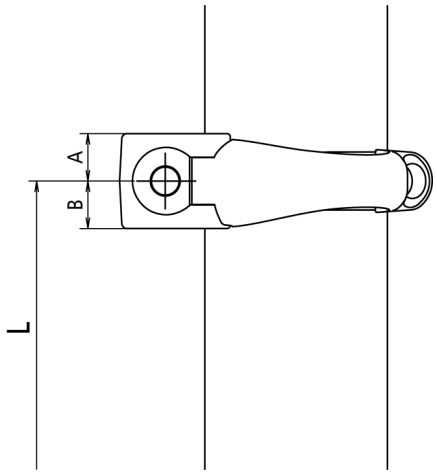
**NOTE**

When using a brazed on front derailleur FD-2303 / R443A with a seat tube diameter of more than ø31.8 mm, refer to the bellow dimensions to prevent interference with front derailleur.



# Adapter dimensions [ROAD]



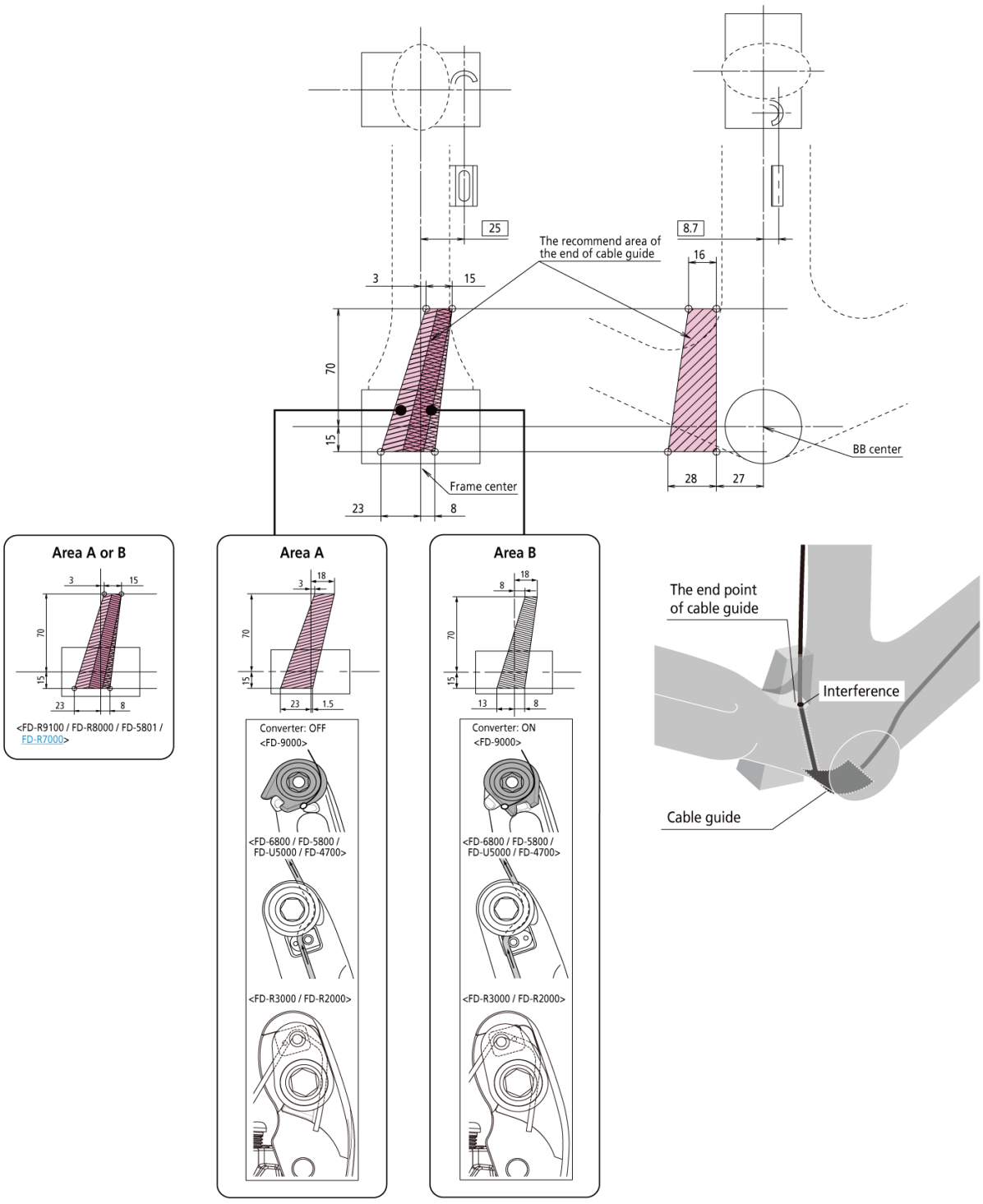



L: refer to the table of optimum dimension [C-060].

| Brazed-on + SM-AD** | A (mm) | B (mm) |
|---|---|---|
| SM-AD91 | 9.3 | 9.3 |
| SM-AD11 | 20.0 | 12.0 |
| SM-AD15 | 17.5 | 11.0 |

# Cable routing

## FD-R9100 / FD-9000 / FD-R8000 / FD-6800 / FD-R7000 / FD-4700 / FD-R3000 / FD-U5000

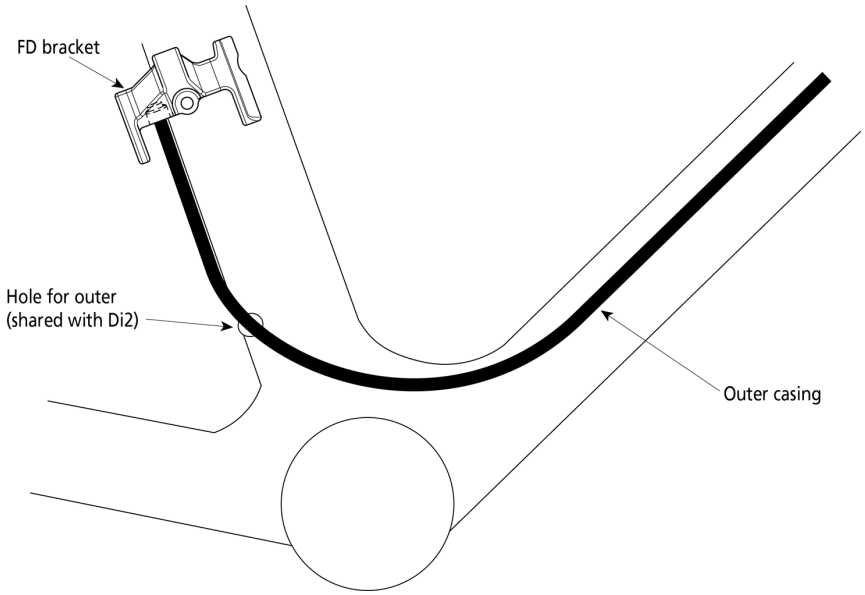


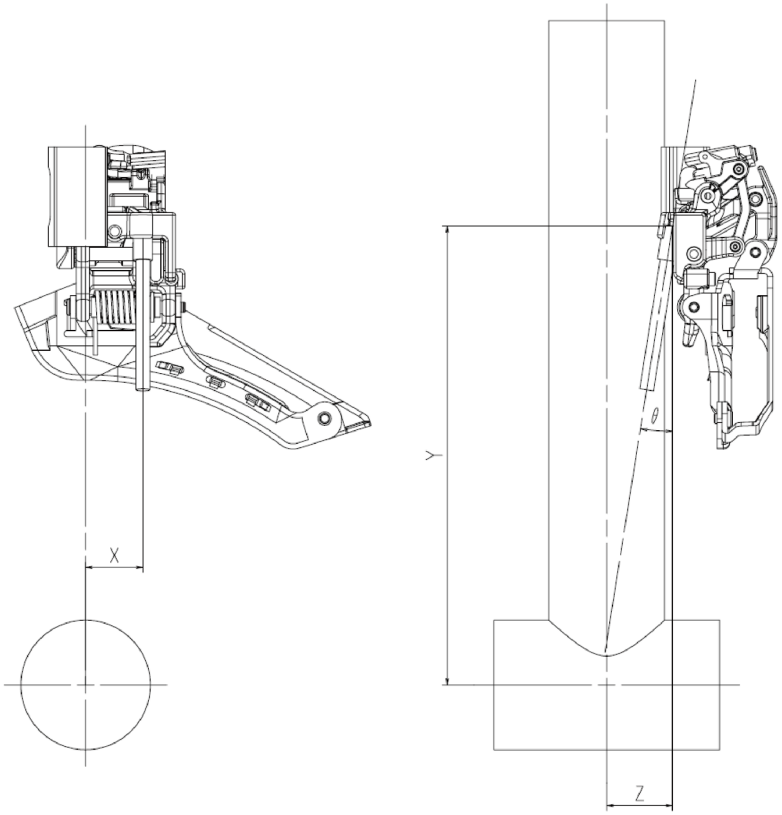

According to positions of the cable guide at indicated area.
Choose converter: OFF or converter: ON to get proper cable route.

**NOTE**

- In case of interfere cable with hole of the frame, recommend cable area becomes hole area of the frame, not the end of cable guide.
- If interfere cable with hole of the frame, pulling efficiency of the cable becomes worse.

## FD-R9100 / FD-8000 / FD-R7000 (with outer casing)



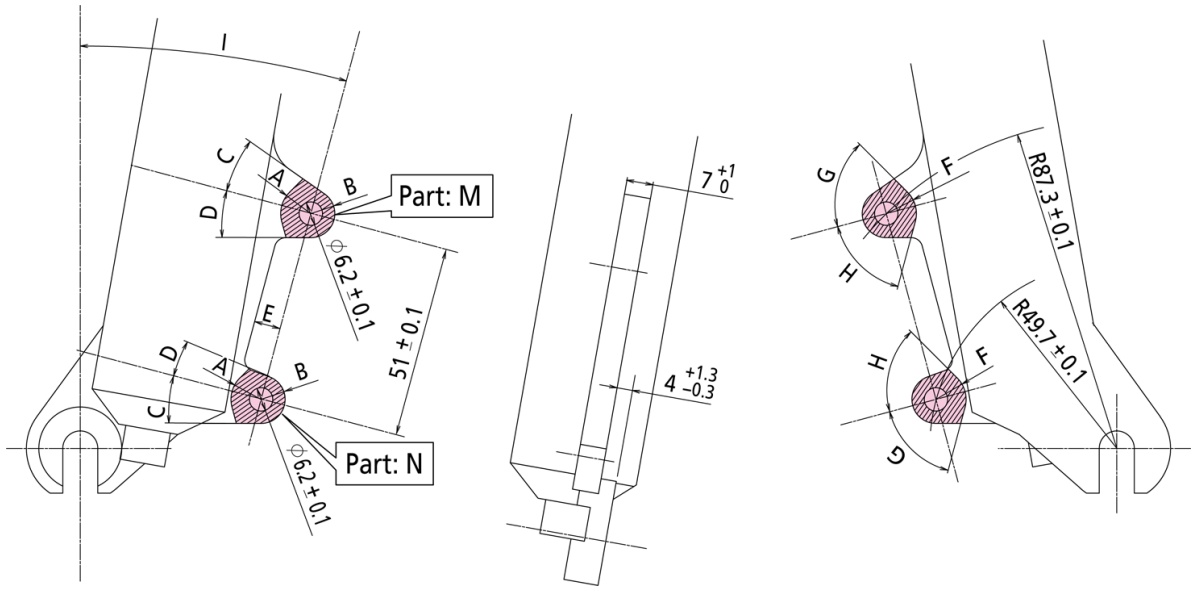

| Top gear | X (mm) | Y (mm) | Z (mm) | θ (deg.) |
|---|---|---|---|---|
| 56 | 17 | 151 | 20 | 9 |
| 55 | | 149 | | |
| 54 | | 147 | | |
| 53 | | 145 | | |
| 52 | | 143 | | |
| 50 | | 139 | | |
| 48 | | 135 | | |
| 46 | | 131 | | |

# Front disc brake mount dimensions C-068

SHIMANO disc brakes are designed to fit the frame and front fork as shown below. (the dimensions shown below are same as the international standard disc brake mount.) The following mount dimensions (A - H) are recommended for each model.

## QR type C-069

### For international standard mount



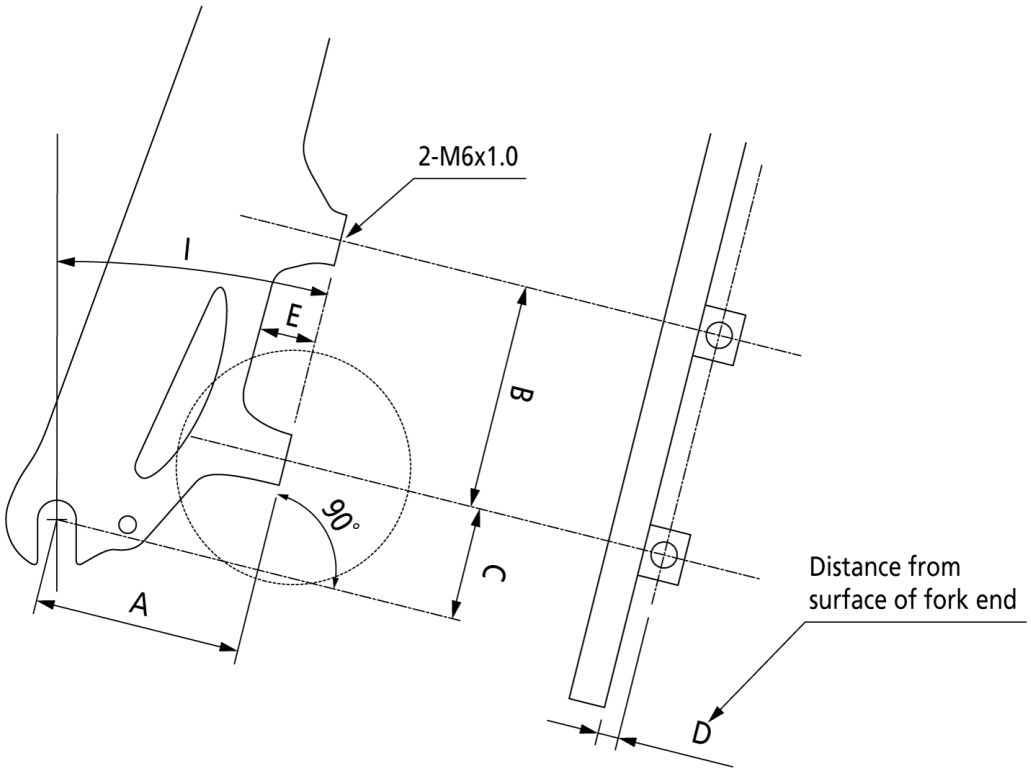

**NOTE**

- Part M and N need to be flat surface.
- Please refer to C-077 for angle I.

1

| Anti loosen method | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | 8.0 | Part M: 6.5<br>Part N: 8.0 | 45° | 45° | 0 | 6.0 | 90° | 95° |
| | BR-M9120 | | | | | 2.0 | | | |
| | BR-M8020 | | | | | | | | |
| | BR-MT520 | | | | | | | | |
| | BR-M9000<br>BR-M9020 | | | | | 0 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5<br>Part N: 8.0 | 45° | 45° | 2.0 | 6.0 | 90° | 95° |
| | BR-M8000<br>BR-M7000 | | | | | 0 | | | |
| | BR-M6000 | | | | | 0 | | | |
| | BR-M640 | | | | | 2.0 | | | |
| | BR-MT500 | | | | | 1.0 | | | |
| | BR-M446 | | | | | 0 | | | |
| | BR-MT400 | | | | | 1.0 | | | |
| | BR-M375 | | | | | 1.5 | | | |
| | BR-MT200 | | | | | 1.0 | | | |
| | BR-TX805 | | | | | 1.5 | | | |
| | BR-S700<br>BR-RS785 | | | | | 0 | | | |
| | BR-R317 | | | | | 1.5 | | | |

## For post mount



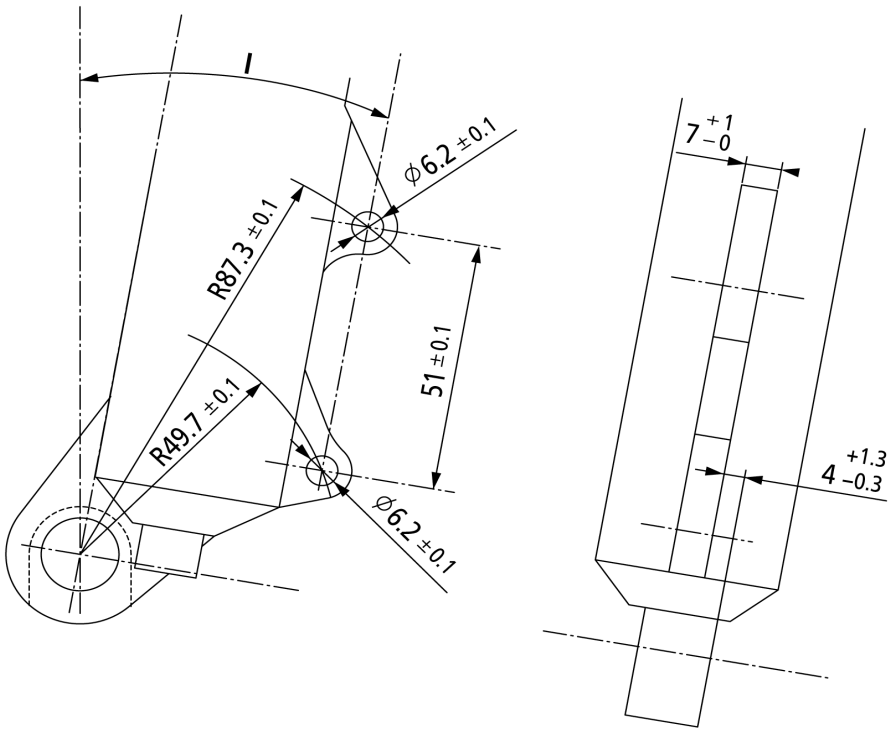

1

| Anti loosen method | Model No. | Dimension | | | | |
|---|---|---|---|---|---|---|
| | | A (mm) | B (mm) | C (mm) | D (mm) | Min. E (mm) |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | 140 mm (SS): 47.5 ± 0.1<br>160 mm (S): 55.9 ± 0.1<br>180 mm (M) 64.0 ± 0.1<br>203 mm (L) 73.9 ± 0.1 | 140 mm (SS): 74.2 ± 0.1<br>160 mm (S): 74.2 ± 0.1<br>180 mm (M) 74.2 ± 0.1<br>203 mm (L) 74.2 ± 0.1 | 140 mm (SS): 1.7 ± 0.1<br>160 mm (S): 6.8 ± 0.1<br>180 mm (M) 12.4 ± 0.1<br>203 mm (L) 18.8 ± 0.1 | 140 mm (SS): 0.94+0.3 - 1.3<br>160 mm (S): 0.94+0.3 - 1.3<br>180 mm (M) 0.94+0.3 - 1.3<br>203 mm (L) 0.94+0.3 - 1.3 | 11.5 |
| | BR-M8020 | | | | | 11.5 |
| | BR-MT520 | | | | | 11.5 |
| | BR-M9000 | | | | | 10.0 |
| | BR-M9020 | | | | | 11.0 |
| Cap type | BR-M8000 | | | | | 10.0 |
| | BR-M820 | | | | | 11.5 |
| | BR-M7000 | | | | | 10.0 |
| | BR-M6000 | | | | | 10.0 |
| | BR-M640 | | | | | 11.5 |
| | BR-MT500 | | | | | 11.5 |
| | BR-M446 | | | | | 11.5 |
| | BR-MT400 | | | | | 11.5 |
| | BR-M375 | | | | | 11.0 |
| | BR-MT200 | | | | | 11.5 |
| | BR-TX805 | | | | | 11.0 |
| | BR-S700 | | | | | 10.0 |
| | BR-RS785 | | | | | 10.0 |
| | BR-R317 | | | | | 11.0 |

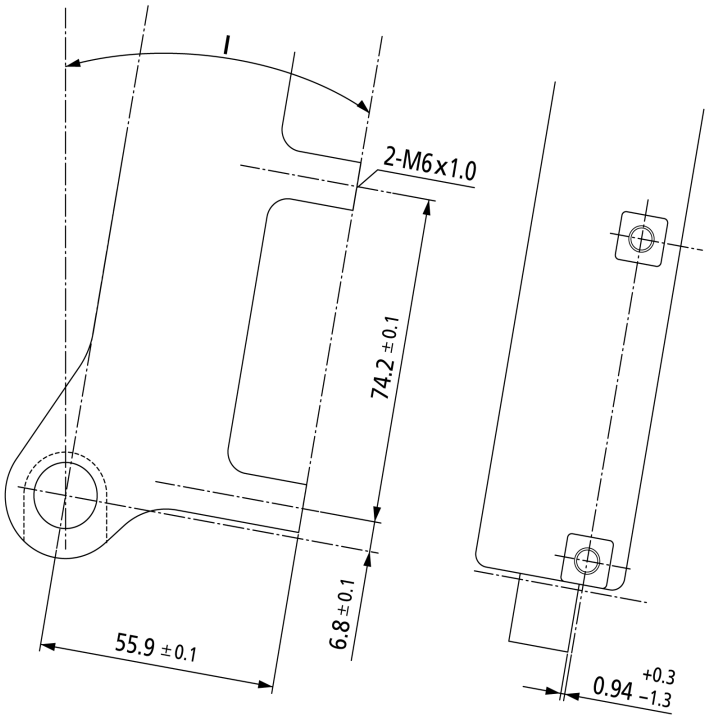
# 15 mm E-THRU type C-070

O.L.D.100mm, 110mm

**For international standard mount**




**For post mount**

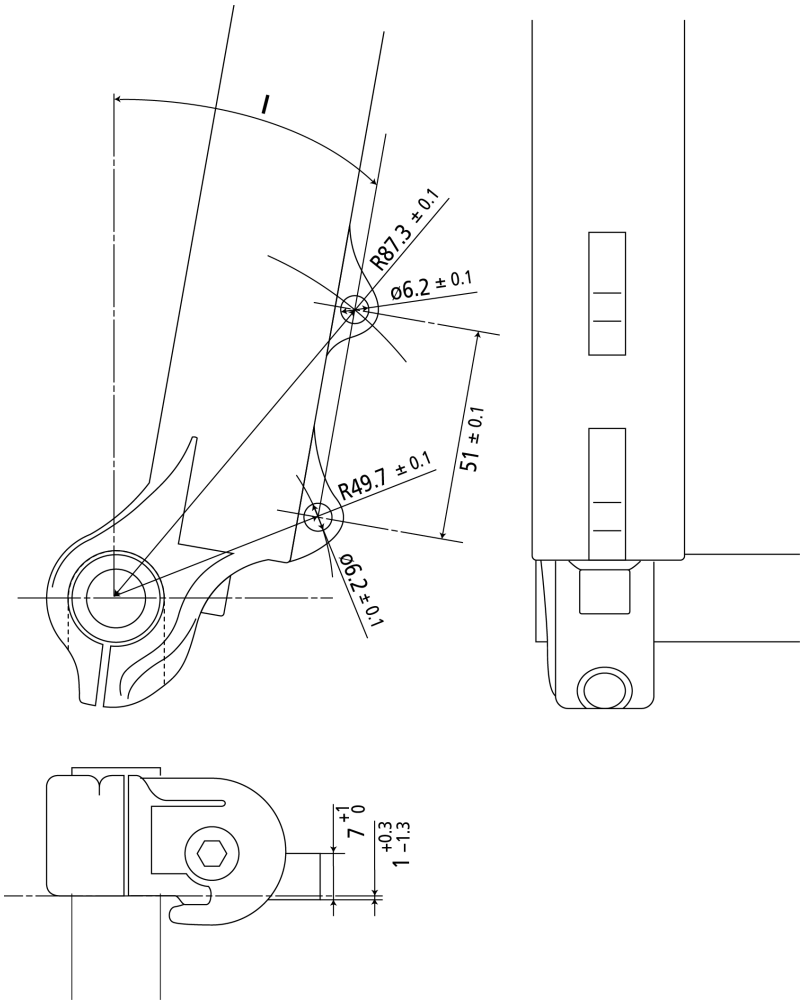



**NOTE**

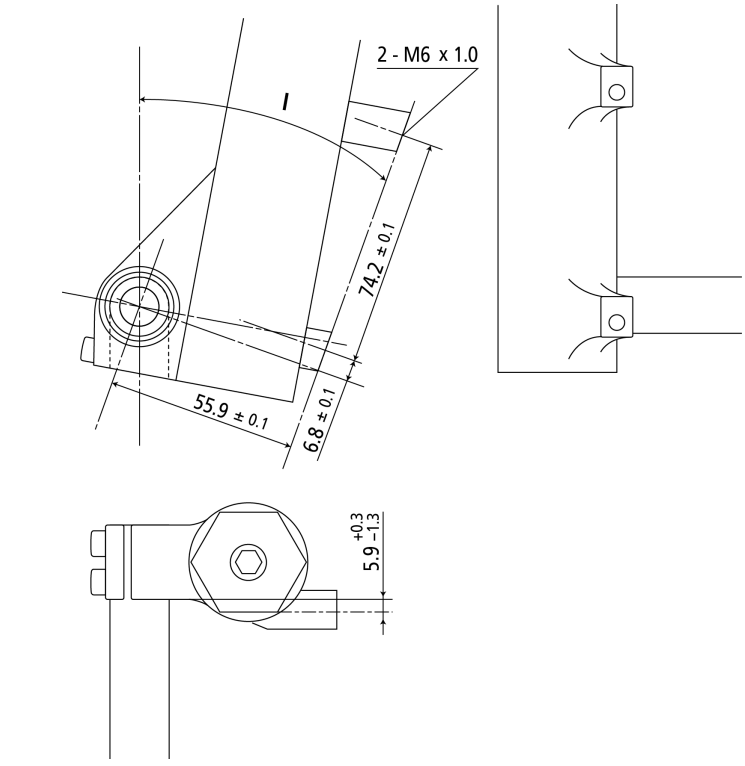
Please refer to C-077 for angle I.

# 20 mm thru axle type C-071

## For international standard mount

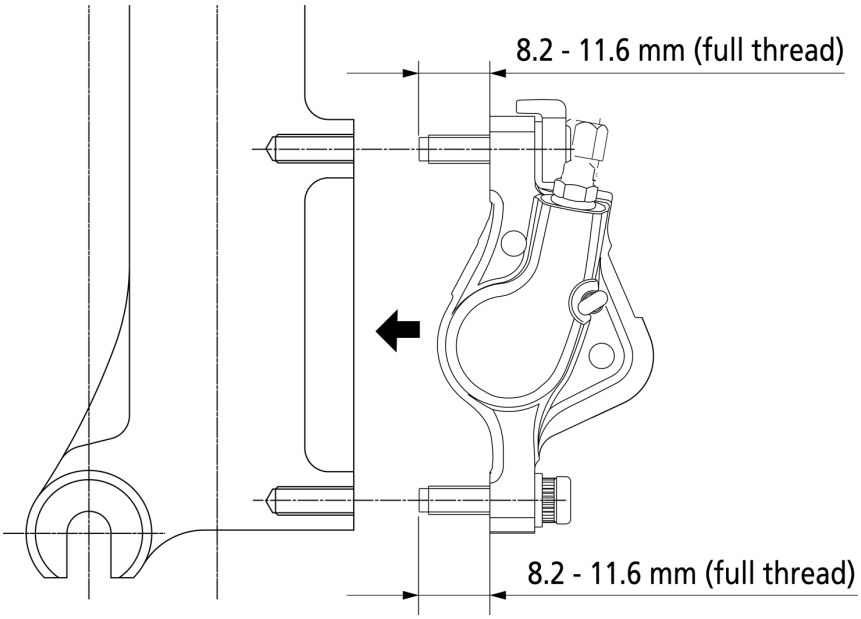



## For post mount



# Fixing bolt length for post mount

C-072

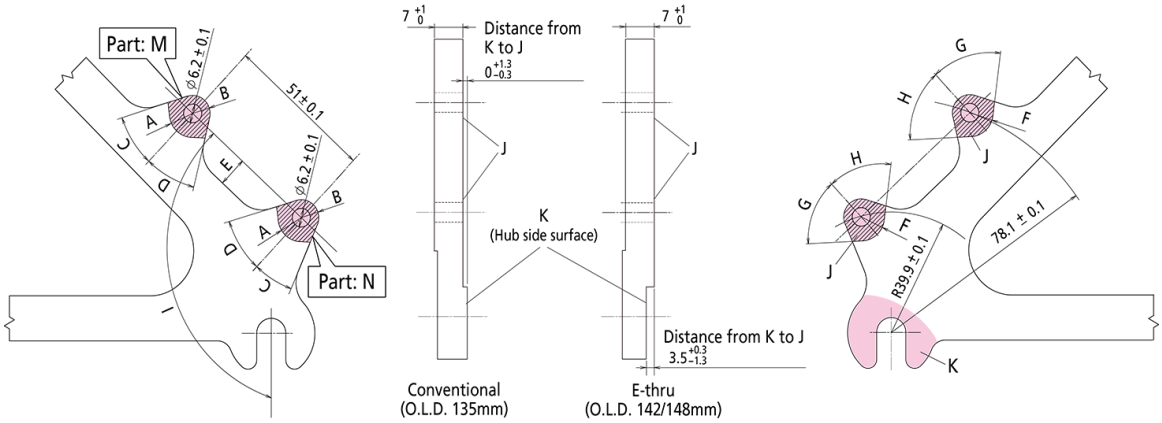


# Rear disc brake mount dimensions C-073

SHIMANO disc brakes are designed to fit the frame as shown below. (the dimensions shown below are same as the international standard disc brake mount.) The following mount dimensions (A - I) are recommended for each model.

## For international standard mount C-074

### Seat stay type



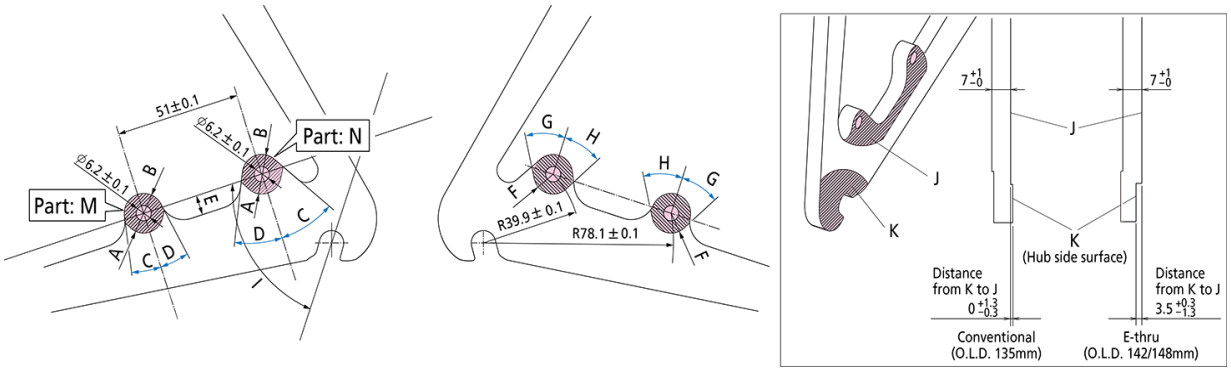

**NOTE**

- Part M and N need to be flat surface.
- Please refer to C-077 for angle I.

1

| Anti loosen method | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | 8.0 | Part M: 6.5<br>Part N: 8.0 | 45° | 45° | -5.0 | 6.0 | 90° | 95° |
| | BR-M9120 | | | | | -3.0 | | | |
| | BR-M8020 | | | | | | | | |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 | | | | | -5.0 | | | |
| | BR-M9020 | | | | | -0.5 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5<br>Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8000<br>BR-M7000 | | | | | -5.0 | | | |
| | BR-M6000 | | | | | -6.5 | | | |
| | BR-M640 | | | | | -3.0 | | | |
| | BR-MT500<br>BR-M446 | | | | | -4.0 | | | |
| | BR-MT400 | | | | | -4.0 | | | |
| | BR-M375 | | | | | -3.5 | | | |
| | BR-MT200 | | | | | -4.0 | | | |
| | BR-TX805 | | | | | -3.5 | | | |
| | BR-S700<br>BR-RS785 | | | | | -5.0 | | | |
| | BR-R317 | | | | | -3.5 | | | |

## Chainstay type




**NOTE**

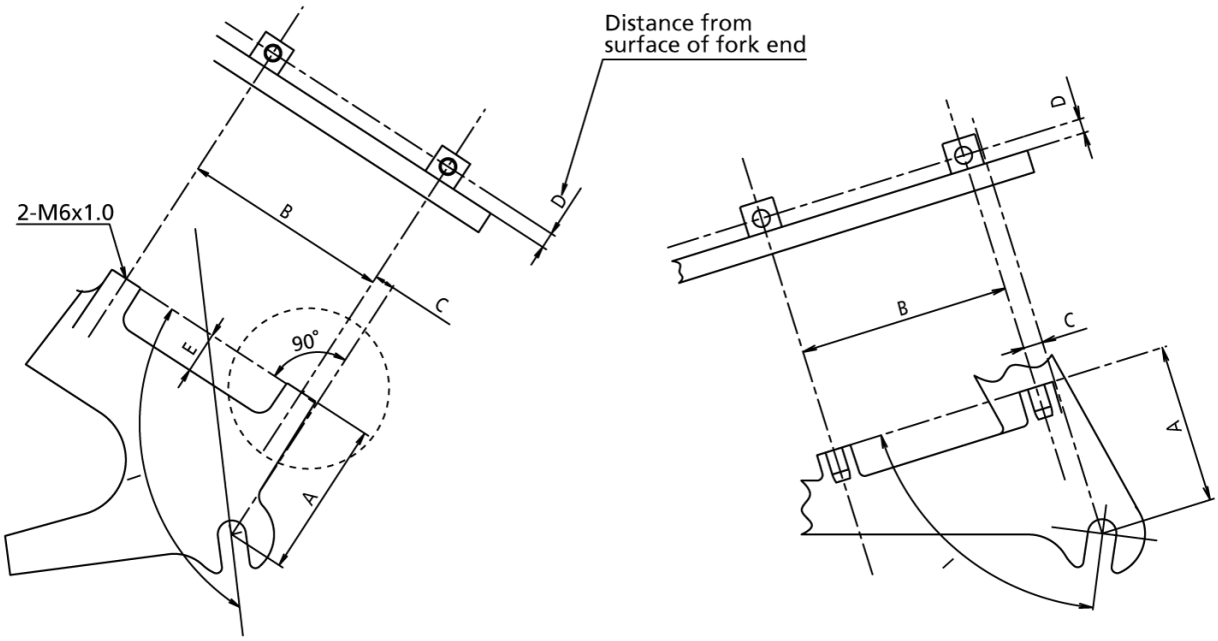
- Part M and N need to be flat surface.
- Please refer to C-077 for angle I.

1

| Anti loosen method | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | 8.0 | Part M: 6.5<br>Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8020 | | | | | | | | |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 | | | | | -5.0 | | | |
| | BR-M9020 | | | | | -0.5 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5<br>Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8000<br>BR-M7000 | | | | | -5.0 | | | |
| | BR-M6000 | | | | | -6.5 | | | |
| | BR-M640 | | | | | -3.0 | | | |
| | BR-MT500<br>BR-M446 | | | | | -4.0 | | | |
| | BR-MT400 | | | | | -4.0 | | | |
| | BR-M375 | | | | | -3.5 | | | |
| | BR-MT200 | | | | | -4.0 | | | |
| | BR-TX805 | | | | | -3.5 | | | |
| | BR-S700<br>BR-RS785 | | | | | -5.0 | | | |
| | BR-R317 | | | | | -3.5 | | | |

# For post mount C-075

## Seat stay type without adapter




**NOTE**

Please refer to C-077 for angle I.

## Dimensions of rear post mount of disc brake caliper

1

| Anti loosen method | Model No. | Dimension | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | A (mm) | B (mm) | C (mm) | D (mm) | | | Min. E (mm) |
| | | | | | O.L.D. 135, 150 mm straight and BMX type | O.L.D. 142 mm E-THRU type | O.L.D. 148 mm E-THRU type | |
| Wiring type | BR-M9100 | 140 mm (SS): 47.5 ± 0.1<br>160 mm (S): 55.9 ± 0.1<br>180 mm (M): 64.0 ± 0.1<br>203 mm (L): 73.9 ± 0.1 | 140 mm (SS): 74.2 ± 0.1<br>160 mm (S): 74.2 ± 0.1<br>180 mm (M): 74.2 ± 0.1<br>203 mm (L): 74.2 ± 0.1 | 140 mm (SS): 1.7 ± 0.1<br>160 mm (S): 6.8 ± 0.1<br>180 mm (M): 12.4 ± 0.1<br>203 mm (L): 18.8 ± 0.1 | 140 mm (SS): 5.7 +0.3 - 1.3<br>160 mm (S): 5.7 +0.3 - 1.3<br>180 mm (M): 5.7 +0.3 - 1.3<br>203 mm (L): 5.7 +0.3 - 1.3 | 140 mm (SS): 9.2 +0.3 - 1.3<br>160 mm (S): 9.2 +0.3 - 1.3<br>180 mm (M): 9.2 +0.3 - 1.3<br>203 mm (L): 9.2 +0.3 - 1.3 | 140 mm (SS): 9.2 +0.3 - 1.3<br>160 mm (S): 9.2 +0.3 - 1.3<br>180 mm (M): 9.2 +0.3 - 1.3<br>203 mm (L): 9.2 +0.3 - 1.3 | TBD |
| | BR-M9120 | | | | | | | 11.5 |
| | BR-M8020 | | | | | | | 11.5 |
| | BR-MT520 | | | | | | | 11.5 |
| | BR-M9000 | | | | | | | 10.0 |
| | BR-M9020 | | | | | | | 11.0 |
| Cap type | BR-M820 | | | | | | | 11.5 |
| | BR-M8000 | | | | | | | 10.0 |
| | BR-M7000 | | | | | | | 10.0 |
| | BR-M6000 | | | | | | | 9.0 |
| | BR-M640 | | | | | | | 11.5 |
| | BR-MT500 | | | | | | | 11.5 |
| | BR-M446 | | | | | | | 11.5 |
| | BR-MT400 | | | | | | | 11.5 |
| | BR-M375 | | | | | | | 11.0 |
| | BR-MT200 | | | | | | | 11.0 |
| | BR-TX805 | | | | | | | 11.0 |
| | BR-S700 | | | | | | | 10.0 |
| | BR-RS785 | | | | | | | 10.0 |
| | BR-R317 | | | | | | | 11.0 |

# Angle of fork end (angle I)

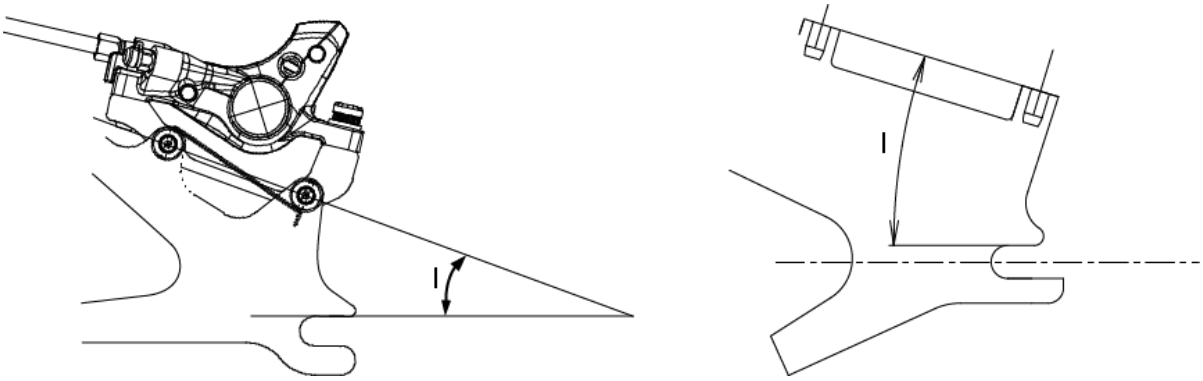


Please refer to C-068, C-069, C-070, C-071, C-072, C-073, C-074, C-075 for definition of angle I.

| | Mount Type | Disc Brake Rotor Size | Min. Angle I | | Max. Angle I | |
|---|---|---|---|---|---|---|
| | | | International standard mount | Post mount | International standard mount | Post mount |
| Front | - | 140 - 203 mm | - | - | 24° * | 17° |
| Rear | Seat stay type | | - | - | 201° | 197° |
| | Chainstay type | | 56° | 49° | - ** | - ** |
| | BMX fork end *** | 160 - 203 mm | - | - | 24° | 17° |
| | | 140 mm | - | - | 21° | |

* Not compatible with 140 mm disc brake roter
** For chainstay type, the max. side does not need to be considered.
*** Angle of BMX fork end

### BMX fork end



# Dimensions of disc brake hub and rotor

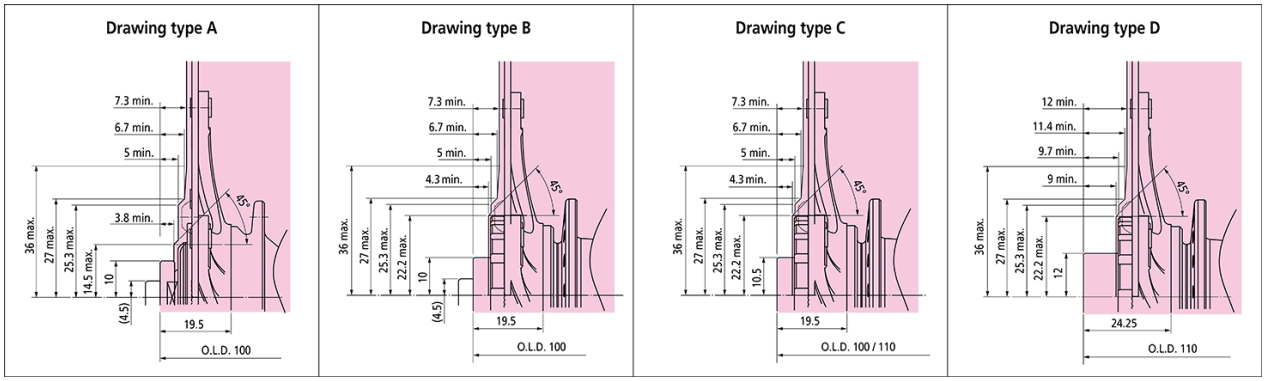


The dimensions of SHIMANO disc brake hub and rotor are shown below.
There are 4 types of dimensions depending on hub and rotor spec combination.
Please verify that fork dimensions will not cause interference with disc brake rotor and hub.

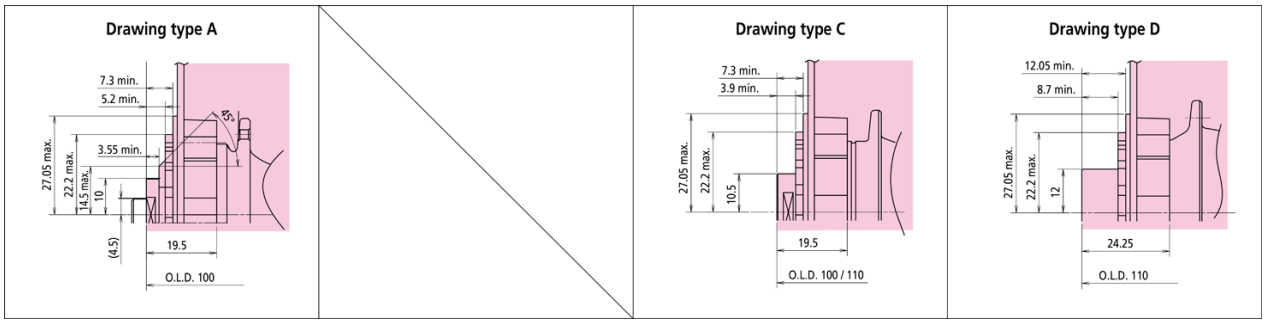
| Fork Type | | | QR | | 12 mm E-THRU | 15 mm E-THRU (O.L.D.: 100 mm) | 15 mm E-THRU (O.L.D.: 110 mm) | 20 mm E-THRU (O.L.D.: 110 mm) |
|---|---|---|---|---|---|---|---|---|
| Hub spec. | Axle diameter | | QR (9) | QR (9) | 12 | 15 | 15 | 20 |
| | Thru axle | | - | - | X | X | X | X |
| | O.L.D. | | 100 | 100 | 100 | 100 | 110 | 110 |
| Rotor spec. (fixation) | 6-bolt | | X | - | - | X | X | X |
| | CENTER LOCK | Internal serration | X | - | X | - | - | - |
| | | Internal & External serration (SM-RT10 type) | - | X | - | - | - | - |
| | | External serration | - | - | - | X | X | X |
| Drawing type | | | A | B | A | C | C | D |

X: Yes

: Disc brake rotor / hub product area from hub fixing position



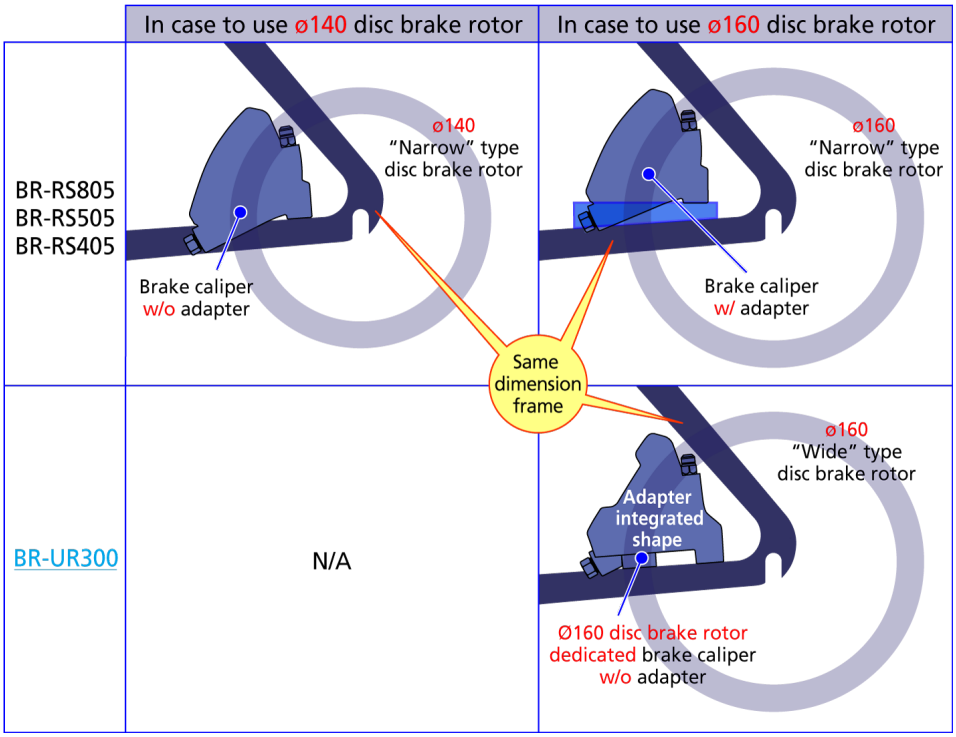

## SM-RTAD05



# Frame adaption of rear brake caliper



All combinations of disc brake rotors and brake calipers compatible with one frame (rear triangle) dimension.

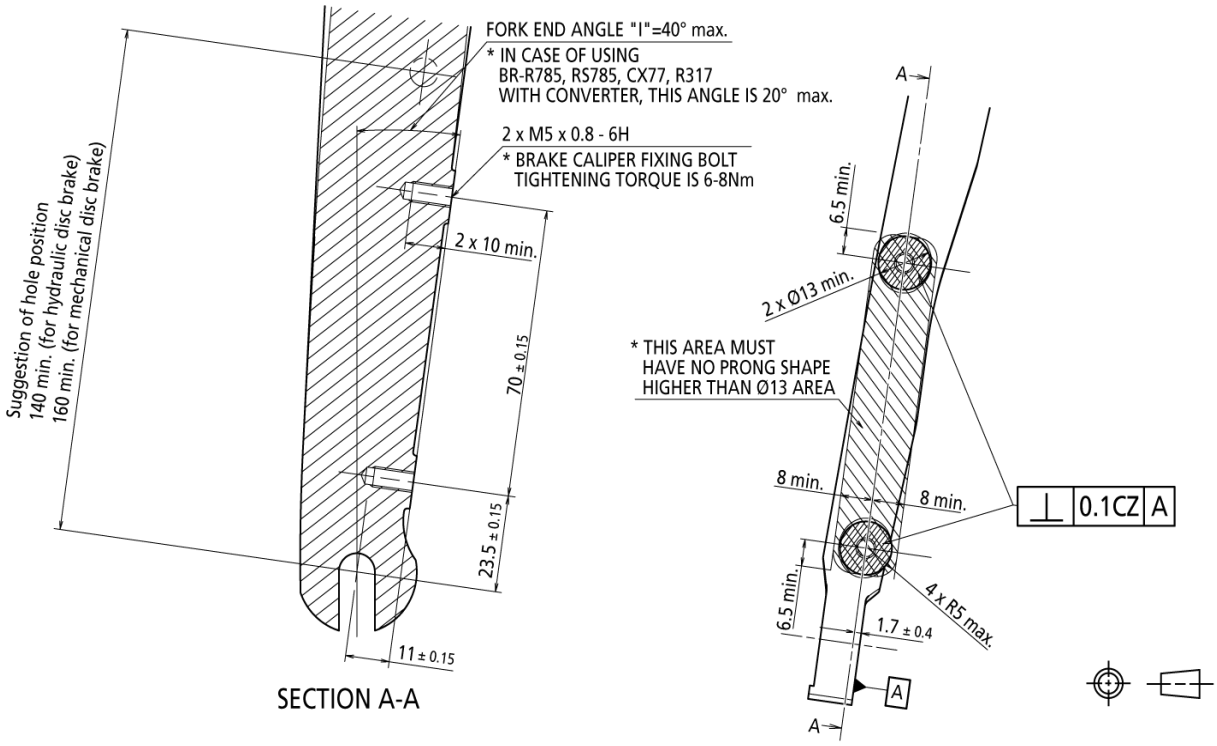


# Flat mount

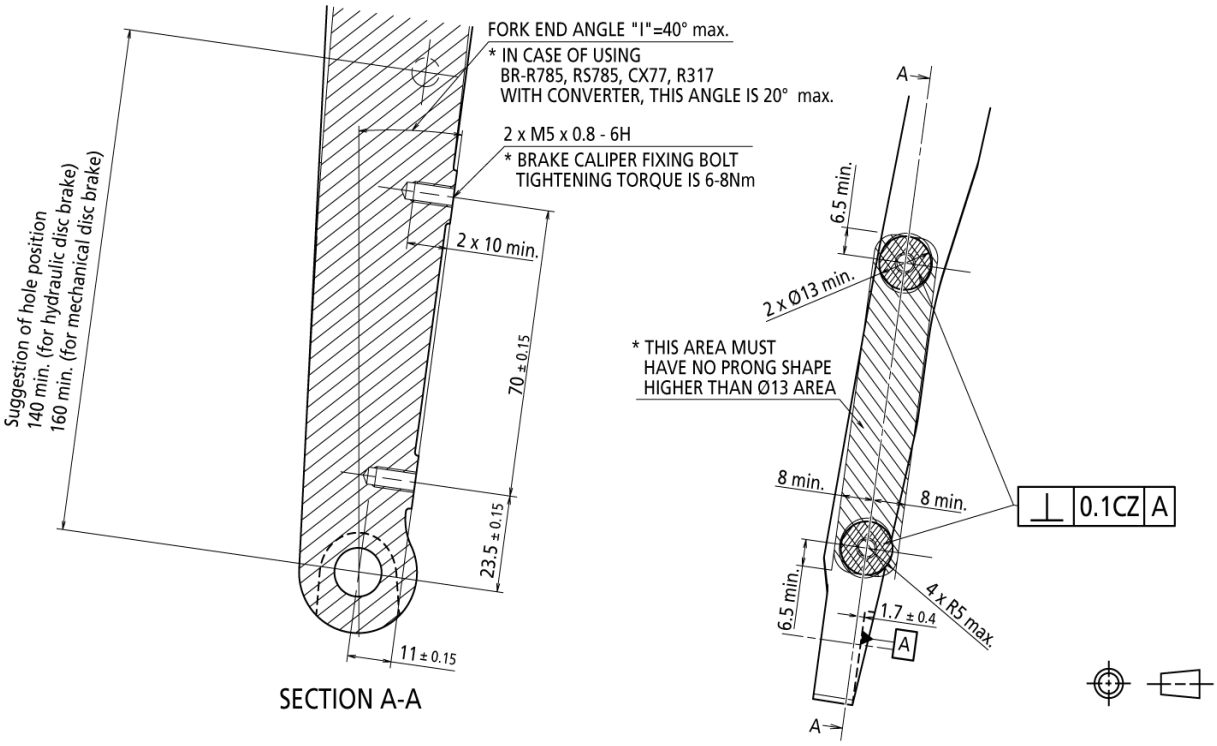
C-078

## FRONT MOUNT for ø140 and ø160 disc brake rotor (for bracket of flat mount caliper) C-079

### QR type




### 12mm E-THRU type

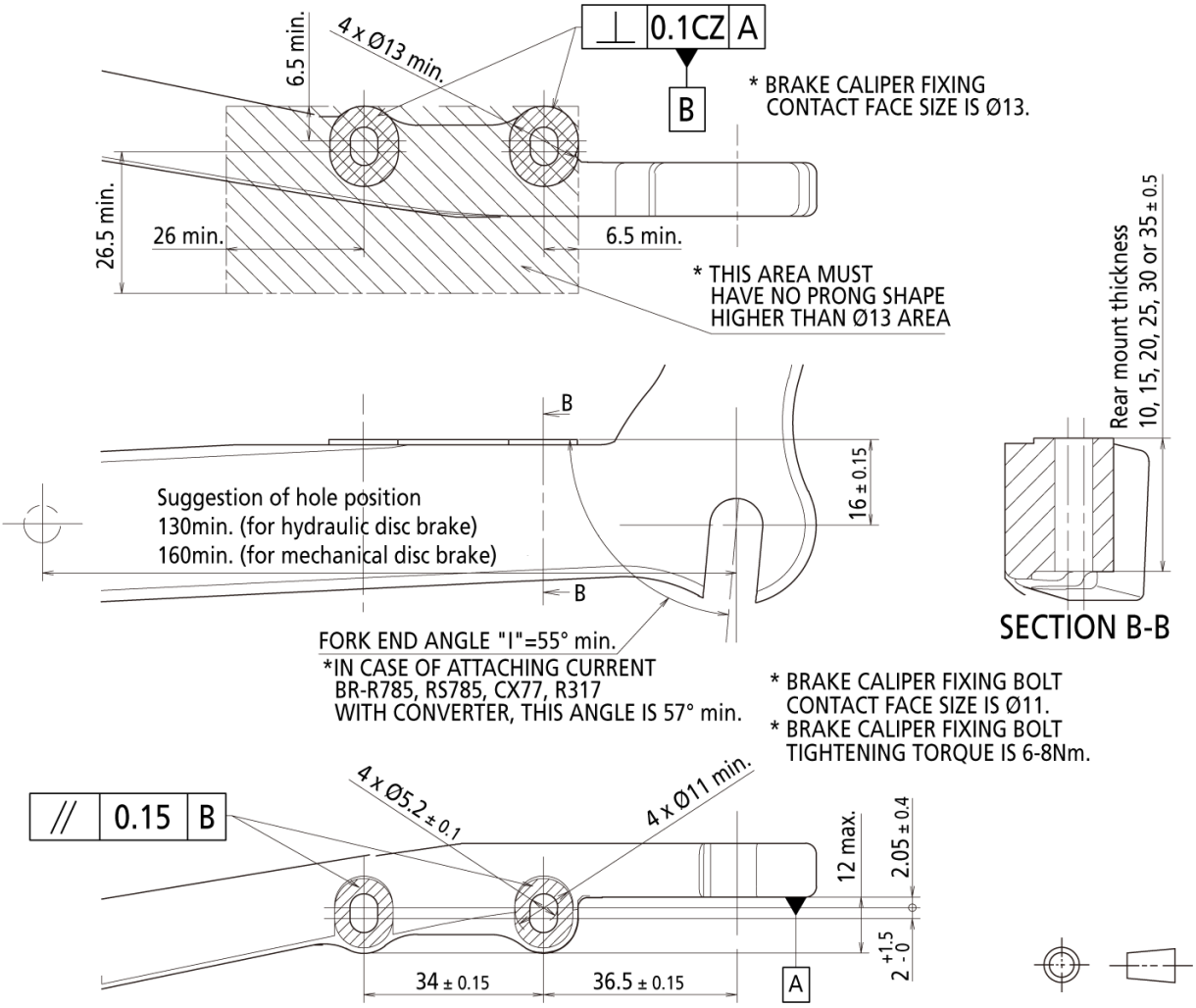



**NOTE**

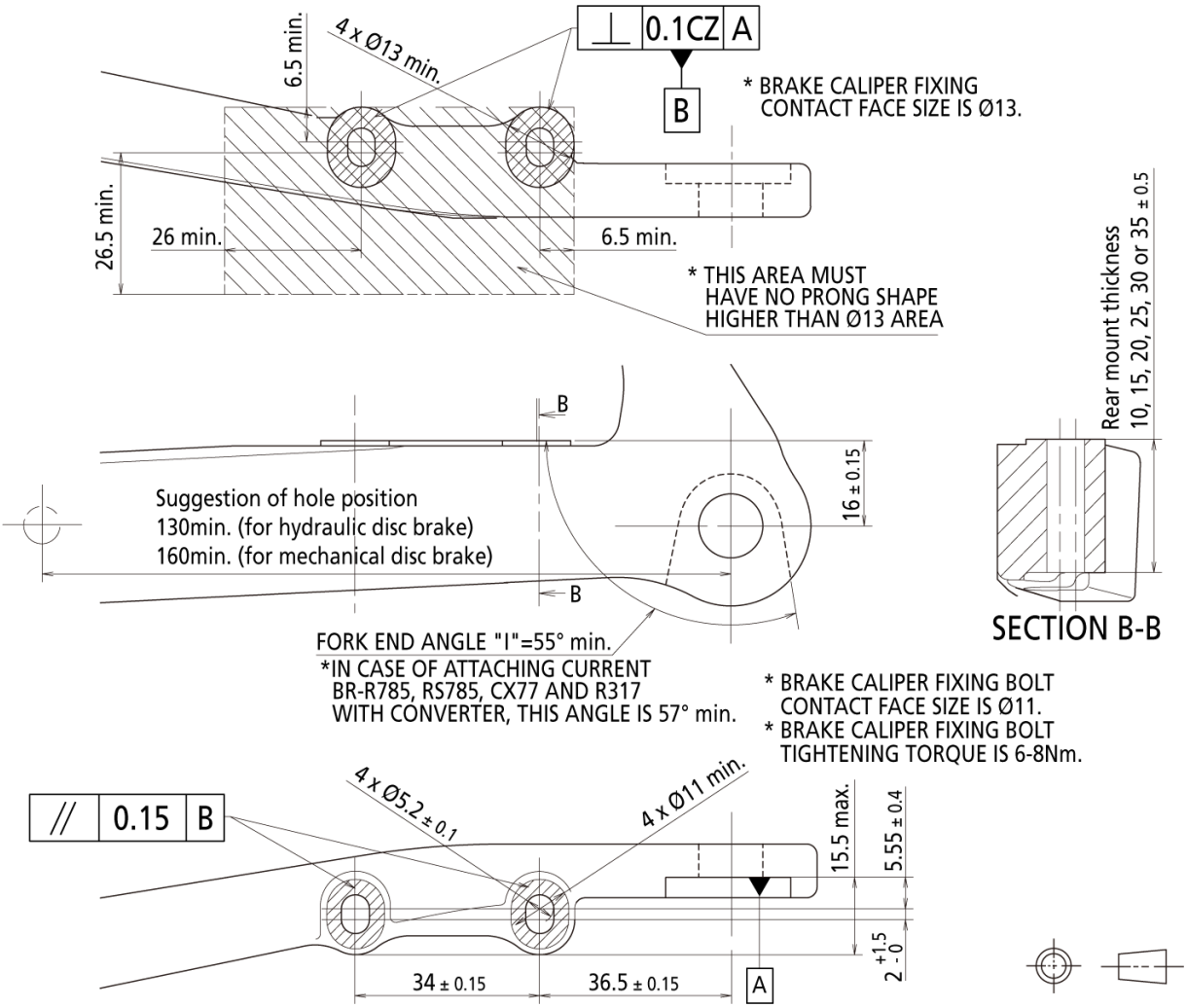
- BR-UR300 is compatible only with 160 mm disc brake rotor.
- BR-UR300 doesn't need front mount bracket and rear adapter.

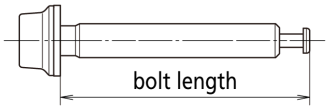
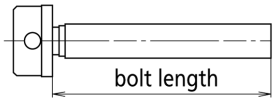
# REAR MOUNT for ø140 disc brake rotor (ø160 rotor compatible w/adapter) C-080

**QR type**



## 12mm E-THRU type




| Rear mount thickness (mm) | | 10 | 15 | 20 | 25 | 30 | 35 |
|---|---|---|---|---|---|---|---|
| Fixing bolt length | Flat mount fixing bolt length (mm)   | 23.2 | 28.2 | 33.2 | 38.2 | 43.2 | 48.2 |
| | Converter fixing bolt length (mm)   | 16.8 | 28.2 | 26.8 | 31.8 | 36.8 | 41.8 |

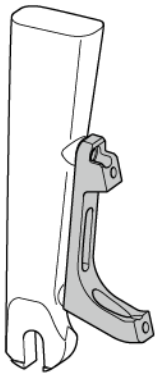
**NOTE**

- Please check in advance with the bicycle manufacturer or supplier in regards to the influence of heat generated by the disc brake on performance and quality, such as the strength of the frame, under actual usage conditions.
  The heat generated when braking differs depending on the brake, brake boss, and other factors; however, in tests carried out under conditions set by SHIMANO, it has been confirmed that the temperature of the frame mount reaches up to 120°C.
- BR-UR300 is compatible only with 160 mm disc brake rotor.
- BR-UR300 doesn't need front mount bracket and rear adapter.

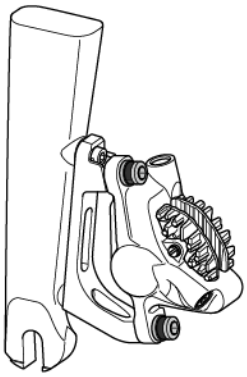
# Installation of the converter for flat mount

C-081

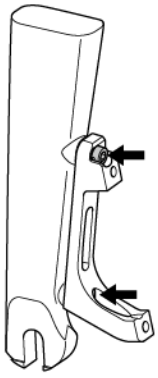
## FRONT MOUNT for ø140 and ø160 disc brake rotor C-082



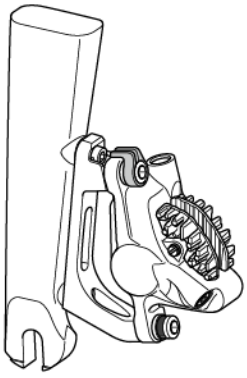
Installation of the converter.



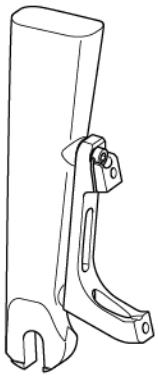
Adjustment of the alignment of the brake caliper to the disc brake rotor, and securing the brake caliper.



Securing the converter.

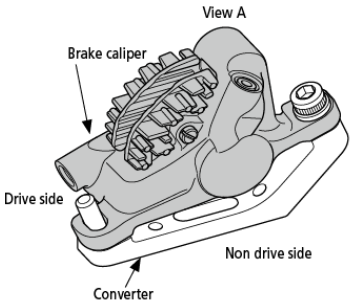


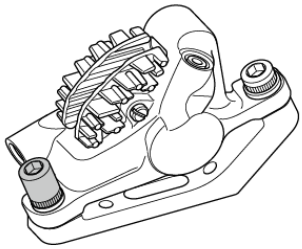
Securing the snap retainers.



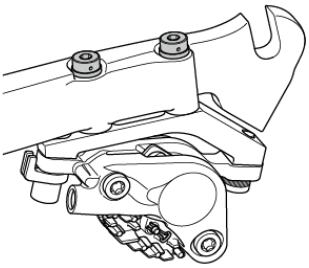
Installation of the wire.

# REAR MOUNT for ø140 disc brake rotor C-083

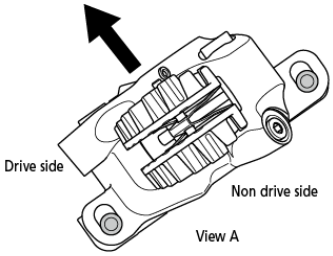


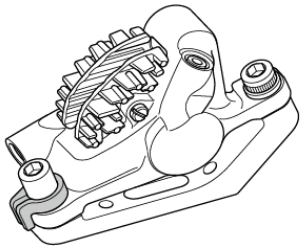
Installation of the brake caliper fixing nut



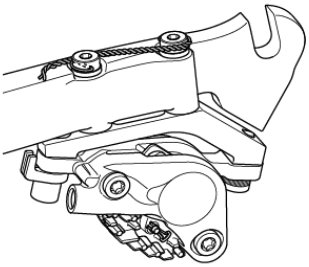
Adjustment of the alignment of the brake caliper to the disc brake rotor, and securing the brake caliper.



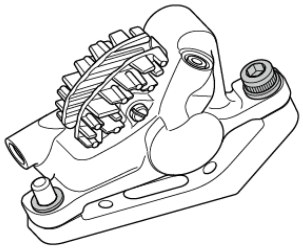

Installation of the brake caliper and converter
Bring the brake caliper to the drive side.



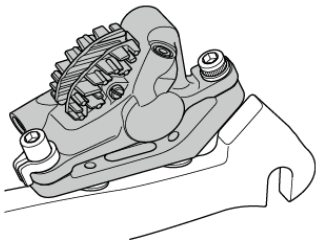
Installation of the snap retainer



Installation of the wire

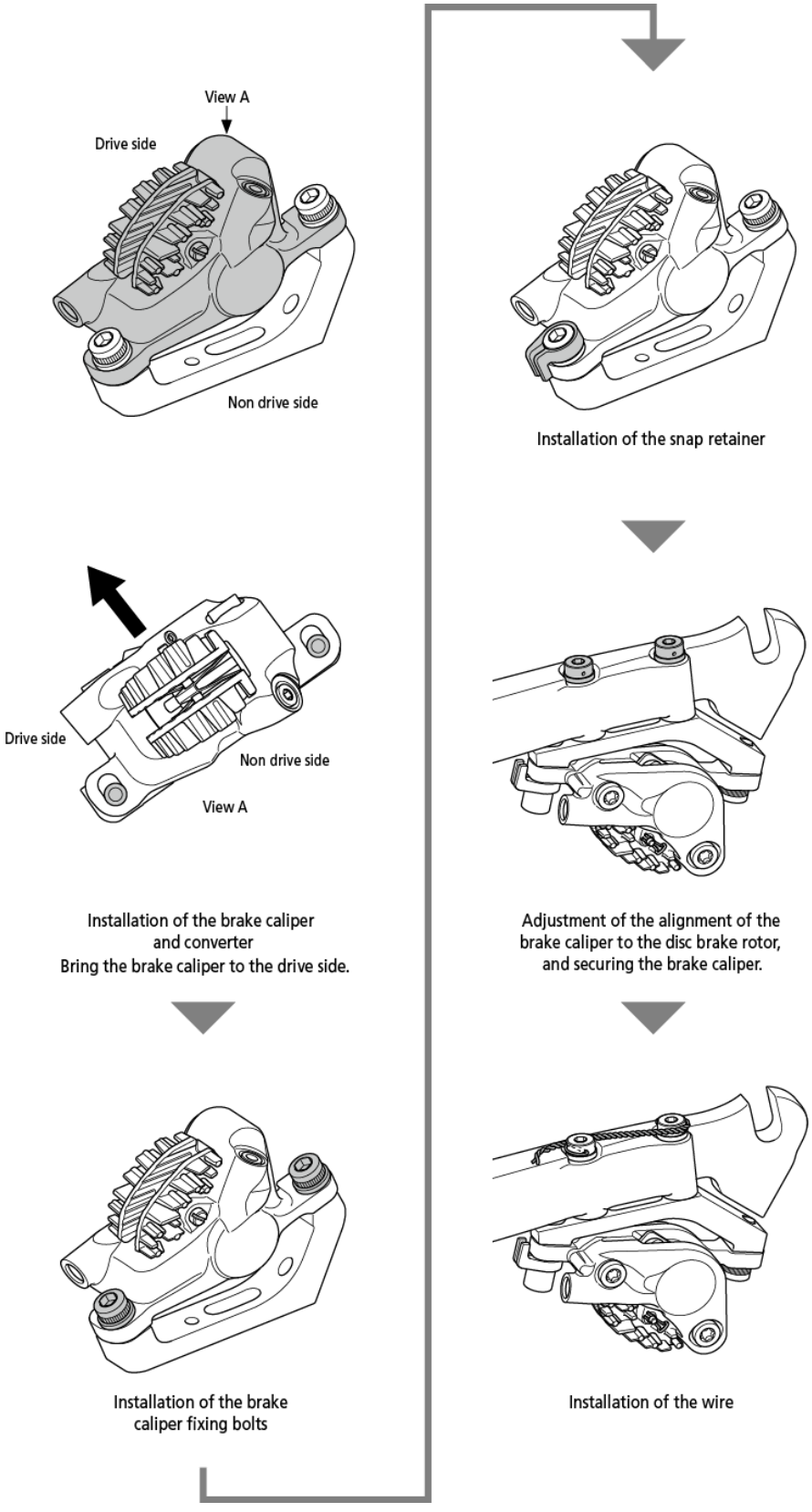


Installation of the brake caliper fixing bolt and washers



Installation of the brake caliper

# REAR MOUNT for ø160 disc brake rotor C-084



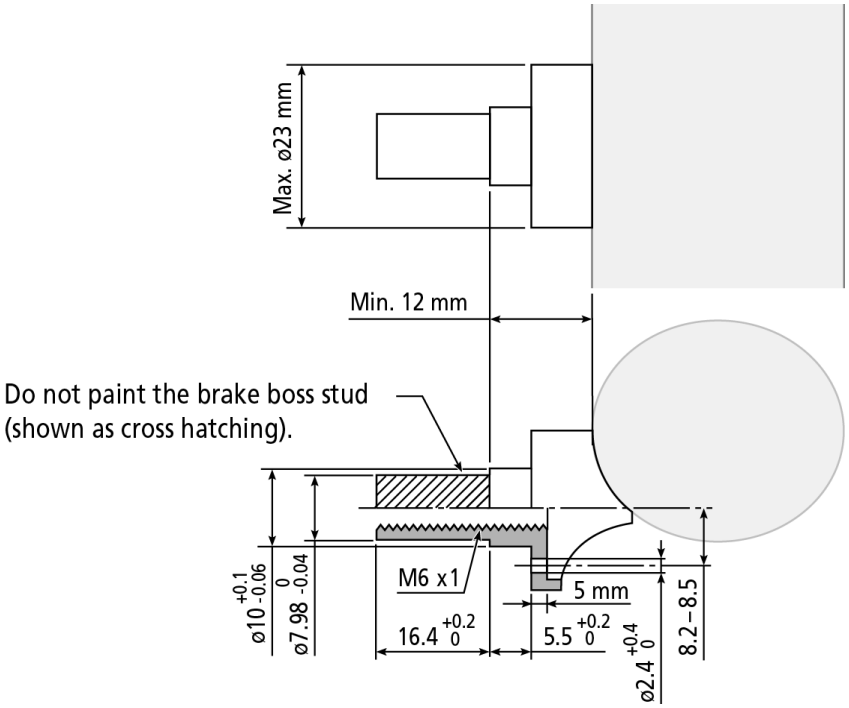

# Compatibility between brake caliper and caliper mount C-476

| | Current Brake Caliper | Brake Caliper for flat mount |
|---|---|---|
| Post mount | X | – |
| Flat mount | X (with converter) | X |

X: compatible

## Boss dimensions C-086

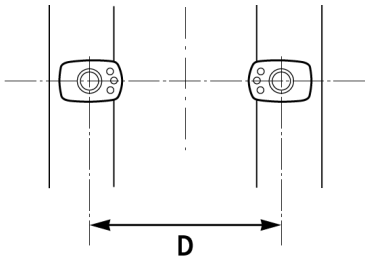
The SHIMANO brakes (V-BRAKE and cantilever brake) are designed for use with brake bosses having the dimensions shown below.
If SHIMANO brakes are used with bosses that do not meet to the dimensions given below, the braking performance may be adversely affected.




## Distance between brake bosses C-087

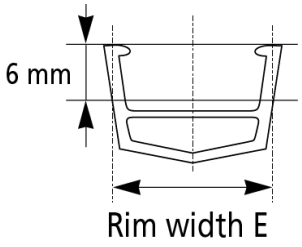
### Boss distance C-088

Dimension D between brake bosses may change depending on rim width.



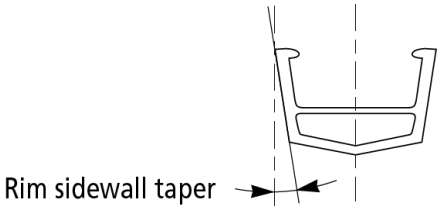

### Rim width C-089

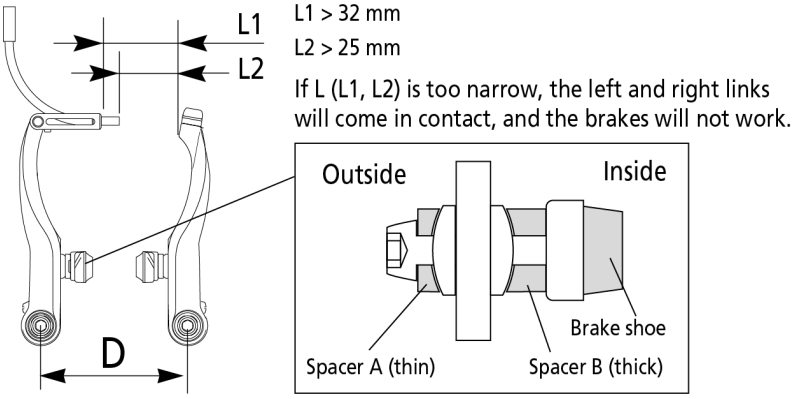
The width at a point 6 mm from the top of the rim.



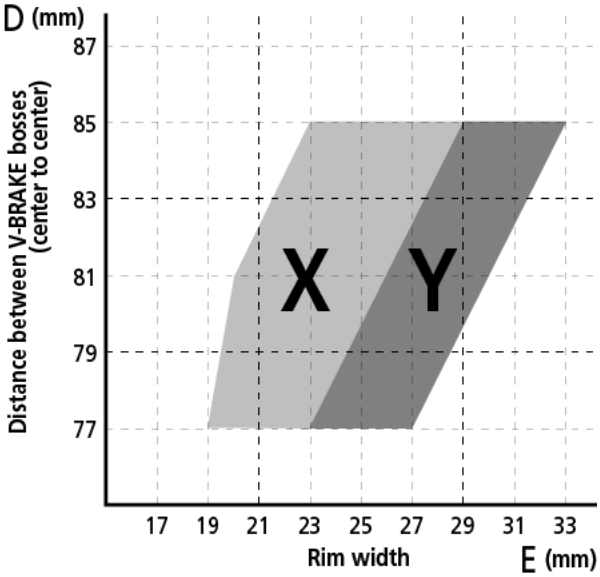
# Rim sidewall taper C-090

SHIMANO brakes are designed for rims having a sidewall taper of from -3 to +9 degrees.




If L (L1, L2) is too narrow, the left and right links will come in contact, and the brakes will not work.



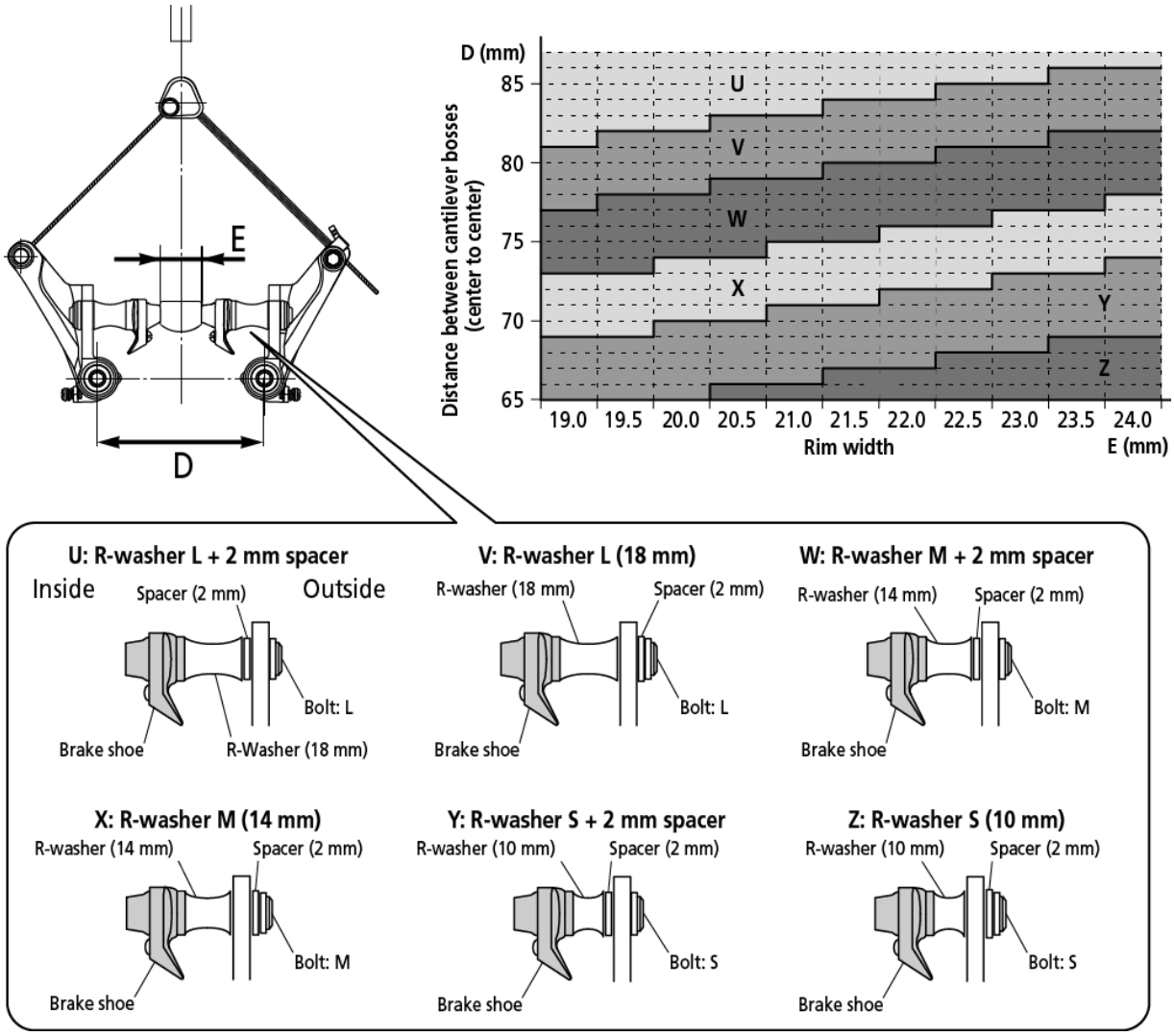

| Spacer A position | Spacer B position | Graph area |
|---|---|---|
| Outside | Inside | X area |
| Inside | Outside | Y area |

**NOTE**

- As with normal cantilever brakes, the SHIMANO V-BRAKE is designed for installation on frames with a 80 mm distance between bosses (center to center). Please refer to the graph for suitable rim width and boss distance combinations. If the brakes are used in conditions outside what is recommended, the brake performance may be adversely affected.
- Some rim width and boss combinations may require the reversal of A and B spacers in order to obtain the required L1 and L2 dimensions.
- If the L dimensions of the frame are too large, interference may be created between the riders legs and the brakes.
- To specify optimum set up and obtain the required minimum dimension L, refer to the graph above and the table below relating to boss distance, rim width, and spacer positioning.

**BR-CX50**

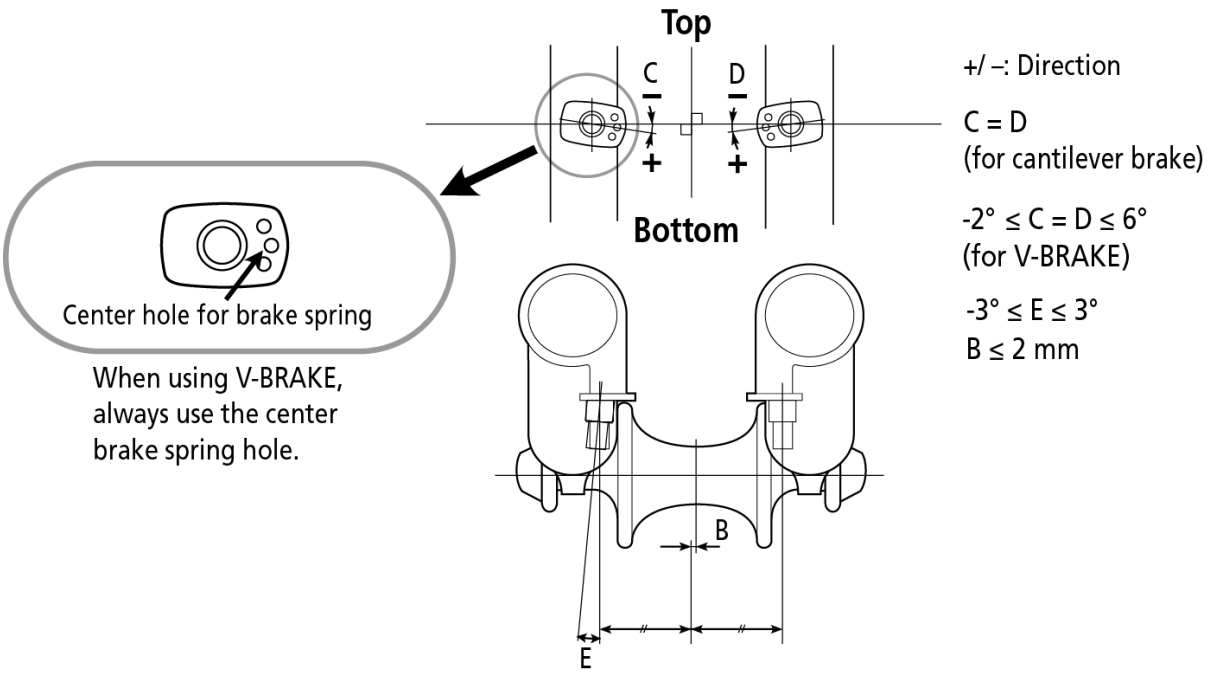
Please refer to the graph for suitable rim width and boss distance combinations. If the brakes are used in conditions outside what is recommended, the brake performance may be adversely affected.



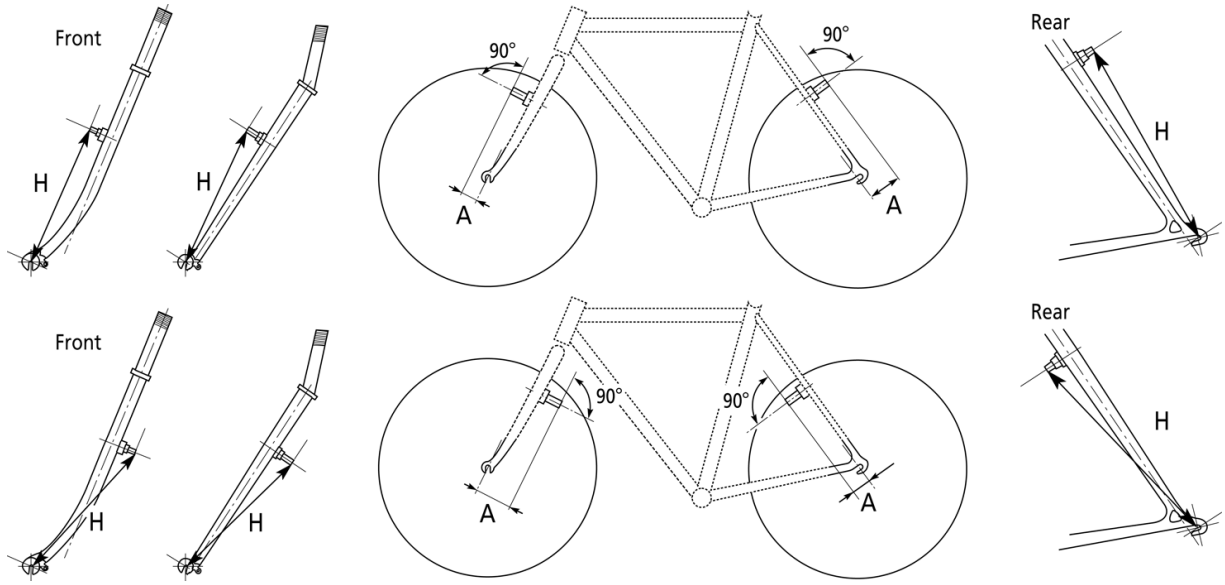
# Boss positioning C-091

Brake bosses for use with SHIMANO brakes should be positioned within the ranges shown in the diagrams below.
Notice that there is a slight difference in installation between normal cantilever brakes and V-BRAKES.

## Brake boss positions C-092



# Frame mounting height for brake bosses C-093




H: the distance between hub axle center and brake boss center.
A: the height of the brake boss measured from hub axle center.

## V-BRAKE

| | H | A |
|---|---|---|
| ISO 5775 #559 (old marking 26 inch) | 253.5 ± 1 mm | -8 mm ≤ A ≤ 70 mm |
| ISO 5775 #584 (for 650B) | 264 ± 1 mm | -8 mm ≤ A ≤ 70 mm |
| ISO 5775 #622 (old marking 700C, 28 inch) | 283 ± 1 mm | -8 mm ≤ A ≤ 70 mm |
| ISO 5775 #630 (old marking 27 inch) | 286 ± 1 mm | -8 mm ≤ A ≤ 70 mm |

## Cantilever brake

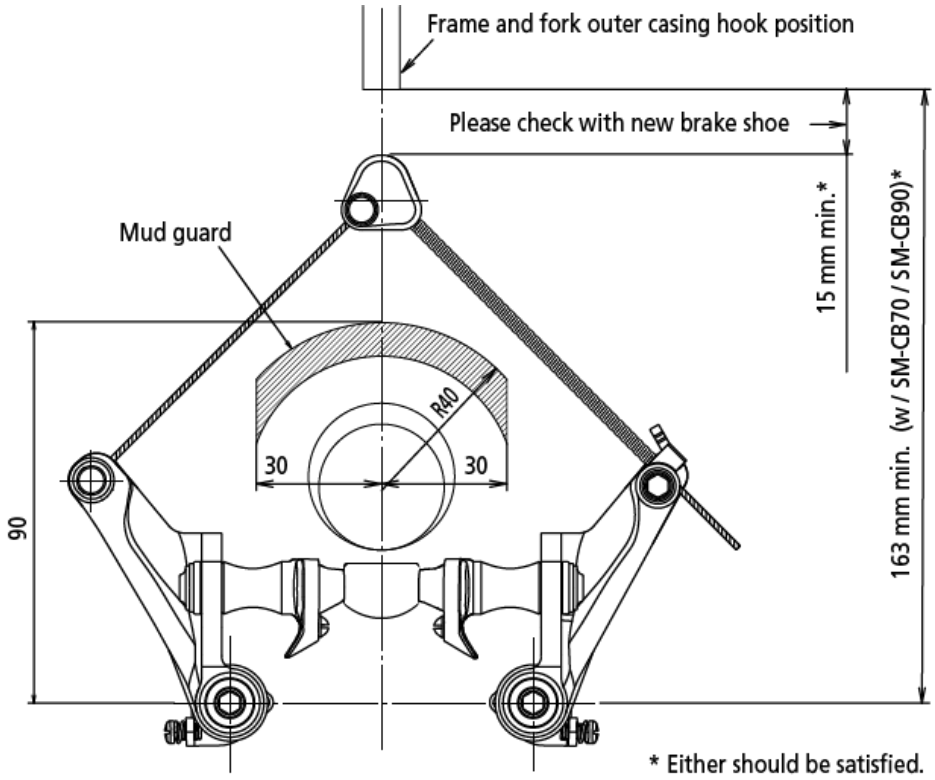
| | H | A |
|---|---|---|
| ISO 5775 #559 (old marking 26 inch) | 253.5 ± 1 mm | -8 mm ≤ A ≤ 70 mm |
| ISO 5775 #571 (for 650C) | 258 ± 1 mm | -8 mm ≤ A ≤ 70 mm |
| ISO 5775 #622 (O.L.D. marking 700C, 28 inch) | 283 ± 1 mm | -8 mm ≤ A ≤ 70 mm |
| ISO 5775 #630 (old marking 27 inch) | 286 ± 1 mm | -8 mm ≤ A ≤ 70 mm |

**NOTE**

- Be careful about the cable routing to prevent inner lead interfering with the frame when steering the handlebar.
- Be careful about the direction of the brake shoe in case cartridge shoe is used.

# Frame and fork outer casing hook position C-094

**BR-CX50**

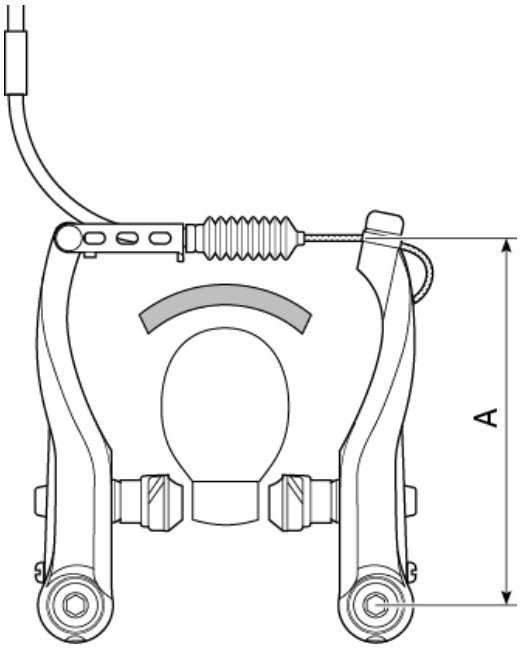



Recommendation
Rim width 19 - 22 mm
Tire width 19C - 35C
Mud guard - 30C (tire)
Distance between brake boss 65 - 85 mm

# Length of V-BRAKE arch

C-096

The length of the brake link for the model below has been increased from 103 mm to 107 mm in order to reduce interference with the mudguard, light and carrier stay.
The result of this is that the part is 4 mm higher than previous parts, so take care to ensure that it does not interfere with other parts.



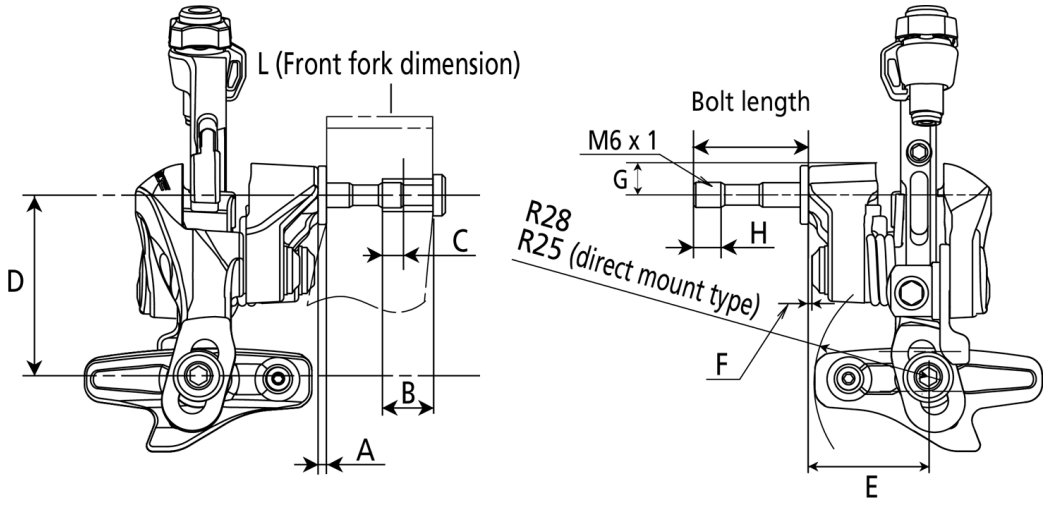

| Model No. | Arch length A (mm) |
|---|---|
| BR-T780 | 103 |
| BR-T610 | 107 |
| BR-T4010 | 107 |
| BR-T4000 | 107 |
| BR-MX70 | 103 |
| BR-R353 | 90 |

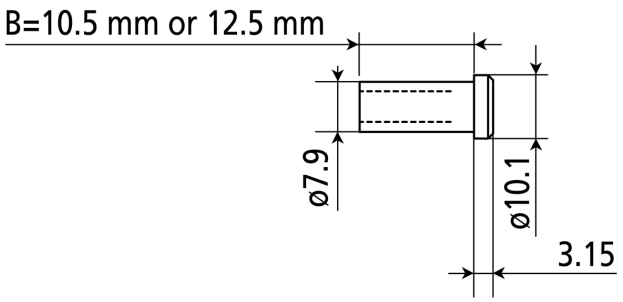
## Caliper brake dimensions C-098

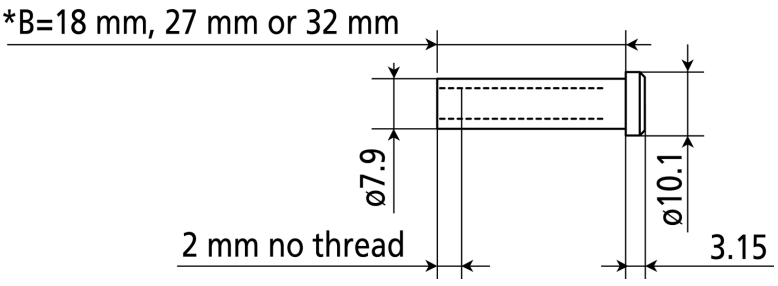
Securely tighten the caliper brake mounting nuts to the specified tightening torque.

- Use lock nuts with nylon inserts (self-locking nuts) for nut type brakes.
- For sunken nut type brakes, use sunken nuts of the appropriate length (C) which can be turned 5 times or more
  (over 5 mm); when re-installing, apply sealant (locking adhesive) to the nut threads.

If the nuts become loose and brakes fall off, they may get caught up in the bicycle and the bicycle may fall over.
Particularly if this happens with the front wheel, the bicycle may be thrown forward and serious injury could result.



| Model No. | Washer A (mm) (Front / Rear) | Dimension B (mm) | | D (mm) | E (mm) | F (mm) | G (mm) | Bolt length | | H (mm) | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | Front | Rear | | | | | Front | Rear | Front | Rear |
| BR-R9100 | 1.8 | 10.5<br>12.5<br>18.0*<br>27.0*<br>32.0* | 10.5 | 41 - 51 | BR-R9100 : 27.3 - 29.9<br>BR-9000 : 27.1 - 30.1 | 1.0 | 8.7 | 27.5 | 12.8 | 9.0 | 7.7 |
| BR-9000 | | | | 39 - 49 | | 0.6 | 7.7 | | | | |
| BR-R9110-F | – | NOTE | | 24-34 | 14.2 - 15.4 | – | – | – | – | – | – |
| BR-R9110-R | | | | 26-34 NOTE | 27.1 | | | | | | |
| BR-R9110-RS | | | | 24-34 | 14.2 - 15.4 | | | | | | |
| BR-9010-F | – | NOTE | | 25-34 NOTE | 14.2 - 15.4 | | – | – | – | – | – |
| BR-9010-RS | | | | 25-34 NOTE | 14.2 - 15.4 | | | | | | |
| BR-R8000 | 2.0 | 10.5<br>12.5<br>18.0*<br>27.0*<br>32.0* | 10.5 | 41 - 51 | 27.3 - 29.9 | 1.0 | 8.7 | 27.5 | 12.8 | 16.0 | 10.3 |
| BR-R7000 | | | | | | 0.4 | 10.3 | | | | |
| BR-4700 | | | | | 25.4 - 28.0 | – | 9.4 | | | 15.5 | 9.8 |
| BR-R8010-F | – | NOTE | | 24-34 | 14.1-15.4 | | – | – | – | – | – |
| BR-R8010-R | | | | 26-34 NOTE | 27.1 | | | | | | |
| BR-R8010-RS | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-R7010-F | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-R7010-R | | | | 26-34 | 29 | | | | | | |
| BR-R7010-RS | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-5810-F | | | | 25-34 NOTE | 14.2-25.4 | | | | | | |
| BR-5810-R | | | | 26-34 NOTE | 29,<br>w/o ADAPTER : 27.3 | | | | | | |
| BR-5810-RS | | | | 25-34 NOTE | 14.2-15.4 | | | | | | |
| BR-R561 | 2.0 | 10.5<br>12.5<br>18.0*<br>27.0*<br>32.0* | 10.5 | 39 - 49 | 26.3-29 | | 9.4 | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R3000 | 2.0 | 10.5<br>12.5<br>18.0<br>27.0<br>32.0 | | 41 - 51 | 25.4-28.0 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R2000 | 2.0 | 10.5<br>12.5<br>18.0<br>27.0<br>32.0 | | 41 - 51 | 25.4-28.0 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R650 | 2.0 | 10.5<br>12.5<br>18.0* | | 47 - 57 | 26.8-29.5 | | 11.3 | 27.5 | 12.8 | 15.5 | 9.8 |
| | | | | | | | | 47 | 30 | 18 | 18 |
| BR-R451 | 2.0 | 27.0* | | | | | | 27.5 | 12.8 | 15.5 | 9.8 |

| Nut length B (mm) | Front fork dimension L (mm) | |
|---|---|---|
| | Min. | Max. |
| 10.5 | 28.8 | 29.2 |
| 12.5 | 29.2 | 30.8 |
| 18.0 | 29.7 | 34.1 |
| 27.0 | 38.3 | 43.0 |
| 32.0 | 43.3 | 48.0 |

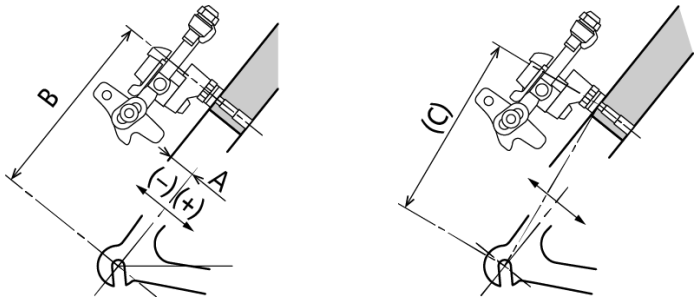
**NOTE**

Please refer to C-102, C-103, C-104, C-105.

# Caliper brake location

C-099

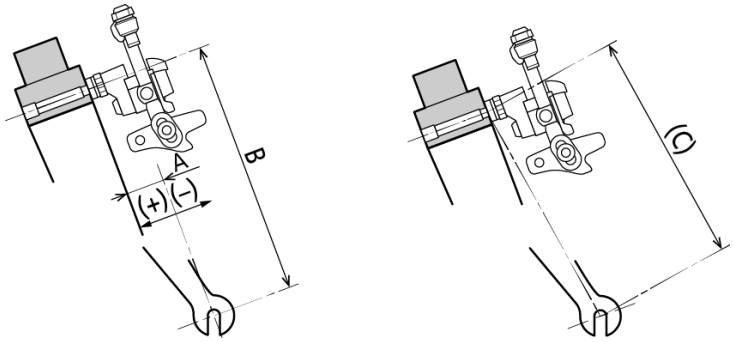
## Rear brake C-100




| A | *B + 3.0 / -1.0 | C (reference) |
|---|---|---|
| ** -30 | 348.9 | 350.2 |
| ** -20 | 350.7 | 351.3 |
| -10 | 352.3 | 352.4 |
| 0 | 353.4 | 353.4 |
| 10 | 354.3 | 354.4 |
| 20 | 354.8 | 355.4 |
| 30 | 355.0 | 356.3 |
| 40 | 354.9 | 357.1 |
| 50 | 354.4 | 357.9 |

* In case of BR-R9100 / BR-9000: B ± 1.0
** Not applicable to BR-R9100.

## Front brake C-101




| A | *B + 3.0 / -1.0 | C (reference) |
|---|---|---|
| ** -30 | 348.9 | 350.2 |
| ** -20 | 350.7 | 351.3 |
| -10 | 352.3 | 352.4 |
| 0 | 353.4 | 353.4 |
| 10 | 354.3 | 354.4 |
| 20 | 354.8 | 355.4 |
| 30 | 355.0 | 356.3 |
| 40 | 354.9 | 357.1 |
| 50 | 354.4 | 357.9 |

* In case of BR-R9100 / BR-9000: B ± 1.0
** Not applicable to BR-R9100.

**NOTE**

B,C dimension changes by size of caliper brake or wheel.
49 type caliper brake W / 650C rim (ISO xx-571)
B and C on the table should be taken off 27.6 mm.

57 type caliper brake W / 700C rim (ISO xx-622) B and C on the table should be added with 8.0 mm.

57 type caliper brake W / 650C rim (ISO xx-571) B and C on the table should be taken off 17.6 mm.

# Direct mount type caliper brake

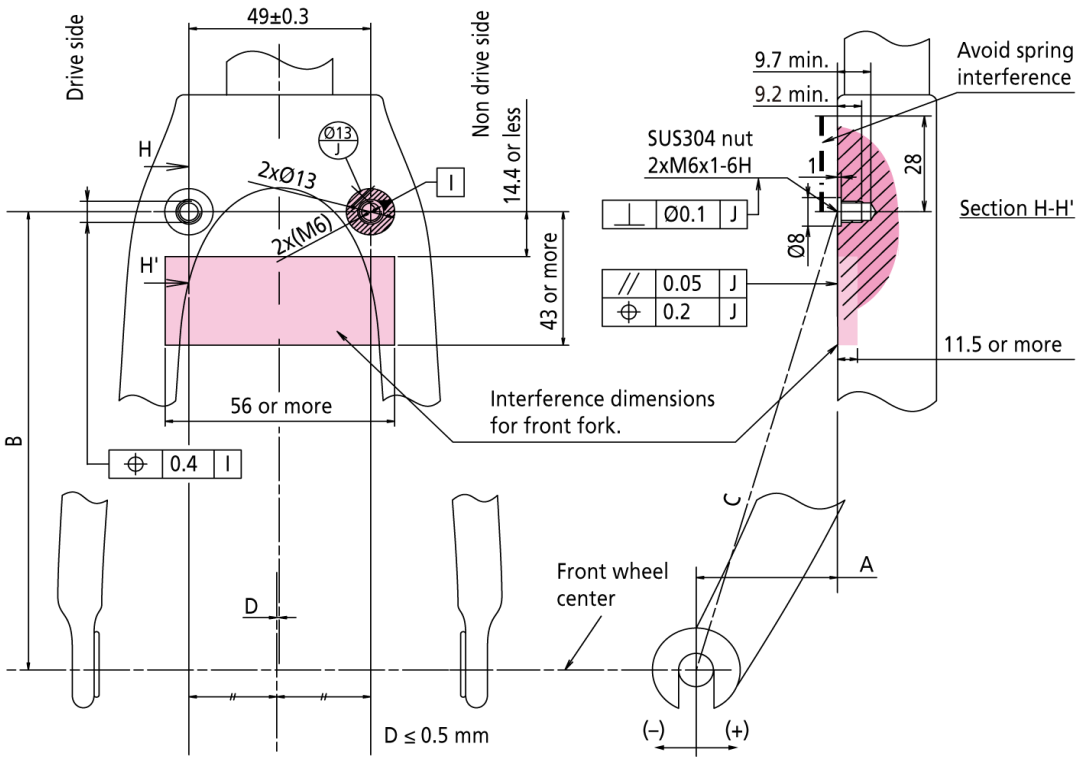


| Mounting location | | Model No. |
|---|---|---|
| For front | Front fork | BR-R9110-F<br>BR-9010-F<br>BR-R8010-F<br>BR-5810-F<br>BR-R7010-F |
| For rear | Under bottom bracket | BR-R9110-R<br>BR-R8010-R<br>BR-R7010-R<br>BR-5810-R |
| | Seat stay | BR-R9110-RS*<br>BR-9010-RS*<br>BR-R8010-RS*<br>BR-R7010-RS *<br>BR-5810-RS* |

* Only for back side of rear seat stay.
-Do not install at under bottom bracket or at front side of seat stay.

# Front fork mount type C-103

## BR-R9110-F / BR-9010-F / BR-R8010-F / BR-R7010-F / BR-5810-F

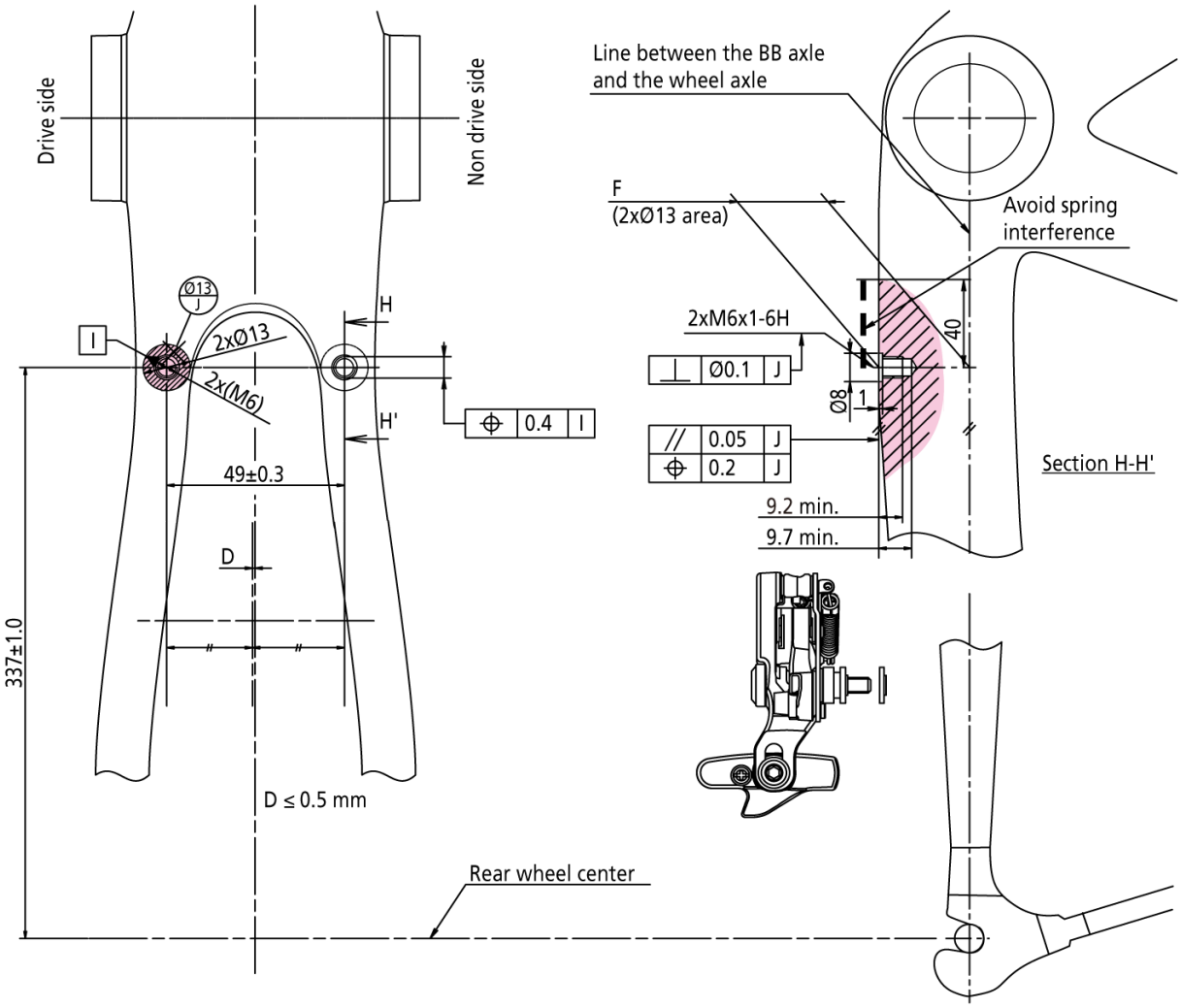



| Direct mount for 700C | | |
|---|---|---|
| Front | | |
| A (mm) | B ±1 (mm) | C (mm) |
| * -30 | 333.3 | 334.7 |
| * -20 | 334.7 | 335.3 |
| -10 | 335.8 | 335.9 |
| 0 | 336.5 | 336.5 |
| 10 | 336.9 | 337.1 |
| 20 | 337.0 | 337.6 |
| 30 | 336.7 | 338.1 |
| 40 | 336.2 | 338.5 |
| 50 | 335.3 | 339.0 |

*Not applicable to BR-R9100.

# Under bottom bracket mount type for rear brake C-104

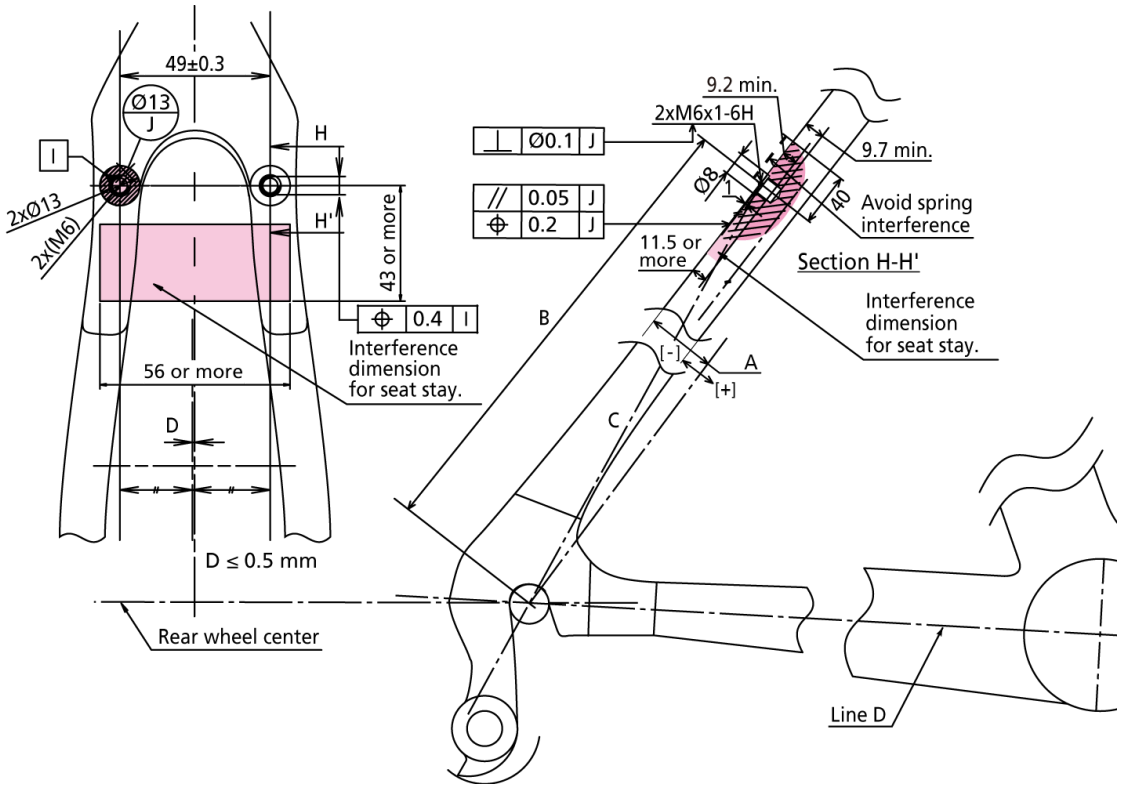
**BR-R9110-R / BR-R8010-R / BR-R7010-R / BR-5810-R**




| Model No. | Dim. F |
|---|---|
| BR-R9110-R | 25 +1/-5 |
| BR-R8010-R | 25 +1/-5 |
| BR-R7010-R | 25 +1/-5 |
| BR-5810-R (with washer) | 25 +1/-5 |
| BR-5810-R (without washer) | 25 +2.7/-5 |

# Rear seat stay mount type C-105

**BR-R9110-RS / BR-9010-RS / BR-R8010-RS / BR-R7010-RS / BR-5810-RS**




| Direct mount for 700C | | |
|---|---|---|
| Rear | | |
| A (mm) | B ±1 (mm) | C (mm) |
| *-30 | 333.3 | 334.7 |
| *-20 | 334.7 | 335.3 |
| -10 | 335.8 | 335.9 |
| 0 | 336.5 | 336.5 |
| 10 | 336.9 | 337.1 |
| 20 | 337.0 | 337.6 |
| 30 | 336.7 | 338.1 |
| 40 | 336.2 | 338.5 |
| 50 | 335.3 | 339.0 |

*Not applicable to BR-R9100.

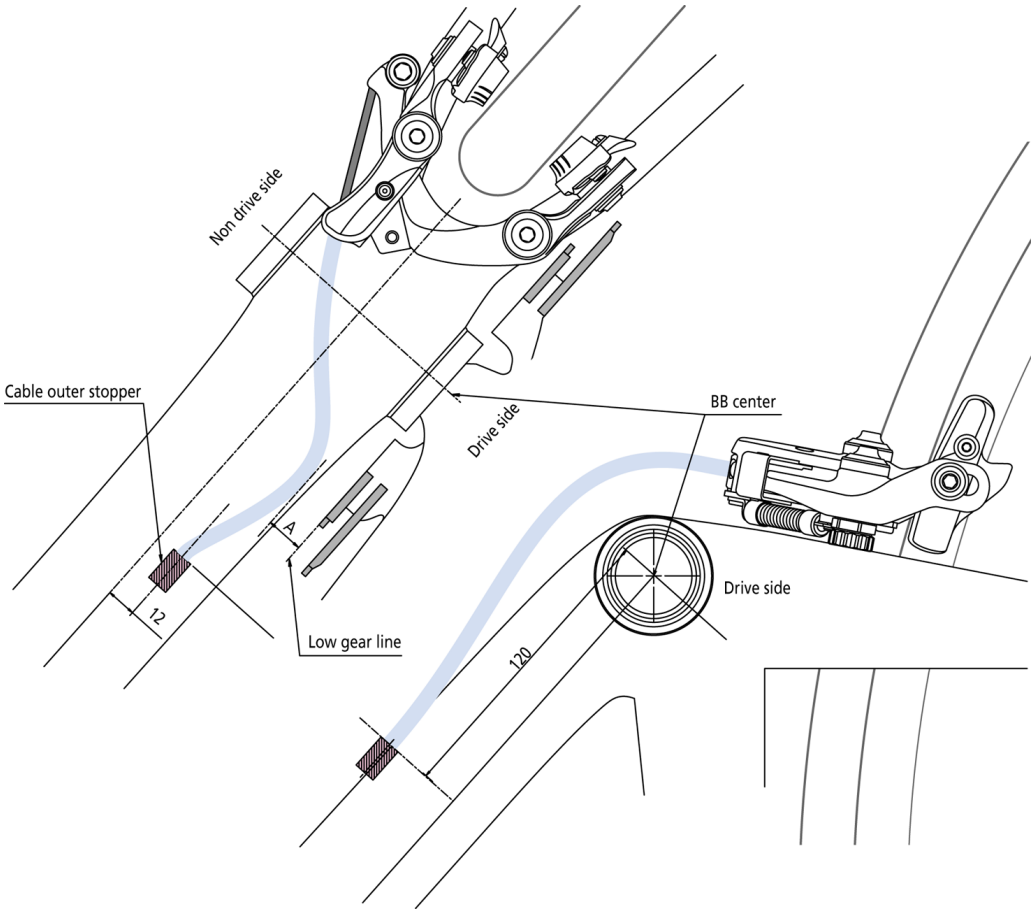
**NOTE**

Please check with bicycle / frame maker on brake mounting strength and accuracy.

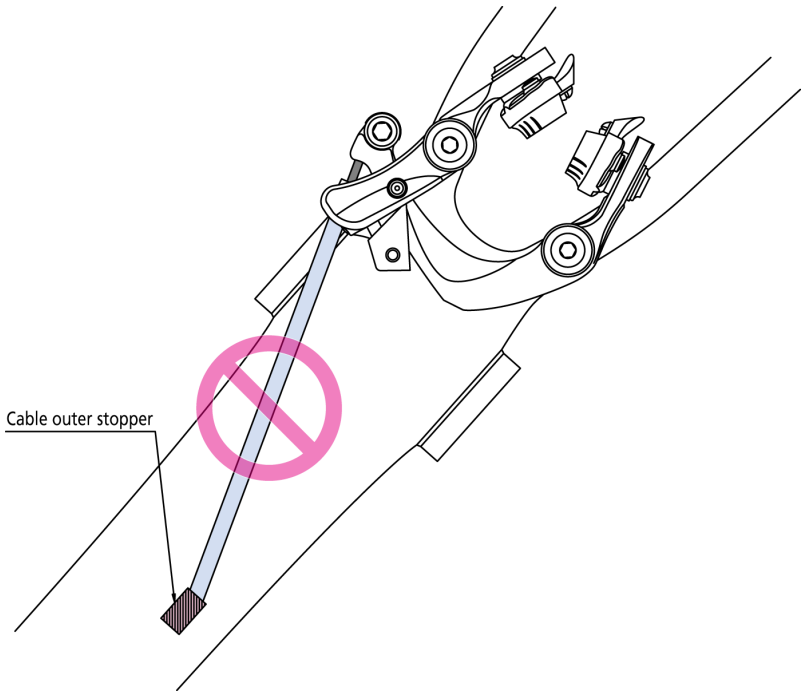
# Cable outer stopper positions for direct mount type rear caliper brake and proper outer casing length C-106

**BR-9110-R / BR-R8010-R / BR-R7010-R / BR-5810-R**

## When brake caliper fully open ... A ≥ 15mm




## When brake caliper fully close

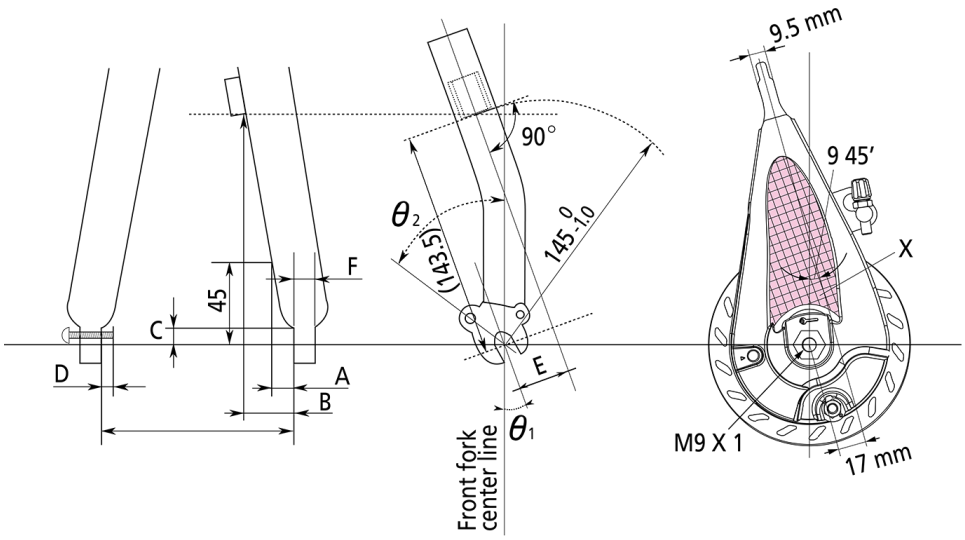


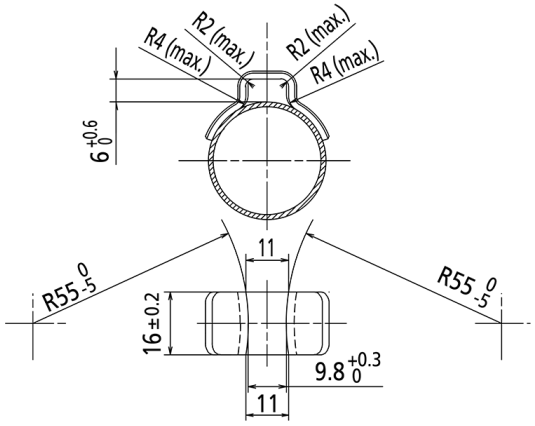

When caliper is fully closed without rear wheel, the length of brake outer casing should be long enough between cable outer stopper and caliper.

## Fork dimensions C-108

This brake basically attaches to the front fork in the same way as the conventional left side direct-connect hub brake. However, caution is required, so please refer to the diagrams below with regard to frame design.

The brake arm anchor boss (which is brazed on the fork) must be able to withstand a force of more than 3,700 N.




Recommended dimensions for the direct-connect hook

A ≤ 6.7

11 ≤ B ≤ 14.5

C ≥ 16: C is the straight section of fork end.

D: Mudguard and / or rack fasteners should not protrude beyond the inside face of the fork end.

E = 17, 6 30′ ≤ θ1 ≤ 13: The θ1 angle should be within the range given on the left. The basic dimensions of the brake are shown in the diagram at upper right. While the θ1 angle is recommended to be within the above range, there may be cases where the E dimension and this θ1 angle may have to be different from that shown above. In this case, establish the E and θ1 specifications according to your requirements but as close as possible to the dimensions given above.

θ2 < 45: θ2 is the mudguard screw position.

F ≥ 5: “F” is the fork end thickness. When the fork end thickness “F” is 4 mm to 6.5 mm, please use the quick release with 129 mm length. When “F” is 5 mm to 8.5 mm, please use 133 mm.

**CAUTION**

- The cross hatching area (shown as X) denotes the part of the brake body that is recessed in order to prevent interference with the fork. Use the fork center line (shown in the diagram above) as the reference point from which to establish the position of this recessed area.
- Use a fork that has axle retention tabs on the outside of fork ends.
- When using the hub roller brake with suspension forks, read C-111.

## Precautions when using front roller brake system with a suspension fork

C-111

Roller brake systems are hub brakes, and therefore apply a different type of braking stress to front forks than rim
brakes. Be aware of the precautions listed below if you are using a roller brake system with suspension front forks.

**NOTE**

- Braking forces are absorbed by the left side of the forks only.
  The position where the stress are applied is at L = 150 mm.
  (L is location of the mounting boss shown on the fig.(145 mm) plus an additional 5 mm.)
  The maximum braking load is 3700N.
- Long down hill braking will transfer brake generated heat directly to the fork leg.
  The hub lock nut can heat up form 70 to 90 °C above ambient temperature.
- The hub braking action will cause suspension forks to twist.
- Brake stresses are concentrated at the brake arm mounting point.
- Brake heat will be transferred to the oil of oil type suspension forks.
- Select a fork that is compatible with DIN standard hub brakes (EN norm).
- Be sure to mount the brake arm that receives the braking force securely so that it does not separate from the braze-on or band type anchor boss.
- Be sure to confirm the specification of the bicycle, confirm the purpose for which it will be used, perform the required quality assurance tests, and perform the necessary preliminary work before installation.

## Fork strength C-112

The hub roller brake was designed to be used with a fork that conforms to EN norm. Always verify that the fork you plan to use conforms to this standard.

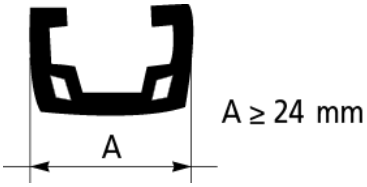
## Spoke lacing C-113

Use a wheel with 3x or 4x spoke lacing. Wheels with radial lacing cannot be used because the spokes and the wheel can be damaged when applying the brakes and brake noise can be generated.

# Rims used with the hub roller brake C-114

This brake applies braking force at the hub section, so compared to rim brakes, rim strength is required. Use the recommended rim types in the table below.

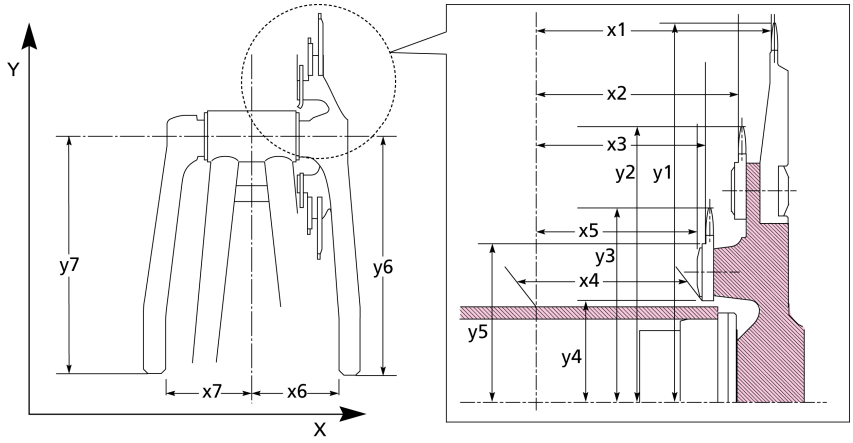
- Stainless rim and steel rim --- No requirement
- Aluminum 26-inch Rim --- No requirement
- Aluminum 27-inch and 700C (28 x 1-5/8 x 1-1/4) --- As below A



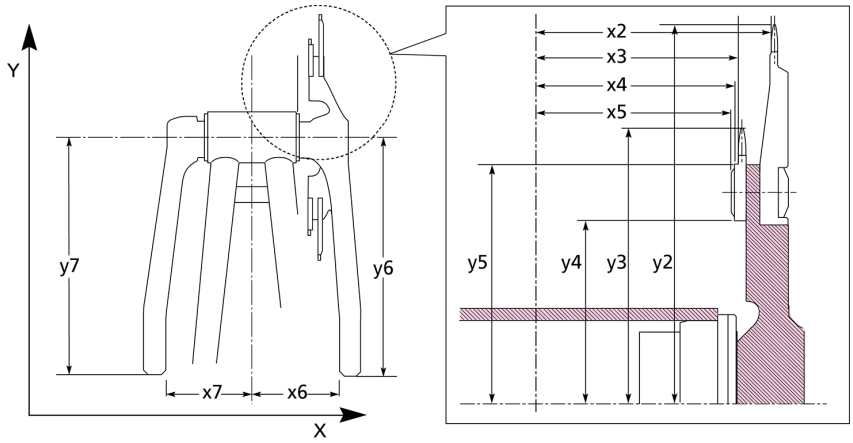
# Crankset dimensions [MTB] C-116

Below are the dimensions for the SHIMANO chainwheels.
Design the frame while referring to these dimensions to ensure no interference.

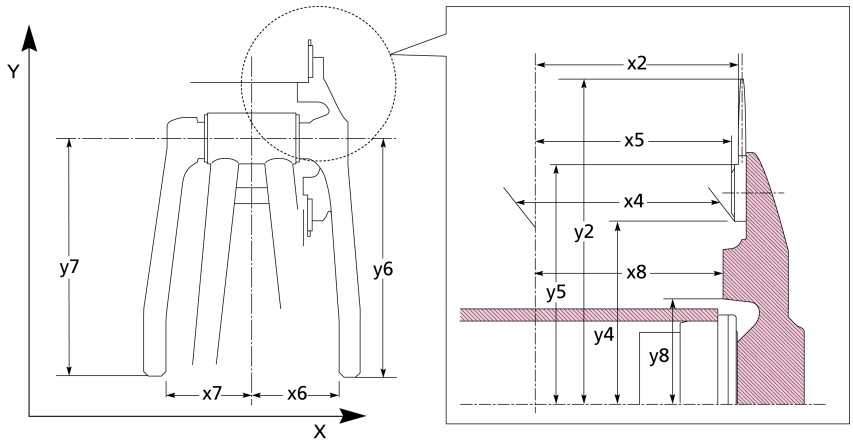
### Front triple




### Front double




### Front single




**NOTE**

When using pressfit BB, please take special care for X4, Y4 dimension of the crankset to avoid interference between inner ring chainring and the outer side of the BB shell of the frame.

# Y dimensions C-117

2

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) | y8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | - | 78.8 | 59.7 | 36.5 | 50.5 | 193.3 | 193.3 | - |
| | FC-M9100-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9120-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| 11 | FC-M9020-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 24.5 | 40.5 | 197.8 | 197.8 | - |
| | FC-M8000-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 24.5 | 38.5 | 196.9 | 196.9 | - |
| | FC-M9000-2 | 38-28T | - | 79.3 | 59.4 | 24.5 | 44.9 | 192.7 | 192.7 | - |
| | | 36-26T | - | 75.3 | 55.4 | 24.5 | 44.9 | | | - |
| | | 34-24T | - | 71.2 | 51.3 | 24.5 | 44.9 | | | - |
| | FC-M9020-2 | 38-28T | - | 79.3 | 59.4 | 24.5 | 44.9 | 197.8 | 197.8 | - |
| | | 36-26T | - | 75.3 | 55.4 | 24.5 | 44.9 | | | - |
| | | 34-24T | - | 71.2 | 51.3 | 24.5 | 44.9 | | | - |
| | FC-M8000-2 | 38-28T | - | 79.3 | 59.4 | 24.5 | 38.5 | 196.9 | 196.9 | - |
| | | 36-26T | - | 75.3 | 55.4 | 24.5 | 38.5 | | | - |
| | | 34-24T | - | 71.2 | 51.3 | 24.5 | 38.5 | | | - |
| | FC-M7000-11-2 | 38-28T | - | 79.3 | 59.4 | 25 | 38.5 | 191.8 | 191.8 | - |
| | | 36-26T | - | 75.3 | 55.4 | 25 | 38.5 | 191.8 | 191.8 | - |
| | | 34-24T | - | 71.2 | 51.3 | 25 | 38.5 | 191.8 | 191.8 | - |
| | FC-MT700-2 | 36-26T | - | 75.3 | 55.4 | 24.5 | 38.5 | 191.8 | 191.8 | - |
| | | 34-24T | - | 71.2 | 51.3 | 25 | 38.5 | 191.8 | 191.8 | - |
| | FC-MT600 | 36-26T | - | 75.3 | 55.4 | 24.5 | 38.5 | 192.7 | 192.7 | - |
| | FC-M9000-1 | 36T | - | 76.6 | - | - | - | 192.7 | 192.7 | 24.7 |
| | | 34T | - | 72.5 | - | - | - | | | |
| | | 32T | - | 68.5 | - | - | - | | | |
| | | 30T | - | 64.4 | - | - | - | | | |
| | FC-M9020-1 | 36T | - | 76.6 | - | - | - | 197.8 | 197.8 | 24.7 |
| | | 34T | - | 72.5 | - | - | - | | | |
| | | 32T | - | 68.5 | - | - | - | | | |
| | | 30T | - | 64.4 | - | - | - | | | |
| | FC-M8000-1 | 34T | - | 72.5 | - | - | - | 196.9 | 196.9 | 24.8 |
| | | 32T | - | 68.5 | - | - | - | | | |
| | | 30T | - | 64.4 | - | - | - | | | |
| | FC-M7000-11-1 | 34T | - | 72.5 | - | - | - | 191.8 | 191.8 | 24.8 |
| | | 32T | - | 68.5 | - | - | - | 191.8 | 191.8 | 24.8 |
| | | 30T | - | 64.4 | - | - | - | 191.8 | 191.8 | 24.8 |

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-T8000 | 48-36-26T | 99.8 | 75.2 | 56.2 | 24.0 | 47.5 | 191.9 | 191.9 |
| | FC-T6010 | 48-36-26T | 99.8 | 75.2 | 56.2 | 24.0 | 38.2 | 192.3 | 192.3 |
| | | 44-32-24T | 91.7 | 67.7 | 52.3 | 25.0 | 38.2 | | |
| | FC-T6000 | 48-36-26T | 99.8 | 75.2 | 56.2 | 24.0 | 47.5 | 191.6 | 191.6 |
| | FC-T551 | 48-36-26T | 99.8 | 75.2 | 56.2 | 24.0 | 38.2 | 192.6 | 192.6 |
| | | 44-32-24T | 91.7 | 67.7 | 52.3 | 25.0 | 38.2 | | |
| | FC-T521 | 48-36-26T | 99.8 | 75.2 | 56.3 | 19.9 | 38.2 | 191.6 | 191.6 |
| | | 44-32-24T | 91.8 | 67.7 | 52.4 | 19.9 | 38.2 | | |
| | FC-M7000-10-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 25.0 | 38.5 | 191.8 | 191.8 |
| | FC-M6000-3 | 40-30-22T | 83.6 | 63.6 | 48.3 | 24.5 | 38.2 | 191.6 | 191.6 |
| | FC-MT500-3 | 40-30-22T | 83.6 | 63.6 | 48.3 | 24.5 | 38.2 | - | - |
| | FC-M627 | 38-24T | – | 79.6 | 51.3 | 25.0 | 38.2 | 192.6 | 192.6 |
| | | 36-22T | – | 75.3 | 48.3 | 25.0 | 38.2 | | |
| | FC-M617 | 38-24T | – | 79.6 | 51.3 | 25.0 | 38.2 | | |
| | | 36-22T | – | 75.3 | 48.3 | 25.0 | 38.2 | | |
| | FC-M6000-2 | 38-28T | – | 79.3 | 59.4 | 25.0 | 38.2 | | |
| | | 36-26T | – | 75.3 | 55.4 | 25.0 | 38.2 | | |
| | | 34-24T | – | 71.2 | 51.3 | 25.0 | 38.2 | | |
| | FC-MT500-2 | 36-26T | – | 75.3 | 55.4 | 25.0 | 38.2 | | |
| | FC-M820<br>FC-M825 | 38T | – | 80.4 | – | – | – | 192.5 | 192.5 |
| | | 36T | – | 76.4 | – | – | – | | |
| | | 34T | – | 72.4 | – | – | – | | |
| | FC-M640 | 38T | – | 80.4 | – | – | – | 192.6 | 192.6 |
| | | 36T | – | 76.4 | – | – | – | | |
| | | 34T | – | 72.4 | – | – | – | | |
| | FC-M645 | 38T | – | 80.4 | – | – | – | | |
| | | 36T | – | 76.4 | – | – | – | | |
| | | 34T | – | 72.4 | – | – | – | | |

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-M4060 | 48-36-26T | 99.8 | 75.1 | 56.2 | 24.0 | 38.2 | 191.8 | 191.8 |
| | FC-M4050 | 40-30-22T | 83.6 | 63.6 | 48.3 | 24.5 | 38.2 | | |
| | FC-T4060 | 44-32-22T | 91.7 | 67.0 | 48.1 | 24.5 | 38.2 | 191.3 | 191.3 |
| | | 48-36-26T | 99.8 | 75.1 | 56.2 | 24.0 | 38.2 | | |
| | FC-M4000 | 40-30-22T | 83.7 | 63.7 | 48.3 | 19.9 | 38.2 | 193 | 193 |
| | FC-T4010 | 44-32-22T | 91.8 | 67.0 | 48.2 | 19.9 | 38.2 | | |
| | | 48-36-26T | 99.8 | 75.1 | 56.3 | 19.9 | 38.2 | | |
| | FC-M3000 | 40-30-22T | 83.7 | 63.7 | 48.3 | 19.9 | 38.2 | 192.7 | 192.7 |
| | FC-T3010 | 44-32-22T | 91.8 | 67.0 | 48.2 | 19.9 | 38.2 | 193.1 | 193.1 |
| | | 48-36-26T | 99.8 | 75.1 | 56.3 | 19.9 | 38.2 | | |
| | FC-M371 | 44-32-22T | 91.8 | 67.1 | 48.3 | 19.8 | – | 192 | 192 |
| | | 48-36-26T | 99.9 | 75.2 | 56.4 | 21.3 | – | | |
| | FC-M2000 | 40-30-22T | 83.8 | 63.3 | 48.5 | 20.3 | – | 192.7 | 192.7 |
| | FC-MT200 | 40-30-22T | 83.6 | 63.1 | 48.3 | 24.9 | – | 192.7 | 192.7 |
| | FC-MT100 | 40-30-22T | 83.8 | 63.3 | 48.5 | 20.3 | – | 192.7 | 192.7 |
| 8, 7 | FC-M361 | 42-32-22T | 87.7 | 68.2 | 47.2 | 20.0 | 38.2 | 192.6 | 192.6 |
| | | 48-38-28T | 100.3 | 80.1 | 60.3 | 20.0 | 38.2 | | |
| | FC-M311 | 42-32-22T | 87.7 | 68.2 | 47.2 | 20.0 | – | 192.1 | 192.1 |
| | | 48-38-28T | 100.2 | 79.3 | 59.3 | 25.5 | – | | |
| | FC-TX801 | 42-32-22T | 87.8 | 68.1 | 47.3 | 19.8 | – | 192.3 | 192.3 |
| | | 48-38-28T | 100.3 | 79.4 | 59.5 | 25.2 | – | | |
| 8, 7, 6 | FC-TY701 | 42-34-24T | 88.4 | 72.2 | 51.8 | 21.2 | – | 192.1 | 192.1 |
| | | 48-38-28T | 100.5 | 79.2 | 59.1 | 25.2 | – | | |
| | FC-TY501 | 42-34-24T | 88.4 | 72.2 | 51.9 | 21.5 | – | 192.0 | 192.0 |
| | | 48-38-28T | 100.5 | 79.4 | 59.4 | 25.0 | – | 192.6 | 192.6 |
| | FC-TY301 | 42-34-24T | 88.4 | 72.2 | 51.9 | 21.5 | – | 191.4 | 191.4 |
| | | 48-38-28T | 100.5 | 79.4 | 59.4 | 25.0 | – | 192.1 | 192.1 |
| 1 | FC-MX71 | 34T | – | 72.2 | – | **(37.5) | – | 197.5 | 197.5 |
| | | 38T | – | 80.3 | – | **(37.5) | – | | |
| | | 41T | – | 86.3 | – | **(37.5) | – | | |
| | | 42T | – | 88.3 | – | **(37.5) | – | | |
| | | 43T | – | 90.4 | – | **(37.5) | – | | |
| | | 44T | – | 92.4 | – | **(37.5) | – | | |
| | | 46T | – | 96.4 | – | **(37.5) | – | | |

## Chain line 3mm outboard spec. Y dimensions C-119

2

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) | y8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | - | 78.8 | 59.7 | 36.5 | 50.5 | 193.3 | 193.3 | - |
| | FC-M9100-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9120-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| 11 | FC-M9020-B2 | 36-26T | - | 75.3 | 55.4 | 24.5 | 44.9 | 197.8 | 197.8 | - |
| | | 34-24T | - | 71.2 | 51.3 | 24.5 | 44.9 | | | - |
| | FC-M9020-B1 | 32T | - | 68.5 | - | - | - | 197.8 | 197.8 | 24.7 |
| | | 30T | - | 64.4 | - | - | - | | | |
| | FC-M8000-B2 | 36-26T | - | 75.3 | 55.4 | 24.5 | 38.5 | 196.9 | 196.9 | - |
| | | 34-24T | - | 71.2 | 51.3 | 25.0 | 38.5 | 191.8 | 191.8 | - |
| | FC-M8000-B1 | 32T | - | 68.5 | - | - | - | 196.9 | 196.9 | 24.8 |
| | | 30T | - | 64.4 | - | - | - | 191.8 | 191.8 | 24.8 |
| | FC-M7000-11-B2 | 36-26T | - | 75.3 | 55.4 | 25.0 | 38.5 | 191.8 | 191.8 | - |
| | | 34-24T | - | 71.2 | 51.3 | 25.0 | 38.5 | 191.8 | 191.8 | - |
| | FC-M7000-11-B1 | 32T | - | 68.5 | - | - | - | 191.8 | 191.8 | 24.8 |
| | | 30T | - | 64.4 | - | - | - | 191.8 | 191.8 | 24.8 |
| | FC-MT700-B2 | 36-26T | - | 75.3 | 55.4 | 25.0 | 38.5 | 191.8 | 191.8 | - |
| | | 34-24T | - | 71.2 | 51.3 | 25.0 | 38.5 | 191.8 | 191.8 | - |
| | FC-MT600-B2 | 36-26T | - | 75.3 | 55.4 | 25.0 | 38.5 | 192.7 | 192.7 | - |
| 10 | FC-M627-B | 36-22T | - | 75.3 | 48.3 | 25.0 | 38.2 | 192.6 | 192.6 | - |
| | FC-M617-B2 | 36-22T | - | 75.3 | 48.3 | 25.0 | 38.2 | 192.6 | 192.6 | - |
| | FC-M6000-B2 | 36-26T | - | 75.3 | 55.4 | 25.0 | 38.2 | 191.6 | 191.6 | - |
| | FC-MT500-B2 | 36-26T | - | 75.3 | 55.4 | 25.0 | 38.2 | 191.6 | 191.6 | - |
| 9 | FC-M4050-B2 | 36-22T | - | 75.3 | 48.3 | 25.0 | 38.2 | 191.8 | 191.8 | - |

**NOTE**

*It also requires new dimension of frame which cassette position is 3mm outboard.

# X dimensions C-118

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | 50.1 | - | 50.3 | 42.9 | 42.6 | 41.6 | 65 | 63.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| 11 | FC-M9020-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.5 | 42.5 | 41.5 | 68.5 | 68.5 | - |
| | FC-M8000-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.5 | 40.8 | 39.6 | 72.2 | 72.2 | - |
| | FC-M9000-2 | 38-28T | 48.8 | - | 50.2 | 42.8 | 42.5 | 43.6 | 63.5 | 63.5 | - |
| | | 36-26T | 48.8 | - | 50.2 | 42.8 | 42.5 | 43.6 | | | |
| | | 34-24T | 48.8 | - | 50.2 | 42.8 | 42.5 | 43.6 | | | |
| | FC-M9020-2 | 38-28T | 48.8 | - | 50.2 | 42.8 | 42.5 | 43.6 | 68.5 | 68.5 | - |
| | | 36-26T | 48.8 | - | 50.2 | 42.8 | 42.5 | 43.6 | | | |
| | | 34-24T | 48.8 | - | 50.2 | 42.8 | 42.5 | 43.6 | | | |
| | FC-M8000-2 | 38-28T | 48.8 | - | 50.2 | 42.8 | 42.1 | 40.9 | 72.2 | 72.2 | - |
| | | 36-26T | 48.8 | - | 50.2 | 42.8 | 42.1 | 40.9 | | | |
| | | 34-24T | 48.8 | - | 50.2 | 42.8 | 42.1 | 40.9 | | | |
| | FC-M7000-11-2 | 38-28T | 48.8 | - | 50.2 | 42.8 | 42.8 | 40.8 | 72.2 | 72.2 | - |
| | | 36-26T | 48.8 | - | 50.2 | 42.8 | 42.8 | 40.8 | 72.2 | 72.2 | - |
| | | 34-24T | 48.8 | - | 50.2 | 42.8 | 42.8 | 40.8 | 72.2 | 72.2 | - |
| | FC-MT700-2 | 36-26T | 48.8 | - | 50.2 | 42.8 | 42.1 | 40.9 | 72 | 72 | - |
| | | 34-24T | 48.8 | - | 50.2 | 42.8 | 42.1 | 40.9 | 72 | 72 | - |
| | FC-MT600 | 36-26T | 48.8 | - | 50.2 | 42.8 | 42.8 | 40.8 | 72.7 | 72.8 | - |
| | FC-M9000-1 | 36T | 50.4 | - | 47.8 | - | - | - | 63.5 | 63.5 | 46.7 |
| | | 34T | 50.4 | - | 47.8 | - | - | - | | | |
| | | 32T | 50.4 | - | 47.8 | - | - | - | | | |
| | | 30T | 50.4 | - | 47.8 | - | - | - | | | |
| | FC-M9020-1 | 36T | 50.4 | - | 47.8 | - | - | - | 68.5 | 68.5 | 46.7 |
| | | 34T | 50.4 | - | 47.8 | - | - | - | | | |
| | | 32T | 50.4 | - | 47.8 | - | - | - | | | |
| | | 30T | 50.4 | - | 47.8 | - | - | - | | | |
| | FC-M8000-1 | 34T | 50.4 | - | 47.8 | - | - | - | 72.2 | 72.2 | 45.3 |
| | | 32T | 50.4 | - | 47.8 | - | - | - | | | |
| | | 30T | 50.4 | - | 47.8 | - | - | - | | | |
| | FC-M7000-11-1 | 34T | 50.4 | - | 47.8 | - | - | - | 72.2 | 72.2 | 45.3 |
| | | 32T | 50.4 | - | 47.8 | - | - | - | 72.2 | 72.2 | 45.3 |
| | | 30T | 50.4 | - | 47.8 | - | - | - | 72.2 | 72.2 | 45.3 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-T-8000 | 48-36-26T | 50.0 | 55.7 | 48.2 | 40.4 | 39.4 | 38.0 | 72.2 | 72.2 |
| | FC-T6010 | 48-36-26T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.3 | 78.4 | 71.4 |
| | | 44-32-24T | 50.0 | 55.7 | 48.2 | 40.6 | 40.4 | 38.4 | 78.4 | 71.4 |
| | FC-T6000 | 48-36-26T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.3 | 78.4 | 71.4 |
| | FC-T551 | 48-36-26T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.3 | 78.1 | 72.0 |
| | | 44-32-24T | 50.0 | 55.7 | 48.2 | 40.6 | 40.4 | 38.4 | 78.1 | 72.0 |
| | FC-T521 | 48-36-26T | 50.0 | 55.5 | 47.9 | 40.0 | 38.3 | 37.8 | 80.0 | 75.0 |
| | | 44-32-24T | 50.0 | 55.5 | 47.9 | 40.3 | 38.3 | 38.3 | 80.0 | 75.0 |
| | FC-M7000-10-3 | 40-30-22T | 50.0 | 55.7 | 48.2 | 40.6 | 40.6 | 38.6 | 72.2 | 72.2 |
| | FC-M6000-3 | 40-30-22T | 50.0 | 55.7 | 48.2 | 40.6 | 40.6 | 38.6 | 72.2 | 72.2 |
| | FC-MT500-3 | 40-30-22T | 50.7 | 55.7 | 48.3 | 40.7 | 40.7 | 38.3 | 72.2 | 72.2 |
| | FC-M627 | 38-24T | 48.8 | - | 50.3 | 42.9 | 42.9 | 41.1 | 73.0 | 72.4 |
| | | 36-22T | 48.8 | - | 50.3 | 42.9 | 42.9 | 41.1 | 73.0 | 72.4 |
| | FC-M617 | 38-24T | 48.8 | - | 50.3 | 42.9 | 42.9 | 41.1 | 73.0 | 72.4 |
| | | 36-22T | 48.8 | - | 50.3 | 42.9 | 42.9 | 41.1 | 73.0 | 72.4 |
| | FC-M6000-2 | 38-28T | 49.0 | - | 53.2 | 45.8 | 45.8 | 44.0 | 74.5 | 74.5 |
| | | 36-26T | 49.0 | - | 53.2 | 45.8 | 45.8 | 44.0 | 74.5 | 74.5 |
| | | 36-24T | 49.0 | - | 53.2 | 45.8 | 45.8 | 44.0 | 74.5 | 74.5 |
| | FC-M820 | 34,36,38T | 50.4 | - | 47.8 | - | - | - | 71.0 | 71.0 |
| | FC-M825 | 34,36,38T | 57.9 | - | 55.3 | - | - | - | 78.5 | 78.5 |
| | FC-M640 | 34,36,38T | 50.4 | - | 47.8 | - | - | - | 70.9 | 71.2 |
| | FC-M645 | 34,36,38T | 57.9 | - | 55.3 | - | - | - | 78.4 | 78.7 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-M4060 | 48-36-26T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.2 | 71.9 | 72.3 |
| | FC-T4060 | 48-36-26T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.2 | 78.6 | 71.6 |
| | | 44-32-22T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.2 | 78.6 | 71.6 |
| | FC-T4010 | 48-36-26T | 50.0 | 55.2 | 47.6 | 39.8 | 37.8 | 38.0 | 81.3 | 76.3 |
| | | 44-32-22T | | | | | | | | |
| | FC-T3010 | 48-36-26T | 50.0 | 55.2 | 47.6 | 39.8 | 37.8 | 38.0 | 79.7 | 75.1 |
| | | 44-32-22T | | | | | | | | |
| | FC-M371 | 48-36-26T | 50.0 | 55.5 | 48.0 | 40.1 | 38.0 | – | 76.5 | 72.0 |
| | | 44-32-22T | | | | | | | | |
| | FC-M4050 | 40-30-22T | 50.0 | 55.7 | 48.2 | 40.3 | 40.3 | 38.2 | 71.9 | 72.3 |
| | FC-M4000 | 40-30-22T | 50.0 | 55.5 | 48.0 | 40.1 | 38.1 | 38.3 | 74.8 | 74.8 |
| | FC-M3000 | 40-30-22T | 50.0 | 55.5 | 48.0 | 40.1 | 38.1 | 38.3 | 74.0 | 73.3 |
| | FC-M2000 | 40-30-22T | 50.0 | 54.9 | 47.4 | 39.4 | 38.2 | – | 74.0 | 72.2 |
| | FC-MT200 | 40-30-22T | 50.0 | 55.8 | 48.3 | 40.4 | 45.2 | – | 72.5 | 72.8 |
| | FC-MT100 | 40-30-22T | 50.0 | 54.9 | 47.4 | 39.4 | 38.2 | – | 72.9 | 70.9 |
| 8, 7 | FC-M361 | 48-38-28T | 50.0 | 55.5 | 47.7 | 39.9 | 37.9 | 35.9 | 79.2 | 75.5 |
| | | 42-32-22T | | | | | | | | |
| | FC-M311 | 48-38-28T | 50.0 | 55.5 | 47.7 | 39.9 | 38.6 | – | 80.9 | 74.5 |
| | | 42-32-22T | | | | | | | | |
| | FC-TX801 | 48-38-28T | 50.0 | 55.0 | 47.4 | 39.5 | 37.8 | – | 80.4 | 74.3 |
| | | 42-32-22T | | | | | | | | |
| 8, 7, 6 | FC-TY701 | 48-38-28T | 47.5 | 52.3 | 44.6 | 36.2 | 34.8 | – | 76.5 | 75.3 |
| | | | 47.5+t | 52.3+t | 44.6+t | 36.2+t | 34.8+t | – | 76.5 | 75.3 |
| | | 42-34-24T | 47.5 | 52.0 | 44.7 | 36.5 | 35.7 | – | 76.5 | 75.3 |
| | | | 47.5+t | 52.0+t | 44.7+t | 36.5+t | 35.7+t | – | 76.5+t | 75.3+t |
| | FC-TY501 | 48-38-28T | 47.5+t | 52.1+t | 44.6+t | 36.2+t | 34.2+t | – | 78.7+t | 77.2+t |
| | | | 47.5 | 52.1 | 44.6 | 36.2 | 34.2 | – | 78.7 | 77.2 |
| | | 42-34-24T | 47.5 | 51.8 | 44.7 | 36.5 | 35.7 | – | 77.7 | 76.2 |
| | | | 47.5+t | 51.8+t | 44.7+t | 36.5+t | 35.7+t | – | 77.7+t | 76.2-t |
| | FC-TY301 | 48-38-28T | 47.5+t | 52.1+t | 44.6+t | 36.2+t | 34.2+t | – | 77.2+t | 77.2+t |
| | | | 47.5 | 52.1 | 44.6 | 36.2 | 34.2 | – | 77.2 | 77.2 |
| | | 42-34-24T | 47.5 | 51.8 | 44.7 | 36.5 | 35.7 | – | 75.8 | 74.3 |
| | | | 47.5+t | 51.8+t | 44.7+t | 36.5+t | 35.7+t | – | 75.8+t | 74.3-t |
| 1 | FC-MX71 | 34,38,41,42, 43,44,46T | 44.0 | – | 41.4 | – | 40.1 | – | 70.1 | 70.1 |

* t = chain case stay thickness should be 1.8 ± 0.3 mm

# Chain line 3mm outboard spec. X dimensions C-120

2 3 8

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9120-B2 | 38-28T | 53.1 | - | 53.3 | 45.9 | 45.6 | 44.6 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| 11 | FC-M9020-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |
| | FC-M9020-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 71.5 | 71.5 | 49.7 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | | | |
| | FC-M8000-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.2 | 72.2 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.2 | 72.2 | - |
| | FC-M8000-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | FC-M7000-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.2 | 72.2 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.2 | 72.2 | - |
| | FC-M7000-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | FC-MT700-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.0 | 72.0 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.0 | 72.0 | - |
| | FC-MT600-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.7 | 72.8 | - |
| 10 | FC-M627-B | 36-22T | 51.8 | - | 53.2 | 45.8 | 45.8 | 44.1 | 73.0 | 72.4 | - |
| | FC-M617-B2 | 36-22T | 52.05 | - | 53.2 | 45.9 | 45.9 | 44.1 | 73.0 | 72.4 | - |
| | FC-M6000-B2 | 36-26T | 52.1 | - | 53.2 | 42.8 | 42.8 | 41.0 | 74.5 | 74.5 | - |
| | FC-MT500-B2 | 36-26T | 52.1 | - | 53.2 | 42.8 | 42.8 | 41.0 | 74.5 | 74.5 | - |
| 9 | FC-M4050-B2 | 36-22T | 51.8 | - | 53.5 | 45.6 | 45.6 | 43.8 | 72.9 | 72.9 | - |

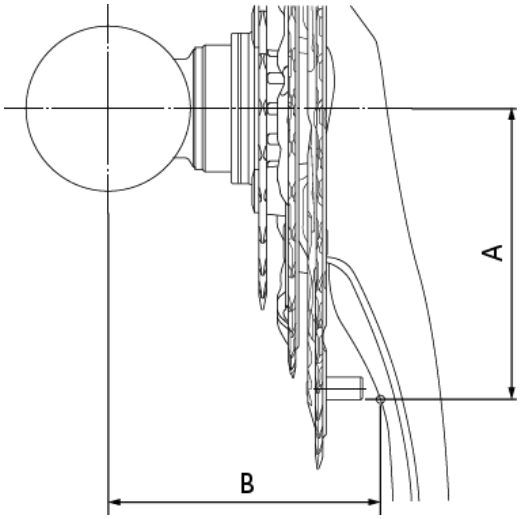
**NOTE**

*It also requires new dimension of frame which cassette position is 3mm outboard.

# Position of stopper pin [MTB]



Dimension from crank center to outer side of the pin which concerns the interference with chain case.




A: BB center - edge of the stopper pin
B: Frame center - contact point of extension of straight line from edge of the stopper pin toward back side surface of crank arm

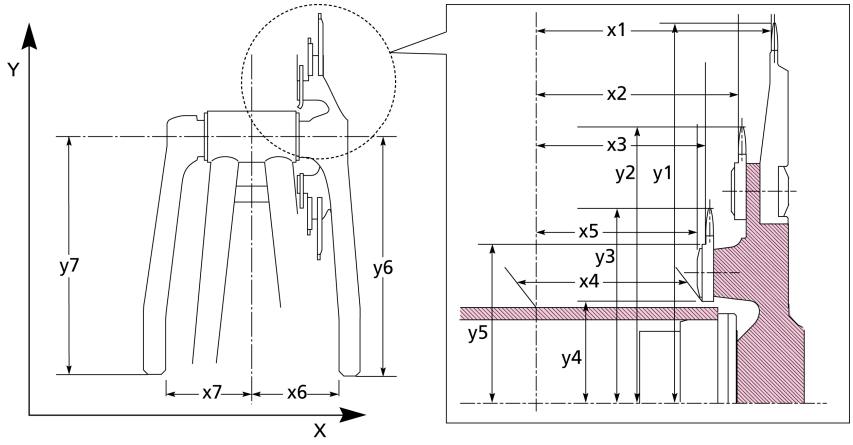
| Speed | Model No. | Top gear | Pin position distance | Back side of crank arm |
|---|---|---|---|---|
| | | | Normal (A) (mm) | Normal (B) (mm) |
| 10 | FC-T8000 | 48T | N/A | N/A |
| | FC-T6010 | 44T | 81.0 | 74.0 |
| | | 48T | 79.0 | 73.7 |
| | FC-T551 | 44T | 81.0 | 77.1 |
| | | 48T | 79.0 | 76.8 |
| | FC-T521 | 44T | 81.0 | 77.0 |
| | | 48T | 79.0 | 76.7 |
| 9 | FC-T4060 | 44T | 65.0 | 74.5 |
| | | 48T | 77.0 | 76.2 |
| | FC-T4010 | 44T | 65.0 | 76.5 |
| | | 48T | 77.0 | 79.0 |
| | FC-T3010 | 44T | 65.0 | 76.4 |
| | | 48T | 77.0 | 78.7 |
| 8, 7 | FC-M361 | 42T | 78.0 | 74.9 |
| | | 48T | 88.0 | 77.2 |
| 8, 7, 6 | FC-TY701 | 42T | 78.9 | 79.7 |
| | | 48T | 81.8 | 80.0 |
| | FC-TY501 | 42T | 79.0 | 84.4 |
| | | 48T | 78.5 | 82.3 |
| | FC-TY301 | 42T | 79.0 | 79.2 |
| | | 48T | 78.5 | 79.1 |

# Crankset dimensions [ROAD, URBAN SPORT]

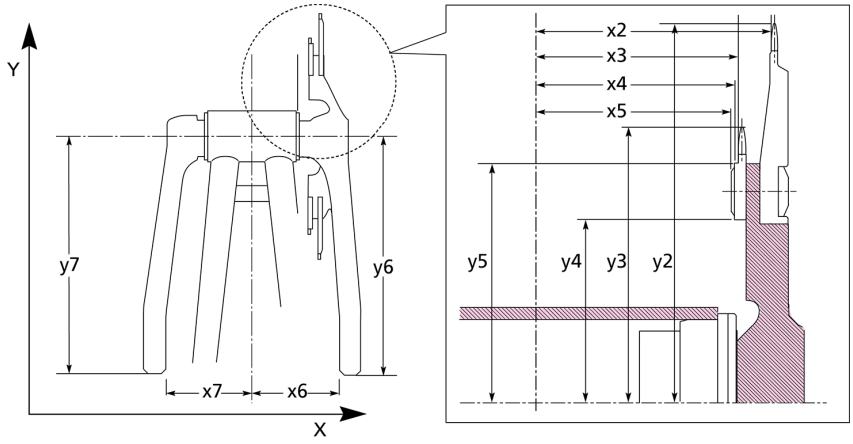


The dimensions of the new chainrings shown in the table below. Check these dimensions when designing the frame in order to avoid interference between the chainring and chainstay.

**Front triple**




**Front double**




**NOTE**

When using pressfit BB, please take special care for X4, Y4 dimension of the crankset to avoid interference between inner ring chainring and the outer side of the BB shell of the frame.

# Y dimensions C-123

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| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | FC-R9100 | 55-42T | 43.5 | - | 113.1 | 88.2 | 46.9 | 80.2 | 195.5 | 195.5 |
| | | 54-42T | 43.5 | - | 111.1 | 88.2 | 46.9 | 80.2 | 195.5 | 195.5 |
| | | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.9 | 74.2 | 195.5 | 195.5 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.9 | 68.2 | 195.5 | 195.5 |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.9 | 64.0 | 195.5 | 195.5 |
| | FC-R8000 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 71.9 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 65.9 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 63.0 | | |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | 46.4 | 65.9 | | |
| | FC-6800 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 74.2 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 68.2 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 64.2 | | |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | 46.4 | 68.2 | | |
| | FC-R7000 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 71.9 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 65.9 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 63.0 | | |
| | FC-RS510 | 52-36T | 43.5 | - | 107.1 | 76.1 | - | 67.3 | 193.4 | 193.4 |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | - | 64.2 | 193.4 | 193.4 |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | - | 67.3 | 193.4 | 193.4 |
| | FC-U5000-2 | 46-32T | 43.5 | - | 94.9 | 68.1 | - | - | 192.6 | 192.4 |
| | FC-U5000-1 | 42T | 46.6 | - | 88.3 | - | - | - | 192.6 | 192.4 |

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-5703 | 50-39-30T | 45.0 | 103.8 | 81.6 | 64.2 | 26.9 | 43.6 | 192.8 | 192.8 |
| | FC-4703 | 50-39-30T | 45.0 | 103.8 | 81.6 | 64.2 | 26.9 | 52.6 | 193.6 | 193.6 |
| | FC-4700 | 52-36T | 43.5 | - | 107.3 | 76.1 | - | 68.2 | 193.6 | 193.6 |
| | FC-4700 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | 64.2 | | |
| | FC-R460 | 48-34T | 43.5 | - | 99.2 | 70.8 | - | 64.0 | 192.7 | 192.7 |
| | | 46-34T | 43.5 | - | 95.7 | 70.8 | - | 64.0 | | |
| | FC-RS400 | 50-34T | 45.0 | - | 103.8 | 70.8 | - | - | 192.7 | 192.7 |
| | FC-CX50 | 46-36T | 43.5 | - | 95.8 | 75.1 | - | 67.9 | 192.8 | 192.8 |

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| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 103.8 | 81.6 | 63.4 | 26.9 | 43.6 | 194.1 | 193.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 194.1 | 193.0 |
| | FC-R345 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| 8 | FC-R2030 | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.3 | 193.3 |
| | | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.9 | 193.9 |
| | FC-A073 | 50-39-30T | 45.0 | 103.9 | 81.8 | 63.6 | 23.4 | 41.7 | 187 | 187 |
| | FC-R2000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 193.9 | 193.9 |
| | FC-RS200 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | - | 192.1 | 192.1 |
| | | 46-34T | 43.5 | - | 103.9 | 70.8 | - | - | 192.1 | 192.1 |
| | FC-A070 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | - | 187 | 187 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 114.7 | - | - | - | 193.0 | 193.0 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 114.7 | - | - | - | | |

# X dimensions C-124

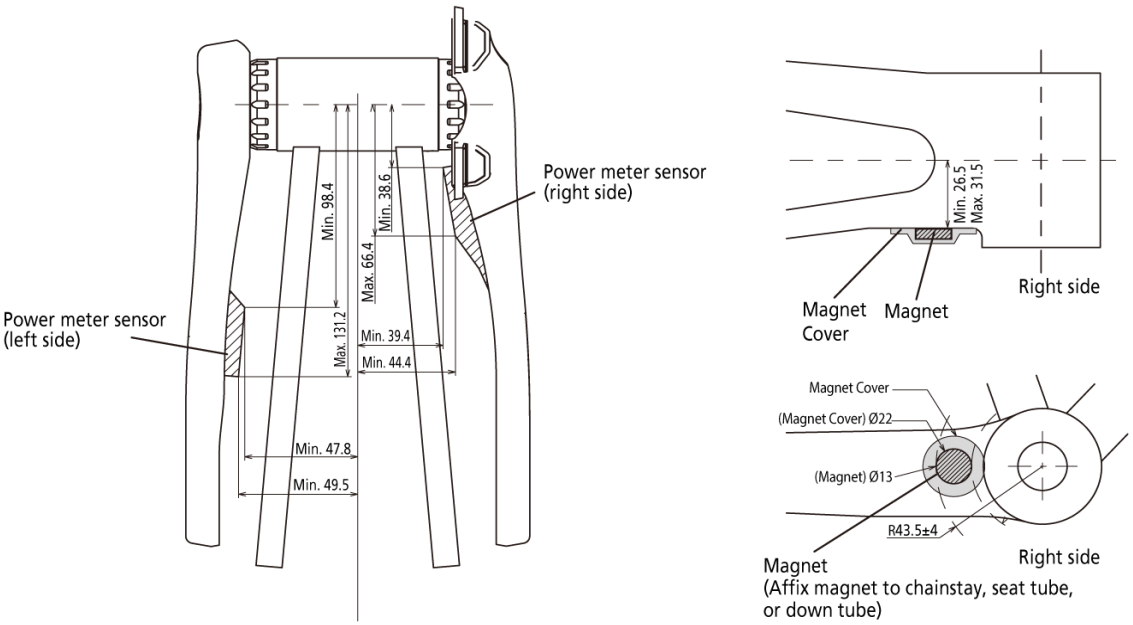
| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | FC-R9100<br>FC-R9100-P | 55-42T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 54-42T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 53-39T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | FC-R8000 | 53-39T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 46-36T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | FC-6800 | 53-39T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 52-36T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 50-34T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 46-36T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | FC-R7000 | 53-39T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | FC-RS510 | 52-36T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | | 46-36T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | FC-U5000-2 | 46-32T | 43.5 | - | 46.0 | 38.1 | - | - | 62.7 | 63.0 |
| | FC-U5000-1 | 42T | 46.6 | - | 44.1 | - | - | - | 62.7 | 63.0 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-5703 | 50-39-30T | 45.0 | 51.2 | 44.1 | 36.0 | 36.9 | 34.9 | 63.3 | 60.8 |
| | FC-4703 | 50-39-30T | 45.0 | 51.2 | 44.1 | 36.0 | 36.9 | 34.9 | 65.0 | 63.2 |
| | FC-4700 | 52-36T | 43.5 | - | 45.9 | 38.0 | - | 35.8 | 59.2 | 60.2 |
| | FC-4700 | 50-34T | 43.5 | - | 45.9 | 38.1 | - | 35.8 | 59.2 | 60.2 |
| | FC-R460 | 48-34T | 43.5 | - | 45.9 | 38.1 | - | 36.5 | 59.3 | 60.2 |
| | | 46-34T | 43.5 | - | 45.9 | 38.1 | - | 36.5 | 59.3 | 60.2 |
| | FC-RS400 | 50-34T | 43.5 | - | 45.9 | 38.1 | - | - | 59.3 | 60.2 |
| | FC-CX50 | 46-36T | 43.5 | - | 45.8 | 37.9 | - | 36.1 | 59.4 | 60.4 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 51.8 | 44.2 | 36.1 | 36.0 | 34.3 | 65.2 | 63.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 45.8 | 38.1 | - | - | 59.2 | 60.0 |
| | FC-R345 | 50-34T | 43.5 | - | 45.5 | 37.8 | - | 36.0 | 61.0 | 59.4 |
| 8 | FC-R2000 | 50-34T | 43.5 | - | 46.0 | 38.4 | - | 37.4 | 59.8 | 60.5 |
| | FC-R2030 | 50-39-30T | 45.0 | 51.7 | 44.0 | 36.0 | 36.1 | 34.1 | 64.0 | 62.5 |
| | FC-RS200 | 50-34T | 43.5 | - | 45.9 | 38.3 | - | 36.5 | 61.4 | 61.0 |
| | | 46-34T | 43.5 | - | 45.8 | 38.3 | - | 39.1 | 61.4 | 61.0 |
| | FC-A070 | 50-34T | 43.5 | - | 45.9 | 38.3 | - | 38.4 | 67.7 | 69.7 |
| | FC-A073 | 50-39-30T | 45.0 | 51.5 | 43.9 | 35.9 | 35.9 | 34.9 | 70.0 | 69.3 |
| TRACK | FC-7710<br>(1/2 x 1/8 inch) | - | 42.5 | - | 39.4 | - | - | - | 52.5 | 52.5 |
| | FC-7710<br>(1/2 x 3/32 inch) | - | 42.5 | - | 39.9 | - | - | - | 52.5 | 52.5 |

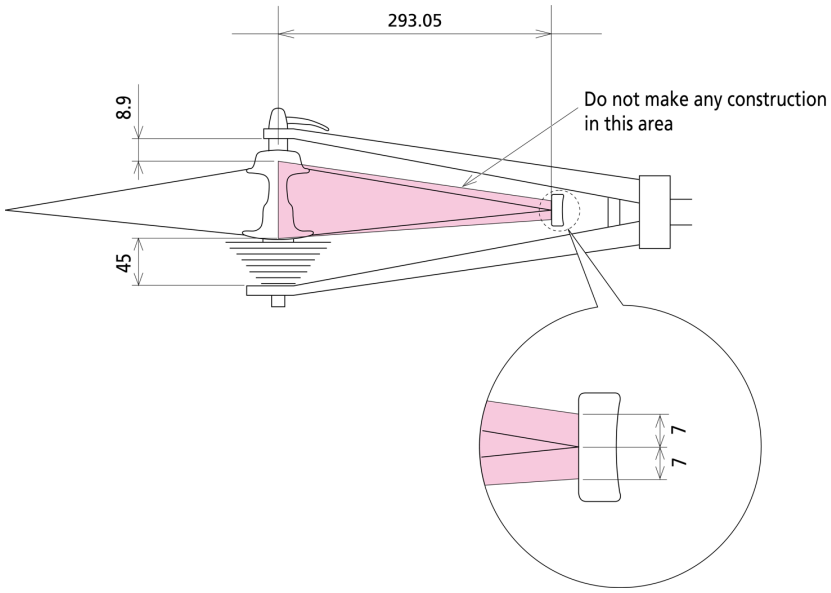
# Power meter dimensions C-501

## FC-R9100-P



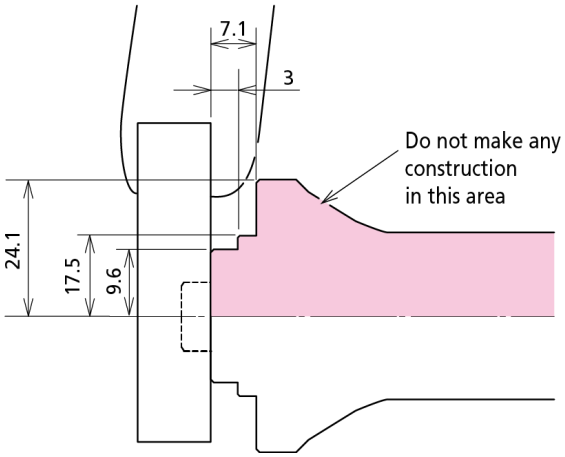
# Dimensions for chainstay [ROAD] C-126

## SHIMANO wheel (rim brake type) C-127




# Dimensions for front fork [ROAD] C-128

## SHIMANO wheel (rim brake type) C-129



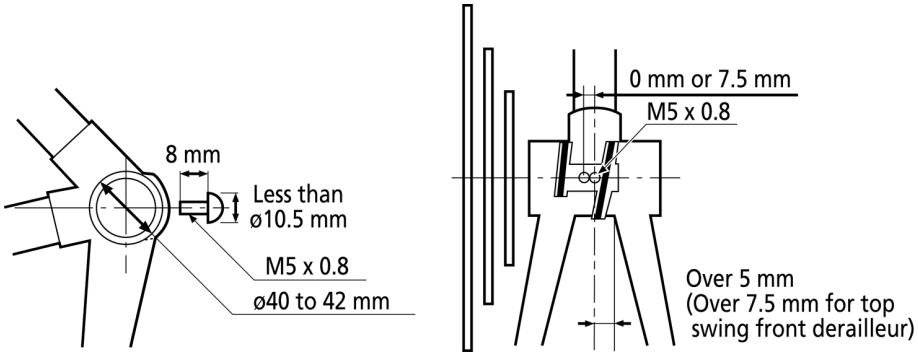
# Bottom bracket cable guide C-131

## Bottom bracket cable guide installation C-132

And to keep this performance,

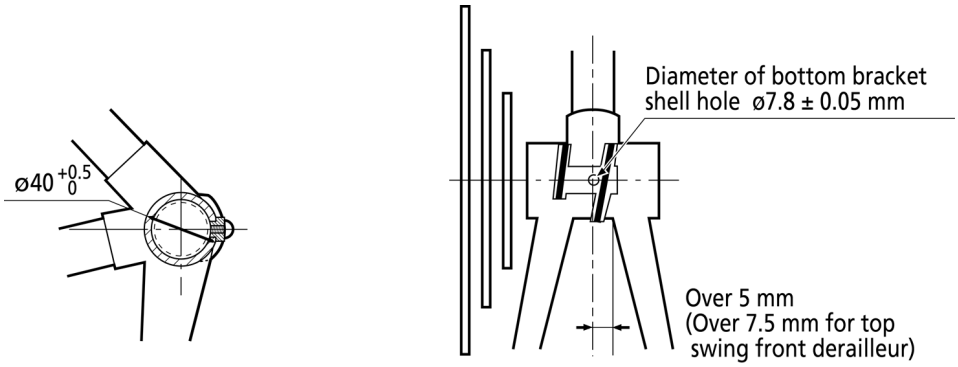
- Assemble bottom bracket guide on frame with no clearance.
- Don't make inner cable touch with frame.

### SM-SP17M, SM-SP18M (screw on type)

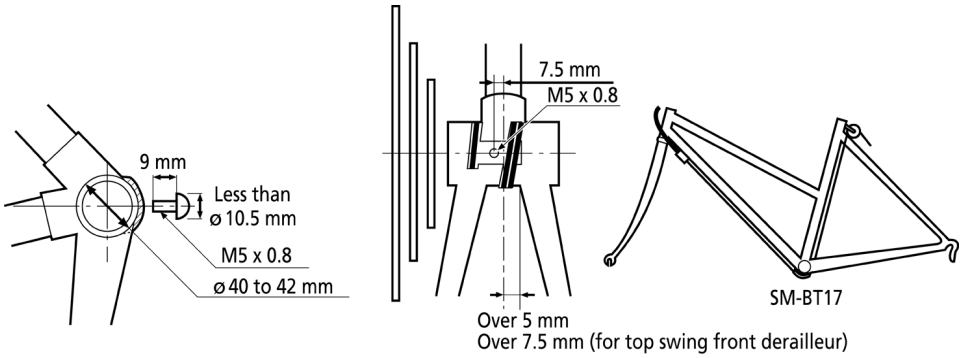



### SM-SP17, SM-SP18T (snap on type)

(Requires ø7.8 mm hole in bottom bracket shell.)

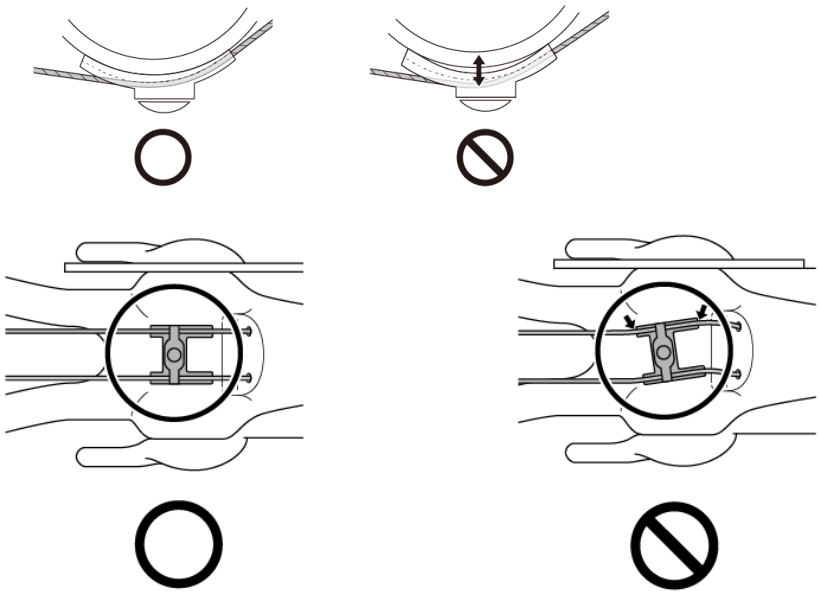



### SM-BT17 (screw on type for mixte frames)

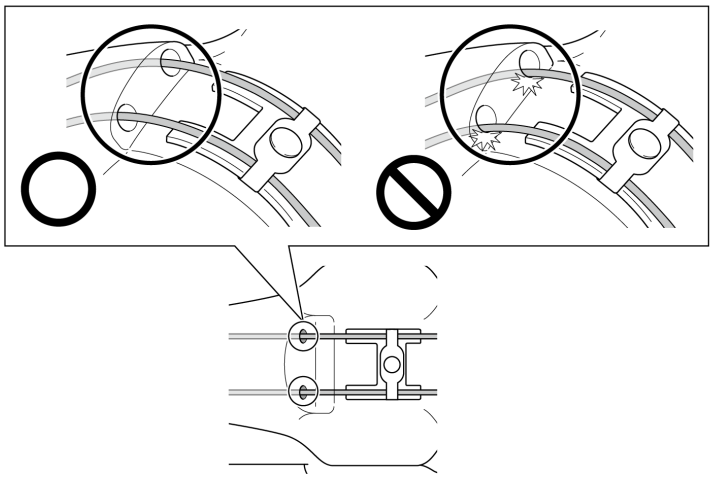


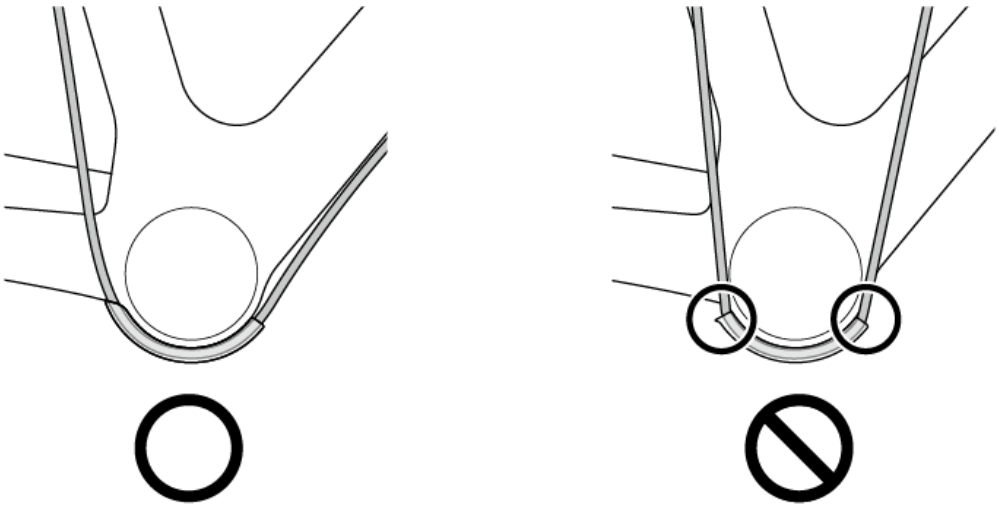
## Fixing of cable guide C-133

Gap between hanger shell and cable guide



## Interference with frame C-134





# Outer casing

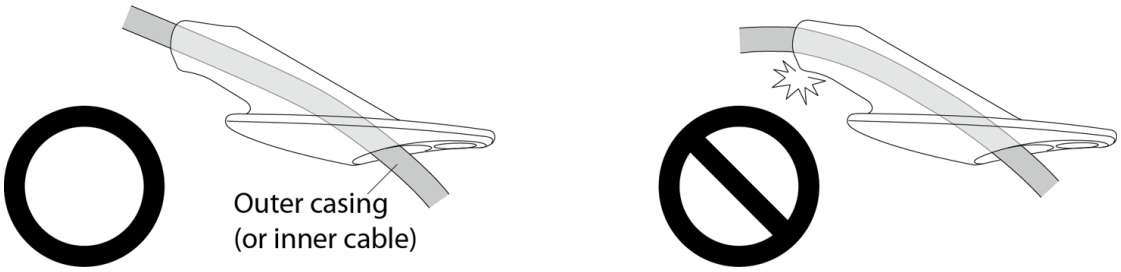


## Full outer casing C-136

When using a full outer casing as the outer casing, the following factors may affect the gear shifting performance, so make sure that you check the proper gear shifting performance can be obtained before normal use.
In addition, check to be sure that the outer casing does not touch moving parts such as the tires and crank arms during riding.

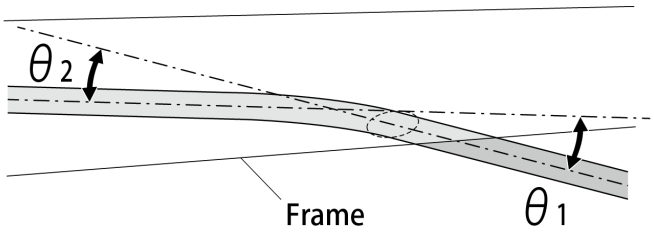
1. Cable routing method.
   * Curvature (Recommended minimum curvature: R30mm)
   * Enough slack for suspension and handlebar operation
2. Method of securing the cable to the frame.
3. Relationship between the length of cable from the rear derailleur to the securing location and the cable securing position.
   * If the values are greatly different from those which are recommended, problems with gear shifting performance may occur.

## Internal cable routing C-137



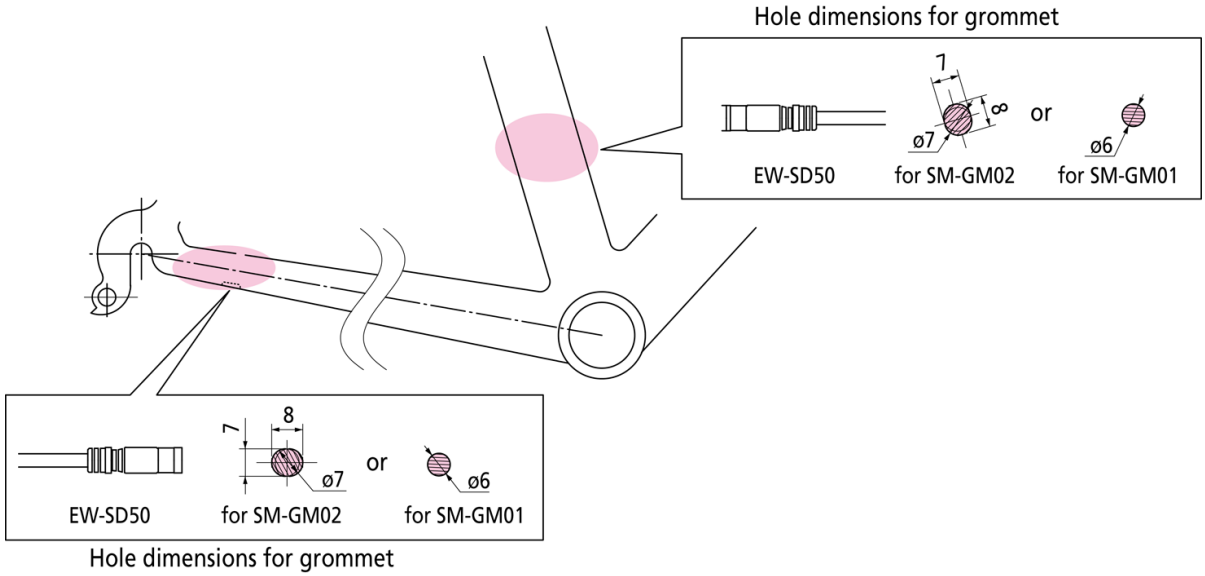

## Angle of outer casing C-138

The route of the cable should be as straight as possible as shown in the diagram, smaller θ1 and θ2 are better.



## Seat tube / chainstay hole dimensions C-140

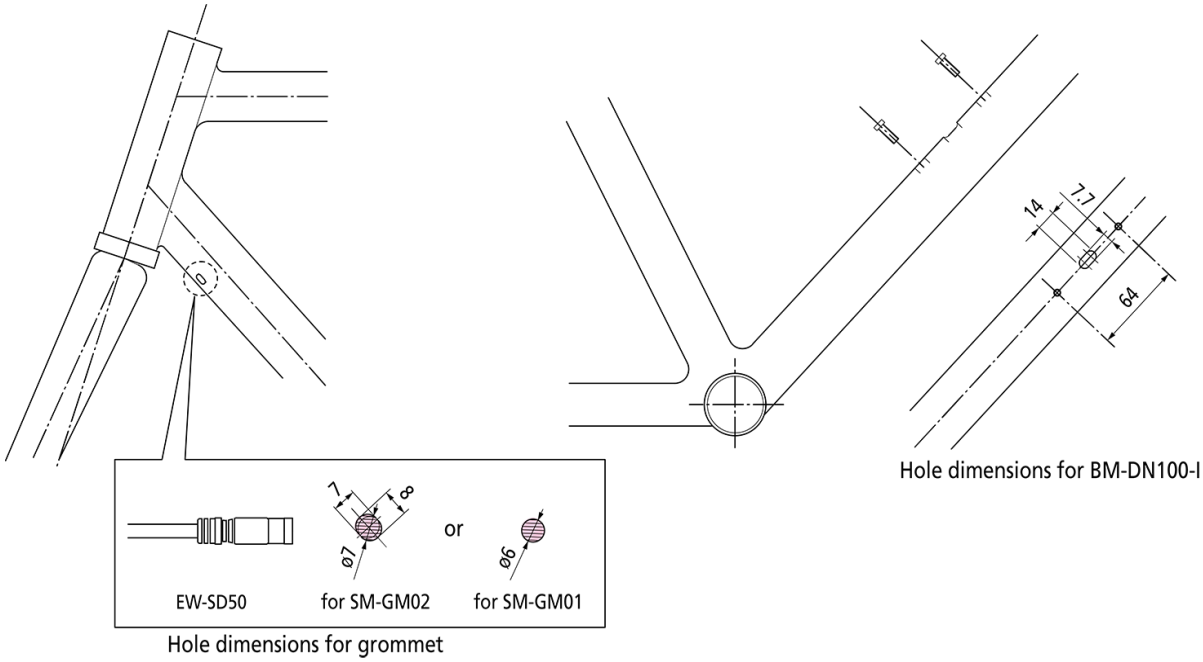
**EW-SD50 / SM-GM02 / SM-GM01**




Optimum hole position should be decided depends on the frame design.
Mind touching chain guide.

## Down tube hole dimensions C-141

**EW-SD50 / SM-GM02 / SM-GM01**



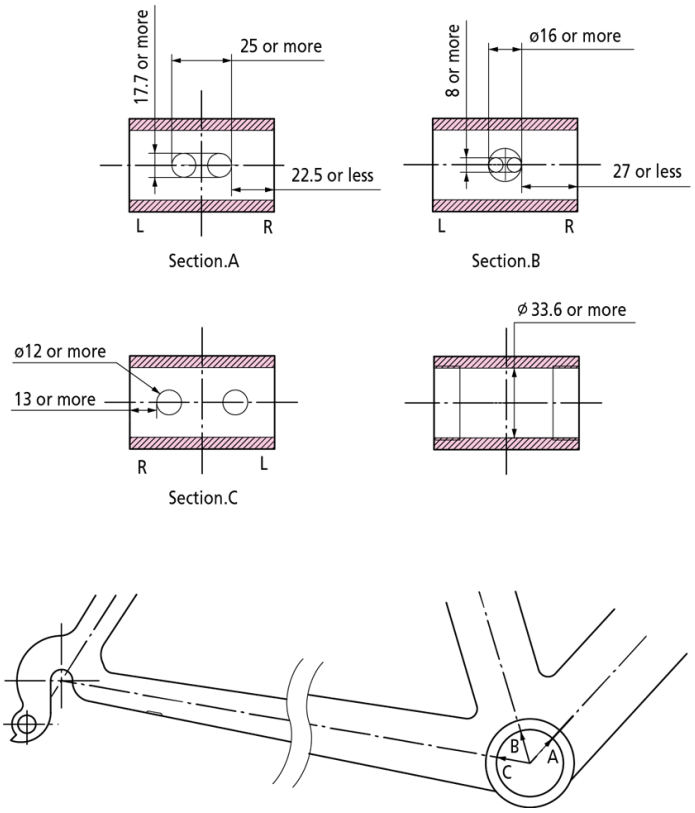

**NOTE**

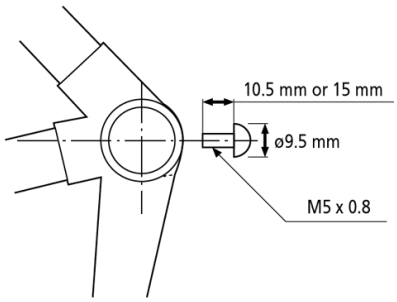
When routing the E-TUBE cable using BM-DN100-I, make sure in advance that the hole from which the E-TUBE cable emerges from BM-DN100-I is aligned with the hole in the frame through which it will enter the frame.

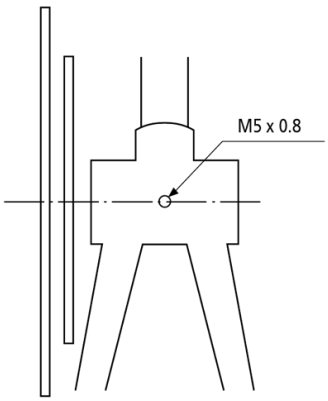
# Bottom bracket hole dimensions



**For SM-JC41**

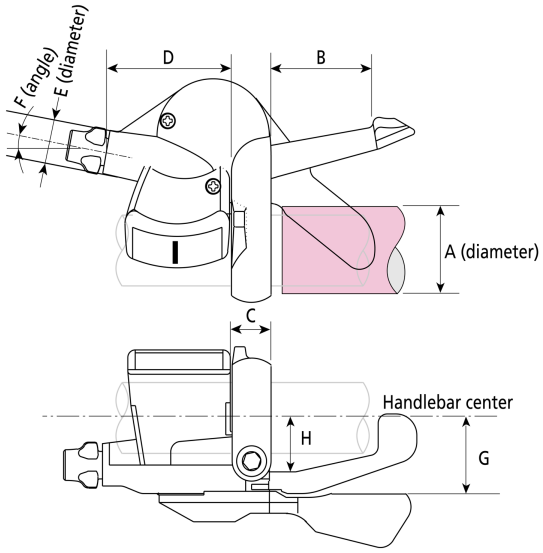


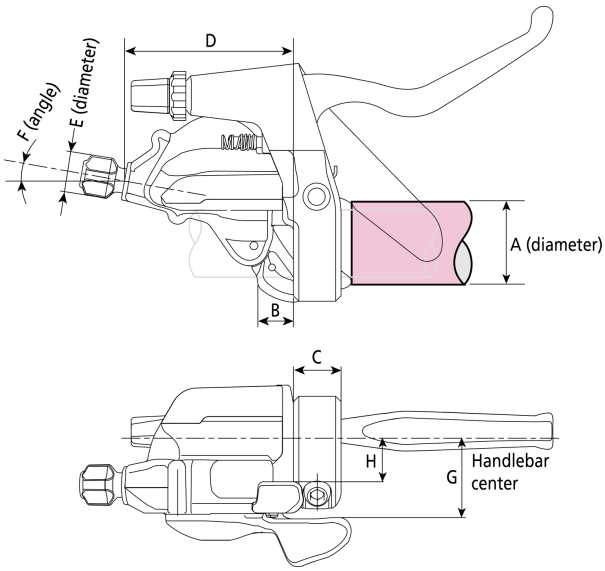



# Shifting lever / Brake lever [MTB, ROAD, URBAN SPORT] C-143

## RAPIDFIRE PLUS C-145




## TAP FIRE Plus C-146




**CAUTION**

Some brake lever designs may interfere with the Shifting lever and should not be used.
You may also want to check that the brake lever has adequate clearance not to injure an index finger that is placed on the release trigger.

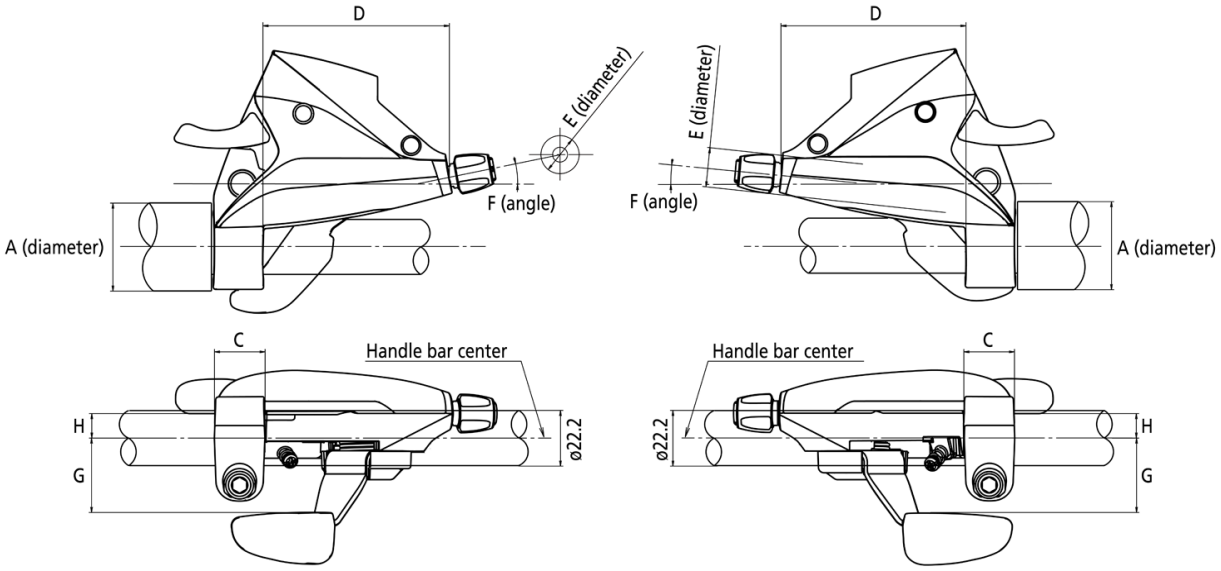
| Model No. | Max. A (mm) | B (mm) Front / Rear | C (mm) | D (mm) Front / Rear | E (mm) | F | G (mm) | H (mm) Front / Rear |
|---|---|---|---|---|---|---|---|---|
| SL-M9100 | ø32 | 22.0 | 10 | 34.8 / 42.0 | ø15 | 15° | 29.6 | - / 16.5 |
| SL-M9000 | ø32 | 22.0 | 10.0 | 32.1 / 45.4 | ø15 | 15° | 29.6 | 23.0 |
| SL-M8000 | ø32 | 22.0 | 10.0 | 32.1 / 45.4 | ø15 | 15° | 29.6 | 23.0 |
| SL-M7000-11<br>SL-M7000-10 | ø36 | 19.0 | 10.0 | 35.8 / 46.5 | ø15 | 15° | 30.25 | 25.4 |
| SL-M820 | ø36 | 26.6 | 13.0 | - / 34.9 | ø15 | 15° | 27.9 | 23.0 |
| SL-T8000 | ø32 | 19.0 | 10.0 | 29.1 / 34.9 | ø15 | 15° | 29.8 | 23.0 |
| SL-M640 | ø36 | 19.0 | 13.0 | - / 37.1 | ø15 | 15° | 29.8 | 25.4 |
| SL-M6000 | ø36 | 19.0 | 13.0 | 35.8 / 46.5 | ø15 | 15° | 30.25 | 25.4 |
| SL-T6000 | ø36 | 19.0 | 13.0 | 35.8 / 46.5 | ø15 | 15° | 30.25 | 25.4 |
| SL-M4010 | ø36 | 31 | 13.0 | 40.3 / 40.0 | ø15 | 10° | 25.4 | 22.8 |
| SL-M4000 | ø36 | 31.0 | 13.0 | 40.3 / 40.0 | ø15 | 10° | 25.4 | 22.8 |
| SL-M3010 | ø36 | 28.5 | 13.0 | 40.3 / 40.0 | ø15 | 10° | 25.4 | 22.8 |
| SL-M3000 | ø36 | 28.5 | 13.0 | 40.3 / 40.0 | ø15 | 10° | 25.2 | 22.8 |
| SL-M2000 | ø36 | 28.5 | 13.0 | 40.3 / 40.0 | ø15 | 10° | 25.2 | 22.8 |
| SL-M360 | ø36 | 31.0 | 14.6 | 39.3 / 39.7 | ø15 | 10° | 26.7 | 23.0 |
| SL-M310 | ø36 | 29.0 | 13.0 | 40.0 / 40.0 | ø15 | 10° | 26.7 | 23.0 |

### RAPIDFIRE PLUS, TAP FIRE Plus shift / Brake lever set

| Model No. | Max. A (mm) | B (mm) | C (mm) | D (mm) Front / Rear | E (mm) | F | G (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|
| ST-M4050 | ø36 | 15.6 | 16.0 | 53.2 / 52.6 | ø15 | 10° | 25.4 | 22.8 |
| ST-M3050 | ø36 | 15.6 | 16.0 | 53.2/52.6 | ø15 | 10° | 25.4 | 22.8 |
| ST-M310 | ø36 | 9.0 | 23.8 | 49.4 / 49.0 | ø15 | 10° | 26.7 | 23.0 |

## EZ FIRE PLUS Shifting lever

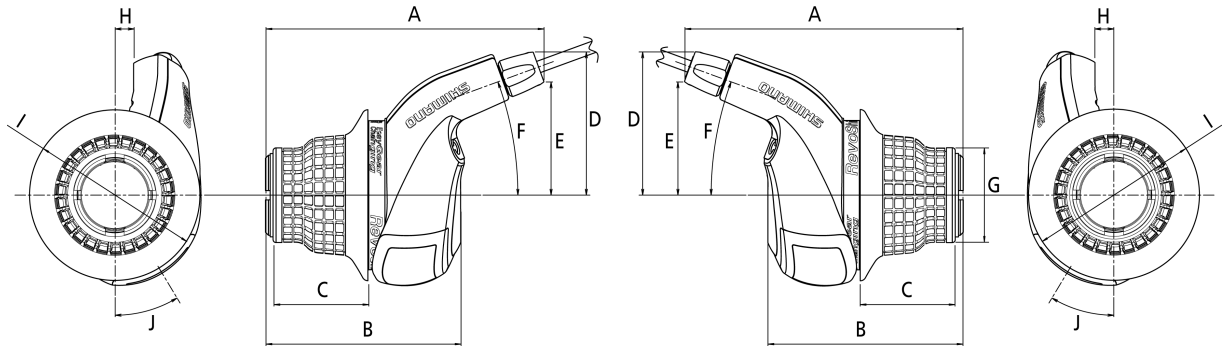
C-147




| Model No. | Max. A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F | G (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|
| ST-EF65 | ø32 | - | 18.2 | 66.6 | ø14.4 | L=10°<br>R=5° | 27.3 | 9.7 |
| ST-EF505 | ø32 | - | 16.0 | L=64.1<br>R=64.1 | L=ø15.0<br>R=ø15.0 | L=20°<br>R=20° | 25.9 | 9.6 |
| ST-EF500 | ø32 | - | 16.0 | L=64.1<br>R=67.9 | L=ø15.0<br>R=ø11.03 | L=20°<br>R=20° | 25.9 | 9.8 |
| ST-TX800 | ø32 | - | 24.8 | L=50.5<br>R=48.9 | L=ø15.0<br>R=ø13.1 | 15° | 30.4 | 9.4 |
| ST-EF41 | ø32 | - | 24.8 | L=50.5<br>R=48.9 | L=ø15.0<br>R=ø13.1 | 15° | 30.4 | 9.4 |

# REVOSHIFT



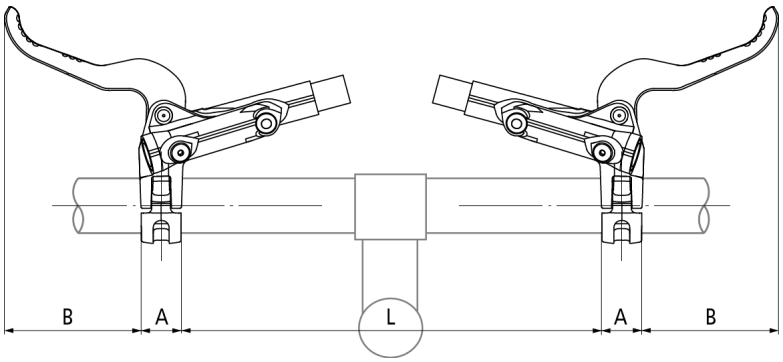



| Model No. | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F | G (mm) | H (mm) | I (mm) | J |
|---|---|---|---|---|---|---|---|---|---|---|
| SL-RS47-L / R | 94.1 | 66.0 | 32.1 | 48.4 | 38.2 | 20° | ø32 | 6.4 | ø57 | 31° |
| SL-RS45-L / R | 94.1 | 66.0 | 32.1 | 48.4 | 38.2 | 20° | ø32 | 6.4 | ø57 | 31° |
| SL-RS36-L | 94.1 | 66.0 | 35.4 | 48.4 | 38.2 | 20° | ø32 | 6.4 | ø58 | 31° |
| SL-RS36-R | 81.8 | 66.0 | 35.4 | 43.5 | 34.5 | 20° | ø32 | 6.4 | ø58 | 31° |
| SL-RS35-L | 87.3 | 68.3 | 38.2 | 58.0 | 47.7 | 20° | ø32 | 8.0 | ø58 | 31° |
| SL-RS35-R | 76.1 | 68.3 | 38.2 | 52.8 | 44.5 | 20° | ø32 | 8.0 | ø58 | 31° |

# Hydraulic brake lever on handlebar

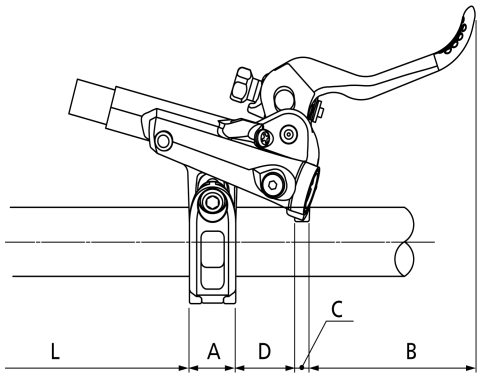


**For the models of older generations than BL-M9100 / BL-M9120**




| Model No. | A (mm) | B (mm) | L (mm) |
|---|---|---|---|
| BL-M9000 | 12.0 | 56.0 | ≥186 |
| BL-M9020 | 12.0 | 56.0 | ≥186 |
| BL-M820-B | 17.0 | 54.0 | ≥180 |
| BL-M8000 | 12.0 | 56.0 | ≥186 |
| BL-T8000 | 12.0 | 85.1 | ≥186 |
| BL-M7000 | 12.0 | 56.0 | ≥186 |
| BL-M640-B | 21.1 | 53.0 | ≥180 |
| BL-M6000 | 12.0 | 56.0 | ≥186 |
| BL-T6000 | 12.0 | 85.1 | ≥186 |
| BL-RS600 | 12.0 | 56.0 | ≥186 |
| BL-MT501 | 12.0 | 56.0 | ≥186 |
| BL-MT500 | 12.0 | 56.0 | ≥186 |
| ST-M4050 | 16.0 | 78.3 | ≥200 |
| ST-M3050 | 16.0 | 78.3 | ≥200 |
| BL-T445 | 16.0 | 83.5 | ≥200 |
| BL-MT400 | 14.0 | 79.3 | ≥200 |
| BL-MT201 | 14.0 | 87.6 | ≥200 |
| BL-MT200 | 14.0 | 87.6 | ≥200 |
| ST-EF505 | 16.0 | 73.5 | ≥200 |
| BL-U5000 | 12.0 | 80.2 | ≥186 |

The dimensions are measured at the factory set 'start' position




| Model No. | A (mm) | B (mm) | C (mm) | D (mm) | L (mm) |
|---|---|---|---|---|---|
| BL-M9100 | TBD | 56 | TBD | TBD | TBD |
| BL-M9120 | TBD | 56 | TBD | TBD | TBD |

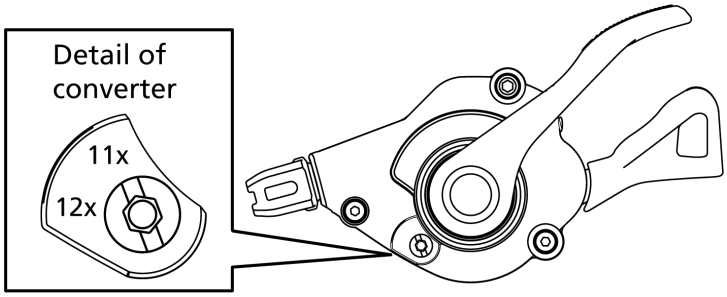
The dimensions are measured at the factory set 'start' position

# Mode converter

C-150

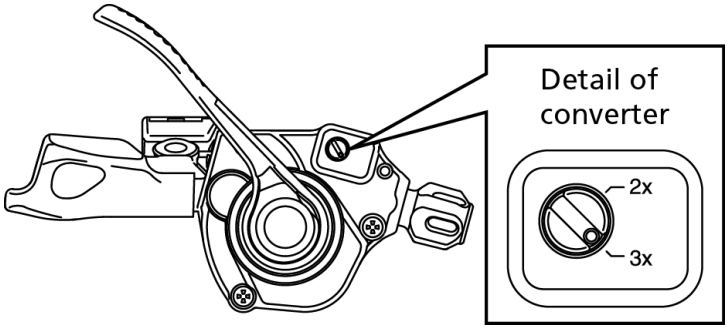
Front shifters with function of 2x / 3x mode converter are compatible with double and triple front system.
Installing cable and setting shifter of front derailleur is different depending on double or triple front chainring.
Rear shifters with function of 11-speed / 12-speed mode converter are compatible with 11-speed and 12-speed rear system.
Setting shifter of rear derailleur is different depending on 11-speed or 12-speed Cassette Sprocket.

## XTR series C-552

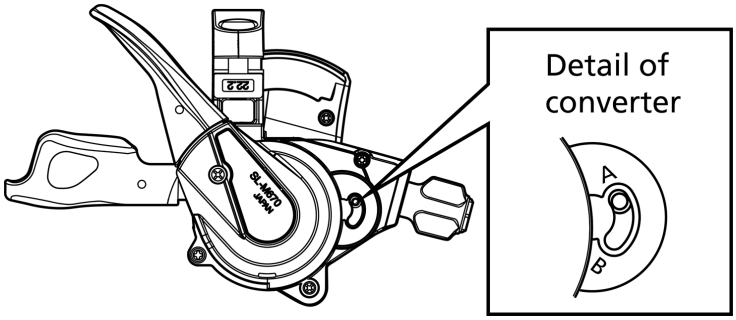



| Speed | Model No. | 12s/ 11s converter |
|---|---|---|
| 12 | SL-M9100-R / SL-M9100-IR | - |

## XTR / DEORE XT series C-151




## SLX / DEORE series C-152




| Speed | Model No. | 2x / 3x or A / Bmode converter |
|---|---|---|
| 11 | SL-M9000-L / SL-M9000-IL | - |
| | SL-M8000-L / SL-M8000-IL / SL-M8000-B-IL | |
| | SL-M7000-11-L / SL-M7000-11-IL / SL-M7000-11-B-IL | |
| 10 | SL-M780-L / SL-M780-BIL | X |
| | SL-M7000-10-L / SL-M7000-10-IL / SL-M7000-10-B-IL | - |
| | SL-M670-BIL | X |
| | SL-M610-IL | |
| | SL-M6000-L / SL-M6000-IL | - |

X: Yes

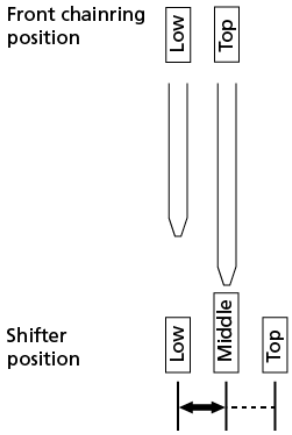
# Front chainring and Shifter position

C-153

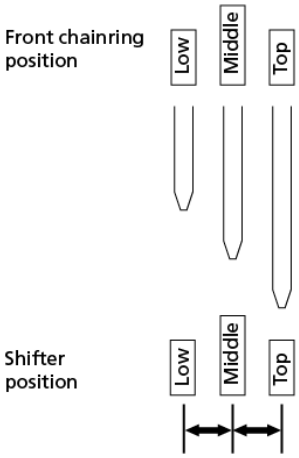
## 11-speed MTB

C-154

### Double



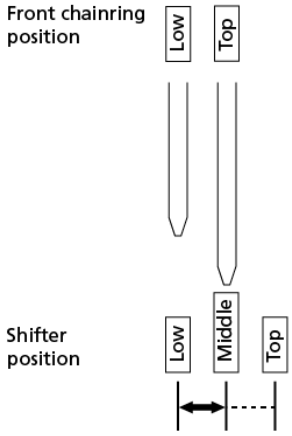

### Triple



# 10,9-speed MTB C-155

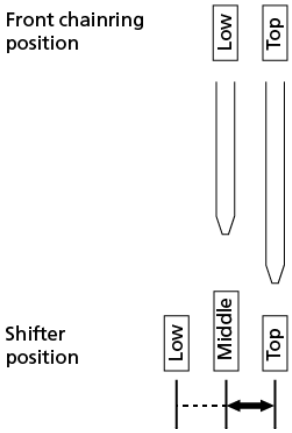
## Double (NEW from MY 2016)

Please use front shifters with 3x / A mode.
Please refer compatiblity of FC / FD / SL. C-442, C-445

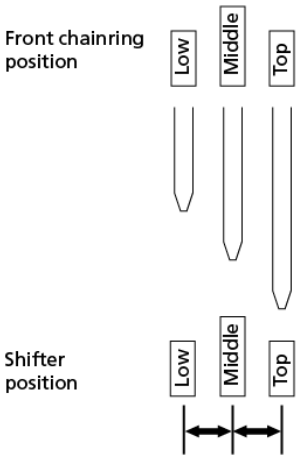



## Double (Old)

Please use front shifters with 2x / B mode.
Please refer compatiblity of FC / FD / SL. C-442




## Triple

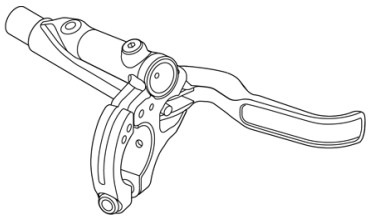


# Installation of I-SPEC shifter with brake lever C-158

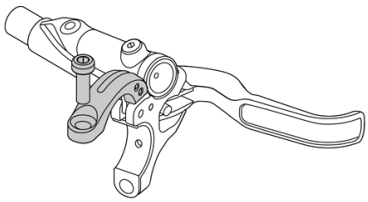
## I-SPEC EV C-551

TBD

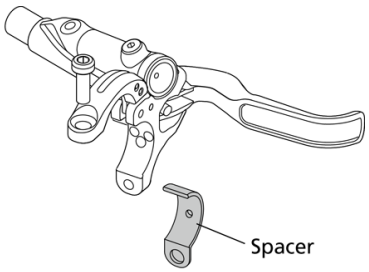
## I-SPEC II C-159



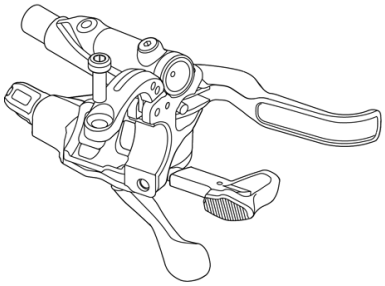
STEP 1



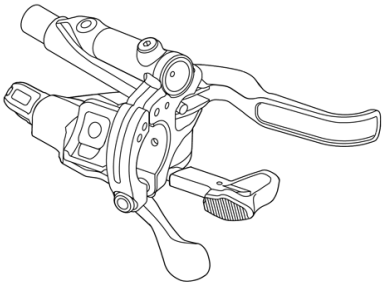
STEP 2



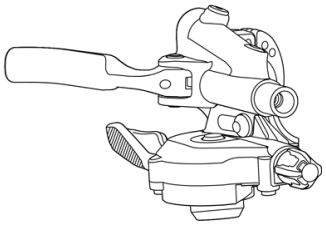

STEP 3



STEP 4

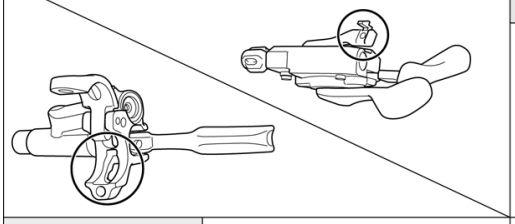
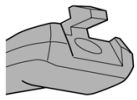
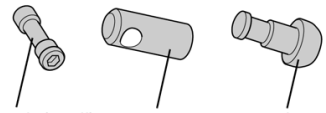
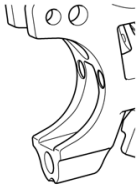
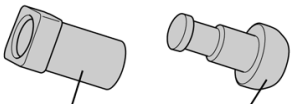


STEP 5



STEP 6

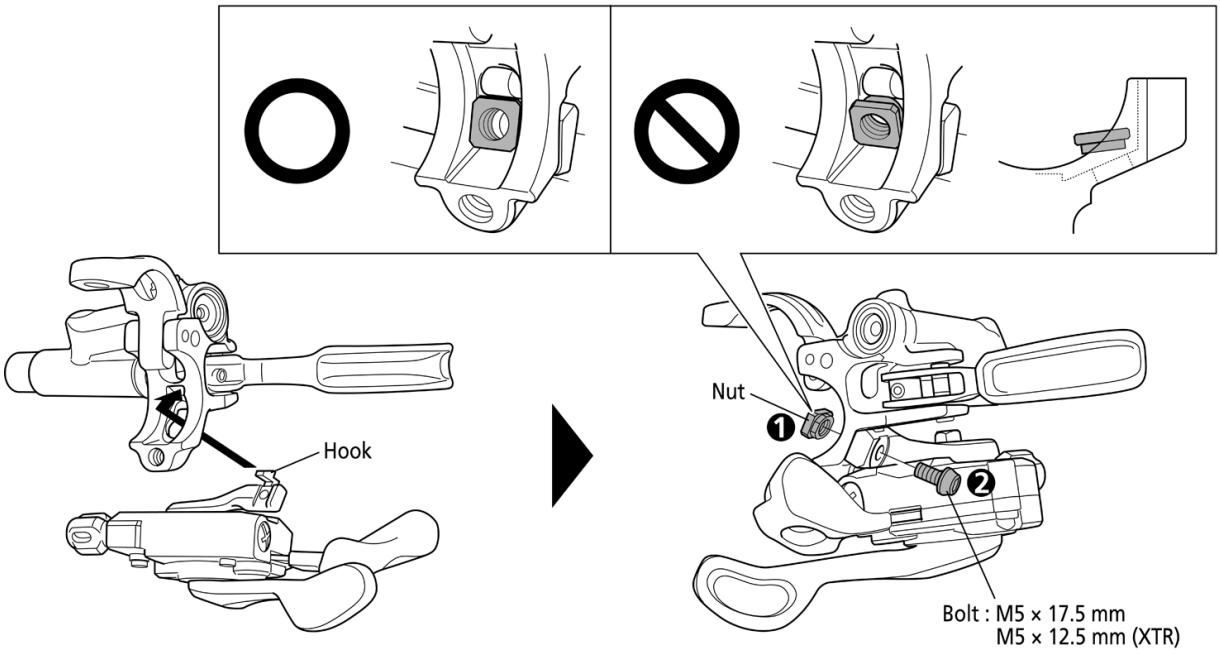
* If installing the BL only, make sure to include the spacer.

<table>
<tr><td colspan="2">  </td><td colspan="2">Shifting Lever</td></tr>
<tr><td colspan="2"></td><td>B type<br> </td><td>Conventional type<br>  </td></tr>
<tr><td rowspan="2">Brake lever</td><td>B type<br> </td><td>[Assembly procedure]:<br>In the case of B<br>  <br>Bolt (small) Nut Bolt</td><td></td></tr>
<tr><td>A type<br>  </td><td>[Assembly procedure]:<br>In the case of C *<br>  <br>Nut Bolt</td><td>[Assembly procedure]:<br>In the case of A<br> <br>Nut Bolt</td></tr>
</table>

* Compatible grip diameter Max. ø32

### In the case of A

Insert the hook of the shifting lever bracket into the hole in the brake lever bracket, and then provisionally tighten the special nut and special bolt to install it to the handlebar.

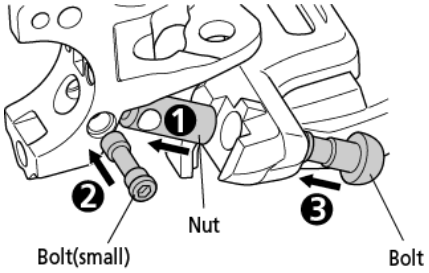



**NOTE**

Do not install the nut upside-down.
If it is installed upside-down, it will not be possible to secure the brake lever to the handlebars, and damage may occur.

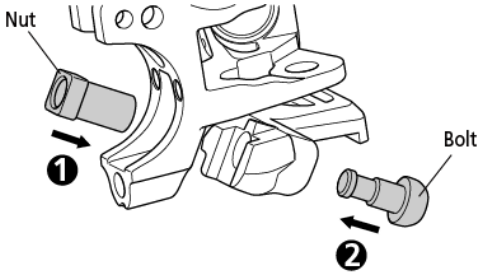
### In the case of B

Insert (1) into the hole in the brake lever bracket, pass (2) through from the side into the nut hole of (1) , and tighten it using a 2 mm Allen key.




### In the case of C

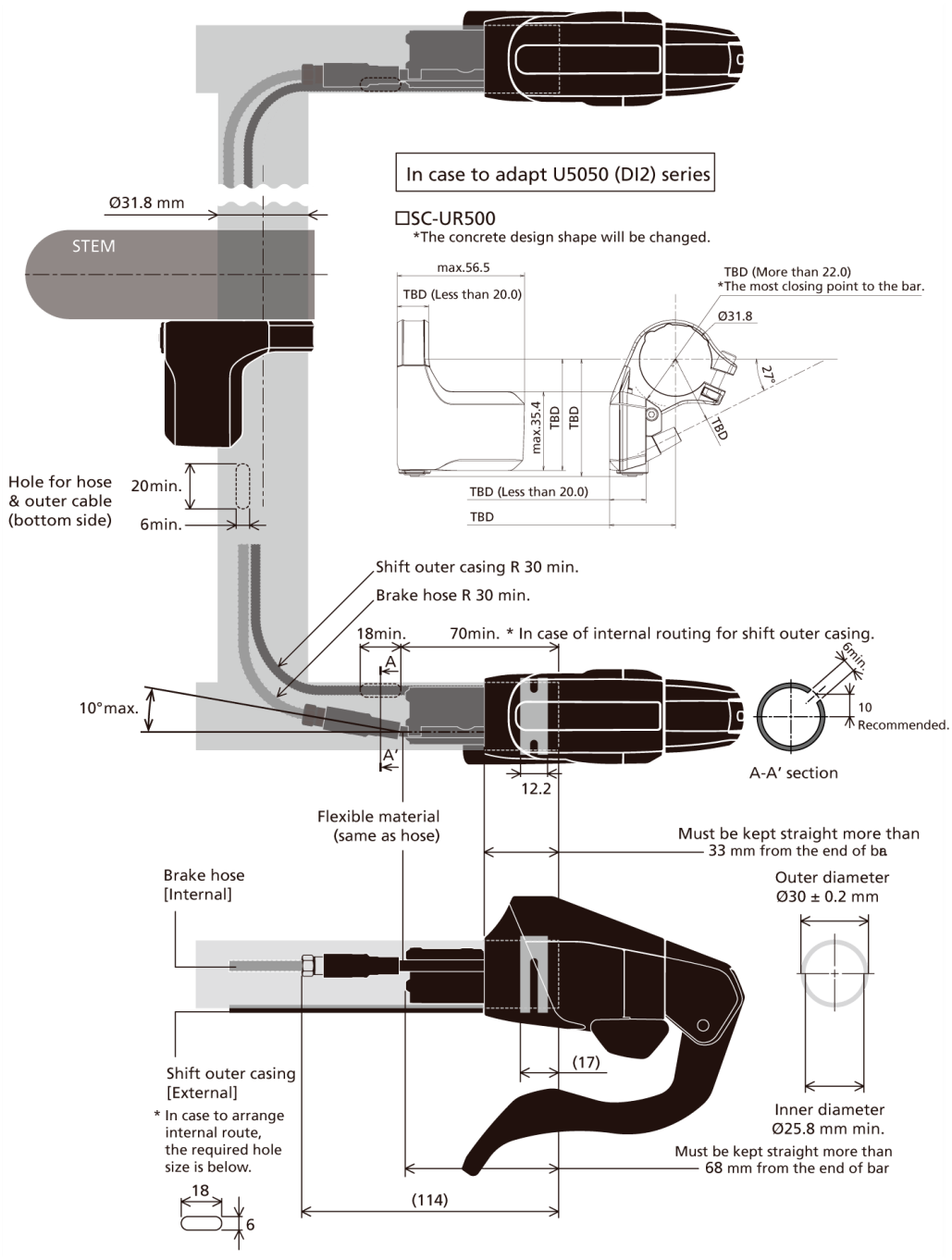
Attach it with the dedicated nut and bolt.

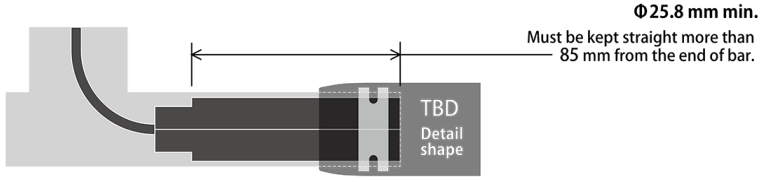


# H-type handlebar requirement

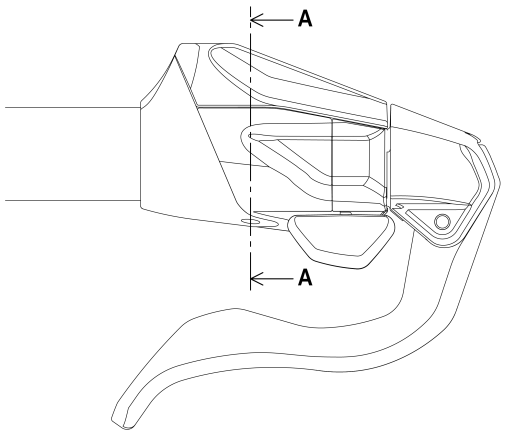
C-504

**ST-U5060-R / ST-U5060-L / BL-U5010-L / ST-U5080 / SC-UR500**

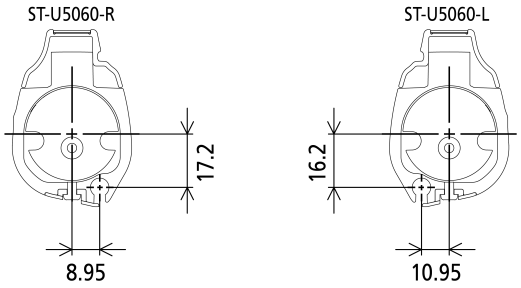


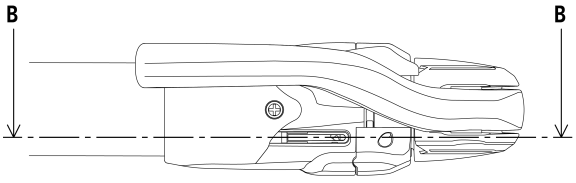
# Outer casing housing stopper dimension C-505



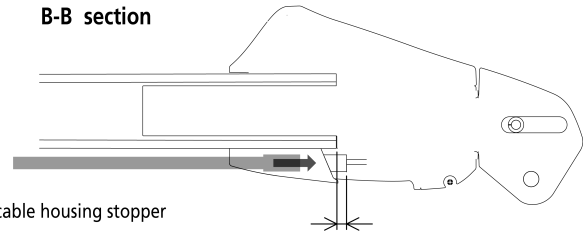

A-A section




Center of the Bar - Outer cable housing stopper




B-B section



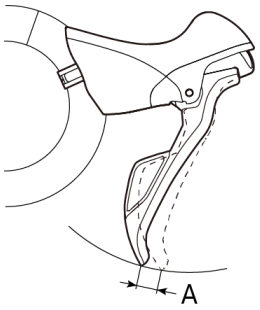
End of the Bar - Outer cable housing stopper

ST-U5060-R : 4.65
ST-U5060-L : 5.60

## Reach adjustment range C-162

By using screw type of adjustment or different kind of the adjustment block, you can adjust the distance between handlebar and shifting lever as shown below.

### Screw type C-163

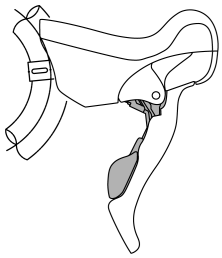


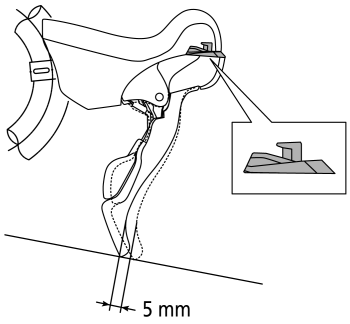

3

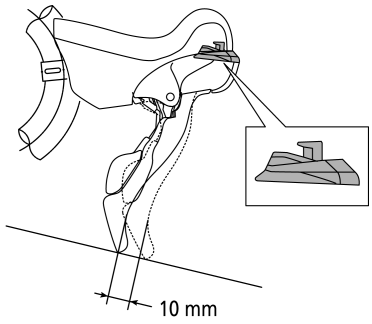
| Model No. | Screw type adjustment range A (mm) |
|---|---|
| ST-R9170 | 15.4 |
| ST-R9150 | 20.8 |
| ST-R9120 | 15.4 |
| ST-R9100 | 20.8 |
| ST-9001 | 13.5 |
| ST-R8000 | 20.8 |
| ST-R8020 | 15.4 |
| ST-R8070 | 15.4 |
| ST-R7000 | 20.8 |
| ST-R7020 | 15.4 |
| ST-R7025 | 15.4 |
| ST-6800 | 13.5 |
| ST-6870 | 15.0 |
| ST-5800 | 13.5 |
| ST-4700 | 13.5 |
| ST-4703 | 13.5 |
| ST-R3030<br>ST-R3000 | 13.5 |
| ST-R2030<br>ST-R2000 | 13.5 |
| ST-RS685 | 10.0 |
| ST-RS505 | 14.8 |
| ST-S705 | 15.0 |
| ST-RS405 | 14.8 |
| ST-A070 | 13.0 |
| ST-A073 | 13.0 |
| ST-U5060 | 12.5 |
| ST-U5080 | TBD |

# Adjustment block type C-164

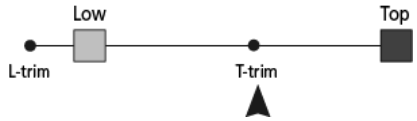
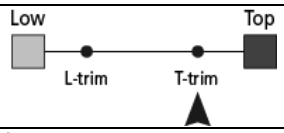
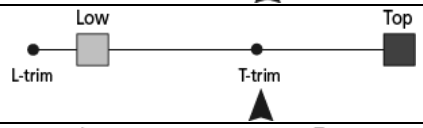
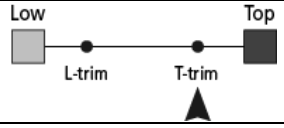
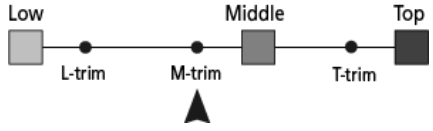
**ST-5700 / ST-5703**






# Inner cable tension adjustment C-165

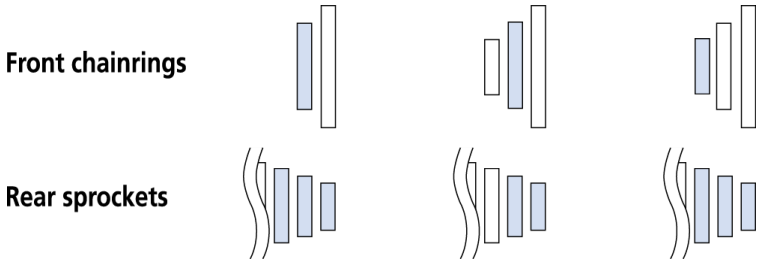
| Speed | STI lever | Inner cable tension adjustment position | Chain position during adjustment | Comments |
|---|---|---|---|---|
| 2x11-speed | ST-R9100<br>ST-9001<br>ST-R9120<br>ST-R8000<br>ST-R8020<br>ST-6800<br>ST-R7000<br>ST-R7020<br>ST-R7025<br>ST-5800<br>ST-RS505<br>ST-RS685<br>ST-U5000<br>ST-U5060 |  | Front: Top<br>Rear: Low | The tension adjustment position is the gear when trimming is carried out from the top position and released to T-trim position. |
| 2x10-speed | ST-4700<br>SL-4700<br>ST-RS405 | | | |
| | SL-4600 |  | | |
| 2x9-speed | ST-R3000<br>SL-R3000 |  | | |
| 2x8-speed | ST-R2000<br>SL-R2000<br>SL-RS200 |  | | |
| 2x7-speed | ST-A070 | | | |
| 3x10-speed | ST-5703<br>ST-4703<br>SL-R783<br>SL-4703<br>SL-4603 |  | Front: Middle<br>Rear: Low | The tension adjustment position is the gear when a full stroke is carried out from the top position and released to M-trim position. |
| 3x9-speed | ST-R3030<br>SL-R3030 | | | |
| 3x8-speed | ST-2030<br>SL-2030<br>ST-RS203 | | | |
| 3x7-speed | ST-A073 | | | |

**NOTE**

This chart shows trim position of levers.

# Contact between front chainrings / Front derailleur and chain C-166

When the chain is in the position shown in the illustration, the chain may contact the front chainrings or front derailleur and generate noise.
If the noise is a problem, shift the chain onto the next-largest rear sprocket or the one after.



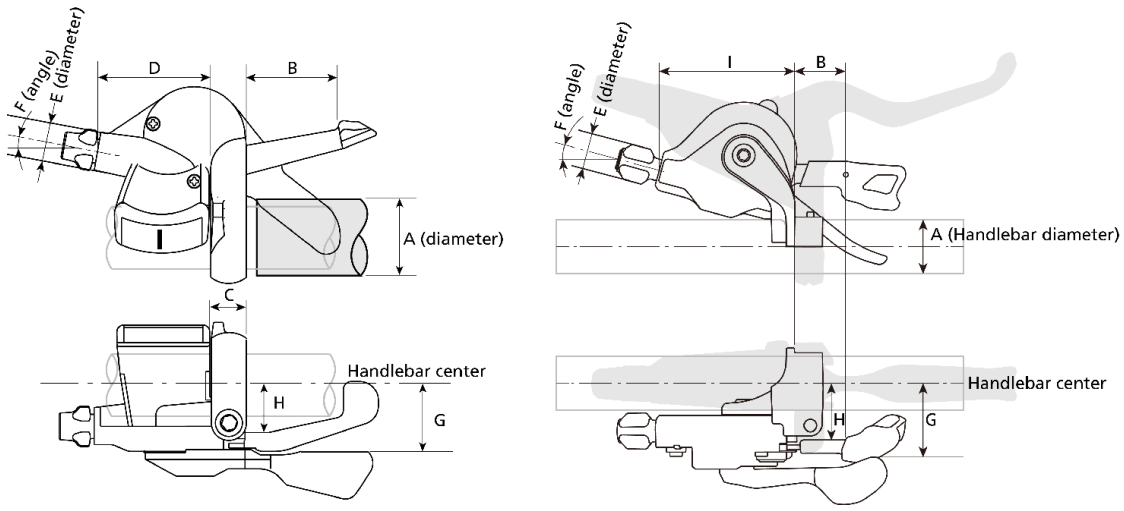

**NOTE**

Road bike with 135 / 142 mm O.L.D.

- When specifying the 135 / 142 mm O.L.D. hubs with any road crankset be aware of the following conditions.
- When the chain is in the position shown in the illustration, the chain may inadvertently contact the chainring pick-up ramps and / or the front derailleur. To alleviate this situation it's recommended that user shift the chain to the next-largest sprocket or the one after.
- For recommended chain length refer to C-013 / C-014 / C-015.

## Dimensions C-168

Please refer to the following dimensions to choose the handlebar and brake lever for RAPIDFIRE PLUS and EZ FIRE PLUS.

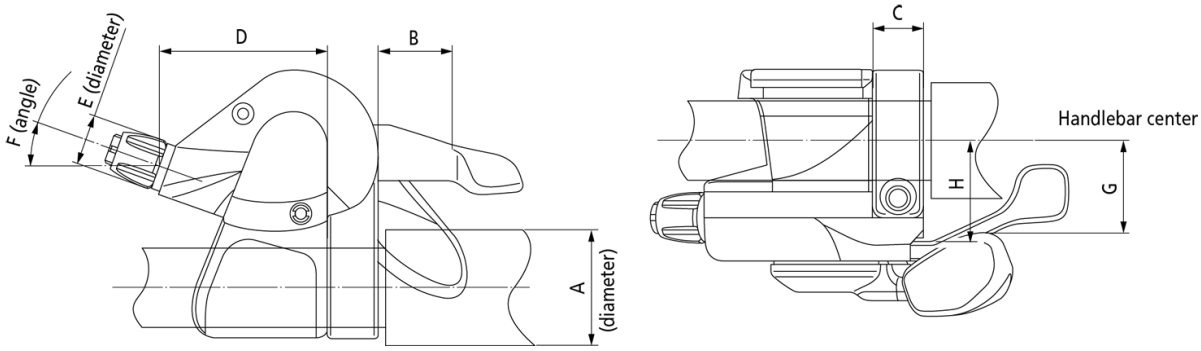



| Model No. | Max. A (mm) | B (mm) Front / Rear | C (mm) | D (mm) Front / Rear | E (mm) | F | G (mm) | H (mm) Front / Rear | I (mm) Front / Rear |
|---|---|---|---|---|---|---|---|---|---|
| SL-RS700 | ø32 | 22.0 | 10.0 | 32.1 / 45.4 | ø15 | 15° | 29.6 | 23.0 | - |
| SL-4700<br>SL-4703<br>SL-4600<br>SL-4603 | ø36 | 28.0 / 26.7 | 13.5 | 39.0 / 36.6 | ø15 | 16° | 30.4 | 23.4 | - |
| SL-R3000<br>SL-R3030 | ø36 | 31 | 13.0 | 40.3 / 40 | ø15 | 10° | 27.3 | 22.8 | - |
| SL-R350<br>SL-R353 | ø36 | 28.7 | 13.0 | 40.3 | ø15 | 10° | 25.3 | 22.6 | - |
| SL-R2000<br>SL-R2030 | ø36 | 31.0 | 13.0 | 40.3 / 40 | ø15 | 10° | 25.4 | 22.8 | - |
| ST-RS200<br>ST-RS203 | ø36 | 5.0 | 16.0 | 63.0 | ø15 | 10° | 25.4 | 22.8 | - |
| SL-R783 | ø32 | 28.0 / 26.7 | 13.5 | 39.0 / 36.6 | ø15 | 16° | 30.4 | 23.4 | - |
| SL-U5000 | ø32 | 22.0 | 10.0 | 32.1 / 45.4 | ø15 | 15° | 29.6 | 23.0 | 56.4 |

**CAUTION**

Some brake lever designs may interfere with the Shifting lever and should not be used. You may also want to check that the brake lever has adequate clearance not to injure an index finger that is placed on the release trigger.

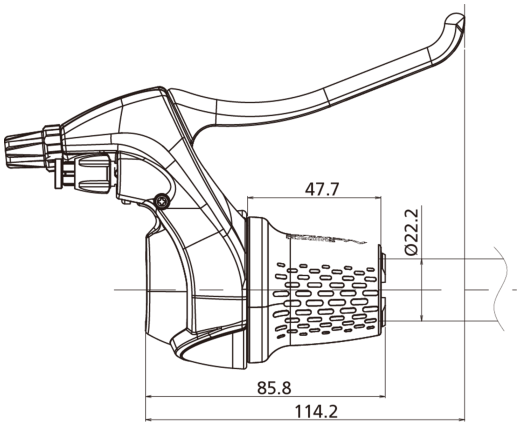
## RAPIDFIRE PLUS shifter for ALFINE / NEXUS C-170



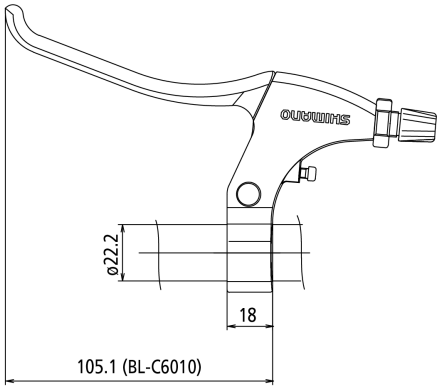

| Model No. | Max. A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F | G (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|
| SL-S700 | ø34 | 33.7 | 12 | 52.7 | ø14 | 20.0° | 32.3 | 21.15 |
| SL-S7000-8<br>SL-S503<br>SL-7S50<br>SL-5S50 | ø32 | 24.5 | 14 | 46.6 | ø14 | 19.67° | 32.7 | 28.1 |

## REVOSHIFT / Brake lever C-171

**SB-C6000-8**

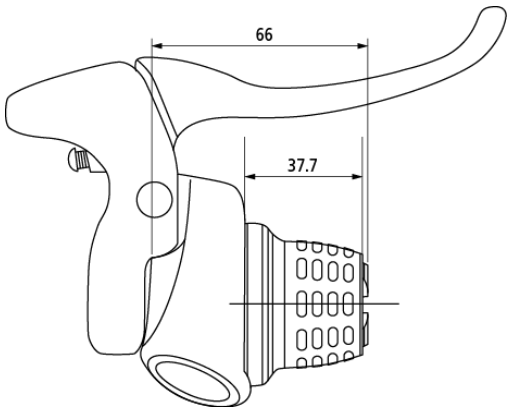



**BL-C6010**

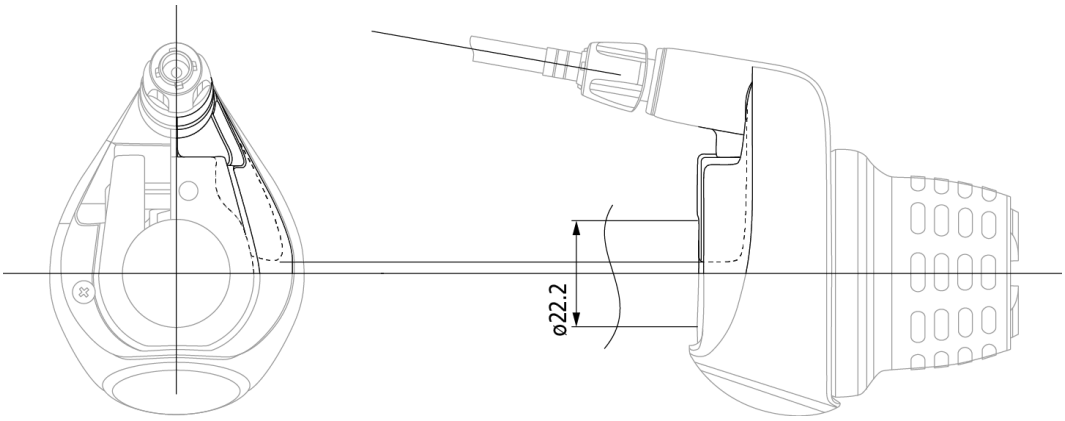


**SL-5S30 / 5S30-A**

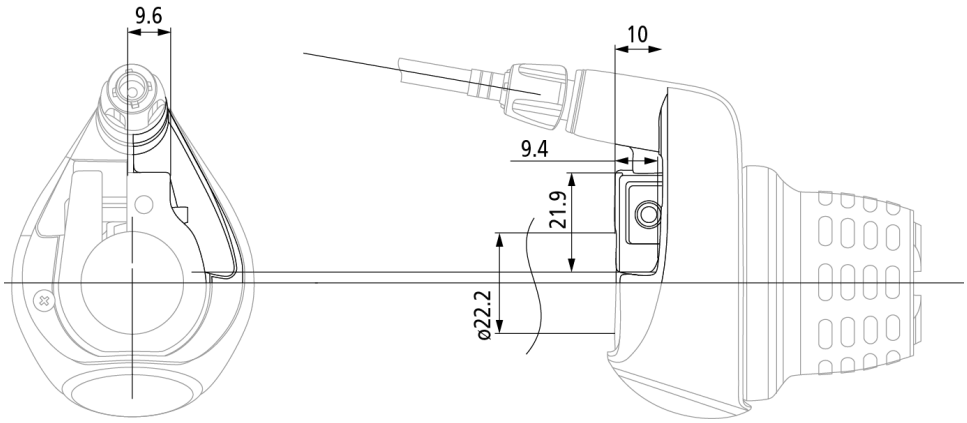
SL-5S30 and SL-5S30-A differ in cover shape as follows.




**SL-5S30**




**SL-5S30-A**




**SL-C6000-8 / SL-C3000-7**

TBD

# Tool variations for assembly on handlebar

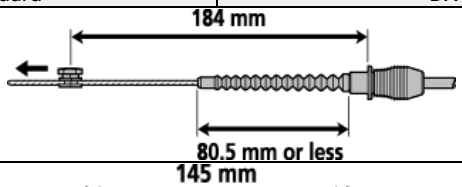
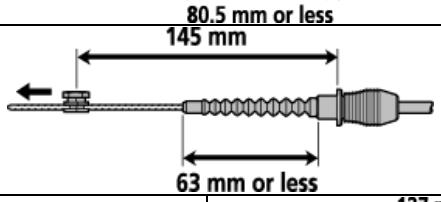
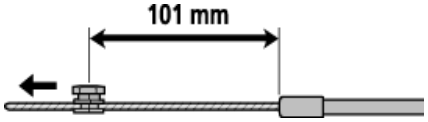
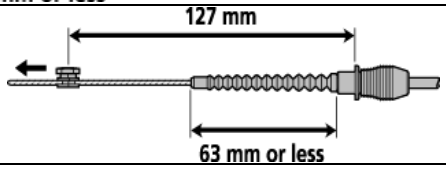
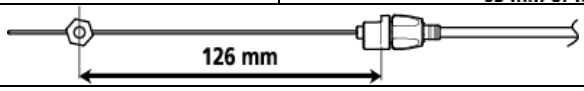
C-172

| Series | Speed | Model No. | Screw size for clamp band | Screw head shape and size |
|---|---|---|---|---|
| ALFINE | 11 | SL-S700 | M6 X 14.8 | Hexagon socket 4 mm |
| | 8 | SL-S7000-8 | M6 X 17.8 | |
| NEXUS | 8 | SL-C6000-8 | M4 X 18.7 | Hexagon socket 3 mm |
| | | SB-C6000-8 | M6 X 16 | Hexagon socket 5 mm |
| | 7 | SL-7S50 | M6 X 17.8 | |
| | | SL-C3000-7 | M4 X 18.7 | Hexagon socket 3 mm |
| | 5 | SL-5S50 | M6 X 17.8 | Hexagon socket 5 mm |
| | | SL-5S30 | M4 X 18.7 | Hexagon socket 3 mm |
| | 3 | SL-3S41E | M4 X 23.5 | |
| | | SL-3S42E | | |
| | | SL-3S43J | | |
| | | SL-3S58J | | |
| | | SL-3S35E | M4 X 16.0 | Hexagon socket 4 mm |
| | | SL-3S90 | M5 X 20.0 | Cross recess No.2 |
| | | SL-3S91J | | |

# Protruded lengths of the inner cable

C-173

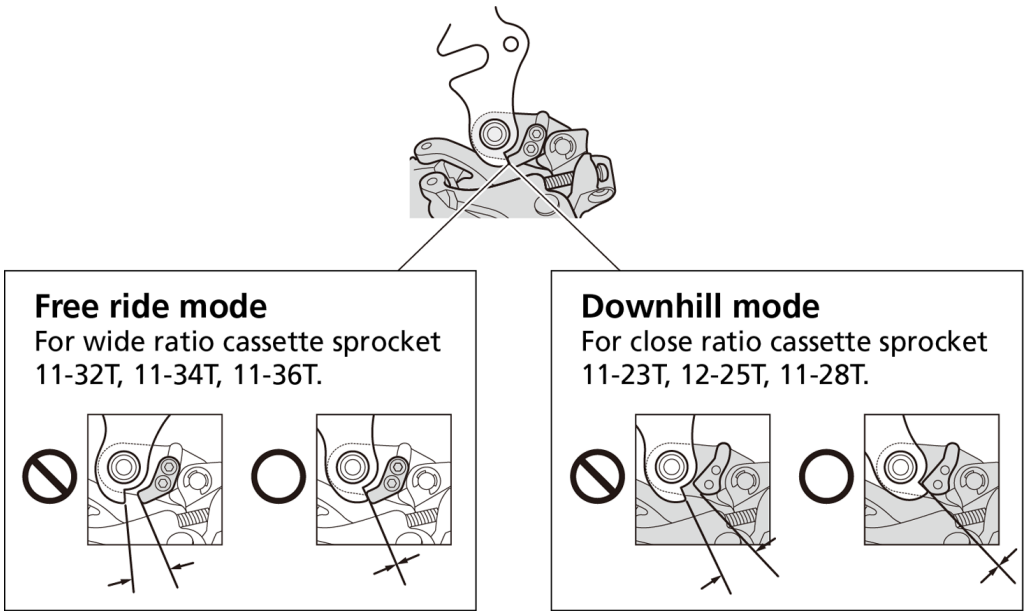
**Length between Inner cable fixing bolt and nut unit and outer casing**

| Model No. | Standard | DX | Tool |
|---|---|---|---|
| SL-S700 |  | | TL-S700-B |
| SL-S7000-8 |  | | |
| SL-8S31<br>SB-C6000-8<br>SL-7S31<br>SL-5S50<br>SL-5S30 |  |  | TL-CJ40 |
| SL-3S58J<br>SL-3S43J |  | | |

## Free ride / Downhill mode converter C-175

**RD-M820**

Mode converter setting

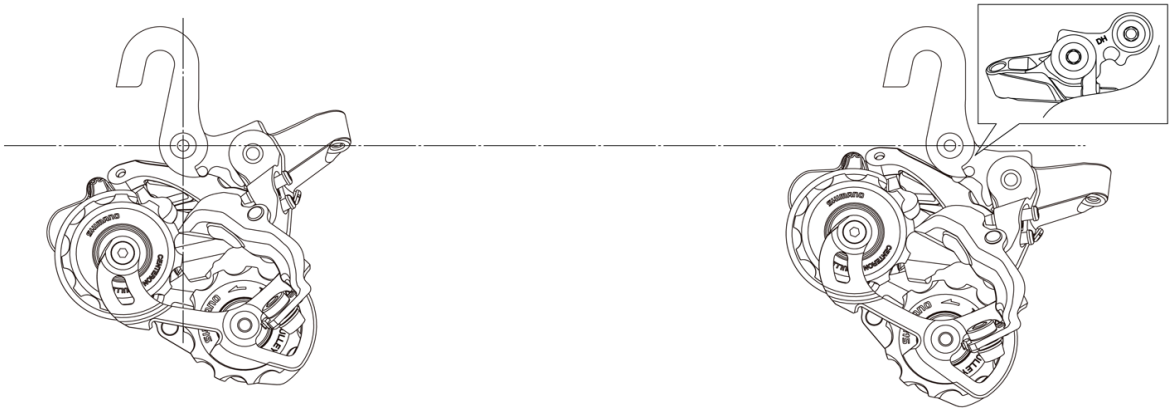



**RD-M640**

2 spec. available
*RD-M640 does not have mode converter.

**Free ride spec.**
For wide ratio cassette sprocket
11-32T, 11-34T, 11-36T.

**Downhill spec.**
For close ratio cassette sprocket
11-23T, 12-25T, 11-28T.

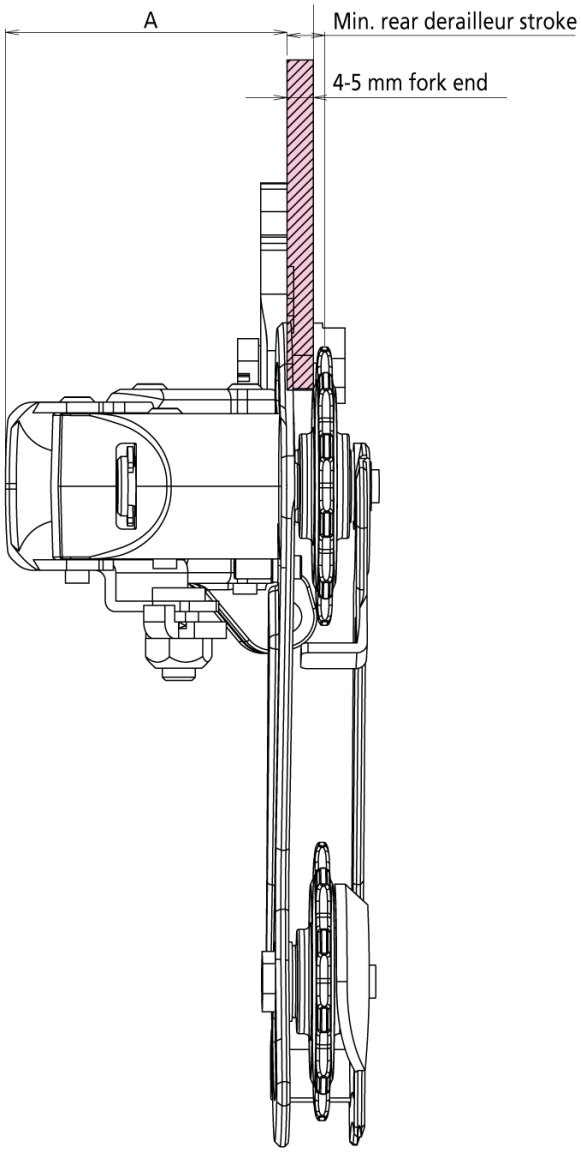


# Recommended clearance for outer link protrusion

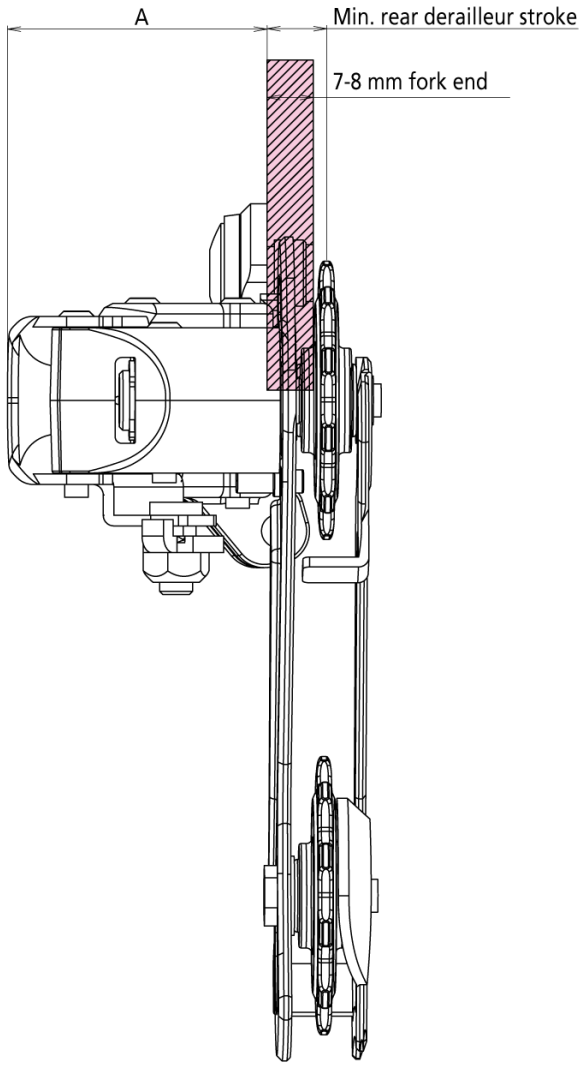


**RD-TY21-B**

**With Normal and Reverse adapter (4 mm end)**




**Direct attachment (7 mm end)**




Front view of the bicycle

| Model No. | Adapter type | Dimension A |
|---|---|---|
| RD-TY21-B | With normal and reverse adapter (4 mm end) | 43 mm |
| | Direct attachment (7 mm end) | 40 mm |

**NOTE**

- Please make sure of clearance A dimension to have enough clearance from other parts.
- Actual condition could be vary depends on frame and fork end design.
- Please check the interference with screw driver for H / L adjustment bolt by using actual sample.

# Fork end and Rear derailleur [MTB, Trekking]

| | Speed | Direct mount compatible models |
|---|---|---|
| MTB | 11-speed | RD-M9000<br>RD-M9050<br>RD-M8000<br>RD-M8050<br>RD-M7000-11 |
| | 10-speed | RD-M820<br>RD-M7000-10<br>RD-M640<br>RD-M6000 |
| | 9-speed | RD-M4000<br>RD-M3000 |
| Trekking | 10-speed | RD-T8000<br>RD-T6000 |
| Road | 11-speed | RD-R9100<br>RD-R9150<br>RD-R8000<br>RD-R8050<br>RD-RX800<br>RD-RX805<br>RD-R7000 |

**NOTE**

- With use bracket mount, SHADOW RD and SHADOW RD+ can install to standard fork end.
- Without bracket mount, SHADOW RD and SHADOW RD+ can install to new direct mount fork end.
- RD-M9100 and RD-M9120 can install to only standard fork end.
- Direct mount fork end for RD-M820 downhill mode, RD-M640 downhill spec require difference dimension, please refer to C-024, C-175.

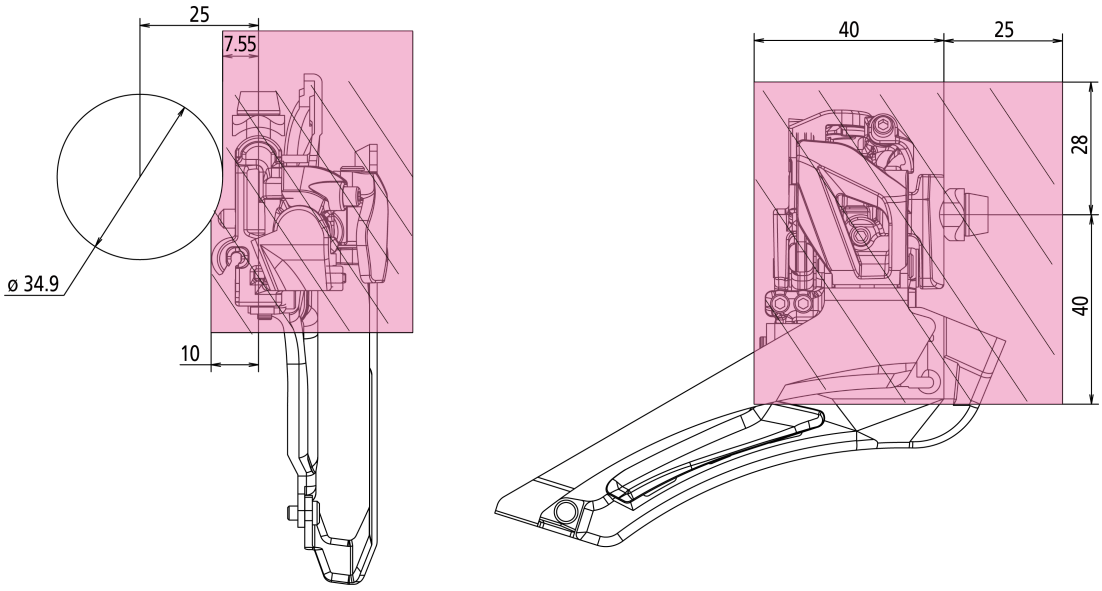
## Front derailleur and seat tube adapter C-183

| Speed | Model No. | Size | |
|---|---|---|---|
| | | ø28.6 mm | ø31.8 mm |
| 12 | FD-M9100-M | KSMAD17S | KSMAD17M |
| 11 | FD-M9000-H | KSMAD17S | KSMAD17M |
| | FD-M9000-L | | |
| | FD-M9020-H | | |
| | FD-M9020-L | | |
| | FD-M9025-H | | |
| | FD-M9025-L | | |
| | SM-FD905-H for FD-M9050 / FD-M9070 / FD-M8070 | | |
| | SM-FD905-L for FD-M9050 / FD-M9070 / FD-M8070 | | |
| | FD-M8000-H | | |
| | FD-M8000-L | | |
| | FD-M8020-H | | |
| | FD-M7020-11-H | | |
| | FD-M7020-11-M | | |
| | FD-M8020-L | | |
| | FD-M7020-11-L | | |
| | FD-M8025-H | | |
| | FD-M7025-11-H | | |
| | FD-M8025-L | | |
| | FD-M7025-11-L | | |
| 10 | FD-T8000 | | |
| | FD-T6000 | | |
| | FD-M7000-10-H | | |
| | FD-M7000-10-M | | |
| | FD-M7000-10-L | | |
| | FD-M7005-10-L | | |
| | FD-M617-H | | |
| | FD-M617-L | | |
| | FD-M618-H | | |
| | FD-M618-L | | |
| | FD-M6000-H | | |
| | FD-M6000-M | | |
| | FD-M6000-L | | |
| | FD-M6020-H | | |
| | FD-M6020-M | | |
| | FD-M6020-L | | |
| | FD-M6025-H | | |
| | FD-M6025-L | | |
| 9 | FD-M4000-M | Y2B198010 | Y2B198020 |
| | FD-M4020-M | Y2B198010 | Y2B198020 |
| | FD-M4020-M-B | Y2B198010 | Y2B198020 |
| | FD-M4000-TS | ASMFDSTABS16 | ASMFDSTABM16 |
| | FD-M4000-DS | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-T4000-TS | ASMFDSTABS16 | ASMFDSTABM16 |
| | FD-T4000-DS | | |
| | FD-M3000-TS | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-T3000-TS | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-M2000-TS | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-M2000-DS | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-M370 | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-M371 | ASMFDSTABS16 | ASMFDSTABM16 |
| 8 | FD-M310 | ASMFDSTABS17 | ASMFDSTABS17 |
| | FD-M313 | ASMFDSTABS16 | ASMFDSTABM16 |
| | FD-TX800-TS | ASMFDSTABS17 | ASMFDSTABM17 |
| | FD-TY700 | ASMFDSTABS18 | ASMFDSTABM18 |
| | FD-TY710 | | |
| 7 | FD-TY500 | | |
| | FD-TY510 | | |

# Interference area of front derailleur [ROAD]



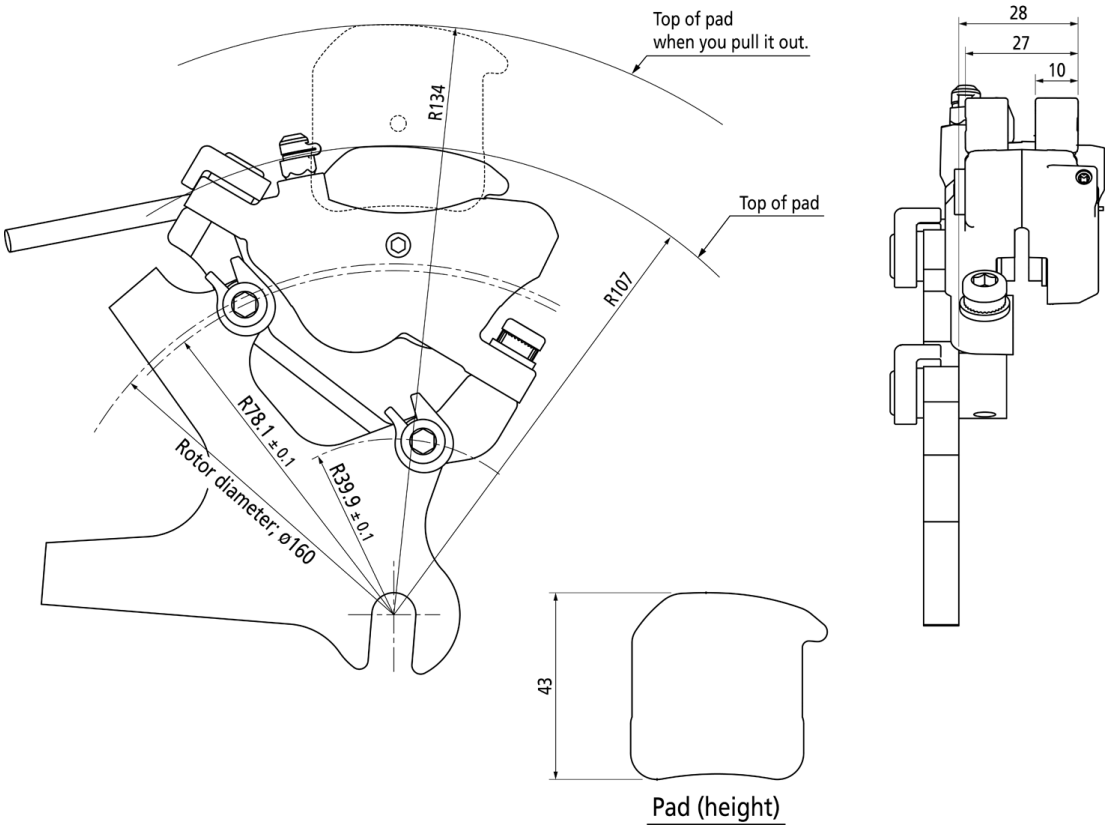
**FD-R9100 / FD-R8000 / FD-R7000**



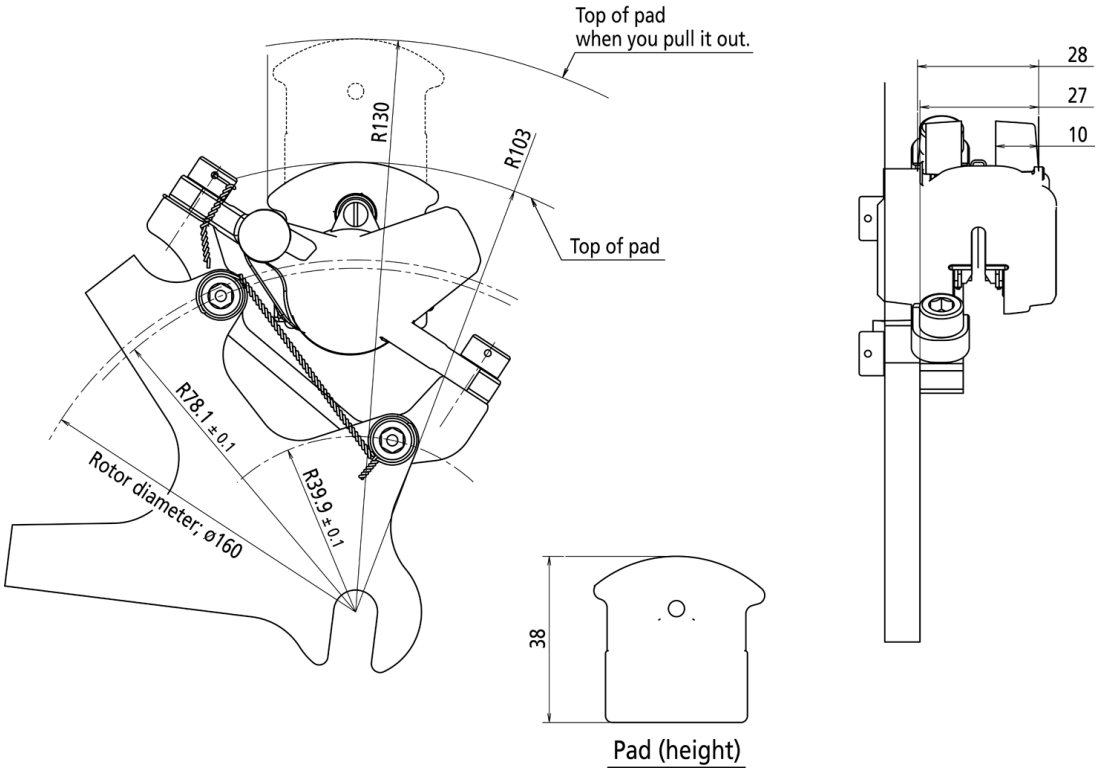
# Dimensions for brake pad

C-185

**BR-M820 / BR-M640 / BR-M8020**




**BR-M9000 / BR-M9020 / BR-M8000 / BR-RS785 / BR-M7000**



# Dimensions for brake caliper



BR-M9100 / BR-M9120

**Brake caliper dimension to avoid seat stay interference**

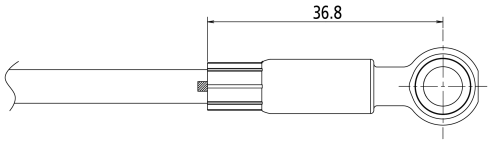
TBD

BR-MT520

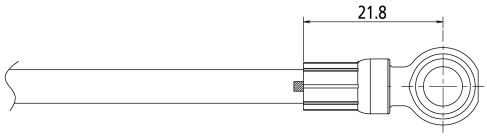
TBD

# Banjo

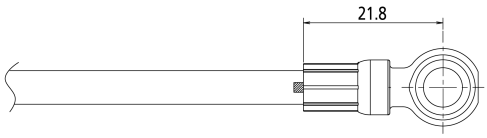





long



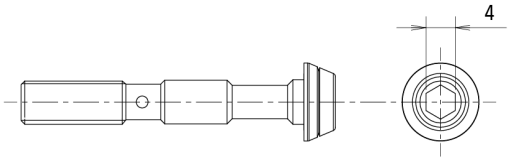

normal, special coating



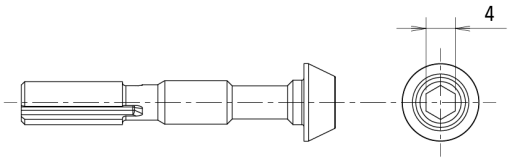

normal

# Banjo bolt

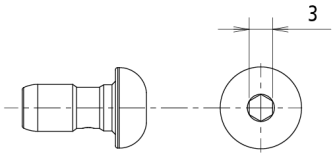





special




normal

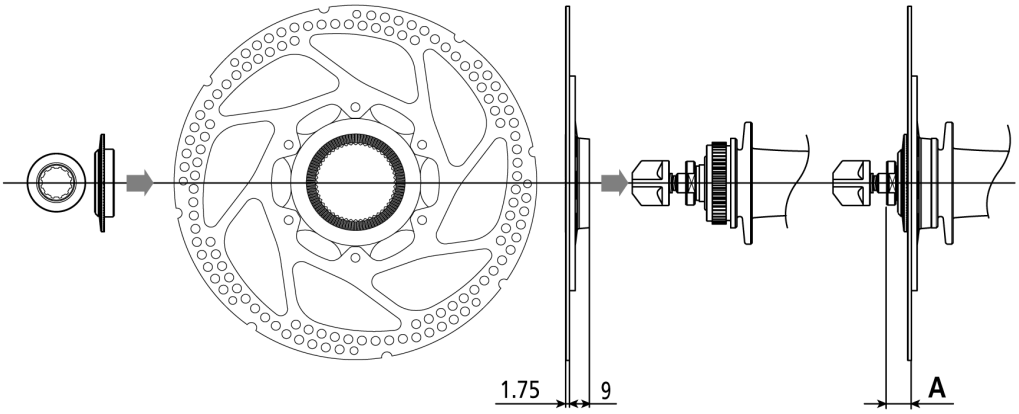



short

# Disc brake rotor and hub dimensions



## CENTER LOCK type C-190

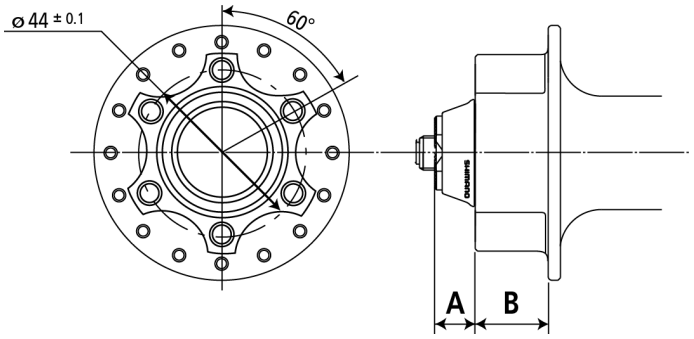



Combination of rotor and hub dimensions

| | | Disc hub | Dimension A (mm) |
|---|---|---|---|
| MTB | Front | QR / 15 mm E-THRU | 10.5 |
| | | 110x15 mm E-THRU | 10.5 |
| | | 20 mm thru axle | 15.25 |
| | Rear | QR, 10 mm / 12 mm thru axle | 15.25 |
| | | 142x12 mm / 148x12 mm E-THRU axle | 18.75 |
| Road | Front | QR / 100x12㎜ E-THRU | 10.5 |
| | Rear | QR | 15.25 |
| | | 142x12㎜ E-THRU | 18.75 |

## 6-bolt type C-191

SHIMANO disc brake rotor is able to mount to the hubs with following dimensions. Following required dimensions are the 6 bolt standard.

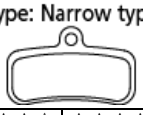


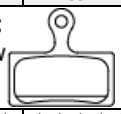
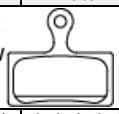

| | Dimension A (mm) | Dimension B (mm) |
|---|---|---|
| | | M756 / M525 / M475 |
| Front | 10.5 | 15.3 |
| Rear | 15.25 | 16.9 |

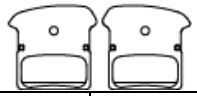
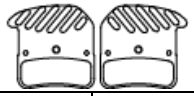
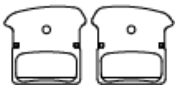
# Brake pad line-up

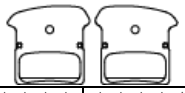


1 3

| Model No. | Type | B01S | D02S | D01S | N04A | N03A |
|---|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal | Resin |
| Pad Shape Type | | B-type: Wide type | D-type: Narrow type  | | N-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★☆ |
| | Silence | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| Pad Radiator fin | | – | – | – | X | X |
| High heat insulation | | – | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – | – |
| | Aluminum | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – |
| | Stainless steel | X | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | Standard | Standard |
| BR-M9000 | Hydraulic | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – |
| BR-M820 | Hydraulic | – | Option | Option | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | Standard | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – |
| BR-R7070 | Hydraulic | – | – | – | – | – |
| BR-RS785 | Hydraulic | – | – | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | Standard | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | Standard | Standard | – | – |
| BR-MT500 | Hydraulic | Standard | – | – | – | – |
| BR-M446 | Hydraulic | Standard | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | – |
| BR-MT400 | Hydraulic | Standard | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | – |
| BR-M375 | Mechanical | Standard | – | – | – | – |
| BR-MT200 | Hydraulic | Standard | – | – | – | – |
| BR-UR300 | Hydraulic | Standard | – | – | – | – |
| BR-TX805 | Mechanical | Standard | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – | – |

| Model No. | Type | G01A | G01S | G02A | G02S | G03S | G03Ti | G04S | G04Ti |
|---|---|---|---|---|---|---|---|---|---|
| | | Resin | Resin | Resin | Resin | Metal | Metal | Metal | Metal |
| Pad Shape Type | | | G-type: Narrow type  | | | | G-type: Narrow type  | | |
| Characteristics | Modulation | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Anti-fading | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ |
| Pad Radiator fin | | – | – | – | – | – | – | – | – |
| High heat insulation | | – | – | X | X | – | – | X | X |
| Pad Back plate | Titanium | – | – | – | – | – | X | – | X |
| | Aluminum | X | – | X | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel | – | X | – | X | X | – | X | – |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | Standard | – | – | Option | – |
| BR-R7070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS785 | Hydraulic | – | – | Option | – | Option | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | Standard | – | – | Option** | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT400 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | Standard | – | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-S700 | Hydraulic | Standard | – | – | – | – | – | – | – |

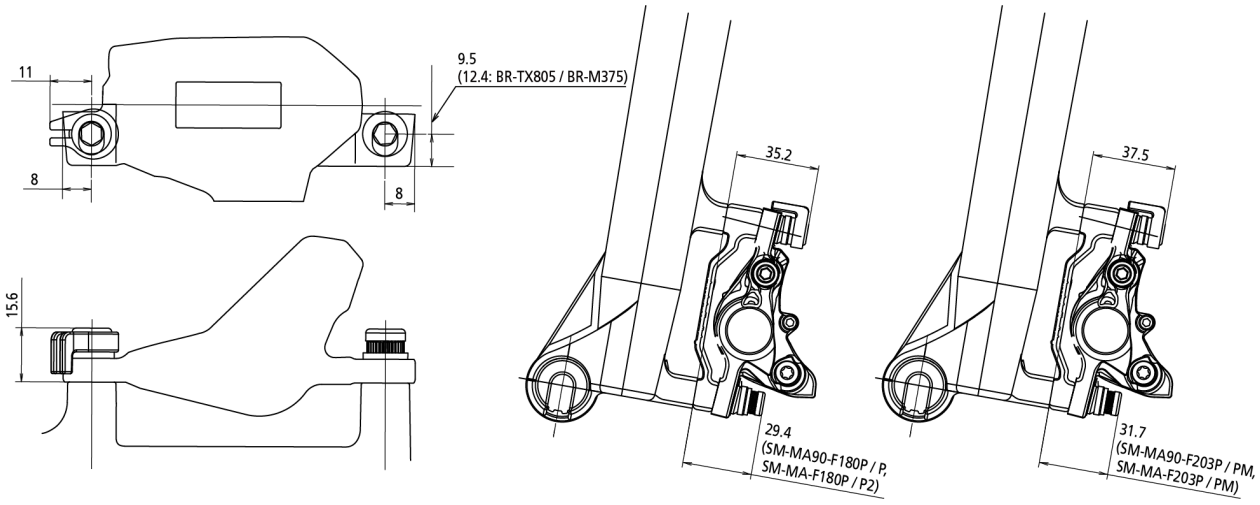
| Model No. | Type | F01A | F03C | H01A | H03C | L02A | L04C | K02S | K04S |
|---|---|---|---|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal | Resin | Metal | Resin | Metal |
| Pad Shape Type | | F-type: Narrow type  | | H-type: Narrow type  | | L-type: Narrow type  | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ |
| Pad Radiator fin | | X | X | X | X | X | X | – | – |
| High heat insulation | | – | – | – | – | – | X | – | X |
| Pad Back plate | Titanium | – | – | – | – | – | – | – | – |
| | Aluminum | X | – | X | – | X | – | – | – |
| | Stainless steel/ Aluminum | – | X | – | X | – | X | – | – |
| | Stainless steel | – | – | – | – | – | – | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | Standard | Option | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | Option | Option |
| BR-M9120 | Hydraulic | – | – | Option | Option | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R8070 | Hydraulic | – | – | – | – | Standard | Option | Standard | Option |
| BR-M820 | Hydraulic | – | – | Standard | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | Standard | Option | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R7070 | Hydraulic | – | – | – | – | Standard | Option | Standard | Option |
| BR-RS785 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | Standard | Option | Option | Option |
| BR-M640 | Hydraulic | – | – | Option | Option | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | Option | – | Standard | – |
| BR-MT400 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | Option | – | Standard | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | Standard | Option |
| BR-S700 | Hydraulic | Option | – | – | – | – | – | – | – |

| Model No. | Type | J02A | J04C | K02Ti | K04Ti |
|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal |
| Pad Shape Type | | F-type: Narrow type  | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ |
| Pad Radiator fin | | X | X | – | – |
| High heat insulation | | X | X | – | X |
| Pad Back plate | Titanium | – | – | X | X |
| | Aluminum | X | – | – | – |
| | Stainless steel/ Aluminum | – | X | – | – |
| | Stainless steel | – | – | – | – |
| BR-R9170 | Hydraulic | – | – | Standard | Option |
| BR-M9100 | Hydraulic | – | – | Standard | Standard |
| BR-M9120 | Hydraulic | – | – | – | – |
| BR-M9000 | Hydraulic | Option | Option | – | – |
| BR-M9020 | Hydraulic | Standard | Standard | – | – |
| BR-R8070 | Hydraulic | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – |
| BR-M8000 | Hydraulic | Standard | Option | – | – |
| BR-M8020 | Hydraulic | – | – | – | – |
| BR-M7000 | Hydraulic | Standard | Option | – | – |
| BR-R7070 | Hydraulic | – | – | – | – |
| BR-RS785 | Hydraulic | Standard | Standard | – | – |
| BR-RS505 | Hydraulic | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – |
| BR-M6000 | Hydraulic | Standard | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – |
| BR-MT400 | Hydraulic | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – |

# Dimensions of the position of fixing bolt



Dimensions of the position of fixing bolt of SHIMANO disc brake caliper is shown below.
Please verify that frame dimension will not cause interference with caliper and brake mount, especially chainstay post mount.

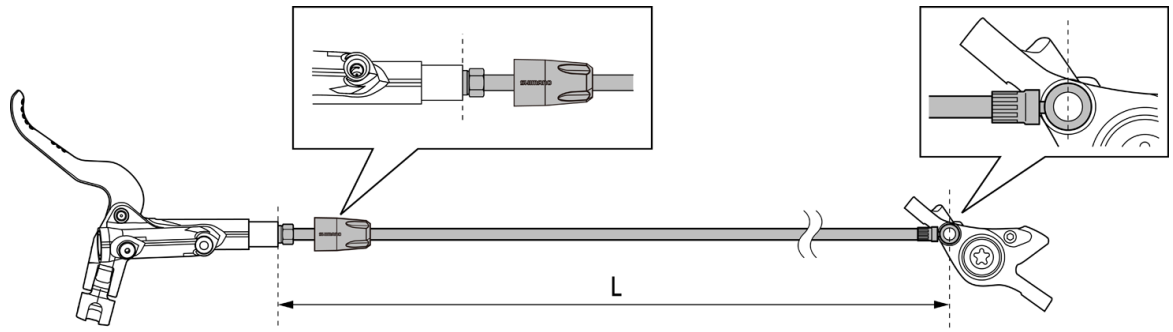


# Brake hose dimensions

**NOTE**

The length of brake hose is related with product part number.

## SM-BH90-SBM / SM-BH90-SB / SM-BH90-SBS / SM-BH90-SBLS

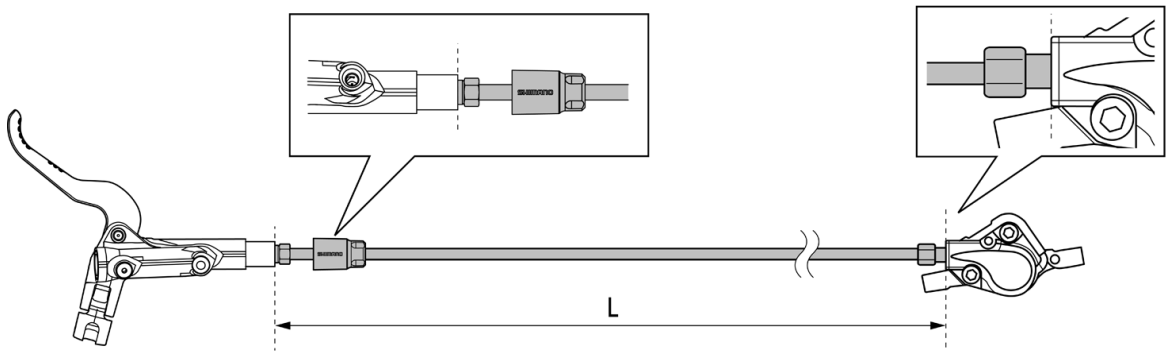



L: Brake hose length

5

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SBM<br>SM-BH90-SB<br>SM-BH90-SBS<br>SM-BH90-SBLS | BL-M9120 (SM-BH90-SBM) | BR-M9120 (SM-BH90-SBM) |
| | BL-M9000 | BR-M9000 |
| | BL-M9020 | BR-M9020 |
| | BL-M820-B (SM-BH90-SBLS) | BR-M820 (SM-BH90-SBLS) |
| | BL-M8000 | BR-M8000 |
| | BL-M7000 | BR-M7000 |
| | BL-T8000 | BR-M8000 |
| | BL-M640-B (SM-BH90-SBS) | BR-M640 (SM-BH90-SBS) |
| | BL-M8000 | BR-M8020 (SM-BH90-SBLS) |

## SM-BH90-SS

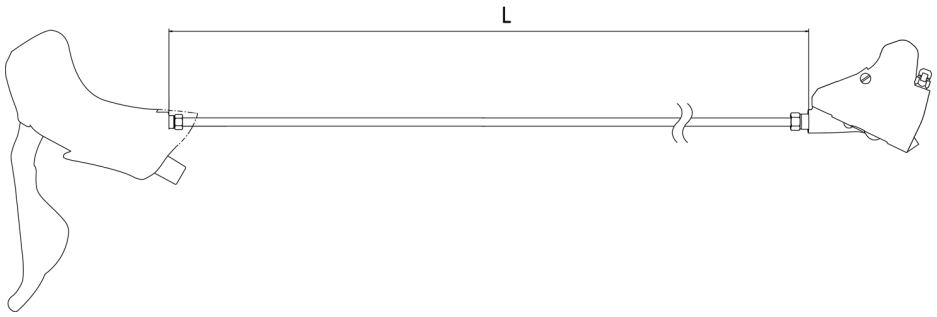



L: Brake hose length

3 5

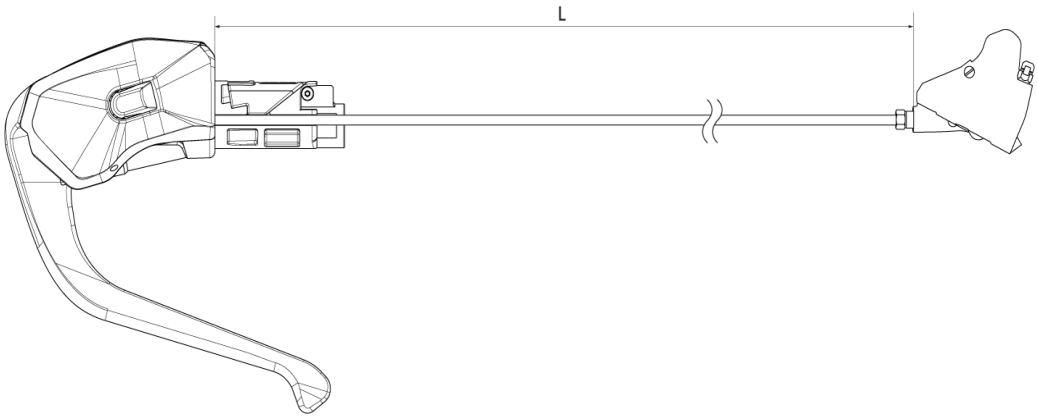
| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SS | BL-M9100 | BR-M9100 |
| | BL-M6000 | BR-M6000 |
| | BL-MT501 | BR-MT520 |

## SM-BH90-JK-SSR



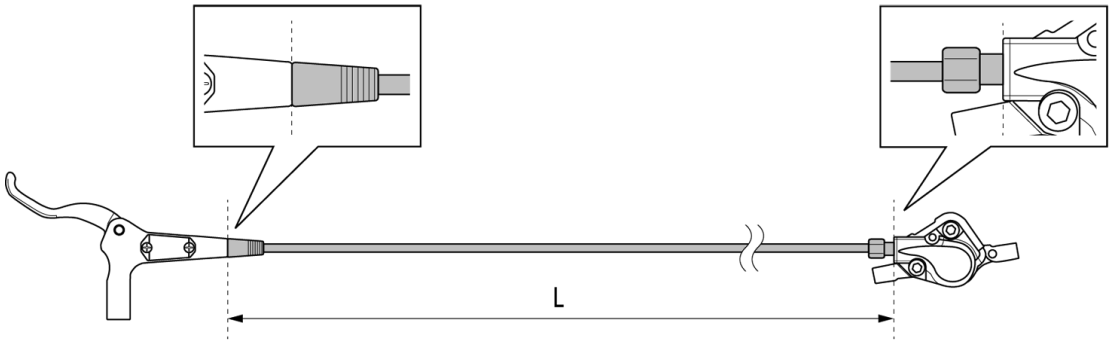

| Model No. | Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH90-JK-SSR | ST-R9170 | BR-R9170<br>BR-R8070<br>BR-R7070 |
| | ST-R9120 | |
| | ST-R8070 | |
| | ST-R8020 | |
| | ST-R7020 | |
| | ST-R7025 | |

## SM-BH90-JK-SS




| Model No. | Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH90-JK-SS | ST-R9180 | BR-R9170 |

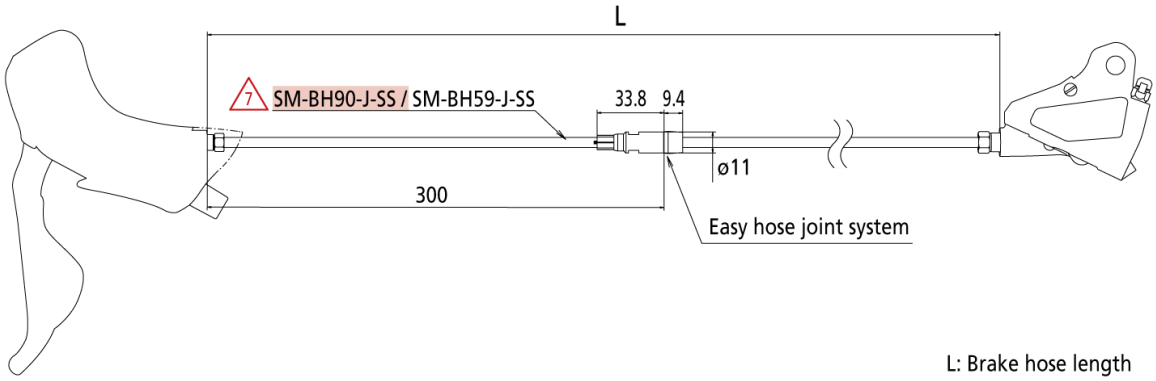
## SM-BH59-JK-SS




L: Brake hose length

| Model No. | Brake Lever, Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH59-JK-SS | BL-MT500 | BR-MT500 |
| | BL-T6000 | BR-M6000 |
| | BL-RS600 | BR-RS405 |
| | BL-T445 | BR-M446 |
| | BL-MT400 | BR-MT400 |
| | BL-MT201 | BR-MT200 |
| | BL-MT200 | BR-MT200 |
| | BL-MT201 | BR-UR300 |
| | BL-MT200 | BR-UR300 |
| | ST-EF505 | BR-MT200 |
| | BL-U5000 | BR-U5000 |

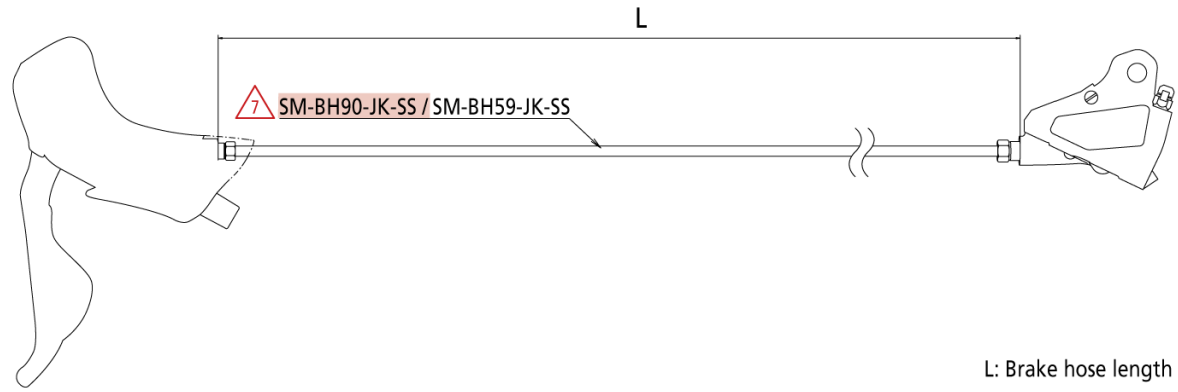
## SM-BH90-J-SS / SM-BH59-J-SS



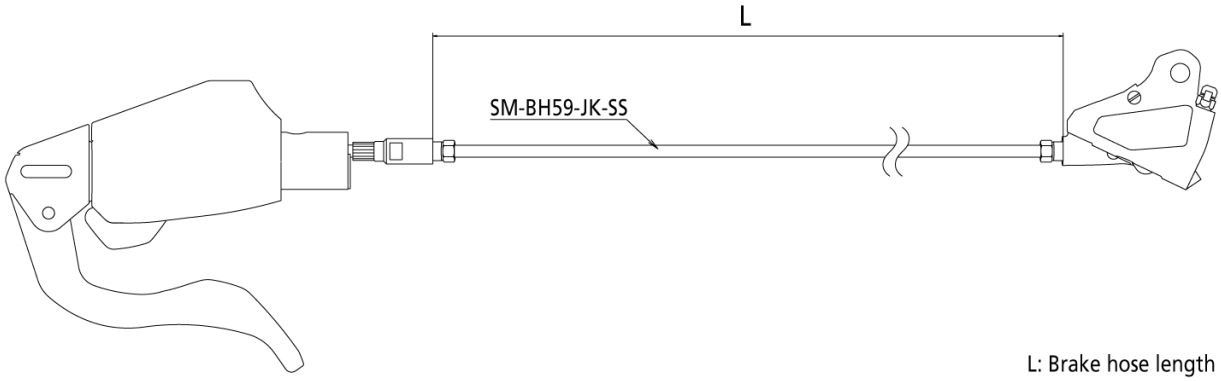

L: Brake hose length

| Model No. | Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH90-J-SS | ST-R8020<br>ST-R8070<br>ST-R7020<br>ST-R7025 | BR-R8070<br>BR-R7070 |
| SM-BH59-J-SS | ST-RS685<br>ST-RS505<br>ST-RS405 | BR-RS785<br>BR-RS505<br>BR-RS405 |

## SM-BH90-JK-SS / SM-BH59-JK-SS




L: Brake hose length

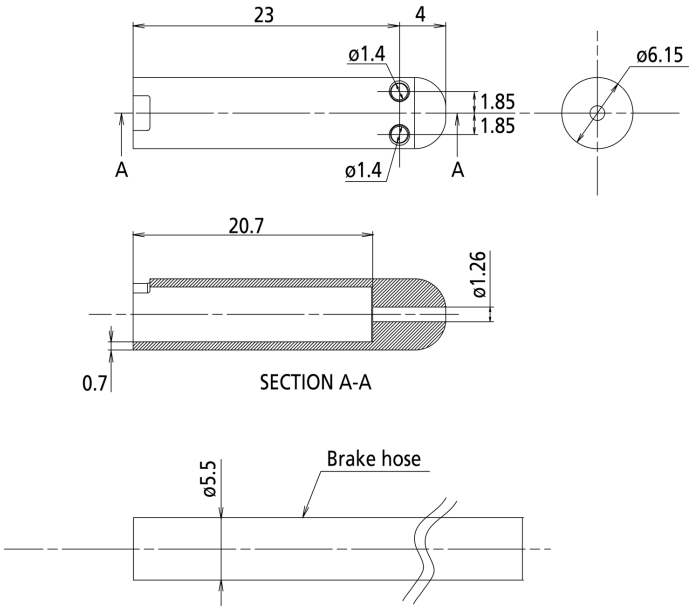



L: Brake hose length

| Model No. | Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH90-JK-SS | ST-R9120<br>ST-R9170<br>ST-R8020<br>ST-R8070<br>ST-R7020<br>ST-R7025 | BR-R9170<br>BR-R8070<br>BR-R7070 |
| SM-BH59-JK-SS | ST-RS685<br>ST-RS505<br>ST-RS405<br>ST-U5060<br>BL-U5010<br>ST-U5080 | BR-RS785<br>BR-RS505<br>BR-RS405<br>BR-U5000 |

# Easy hose joint system (J-kit)

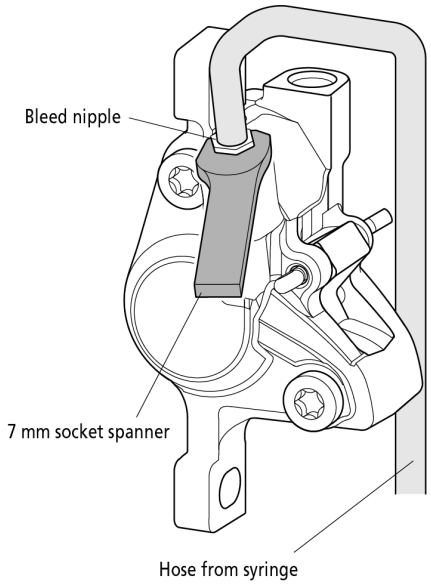
Please consider to prevent scratching the hose when assembling it into frame or when riding the bike.



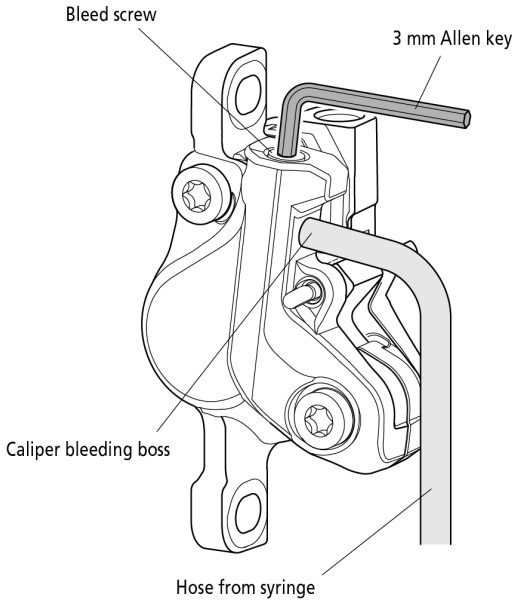
# Bleeding method

Please refer to dealer manual for detailed bleeding method.

**BR-M446**




**BR-MT500**



## BR-M9100

TBD

## BR-M9120

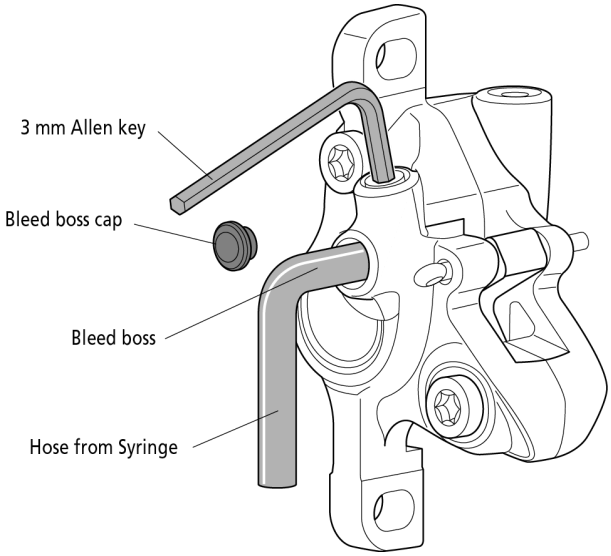
TBD

## BR-MT520 / BR-UR300

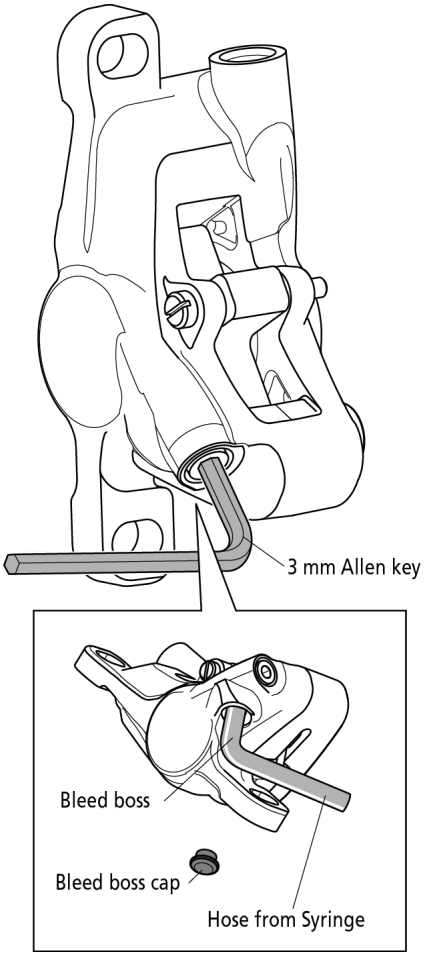
TBD

## BR-M8020

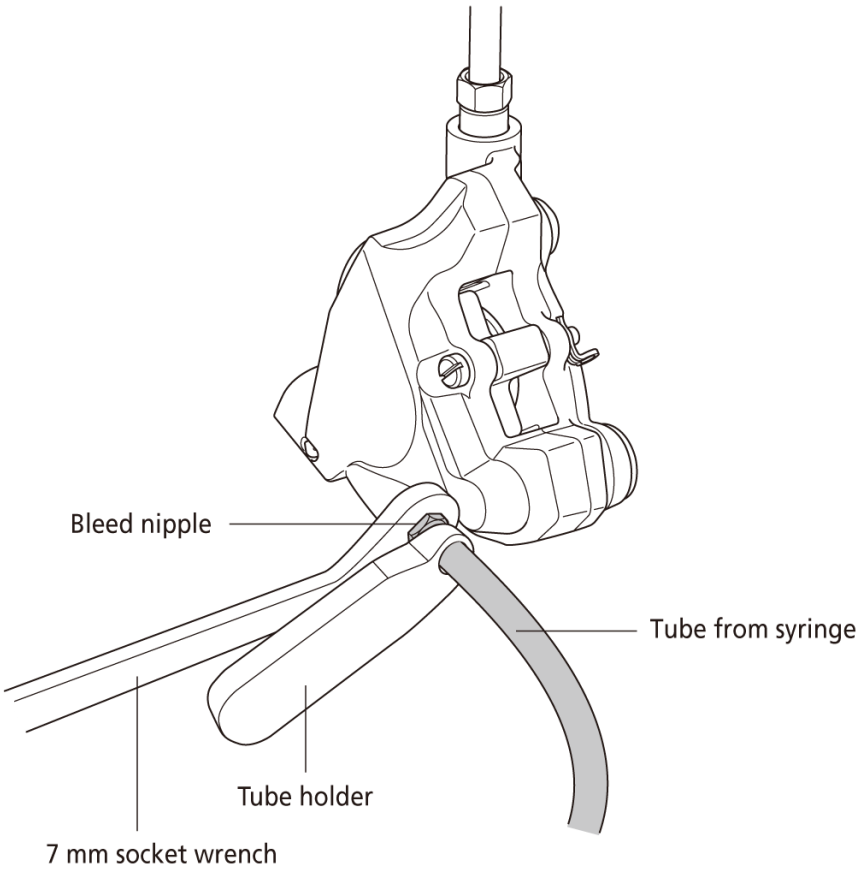
TBD




**BR-RS785 / BR-M6000**

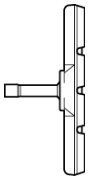


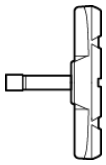
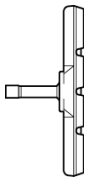
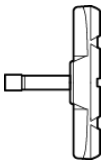
1


Bleed nipple
Tube from syringe
Tube holder
7 mm socket wrench

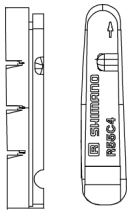
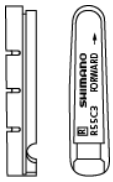
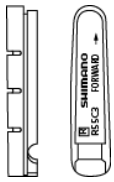
## Brake / Shoe line-up

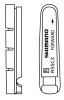
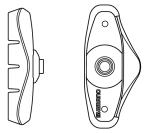
C-201

| Model No. | | M70R2 | M70R2 (Severe Condition Shoe) | M70T3 | M70T4 | M70CT4 (Severe Condition Shoe) |
|---|---|---|---|---|---|---|
| Brake shoe shape | | | |  | | |
| Cartridge type | | X | X | - | - | X |
| Recommended rim | | Aluminum | Aluminum | Alumite only | Aluminum | Aluminum |
| Characteristics | DRY Power | ★★★★★ | ★★★★★ | ★★☆☆☆ | ★★★★☆ | ★★★★☆ |
| | WET Power | ★★☆☆☆ | ★★☆☆☆ | ★★★★★ | ★★★☆☆ | ★★★☆☆ |
| | Silence | ★★☆☆☆ | ★★☆☆☆ | ★★★★★ | ★★★☆☆ | ★★★☆☆ |
| | Anti-fading | ★★★☆☆ | ★★★☆☆ | ★☆☆☆☆ | ★★★☆☆ | ★★★☆☆ |
| | Durability (on road) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Durability (muddy condition) | ★★★☆☆ | ★★★★☆ | ★★☆☆☆ | ★★★☆☆ | ★★★★☆ |
| | Anti-rim attack | ★★★☆☆ | ★★★☆☆ | ★☆☆☆☆ | ★★★☆☆ | ★★★☆☆ |
| | BR-T780 | - | - | - | - | Standard |
| | BR-T610 | - | - | - | Option | Standard |
| | BR-T4010 | Option | - | - | - | - |
| | BR-T4000 | - | - | - | - | - |
| | BR-MX70 | - | - | Option | Option | - |
| | BR-R550 | - | Option | - | - | Option |
| | BR-R353 | - | - | - | Option | - |

| Model No. | | M65T3 | M65T4 | S70C | S70C (Severe Condition Shoe) | S70T | S65T |
|---|---|---|---|---|---|---|---|
| Brake shoe shape | |  | |  | |  | |
| Cartridge type | | - | - | X | X | - | - |
| Recommended rim | | Alumite only | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum |
| Characteristics | DRY Power | ★★☆☆☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | WET Power | ★★★★★ | ★★★☆☆ | ★★☆☆☆ | ★★☆☆☆ | ★★☆☆☆ | ★★☆☆☆ |
| | Silence | ★★★★★ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ |
| | Anti-fading | ★☆☆☆☆ | ★★★☆☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability (on road) | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Durability (muddy condition) | ★★☆☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★★☆ | ★★★☆☆ | ★★★☆☆ |
| | Anti-rim attack | ★☆☆☆☆ | ★★★☆☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | BR-T780 | - | - | Option | - | - | - |
| | BR-T610 | - | - | Standard | - | Option | - |
| | BR-T4010 | - | - | Standard | - | - | - |
| | BR-T4000 | Option | Option | - | - | - | Standard |
| | BR-MX70 | - | - | Standard | - | - | - |
| | BR-R550 | - | - | - | Standard | - | - |
| | BR-R573 | - | - | Option | - | - | - |
| | BR-R353 | - | - | - | - | Standard | - |

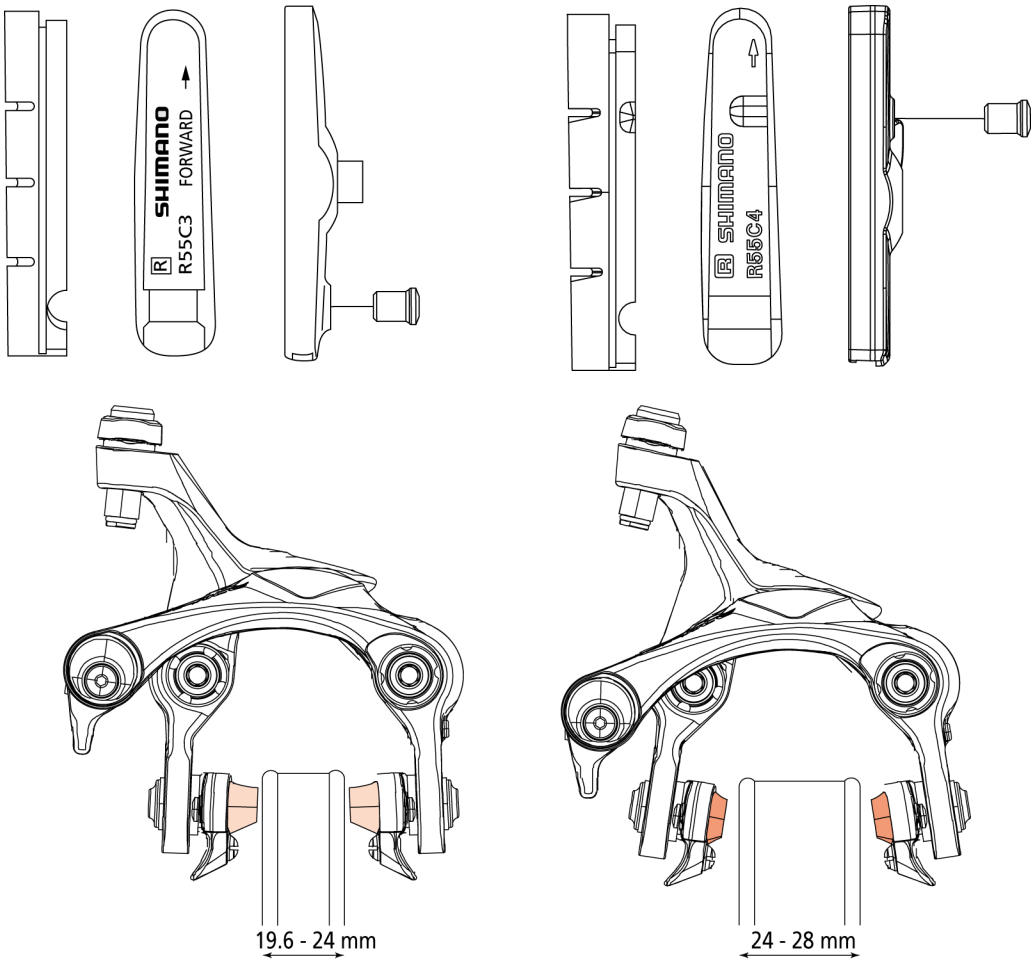
3

| Model No. | | R55C4 | R55C4 FOR CARBON RIM | R55C4-A FOR CARBON RIM | R55C2 | R55C3 |
|---|---|---|---|---|---|---|
| Brake shoe shape | | |  | |  |  |
| Cartridge type | | X | X | X | X | X |
| Recommended rim | | Aluminum | Carbon | Carbon | Aluminum | Aluminum |
| Characteristics | DRY Power | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | WET Power | ★★☆☆☆ | ★★★☆☆ | ★★★☆☆ | ★☆☆☆☆ | ★★☆☆☆ |
| | Silence | ★★★★☆ | ★★★☆☆ | ★★★☆☆ | ★★★★☆ | ★★★★☆ |
| | Anti-fading | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability (on road) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | Durability (muddy condition) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | Anti-rim attack | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | BR-9000 | Standard | Option | Option | - | - |
| | BR-9010 | Standard | Option | Option | - | - |
| | BR-R8000 | Standard | Option | Option | - | - |
| | BR-R8010 | Standard | Option | Option | - | - |
| | BR-R7000 | Standard | Option | Option | - | - |
| | BR-R7010 | Standard | Option | Option | - | - |
| | BR-5810 | Standard | Option | Option | - | - |
| | BR-4700 | - | - | - | - | - |
| | BR-R3000 | - | - | - | - | - |
| | BR-R2000 | - | - | - | - | - |
| | BR-CX50 | - | - | - | - | - |
| | BR-R650 | - | - | - | Standard | - |
| | BR-R561 | - | - | - | - | Standard |
| | BR-R451 | - | - | - | - | - |

| Model No. | | R55C+1 | R55CT4 | M50T | R50T | R50T2 | R50T4 | R50T5 |
|---|---|---|---|---|---|---|---|---|
| Brake shoe shape | |  | | | |  | | |
| Cartridge type | | X | X | - | - | - | - | - |
| Recommended rim | | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum | Aluminum |
| Characteristics | DRY Power | ★★★★☆ | ★★★★☆ | ★★★☆☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ |
| | WET Power | ★☆☆☆☆ | ★★★☆☆ | ★★★★☆ | ★☆☆☆☆ | ★☆☆☆☆ | ★★★☆☆ | ★★☆☆☆ |
| | Silence | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Anti-fading | ★★★★★ | ★★★☆☆ | ★★☆☆☆ | ★★★★★ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Durability (on road) | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ |
| | Durability (muddy condition) | ★★★☆☆ | ★★★☆☆ | ★★☆☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★★☆ |
| | Anti-rim attack | ★★★★★ | ★★★☆☆ | ★★☆☆☆ | ★★★★★ | ★★★★★ | ★★★☆☆ | ★★★★☆ |
| | BR-9000 | - | Option | - | - | - | - | - |
| | BR-9010 | - | Option | - | - | - | - | - |
| | BR-R8000 | - | Option | - | - | - | - | - |
| | BR-R8010 | - | Option | - | - | - | - | - |
| | BR-R7000 | - | Option | - | - | - | - | - |
| | BR-R7010 | - | Option | - | - | - | - | - |
| | BR-5810 | - | Option | - | - | - | - | - |
| | BR-4700 | - | - | - | - | - | Option | Standard |
| | BR-R3000 | - | - | - | - | - | Option | Standard |
| | BR-R2000 | - | - | - | - | Standard | Option | Standard |
| | BR-CX50 | - | - | - | - | Standard | - | - |
| | BR-R650 | - | Option | - | - | - | - | - |
| | BR-R561 | - | Option | - | - | - | - | - |
| | BR-R451 | - | - | - | - | Standard | - | - |

# Brake shoe recommendation to rim width

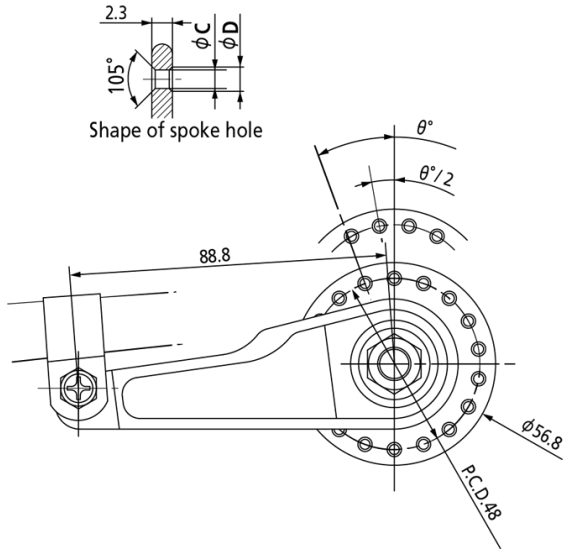


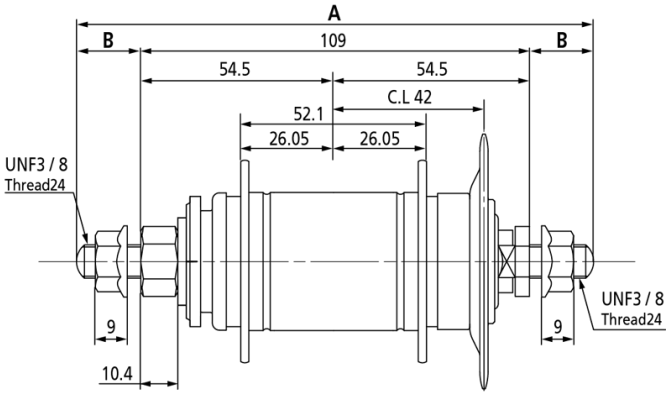



| Model No. | Rim width |
|---|---|
| R55C4 /<br>R55C4 for Carbon rim | 19.6 - 24 mm |
| R55C3 /<br>R55C3 for Carbon rim | |
| R55C4-A for Carbon rim | 24 - 28 mm |

## Dimensions C-204

**CB-E110**




| A (mm) | B (mm) | Spoke hole | θ | C (mm) | D (mm) |
|---|---|---|---|---|---|
| 145 | 18.0 | 20H | 36° | 2.8 | 4.0 |
| | | 28H | 25°43′ | | |
| | | 36H | 20° | | |
| | | 24H | 30° | 2.45 | 3.5 |
| | | 36H | 20° | 3.1 | 4.3 |
| 150 | 20.5 | 36H | 20° | 2.8 | 4.0 |
| 158 | 24.5 | 20H | 36° | 2.8 | 4.0 |
| | | 28H | 25°43′ | | |
| | | 36H | 20° | | |
| | | 24H | 30° | 2.45 | 3.5 |
| | | 36H | 20° | 3.1 | 4.3 |
| 165 | 28.0 | 20H | 36° | 2.8 | 4.0 |
| | | 28H | 25°43′ | | |
| | | 36H | 20° | | |
| | | 24H | 30° | 2.45 | 3.5 |
| | | 28H | 25°43′ | 3.1 | 4.3 |
| | | 36H | 20° | | |

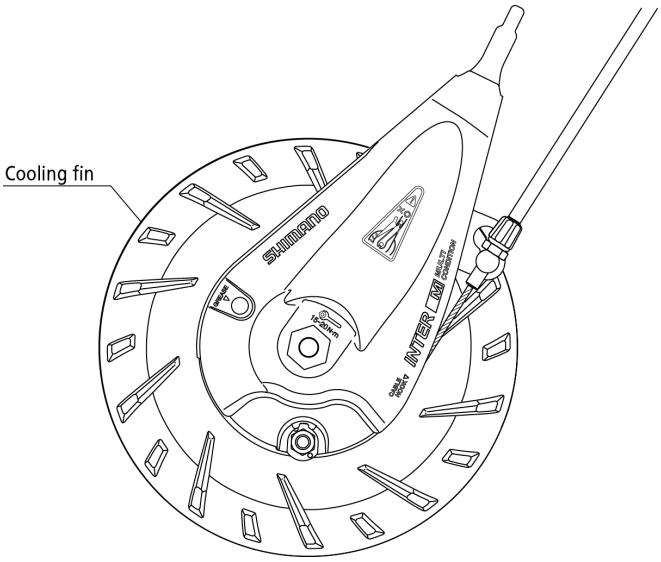
## Recommended gear ratio C-205

**CB-E110**

Recommended gear ratio: 2.2-2.4 (number of teeth front / number of teeth rear)

# Specifications C-207

## Hub roller brake line-up C-208




| Sales area | Model No. | | Structure | Cooling fin diameter (mm) | Brake shoe design | Braking power | | Heat dissipation | Surface treatment |
|---|---|---|---|---|---|---|---|---|---|
| | Rear | Front fork | | | | w/BL-IM65,C6000 | w/BL-C6010 | | |
| All | BR-IM81-R | BR-IM81-F | Hyper | 180 | V-shape | 1.3 | 1.3 | 2.3 | 1.2 |
| | BR-C6000-R | BR-C6000-F | Hyper | 150 | V-shape | (Front)1.6 (Rear)1.3 | (Front)1.7 (Rear)1.4 | 1.4 | 1.2 |
| | BR-C3010-R | BR-C3010-F | Normal | 140 | Flat shape | (Front)1.3 (Rear)1.0 | (Front)1.4 (Rear)1.1 | 1.2 | 1.2 |
| | BR-C3000-R | BR-C3000-F | Normal | 122 | | | | 1.0 | 1.0 |
| Japan | BR-IM31 (fin) | BR-IM31 (fin) | Normal | 90 | Flat shape | 1.0 | 1.0 | 1.0 (front) Less than 1.0 (rear) | 0.7 |
| | BR-IM31 | BR-IM31 | Normal | No disc | | | | Less than 1.0 | 0.7 |

Performance index rating uses BR-C3000-R brake unit as a reference value of 1.0.
Testing conditions
Gradient: 6%
Weight(bicycle and rider): 100kg
Speed: 25km/h
Distance: Approx.10km

## Lock nut (washer) variation for hub roller brake system C-209

Hub roller brake is delivered including locknut.
There are several variations for locknut depend on width and screw size.

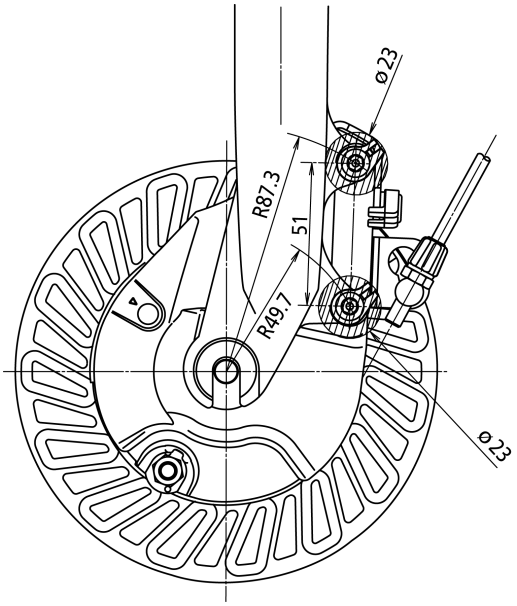
| | Usage | Thickness (mm) | Screw size | Resin insert type | |
|---|---|---|---|---|---|
| Front | For NUT type of hub | 3.5 | M9 x 1 | - | - |
| | For QR type of hub | 4.0 | M10 x 1 | - | - |
| Rear | For INTER-8, INTER-5 | 7.2 | - | X | BR-C3000-R BR-C3010-R BR-C6000-R BR-IM81-R |
| | For INTER-7, INTER-3 | 8.2 | - | X | |
| | For FH-IM70 / FH-IM45 | 8.2 | - | X | |
| | For INTER-8 / For INTER-5 | 7.2 | BC3 / 8 | - | - |
| | For INTER-7, INTER-3 | 8.2 | BC3 / 8 | - | - |
| | For FH-IM70 / FH-IM45 | 8.2 | M10 x 1 | - | - |
| | For INTER-3 O.L.D.: 127 mm spec. | 9.7 | BC3 / 8 | - | - |

X: Yes

# Interference with mudguard



To avoid interference with mudguard, ensure that there is no projecting parts in X-hatching area.

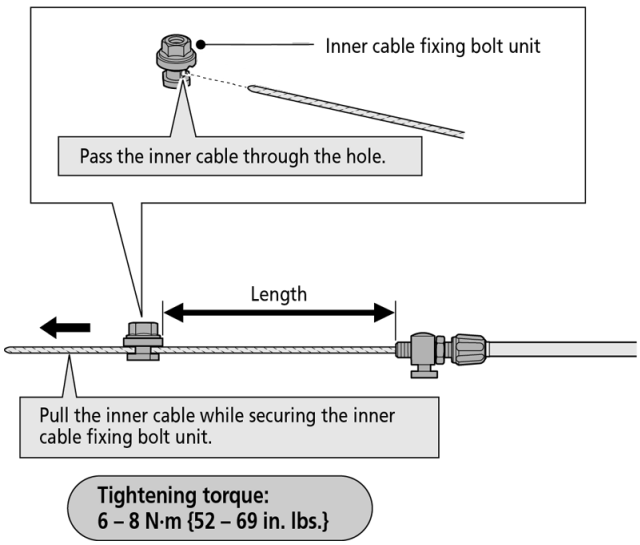


# Installing the brake cable

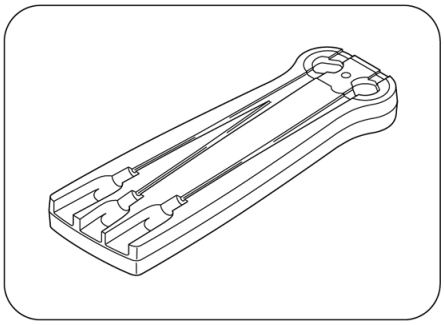


## Inner cable fixing bolt C-214

Attach the inner cable fixing bolt unit to the inner cable.



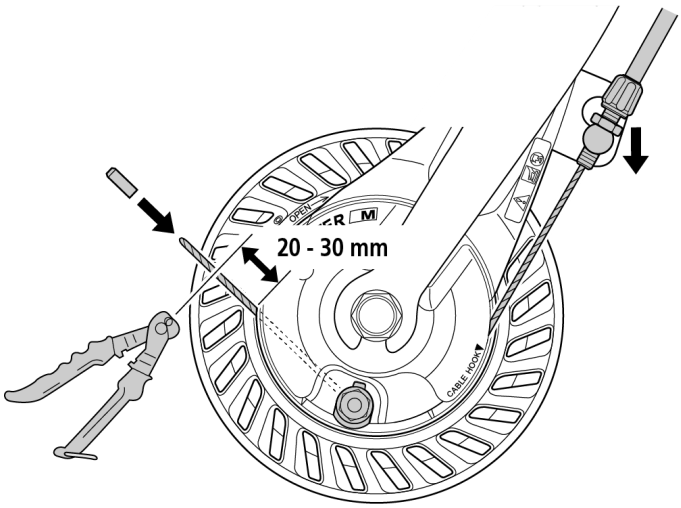

For easy assemble use TL-IM21.



| Model No. | Length (mm) |
|---|---|
| BR-C6000-F / BR-C3010-F / BR-C3000-F | 109 |
| BR-C6000-R / BR-C3010-R / BR-C3000-R | 99 |

## Outer casing holder C-215

Check that the outer casing holder is securely sitting at the bottom of the hooking hole of the brake arm, and then cut off any excess length of inner cable. After this, install the inner end cap.




**NOTE**

Set the inner end cap so that it does not touch the link and the spokes.

# Brake lever



In order to get the best performance from the SHIMANO roller brake, be sure to use SHIMANO brakes cables and brake levers as a set.

The distance of movement for the inner cable must be 16.5 mm or more when the brake lever is depressed. If it is less than 16.5 mm, braking performance will suffer, and the brakes may fail to work.

# Compatibility between hubs and roller brakes



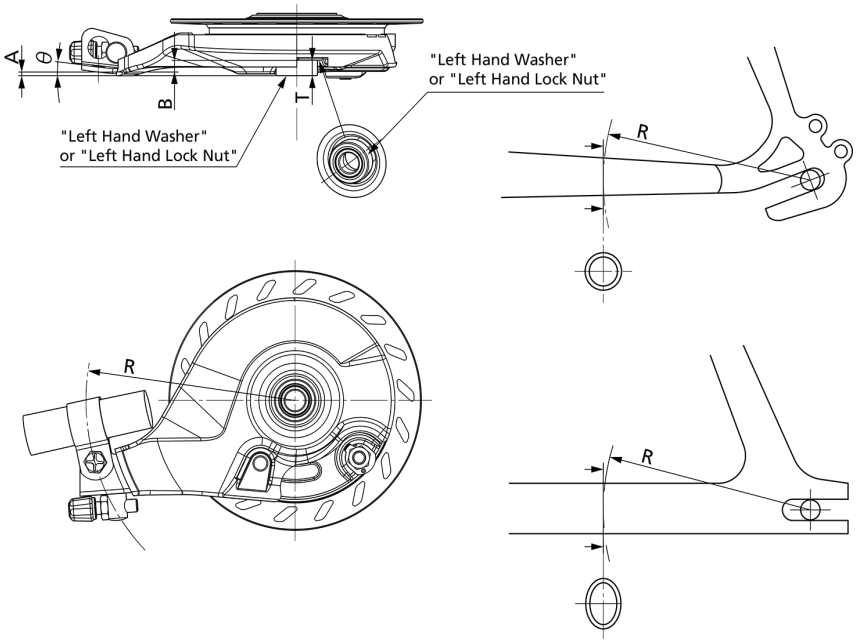
| | | Hub | | Hub Dynamo | | | | |
|---|---|---|---|---|---|---|---|---|
| | Model No. | HB-IM70 | HB-IM40 | DH-C6000-2R / DH-C6000-1R (NUT type only) | | | | DH-2R30J |
| | Modulator Level | Hyper | Normal | Hyper | | Normal | | Normal |
| Sales Area | Hub type Model No. | QR | NUT | QR | NUT | QR | NUT | NUT |
| All | BR-C6000-F | X | Usable | X | X | Usable | Usable | Usable |
| | BR-C3010-F | Not good | X | Not good | Not good | X | X | X |
| | BR-C3000-F | Not good | X | Not good | Not good | X | X | X |
| JPN | BR-IM31-F | Not good | X | - | | | | X |

X: Recommended combination

# Chainstay dimensions for securing rear brake arm clip



The positions of the rear brake arm clip for the INTER-M Brake and the Chainstay sizes which are compatible with the brake arm clip are shown below.




| Model Name | T (Thickness: mm) | A (mm) | B (mm) | θ | R (mm) |
|---|---|---|---|---|---|
| BR-IM31-R | 7.2 | 2.7 | 4.5 | 7° | 113 |
| | 8.2 | 3.7 | | | |
| BR-C3000-R | 7.2 | 2.15 | 5.05 | 6.5° | 100 |
| | 8.2 | 3.15 | | | |
| | 9.7 | 4.65 | | | |
| BR-C3010-R | 7.2 | 2.15 | 5.05 | 6.5° | 100 |
| | 8.2 | 3.15 | | | |
| BR-C6000-R | 7.2 | 2.15 | 5.05 | 6.5° | 100 |
| | 8.2 | 3.15 | | | |

• Calculating dimension A for products of sizes not listed in T (thickness) •
Dimension A = T-B
Example: T = 9.7 (BR-C3000-R)
Dimension A = 9.7-5.05 = 4.65 (mm)

The following are the available sizes and variations for the brake arm clip at position A.

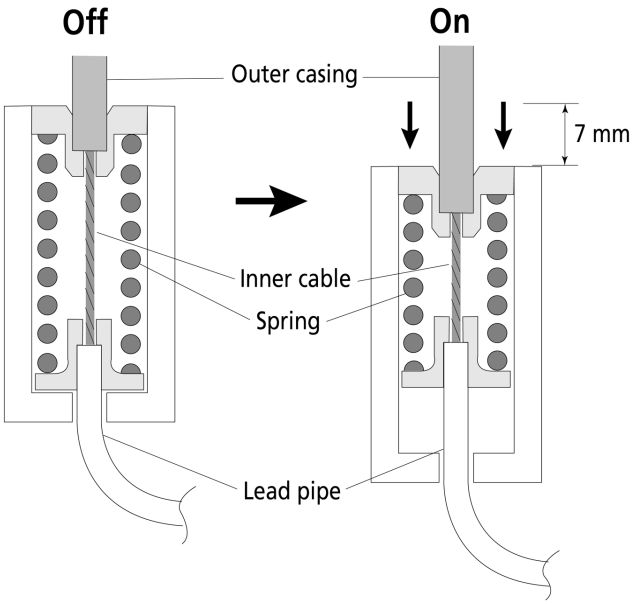
| SIZE | Standard | Coating spec. | Stainless spec. | Black Coating spec. |
|---|---|---|---|---|
| ø3 / 4 | X | X | X | - |
| ø5 / 8 | X | X | X | X |
| ø11 / 16 | X | X | X | X |
| ø15mm | X | X | X | - |
| ø19mm | X(JPN) | - | - | - |
| ø22mm | X | X | X | X |
| Oval | X(JPN) | - | - | - |
| Oval small | X(JPN) | - | - | - |
| Oval large | X(JPN) | - | - | - |
| Flat | X(JPN) | - | - | - |

X: Yes

## POWER MODULATOR for V-BRAKE C-220

**SM-PM40 / SM-PM70**

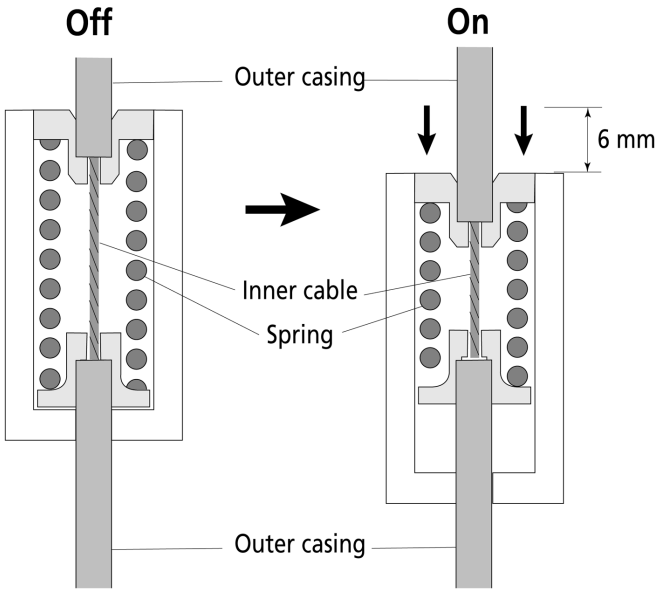
On braking, 7 mm of the lead pipe is drawn into the POWER MODULATOR. Adjust to make allowance for this length of outer casing.




## POWER MODULATOR for Mechanical Disc brake C-221

**SM-PM50**

On braking, 6 mm of the outer casing is drawn into the POWER MODULATOR.
Adjust to make allowance for this length of outer casing.

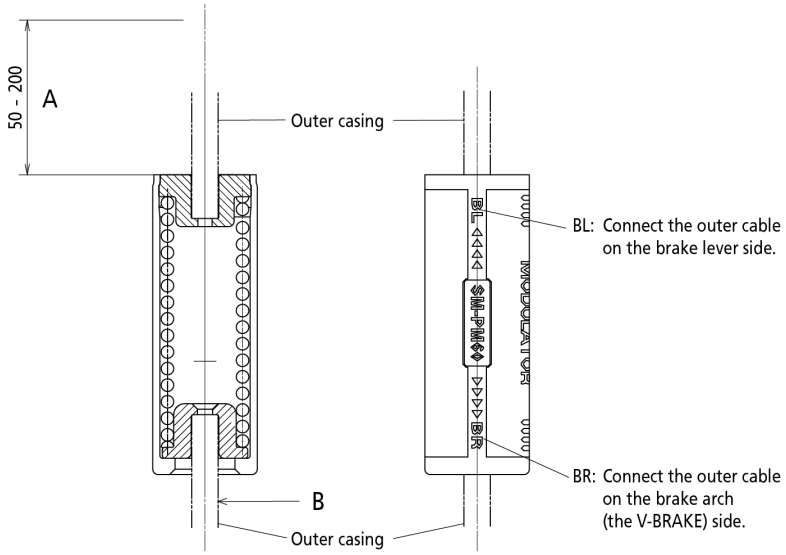


# POWER MODULATOR for all V-BRAKE



**SM-PM60**

On braking 12 mm of the outer casing is drawn into the POWER MODULATOR.
Adjust to make allowance for this length of outer casing.



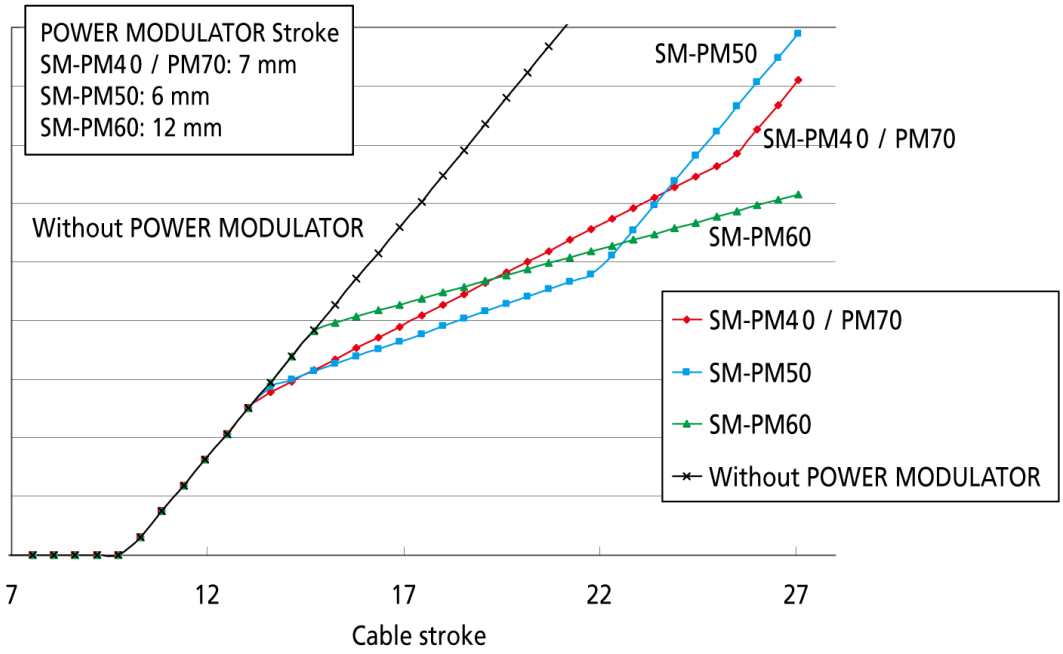

A: Assemble the SM-PM60 in the place 50 to 200 mm away from the brake lever.
B: Give attention to wire the outer casing straight and avoid its touching the frame.

**NOTE**

Use the outer casing of which length is 26.2 mm shorter than those, which are not with the POWER MODULATOR.

# Braking performance comparison



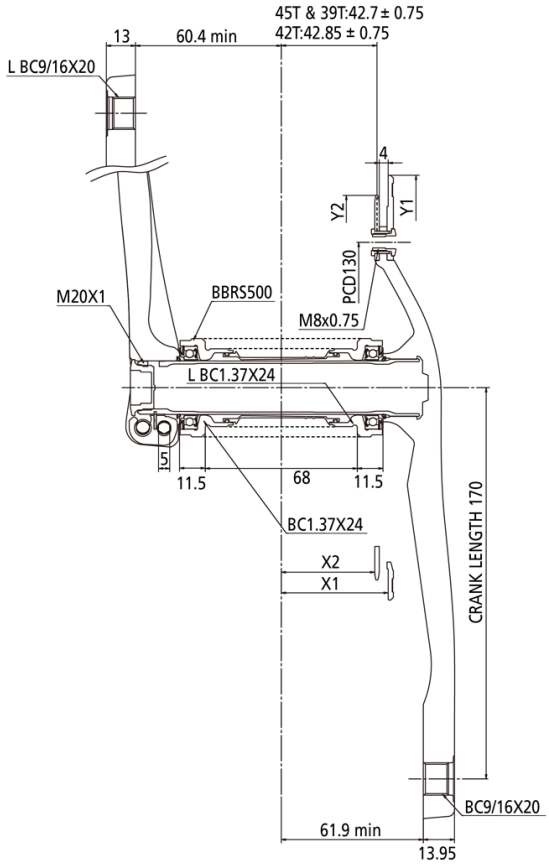



SM-PM40 / SM-PM70: For MTB / Trekking use
SM-PM50: For mechanical disc brake with 3 or 4 finger brake lever
SM-PM60: For city use, compatible with any SHIMANO V-BRAKE

## Dimensions C-225

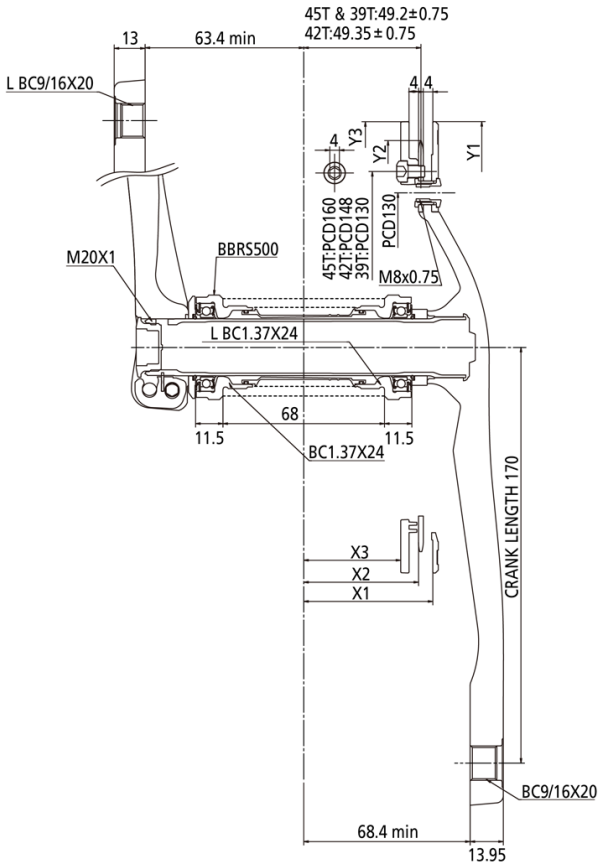
**FC-S501**

### Single chain guard




| 45T SPEC | | | | 42T SPEC | | | | 39T SPEC | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 46.1 min | Y1 | 100.5 max | X1 | 46.2 min | Y1 | 95.5 max | X1 | 46.1 min | Y1 | 87.5 max |
| X2 | 40.1 min | Y2 | 94.4 max | X2 | 40.2 min | Y2 | 87.5 max | X2 | 40.1 min | Y2 | 82.0 max |

### Double chain guard



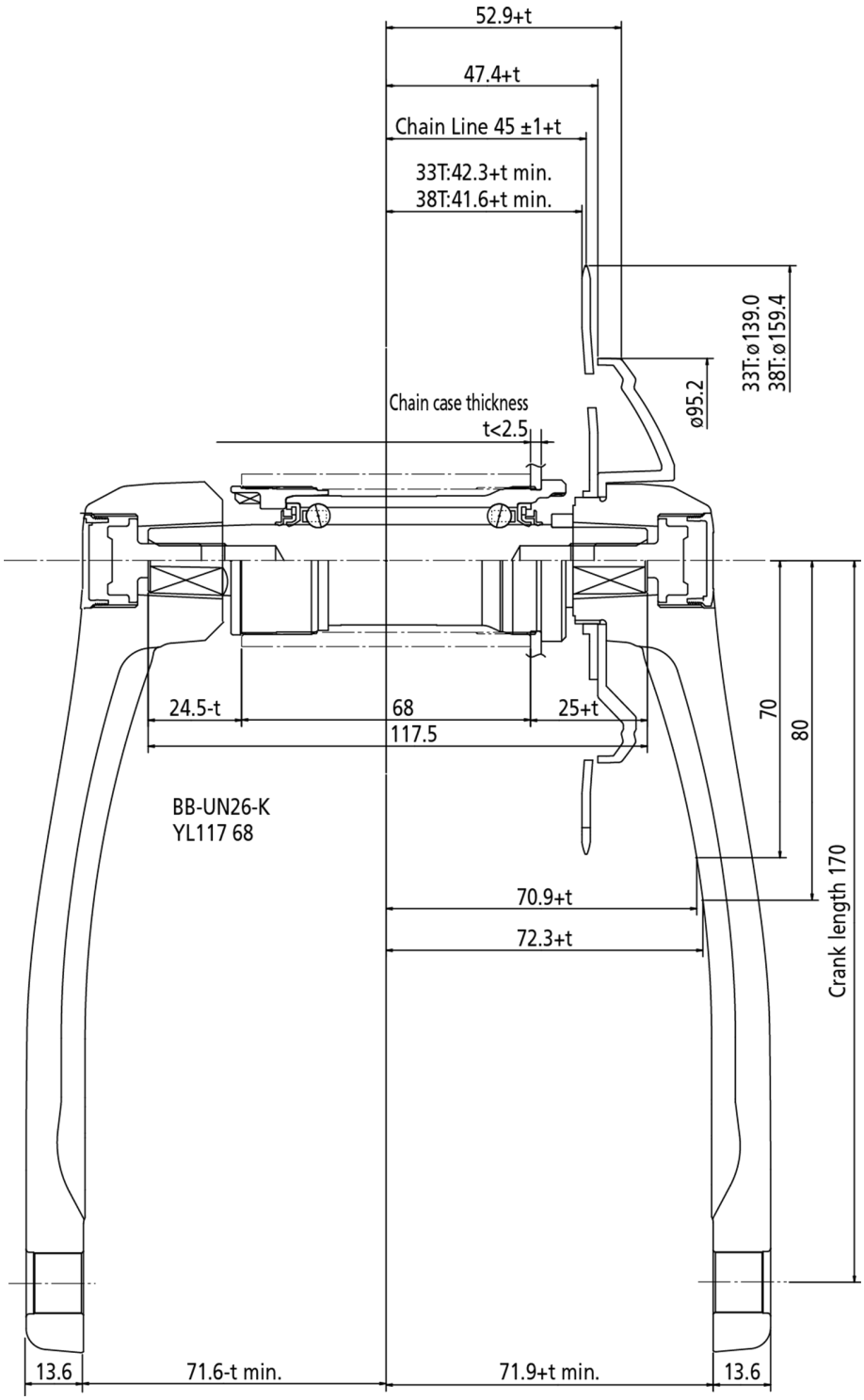

| 45T SPEC | | | | 42T SPEC | | | | 39T SPEC | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| X1 | 52.6 min | Y1 | 100.5 max | X1 | 52.7 min | Y1 | 95.5 max | X1 | 52.6 min | Y1 | 87.5 max |
| X2 | 46.6 min | Y2 | 94.4 max | X2 | 46.7 min | Y2 | 87.5 max | X2 | 46.6 min | Y2 | 82.0 max |
| X3 | 39.1 min | Y3 | 100.5 max | X3 | 39.2 min | Y3 | 95.5 max | X3 | 39.1 min | Y3 | 87.5 max |

# Chain case dimensions

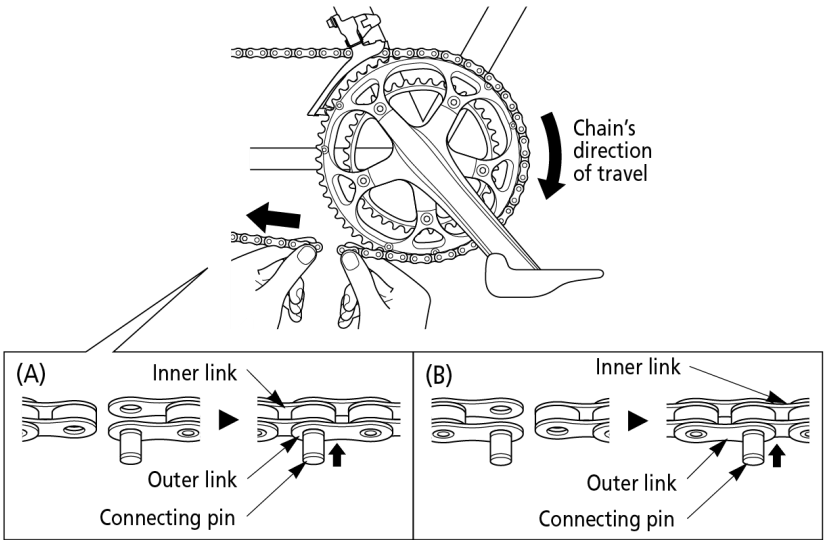


Use the following values as a reference for creating the chain case.

**FC-C6000**



## How to connect chain C-228



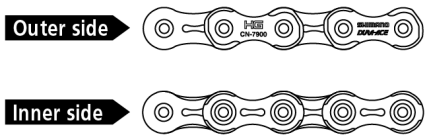

**NOTE**

As illustrated in Fig (A), we strongly recommend to set the connecting pin in the hole of the outer link on the front side in the direction of travel.
The chain's level of strength is enhanced compared to the method in Fig (B).

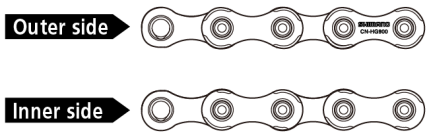
## Directional chain C-229

In order to obtain good gear shifting performance, directional chains have a forward side and a reverse side, and the sides are marked so that the chain will face the correct way when installed.

**CN-6701**



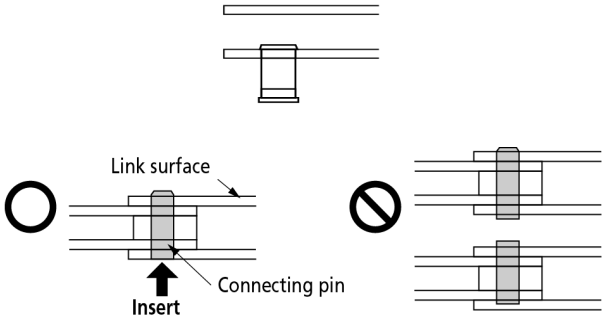

**CN-M9100 / CN-HG901-11 / CN-HG701-11 / CN-HG601-11 / CN-HG95 / CN-HG54**



# Note on the connecting C-230

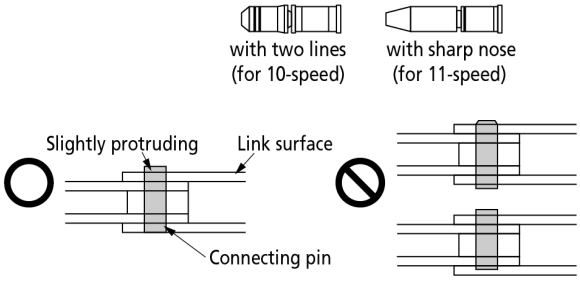
### 11, 10-speed chain (end pin type)

It is recommended to use TL-CN26 (air gun type chain connector) for connecting end pin type.
Make sure that the connecting pin is aligned with the outer link surface from the side that the pin is inserted. It should feel smooth and flush when you run your finger over it. The pin will protrude slightly on the backside after the break off pin is removed.



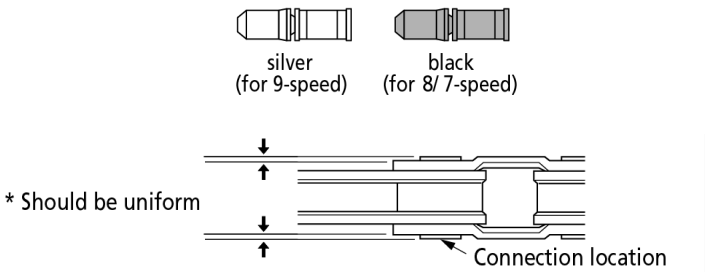

### 11, 10-speed chain (ampoule pin type)

- Make sure that the connecting pin is aligned with the outer link surface from the side that the pin is inserted. It should feel smooth and flush when you run your finger over it. The pin will protrude slightly on the backside after the break off pin is removed.
- If it is necessary to adjust the length of the chain due to a change in the number of sprocket teeth, make the cut at some other place than the place where the chain has been joined using a reinforced connecting pin. The chain will be damaged if it is cut at a place where it has been joined with a reinforced connecting pin.
- When readjusting the length of the chain, be sure to insert the reinforced connecting pin from the same side as the chain cutter was inserted (the same direction as when the chain was cut).



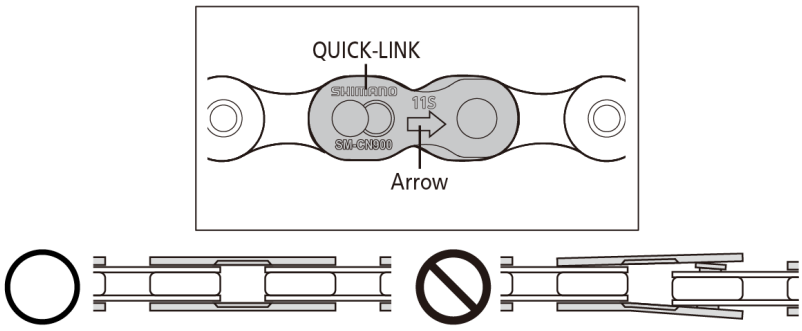

### 9, 8, 7-speed

- Be sure to check that the connecting pin protrudes uniformly from both sides of the chain after the chain has been joined.
- If it is necessary to adjust the length of the chain due to a change in the number of sprocket teeth, make the cut at some other place than the place where the chain has been joined using a reinforced connecting pin. The chain will be damaged if it is cut at a place where it has been joined with a reinforced connecting pin.
- When readjusting the length of the chain, be sure to insert the reinforced connecting pin from the same side as the chain cutter was inserted (the same direction as when the chain was cut).



## QUICK-LINK

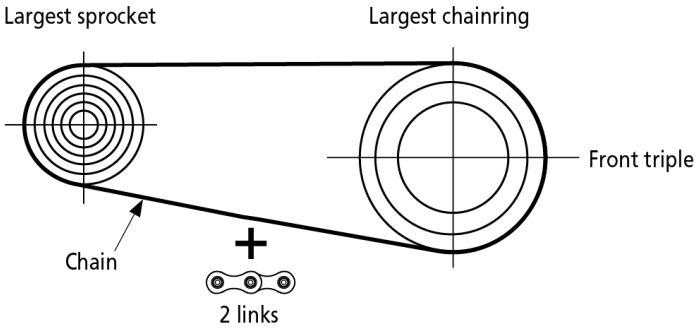
- When attaching the QUICK-LINK, make sure that the pins on the link plates are pushed all the way in and securely planted in the link holes.
- If it is necessary to adjust the length of the chain due to a change in the number of sprocket teeth, make the cut at some other place than the place where the chain has been joined using a QUICK-LINK. The chain cutter will be damaged if the chain is cut at a place where it has been joined with a QUICK-LINK.
- When attaching SM-CN900-11, be sure to attach it so that the arrow on the surface faces in the direction of rotation of the crank when viewed from the front.



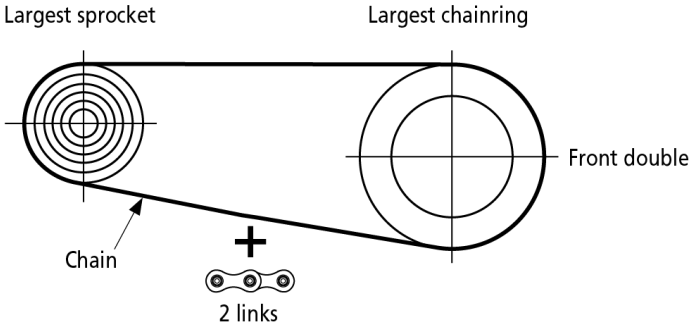
# Chain length

## Chain length [MTB, COMFORT] C-496

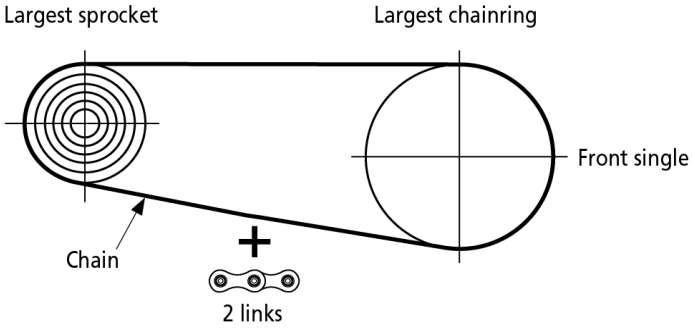
### For front triple




### For front double

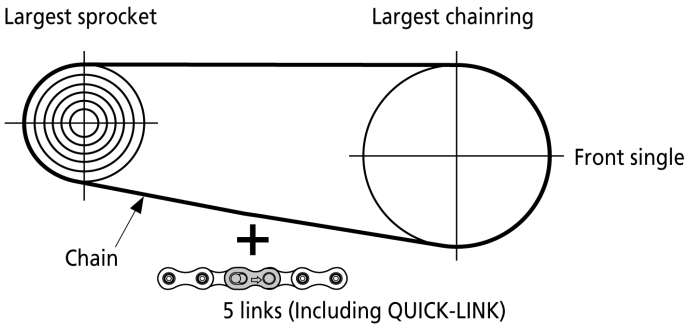



### For front single



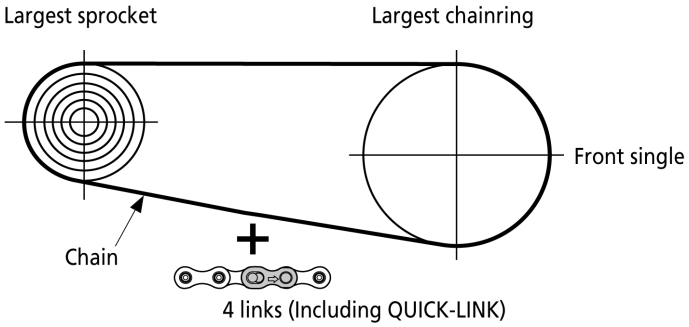
**For RD-M9100 / RD-M9120**

## For front single, full suspension bike

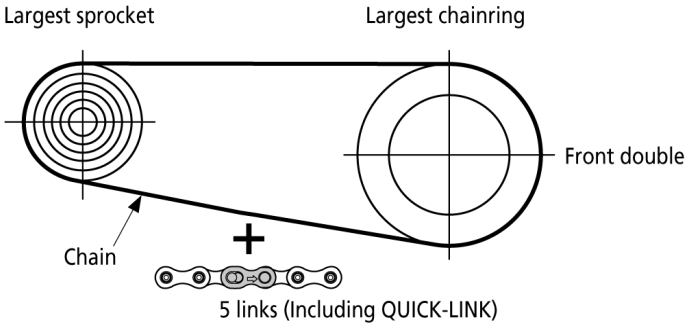



- Set the chain length when the rear suspension is at the top of its travel.
- When the rear suspension is at the bottom of its travel, confirm that there is a remainder in the chain length.

## For front single, hardtail bike

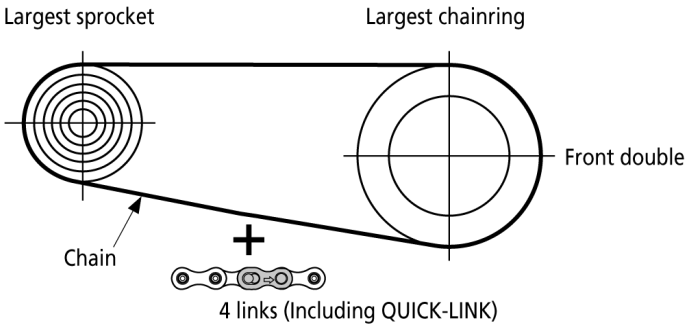



## For front double, full suspension bike




- Set the chain length when the rear suspension is at the top of its travel.
- When the rear suspension is at the bottom of its travel, confirm that there is a remainder in the chain length.

## For front double, hardtail bike

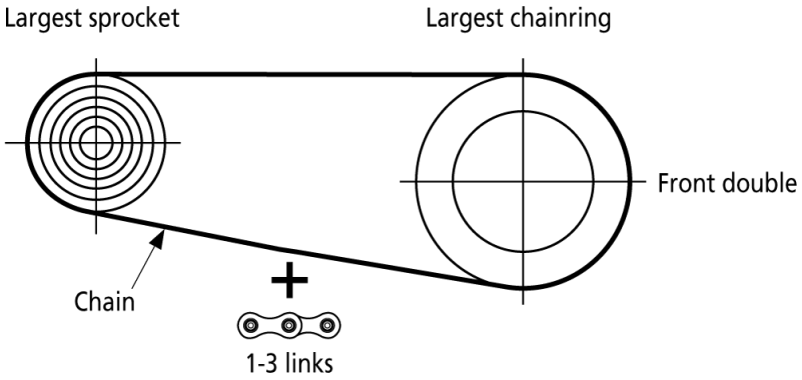


# Chain length [ROAD, URBAN SPORT] C-497

**For double (ROAD / URBAN SPORT)**

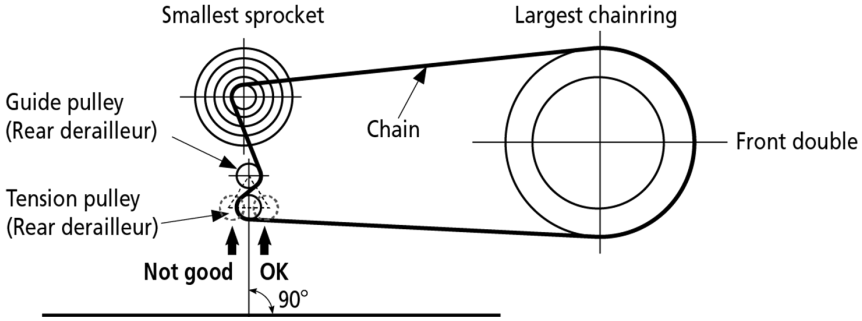
## For RD-R9100 / RD-R9150 / RD-R8000 / RD-R8050

- Following setting method is applied to all models of Cassette Sprocket.

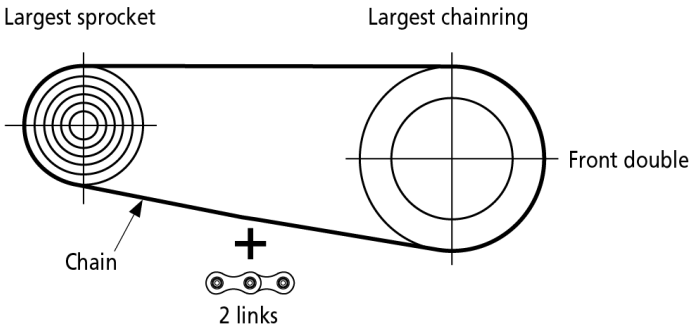



## For the models of older generations than RD-R9000 and RD-R8000

- Assemble with sprocket max. 27T and smaller
  Right angle to the ground

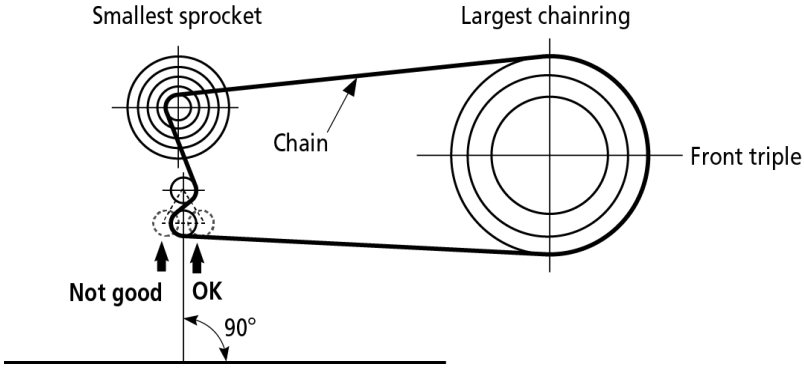



- Assemble with sprocket max. 28T or more

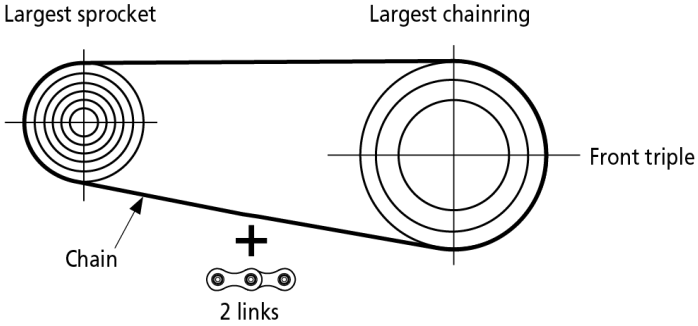


## For triple (ROAD)

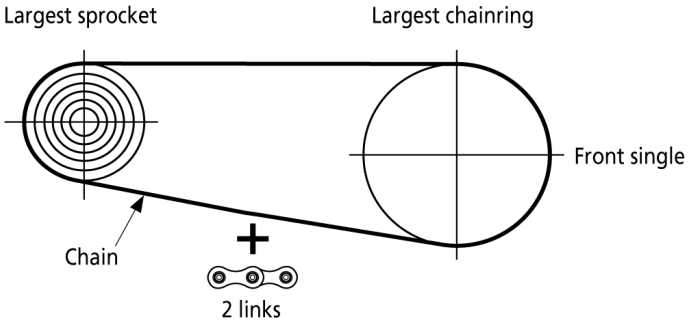
- Assemble with sprocket max. 30T and smaller




- Assemble with sprocket max. 32T or more

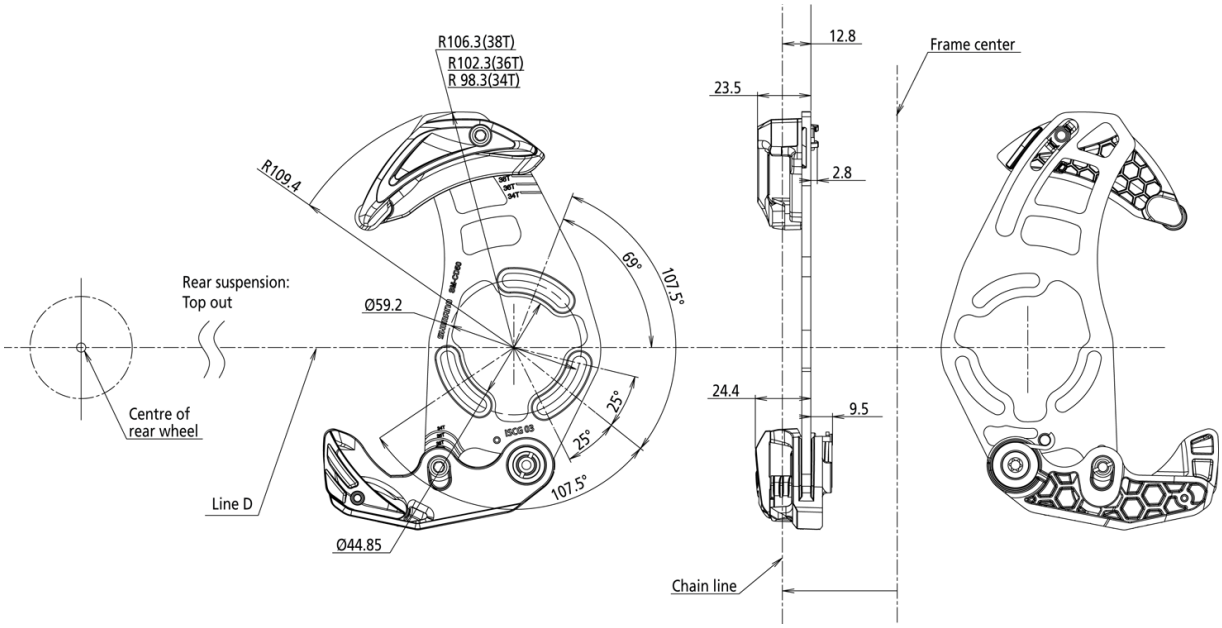



## For single (URBAN SPORT)

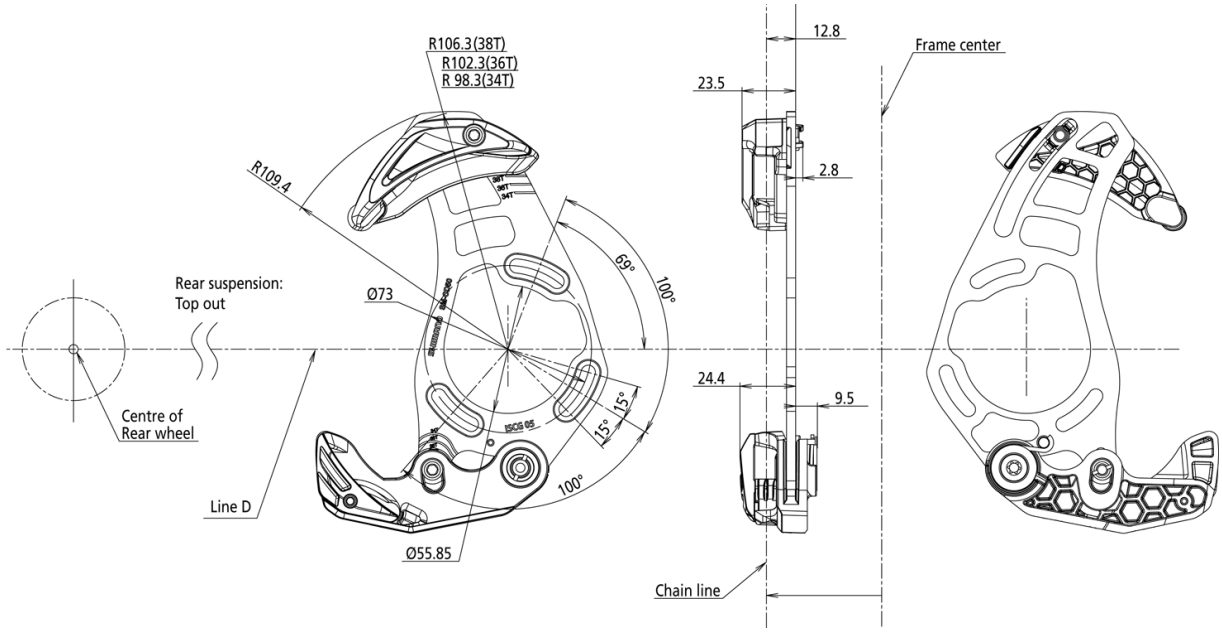


## Dimensions C-237

### ISCG03




### ISCG05



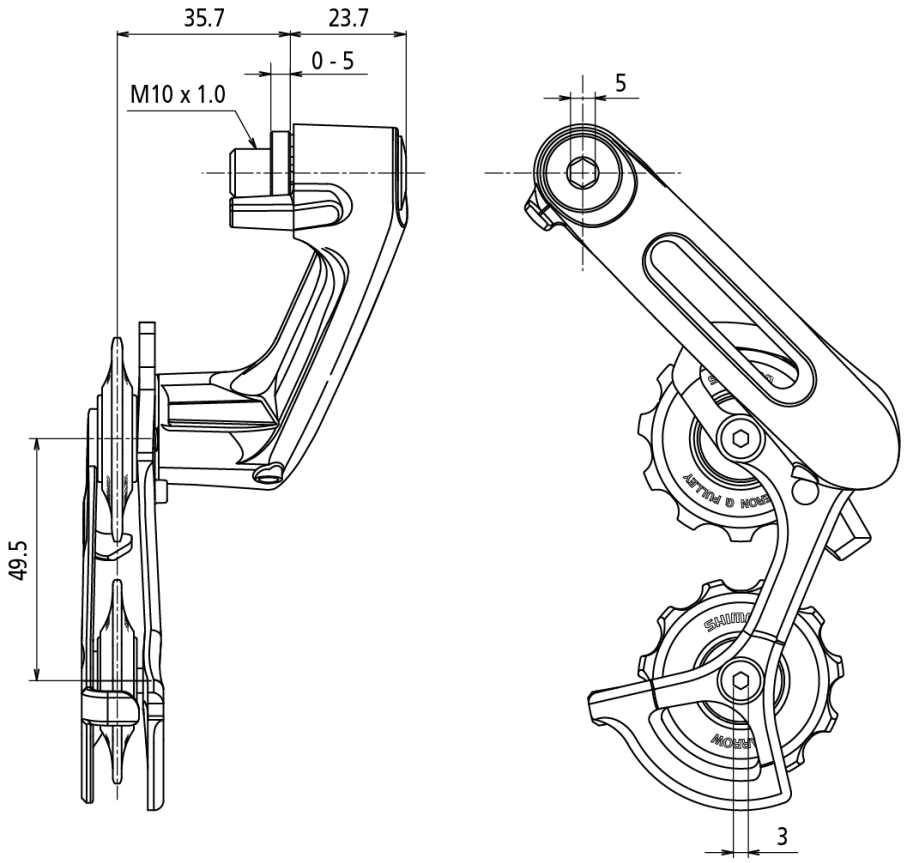

## SM-CD50 compatible front chainwheel C-238

| Spec. | Speed | Front Chainwheel ** |
|---|---|---|
| W / guard | 10-speed | FC-M820 / FC-M825 / FC-M640 / FC-M645 |
| W / O guard (guide only) | 10-speed | Crankarm* with SM-CR82 (chainring for single gear) |
| | 11-speed | FC-M9000-1 / FC-M9020-1 / FC-M8000-1 / FC-M7000-1 |
| | 12-speed | - |

* When it is used with single gear chainring
** Compatible front chainring teeth 34/36/38T

# CT-S500 C-240

## Dimensions C-241

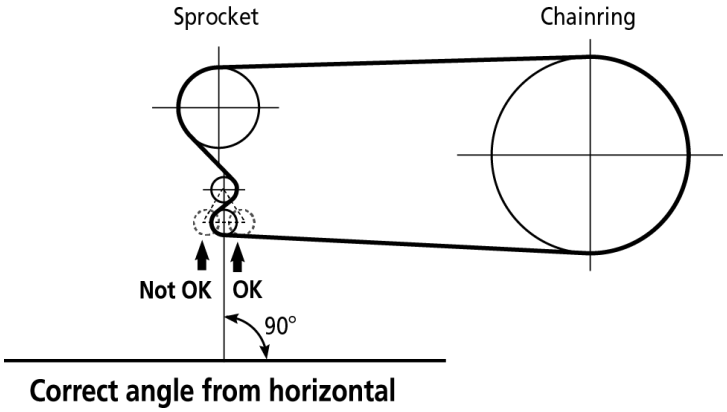



## Specifications C-242

| | | |
|---|---|---|
| Series name | | ALFINE |
| Model No. | | CT-S500 |
| Speed | | Single |
| Compatible CS | | CS-S500 |
| Max. front difference | | 12T |
| Max. rear sprocket | | 20T |
| Min. rear sprocket | | 18T |
| Fork end | | Vertical type (straight) fork end |
| Direct attachment | | – |
| Structure | | Double pulley |
| Body | Material | Aluminum |
| | Finish | Painting |

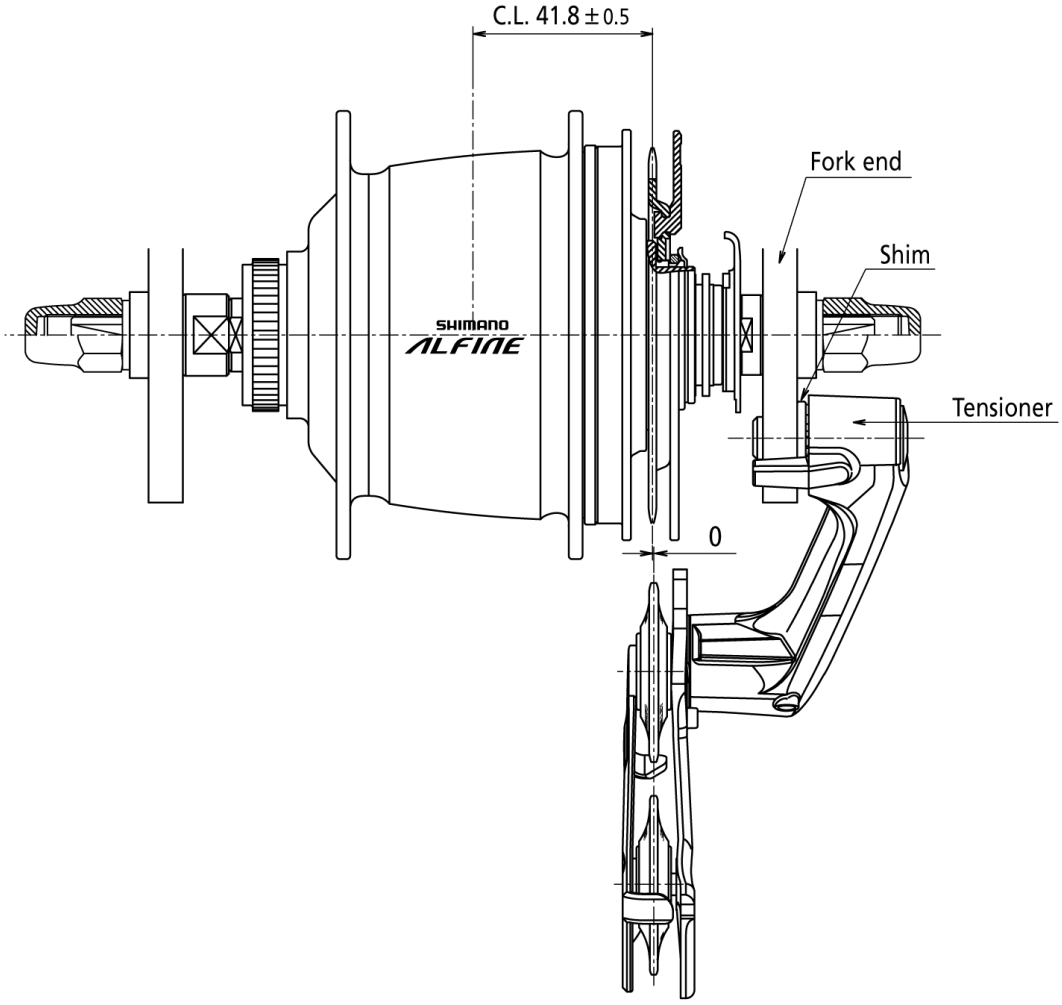
## Chain length C-243

When using the CT-S500, there should be an angle of 90° or less between the geared hub and a line drawn through the guide pulley and tension pulley when the chain is installed to the chainring and sprocket.



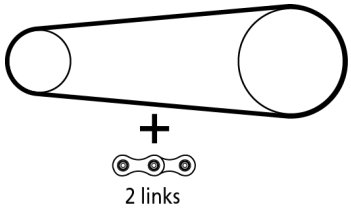

## Axial direction adjustment C-244

Alignment of the sprocket and the guide pulley can be adjusted by adding a shim between the fork end and tensioner.



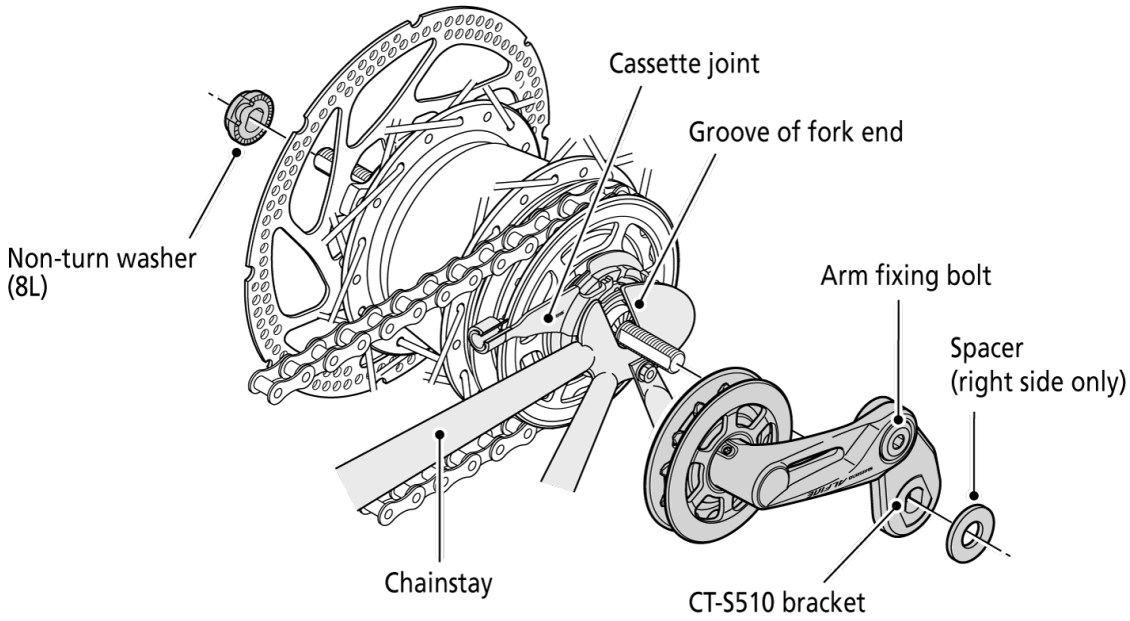
## Chain length C-246

Mount the chain onto the chainring and the sprocket, and then adjust the length of the chain by adding two links, or four links at a maximum.



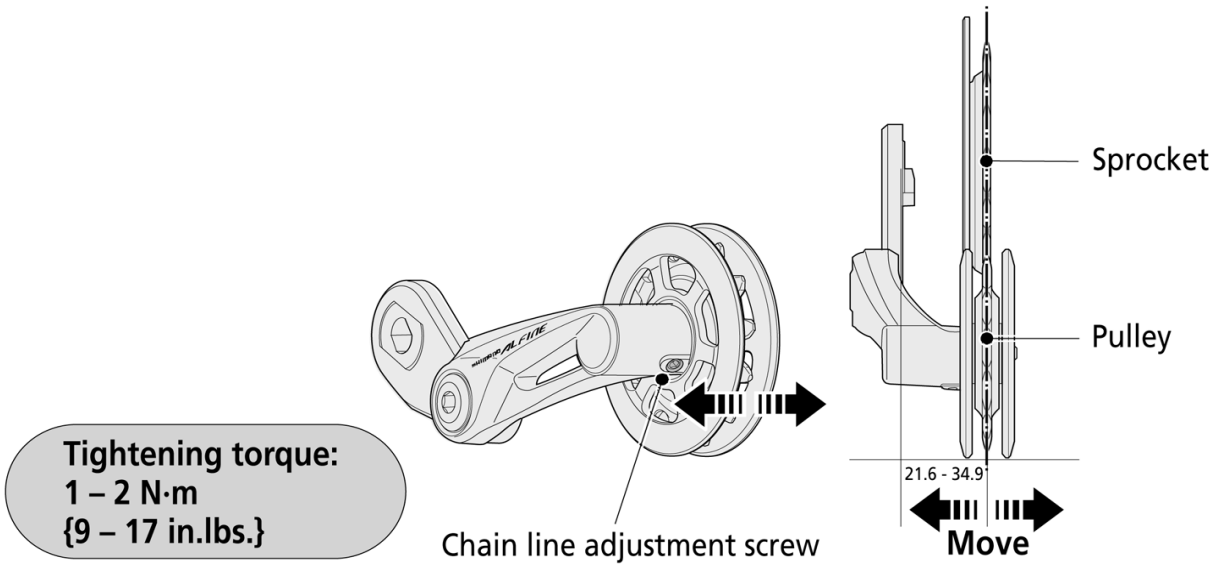

## Installation to the frame C-247

1. Mount the chain onto the sprocket, and then set the hub axle into the fork ends.
2. Place the CT-S510 bracket onto the right side of the hub axle, and place the non-turn washer onto the left side of the hub axle. At this time, turn the cassette joint so that the projecting parts of the bracket and non-turn washer fit into the grooves of the fork ends. If this is done, the cassette joint can be installed so that it is almost parallel to the chainstay.
(Loosen the arm fixing bolt at this time so that the pulley does not interfere with other parts such as the frame.)
3. Place the accessory 2 mm spacer onto the right side (outside of the chain tensioner), and then secure the wheel to the frame with the cap nuts. (Recommended tightening torque: 30 - 45 N·m {263 - 393 in. lbs.})



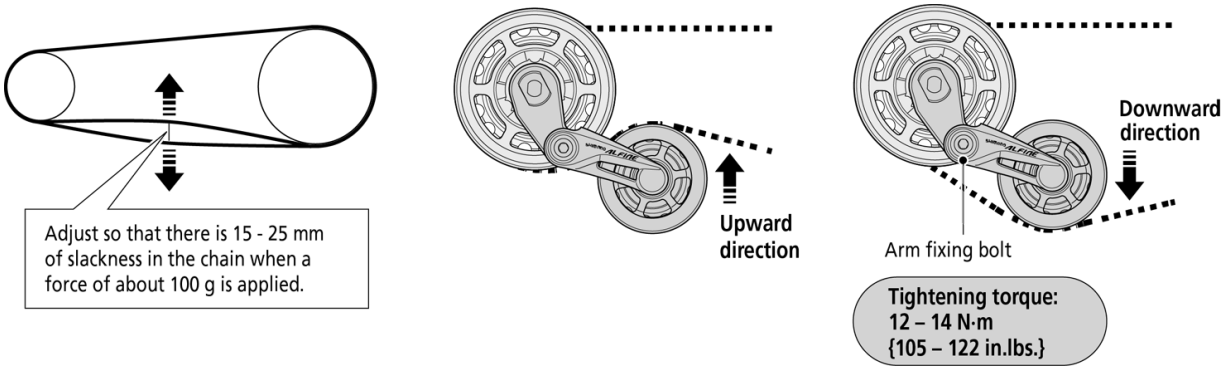
## Adjustment of the chain line C-248

1. Loosen the chain line adjustment screw.
2. Move the pulley sideways until the sprocket and pulley are in a straight line.
3. Tighten the chain line adjustment screw to secure the pulley.




## Adjustment of the chain tension C-249

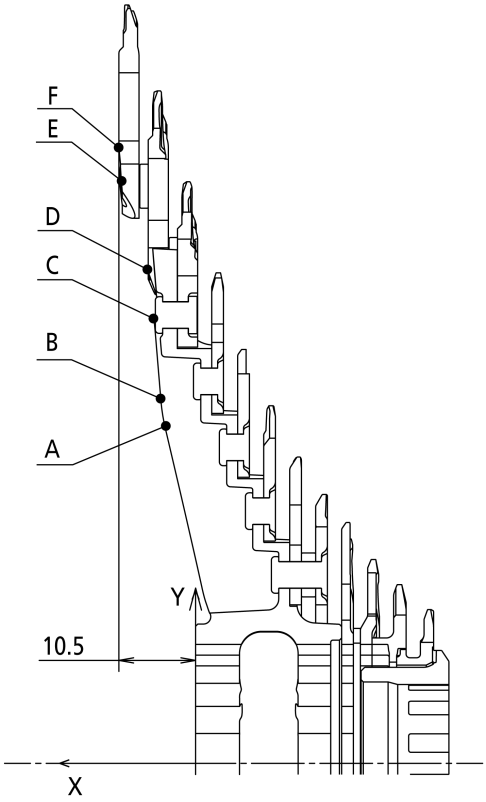
1. Mount the chain onto the pulley, and then turn the arm upward so that there is 15 - 25 mm of slackness in the chain when tension is being vertically applied to the chain. (If tension cannot be applied to the chain in the upward direction, apply the tension in the downward direction instead. If tension cannot be applied in either the upward or downward direction, add two links to the chain and apply the tension in the downward direction.)
2. Tighten the arm fixing bolt to secure the arm.
3. Turn the crank arm and check that the wheel turns smoothly with no abnormal noise.



## Cautionary points for installing C-251

### 12-speed C-555

#### CS-M9100-12 (10-51T)



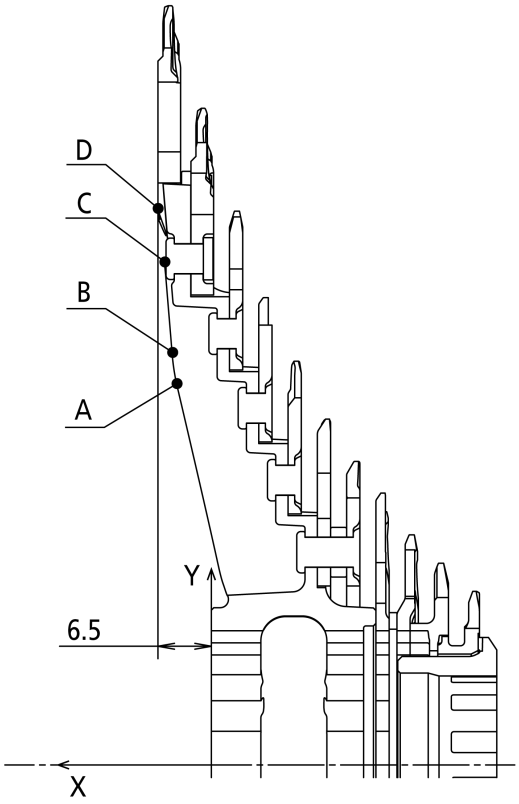

| | X mm | Y mm (ø) |
|---|---|---|
| A | 4.14 | 91.9 |
| B | 4.74 | 99.4 |
| C | 5.65 | 121.2 |
| D | 6.5 | 134.5 |
| E | 10.05 | 158.8 |
| F | 10.5 | 167.9 |

#### CS-M9100-12 (10-45T)

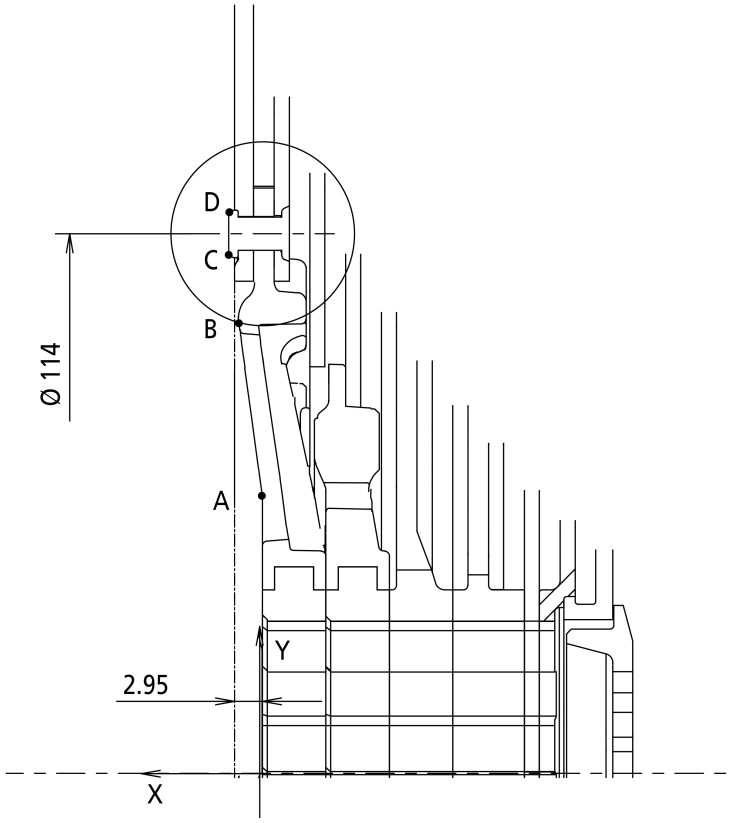
TBD

## 11-speed C-252

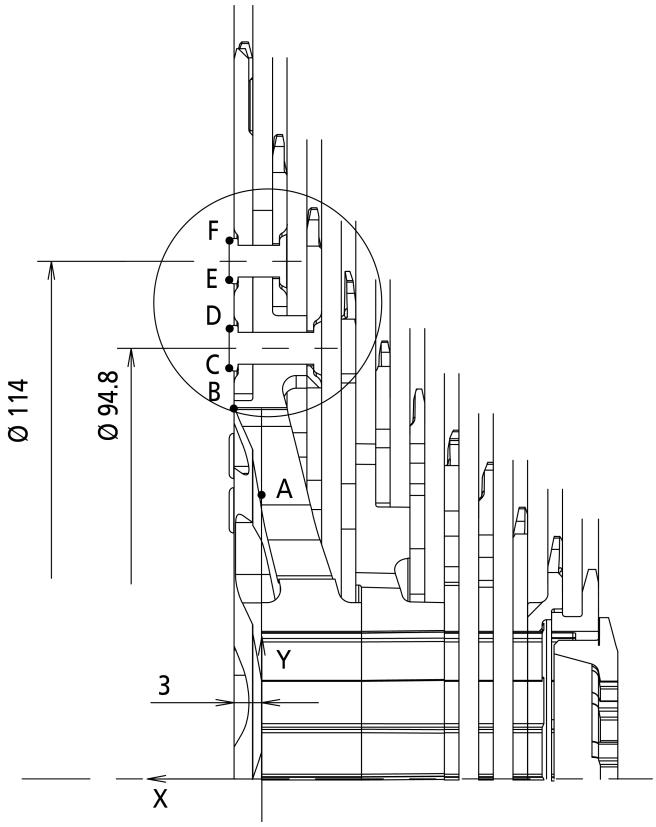
### CS-M9110-11 (10-45T)




| | X mm | Y mm (ø) |
|---|---|---|
| A | 4.14 | 91.9 |
| B | 4.74 | 99.4 |
| C | 5.65 | 121.2 |
| D | 6.5 | 134.5 |



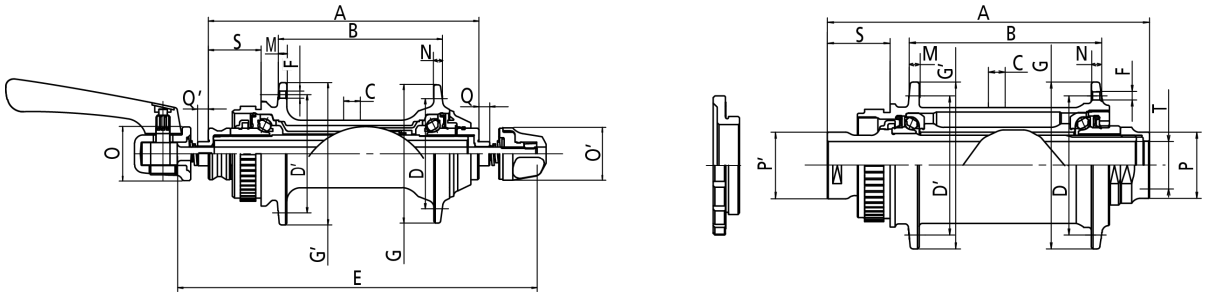

| | X mm | Y mm (ø) |
|---|---|---|
| A | 0 | 60 |
| B | 2.55 | 95 |
| C | 3.55 | 109 |
| D | 3.55 | 119 |




| | X mm | Y mm (ø) |
|---|---|---|
| A | 0 | 59.4 |
| B | 3.00 | 82.3 |
| C | 3.55 | 89.8 |
| D | 3.55 | 99.8 |
| E | 3.55 | 109.0 |
| F | 3.55 | 119.0 |

# Front hub dimension [MTB,Trekking]






## Disc brake (QR type)

| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | | E QR | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | O | O' | Q | Q' | S |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HB-M8000 | 100 | 60.2 | 6 | 41 | 44 | 133 | ø2.6 | 53 | 52.8 | 3.2 / 3.2 | ø20.0 | ø19.5 | 4 | 4 | 19.5 |
| HB-M7000 | | | 5.5 | 44 | | | | | | | | | | | |
| HB-M6000 | | | 5.6 | | | | | | | | | | | | |
| HB-M4050 | | | | | | | | | | | | | | | |
| HB-M3050 | | | 5.5 | | | | | | | | | | | | |
| HB-RM35 | | | | | | | | | | | | | | | |
| HB-MT200 | | | 5.3 | | | 129 (133) | | | | | | | | | |
| HB-TX505 | | | 5.3 | | | 129 | | | | | | | | | |

(mm)

## Disc brake (Thru axle type)

4

| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | P | P' | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HB-M9110 | 100 | 60.2 | 5.4 | 44 | ø2.6 | 53 | 52.8 | 3.2 / 3.2 | ø21.0 | ø21.0 | 19.5 | 15 |
| HB-M8010 | | | | | | | | | | | | |
| HB-M7010 | | | 5.3 | | | | | | | | | |
| HB-M6010 | | | | | | | | | | | | |
| HB-M9110-B | 110 | 70.2 | 5.4 | | | | | | | | | |
| HB-MT900-B | | | | | | | | | | | | |
| HB-M8010-B | | | | | | | | | | | | |
| HB-M7010-B | | | | | | | | | | | | |
| HB-M6010-B | | | | | | | | | | | | |
| HB-MT400-B | | 70.2 | 5.4 | 44 | | 52.8 | 52.8 | | ø21.0 | ø21.0 | 19.5 | 15 |
| HB-M820 | | 61.55 | 5.8 | 50 | | 60 | 59.6 | | ø24.0 | ø24.0 | 24.25 | 20 |
| HB-M640 | | | 5.6 | 52 | | 62 | 61.6 | | | | | |

(mm)

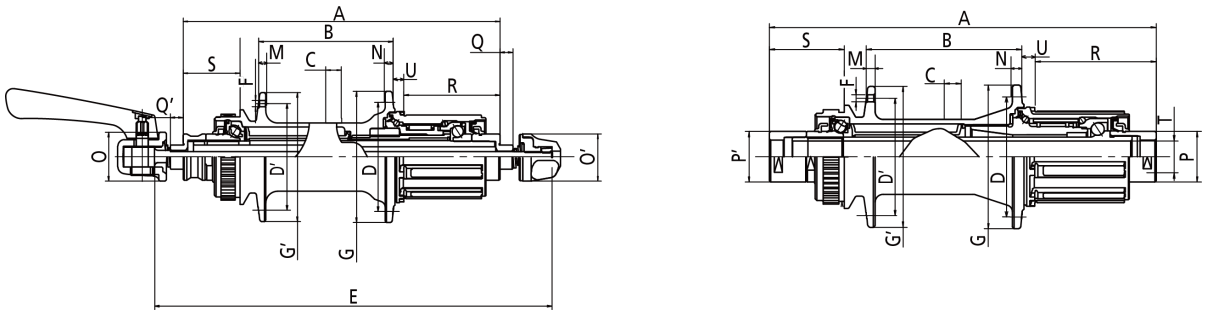
## Rim brake

| Model No. | QR type | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | E QR | F Spoke hole | G / G' Flange diameter | M / N Flange thickness | O | O' | Q | Q' |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HB-T780 | X | 100 | 71.6 | - | 40 | 133 | ø2.6 | 50.4 | 3.2 / 3.2 | ø20.0 | ø19.5 | 4 | 4 |
| HB-T610 | | | | | | 168(173) | | 48.4 | | | | | |
| HB-T4000 | | | | | | 133 | | 52.8 | | | | | |
| HB-T3000 | | | | | | | | 48.4 | | | | | |
| HB-TX500-QR | | | | | | 129(133) | | 46 | | | | | |
| HB-TX500-NT | | | | | | - | | | | | | | |

(mm)
X: Yes

# FREEHUB dimension [MTB,Trekking]






## Disc brake (QR type)

| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D | | E QR | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | O | O' | Q | Q' | R | S | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FH-M9000 | 135 | 57.4 | 6.6 | 45 | 44 | 168 (173) | ø2.6 | 54 | 52.8 | 3.2 / 3.5 | ø20.0 | ø19.5 | 5.5 | 5.5 | 40.75 | 24.3 | 4.7 |
| FH-M8000 | | | | | | | | | | | | | | | | | |
| FH-M7000 | | | | | | | | | | | | | | | | | |
| FH-M6000 | | | | | 45 | | | | 53.8 | | | | | | | | |
| FH-M4050 | | | | | | | | | | | | | | | | | |
| FH-M3050 | | | | | | 166 (170) | | | | | | | | | | | |
| FH-RM35 | | | | | | | | | | | | | | | | | |
| FH-TX505-8 | | | 6.8 | | | | | | | | | | | | | | |
| FH-MT200-B | 141 | 63.4 | 6.65 | 45 | 45 | 172 (176) | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 | ø20.0 | ø19.5 | 5.5 | 5.5 | 40.75 | 24.25 | 4.7 |

(mm)

## Disc brake (Thru axle type)

| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D | | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | P | P' | R | S | T | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FH-M9110 | 142 | 56.0 | 7.1 | 61 | 49.5 | ø2.6 | 70 | 58.5 | 3.2 / 3.5 | ø19.0 | ø19.0 | 39.7 | 27.75 | 12 | 12.1 |
| FH-M8010 | | 57.4 | 6.4 | 45 | 44 | ø2.6 | 54 | 52.8 | 3.2 / 3.5 | ø19.0 | ø19.0 | 44.25 | 27.75 | 12 | 4.7 |
| FH-M828 | | | | | | | | | | | | | | | |
| FH-M7010 | | | | | | | | | | | | | | | |
| FH-M648 | | | | | | | | | | | | | | | |
| FH-M6010 | | | | | | | | | | | | | | | |
| FH-M9110-B | 148 | 62.7 | 6.8 | 61 | 47.25 | ø2.6 | 70 | 56.25 | 3.2 / 3.5 | ø19.0 | ø19.0 | 39.7 | 27.75 | 12 | 11.5 |
| FH-MT900-B | | 62.3 | 6.7 | 61 | 53 | ø2.6 | 70 | 62 | 3.2 / 3.5 | ø19.0 | ø19.0 | 39.7 | 27.75 | 12 | 11.5 |
| FH-M9125-B | | 67.2 | 4.5 | 61 | 45.5 | ø2.6 | 70 | 54.5 | 3.2 / 3.5 | ø19.0 | ø19.0 | 39.7 | 27.75 | 12 | 6.8 |
| FH-M8010-B | | 63.4 | 6.4 | 45 | 44 | ø2.6 | 54 | 52.8 | 3.2 / 3.5 | ø19.0 | ø19.0 | 44.25 | 27.75 | 12 | 4.7 |
| FH-M7010-B | | | | | | | | | | | | | | | |
| FH-M6010-B | | | | | | | | | | | | | | | |
| FH-MT400-B | 148 | 63.4 | | | | | | | | | | 44.25 | 27.75 | 12 | |
| FH-M820 | 135 | 57.4 | | | | | | | | | | 40.75 | 24.25 | 10 / 12 | |
| FH-M640 | | | | | | | | | | | | | | | |
| FH-M825 | 150 | 72.4 | | | | | | | | | | | | 12 | |
| FH-M645 | | | | | | | | | | | | | | | |

(mm)

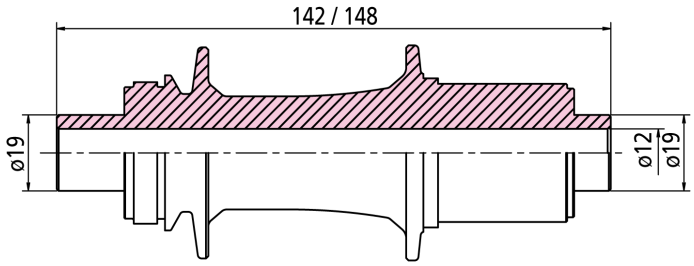
## Rim brake

| Model No. | QR type | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | | E QR | F Spoke hole | G / G' Flange diameter | M / N Flange thickness | O | O' | Q | Q' | R | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FH-T780 | X | 135 | 57.4 | 6.6 | 45 | 44 | 168 (173) | ø2.6 | 53.8 | 3.2 / 3.5 | ø20.0 | ø19.5 | 5.5 | 5.5 | 40.8 | 4.7 |
| FH-T610 | | | 59.2 | 7.8 | | 45 | | | | | | | | | | |
| FH-T4000 | | | | 7.6 | | | | | | | | | | | | |
| FH-T3000 | | | | 7.5 | | | 166 (170) | | | | | | | | | |
| FH-TX500-QR | X | | 57.4 | 6.8 | | | | | | | | | | | | |
| FH-TX500-NT | - | | | | | | - | | | | - | - | | | | |
| FH-TY500-QR | X | | 57.4 | 4.6 | | | 166 (170) | | | | ø20.0 | ø19.5 | | | 38.1 | 5.3 |
| FH-TY500-NT | - | | 57.4 | 4.6 | | | - | | | | - | - | | | 38.1 | 5.3 |

(mm)
X: Yes

# E-THRU hub / Thru axle / E-THRU axle dimensions [MTB, ROAD]

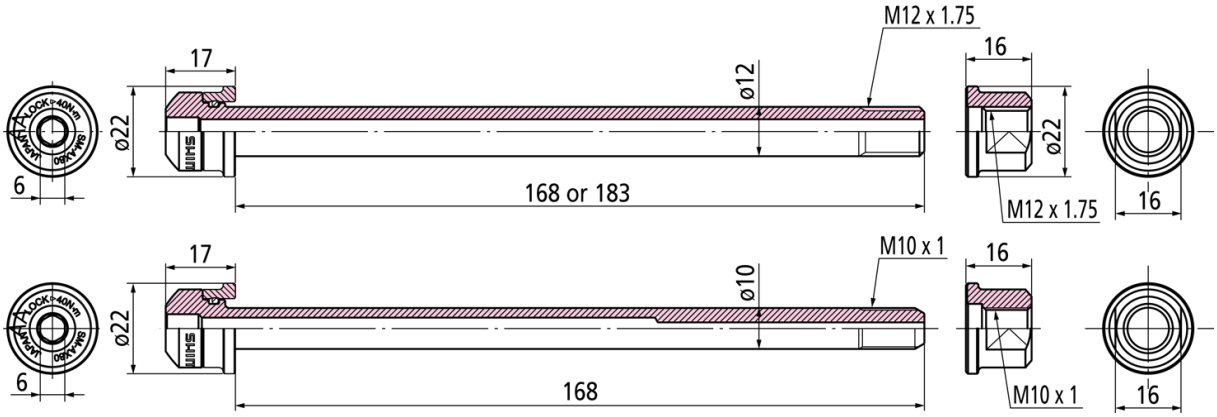
C-262



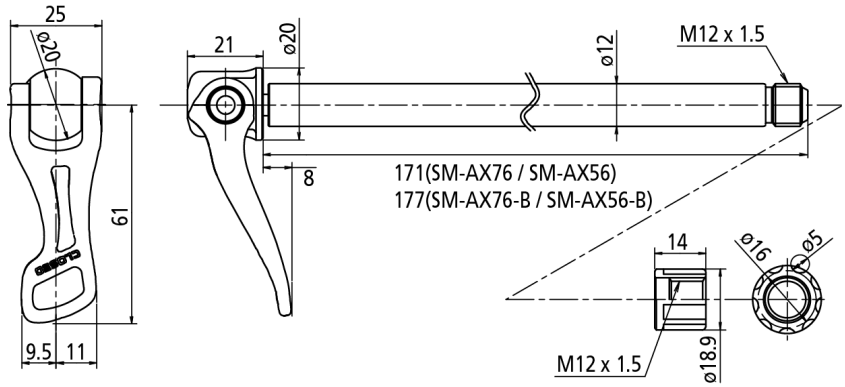

4

| FREEHUB | | Wheel | |
|---|---|---|---|
| O.L.D.142mm | O.L.D.148mm | O.L.D.142mm | O.L.D.148mm |
| FH-M9110<br>FH-M8010<br>FH-M7010<br>FH-M6010 | FH-M9110-B<br>FH-M9125-B<br>FH-MT900-B<br>FH-M8010-B<br>FH-M7010-B<br>FH-M6010-B | WH-M8000<br>WH-M8020 | WH-M8000-B<br>WH-M8020-B |

**SM-AX80**

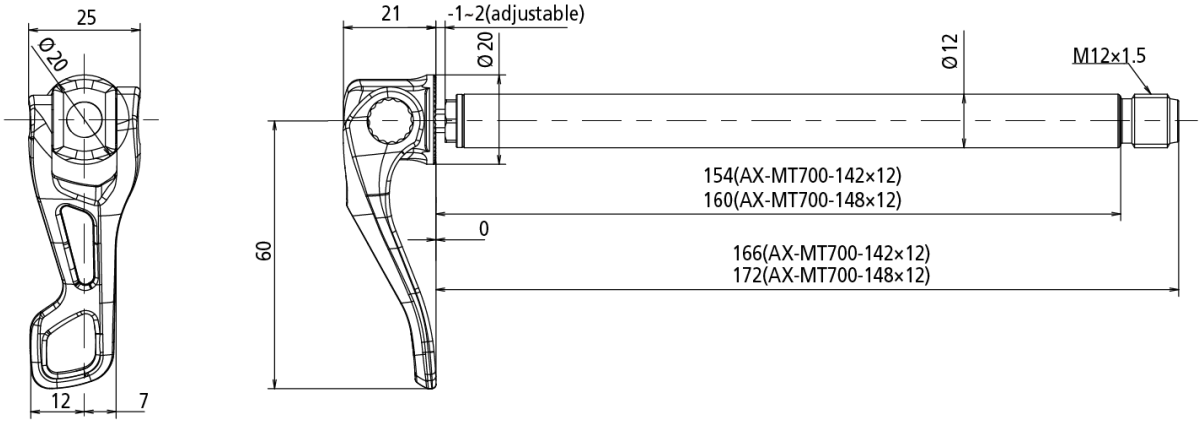


**SM-AX76 / SM-AX56 (O.L.D. 142mm)**
**SM-AX76-B / SM-AX56-B (O.L.D.148mm)**

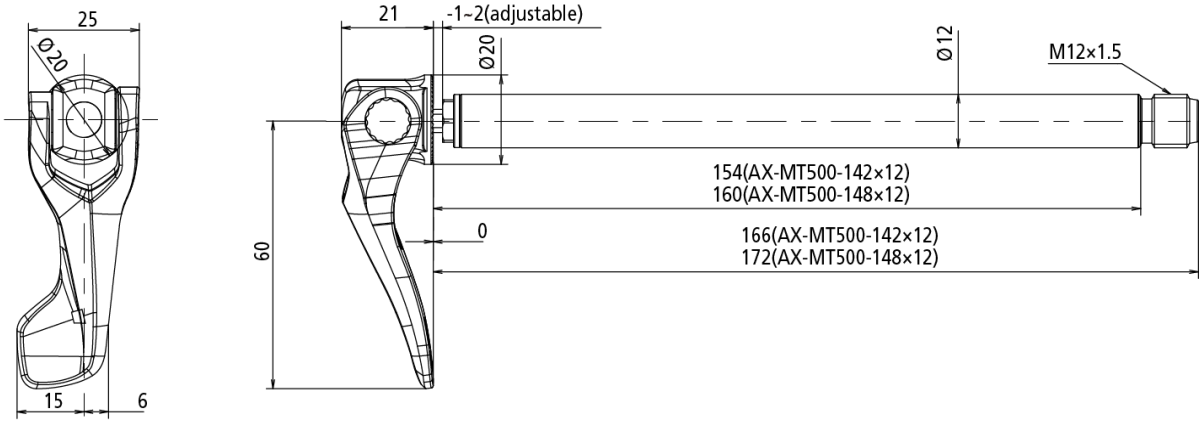



## 12 mm Rear E-THRU I-type C-265

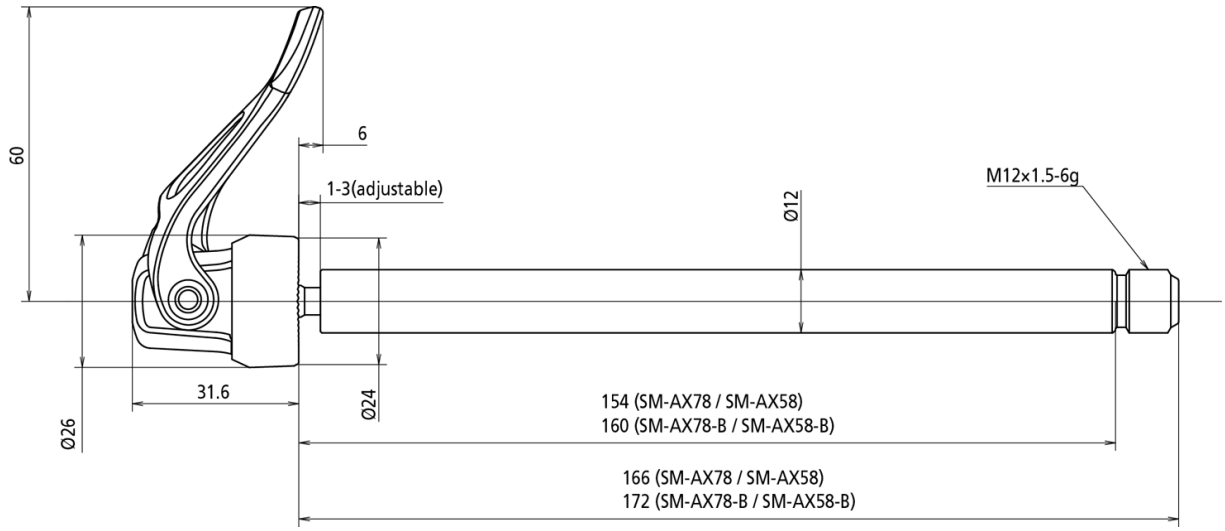
**AX-MT700-142x12 (O.L.D. 142mm)**
**AX-MT700-148x12 (O.L.D. 148mm)**




**AX-MT500-142x12 (O.L.D. 142mm)**
**AX-MT500-148x12 (O.L.D. 148mm)**

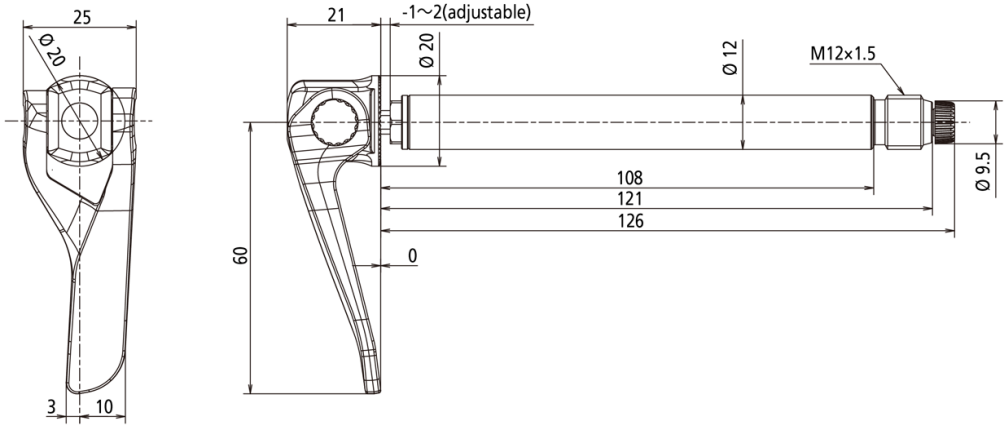


**SM-AX78 / SM-AX58 (O.L.D. 142mm)**
**SM-AX78-B / SM-AX58-B (O.L.D. 148mm)**

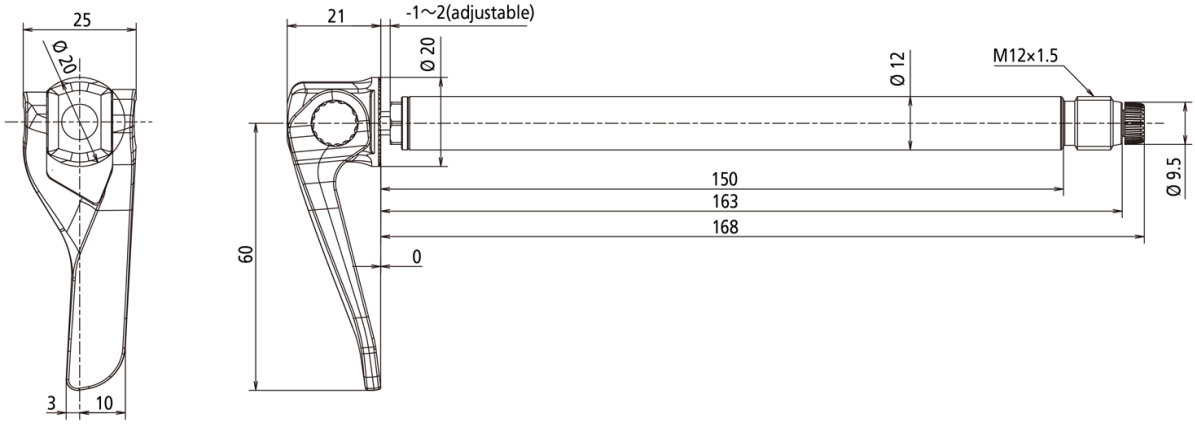



## Road E-THRU C-502

**SM-AX720-100x12**



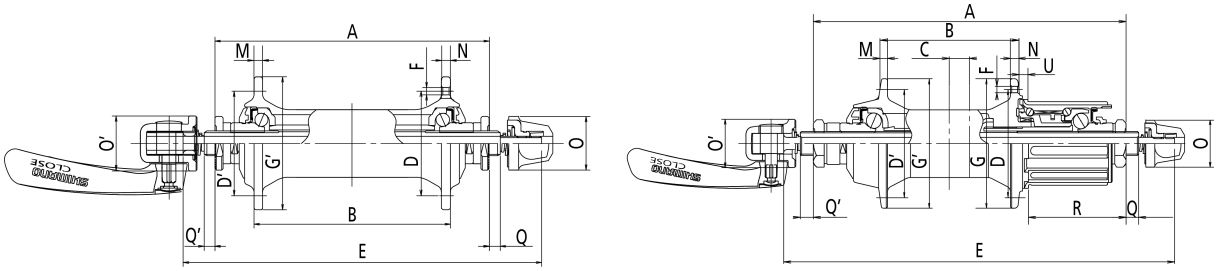

**SM-AX720-142x12**



# Front hub / FREEHUB dimensions [ROAD]



## For rim brake




| Model No. | QR type | A<br>O.L.D | B<br>flange distance | C<br>off set | D<br>P.C.D.1 (FH side) | D'<br>P.C.D.2 |
|---|---|---|---|---|---|---|
| HB-9000 | X | 100 | 74.0 | - | 38 | 38 |
| FH-9000<br>(except for 28H) | X | 130 | 56.9 | 9.75 | 45 | 44 |
| FH-9000<br>(28H) | X | 130 | 56.5 | 9.95 | 45 | 44 |
| HB-6800 | X | 100 | 71.6 | - | 40 | 40 |
| FH-6800 | X | 130 | 56.9 | 9.7 | 45 | 44 |
| HB-R7000 | X | 100 | 71.6 | - | 38 | 38 |
| FH-R7000 | X | 130 | 56.9 | 9.75 | 45 | 44 |
| HB-RS400 | X | 100 | 71.6 | - | 38 | 38 |
| FH-RS400 | X | 130 | 56.9 | 9.75 | 45 | 44 |
| HB-RS300 | X | 100 | 71.6 | 0 | 38 | 38 |
| FH-RS300 | X | 130 | 57.9 | 8.4 | 45 | 45 |
| HB-TX500-QR | X | 100 | 71.6 | 0 | 38 | 38 |
| FH-TX500-8-QR | X | 135 | 57.4 | 6.8 | 45 | 45 |
| FH-TX500-8-NT | - | 135 | 57.4 | 6.8 | 45 | 45 |
| FH-TY500-QR | X | 130 | 57.4 | 7.1 | 45 | 45 |
| FH-TY500-NT | - | 130 | 57.4 | 7.1 | 45 | 45 |

(mm)
X: Yes

| Model No. | QR type | E<br>QR | F<br>Spoke hole | G<br>flange diameter (FH side) | G'<br>left flange diameter | M / N<br>flange thickness |
|---|---|---|---|---|---|---|
| HB-9000 | X | 133 | ø2.4 | - | 48.4 | 3.2 / 3.2 |
| FH-9000<br>(except for 28H) | X | 163<br>- 168 | ø2.4 | 53.8 | 52.8 | 3.2 / 3.5 |
| FH-9000<br>(28H) | X | 163<br>- 168 | ø2.4 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-6800 | X | 133 | ø2.6 | - | 50.4 | 3.2 / 3.2 |
| FH-6800 | X | 163<br>- 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-R7000 | X | 133 | ø2.6 | - | 48.4 | 3.2 / 3.2 |
| FH-R7000 | X | 163<br>- 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-RS400 | X | 133 | ø2.6 | - | 48.4 | 3.2 / 3.2 |
| FH-RS400 | X | 163<br>- 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-RS300 | X | 129<br>- 133 | ø2.6 | 48.4 | 48.4 | 3.2 / 3.2 |
| FH-RS300 | X | 163<br>- 168 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| HB-TX500-QR | X | 129<br>- 133 | ø2.6 | 46.0 | 46.0 | 3.2 / 3.2 |
| FH-TX500-8-QR | X | 166<br>- 170 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TX500-8-NT | - | - | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TY500-QR | X | 161 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TY500-NT | - | - | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |

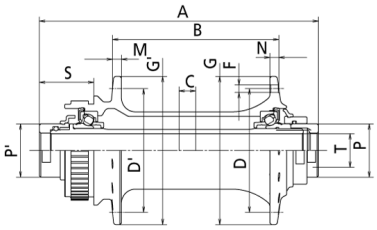
(mm)
X: Yes

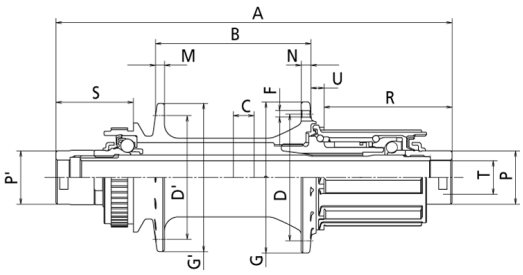
| Model No. | O | O' | Q | Q' | R | *S | U<br>low gear contact face to flange |
|---|---|---|---|---|---|---|---|
| HB-9000 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-9000<br>(except for 28H) | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| FH-9000<br>(28H) | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 4.3 |
| HB-6800 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-6800 | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-R7000 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-R7000 | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-RS400 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-RS400 | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-RS300 | ø19.5 | ø20.0 | 4 | 4 | - | - | - |
| FH-RS300 | ø19.5 | ø20.0 | 5.5 | 5.5 | 40.55 | - | 3.9 |
| FH-TX500-8-QR | ø19.5 | ø20.0 | 5.5 | 5.5 | 40.75 | - | 4.7 |
| FH-TX500-8-NT | - | - | - | - | 40.75 | - | 4.7 |
| FH-TY500-QR | ø19.5 | ø20.0 | 5.5 | 5.5 | 38.1 | - | 5.3 |
| FH-TY500-NT | - | - | - | - | 38.1 | - | 5.3 |

(mm)
X: Yes

* Please refer to C-262 and C-541 for definition of "S" dimension.

## For disc brake (E-THRU type)

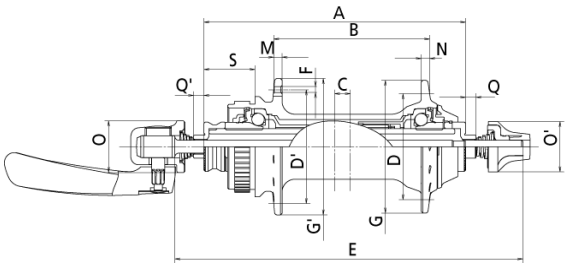


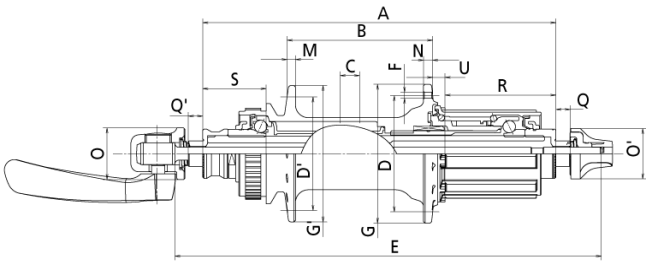




| Model No. | A<br>O.L.D. | B<br>Flange distance | C<br>Off set | D<br>P.C.D.1<br>(FH SIDE) | D'<br>P.C.D.2 | F<br>Spoke hole | G / G'<br>Flange diameter | M / N<br>Flange thickness |
|---|---|---|---|---|---|---|---|---|
| HB-RS770 | 100 | 59.6 | 6 | 44 | 44 | ø2.6 | 52.8 / 52.8 | 3.2 / 3.2 |
| FH-RS770 | 142 | 55.7 | 7.45 | 45 | 44 | ø2.6 | 53.8 / 52.8 | 3.5 / 3.2 |

| Model No. | O | O' | P | P' | Q | Q' | R | S | T | U<br>Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|
| HB-RS770 | - | - | ø19 | ø19 | - | - | - | 19.5 | 12 | - |
| HB-RS770 | - | - | ø19 | ø19 | - | - | 42.4 | 27.75 | 12 | 4.7 |

## For disc brake (QR type)



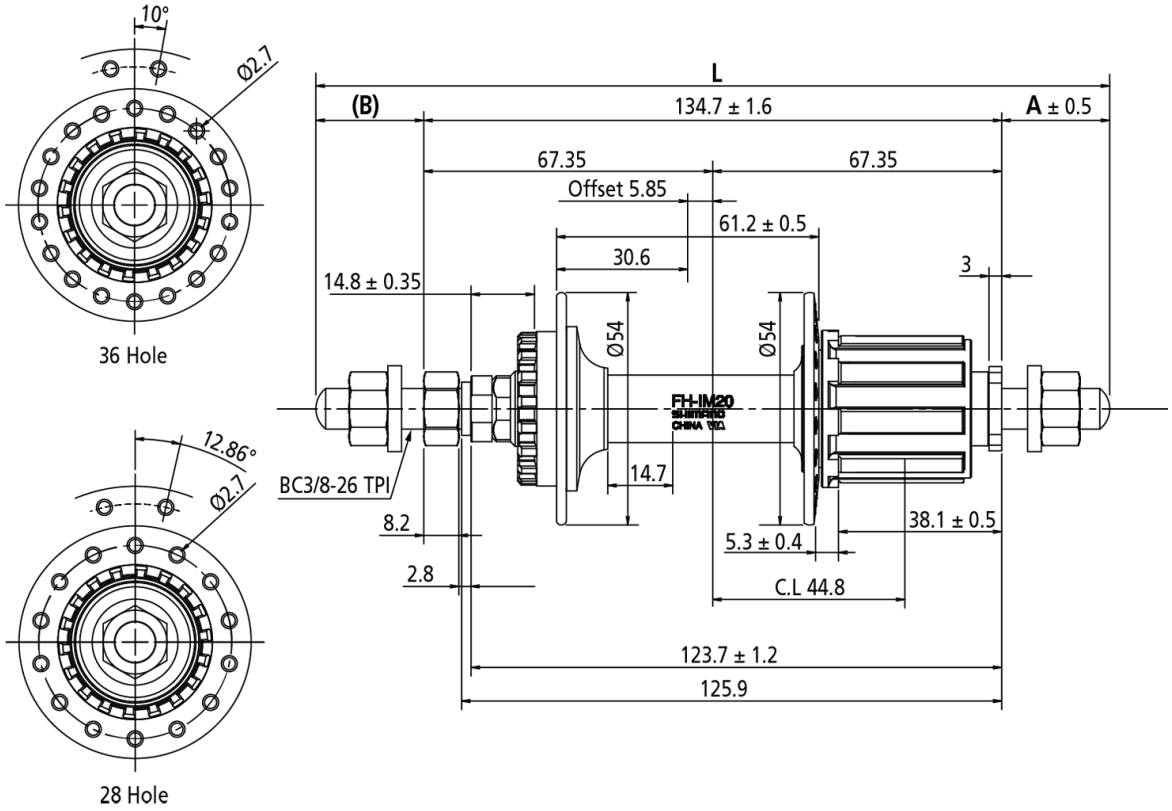

| Model No. | A<br>O.L.D. | B<br>Flange distance | C<br>Off set | D<br>P.C.D.1<br>(FH SIDE) | D'<br>P.C.D.2 | E<br>QR | F<br>Spoke hole | G / G'<br>Flange diameter | M / N<br>Flange thickness |
|---|---|---|---|---|---|---|---|---|---|
| HB-CX75 | 100 | 59.6 | 6 | 44 | 44 | 133 | ø2.6 | 52.8 / 52.8 | 3.2 / 3.2 |
| FH-CX75 | 135 | 55.7 | 7.4 | 45 | 45 | 168-173 | ø2.6 | 53.8 / 52.8 | 3.5 / 3.25 |

| Model No. | O | O' | P | P' | Q | Q' | R | S | T | U<br>Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|
| HB-CX75 | ø19.5 | ø20 | - | - | 4 | 4 | - | 19.5 | - | - |
| FH-CX75 | ø19.5 | ø20 | - | - | 5.5 | 5.5 | 42.4 | 24.25 | - | 4.7 |

# Hub / FREEHUB dimensions [COMFORT]

**FH-IM20**

**(not for EU-market)**

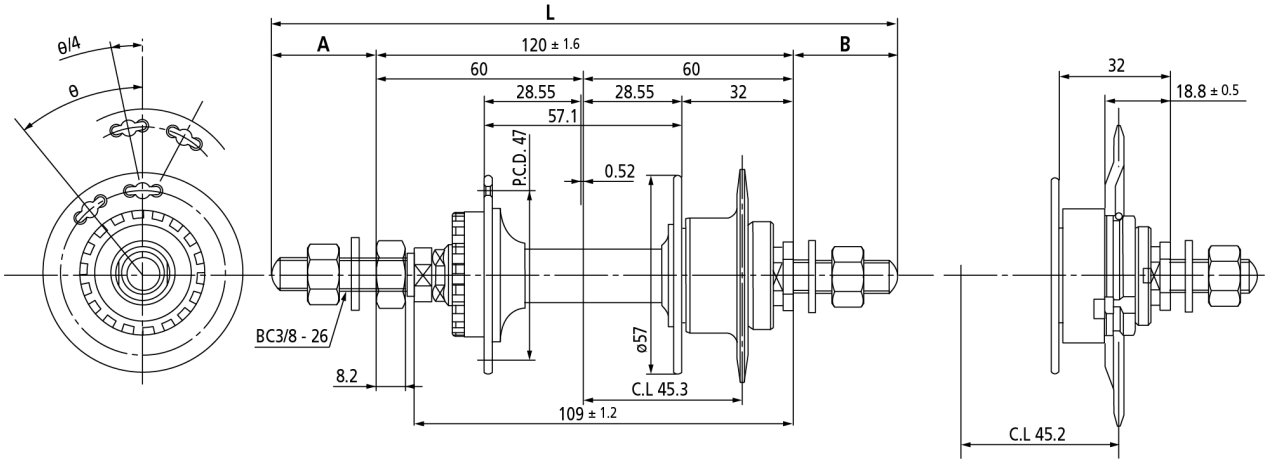



| Hole No. | L (mm) | A (mm) | B (mm) |
|---|---|---|---|
| 36H,28H | 202 | 36 | 31.3 |
| | 194 | 32 | 27.3 |

**FH-IM37**

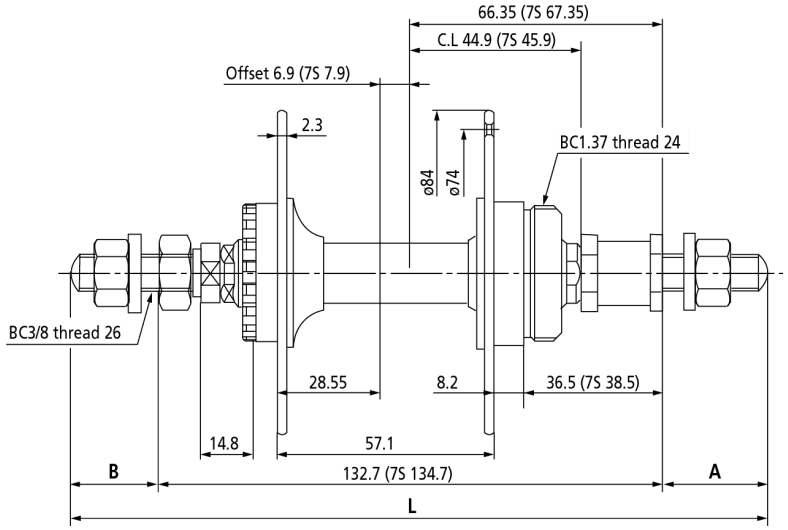
**FH-IM35**

**(not for EU-market)**



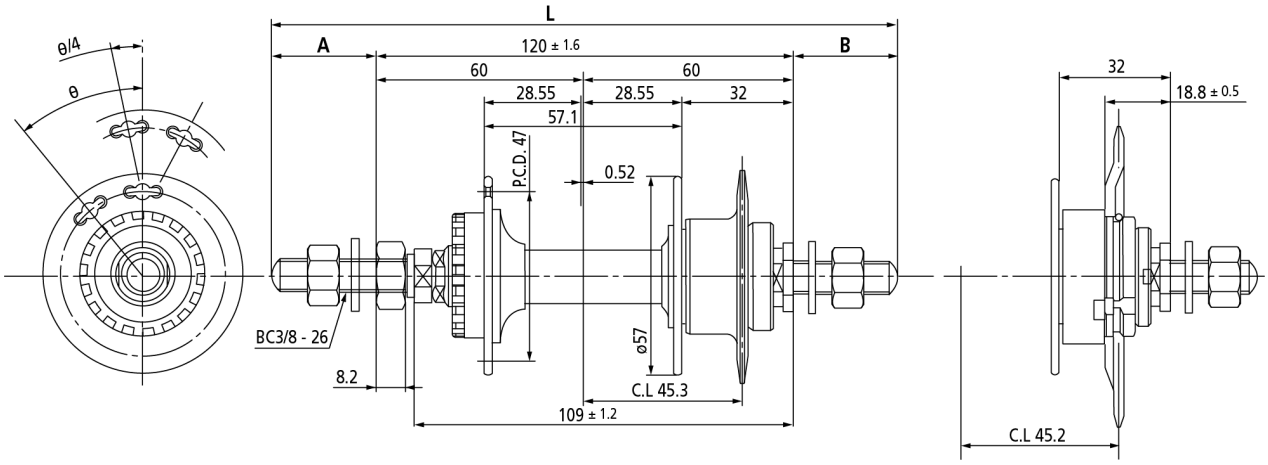

| Hole No. | Sprocket | L (mm) | A (mm) | B (mm) |
|---|---|---|---|---|
| 36H, 28H | 14T, 16T | 165 | 22.5 | 22.5 |
| | | 185 | 32 | 32 |
| | | 180 | 30 | 30 |
| | | 192 | 38 | 34 |

**RH-IM11**
**RH-IM10**




| Model No. | L (mm) | A (mm) | B (mm) | Holes |
|---|---|---|---|---|
| RH-IM11-6S | 204 | 38.0 | 33.3 | 36H |
| RH-IM11-6S | 200 | 36.0 | 31.3 | 36H |
| RH-IM11-6S | 192 | 29.0 | 30.3 | 36H |
| RH-IM11-6S / RH-IM10-6S | 192 | 32.0 | 27.3 | 36H, 28H |
| RH-IM11-6S / RH-IM10-6S | 185 | 28.5 | 23.8 | 36H, 28H |
| RH-IM11-6S / RH-IM10-6S | 180 | 24.5 | 22.8 | 36H, 28H |
| RH-IM11-7S | 200 | 35.0 | 30.3 | 36H |
| RH-IM11-7S / RH-IM10-7S | 192 | 31.0 | 26.3 | 36H, 28H |
| RH-IM11-7S / RH-IM10-7S | 180 | 23.5 | 21.8 | 36H, 28H |

**FH-S028**
**(not for EU market)**




| Hole No. | Sprocket | L (mm) | A (mm) | B (mm) |
|---|---|---|---|---|
| 36H, 28H | 14T, 16T | 165 | 22.5 | 22.5 |
| | | 185 | 32 | 32 |
| | | 180 | 30 | 30 |
| | | 192 | 38 | 34 |

## line-up C-269

| Model No. | Output 6V-**W | BR Compatibility | | | Nut | QR | 12mm E-THRU | Connector design | O.L.D. (mm) | Wheel size | Tire outer diameter (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | V-BRAKE / Caliper brake | Roller brake (modulator level) | Disc | | | | | | | |
| DH-T8000-3D | 3.0W | - | - | X | - | X | - | E2 | 100 | 26-28 inch | 646 - 716 |
| DH-T785 | | - | - | X | - | X | - | | | | |
| DH-UR705-3D | | - | - | X | - | - | X | | | | |
| DH-UR700-3D | | - | - | X | - | X | - | | | | |
| DH-3D72 | 3.0W | - | - | X | - | X | - | | | 26-28 inch | 646 - 716 |
| DH-3D32 | | - | - | X | X | X | - | | | 16-28 inch | 400 - 716 |
| DH-3D37 | | - | - | X | X | X | - | | | | |
| DH-3N72 | | X | - | - | - | X | - | | | 26-28 inch | 646 - 716 |
| DH-C3000-3N | | X | - | - | X | X | - | | | 16-28 inch | 400 - 716 |
| DH-F703-S | | X | - | - | - | X | - | | 74 | 16-20 inch | 400 - 536 |
| DH-C3000-2N | 2.4W | X | - | - | X | X | - | | 100 | 20-28 inch | 400 - 716 |
| DH-S501 | 3.0W | - | - | X | - | X | - | | | 26-28 inch | 646 - 716 |
| DH-S701 | 1.5W | - | - | X | - | X | - | | | 20-28 inch | 492 - 716 |
| DH-F703 | 3.0W | X | (hyper / normal / 20 Inch) X | - | - | X | - | | 74 | 16-20 inch | 400 - 536 |
| DH-C6000-3R-NT | 3.0W | - | (hyper / normal) X | - | X | - | - | | 100 | 26-28 inch | 646 - 716 |
| DH-C6000-2R | 2.4W | - | (hyper / normal) X | - | X | - | - | | | | |
| DH-C6000-1R | 1.5W | - | (hyper / normal) X | - | - | X | - | | | | |
| DH-C3000-1N | | X | - | - | X | - | - | | | 18-28 inch | 448 - 716 |
| DH-T4000-1N | 1.5W | X | - | - | - | X | - | | | | |
| DH-T4050-1D | 1.5W | - | - | X | - | X | - | | | | |

## Specification for Japan Market C-270

| Model No. | Output 6V-**W | BR Compatibility | | | Nut | QR | 12mm E-THRU | Connector design | O.L.D. (mm) | Wheel size | Tire outer diameter (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | V-BRAKE / Caliper brake | Roller brake (modulator level) | Disc | | | | | | | |
| DH-C2100-N | 0.9W | X | – | - | X | - | - | J2-A | 93 / 100 | 24-28 inch | - |
| DH-C2100-NC | | X | - | - | X | - | - | | | 20-24 inch | - |
| DH-C2100-D-NT | | - | - | X | X | - | - | | | 20-24 inch | - |
| DH-2100-N-QR | | X | - | - | - | X | - | | | 24-28 inch | - |
| DH-2100-N-QRC | | X | - | - | - | X | - | | | 20-24 inch | - |
| DH-2N40-J | 2.4W | X | - | - | X | - | - | J2 | | 24-28 inch | - |
| DH-2N40-JC | | X | - | - | X | - | - | | | 20-24 inch | - |
| DH-2N40-JW | | X | - | - | X | - | - | | 100 | 24-28 inch | - |
| DH-2N40-JWC | | X | - | - | X | - | - | | | 20-24 inch | - |
| DH-2R30-A-J | | - | X (normal) | - | X | - | - | | | 26-28 inch | - |

### Note for Sports Models

**DH-T8000 / DH-T785 / DH-3N72 / DH-3D72 / DH-S701 / DH-S501**

[Reference output voltage (@26-Inch, 30km/h): 35Vrms, 140 Vpp, (26-Inch, 70km/h): 80Vrms, 320Vpp]

- The open output voltage of these models are higher compared to the standard models.
- Kindly confirm with light supplier about compatibility, or may risk damaging light if ridden at high speed.

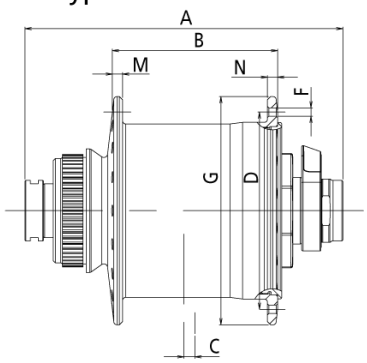
### Others

- Use only lights designed for 3.0W (Front light) or 2.4W (front light) + 0.6W (Rear light).
- For small wheels bike, kindly use dynamos dedicated for them (20-24 inches) , or light may fail prematurely.
- Shimano's hub dynamos are not recommended for MTB-related usage.
- 1.5W dynamos are to be used with LED lights only, and not older Halogen-type lights.
- Do not use radial lacing method for Shimano's hub dynamos (Except DH-F703), adopt 3 or 4 cross lacing method instead. Or may risk damaging the spokes and wheels after prolonged braking.

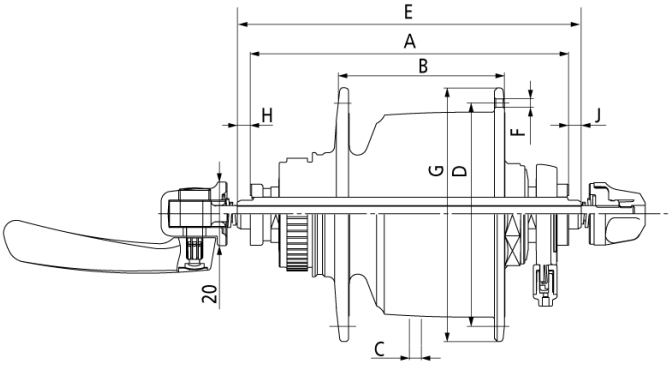
# Hub dynamo dimensions



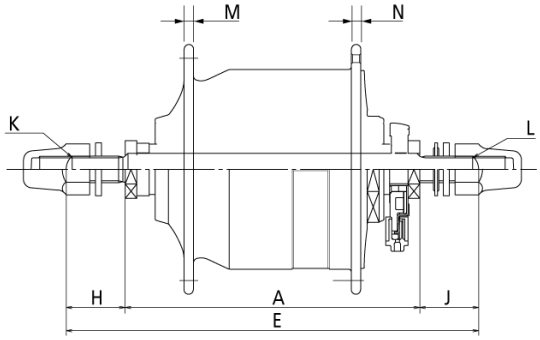
12 mm E-THRU type




QR type




Nut type

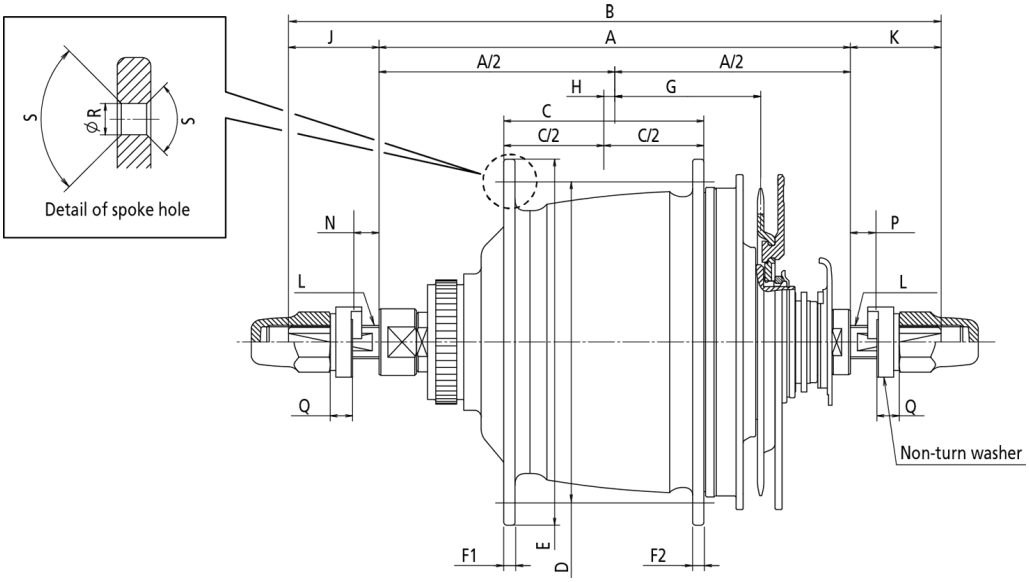



| Model No. | Type | CENTER LOCK mount type | Voltage | Output (W) | 12mm E-THRU type | QR type | Nut type | Spoke size |
|---|---|---|---|---|---|---|---|---|
| DH-S701 | For disc brake | X | 6V | 1.5 | - | X | - | #14 |
| DH-UR705-3D | | | | 3.0 | X | - | - | |
| DH-UR700-3D | | | | 3.0 | - | X | - | |
| DH-S501 | | | | 3.0 | - | X | - | |
| DH-T8000-3D | For disc brake | X | | 3.0 | - | | | |
| DH-3D72 | | | | 3.0 | - | | | |
| DH-3D37-QR | | | | 3.0 | - | | | |
| DH-3D37-NT | | | | 3.0 | - | - | X | |
| DH-3D32-QR | For disc brake | - | | 3.0 | - | X | - | |
| DH-3D32-NT | | | | 3.0 | - | - | X | |
| DH-3N72 | Regular | - | | 3.0 | - | X | - | |
| DH-C3000-3N-QR | | | | 3.0 | - | | | |
| DH-C3000-2N-QR | | | | 2.4 | - | | | |
| DH-C3000-3N-NT | | | | 3.0 | - | - | X | |
| DH-C3000-2N-NT | | | | 2.4 | - | | | #13、#14 |
| DH-F703 | | | | 3.0 | - | X | - | #14 |
| DH-F703-S | | | | 3.0 | - | | | |
| DH-C6000-1R | For hub roller brake | - | | 1.5 | - | - | X | #14 |
| DH-C6000-2R | | | | 2.4 | - | | | #13、#14 |
| DH-C6000-3R-NT | For hub roller brake | X | | 3.0 | - | - | X | #14 |
| DH-C3000-1N | Regular | - | | 1.5 | - | - | X | #14 |
| DH-T4000-1N | Regular | - | | 1.5 | - | X | - | |
| DH-T4050-1D | For disc brake | - | | 1.5 | - | X | - | |
| DH-C2100-D-NT | For disc brake | X | | 0.9 | - | - | X | #14 |
| DH-C2100-N | Regular | - | | 0.9 | - | - | X | #13、#14 |
| DH-C2100-NC | Regular | - | | 0.9 | - | - | X | |
| DH-C2100-N-QR | Regular | - | | 0.9 | - | X | - | |
| DH-C2100-N-QRC | Regular | - | | 0.9 | X | - | | |
| DH-2N40-J<br>DH-2N40-JC | Regular | - | | 2.4 | - | - | X | #14 |
| DH-2N40-JW<br>DH-2N40-JWC | | | | | | | | |
| DH-2R30-A-J | For hub roller brake | | | | | | | |

X: Yes

| Model No. | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H / J (mm) | K / L (mm) | M / N (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| DH-S701 | 100 | 54.0 | 3.1 | 57 | 108.0 | ø2.6 | 67.4 | 4.0 | ø9 | 3.2 |
| DH-UR705-3D | | TBD | TBD | TBD | TBD | | TBD | TBD | TBD | |
| DH-UR700-3D | | TBD | TBD | TBD | TBD | | TBD | TBD | TBD | |
| DH-S501 | | 52.1 | 3.8 | 70 | 108.0 | | 79.6 | 4.0 | ø9 | |
| DH-T8000-3D | | 52.1 | 4.0 | 70 | | | 79.6 | | | |
| DH-3D72 | | 52.1 | 3.8 | 70 | | | 79.6 | | | |
| DH-3D37-QR | | 51.0 | 4.0 | 74 | 108.0 | | 83.7 | 4.0 | ø9 | |
| DH-3D37-NT | | | 4.0 | | 140.0 | | | 20.0 | M9X1 | |
| DH-3D32-QR | | | 4.0 | | 108.0 | | | 4.0 | ø9 | |
| DH-3D32-NT | | | 3.6 | | 140.0 | | | 20.0 | M9X1 | |
| DH-3N72 | 100 | 60.0 | 0 | 70 | 108.0 | | 79.6 | 4.0 | ø9 | |
| DH-T780 | | | | | | | | | | |
| DH-C3000-3N-QR | | | 0.6 | 74 | | | 86.6 | | | |
| DH-C3000-2N-QR | | | | | | | | | | |
| DH-C3000-3N-NT | | | 1.0 | | 140.0 | ø2.6 (Spoke #14) | | 20.0 | M9X1 | |
| DH-C3000-2N-NT | | | | | | ø2.9 (Spoke #13) | | | | |
| DH-F703 | 74 | 44.6 | 0 | 74 | 82.0 | ø2.6 | 84.4 | 4.0 | ø9 | |
| DH-F703-S | | | | | | | | | | |
| DH-C6000-1R | 100 | 58.1 | 4.7 | 76 | 140.0 | ø2.6 (Spoke #14) | 88.6 | 20.0 | M9X1 | |
| DH-C6000-2R | | | | | | ø2.9 (Spoke #13) | | | | |
| DH-C6000-3R-NT | 100 | 58.1 | 4.7 | 76 | 140.0 | ø2.6 | 88.6 | 20.0 | M9X1 | |
| DH-C3000-1N | 100 | 56.0 | 1.1 | 67 | 140.0 | ø2.6 | 79.6 | 20.0 | M9X1 | |
| DH-T4000-1N | 100 | 56.0 | 0.6 | 67 | 108.0 | | 79.6 | 4.0 | ø9 | |
| DH-T4050-1D | 100 | 51.0 | 1.9 | 67 | 108.0 | | 77.4 | 4.0 | ø9 | |
| DH-C2100-N | 93 | 58.0 | 0.5 | 60 | 155.0 | | 69.6 | 31.0 | BC5/16 | |
| | 93 | 58.0 | 0.5 | 60 | 150.0 | | 69.6 | 28.5 | BC5/16 | |
| DH-C2100-NC | 93 | 58.0 | 0.5 | 60 | 155.0 | | 69.6 | 31.0 | BC5/16 | |
| | 93 | 58.0 | 0.5 | 60 | 150.0 | | 69.6 | 28.5 | BC5/16 | |
| DH-C2100-D-NT | 100 | 52.5 | 4.8 | 60 | 140.0 | | 69.6 | 20.0 | M9X1 | |
| DH-C2100-N-QR | 100 | 58.0 | 0.5 | 60 | 108.0 | | 69.6 | 4.0 | ø9 | |
| DH-C2100-N-QRC | 100 | 58.0 | 0.5 | 60 | 108.0 | | 69.6 | 4.0 | ø9 | |
| DH-2N40-J<br>DH-2N40-JC | 93 | 60.0 | 0 | 69 | 150.0 | | 78.7 | 28.5 | BC5 / 16 | |
| DH-2N40-JW<br>DH-2N40-JWC | 100 | | 3.0 | | 140.0 | | | 20.0 | M9X1 | |
| DH-2R30-A-J | | 58.1 | 4.8 | 76 | 155.0 | | 86.6 | 27.5 | BC5 / 16 | |

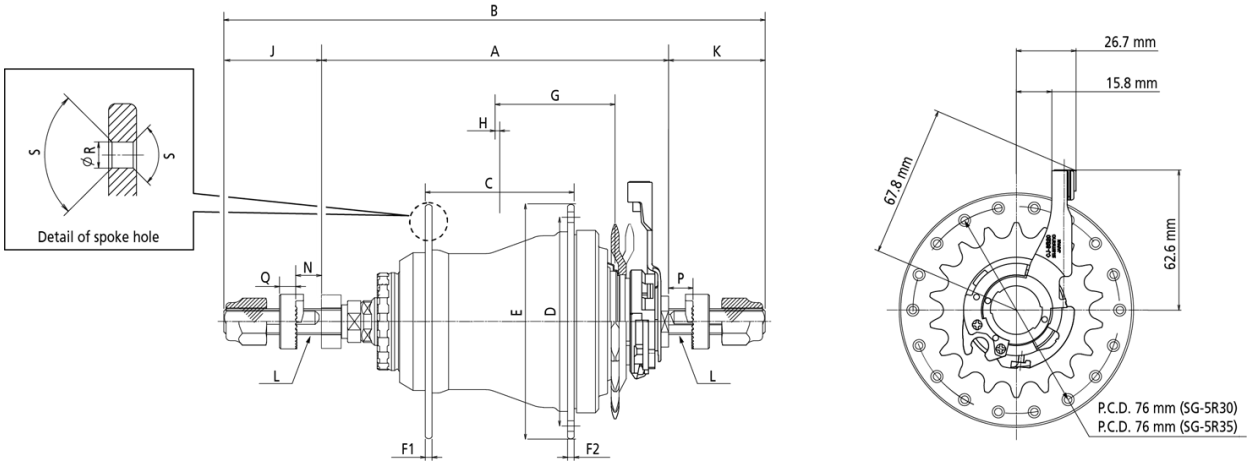
## ⚠2 ALFINE INTER-11, 8 / NEXUS INTER-8, 7, 5E C-273




| | Series | ALFINE | | NEXUS | | | |
|---|---|---|---|---|---|---|---|
| | Function name | INTER-11 | INTER-8 | INTER-8 | INTER-8 | INTER-8 | INTER-8 |
| | Model No. | SG-S7001-11 | SG-S7001-8 | SG-C6011-8R<br>SG-C6001-8R<br>SG-C6011-8V<br>SG-C6001-8V | SG-C6001-8C | SG-C6001-8D | SG-C6001-8CD |
| | Speed | 11 | 8 | | | | |
| | Gear ratio: Total | 409% | 307% | | | | |
| | Spoke size | #13 / #14 | | | | | |
| A | Over locknut dim. / O.L.D. (mm) | 135 | | 132 | 132.3 | 135 | |
| B | Axle length (mm) | 187 | | 184 | | 187 | |
| C | Flange distance (mm) | 57.3 | | 58.3 | | 57.3 | 58.3 |
| D | Spoke hole P.C.D. (mm) | 92.6 | | | | | |
| E | Flange diameter (mm) | 104.3 | | 105.2 | | | |
| F | Flange width (mm): F1 (left) | 3.2 | | | | | |
| | Flange width (mm): F2 (right) | 3.2 | | | | | |
| G | Chain line (mm): G1 (outward assembly) | 46.8 | | 47.7 | 47.85 | 46.8 | |
| | Chain line (mm): G2 (inward assembly) | 41.8 | | 42.7 | 42.85 | 41.8 | |
| H | Offset (mm) | 3.15 | | 2.7 | 2.55 | 3.15 | 4 |
| J | Axle length from hub (left) | 26 | | | 25.7 | 26 | 26.6 |
| K | Axle length from hub (right) | 26 | | | | | 25.4 |
| L | Axle size | BC3 / 8 TPI 26 | | | | | |
| N | Fork end mounting width (left, includes stay etc.) | 5-9 | | 4-9 | | 5-9 | 4-9 |
| P | Fork end mounting width (right, includes stay etc.) | 5-9 | | 4-9 | | 5-9 | 4-9 |
| Q | Non-turn washer width | 6.4 | | | | | |
| R | Spoke hole diameter (mm) | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 |
| S | Spoke hole chamfer | 90° | | | | | |

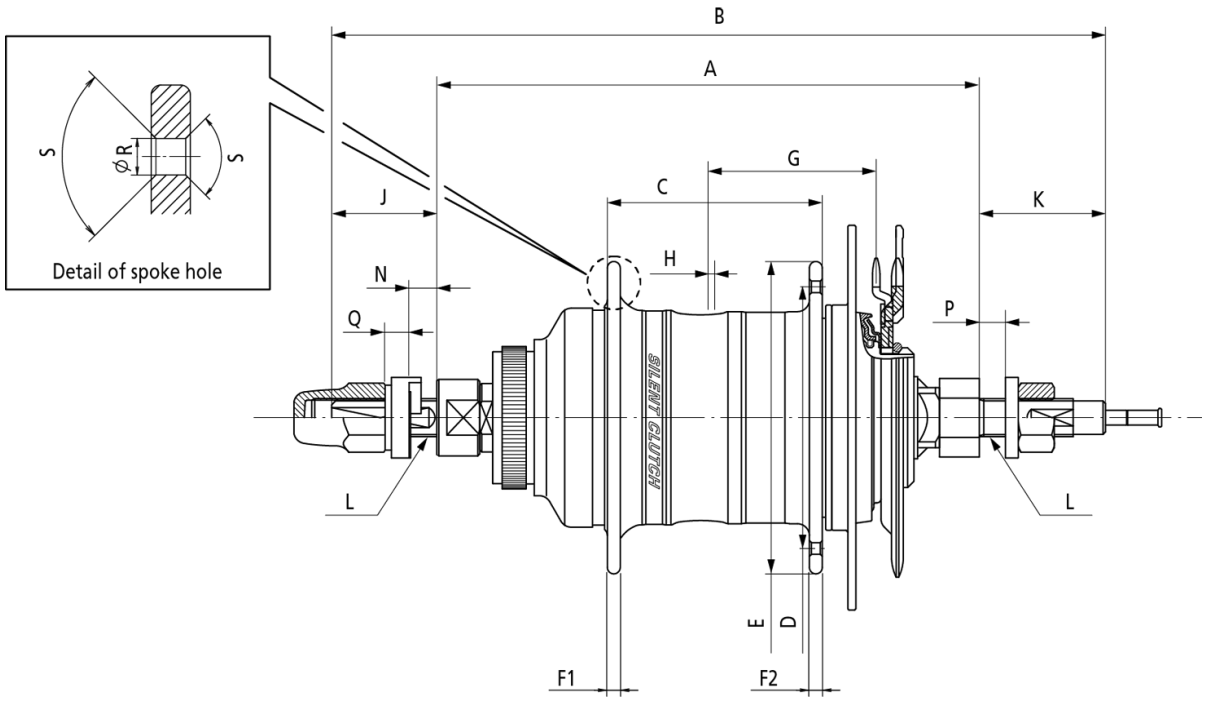
2

| | Series | NEXUS | | | | |
|---|---|---|---|---|---|---|
| | Function name | INTER-7 | INTER-7 | INTER-7 | INTER-5E | INTER-5E |
| | Model No. | SG-C3001-7R | SG-C3001-7C | SG-C3001-7D | SG-C7000-5D | SG-C7000-5R<br>SG-C7000-5V |
| | Speed | 7 | | | 5 | |
| | Gear ratio: Total | 244% | | | 263% | |
| | Spoke size | #13 / #14 | | | | |
| A | Over locknut dim. / O.L.D. (mm) | 130 | 127 | 135 | | |
| B | Axle length (mm) | 182 / 201 | 175.5 | 187 | | |
| C | Flange distance (mm) | 54.6 | 56.2 | 54.6 | 57.3 | 58.3 |
| D | Spoke hole P.C.D. (mm) | 87 | 83.5 | 87 | 92.6 | |
| E | Flange diameter (mm) | 99.6 | 92.5 | 99.6 | 105.2 | |
| F | Flange width (mm): F1 (left) | 3.2 | 2.7 | 3.2 | | |
| | Flange width (mm): F2 (right) | 3.2 | 2.3 | 3.2 | | |
| G | Chain line (mm): G1 (outward assembly) | 45.3 | 46.5 | 46.8 | 47.2 | |
| | Chain line (mm): G2 (inward assembly) | 40.3 | 41.5 | 41.8 | 42.2 | |
| H | Offset (mm) | 3.85 | 4.6 | 2.5 | 3.2 | 3.7 |
| J | Axle length from hub (left) | 26 / 37 | 24.5 | 26 | | |
| K | Axle length from hub (right) | 26 / 34 | 24 | 26 | | |
| L | Axle size | BC3 / 8 TPI 26 | | | | |
| N | Fork end mounting width (left, includes stay etc.) | 4-9 / 15-20 | 4-9 | 5-9 | | |
| P | Fork end mounting width (right, includes stay etc.) | 4-9 / 12-17 | 4-9 | 5-9 | | |
| Q | Non-turn washer width | 6.4 | | | | |
| R | Spoke hole diameter (mm) | 2.9 | 2.7 | 2.9 | | |
| S | Spoke hole chamfer | 90° | 105° | 90° | | |



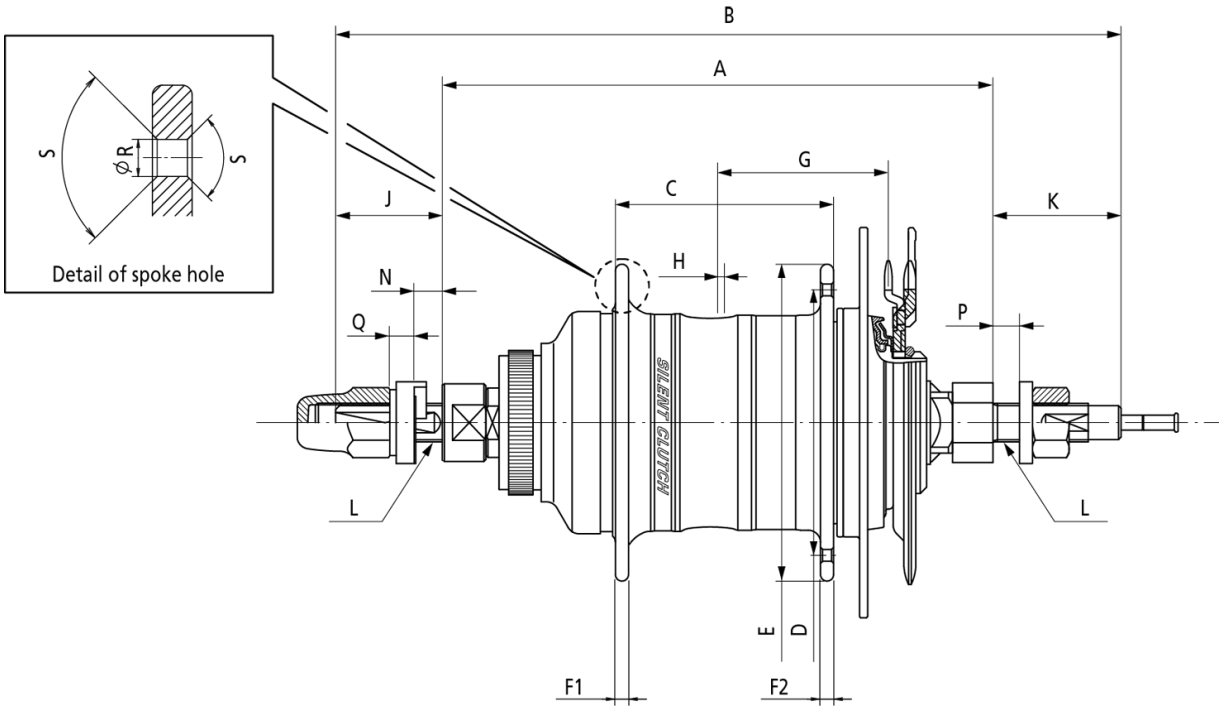

| | | | |
|---|---|---|---|
| | Series | | NEXUS |
| | Model No. | | SG-5R30 |
| | Speed | | 5 |
| | Gear ratio: Total | | 206% |
| | Sales area | | Japan |
| | Brake type | | Hub roller brake |
| | Hub shell material | | Steel |
| | Spoke size | | #13 / #14 |
| A | Over locknut dim. / O.L. D. (mm) | | 132 |
| B | Axle length (mm) | | 210 |
| | Push rod length (mm) | | - |
| C | Flange distance (mm) | | 54.6 |
| D | Spoke hole P.C.D. (mm) | | 76 |
| | Butterfly spoke hole | | - |
| E | Flange diameter (mm) | | 86.0 |
| F | Flange width (mm): F1 (left) | | 2.5 |
| | Flange width (mm): F2 (right) | | 2.3 |
| G | Chain line (mm) | 15T (flat gear) use | - |
| | | Inward assembly | 41.8 |
| | | Outward assembly | 46.8 |
| H | Offset (mm) | | 0.3 |
| J | Axle length from hub (left) | | 39 |
| K | Axle length from hub (right) | | 39 |
| L | Axle size | | BC3 / 8 TPI 26 |
| N | Fork end mounting width (left, includes stay etc.) | | 4 - 20 |
| P | Fork end mounting width (right, includes stay etc.) | | |
| Q | Non-turn washer width | | 6.4 |
| R | Spoke hole diameter (mm) | | Left: 2.85<br>Right: 2.8 |
| S | Spoke hole chamfer | | 90° |

# NEXUS INTER-3




| | Series | | NEXUS | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Model No. | | SG-3R40 | | | | | SG-3C41 | | | SG-3D55 | SG-3R75-B |
| | Speed | | 3 | | | | | | | | | |
| | Gear ratio: Total | | 186% | | | | | | | | | 158% |
| | Sales area | | All | | | | | | | | | |
| | Brake type | | Hub roller brake | | | | | Coaster brake | | | Disc brake | Hub roller brake |
| | Hub shell material | | Steel | | | | | | | | Aluminum | Steel |
| | Spoke size | | #13 / #14 | | | | | | | | | |
| A | Over locknut dim. / O.L.D. (mm) | | 120 | | 127 | | 130 | 120 | | 127 | 135 | 122 |
| B | Axle length (mm) | | 170.3 | 189.4 | 176.8 | 182.7 | 183.5 | 168 | 178 | 175 | 192.6 | 174.0 |
| | Push rod length (mm) | | 81.85 | 90.75 | 86.85 | 90.75 | 86.85 | 81.85 | 86.85 | | 90.75 | - |
| C | Flange distance (mm) | | 53 | | | | | 57.5 | | | 53.5 | 51.1 |
| D | Spoke hole P.C.D. (mm) | | 74 | | | | | 59 | | | 65 | 83.5 |
| | Butterfly spoke hole | | - | | | | | | | | | |
| E | Flange diameter (mm) | | 84 | | | | | 67.5 | | | 77.6 | 92.5 |
| F | Flange width (mm): F1 (left) | | 2.3 | | | | | | | | 3.2 | 2.7 |
| | Flange width (mm): F2 (right) | | 2.3 | | | | | | | | 3.2 | 2.3 |
| G | Chain line (mm) | 15T (flat gear) use | 42.2 | | 40.5 | | 45.5 | 43.7 | | 42.2 | 44.5 | - |
| | | Inward assembly | 39.7 | | 38 | | 43 | 41.2 | | 39.7 | 42 | - |
| | | Outward assembly | 44.7 | | 43 | | 48 | 46.2 | | 44.7 | 47 | 43.9 |
| H | Offset (mm) | | 0.8 | | 2.5 | | | 1.2 | | 2.7 | 1.67 | 3.6 |
| J | Axle length from hub (left) | | 22.5 | 32.7 | 22.5 | 24.5 | 22.5 | 21 | 26 | 21 | 26.2 | 26 |
| K | Axle length from hub (right) | | 27.4 | 36.3 | 27.5 | 31.4 | 30.8 | 27 | 32 | 26.6 | 31.4 | 26 |
| L | Axle size | | BC3 / 8 TPI 26 | | | | | | | | | BC3 / 8 TPI 26 |
| N | Fork end mounting width (left, includes stay etc.) | | 4.0 - 7.5 | 8.5 - 17.0 | 4.0 - 7.5 | 8.0 - 11.5 | 7.5 - 11.0 | 4.0 - 7.5 | 9.0 - 12.5 | 4.0 - 7.5 | 6.5 - 10.0 | 4.0 - 9.0 |
| P | Fork end mounting width (right, includes stay etc.) | | | | | | | | | | | |
| Q | Non-turn washer width | | 4.0 | | | | | 4.0 | | | 4.0 or 6.4 | 6.4 |
| R | Spoke hole diameter (mm) | | 2.7 | | | | | | | | 2.9 | Left: 2.7 Right: 2.8 |
| S | Spoke hole chamfer | | 105° | | | | | | | | 90° | 105° |

# Specification for Japanese market C-478

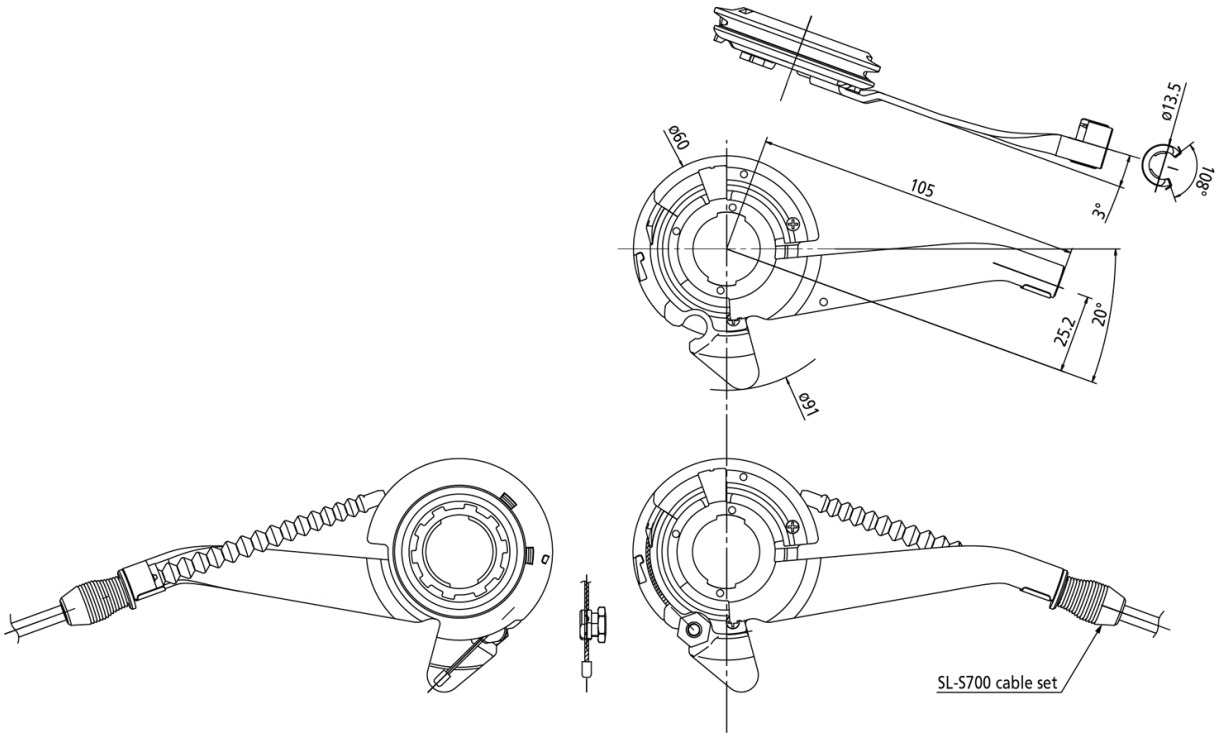



| | Series | | NEXUS | | | | |
|---|---|---|---|---|---|---|---|
| | Model No. | | SG-3R42 | | SG-3R40 | | SG-3R75-B |
| | Speed | | 3 | | 3 | | 3 |
| | Gear ratio: Total | | 186% | | 186% | | 158% |
| | Sales area | | Japan | | Japan | | Japan |
| | Brake type | | Hub roller brake | | Hub roller brake | | Hub roller brake |
| | Hub shell material | | Steel | | Steel | | Steel |
| | Spoke size | | #13 / #14 | | #13 / #14 | | #13 / #14 |
| A | Over locknut dim. / O.L.D. (mm) | | 120 | 120 | 120 | 120 | 122 |
| B | Axle length (mm) | | 181.8 | 191.8 | 181.8 | 191.8 | 193.0 |
| | Push rod length (mm) | | 81.85 | 86.85 | 81.85 | 86.85 | - |
| C | Flange distance (mm) | | 53.0 | | 53.0 | | 51.1 |
| D | Spoke hole P.C.D. (mm) | | 60.0 | | 74.0 | | 83.5 |
| | Butterfly spoke hole | | X | | - | | - |
| E | Flange diameter (mm) | | 70.0 | | 84.0 | | 92.5 |
| F | Flange width (mm): F1 (left) | | 3.0 | | 2.3 | | 2.7 |
| | Flange width (mm): F2 (right) | | 3.0 | | 2.3 | | 2.3 |
| G | Chain line (mm) | 15T (flat gear) use | 42.65 | 42.65 | 42.65 | 42.65 | - |
| | | Inward assembly | 40.15 | 40.15 | 40.15 | 40.15 | - |
| | | Outward assembly | 45.15 | 45.15 | 45.15 | 45.15 | 43.9 |
| H | Offset (mm) | | 0.35 | 0.35 | 0.35 | 0.35 | 3.6 |
| J | Axle length from hub (left) | | 34.0 | 39.0 | 34.0 | 39.0 | 37.0 |
| K | Axle length from hub (right) | | 28.3 | 33.3 | 28.3 | 33.3 | 34.0 |
| L | Axle size | | BC3 / 8 TPI 26 | | BC3 / 8 TPI 26 | | BC3 / 8 TPI 26 |
| N | Fork end mounting width (left, includes stay etc.) | | 5.5 - 10.5 | 10.5 - 15.5 | 5.5 - 10.5 | 10.5 - 15.5 | 15 - 20 |
| P | Fork end mounting width (right, includes stay etc.) | | | | | | 12 - 17 |
| Q | Non-turn washer width | | 4.0 | | 4.0 | | 6.4 |
| R | Spoke hole diameter (mm) (left) | | 2.65 | | 2.7 | | 2.7 |
| | Spoke hole diameter (mm) (right) | | | | | | 2.8 |
| S | Spoke hole chamfer | | 105° | | 105° | | 105° |

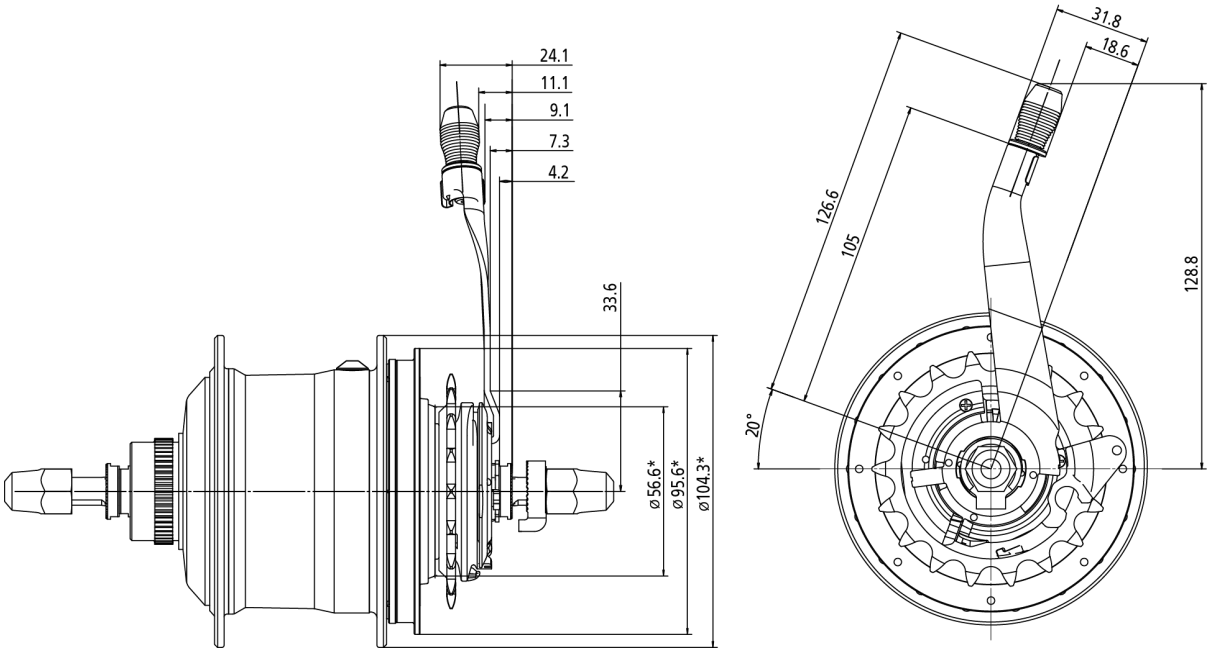
## ALFINE INTER-11 C-277

### CJ-S700

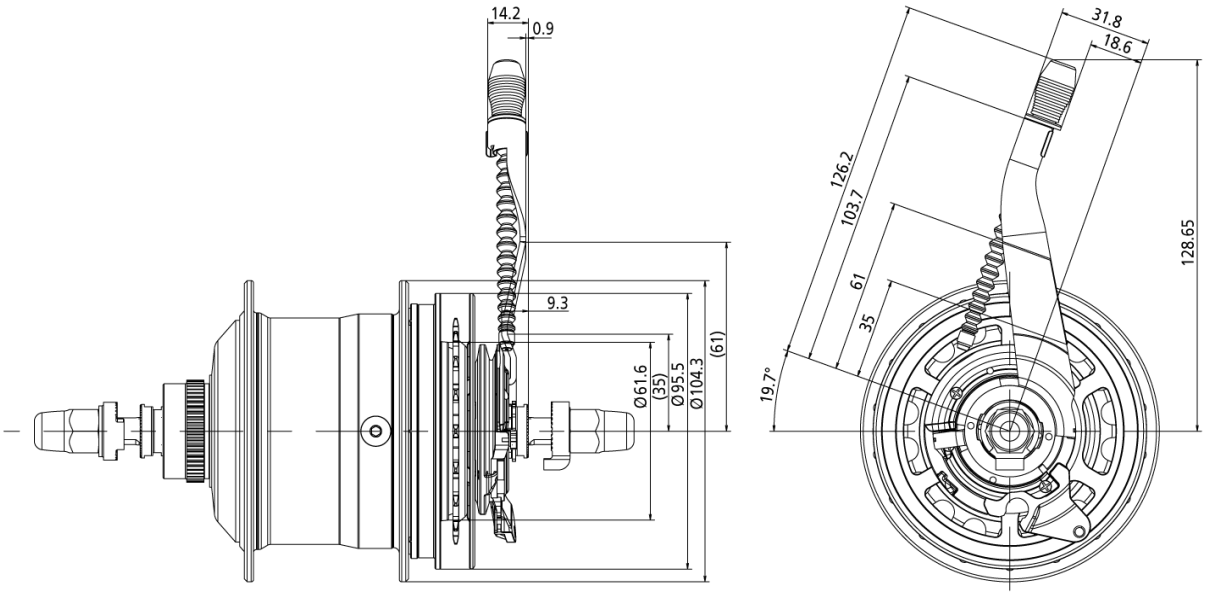
When designing the frame, make sure that there is no interference between the chain case and the hub.




### CJ-S700 and SG-S7001-11

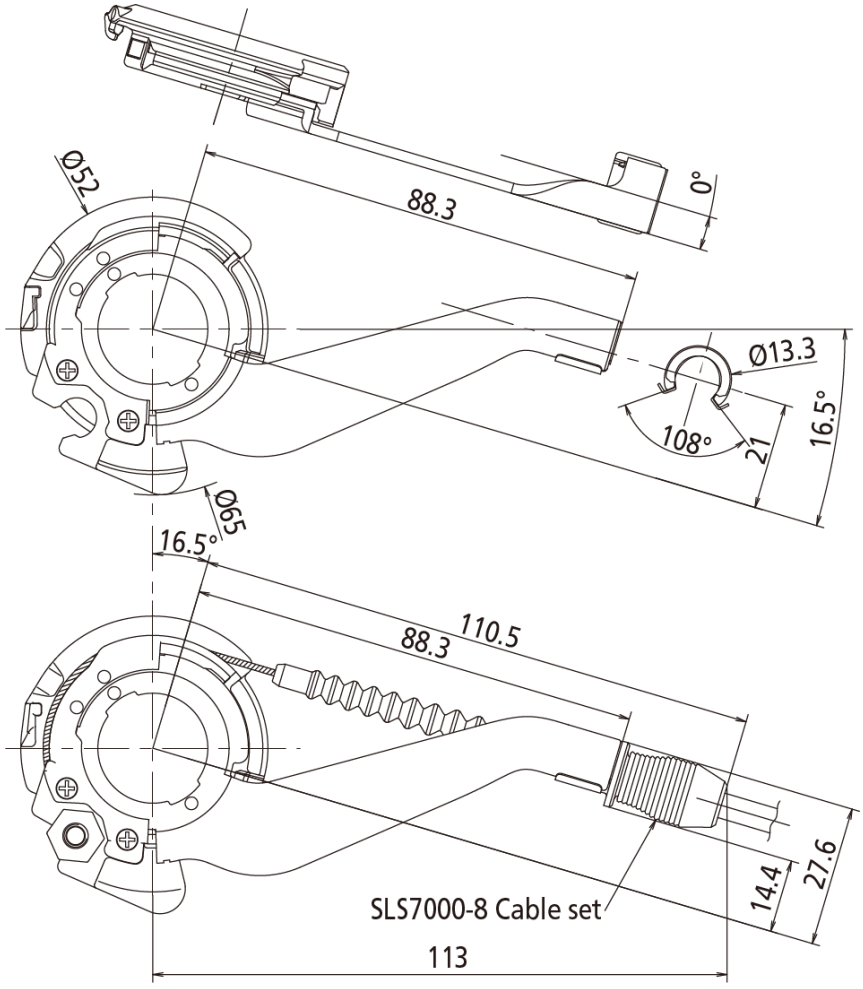


**CJ-S700 (Dedicated spec for belt drive system) + SG-S7001-11**

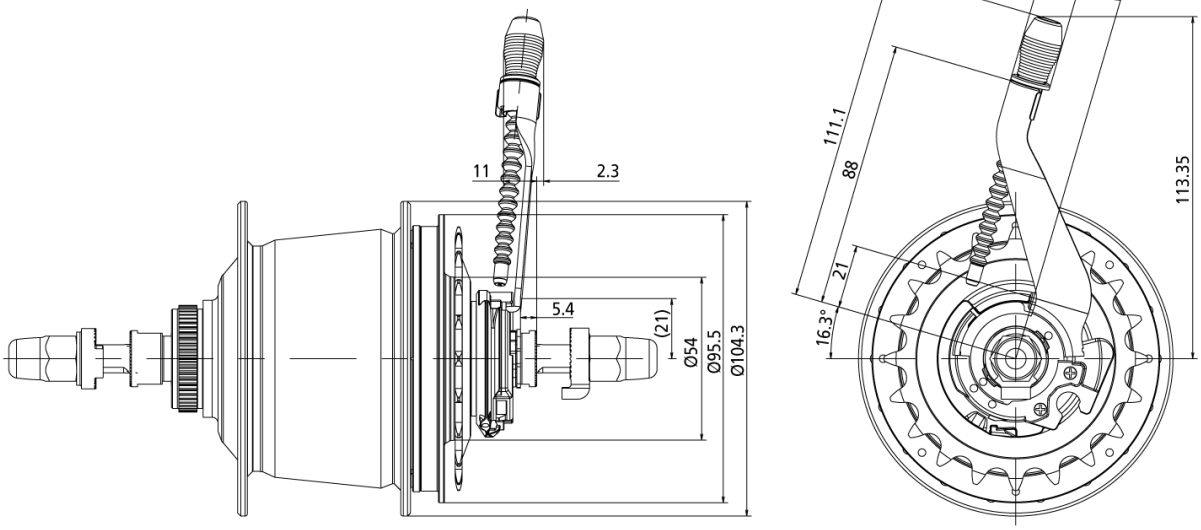



## ALFINE INTER-8 C-278

**CJ-S7000-8**

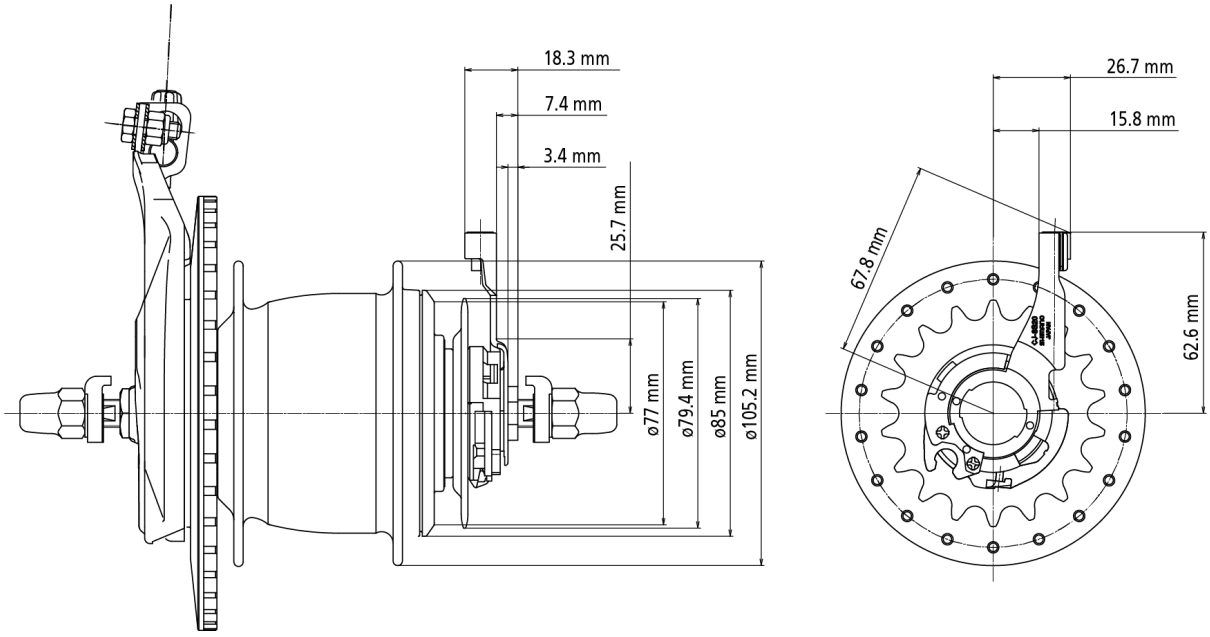


### CJ-S7000-8 (Dedicated spec for belt drive system) + SG-S7000-8

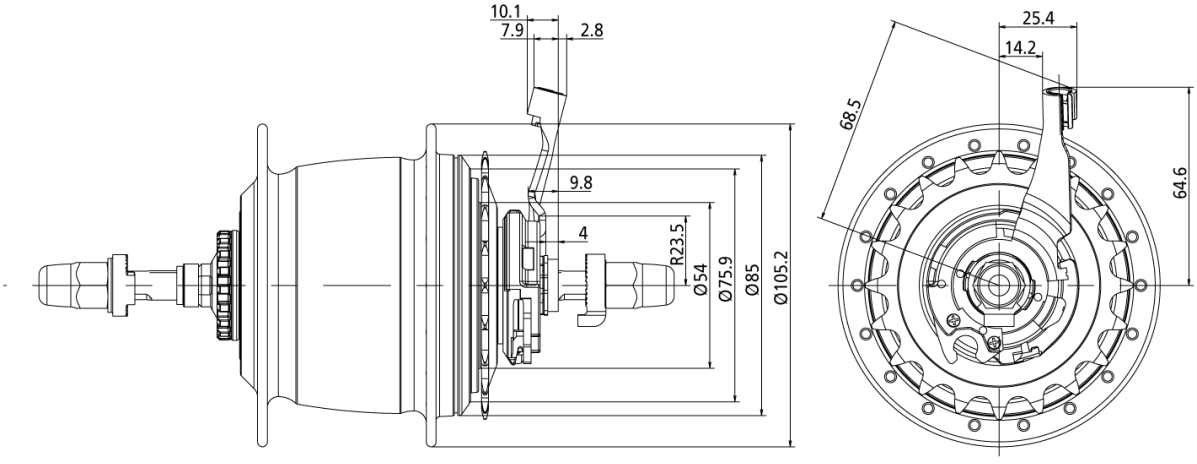



## NEXUS INTER-8 C-279

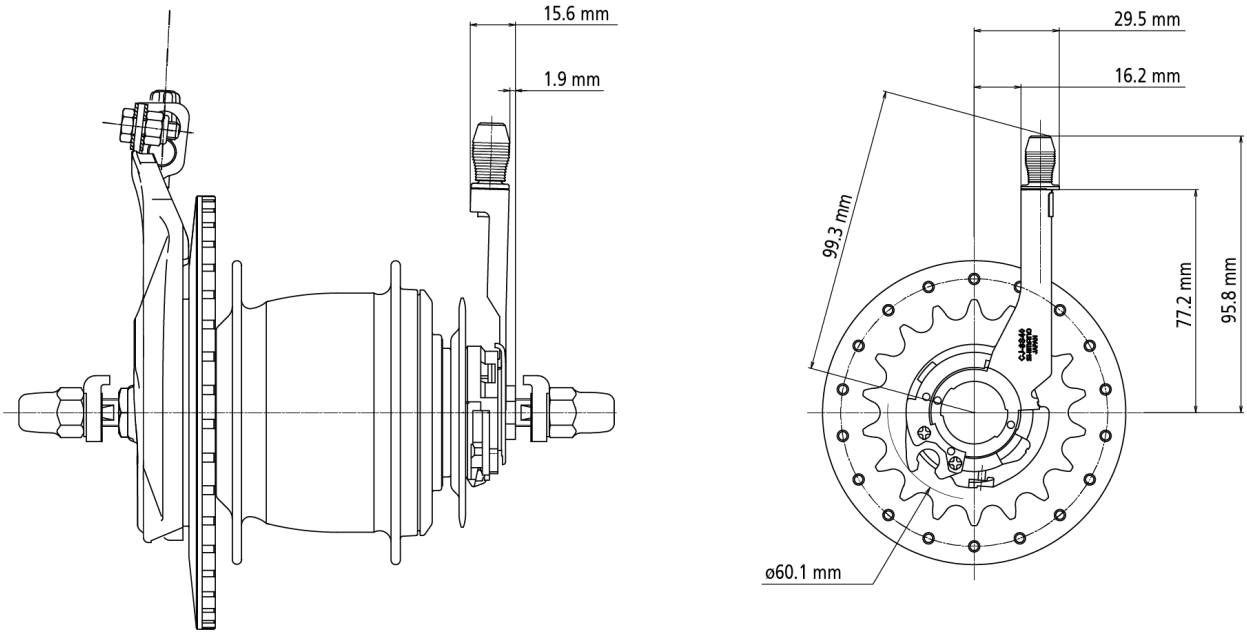
### SG-C6001-8R / SG-C6011-8R and CJ-8S20




### SG-C6001-8R / SG-C6011-8R and CJ-8S20 (Dedicated spec for belt drive system)

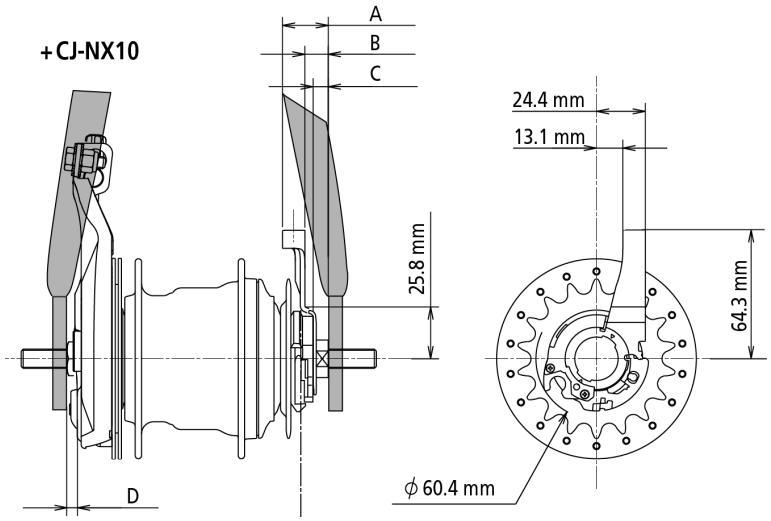


### SG-C6001-8R / SG-C6011-8R and CJ-8S40



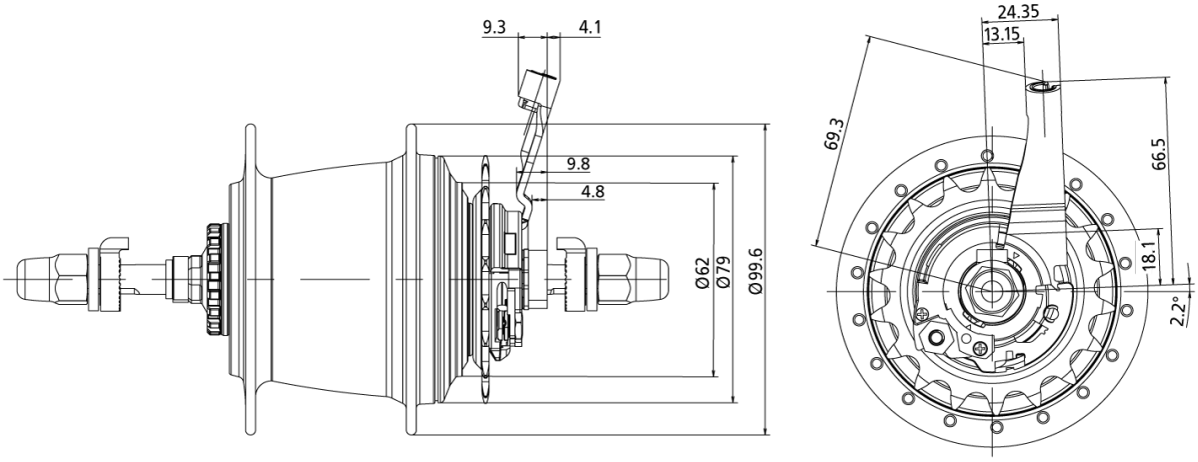

## NEXUS INTER-7 C-280

### SG-C3001-7R, SG-C3001-7C, SG-C3001-7D

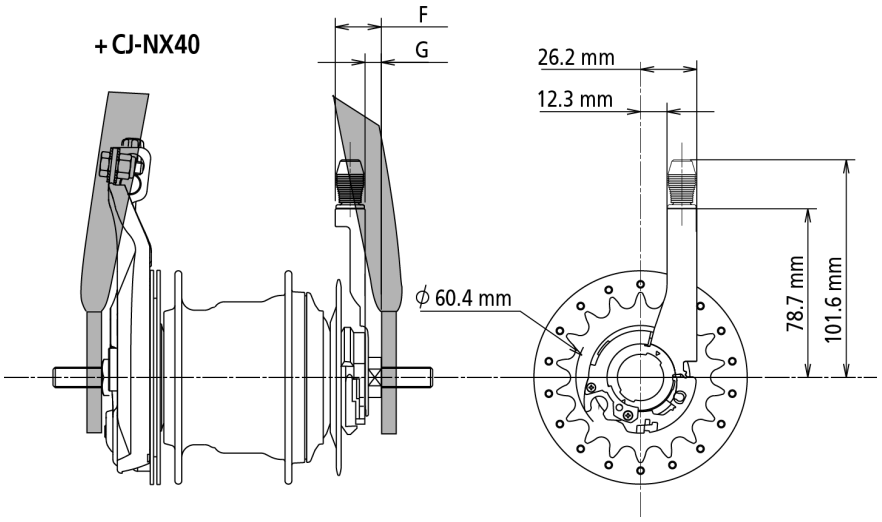



| Model No. | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|
| SG-C3001-7R | 20.8 | 9.4 | 6.1 | 3.1 |
| SG-C3001-7C | 18.2 | 6.8 | 3.5 | – |
| SG-C3001-7D | 21.6 | 10.2 | 6.9 | – |

### SG-C3001-7R, SG-C3001-7C, SG-C3001-7D + CJ-NX10 (Dedicated spec for belt drive system)

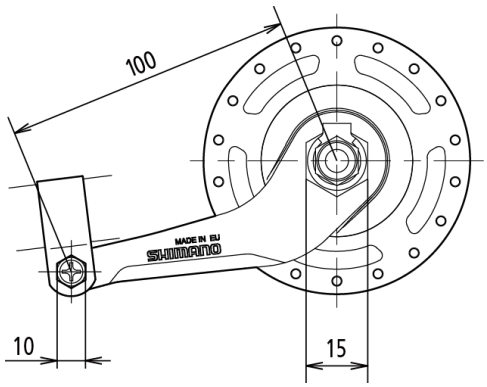


### SG-C3001-7R, SG-C3001-7C, SG-C3001-7D



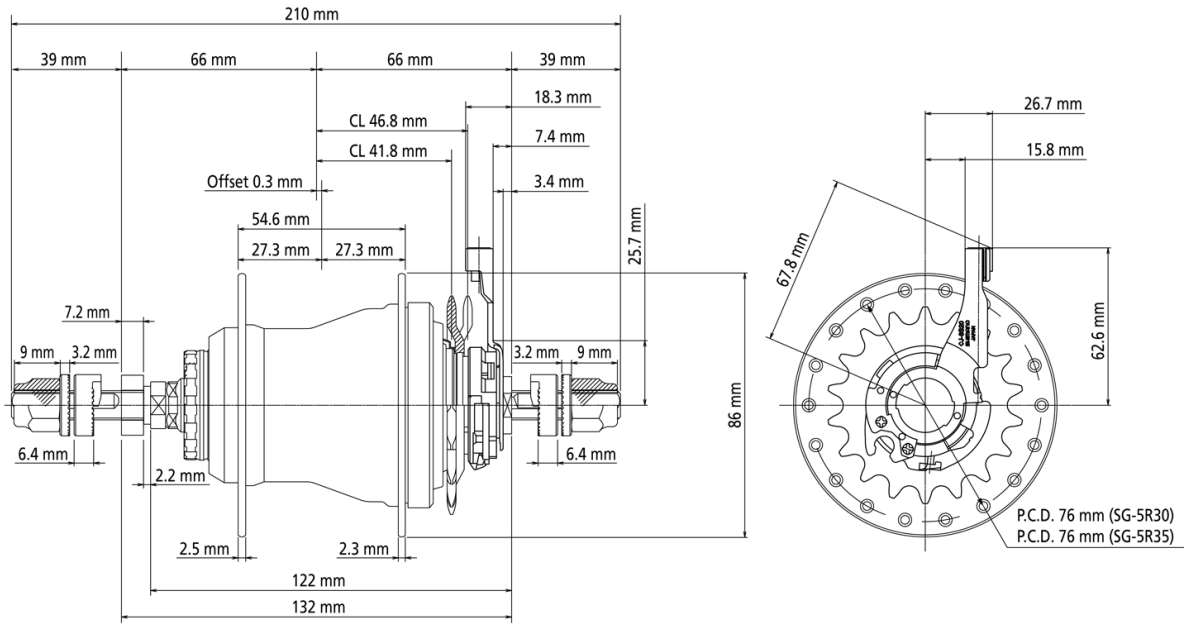

| Model No. | F (mm) | G (mm) |
|---|---|---|
| SG-C3001-7R | 19.1 | 5.0 |
| SG-C3001-7C | 16.5 | 2.4 |
| SG-C3001-7D | 19.9 | 5.8 |

### SG-C3001-7C




## NEXUS INTER-5 C-281

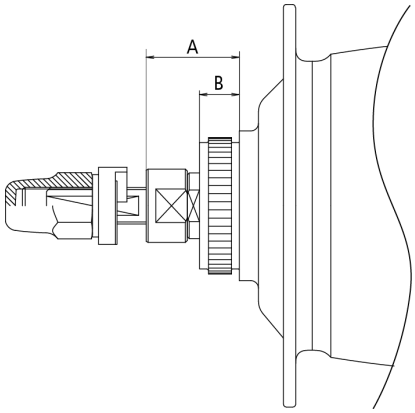
### SG-5R30 and CJ-8S20
### (Japan market only)



# Installation of disc brake rotor



## Recommended genuine tool numbers C-283

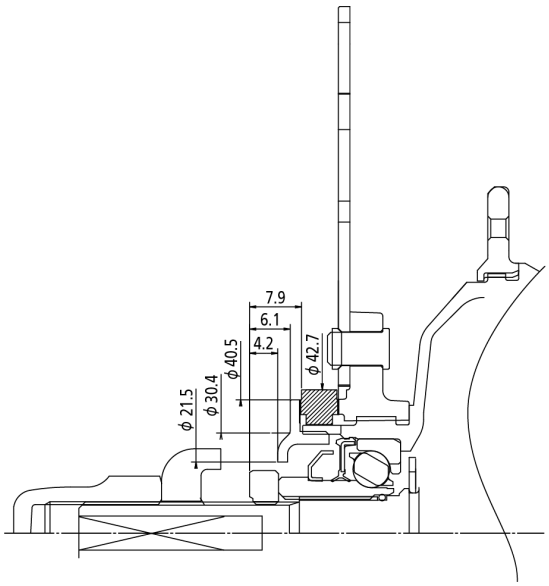


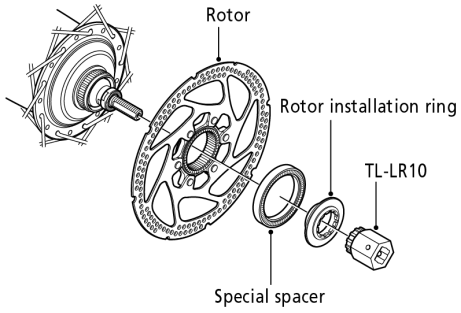

2

| Model No. | A (mm) | B (mm) | Tool |
|---|---|---|---|
| SG-S7001-11<br>SG-S7051-11 | 24.25 | 16.25 | TL-LR10 |
| SG-S7001-8<br>SG-S7051-8 | 24.25 | 10.45 | TL-LR10 |
| SG-C6001-8D | 24.25 | 10.45 | TL-LR10 |
| SG-C6061-8D | 24.25 | 10.45 | TL-LR10 |
| SG-C3001-7D | 24.25 | 10.45 | TL-LR10 |
| SG-3D55 | 24.25 | 10.45 | TL-LR10 |
| SG-C7000-5D | 24.25 | 10.45 | TL-LR10 |
| SG-C7050-5D | 24.25 | 10.45 | TL-LR10 |

## Special spacer is required for installation of disc brake rotor C-284

**SG-S7001-11 / SG-S7051-11**




**Tightening torque:**
**40 N·m {347 in. lbs.}**

# Spoke lacing

C-285

Use a wheel with 3x or 4x spoke lacing. Wheels with radial lacing cannot be used because the spokes and the wheel can be damaged when applying the brakes and brake noise can be generated.

# Recommended gear ratio

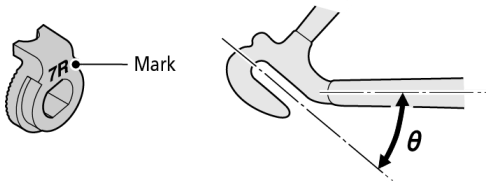
C-286

⚠2

| Series | Speed | Sprocket ratio | Front | | Rear | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Model No. | Gear | SM-GEAR | | | | | | | | | | CS-S500 | | CS-C7000 |
| | | | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 18 | 20 | 27 |
| ALFINE | 11 | 1.8 - 2.0 | FC-S501 | 45T | – | – | – | – | – | – | – | – | – | X | – | – | – |
| | | | | 42T | – | – | – | – | – | – | – | X | X | X | – | – | – |
| | | | | 39T | – | – | – | – | – | – | X | X | – | – | – | X | – |
| | 8 | 2.0 - 2.25 | FC-S501 | 45T | – | – | – | – | – | – | X | X | X | – | – | X | – |
| | | | | 42T | – | – | – | – | – | X | X | X | – | – | – | X | – |
| | | | | 39T | – | – | – | – | X | X | – | – | – | – | X | – | – |
| NEXUS | 8 | 2.0 - 2.2 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – | – |
| | 7 | 2.0 - 2.2 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – | – |
| | 5E | 1.3 - 1.5 | SM-CRE61 | 38T | – | – | – | – | – | – | – | – | – | – | – | – | X |
| | 5 | 1.9 - 2.1 | FC-C6000 | 38T | – | – | – | – | X | X | X | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – | – |
| | 3 | 2.0 - 2.65 | FC-C6000 | 38T | – | X | X | – | X | X | – | – | – | – | – | – | – |
| | | | | 33T | X | X | X | – | – | – | – | – | – | – | – | – | – |

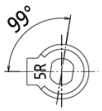
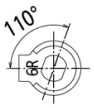
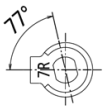
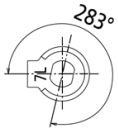
# Non-turn washer (for ALFINE INTER-11, 8 / NEXUS INTER-8, 7, 5)

Use whichever non-turn washers match the shape of the fork end. Different non-turn washers are used at the left and right sides. C-287



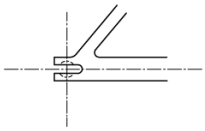
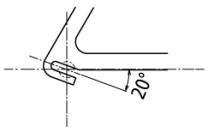
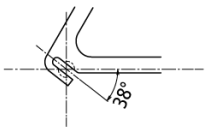
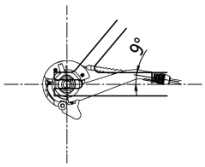
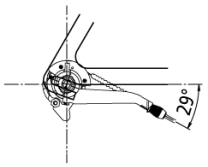
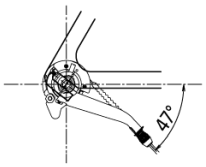
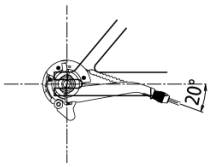
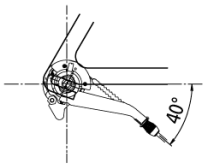
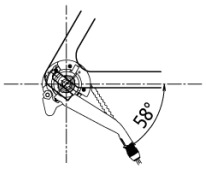
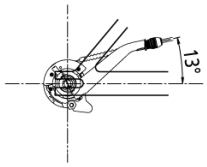
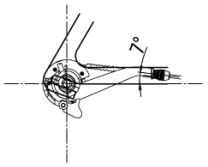
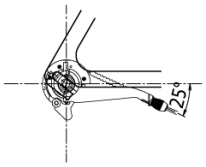

- The projecting parts should be on the fork end side.
- Install the non-turn washers so that the projecting parts are securely in the fork end grooves on either side of the hub axle.

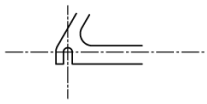
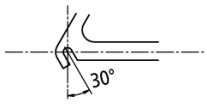
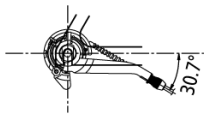
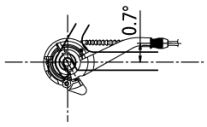
## Shape and color C-288

| | For right hand side | For left hand side |
|---|---|---|
| 5R<br>5L |  <br>5R: Yellow | <br>5L: Brown |
| 6R<br>6L |  <br>6R: Silver | <br>6L: White |
| 7R<br>7L |  <br>7R: Black |  <br>7L: Gray |
| 8R<br>8L | <br>8R: Dark blue | <br>8L: Dark green |

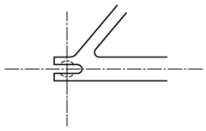
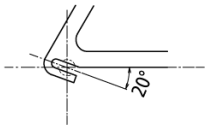
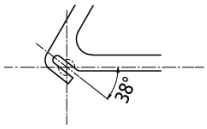
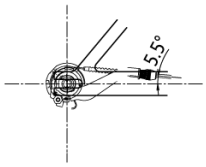
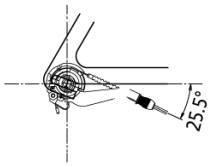
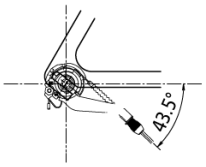
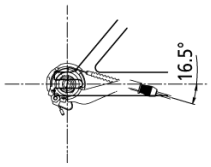
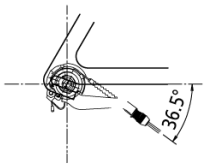
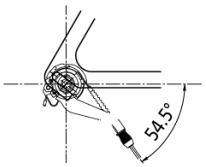
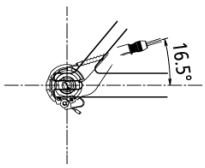
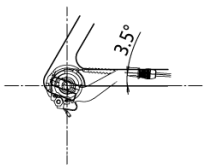
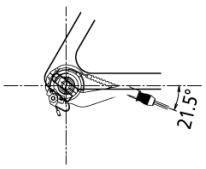
# Application chart C-289

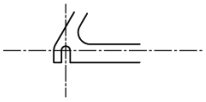
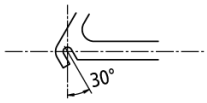
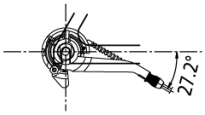
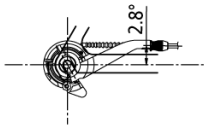
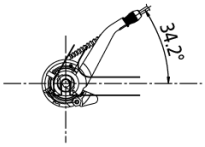
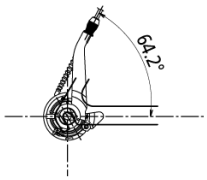
## ALFINE INTER-11 (SG-S7001-11 w/ CJ-S700)

| | Reversed fork end | Standard fork end | |
|---|---|---|---|
| |  |  |  |
| 5R<br>5L |  |  |  |
| 6R<br>6L |  |  |  |
| 7R<br>7L |  |  |  |

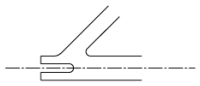
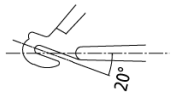
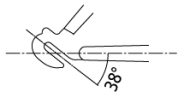
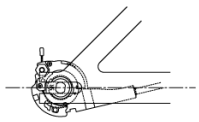
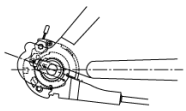
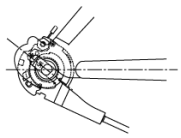
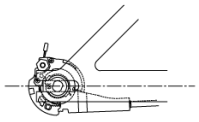
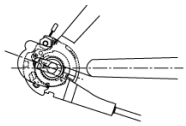
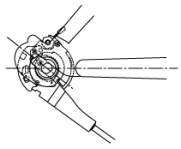
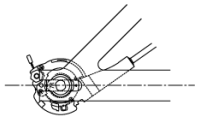
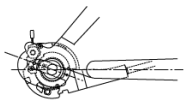
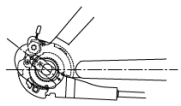
| | Vertical fork end | |
|---|---|---|
| |  |  |
| 8R<br>8L |  |  |

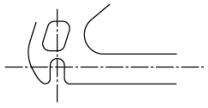
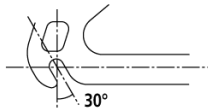
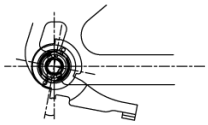
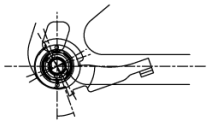
## ALFINE INTER-8 (SG-S7001-8 w/ CJ-S7000-8) , NEXUS INTER-5E (SG-C7000-5 w/ CJ-C7000-5)

| | Reversed fork end | Standard fork end | |
|---|---|---|---|
| |  |  |  |
| 5R<br>5L |  |  |  |
| 6R<br>6L |  |  |  |
| 7R<br>7L |  |  |  |

| | Vertical fork end | |
|---|---|---|
| |  |  |
| 8R |  |  |
| 8L |  |  |

### NEXUS INTER-8, INTER-7, INTER-5, and INTER-3 (SG-3R75)

| | Reversed fork end | Standard fork end | |
|---|---|---|---|
| |  |  |  |
| 5R<br>5L |  |  |  |
| 6R<br>6L |  |  |  |
| 7R<br>7L |  |  |  |

| | Vertical fork end | |
|---|---|---|
| |  |  |
| 8R<br>8L |  |  |

## Push-rod length for NEXUS INTER-3

C-290

| Sales area | Model No. | Over locknut dim. (mm) | Axle length (mm) | Push rod length (mm) |
|---|---|---|---|---|
| All | SG-3D55 | 135 | 192.6 | 90.75 |
| | SG-3R40 | 120 | 170.3 | 81.85 |
| | | | 189.4 | 90.75 |
| | | 127 | 176.8 | 86.85 |
| | | | 182.7 | 90.75 |
| | | 130 | 183.5 | 86.85 |
| | SG-3R75-B | 122 | 174.0 | - |
| | SG-3C41 | 120 | 168.0 | 81.85 |
| | | | 178.0 | 86.85 |
| | | 127 | 175.0 | 86.85 |
| Japan | SG-3R42 | 120 | 181.8 | 81.85 |
| | | | 191.8 | 86.85 |
| | SG-3R40 | | 181.8 | 81.85 |
| | | | 191.8 | 86.85 |

# Dust cap information



2

| Series | Speeds | Model No. | Hub Body (Dust Cap XX) | Right hand dust cap Variation | Sealing performance |
|---|---|---|---|---|---|
| ALFINE | 11 | SG-S7001-11 | Right hand dust cap A w / Seal for SG-S700 | Right hand dust cap D for INTER-11 | 2.9 |
| | 8 | SG-S7001-8 | Right hand dust cap A w / Seal for SG-S501 | Right hand dust cap B for INTER-8 | 1 |
| NEXUS | 8 | Standard Spec SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8D SG-C6001-8C SG-C6001-8CD | Right hand dust cap A ( Y-37G 98080 ) | Right hand dust cap C for INTER-8 | 2.9 |
| | | w / 8R20 Type Right hand dust cap A SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8C | Right hand dust cap A ( Y-34R 98110 ) | Right hand dust cap B for INTER-8 | 1 |
| | 7 | SG-C3001-7R | Right hand dust cap B for INTER-7 roller brake spec | Right hand dust cap C for INTER-7 | 2.9 |
| | | SG-C3001-7C | Right hand dust cap B for INTER-7 coaster brake spec | | |
| | | SG-C3001-7D | Right hand dust cap B for INTER-7 roller brake spec | | |
| | 5E | SG-C7000-5D SG-C7000-5R SG-C7000-5V SG-C7000-5C | Right hand dust cap A ( Y-37G 98080 ) | Right hand dust cap D for INTER-5E | |
| | 5 (JPN) | SG-5R30 | Right hand dust cap A for INTER-5 | Right hand dust cap D for INTER-5 | |
| | 3 (ALL) | SG-3D55 | Right hand dust cap A for INTER-3 Disc brake spec | Right hand dust cap B for INTER-3 | 1 |
| | | SG-3R40 SG-3C41 | Right hand dust cap A for INTER-3 roller / coaster brake | | |
| | 3 (JPN) | SG-3R42 SG-3R40 SG-3S40 | | | |
| | 3 (ALL) | SG-3R75-B | Right hand dust cap B for INTER-7 roller brake spec | Right hand dust cap C for INTER-7 | 2.9 |

## In case of INTER-8, 2 variations available

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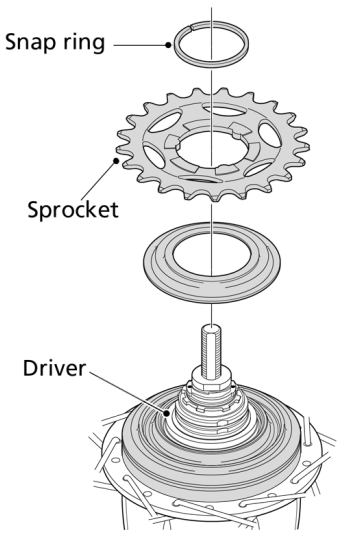
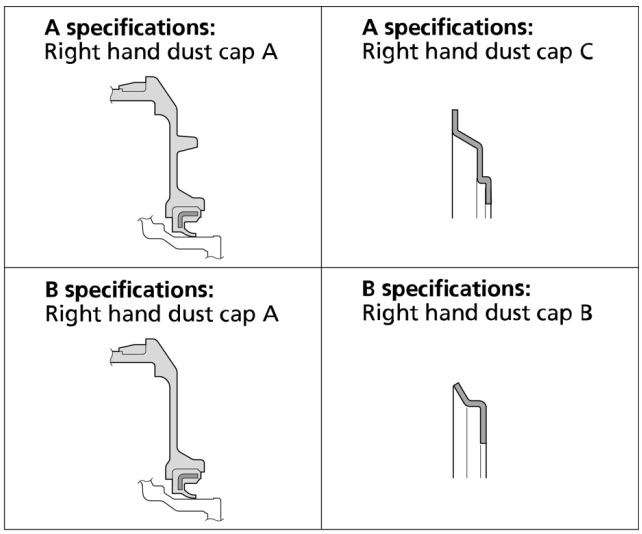


# Sprocket compatibility



| Series | Speeds | Model No. | SM-GEAR Inward assembly | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| ALFINE | 11 | SG-S7001-11 | – | – | – | – | – | – | X | X | X | X |
| | 8 | SG-S7001-8 | – | – | – | – | X | X | X | X | X | X |
| NEXUS | 8 | Standard Spec<br>SG-C6011-8R<br>SG-C6011-8V<br>SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8D<br>SG-C6001-8C<br>SG-C6001-8CD | – | – | – | – | – | – | X | X | X | X |
| | | w / 8R20 type<br>Right hand dust cap A<br>SG-C6011-8R<br>SG-C6011-8V<br>SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8C | – | – | X | – | X | X | X | X | X | X |
| | 7 | SG-C3001-7R | – | – | – | – | X | X | X | X | X | X |
| | | SG-C3001-7C | – | – | – | – | X | X | X | X | X | X |
| | | SG-C3001-7D | – | – | – | – | X | X | X | X | X | X |
| | 5 (JPN) | SG-5R30 | – | – | X | – | X | X | X | X | X | X |
| | 3 (ALL) | SG-3D55 | – | – | – | – | X | X | X | X | X | X |
| | | SG-3R40<br>SG-3C41 | – | – | – | – | X | X | X | X | X | X |
| | 3 (JPN) | SG-3R42<br>SG-3R40 | – | – | – | – | X | X | X | X | X | X |
| | 3 (ALL) | SG-3R75-B | – | – | – | – | – | X | X | X | X | X |

| Series | Speeds | Model No. | SM-GEAR Outward assembly | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| ALFINE | 11 | SG-S7001-11 | – | – | – | – | X | X | X | X | X | X |
| | 8 | SG-S7001-8 | – | – | X | – | X | X | X | X | X | X |
| NEXUS | 8 | Standard Spec<br>SG-C6011-8R<br>SG-C6011-8V<br>SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8D<br>SG-C6001-8C<br>SG-C6001-8CD | – | – | X | – | X | X | X | X | X | X |
| | | w / 8R20 type<br>Right hand dust cap A<br>SG-C6011-8R<br>SG-C6011-8V<br>SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8C | – | – | X | – | X | X | X | X | X | X |
| | 7 | SG-C3001-7R | – | – | X | – | X | X | X | X | X | X |
| | | SG-C3001-7C | – | – | X | – | X | X | X | X | X | X |
| | | SG-C3001-7D | – | – | X | – | X | X | X | X | X | X |
| | 5 (JPN) | SG-5R30 | – | – | X | – | X | X | X | X | X | X |
| | 3 (ALL) | SG-3D55 | – | X | X | – | X | X | X | X | X | X |
| | | SG-3R40<br>SG-3C41 | X | X | X | – | X | X | X | X | X | X |
| | 3 (JPN) | SG-3R42<br>SG-3R40 | X | X | X | X | X | X | X | X | X | X |
| | 3 (ALL) | SG-3R75-B | – | – | X | X | X | X | X | X | X | X |

⚠2

| Series | Speeds | Model No. | CS-S500 | | | | CS-C7000 | |
|---|---|---|---|---|---|---|---|---|
| | | | Inward assembly | | Outward assembly | | Inward assembly | Outward assembly |
| | | | 18 | 20 | 18 | 20 | 27 | 27 |
| ALFINE | 11 | SG-S7001-11 | X | X | – | – | – | – |
| | 8 | SG-S7001-8 | X | X | – | – | – | – |
| NEXUS | 8 | Standard Spec<br>SG-C6011-8R<br>SG-C6011-8V<br>SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8D<br>SG-C6001-8C<br>SG-C6001-8CD | – | – | – | – | – | – |
| | | w / 8R20 type<br>Right hand dust cap A<br>SG-C6011-8R<br>SG-C6011-8V<br>SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8C | – | – | – | – | – | – |
| | 7 | SG-C3001-7R | – | – | – | – | – | – |
| | | SG-C3001-7C | – | – | – | – | – | – |
| | | SG-C3001-7D | – | – | – | – | – | – |
| | 5E | SG-C7000-5D<br>SG-C7000-5R<br>SG-C7000-5V | – | – | – | – | X | X |
| | 5 (JPN) | SG-5R30 | – | – | – | – | – | – |
| | 3 (ALL) | SG-3D55 | X | X | – | – | – | – |
| | | SG-3R40<br>SG-3C41 | – | – | – | – | – | – |
| | 3 (JPN) | SG-3R42<br>SG-3R40 | – | – | – | – | – | – |
| | 3 (ALL) | SG-3R75-B | – | – | – | – | – | – |

X: Yes

# Internal geared hub performance

C-479

| Series | | ALFINE | | NEXUS | |
|---|---|---|---|---|---|
| Model No. | | SG-S7001-11<br>SG-S7051-11 | SG-S7001-8<br>SG-S7051-8 | SG-C6011-8R<br>SG-C6011-8V<br>SG-C6061-8R<br>SG-C6061-8V<br>SG-C6061-8C<br>SG-C6061-8D<br>SG-C6061-8CD | SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8C<br>SG-C6001-8D<br>SG-C6001-8CD |
| Maximum torque for shifting (Nm)<br>(*see NOTE 1 and 2) | Up Shift<br>(Low ⇒ Top) | 5Nm | 5Nm | 5Nm | 5Nm |
| | Down Shift<br>(Top ⇒ Low) | 10Nm | 12Nm | 12Nm | 12Nm |
| Static strength | | Fulfil EN 14764 4.13.6 Requirements | | | |
| Maximum continuous input allowed<br>(to guarantee the durability of the hub) | Maximum torque (Nm)<br>(*see NOTE 1 and 2) | 40 | 40 | 40 | 35 |
| | With the above mentioned Maxium torque,<br>below Maximum input at the crank is calculated<br>(with mentioned gear ratio) | | | | |
| | Gear ratio<br>(Front sprocket teeth/<br>Rear sprocket teeth) | 1.9 | 2.1 | 2.1 | 2.1 |
| | Maximum continuous input<br>at crank (Watt)<br>(*see NOTE 2) | 500 | 500 | 500 | 440 |
| Maximum input allowed at 50Nm<br>to the crank arm<br>by rider plus motor torque | Maximum torque (Nm)<br>(*see NOTE 1, 2 and 3) | 60 | 60 | 60 | 60 |

2

| Series | | NEXUS | | |
|---|---|---|---|---|
| Model No. | | SG-C3001-7R<br>SG-C3001-7C<br>SG-C3001-7D | SG-3R75-B | SG-C7000-5D<br>SG-C7000-5R<br>SG-C7000-5V<br>SG-C7050-5D<br>SG-C7050-5R<br>SG-C7050-5V |
| Maximum torque for shifting (Nm)<br>(*see NOTE 1 and 2) | Up Shift<br>(Low ⇒ Top) | 5Nm | 40Nm | 80Nm |
| | Down Shift<br>(Top ⇒ Low) | 8Nm | 7Nm | 35Nm<br>(TBD, to be provided in January, 2018) |
| Static strength | | Fulfil EN 14764 4.13.6 Requirements | | |
| Maximum continuous input allowed<br>(to guarantee the durability of the hub) | Maximum torque (Nm)<br>(*see NOTE 1 and 2) | 35 | 40 | 55<br>(TBD, to be provided in January, 2018) |
| | With the above mentioned Maxium torque,<br>below Maximum input at the crank is calculated<br>(with mentioned gear ratio) | | | |
| | Gear ratio<br>(Front sprocket teeth/<br>Rear sprocket teeth) | 2.1 | 2.6 | 1.4 |
| | Maximum continuous input<br>at crank (Watt)<br>(*see NOTE 2) | 440 | 500 | 700 |
| Maximum input allowed at 50Nm<br>to the crank arm<br>by rider plus motor torque | Maximum torque (Nm)<br>(*see NOTE 1, 2 and 3) | 60 | 60 | 80<br>(TBD, to be provided in January, 2018) |

* SG-3R40, SG-3C41 and SG-3D55 are not recommended for E-BIKE system with mid-drive motor.

**NOTE 1**

Input torque at the sprocket assembled on the hub.

**NOTE 2**

When using E-BIKE systems with mid-drive motor please mind to calculate with total power in the drive train (motor + rider).

**NOTE 3**

How to caluculate :
Maximum input = (Input torque by rider : 50 + Maxium torque of mid-drive motor) / Internal gearing ratio of mid-drive motor / Gear ratio of bicycle
In case of SHIMANO STEPS, with 2.1 (gear ratio of bicyle ) : Maxium torque = (50+50) /1 /2.1= 47.6 < 60
To make maximum input below 60Nm, please adjust Maximum torque of mid-drive motor and gear ratio of bicycle.

## GENERAL COMMENTS:

### Shifting torque

- These are reference values.
- If rotation torque at the rear sprocket is higher than maximum torque for shifting which are shown in table, shifting may not be possible intentially to prevent any damage of the hub gear.

### SHIMANO Internal Hub Gears and E-BIKEs with mid-drive motor systems

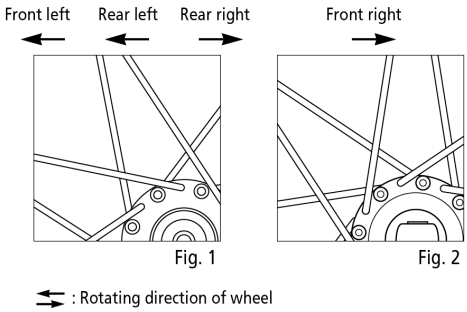
- The Maximum torque (Nm) that will finally input on the rear sprocket depends on the support from the mid-drive motor, the support from the driver and the choosen gear ratio.
- Because of all different combinations possible, SHIMANO can not say in general if certain mid-drive motors can be used or not in combination with SHIMANO Internal Hub Gears.

### Warranty

- SHIMANO warrant Internal Gear Hubs for 2 years when the real values are lower than the values mentioned in above chart and the hubs are maintained correctly.

# Spoke lacing for hub brake C-294

Check that the spokes have been laced as shown in the illustration on hub brake (Disc brake, Roller brake, Coaster brake).
A radial assembly cannot be used.
Lace the spokes as shown in Figure 1 below for the left side of the front wheel (the side where the disc brake rotor is installed), and the left and right sides of the rear wheel, and as shown in Figure 2 below for the right side of the front wheel.




# Radial lacing C-295

## Notes with regard to radial lacing and wheels C-296

The way the spokes are installed and the tension applied to the spokes has a great effect on the strength of the wheel and also on the force applied to the area around the spoke holes in the flanges of the hub. The tension applied to the spokes is particularly high for radial lacing, so that the possibility of deformation or damage to the spoke holes in the hub is greater.

**CAUTION**

Hubs manufactured by SHIMANO other than the hubs mentioned below are not suitable for radial lacing. SHIMANO is not obliged to carry out any repairs or replacements which are necessary as a result of damage or deformation to spoke holes of hubs caused by the use of radial lacing.

| Model No. | No. of spoke holes |
|---|---|
| HB-9000 | Aero (18H / 24H) / 18H, 24H, 28H, 32H, 36H |
| HB-6800 | 32H, 36H |
| HB-R7000 | |
| HB-RS300 | |
| HB-T780 | |
| HB-T610 | |
| HB-T4000 | |
| HB-T3000 | |
| HB-MX70 | |
| HB-RS300 | |
| HB-RS400 | 28H, 32H, 36H |

**NOTE**

SHIMANO does not accept responsibility for problems occurring as a result of damage to the wheels or loosening of the spokes. We strongly advise that you use rims with sufficient rigidity and carry out daily maintenance of the bicycle wheels.

# Wheels and cassette sprocket compatibility

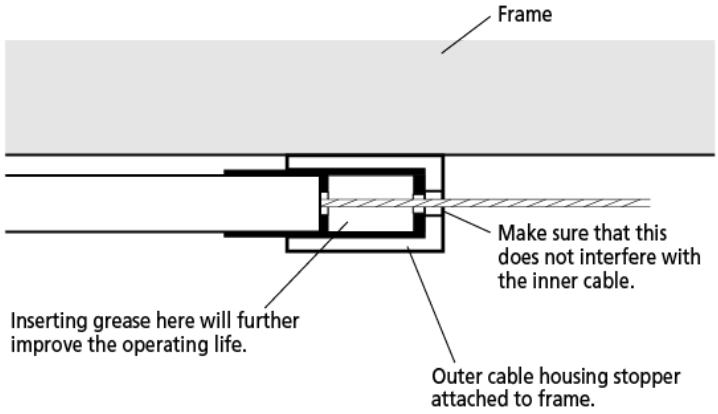


WH CS compatibility chart including the Model No.

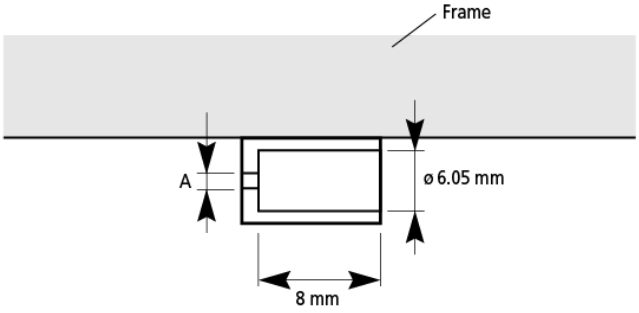
| | | Speed | Cassette Sprocket | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | CS-R9100<br>CS-R8000<br>CS-R7000<br>CS-6800 | CS-HG800-11<br>CS-HG700-11 | CS-6700<br>CS-5700 | CS-HG81-10<br>CS-HG500-10 | CS-HG50-9<br>CS-HG400-9 | CS-HG50-8 |
| | | | 11-speed | | 10-speed | | 9-speed | 8-speed |
| WH / FH | WH-R9100-C60 | 11 | X | X<br>(w / 1.85 mm spacer) | X<br>(w / 1.85 mm spacer and 1 mm spacer) | X<br>(w / 1.85 mm spacer) | - | - |
| | WH-R9100-C40 | | | | | | | |
| | WH-R9100-C24 | | | | | | | |
| | WH-R9170 Series | | | | | | | |
| | WH-9000 Series | | | | | | | |
| | WH-RS700-C30 | | | | | X<br>* Not compatible with 11-34T 10 speed | | |
| | WH-RS770-C30 | | | | | | | |
| | WH-RS370 | | | | | X<br>(w / 1.85 mm spacer) | | |
| | WH-RS330 | | | | | | | |
| | WH-RS300 | | | | | | | |
| | WH-RS100 | | | | | | | |
| | WH-RS170 | | | | | | | |
| | WH-RX010 | | | | | | | |
| | FH-9000 | | | | | | | |
| | WH-RS500 | | | | | | | |
| | FH-6800 | | | | | | | |
| | FH-R7000 | | | | | | | |
| | FH-R7070 | | | | | | | |
| | FH-RS400 | | | | | | | |
| | WH-U5000 | | | | | | | |
| | WH-R501 Series | 10 | - | - | X<br>(w / 1 mm spacer) | X | X | X |
| | WH-RX010 | | | | | | | |
| | HB-RS300 | 9 | - | - | X<br>(w / 1 mm spacer) | X | X | X |
| | FH-RS300 | | - | - | X<br>(w / 1 mm spacer) | X | X | X |

## Brake cable system C-304

To improve efficiency and prolong the life of the brake cables, use a cable housing of the construction shown below. When designing the outer casing housing stop, make sure that the diameter of the hole for the inner cable (A) is of the correct dimension so that it does not interfere with the inner cable.




## Recommended dimensions for outer casing housing stop at frame C-305




| Model No. | A (mm) |
|---|---|
| BC-9000 / BC-R680<br>(Outer cap with tongue type) | ø2.5 ≤ A ≤ ø2.7 |
| Others<br>(Outer cap) | ø2.1 ≤ A ≤ ø2.6 |

## Polymer-coated brake cable (BC-9000 / BC-R680) compatible chart C-306

| Series | Brake with New cable | |
|---|---|---|
| DURA-ACE | BR-R9110 | X |
| | BR-R9100 | X |
| | BR-9000 | X |
| | BR-9010 | |
| ULTEGRA | BR-R8000 | X |
| | BR-R8010 | |
| | BR-6800 | X |
| 105 | BR-R7000<br>BR-R7010<br>BR-5810 | X |
| | BR-5700 | - |
| TIAGRA | BR-4700 | X |
| SORA | BR-R3000 | X |
| CLARIS | BR-R2000 | X |
| Others | | - |

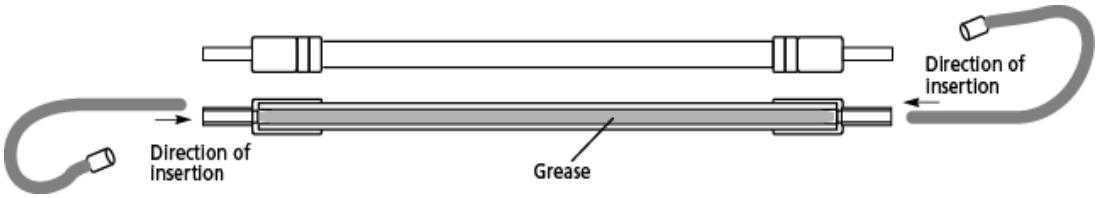
X: Yes

# Shifting cable system

## Cable system assembly (inner cable direction) C-308

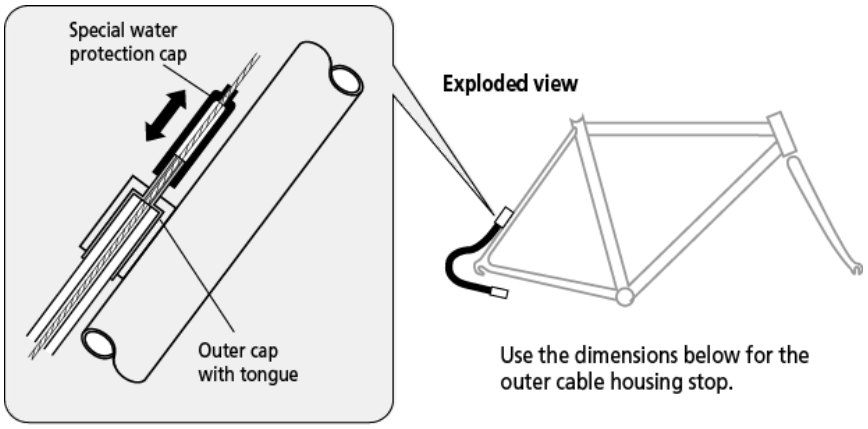
**SIS-SP41, OT-RS900**

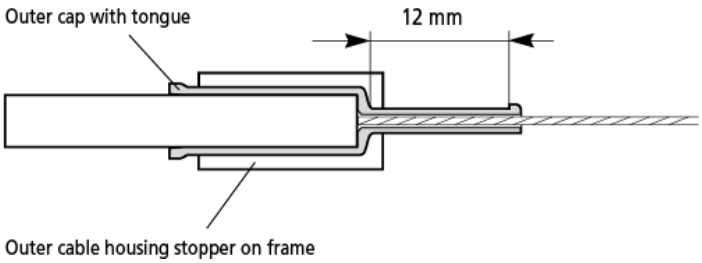
SP41, OT-RS900 grease is injected into the outer casing all the way as shown below.
There is no need to take care of the direction of insertion of the inner cable.




## Cable system assembly for top route C-309

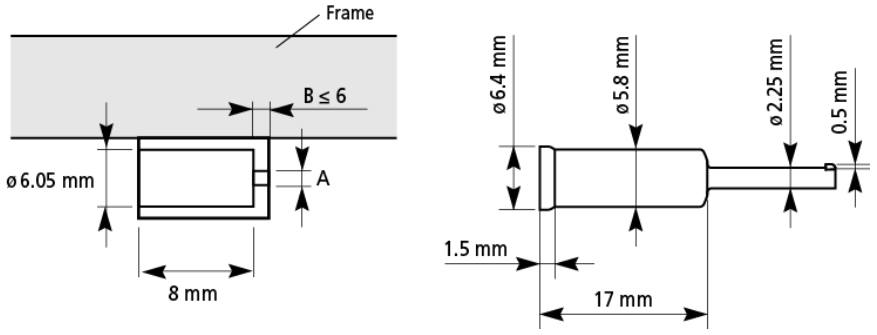
In the case of top routing for the rear cable, there is a chance that rainwater or mud may get inside the cable. To prevent this, install outer cap with tongue and a special water protection cap as shown below.
This special water protection cap is in the line-up for XTR, DEORE-XT, LX, DEORE components.



### Outer casing housing stop dimensions

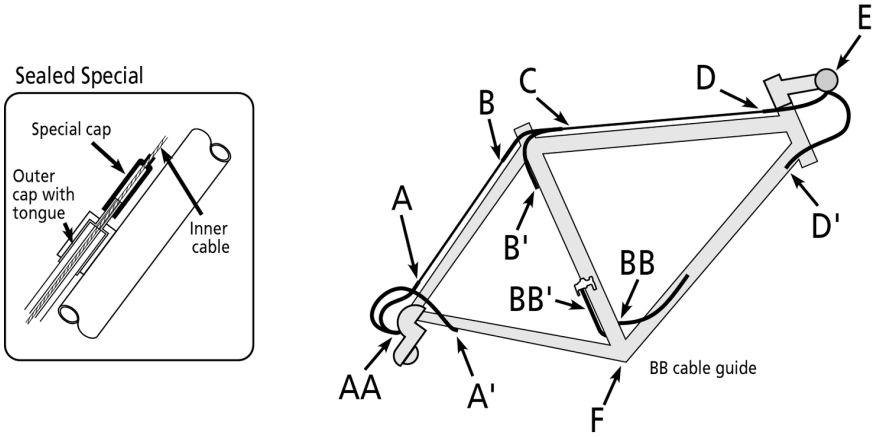
Set the A dimension for the outer casing housing stop for the shifting cable to between 2.25 mm and 2.6 mm. The hole “A” must be concentric with the ø6.05mm hole.




**NOTE**

Diameter “A” can be enlarged if there is insufficient clearance.
The cable outer cap with tongue may not be gripped securely if “B” is too thick.

## Shifting cable combination C-310




| Category | Series | Outer casing | Inner cable Material | Cable cap | | | | | | | | | BB cable guide |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | AA | A | A' | B | B' | BB | C | D | D' | E | F |
| MTB | XTR | OT-SP41 | Polymer-coated inner cable | Sealed* | Sealed Special | | | | Sealed* | Sealed Special | | | Sealed | SM-SP17 (Durable) |
| | SAINT | | Stainless | | Sealed Special | | Sealed | | - | Sealed | Sealed | | | |
| | DEORE XT (M8000 / T8000 series) | | OPTISLICK | | | | | | Sealed* | | | | | |
| | SLX (M7000 series) | | | | | | | | | | | | | |
| | DEORE (M6000 / T6000 series) | | | | | | | | | | | | | |
| | DEORE XT | | Stainless | | | | | | - | | | | | |
| | SLX | | | | | | | | | | | | | |
| | DEORE LX | | | | | | | | | | | | | |
| | ZEE | | | | | | | | | | | | | |
| | DEORE | | | | | | | | | | | | | |
| | ALIVIO (M4000 / T4000 series) | OT-SP41 | Stainless | Sealed | Sealed | | Sealed | | Sealed* | Sealed | Sealed | | Sealed | SM-SP18 |
| | ACERA | OT-SP41 | Steel | Normal | Normal | | Normal | | - | Normal | Normal | | Normal | SM-SP18 |
| | ALTUS (M2000 series) | | OPTISLICK (Steel) | | | | | | | | | | | |
| | ALTUS | | Steel | | | | | | | | | | | |
| | others | | | | | | | | | | | | | |
| | TOURNEY TX | OT-SIS40 | | | | | | | | | | | | |
| | TOURNEY | | | | | | | | | | | | | |
| | TOURNEY TZ | | | | | | | | | | | | | |

## Road ST

<table>
<tr><th rowspan="2">Category</th><th rowspan="2">Series</th><th rowspan="2">Outer casing</th><th rowspan="2">Outer casing for rear derailler</th><th rowspan="2">Inner cable Material</th><th colspan="8">Cable cap</th><th>BB cable guide</th></tr>
<tr><th>AA</th><th>A</th><th>A'</th><th>B</th><th>B'</th><th>BB'</th><th>C</th><th>D</th><th>D'</th><th>E</th><th>F</th></tr>
<tr><td rowspan="15">Road</td><td>DURA-ACE (R9100 series)</td><td rowspan="2">OT-SP41</td><td rowspan="2">OT-RS900</td><td rowspan="4">Polymer-coated</td><td rowspan="4">AL Sealed</td><td colspan="5" rowspan="4">Outer cap with long tongue *1<br>Sealed (internal cable rooting frame)</td><td>Normal</td><td colspan="3" rowspan="4">Outer cap with long tongue *1<br>Sealed (internal cable rooting frame)</td><td rowspan="5">Outer cap with short tongue *2</td><td rowspan="11">SM-SP17 (Durable)</td></tr>
<tr><td>ULTEGRA (R8000 series)</td><td rowspan="13">-</td></tr>
<tr><td>DURA-ACE (9000 series)</td><td colspan="2" rowspan="2">OT-SP41</td></tr>
<tr><td>ULTEGRA (R6800 series, ST-RS685)</td></tr>
<tr><td>105 (R7000 series)</td><td>OT-SP41</td><td>OT-RS900</td><td>OPTISLICK</td><td>Sealed</td><td colspan="2">Sealed**</td><td>Normal</td><td>Normal</td><td>Normal</td></tr>
<tr><td>105 (5800 series)</td><td colspan="3" rowspan="9">OT-SP41</td><td>OPTISLICK</td><td>Sealed</td><td colspan="2" rowspan="9">Sealed**</td><td rowspan="9">Normal</td><td rowspan="9">Normal</td><td rowspan="9">Normal</td></tr>
<tr><td>105 (5700 series)</td><td>SIL-TEC</td><td rowspan="8">Sealed</td><td>Normal</td></tr>
<tr><td>TIAGRA (4700 series, ST-RS505, ST-RS405)</td><td>OPTISLICK</td><td>Outer cap with short tongue *2</td></tr>
<tr><td>TIAGRA (4600 series)</td><td>Stainless</td><td>Normal</td></tr>
<tr><td>SORA (R3000 series)</td><td>OPTISLICK</td><td rowspan="2">Outer cap with short tongue *2</td></tr>
<tr><td>CLARIS (R2000 series)</td><td>OPTISLICK (Steel)</td></tr>
<tr><td>SORA (R3500 series)</td><td rowspan="2">Stainless</td><td rowspan="3">Normal</td><td rowspan="3">SM-SP18</td></tr>
<tr><td>CLARIS (R2400 series)</td></tr>
<tr><td>TOURNEY (A070 / A050)</td><td colspan="3">OT-SIS40</td><td>Steel</td><td>Normal</td><td colspan="2">Normal</td><td>Normal</td><td>Normal</td><td>Normal</td></tr>
<tr><td>URBAN SPORT</td><td>METREA (U5000 series)</td><td colspan="3">OT-SP41</td><td>OPTISLICK</td><td>Sealed</td><td colspan="2">Sealed**</td><td>Normal</td><td>Normal</td><td>Normal</td><td>SM-SP17 (Durable)</td></tr>
</table>

## Road SL

<table>
<tr><th rowspan="2">Category</th><th rowspan="2">Series</th><th rowspan="2">Outer casing</th><th rowspan="2">Outer casing for rear derailler</th><th rowspan="2">Inner cable Material</th><th colspan="8">Cable cap</th><th>BB cable guide</th></tr>
<tr><th>AA</th><th>A</th><th>A'</th><th>B</th><th>B'</th><th>BB'</th><th>C</th><th>D</th><th>D'</th><th>E</th><th>F</th></tr>
<tr><td rowspan="9">Road</td><td>SL-RS700</td><td colspan="3" rowspan="8">OT-SP41</td><td>SIL-TEC</td><td rowspan="8">Sealed</td><td colspan="2" rowspan="8">Sealed**</td><td rowspan="8">Normal</td><td rowspan="8">–</td><td rowspan="8">Normal</td><td rowspan="8">Normal</td><td rowspan="8">Normal</td><td rowspan="7">SM-SP17 (Durable)</td></tr>
<tr><td>TIAGRA (4700 series)</td><td>Stainless</td></tr>
<tr><td>TIAGRA (4600 series)</td><td>Stainless</td></tr>
<tr><td>SORA (R3000 series)</td><td>OPTISLICK</td></tr>
<tr><td>CLARIS (R2000 series)</td><td>OPTISLICK (Steel)</td></tr>
<tr><td>SORA (R3500 series)</td><td rowspan="2">Stainless</td></tr>
<tr><td>CLARIS (R2400 series)</td><td>SM-SP18</td></tr>
<tr><td>TOURNEY (A070/073/ 050)</td><td colspan="3">OT-SIS40</td><td>Steel</td><td>Normal</td><td colspan="2">Normal</td><td>Normal</td><td>Normal</td><td>Normal</td><td>Normal</td><td>SM-SP18</td></tr>
<tr><td>URBAN SPORT</td><td>METREA (U5000 series)</td><td colspan="3">OT-SP41</td><td>OPTISLICK</td><td>Sealed</td><td colspan="2">Sealed**</td><td>Normal</td><td>Normal</td><td>Normal</td><td>Normal</td><td>SM-SP17 (Durable)</td></tr>
</table>

Recommend to use outer cap with tongue (*1, *2) for Polymer-coated inner cable.

* If the front/rear derailleur moves to a large degree, such as in bicycles with rear suspension, it is recommended that you replace the cap with the accessory aluminum cap. The end of the outer casing which has the aluminum cap should be at the front / rear derailleur side.

** According to frame design, sometimes need to choose suitable cap. Sealed special type is recommended in muddy conditions.

*1 Outer cap with long tongue

*2 Outer cap with short tongue

DURA-ACE 9000 series / ULTEGRA 6800 series /105 5800 series
New outer cap with long or short tongue is required for assembly.

# Outer casing

C-311

## When using full outer casing C-312

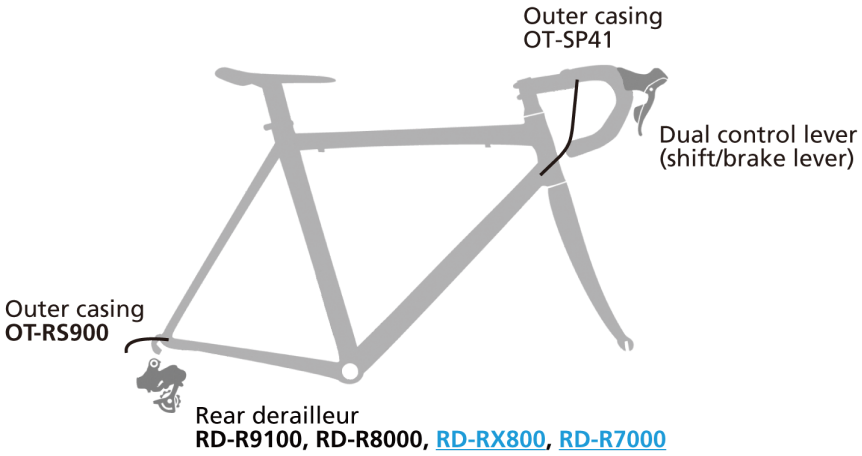
When using a full outer casing as the outer casing, the following factors may affect the gear shifting performance, so make sure that you check the proper gear shifting performance can be obtained before normal use.
In addition, check to be sure that the outer casing does not touch moving parts such as the tires and crank arms during riding.

- Cable routing method.
  - ∗Curvature (Recommended minimum curvature: R30mm)
  - ∗Enough slack for suspension and handlebar operation
- Method of securing the cable to the frame.
- Relationship between the length of cable from the rear derailleur to the securing location and the cable securing position.
  - ∗If the values are greatly different from those which are recommended, problems with gear shifting performance may occur.

# Outer casing for rear derailleur C-535

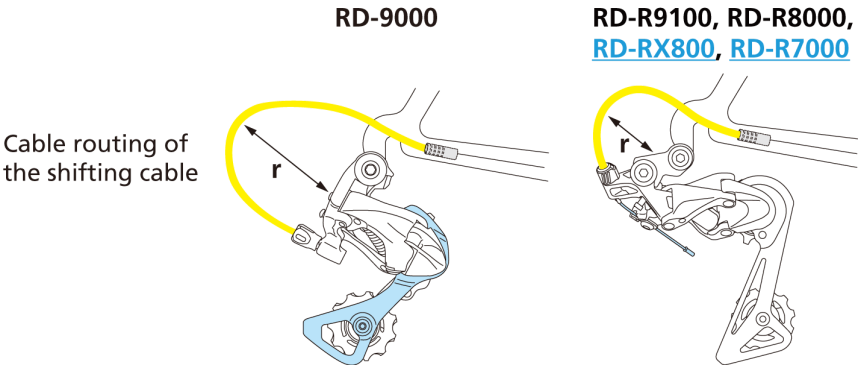
## OT-RS900

RD-R9100, RD-R8000, RD-RX800, RD-R7000 must be assembled on the bicycle with a special outer casing, OT-RS900.




## Purpose of OT-RS900

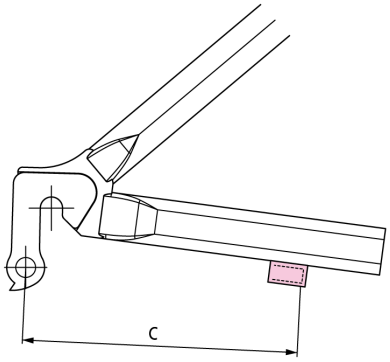
The radius (r) of the curved cable that is routed from the bicycle frame to the RD-R9100 become smaller compared to the radius generated with other rear derailleurs, as indicated in the images below. The commonly used outer casing, OT-SP41, is too stiff for such small radius that it could cause technical problems on the adjutment barrel and disturb quick and smooth engagement and disengagement of the rear wheel from the frame. By using the OT-RS900, such problems can be avoided as the stiffness is reduced on OT-RS900.
** OT-RS900 should be used only on the rear derailleur side. It should not be used on the shift/brake lever side.

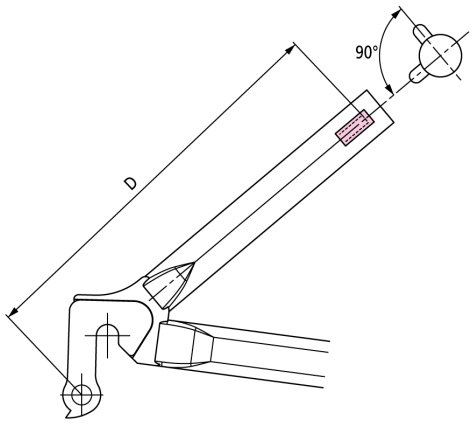


# Outer casing length



## Rear fork end (with derailleur hanger) C-314



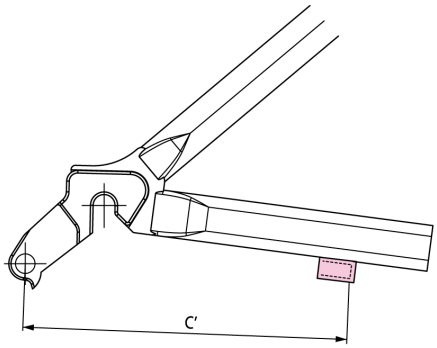



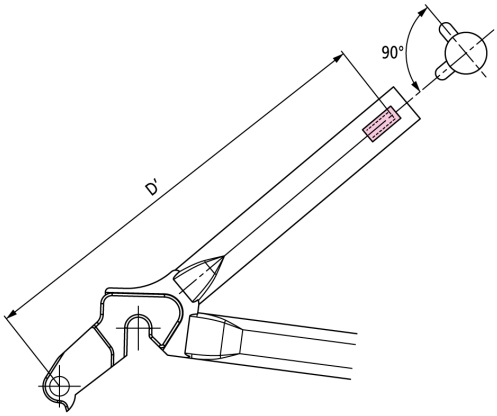

3 5

| | Model No. | Recommended outer casing model | Dimension C | | | | |
|---|---|---|---|---|---|---|---|
| | | | 100 mm | 110 mm | 120 mm | 130 mm | 140 mm |
| Outer Casing Length (mm) | RD-M9100 | OT-SP41 | 190 | 200 | 210 | – | – |
| | RD-M9120 | OT-SP41 | | | | | |
| | RD-M9000 | OT-SP41 | 200 | 210 | 220 | – | – |
| | RD-M820 (FR mode, DH mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-T8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-T8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec, DH spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-T6000 | OT-SP41 | 290 | 310 | 330 | – | – |
| | RD-M4000 | OT-SP41 | 180 | 190 | 200 | – | – |
| | RD-M3000 | OT-SP41 | | | | | |
| | RD-M2000 | OT-SP41 | | | | | |
| | RD-TY500 | OT-SP41 | | | | | |
| | Other models (w / o Roller Guide RD) | OT-SP41 | 280 | 300 | 320 | – | – |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-RX800-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | | | | | |
| | RD-R7000-GS | OT-RS900 | | | | | |

| | Model No. | Recommended outer casing model | Dimension D | | |
|---|---|---|---|---|---|
| | | | 150 mm | 165 mm | 180 mm |
| Outer Casing Length (mm) | RD-M9100 | OT-SP41 | 200 | 210 | 230 |
| | RD-M9120 | OT-SP41 | | | |
| | RD-M9000 | OT-SP41 | 210 | 220 | 240 |
| | RD-M986 | OT-SP41 | | | |
| | RD-M820 (FR mode) | OT-SP41 | | | |
| | RD-M8000 | OT-SP41 | | | |
| | RD-T8000 | OT-SP41 | | | |
| | RD-M7000-11 | OT-SP41 | | | |
| | RD-M7000-10 | OT-SP41 | | | |
| | RD-M640 (FR spec) | OT-SP41 | | | |
| | RD-M6000 | OT-SP41 | | | |
| | RD-T6000 | OT-SP41 | 290 | 310 | 330 |
| | RD-M820 (DH mode) | OT-SP41 | 220 | 230 | 250 |
| | RD-M640 (DH spec) | OT-SP41 | | | |
| | RD-M4000 | OT-SP41 | 200 | 210 | 230 |
| | RD-M3000 | OT-SP41 | | | |
| | RD-M2000 | OT-SP41 | | | |
| | RD-TY500 | OT-SP41 | 190 | 200 | 210 |
| | RD-TX55 | OT-SP41 | | | |
| | RD-TY21-B | OT-SP41 | 280 | 300 | 320 |
| | RD-FT35-A | OT-SP41 | 250 | 270 | 310 |
| | RD-TX800 | OT-SP41 | 280 | 310 | 340 |
| | RD-TY300 | OT-SP41 | | | |
| | RD-TX35 | OT-SP41 | | | |
| | Other models (w / o Roller Guide RD) | OT-SP41 | 280 | 300 | 320 |
| | RD-R9100 | OT-RS900 | 200 | 220 | 240 |
| | RD-R8000-SS | OT-RS900 | | | |
| | RD-R8000-GS | OT-RS900 | | | |
| | RD-RX800-GS | OT-RS900 | | | |
| | RD-R7000-SS | OT-RS900 | | | |
| | RD-R7000-GS | OT-RS900 | | | |

# Rear fork end (Direct mount) C-315



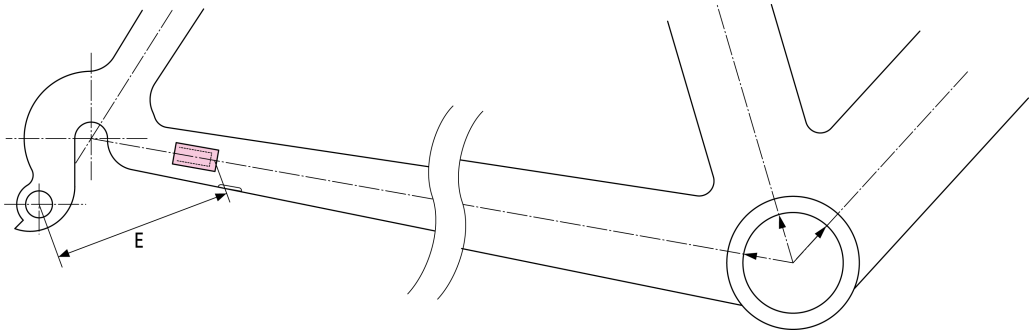




3 5

| | Model No. | Recommended outer casing model | Dimension C' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 125 mm | 135 mm | 145 mm | 155 mm | 165 mm |
| Outer Casing Length (mm) | RD-M9000 | OT-SP41 | 200 | 210 | 220 | - | - |
| | RD-M820 (FR mode, DH mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec, DH spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-M4000 | OT-SP41 | | | | | |
| | RD-M3000 | OT-SP41 | | | | | |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-RX800-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | | | | | |
| | RD-R7000-GS | OT-RS900 | | | | | |

| | Model No. | Recommended outer casing model | Dimension D' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 162 mm | 172 mm | 177 mm | 182 mm | 192 mm |
| Outer Casing Length (mm) | RD-M9000 | OT-SP41 | 210 | - | 220 | - | 240 |
| | RD-M820 (FR mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-M820 (DH mode) | OT-SP41 | 220 | | 230 | | 250 |
| | RD-M640 (DH spec) | OT-SP41 | | | | | |
| | RD-M4000 | OT-SP41 | 210 | | 220 | | 240 |
| | RD-M3000 | OT-SP41 | 200 | | | | |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-RX800-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | | | | | |
| | RD-R7000-GS | OT-RS900 | | | | | |

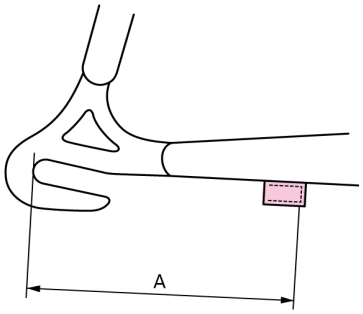
# Built-in wire routing (For Road 11-speed) C-316

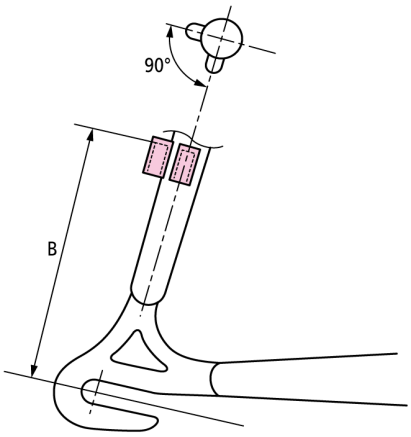



5

| | Model No. | Recommended outer casing model | Dimension E | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 40mm | 50mm | 60mm | 80mm | 100mm | 125mm | 150mm |
| Outer Casing Length (mm) | RD-R9100 | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R8000-SS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R8000-GS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-RX800-GS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R7000-SS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R7000-GS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-9000<br>RD-6800 | OT-SP41 | 220 | 240 | 260 | 300 | 340 | 390 | 440 |

# Rear fork end (without derailleur hanger) C-317



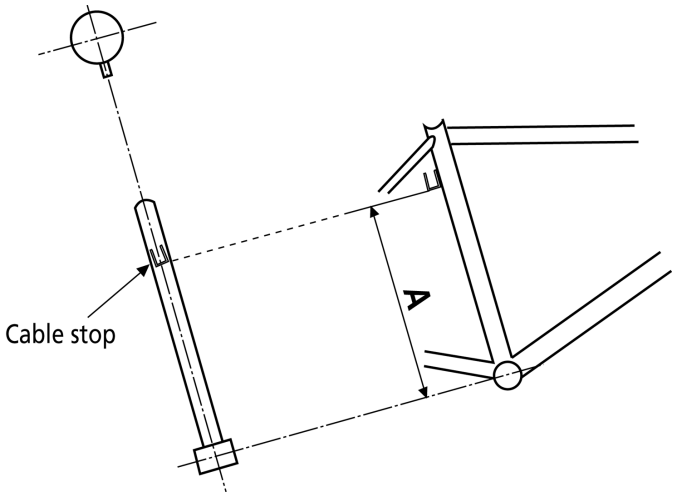

| | Model No. | Dimension A | | | Dimension B | | |
|---|---|---|---|---|---|---|---|
| | | 90 mm | 100 mm | 110 mm | 115 mm | 130 mm | 145 mm |
| Outer Casing Length (mm) | Standard | 280 | 300 | 320 | 280 | 300 | 320 |
| | RD-TY300 | | | | | | |
| | RD-TX35 | | | | | | |
| | RD-TY21-B | | | | | | |
| | RD-TZ500 | | | | | | |
| | RD-TY500 | 180 | 190 | 200 | 175 | 190 | 205 |
| | RD-TX55 | | | | | | |
| | RD-FT35-A | 140 | 160 | 180 | 140 | 160 | 180 |

# Cable stop position for top routed cable

C-318

The following dimensions are important for maintaining optimum performance.

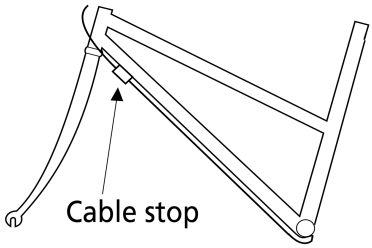
A=300-350mm
A=280-440mm (FD-CX70-T)




# Cable routing on down tube

C-319

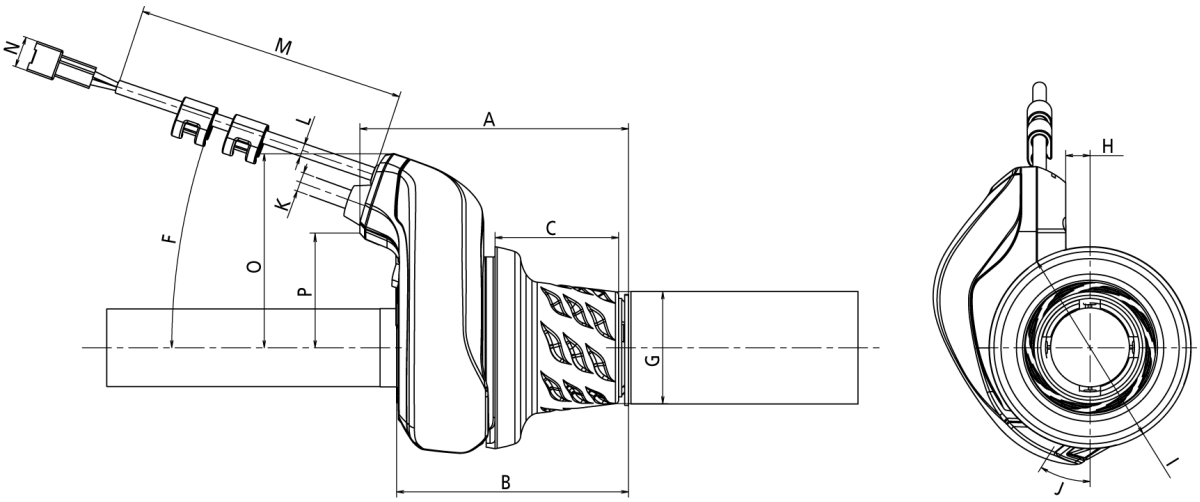
Shifting performance is dependant on cable routing and the type of cable guide used.
Please check the cable action and efficiency before finalizing specifications.



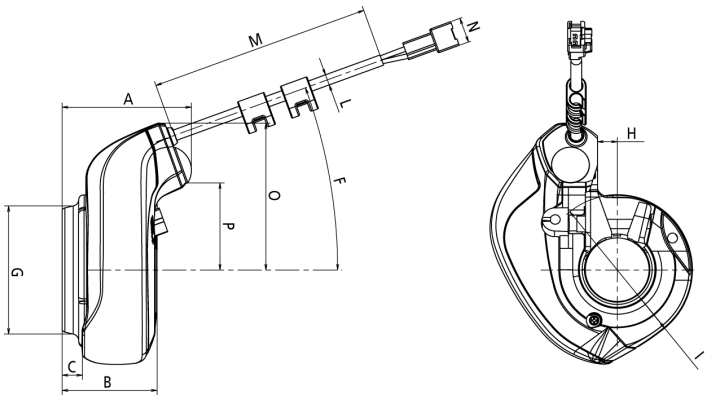
# Shifting lever with LED position light Specification for Japan Market

C-321

**SL-RS34-6R**




**SM-RS34-L**




| Model No. | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F | G (mm) | H (mm) |
|---|---|---|---|---|---|---|---|---|
| SL-RS34-6R | 81.5 | 66.0 | 37.1 | 46.8 | 32 | 20° | 32.0 | 6.4 |
| SM-RS34-L | 45.6 | 33.5 | 8.2 | 46.8 | 32 | 20° | 45.3 | 6.4 |

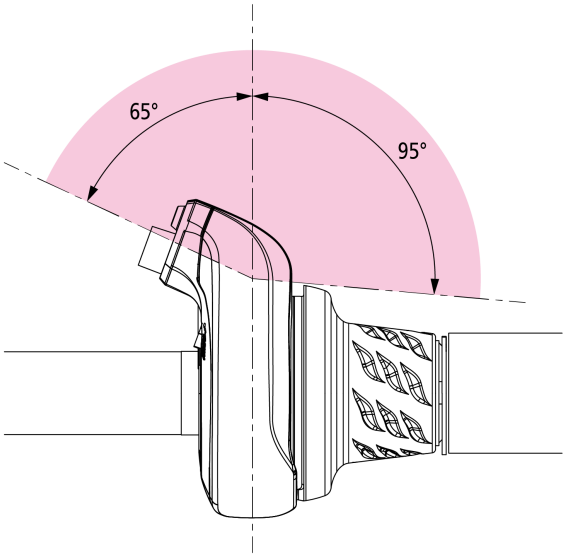
| Model No. | I (mm) | J | K (mm) | L (mm) | M (mm) | N (mm) | O (mm) | P (mm) |
|---|---|---|---|---|---|---|---|---|
| SL-RS34-6R | ø58.0 | 31° | 4 | 4 | 200 | 9.5 | 51.9 | 30.8 |
| SM-RS34-L | ø53.1 | - | - | 4 | 200 | 9.5 | 51.9 | 30.8 |

# Irradiation angle C-322

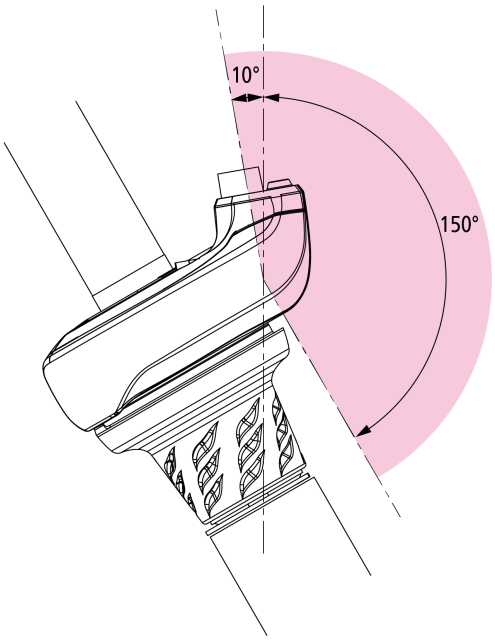
**SM-RS34**

This product enhances the conspicuity to the front. Its 160° illuminating angle also provides compatibility with both straight handles and comfort bike handles.

**Straight handle type**



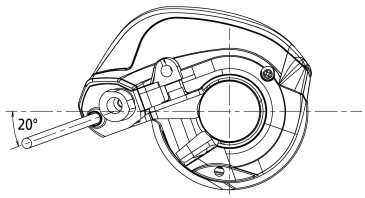

**Comfort bike handle type (60°)**

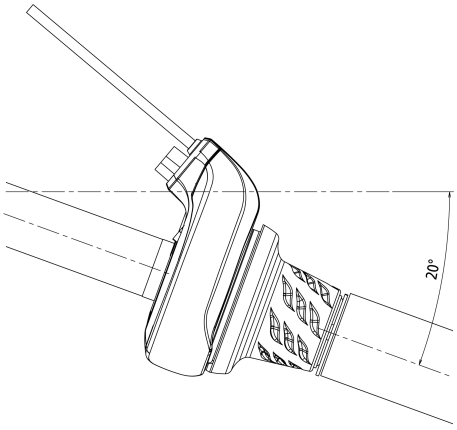


# Installation for handlebar C-323

### Straight handle type

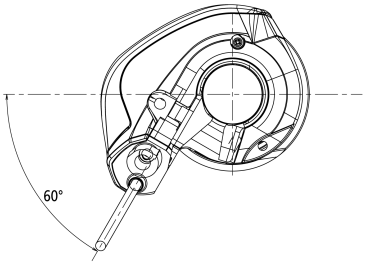
Use a product with a handle angle of 60 degrees or lower with respect to the direction of travel so that the light can illuminate ahead. Also use handlebars that have a minimum length of 158 mm in the straight section.

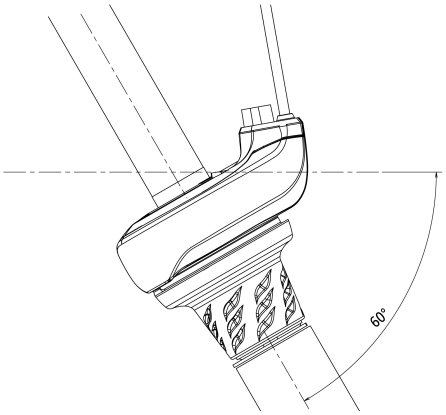



### Comfort bike handle type

Adjust the mounting angle within the recommended range of 20 to 60 degrees to obtain correct forward lighting.

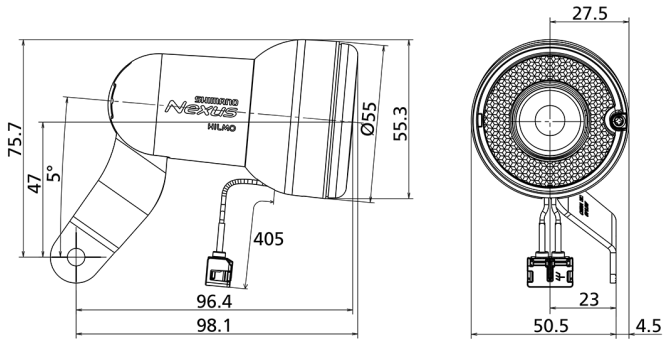


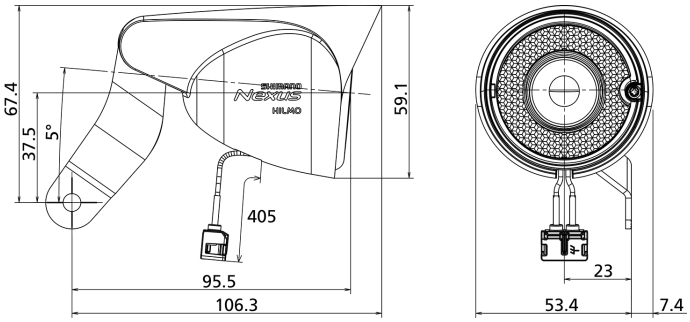
# Front light Specification for Japan Market



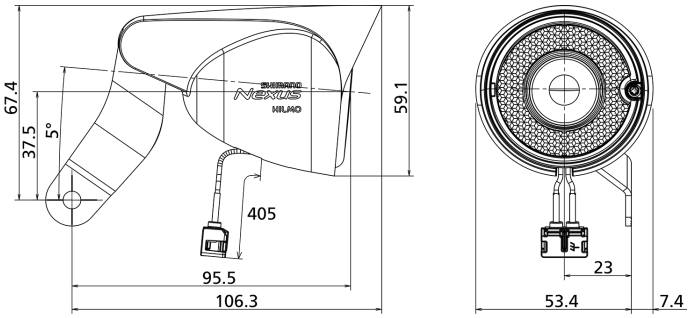
## LP-C2200-S



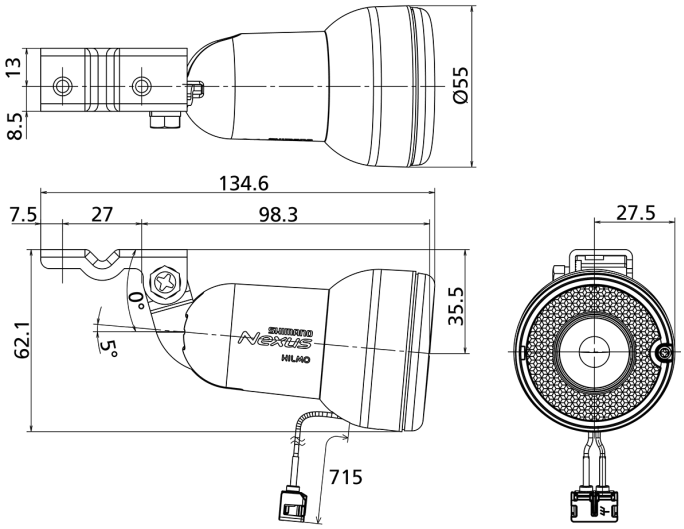

## LP-C2111-S



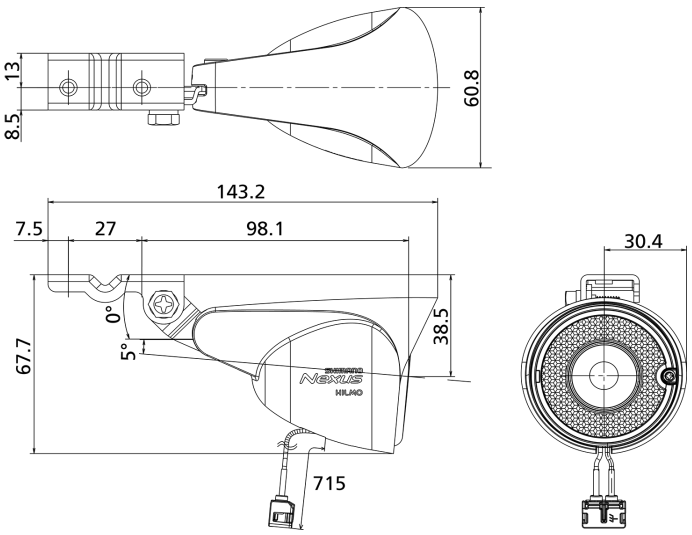

## LP-C2201-S



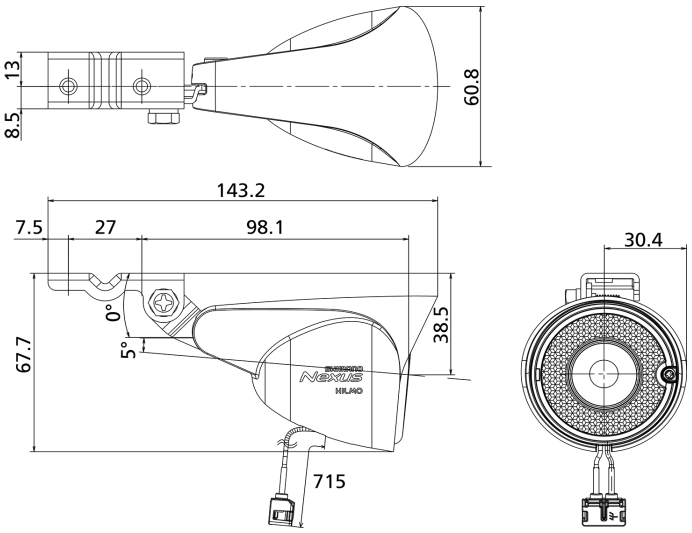

## LP-C2200-B



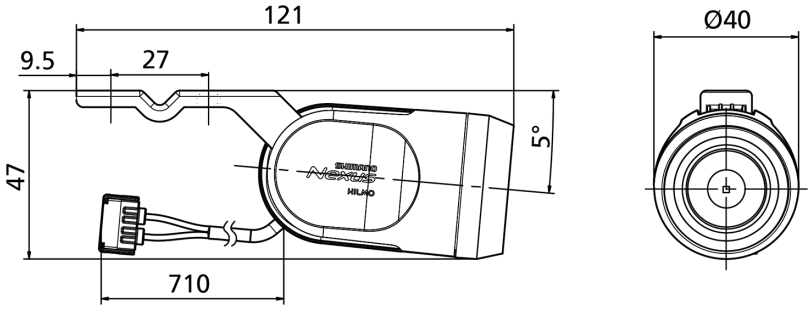
**LP-C2111-B**



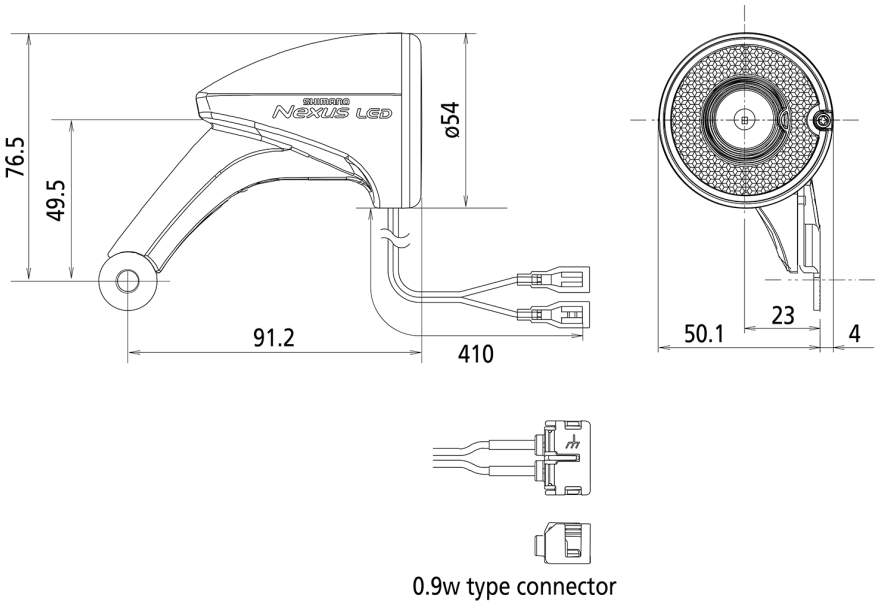

**LP-C2201-B**




**LP-C2207-B**

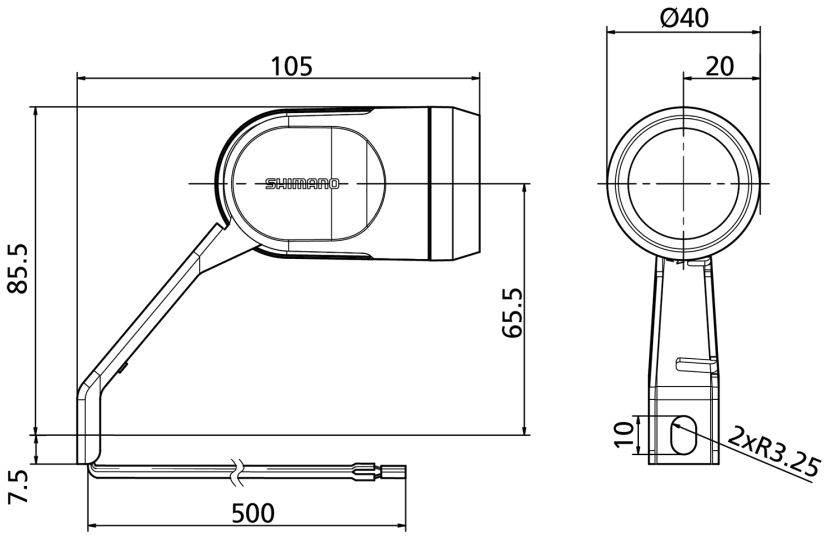


**LP-X101H**

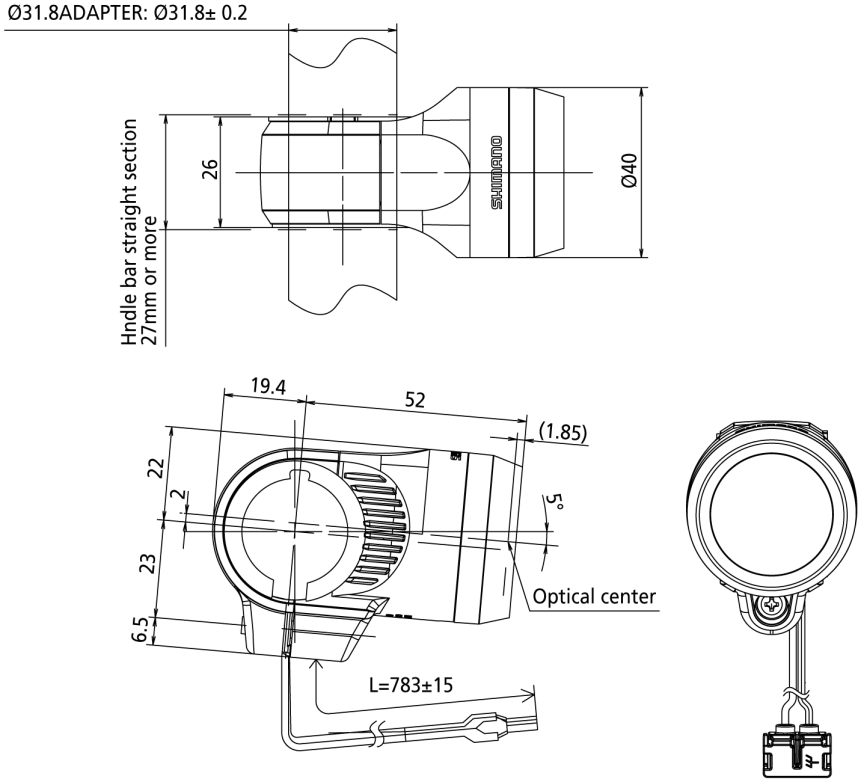



0.9w type connector

**LP-C2207-C**



Spec of ADAPTER : Recommended Handle bar
Ø22.2ADAPTER: Ø22.2± 0.2
Ø25.4ADAPTER: Ø25.4± 0.2
Ø31.8ADAPTER: Ø31.8± 0.2

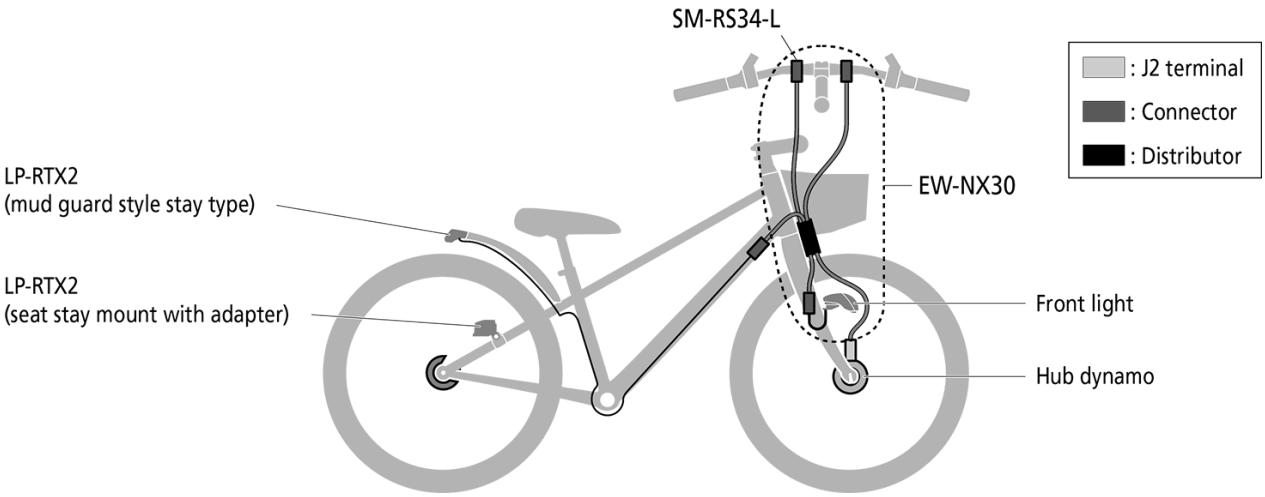


# Electric wire Specification for Japan Market

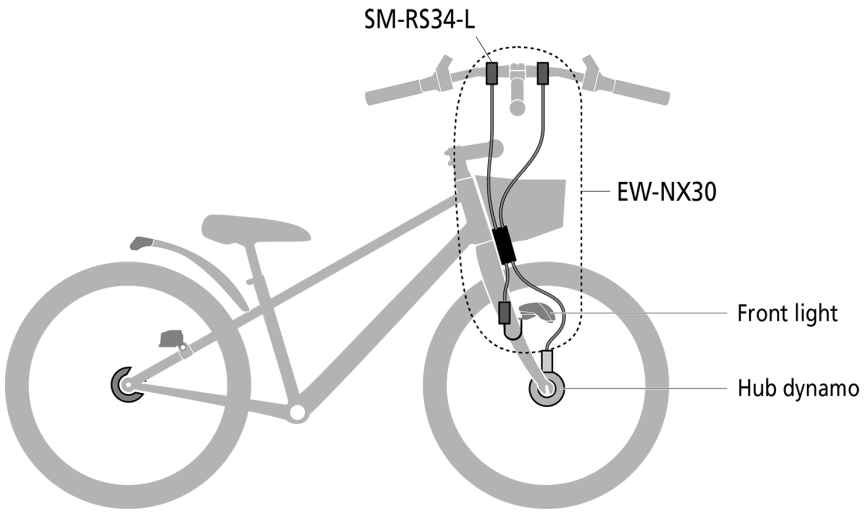
## Electric wire specification / Routing C-331

Required electric cord specifications differ depending on the products used in combination such as a tail light and a shifting lever equipped with an LED position light.

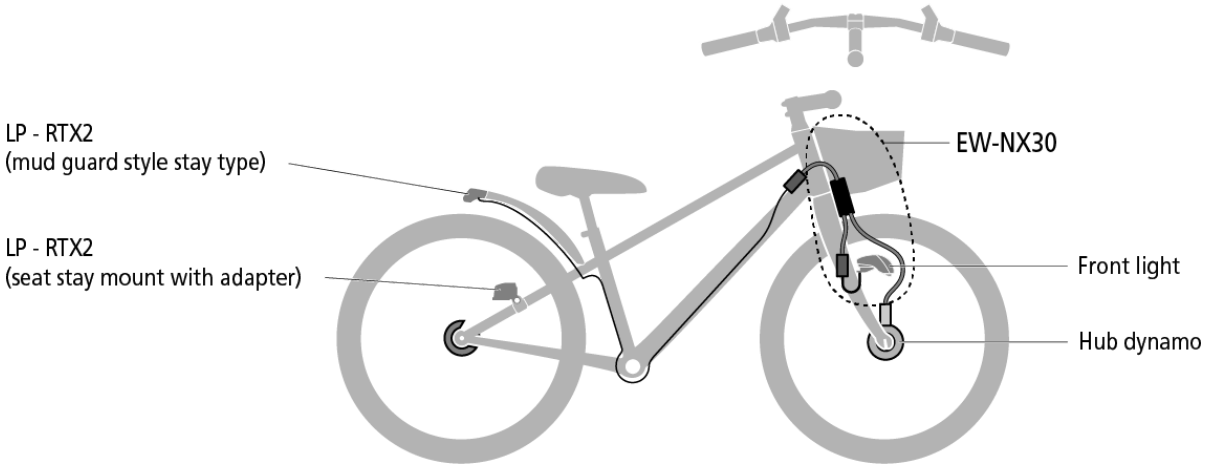
**4B type**




**3B type**



## 2B type

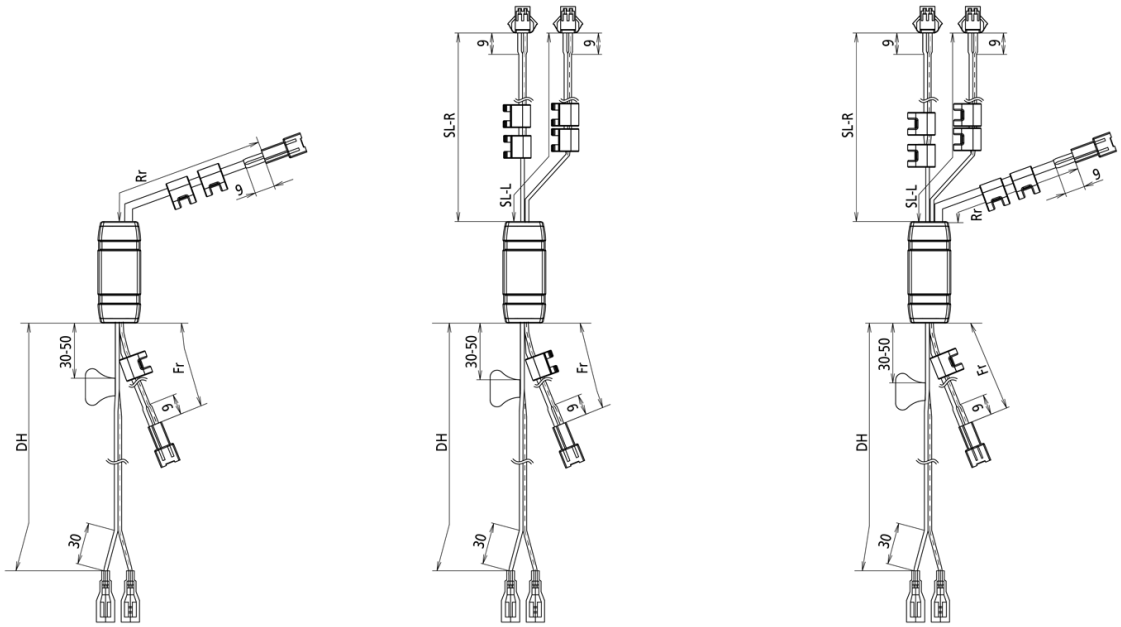



## Table of correspondences between lighting system and electric wire specifications

| Light type | 4B type | 3B type | 2B type |
|---|---|---|---|
| Auto light | X | X | X |
| LED position light | X | X | - |
| Tail light | X | - | X |

X: Yes

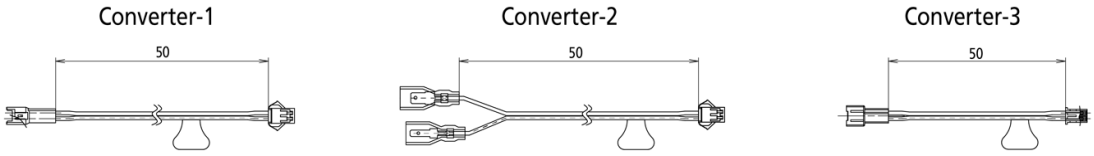
## EW-NX30



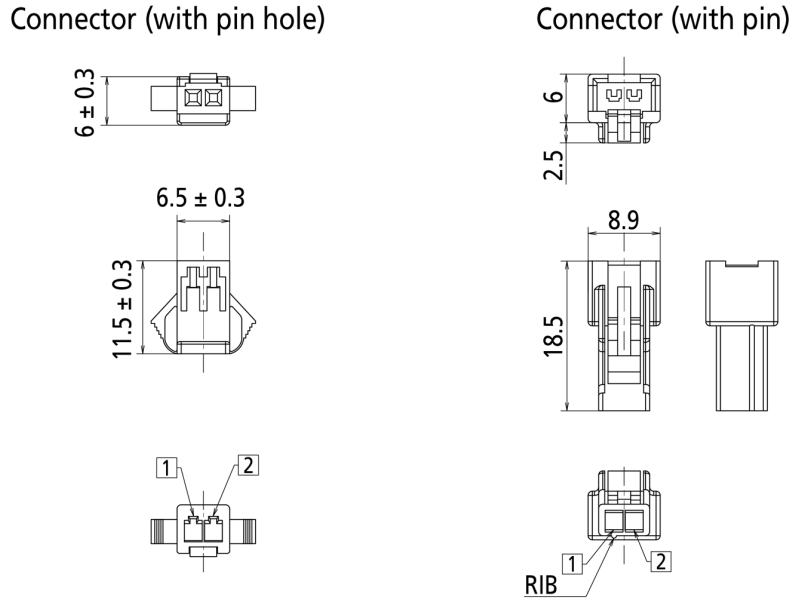

2B type　　3B type　　4B type

| Model No. | Spec. | DH (mm) to hub dynamo | Fr (mm) to Front light | SL-R (mm) to SL/SM-Right | SL-L (mm) to SL/SM-Left | Rr (mm) to Tail light |
|---|---|---|---|---|---|---|
| EW-NX30-2B | SPEC 1 | 800 | 570 | - | - | 270 |
| | SPEC 2 | 1000 | 570 | - | - | 270 |
| EW-NX30-3B | SPEC 1 | 800 | 570 | 175 | 65 | - |
| | SPEC 2 | 1000 | 570 | 175 | 215 | - |
| EW-NX30-4B | SPEC 1 | 800 | 570 | 175 | 65 | 270 |
| | SPEC 2 | 1000 | 570 | 175 | 215 | 270 |

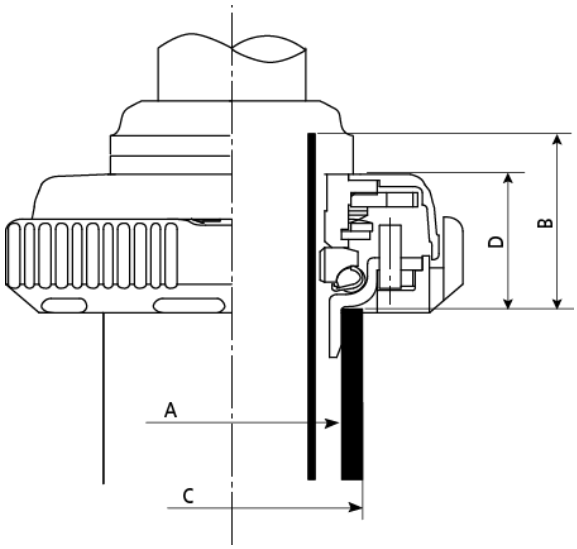
## Converter type




## Connector terminal dimensions



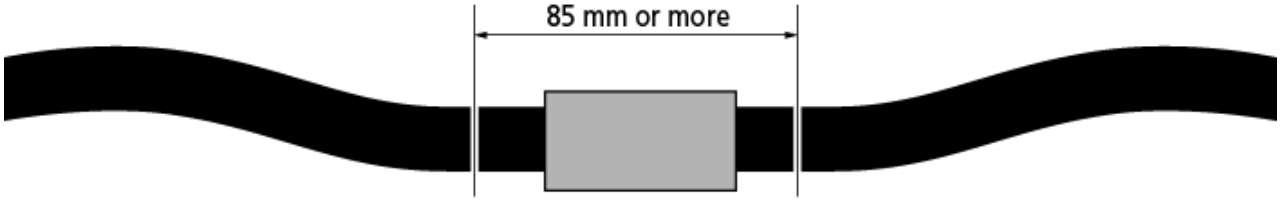
## Headset dimensions C-333



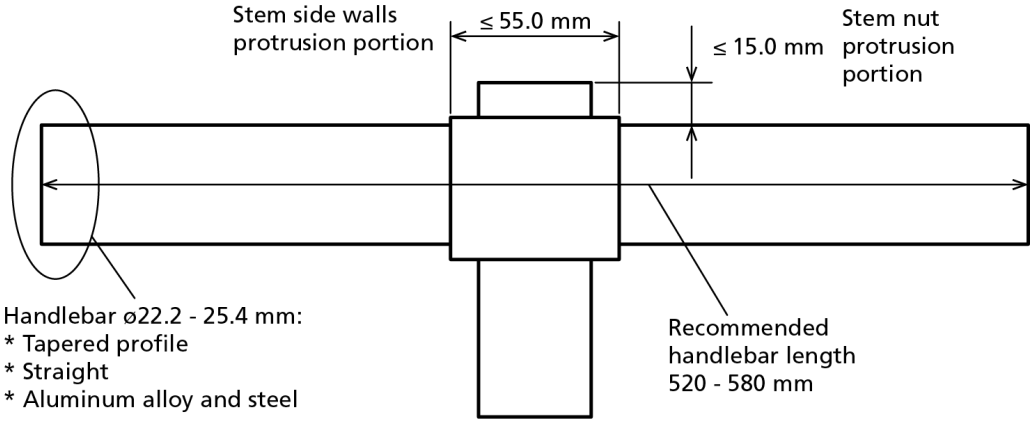

| Model No. | HP-NX10 |
|---|---|
| A (mm) | ø29.85 - 30.0 or ø30.01 - 30.2 |
| B (mm) | 30.5 - 31.5 |
| Front fork stem thread size | BC 1 inch X 24T.P.I |
| C (mm) | ø38 (max.) |
| D (mm) | 21.7 |
| Head tube material | Steel |

## Required straight section of handlebar C-335

Use handlebars that have a minimum length of 85 mm in the straight section.



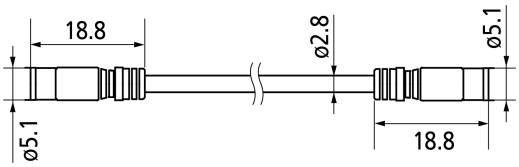

## Recommended handlebar and stem dimension C-336



## Electric wire

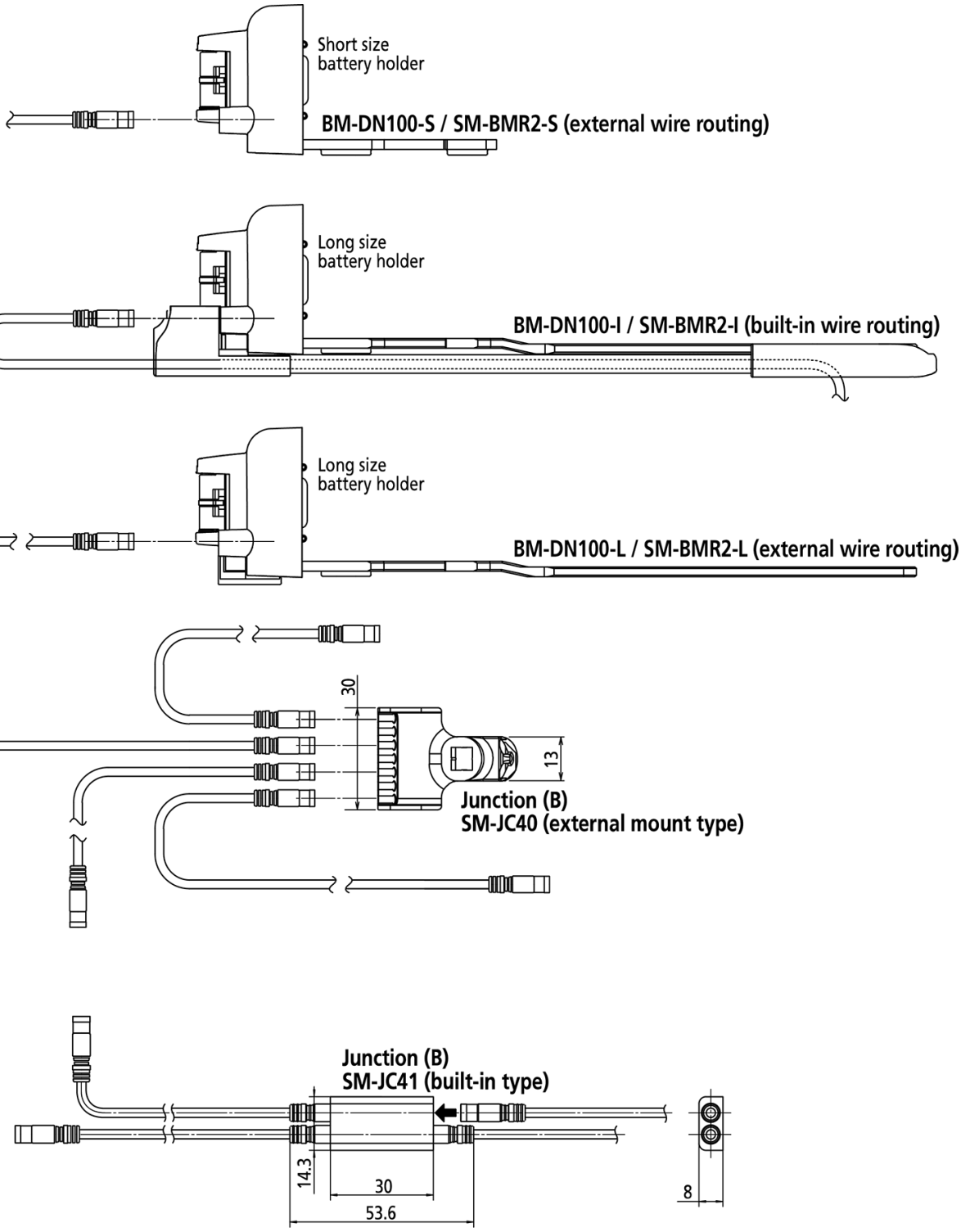
C-512

**EW-SD50**

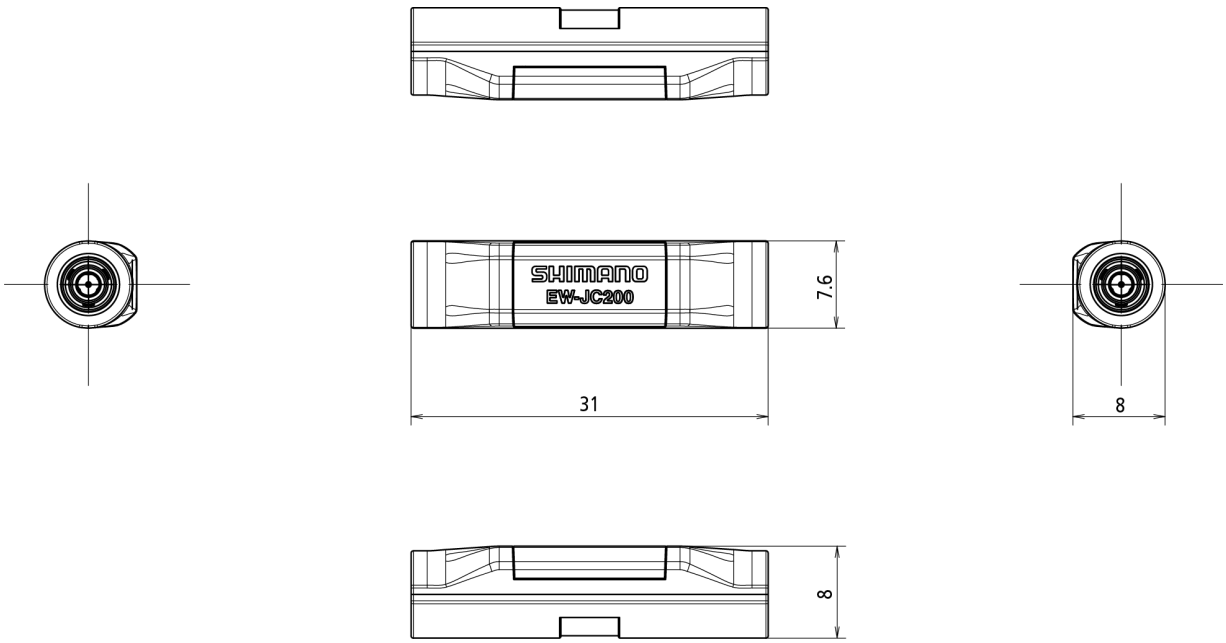



## Battery mount and Junction (B)

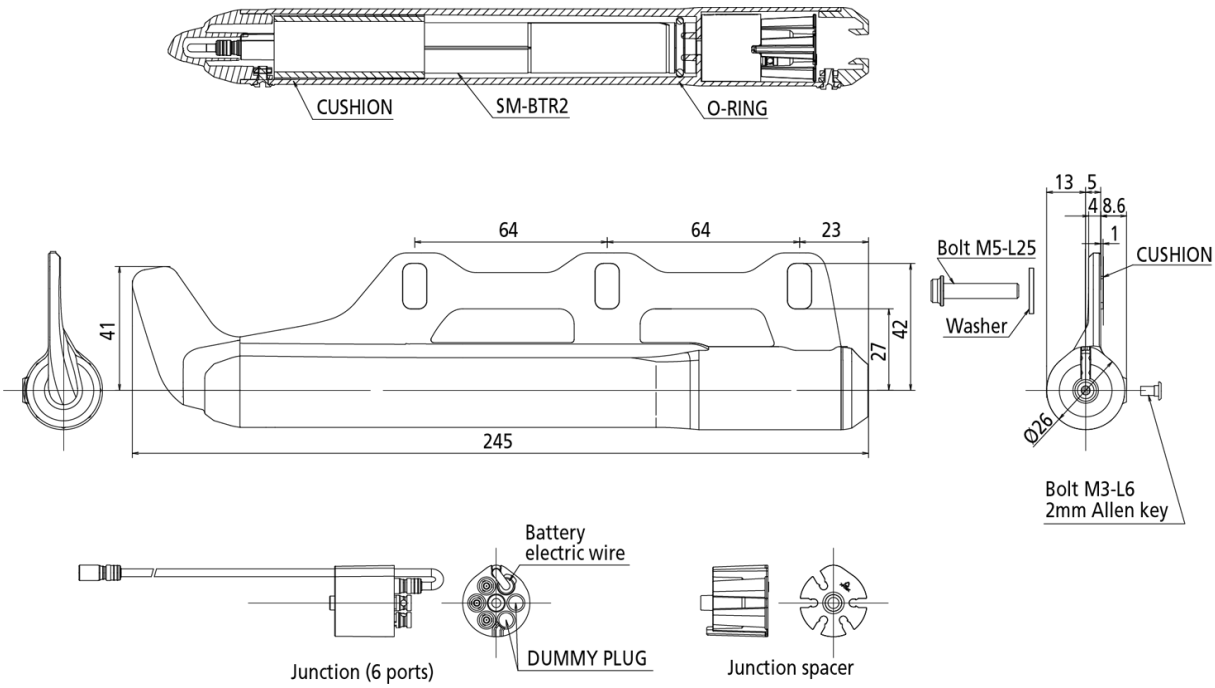
C-339



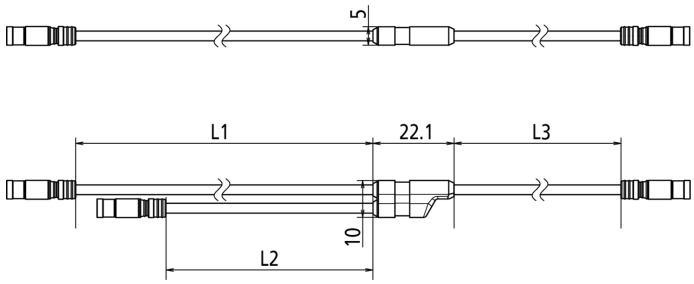
## EW-JC200




## SM-BTC1




## EW-JC130

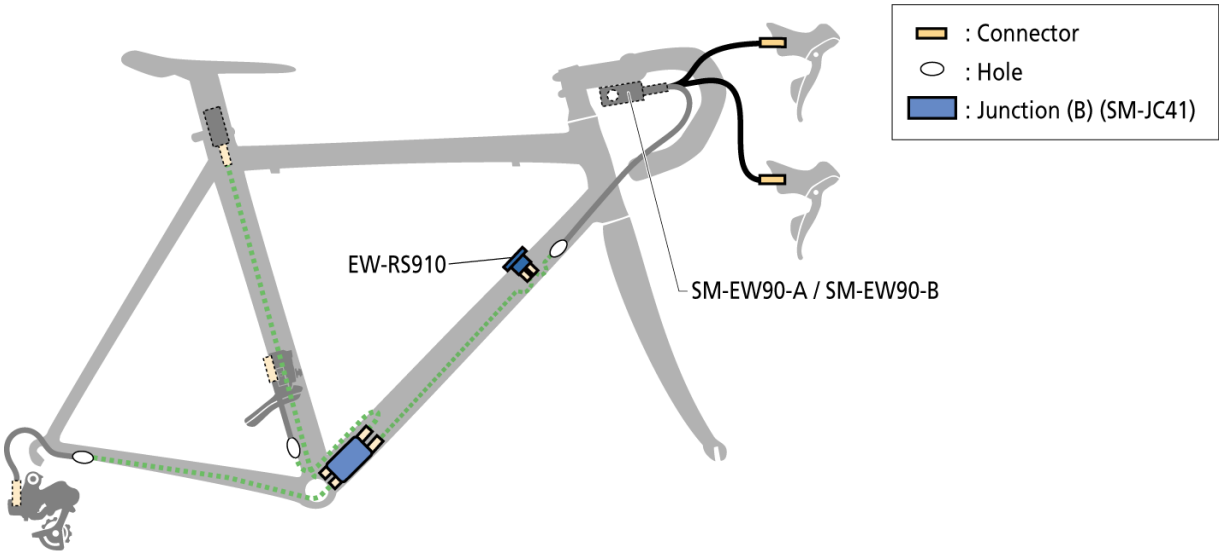



| | L1 (mm) | L2 (mm) | L3 (mm) |
|---|---|---|---|
| EW-JC130-SS | 350 | 50 | 250 |
| EW-JC130-SM | 350 | 50 | 450 |
| EW-JC130-MM | 550 | 50 | 550 |

# Junction (A)

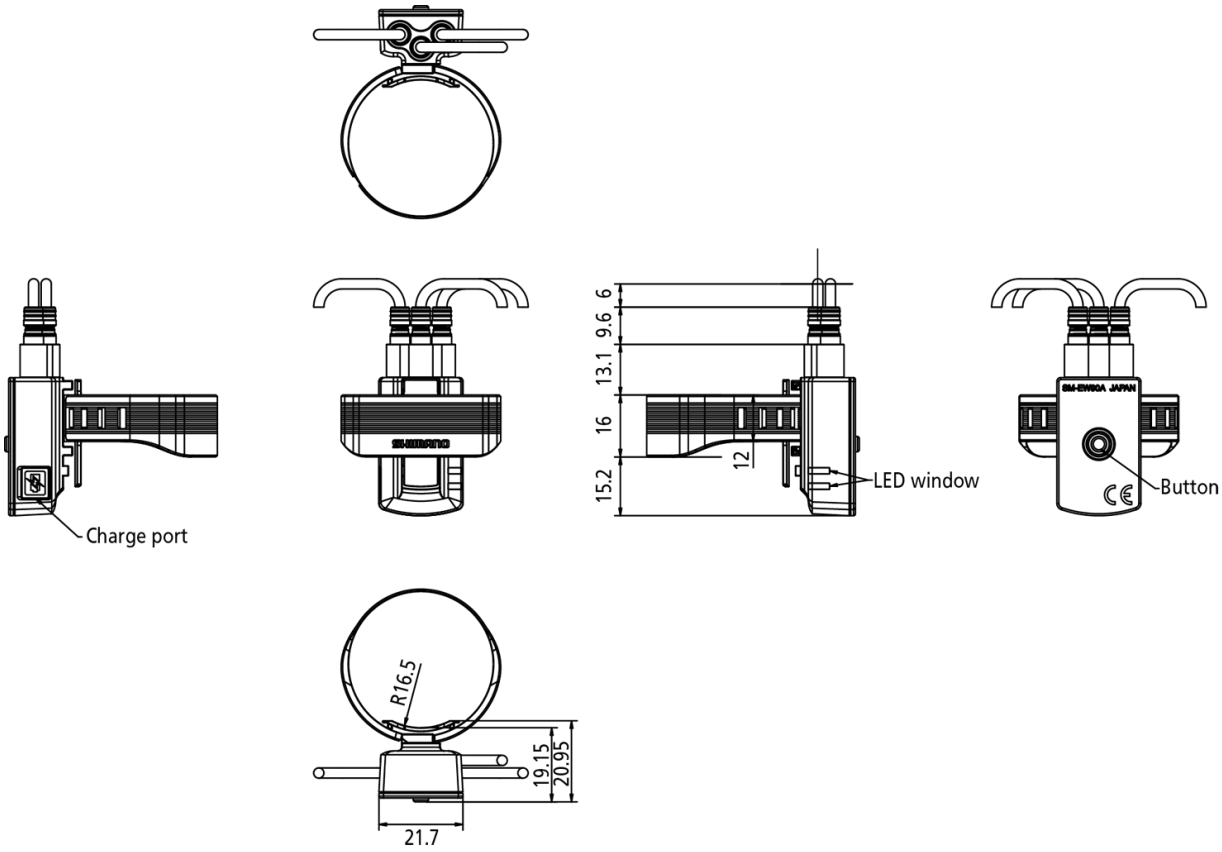
## Specification of SM-EW90-A / SM-EW90-B / EW-RS910 C-341

### Wire routing



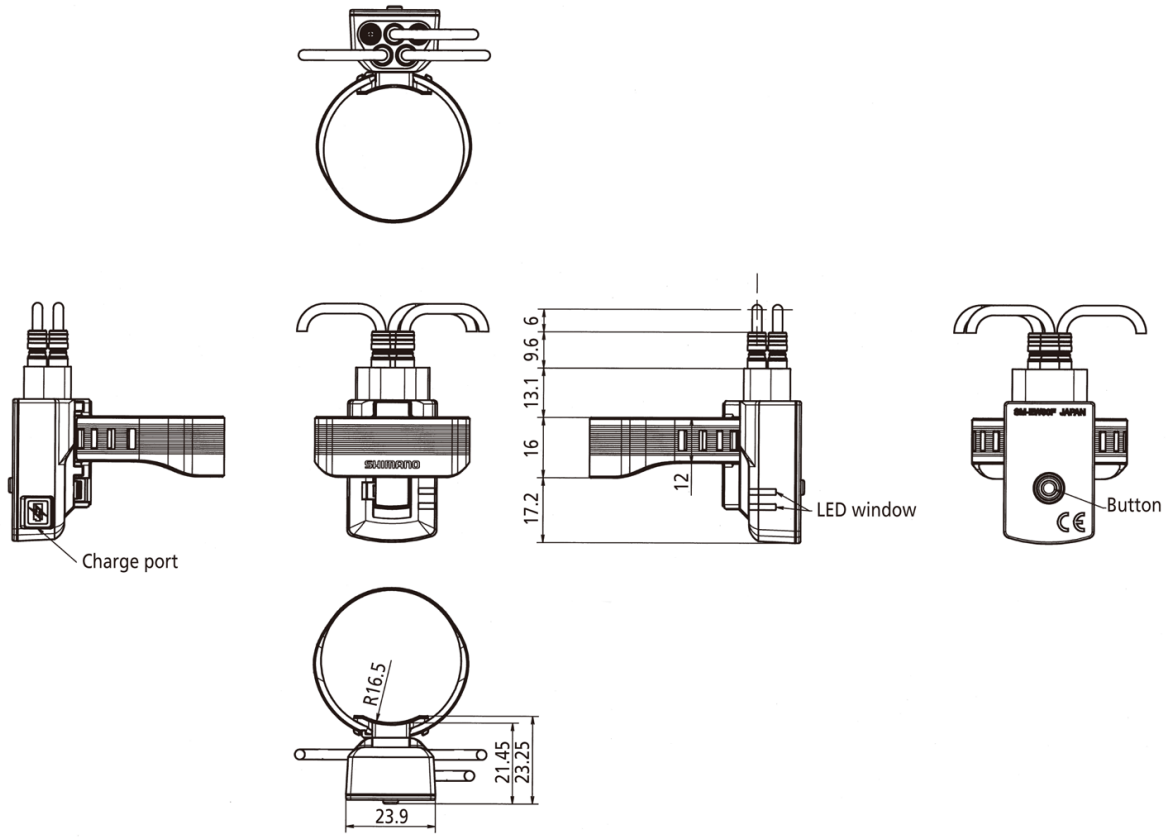

### SM-EW90-A

Outer circumference of corresponding stem (95-175 mm).
Use the rubber band to secure the junction box under the stem, and cut the unnecessary part of the band.

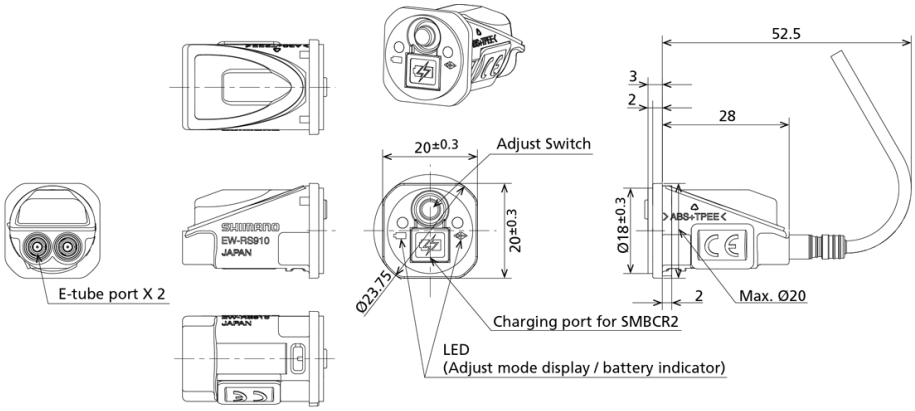


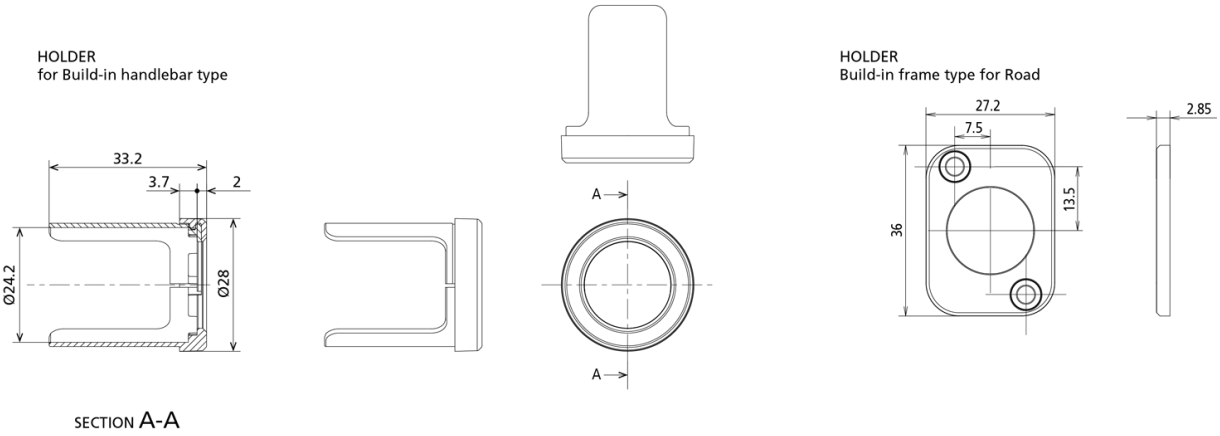
## SM-EW90-B

Outer circumference of corresponding stem (95-175 mm).
Use the rubber band to secure the junction box under the stem, and cut the unnecessary part of the band.




## EW-RS910

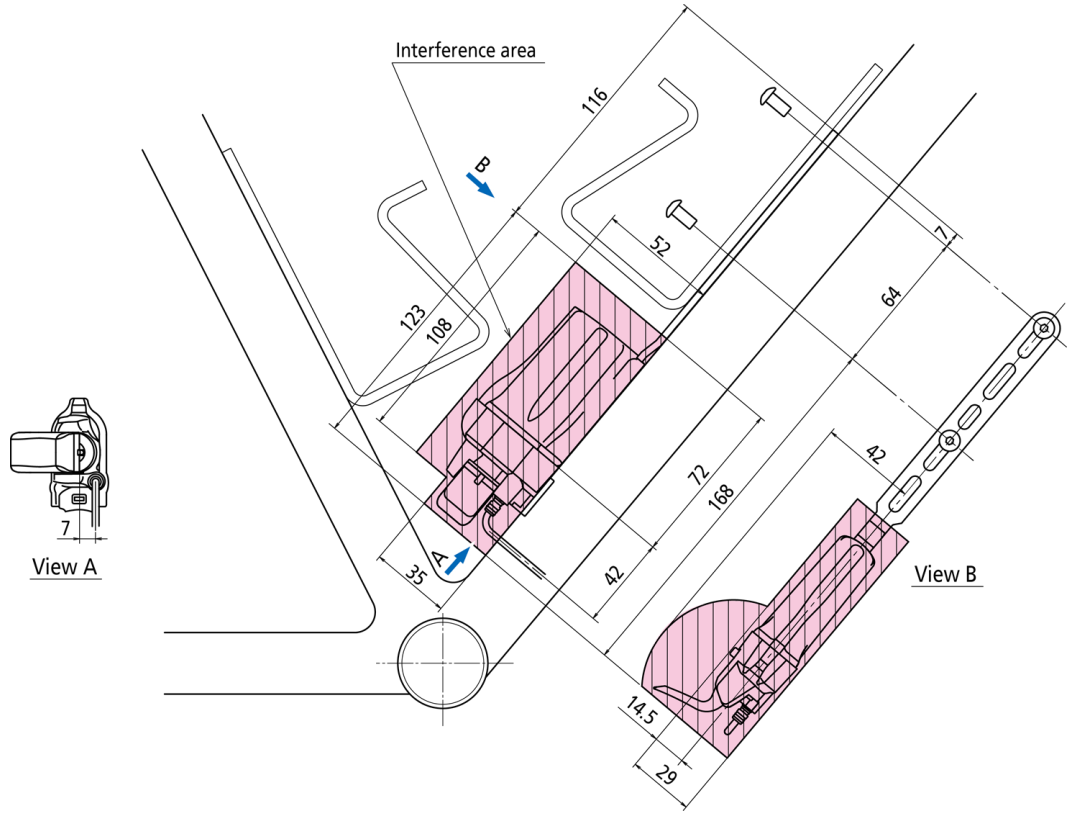


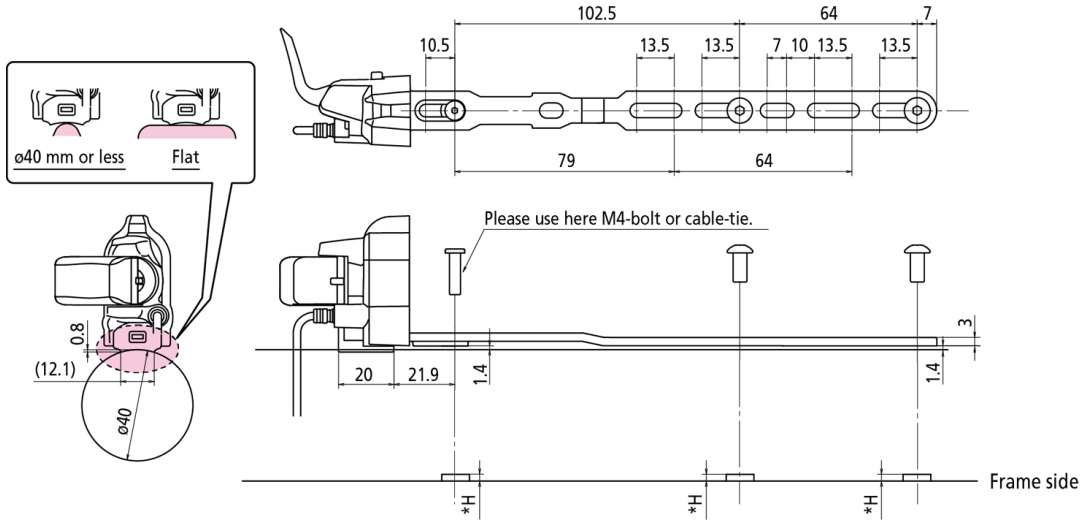
# Battery mount

## Long size battery mount C-343

### BM-DN100-L (external wire routing)




### Bolt mount

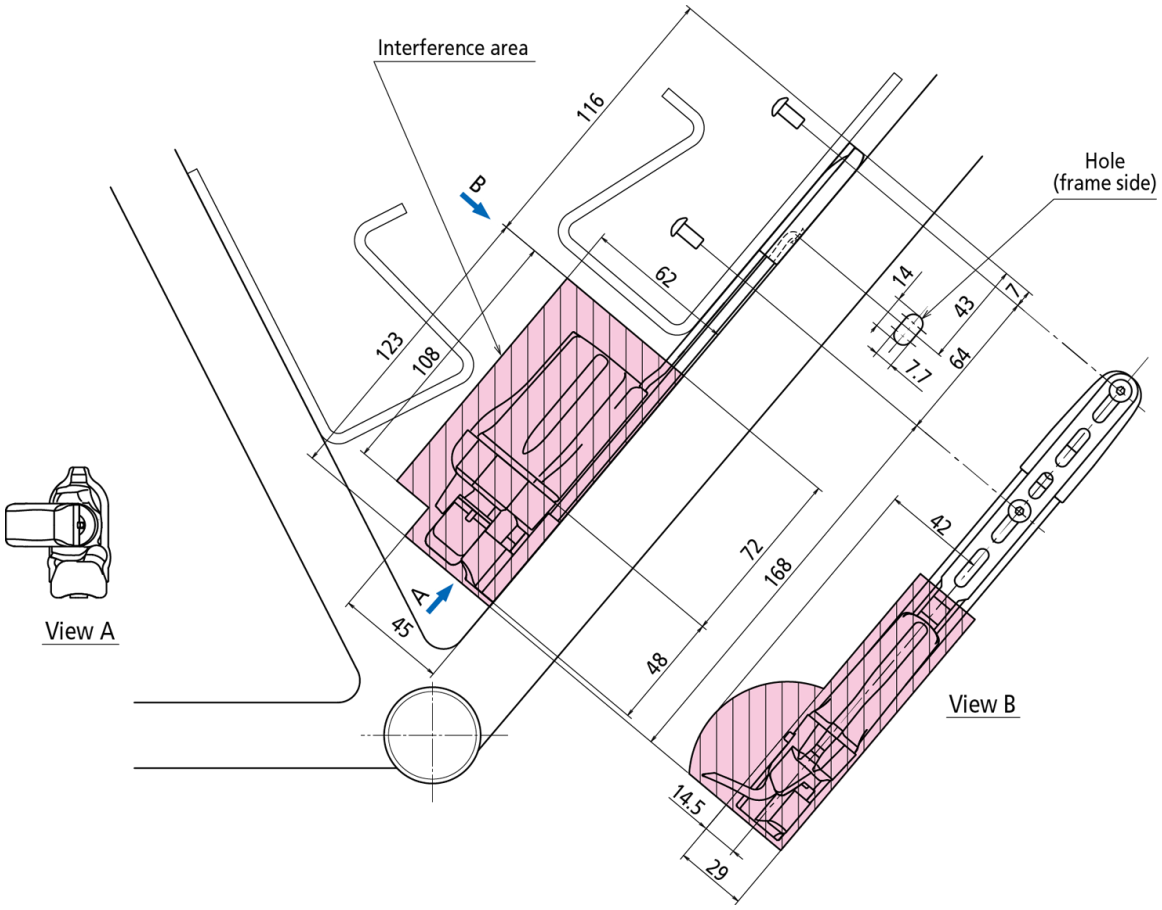



*H = 1.4: In case the installation surface is less than ø40.
H = 2.2: In case the installation surface is flat.
H = 1.4 - 2.2: In case the installation surface is more than ø40, please calculate the height from installation surface.

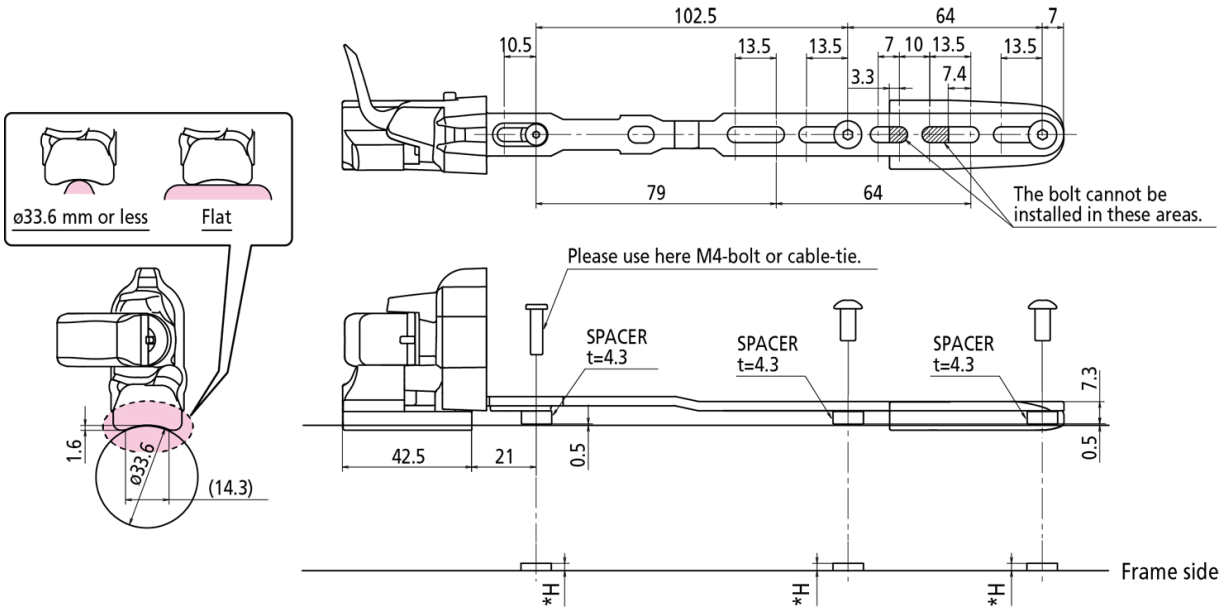
**NOTE**

- Do not bend the battery mount base when install to bicycle frame in order to keep battery removal clearance.
- The heights of the three bolt mount surfaces should be same.

## BM-DN100-I (built-in wire routing)




## Bolt mount



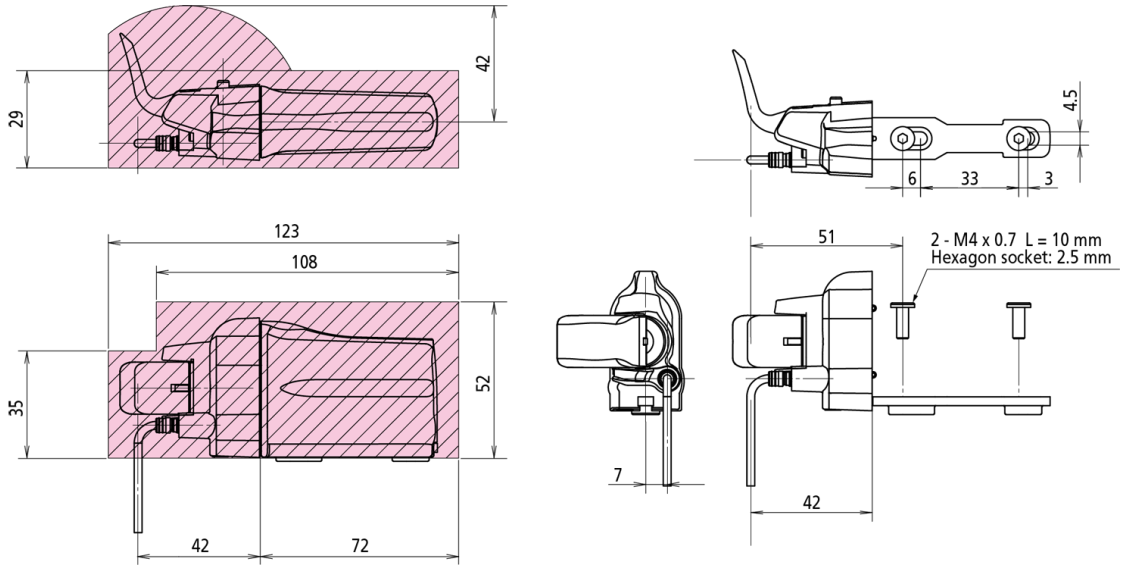

*H = 0.5: In case the installation surface is less than ø33.6.
H = 2.1: In case the installation surface is flat.
H = 0.5 - 2.1: In case the installation surface is more than ø33.6, please calculate the height from installation surface.

**NOTE**

- Do not bend the battery mount base when install to bicycle frame in order to keep battery removal clearance.
- The heights of the three bolt mount surfaces should be same.

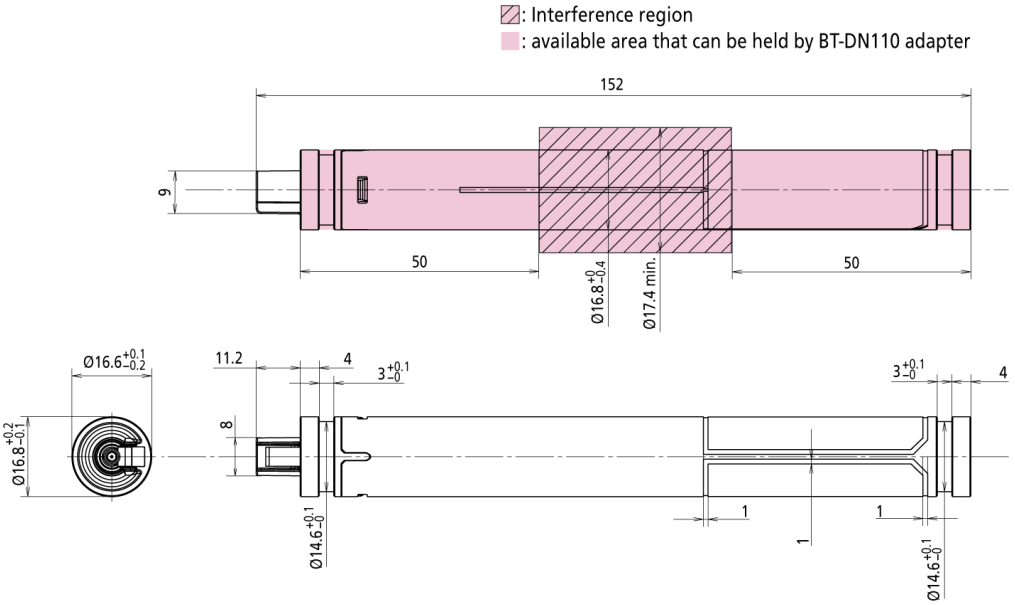
# Short size battery mount C-344

## BM-DN100-S (external/internal wire routing)

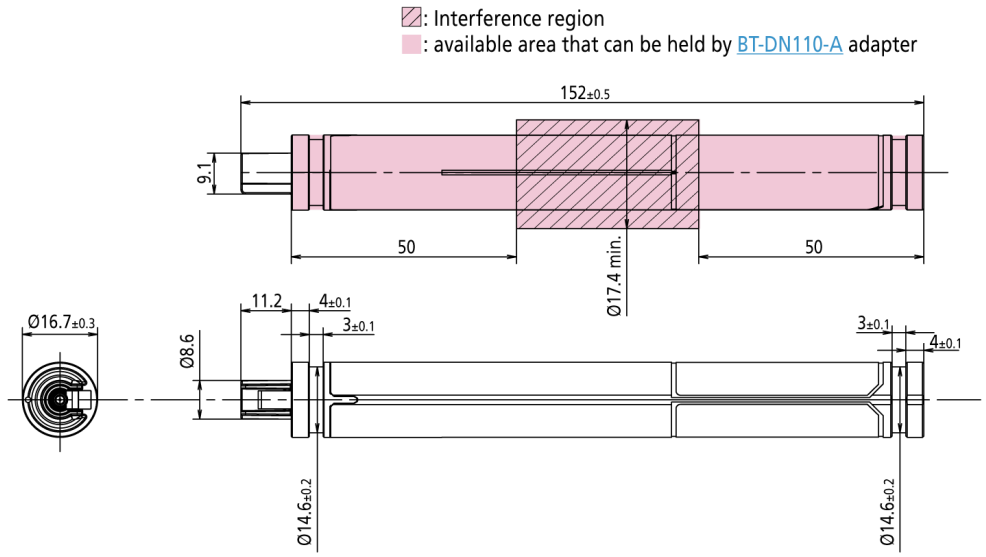


# Built-in type battery C-345

## BT-DN110




## BT-DN110-A

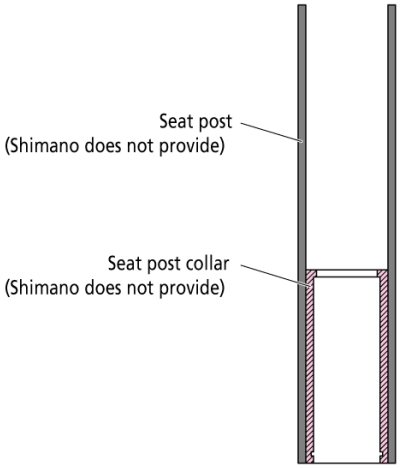


# Installation of built-in type battery C-346

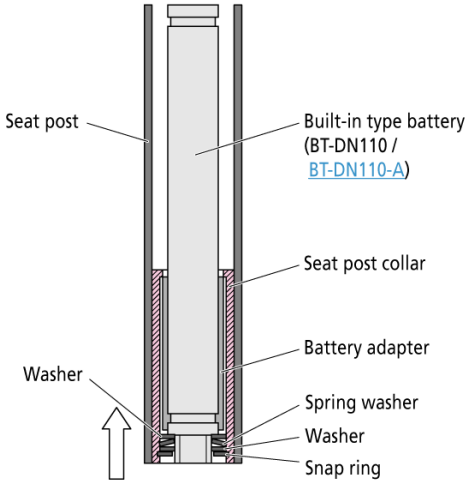
**BT-DN110 / BT-DN110-A**

SHIMANO produces "battery adapter", "spring washer", "washer" and "snap ring".
This fixation request is proposed only for round type standard seat post.

1) Bond seat post collar to inside of seat post

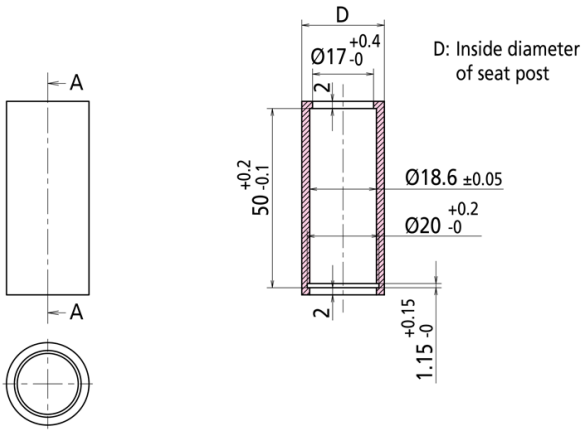



2) Insert internal battery into the collar from the bottom of seat post




3) Fix the battery with snap ring

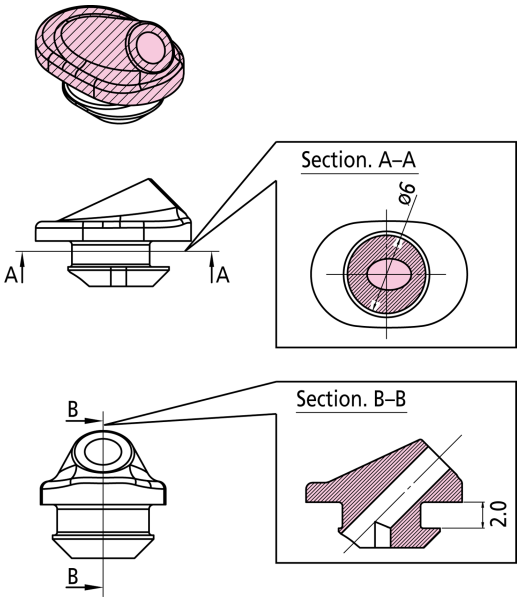
## Seat post collar (SHIMANO does not provide)



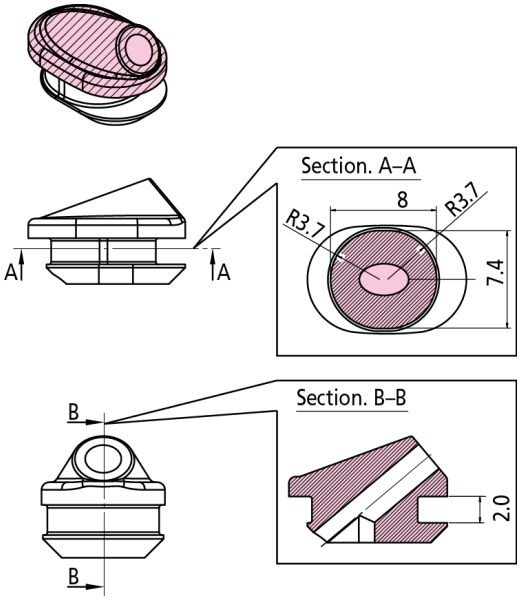

**NOTE**

- Please fix BT-DN110 / BT-DN110-A without deformation, bending and warping due to compression. If this is not observed, it may breakdown.
- If BT-DN110 / BT-DN110-A is subjected to a local load, it will be damaged.
- Do not forcefully install or remove BT-DN110 / BT-DN110-A

## SM-GM01

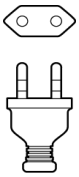
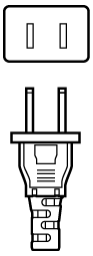
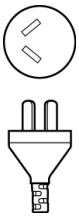


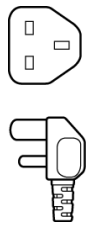
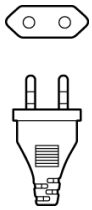
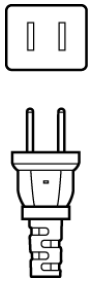
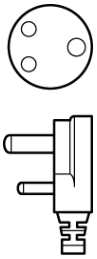
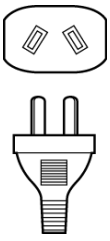
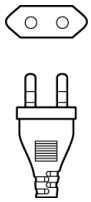
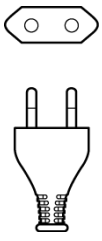

## SM-GM02



# Power supply cable

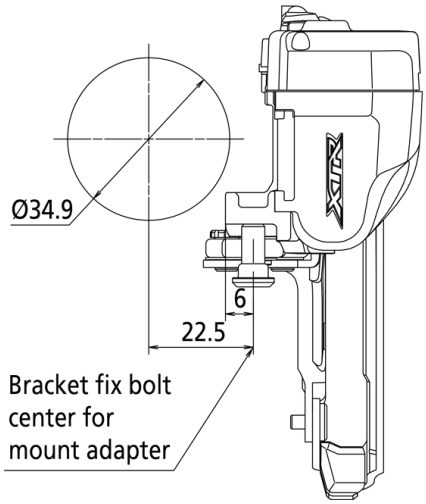


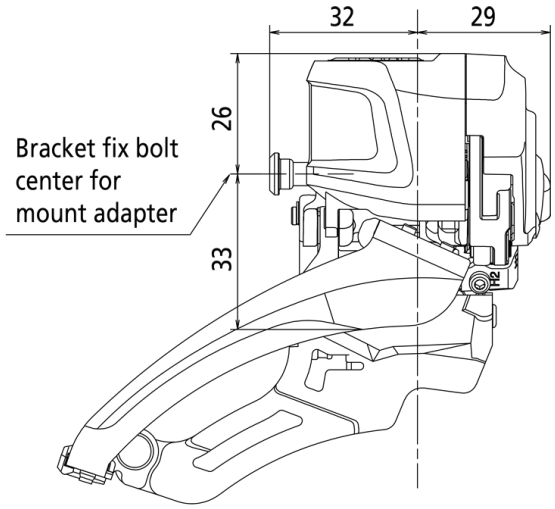
| Type No. | Model No. | Power supply outlet shape | Typical example country / Region | Rated power input (V) | Cable length (m) |
|---|---|---|---|---|---|
| 1 | SM-BCC1-1 |  | Europe | 220 | 1 |
| 2 | SM-BCC1-2 | | USA / Canada | 120 | 2 |
| 3 | SM-BCC1-3 |  | Japan | 100 | 1 |
| 4 | SM-BCC1-4 |  | Australia / New Zealand | 240 | 1 |
| 5 | SM-BCC1-5 | | China | 220 | 1 |

| Type No. | Model No. | Power supply outlet shape | Typical example country / Region | Rated power input (V) | Cable length (m) |
|---|---|---|---|---|---|
| 6 | SM-BCC1-6 |  | U.K | 240 | 1 |
| 7 | SM-BCC1-7 |  | Korean | 220 | 1 |
| 8 | SM-BCC1-8 |  | Taiwan | 110 | 1 |
| 9 | SM-BCC1-9 |  | South-Africa | 220 / 230 | 1 |
| 10 | SM-BCC1-10 |  | Argentina | 220 | 1 |
| 11 | SM-BCC1-11 |  | Israel | 230 | 1 |
| 12 | SM-BCC1-12 |  | Brazil | 127 / 220 | 1 |

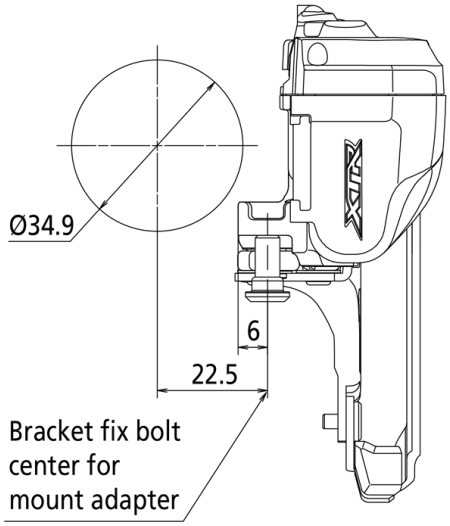
## Front derailleur C-350

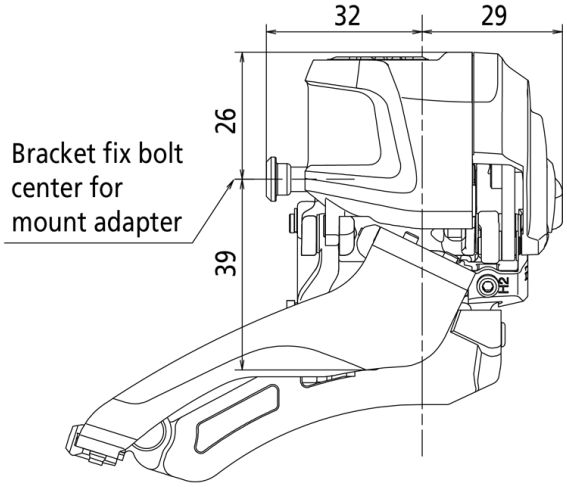
### FD-M9050



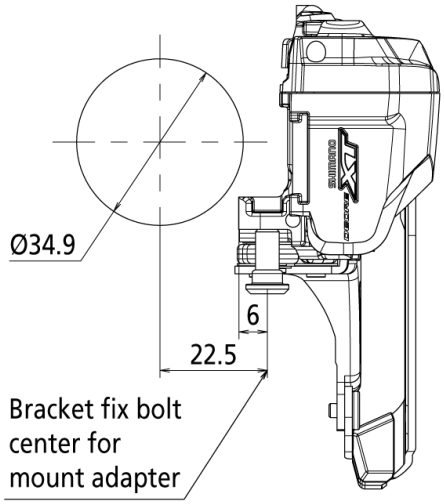



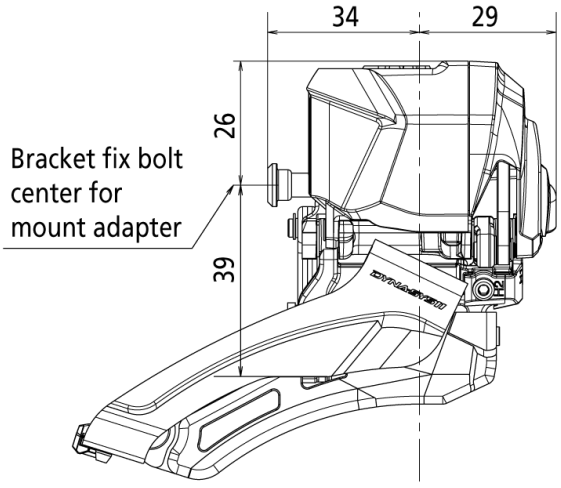

### FD-M9070



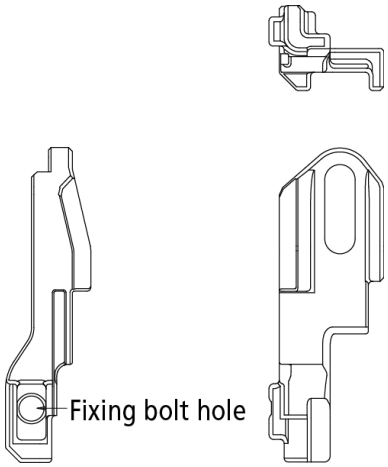

### FD-M8070



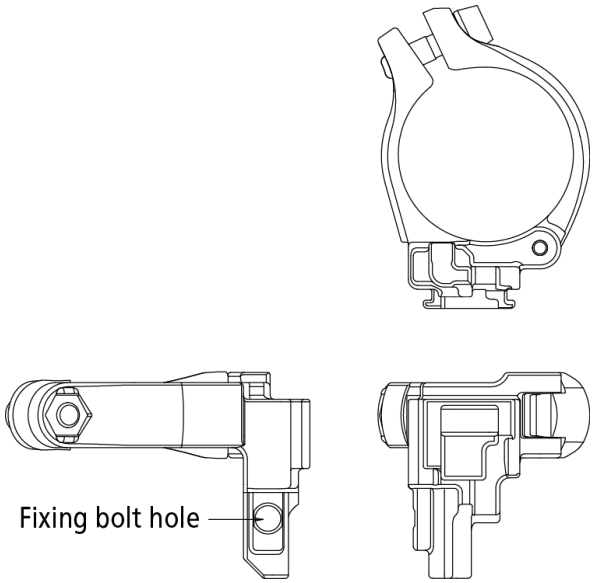
# Mount adapter for front derailleur C-351

**SM-FD905-D**



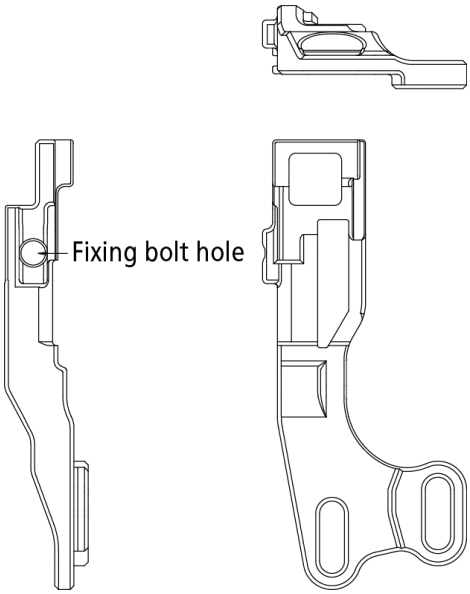

**SM-FD905-H**

High-clamp



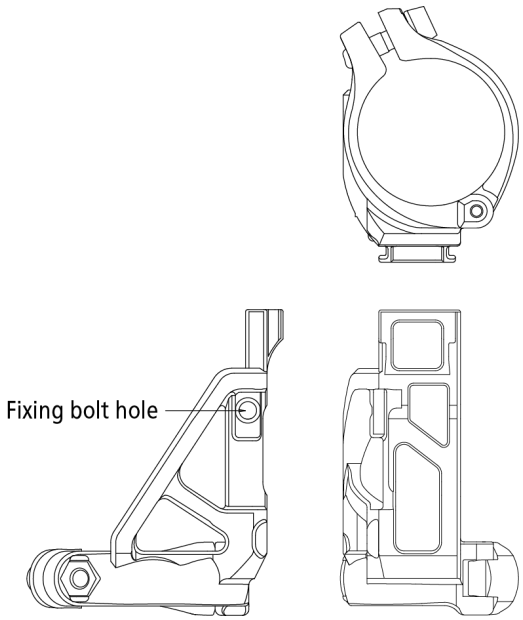

**SM-FD905-E**

E-type

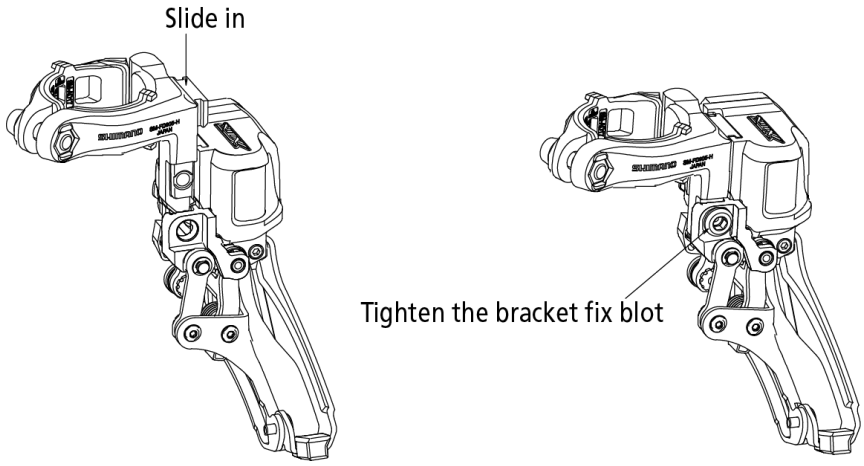


**SM-FD905-L**

Low-clamp



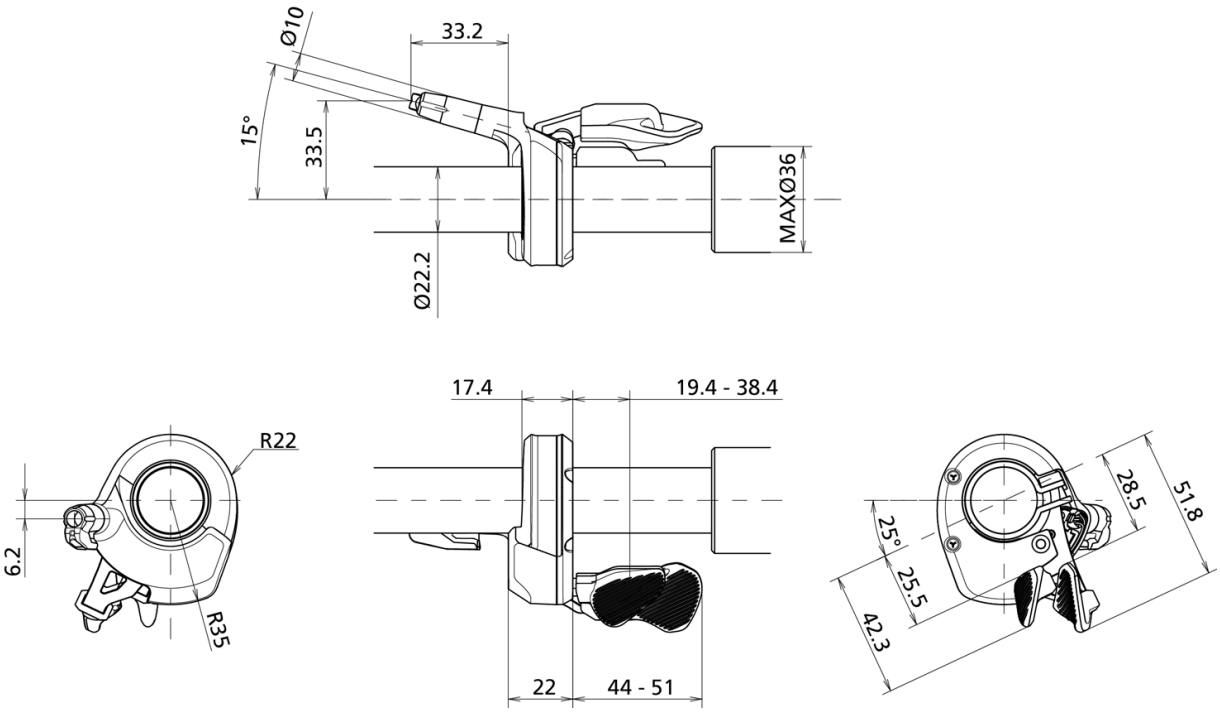

## How to assemble adapter C-352



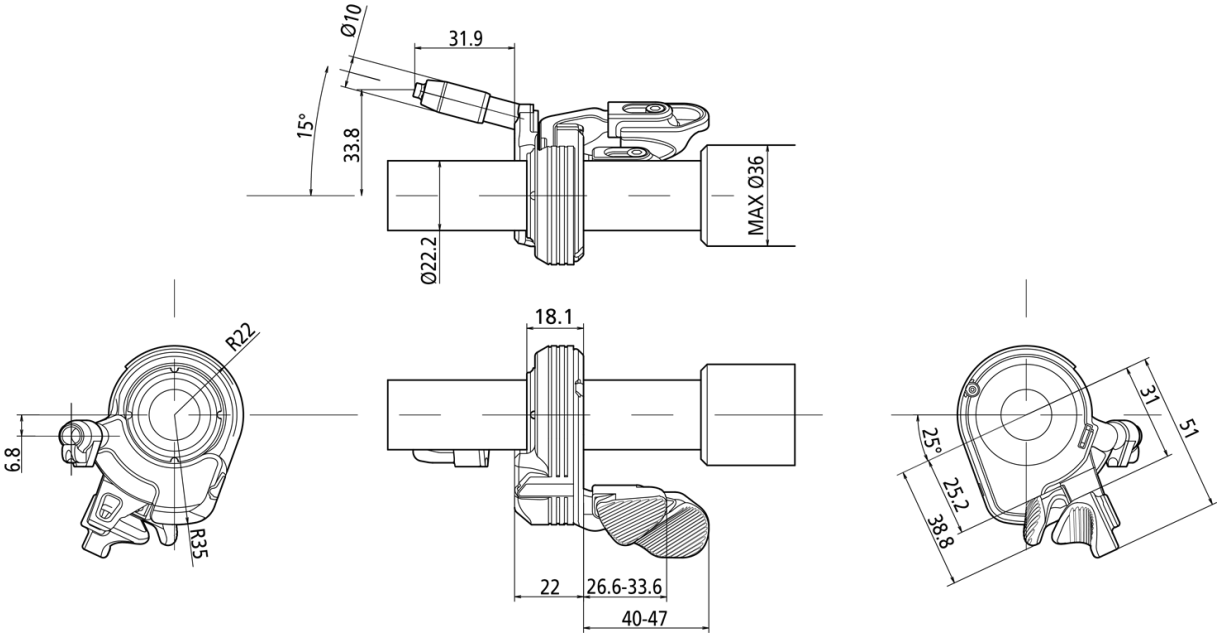
# Shifting switch

## Dimensions C-354

### SW-M8050-R



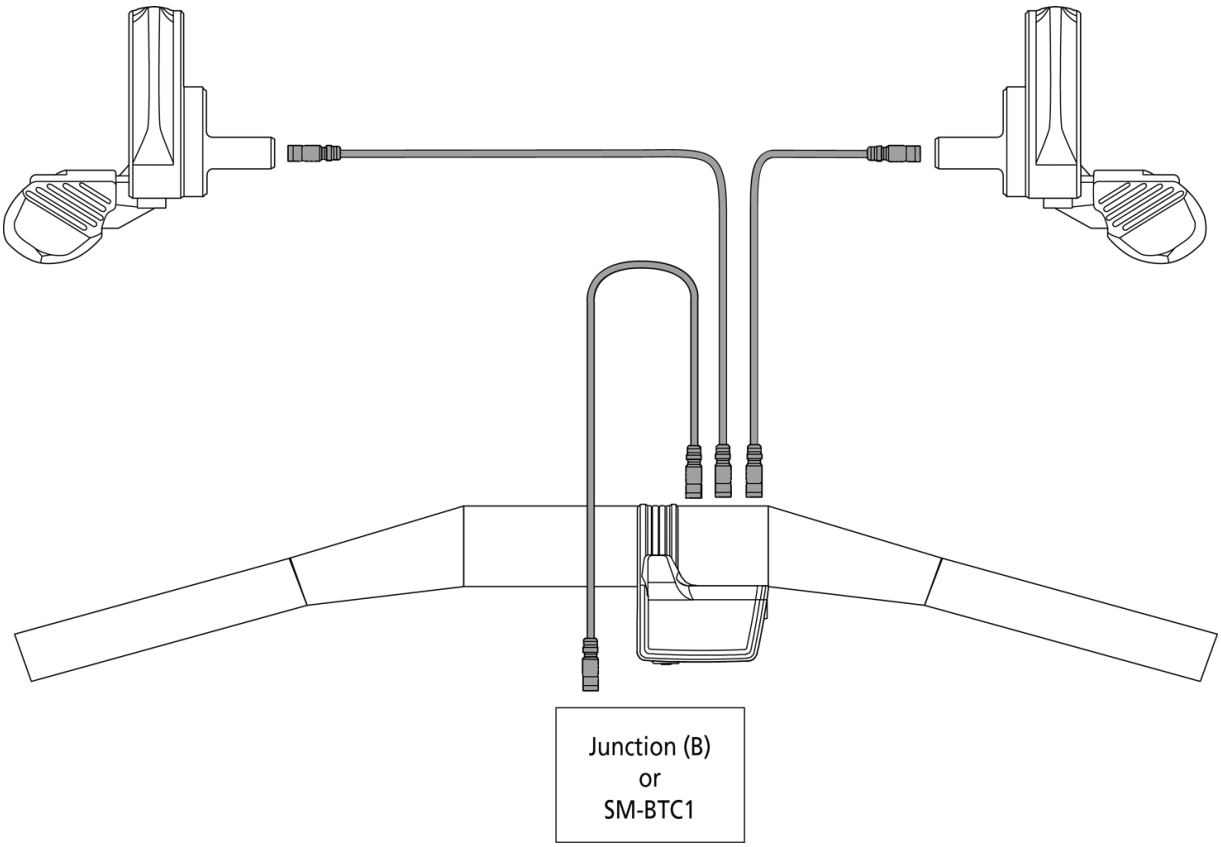

### SW-M9050-R



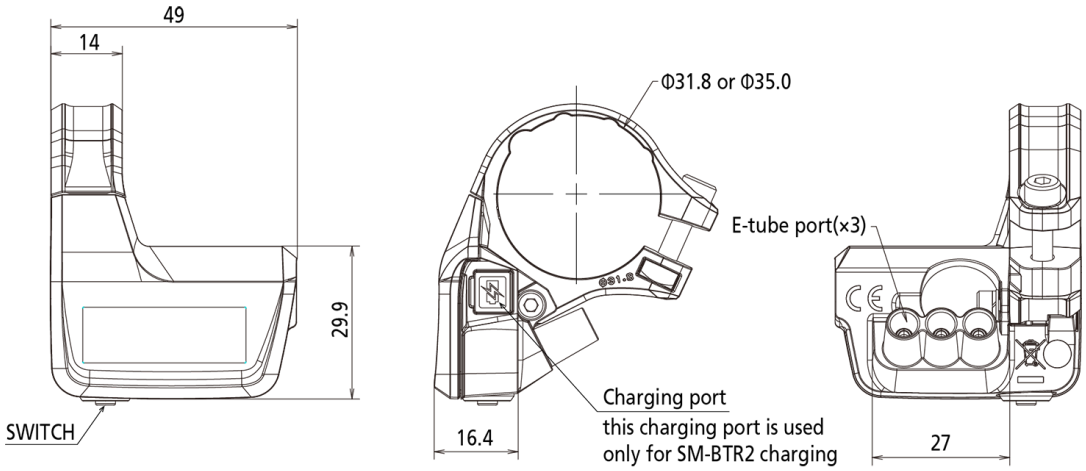
# System Information display

**SC-M9051 / SC-MT800**

## Wire routing




## Dimensions

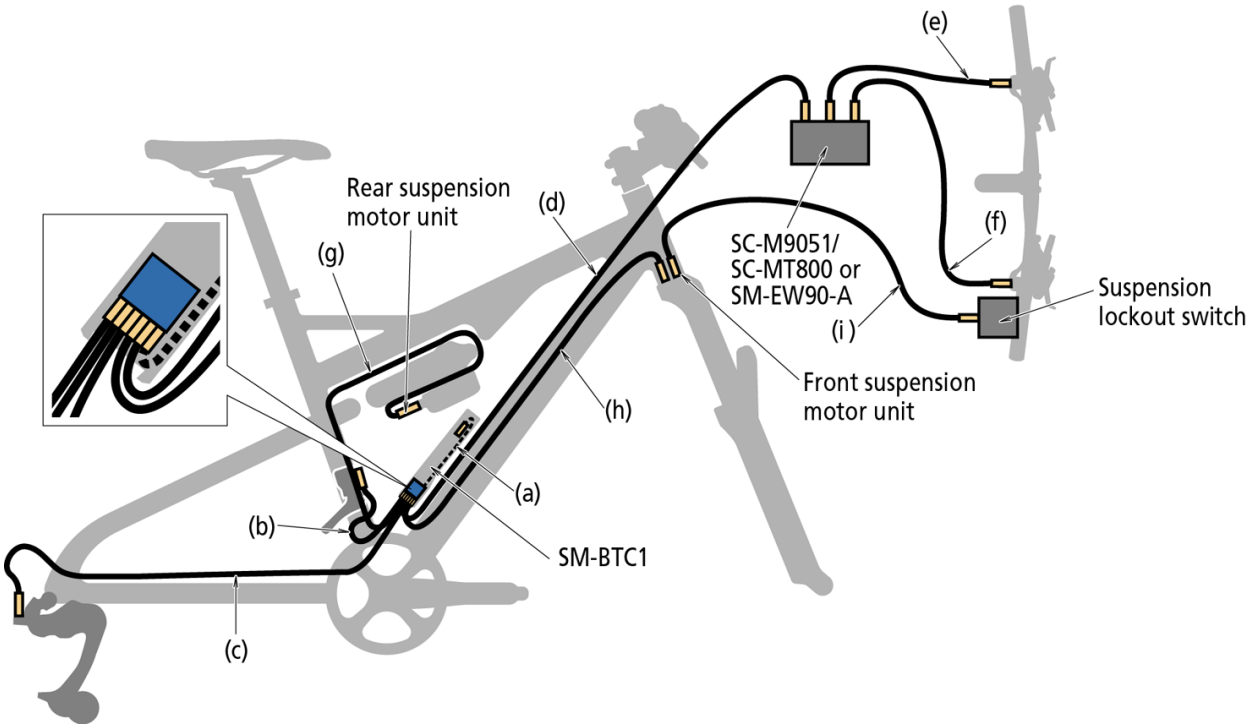



* different size of clamp band are available

# Electric wire routing

## External type

### External type 1 (With suspension)

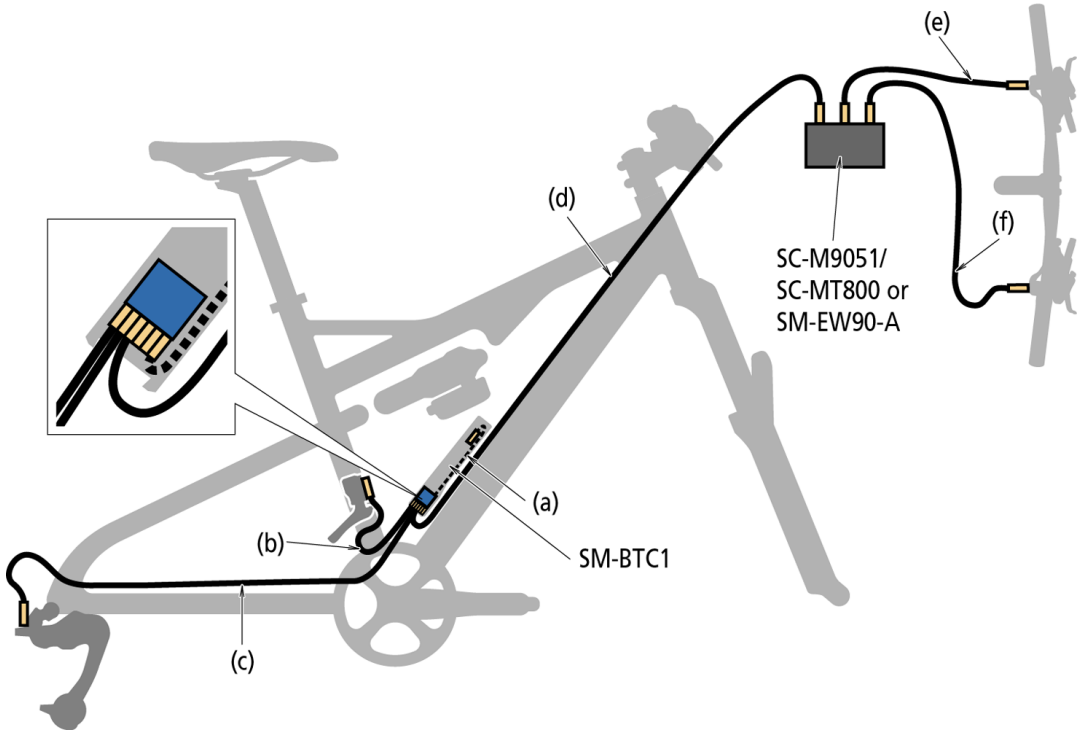



Each cable's maximum length

a) =270mm
b) ≤ 300mm
c) ≤ 1000mm
d) ≤ 1200mm
e) ≤ 300mm
f) ≤ 300mm
g) ≤ 1000mm
h) ≤ 1000mm
i) ≤ 600mm

## External type 2 (Without suspension)

- Can be installed with SM-EW90-A when suspension is not used.
  SM-EW90-B is required when suspension is used.

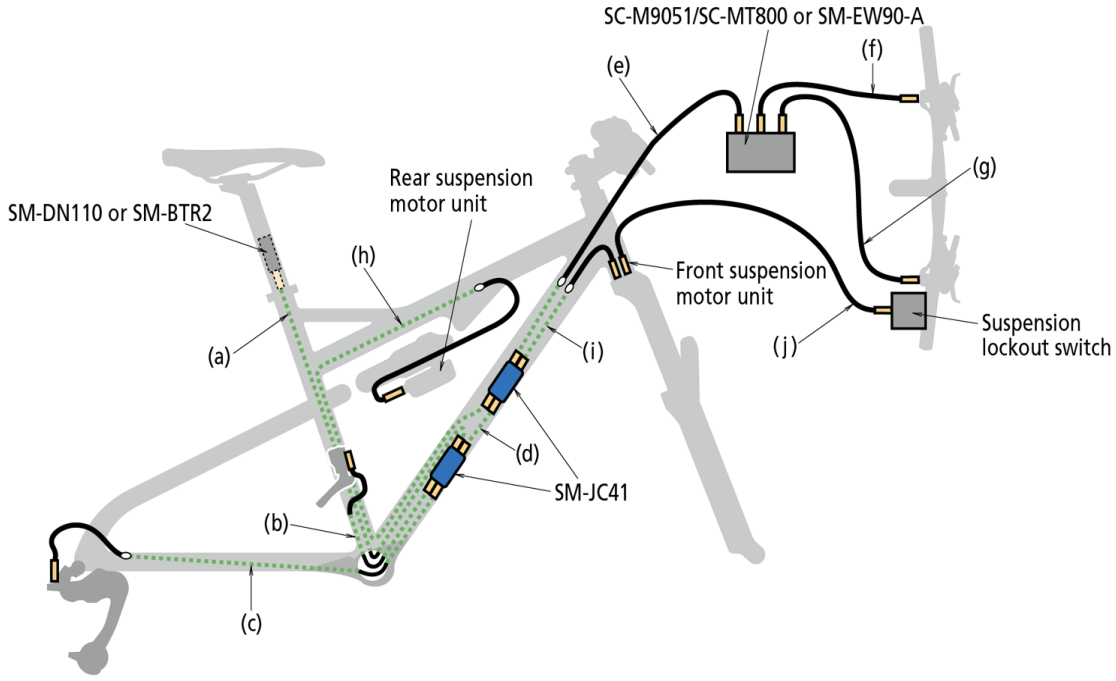



Each cable's maximum length
a) =270mm
b) ≤ 300mm
c) ≤ 1000mm
d) ≤ 1200mm
e) ≤ 300mm
f) ≤ 300mm

## Built-in type

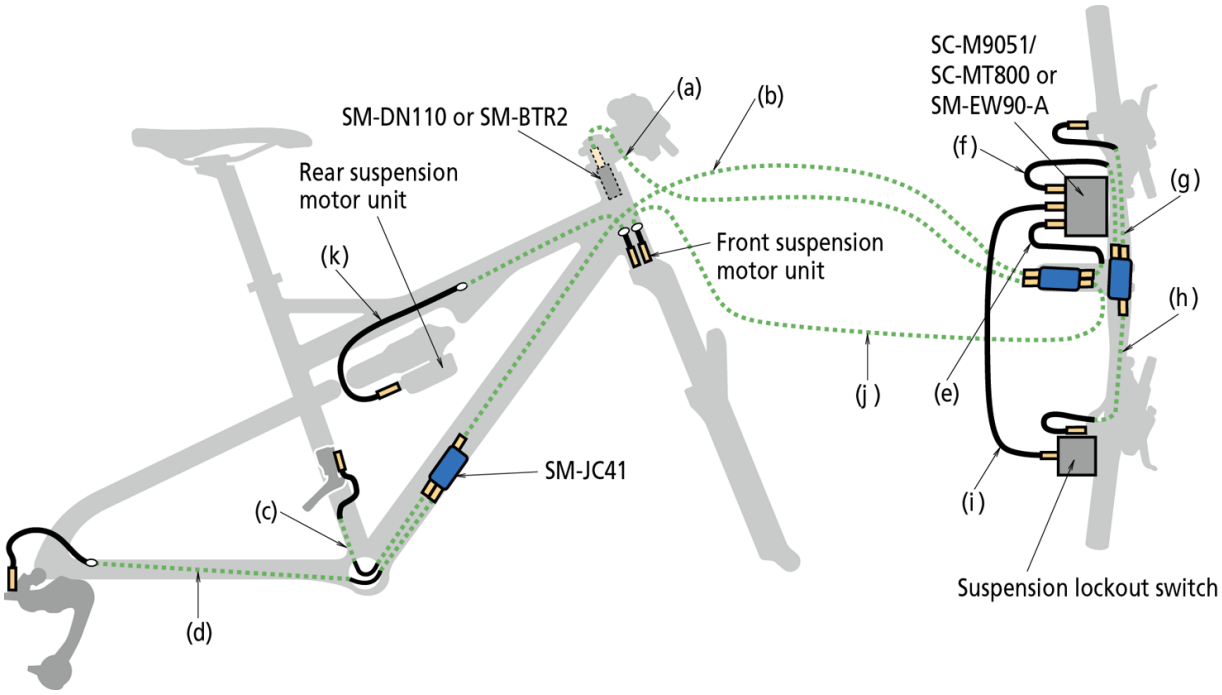
### Built-in type 1 (Battery: seat post)

- Can be installed with SM-EW90-A when suspension is not used.
  SM-EW90-B is required when suspension is used.




Each cable's maximum length
a) ≤ 1000mm
b) ≤ 500mm
c) ≤ 800mm
d) ≤ 150mm
e) ≤ 1200mm
f) ≤ 250mm
g) ≤ 250mm
h) ≤ 1500mm
i) ≤ 1000mm
j) ≤ 600mm

## Built-in type 2 (Battery: head tube)



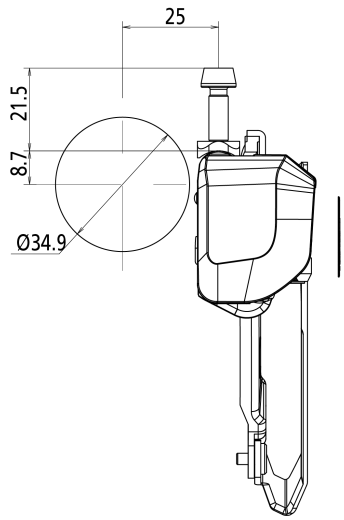

Each cable's maximum length

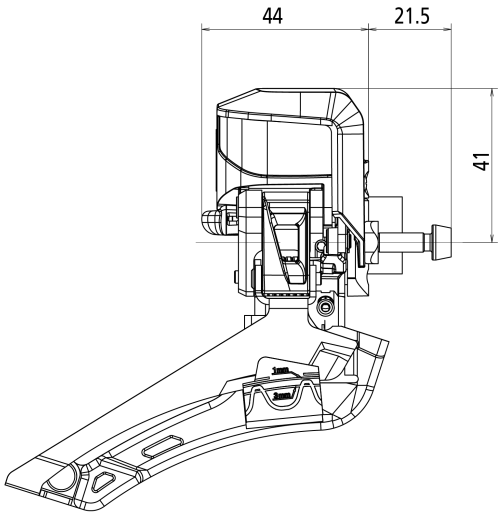
a) ≤ 150mm
b) ≤ 1400mm
c) ≤ 500mm
d) ≤ 800mm
e) ≤ 150mm
f) ≤ 400mm
g) ≤ 750mm
h) ≤ 250mm
i) ≤ 150mm
j) ≤ 600mm
k) ≤ 800mm

# Front derailleur C-358

## Dimensions C-359

### FD-R9150-F / FD-R9050-F + SM-AD91 / FD-R8050-F / FD-R8050-F + SM-AD91



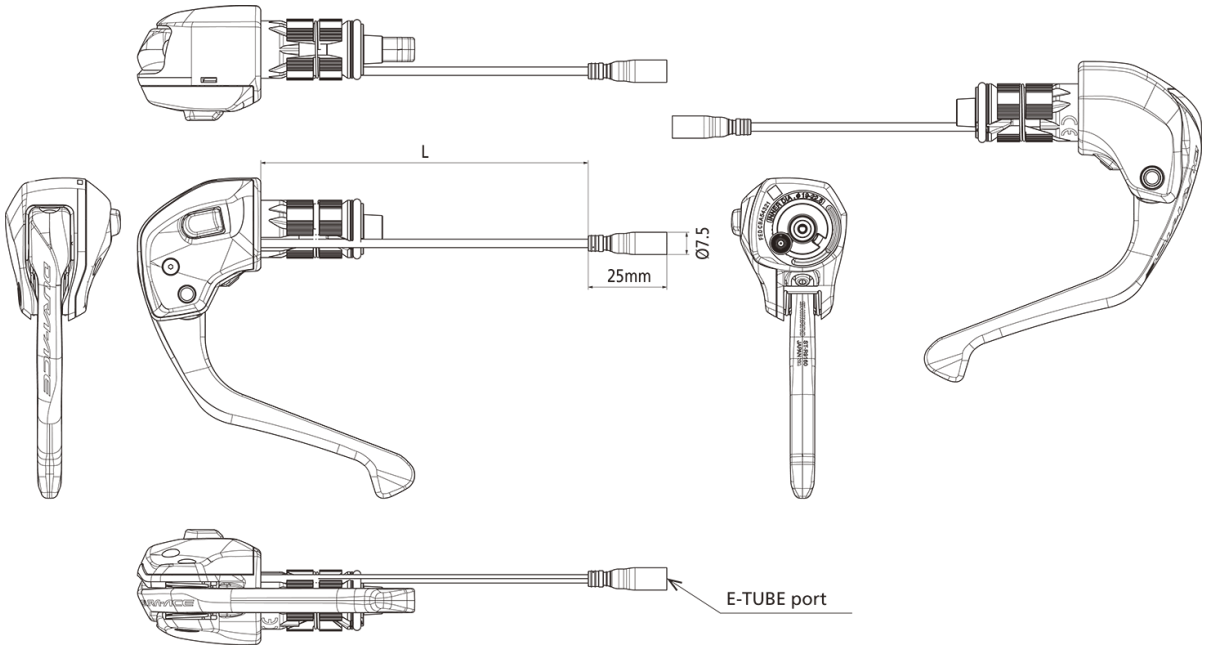



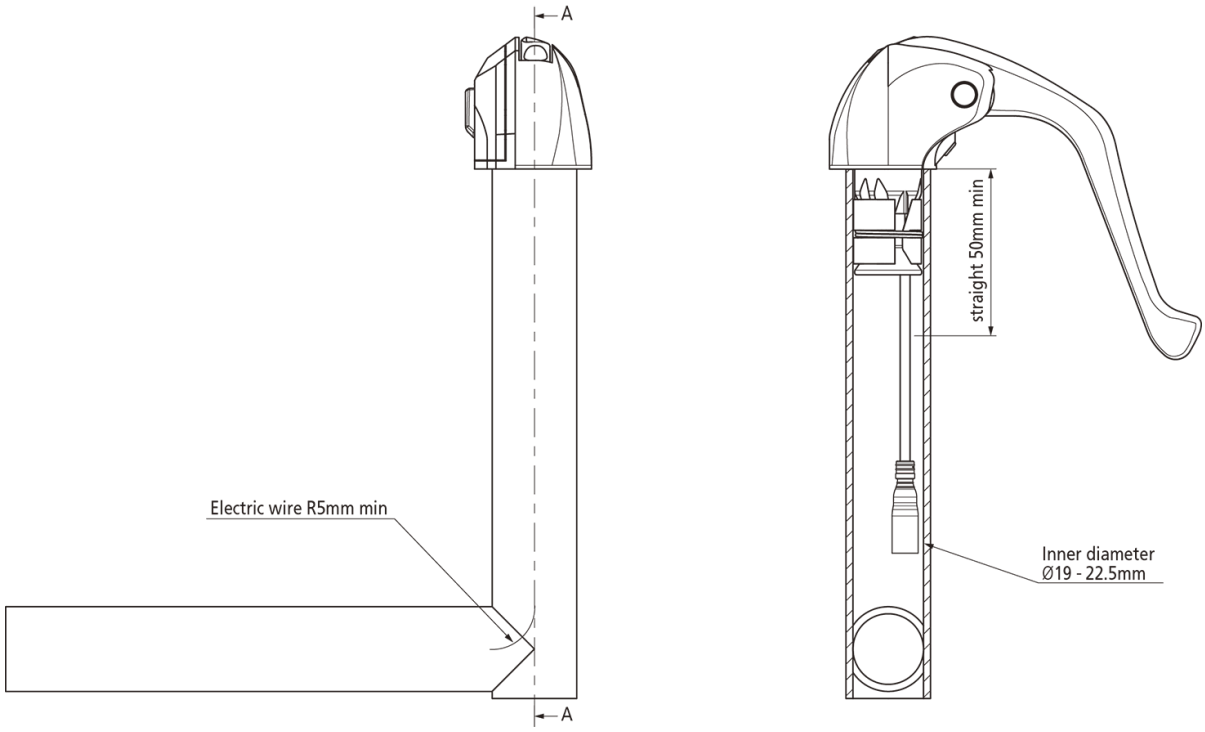

### FD-U5050-F / FD-U5050-F + SM-AD91

TBD

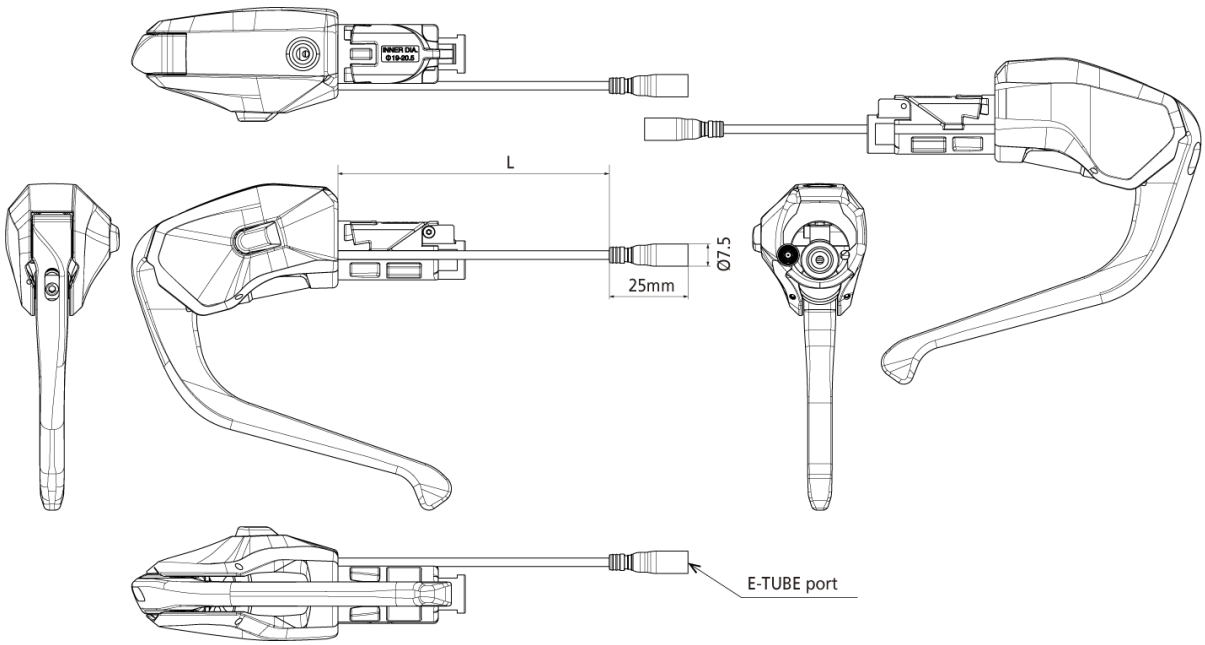
# Shifting lever

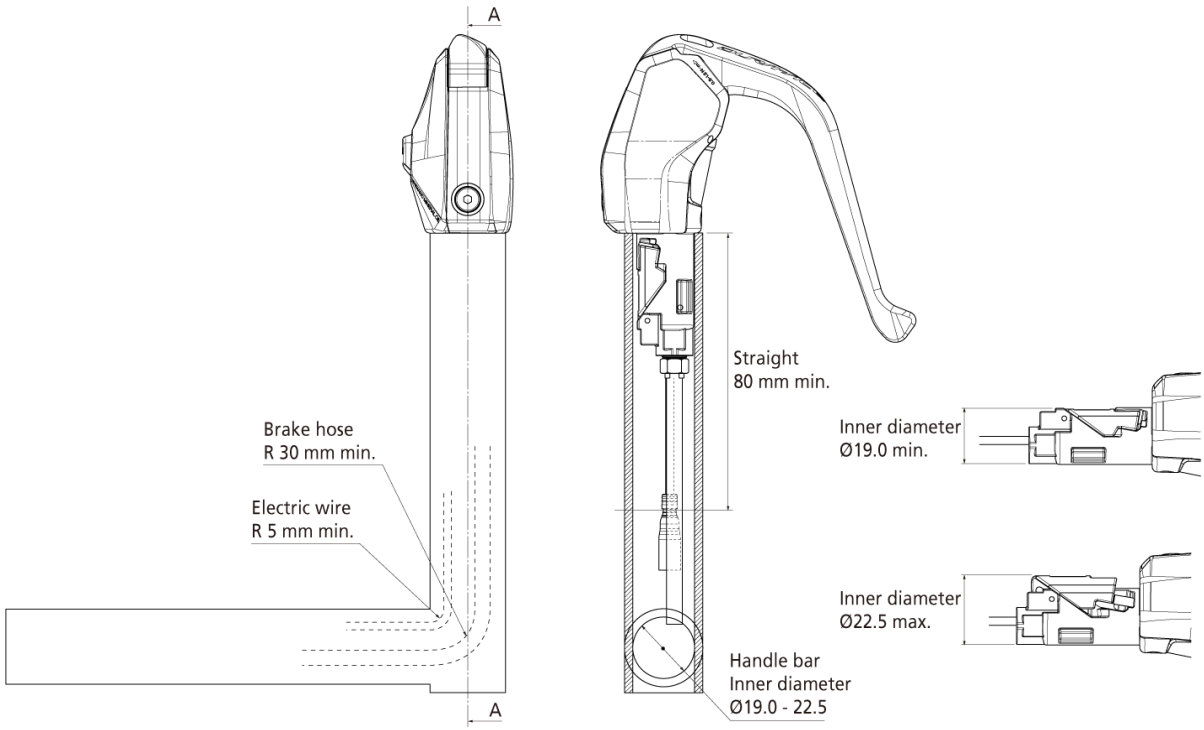
## ST-R9160 / ST-R8060



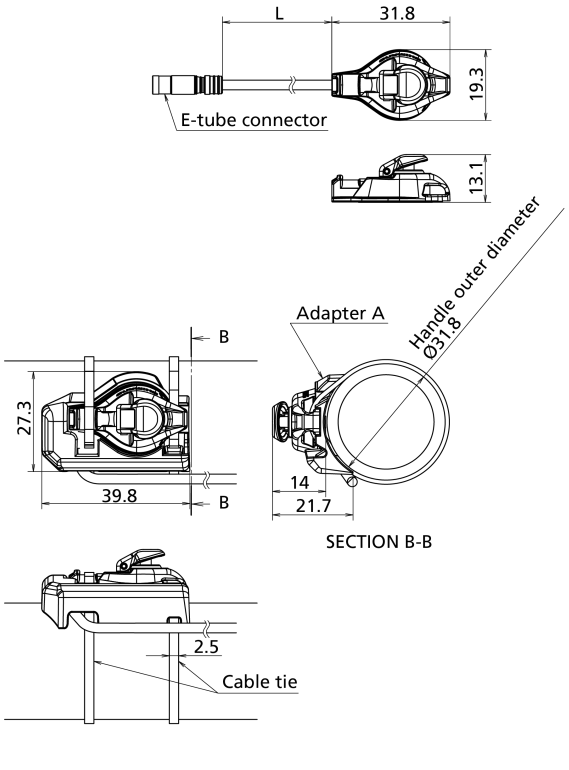
**ST-R9180**


L
25mm
Ø7.5
E-TUBE port

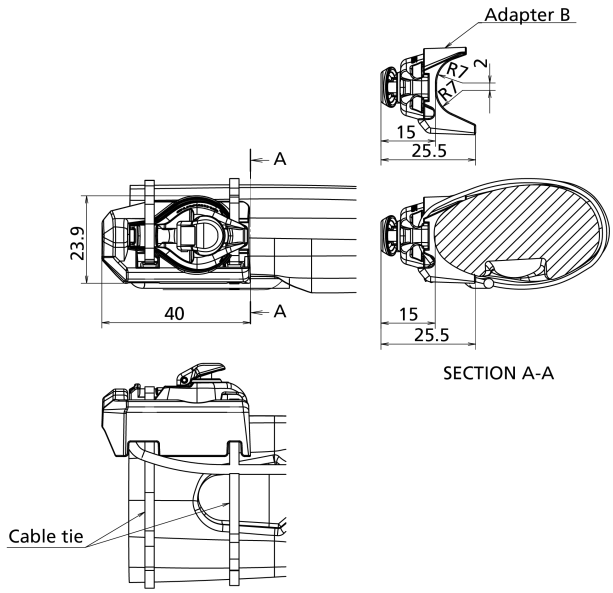

A
Brake hose
R 30 mm min.
Electric wire
R 5 mm min.
A
Straight
80 mm min.
Handle bar
Inner diameter
Ø19.0 - 22.5
Inner diameter
Ø19.0 min.
Inner diameter
Ø22.5 max.

## Dimensions C-361

### SW-R9150 (SATELLITE SHIFTER, 1 BUTTON)

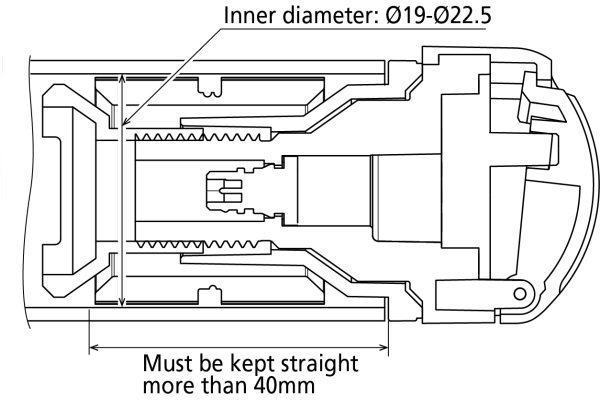



Round type handlebar

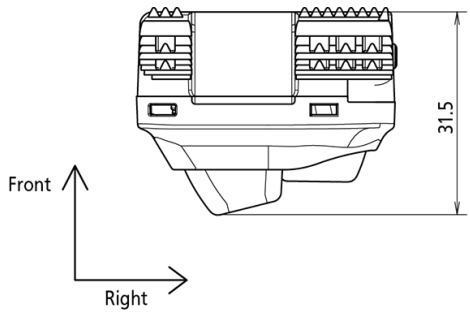


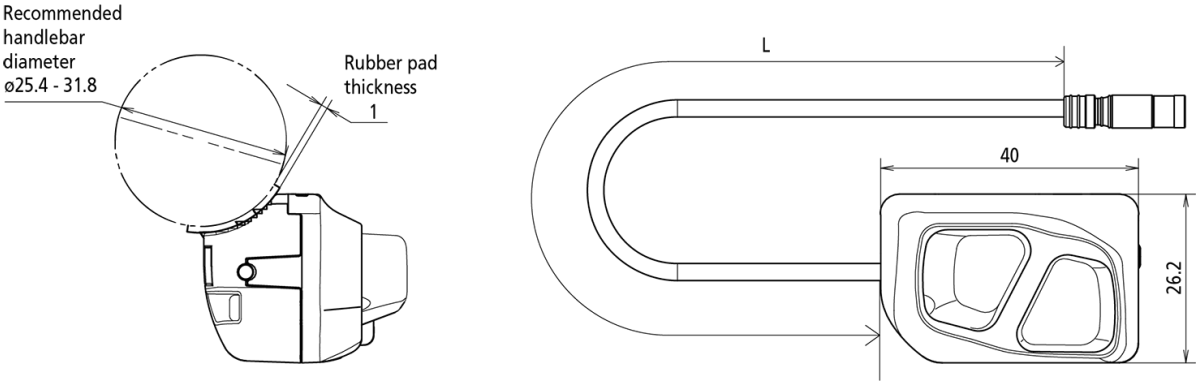

Aero type handlebar

### SW-R9160 (FOR TT/TRI, 1 BUTTON)

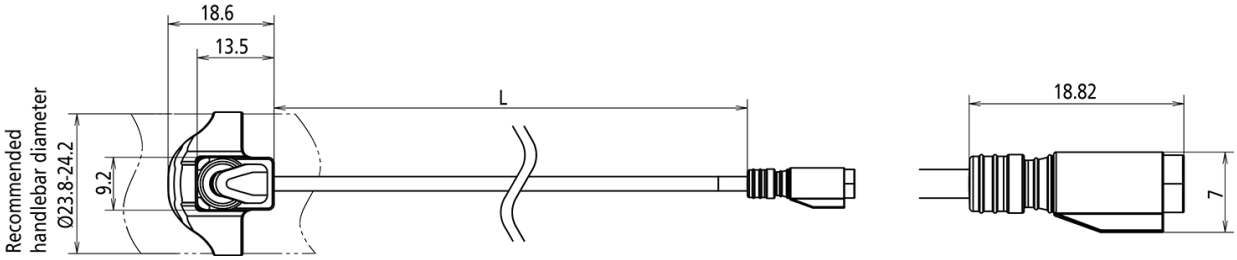


## SW-R600



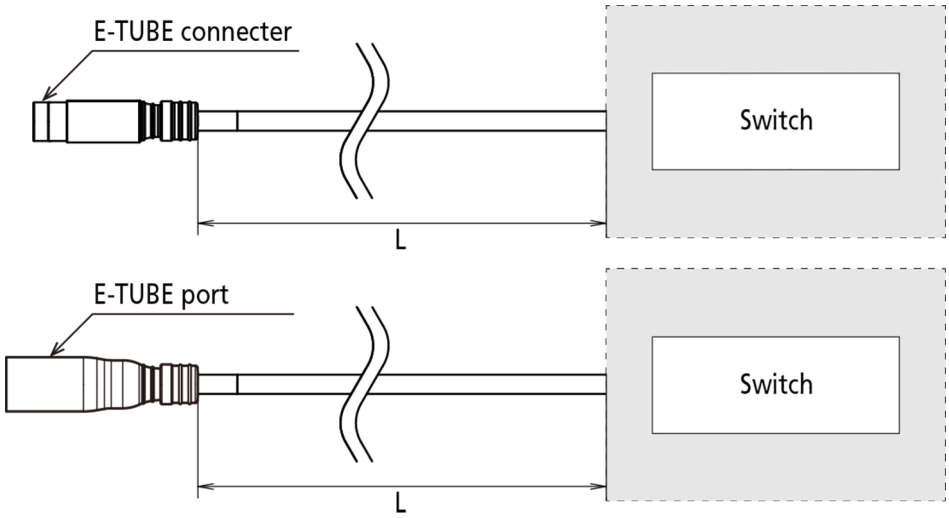




## SW-R610



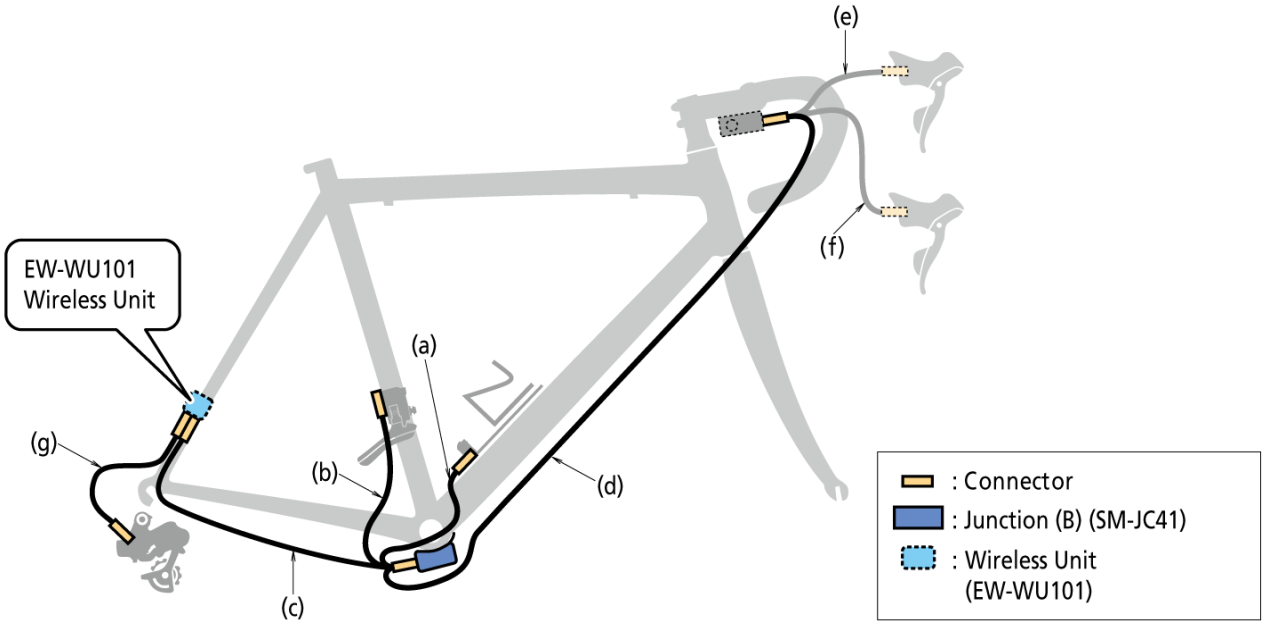
# E-TUBE cable length





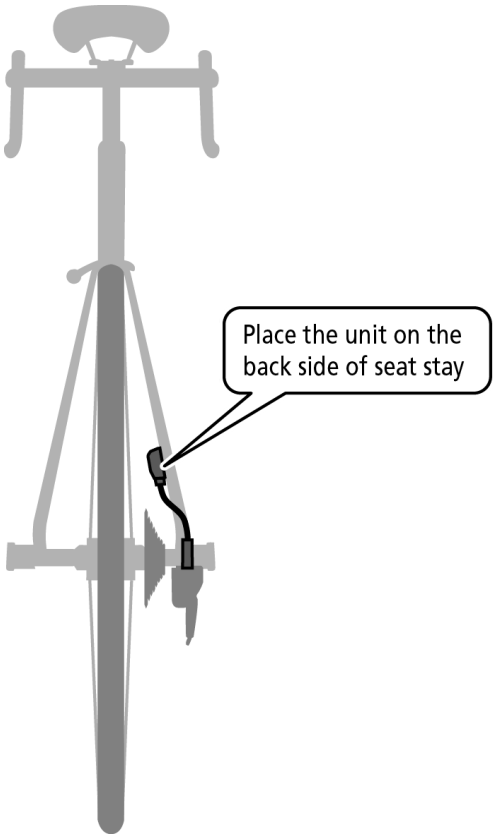

| Model No. | E-TUBE cable length L (mm) | E-TUBE connecter | E-TUBE port |
|---|---|---|---|
| ST-R9160<br>ST-R8060 | 105 | - | X |
| ST-R9180 | 85 | - | X |
| ST-6871 | 470 | X | - |
| SW-R671 | 620 | X | - |
| SW-R9150<br>SW-R600 | 261 | X | - |
| SW-R610 | 130 | X | - |
| SW-S705 | 165 | X | - |
| SW-U5050 | TBD | X | - |

## EW-WU101



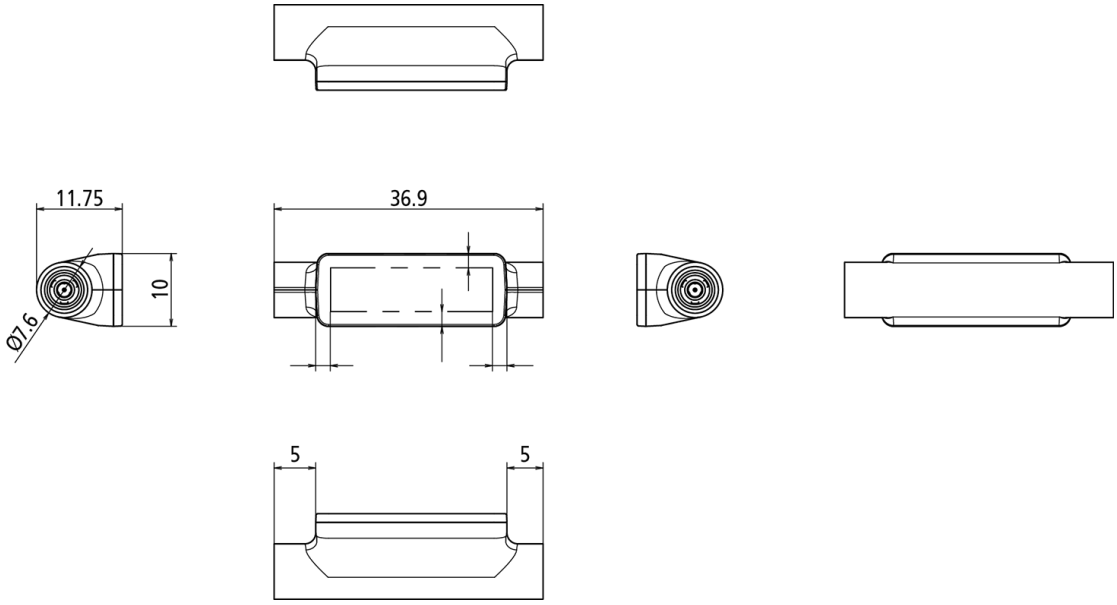

Each cable's maximum length

a)+ b) ≤ 900mm
a)+ c)+g) ≤ 1200mm
d) ≤ 1400mm
e),f) ≤ 500mm

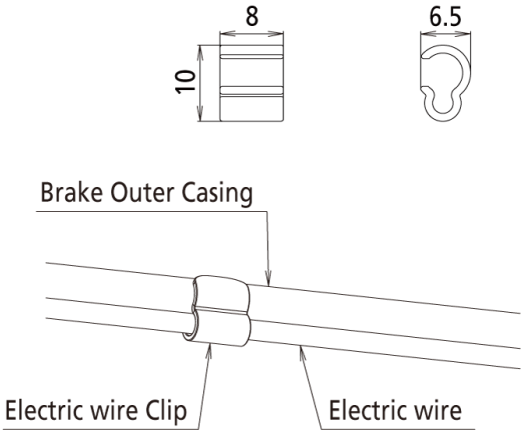


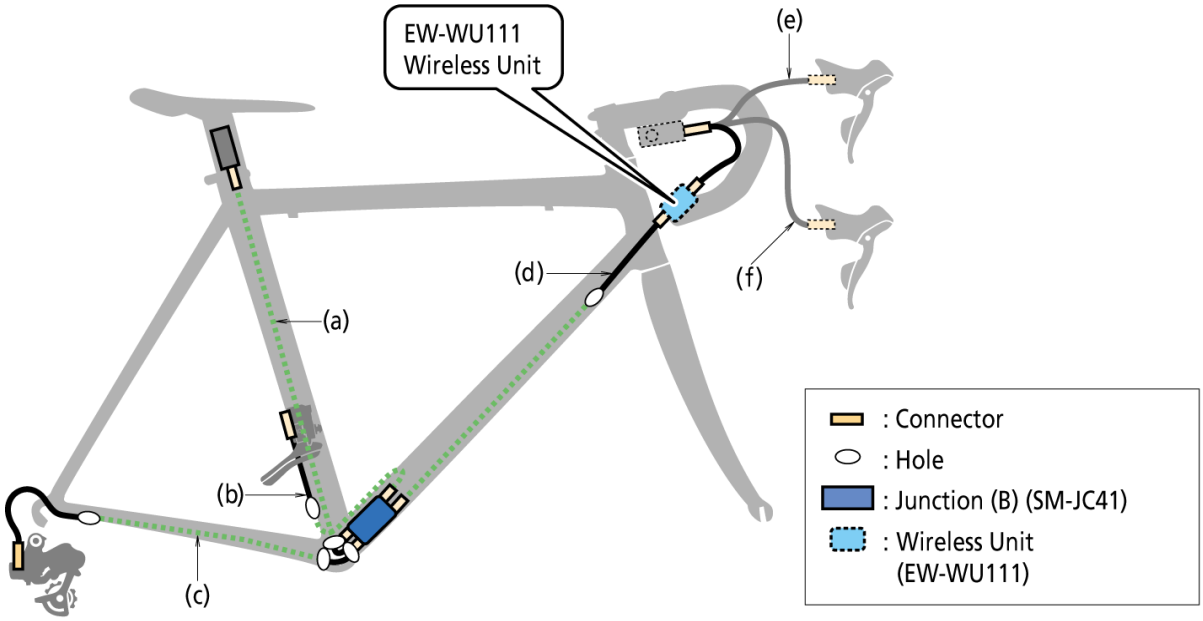
**EW-WU111**

## Dimensions




## Electric wire Clip



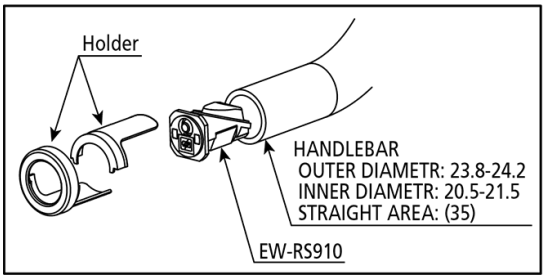


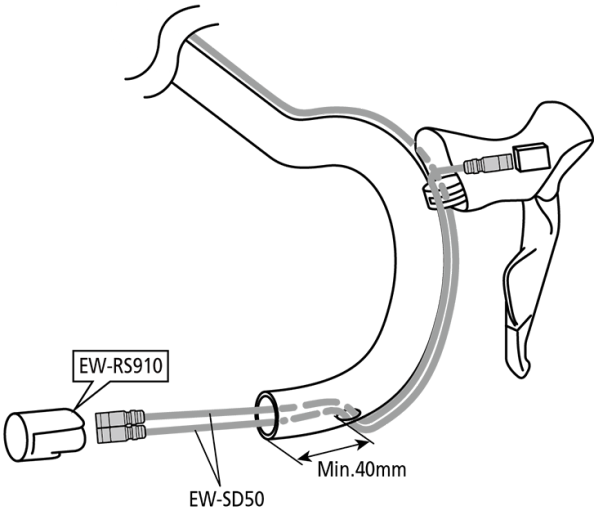

Each cable's maximum length

a)+ b) ≤ 1500mm
a)+ c) ≤ 1700mm
d) ≤ 1400mm
e)f) ≤ 500mm

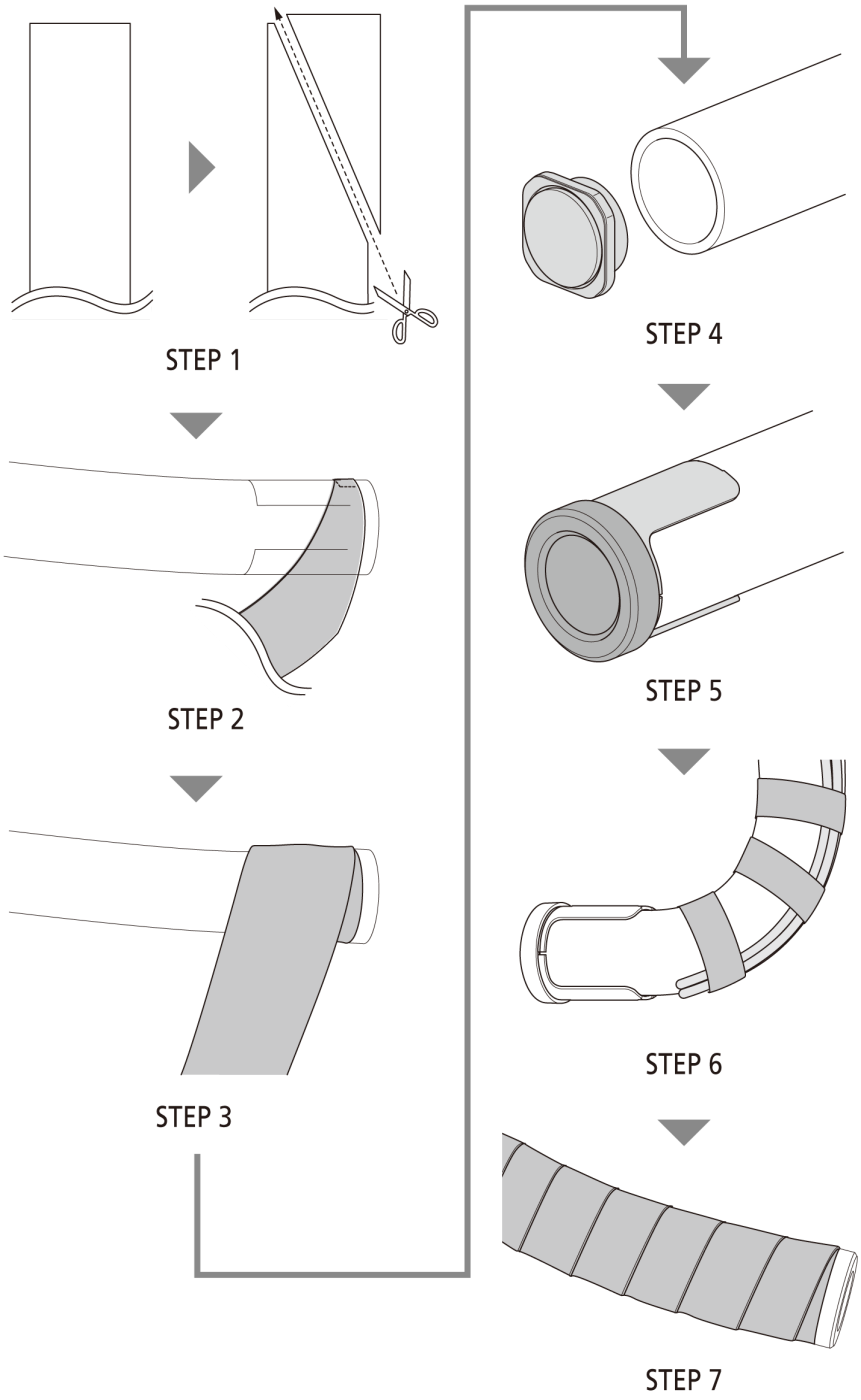
## EW-RS910

### Build-in bar end type



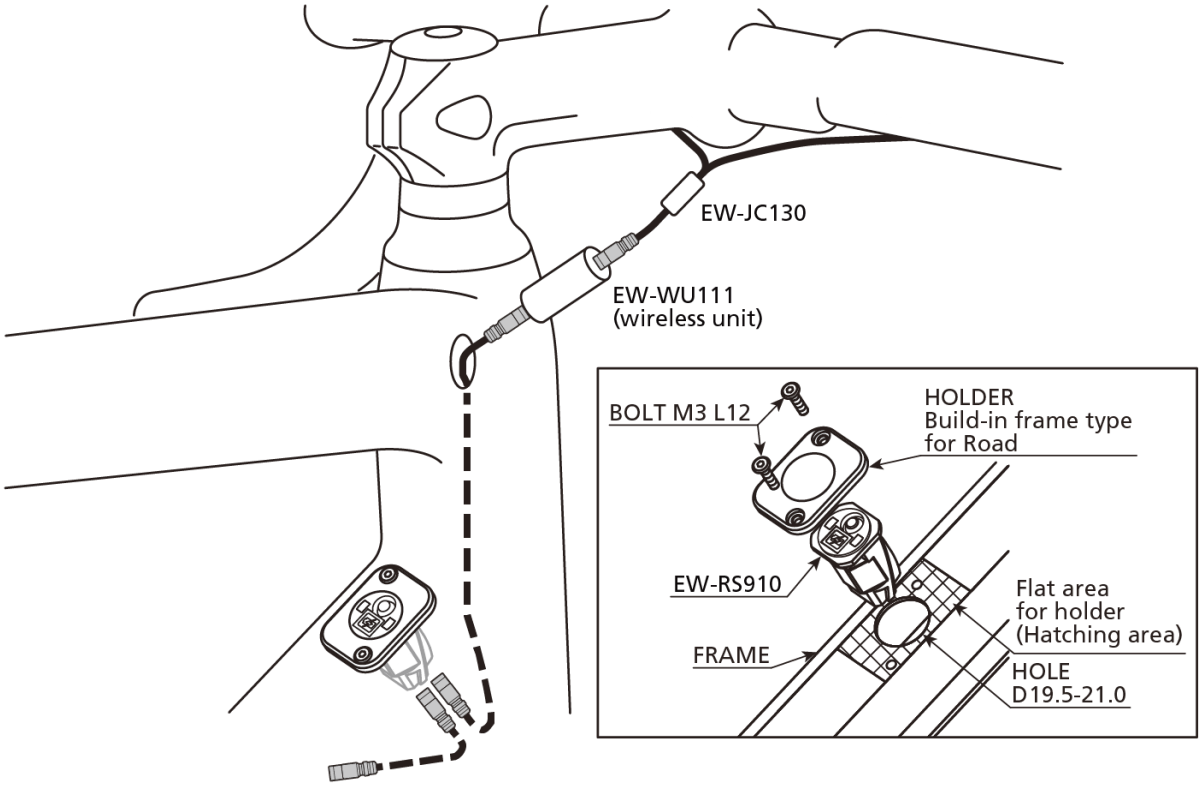



**Winding of bar tape**



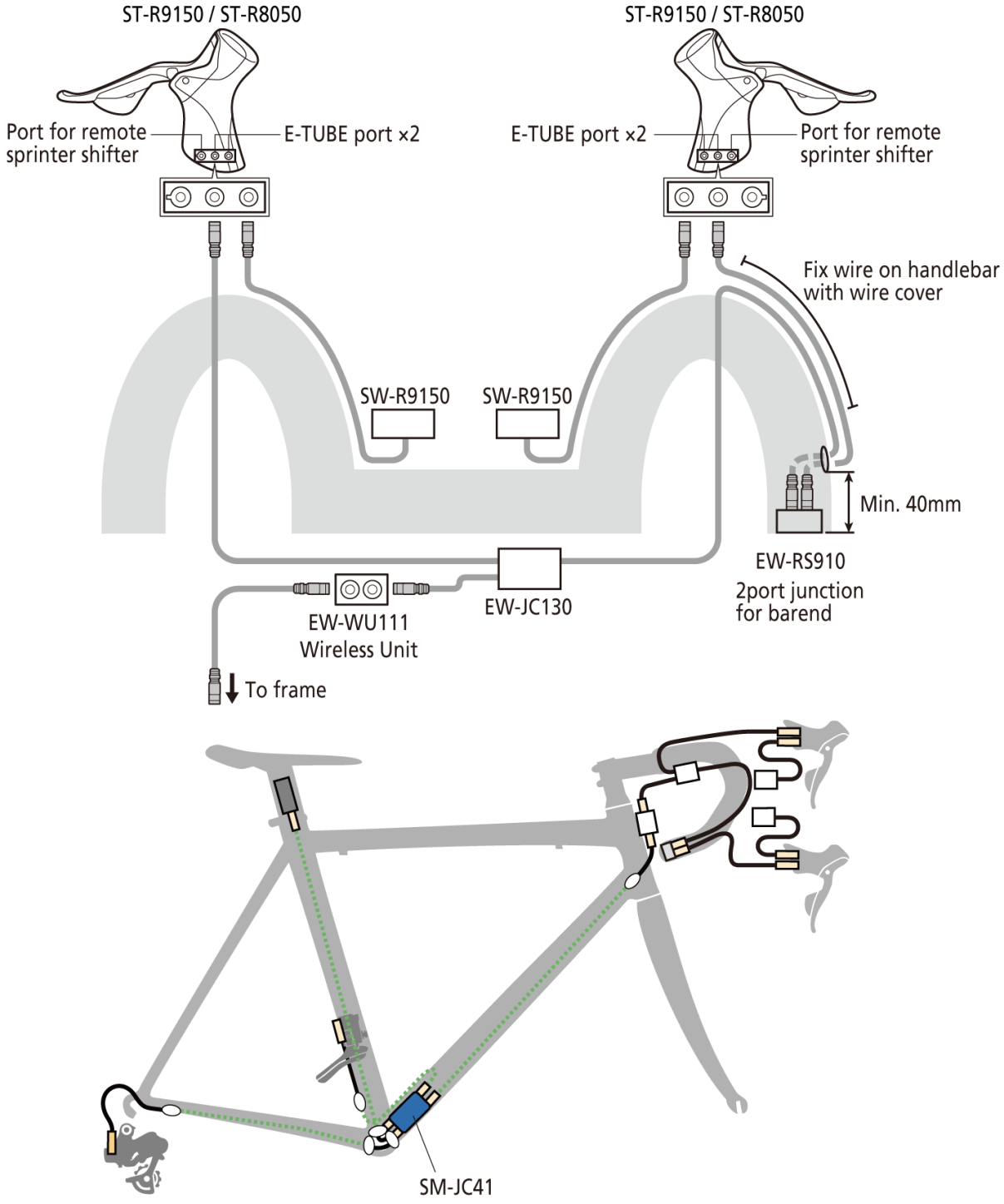
**EW-RS910**

## Build-in frame type



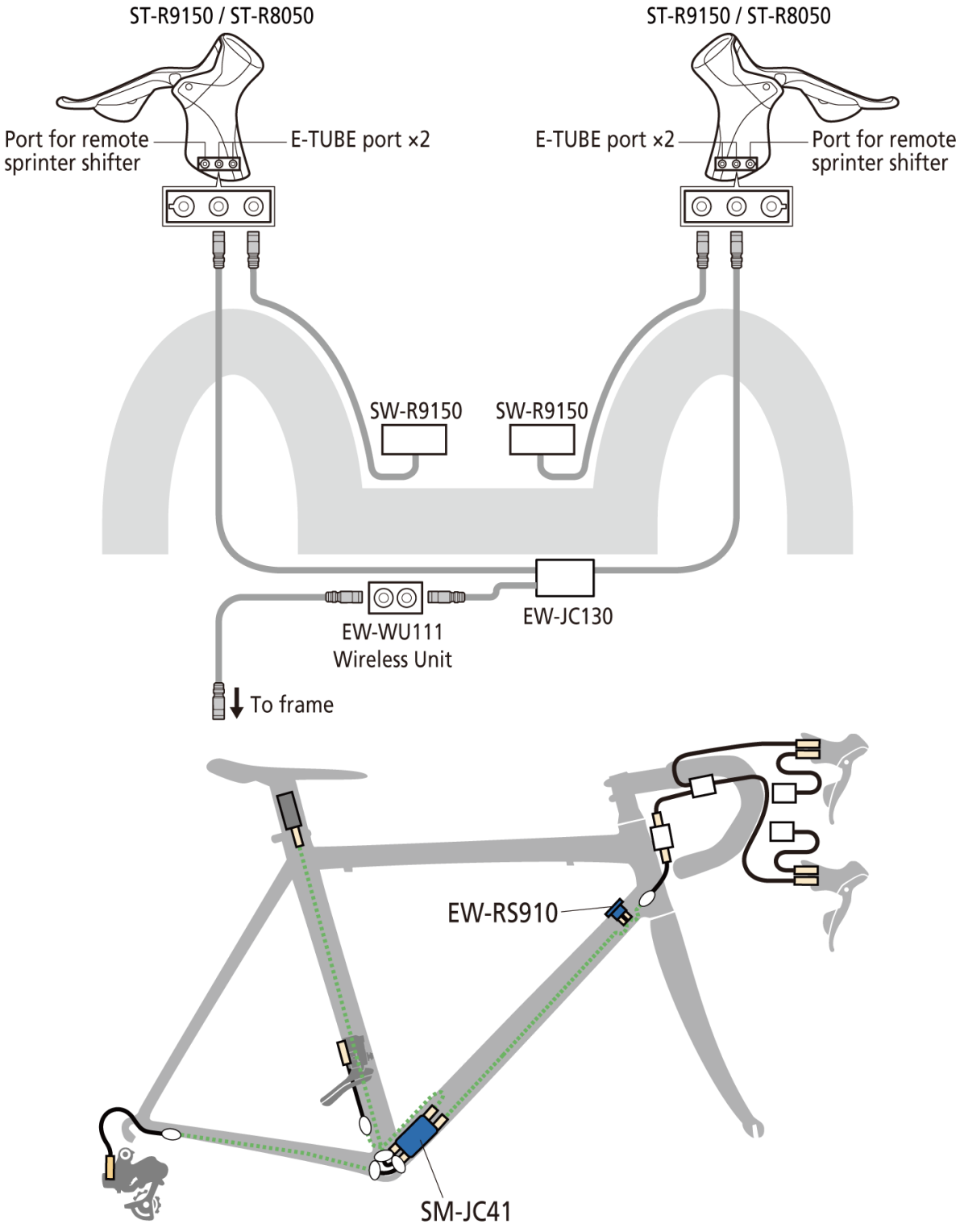
**EW-RS910 (build-in type)**
**For ROAD (Drop handle)**

## Build-in handlebar type



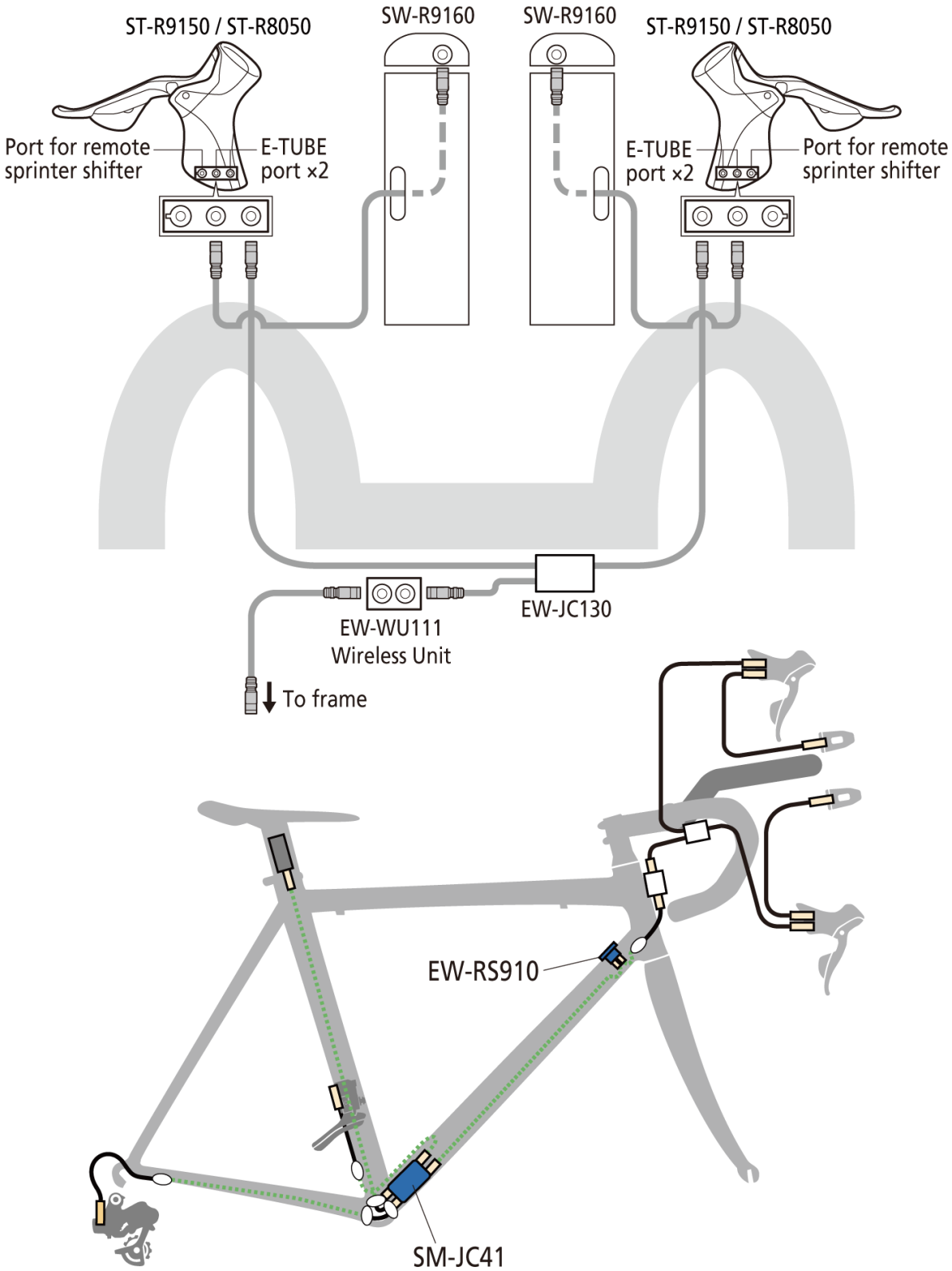
**EW-RS910 (build-in type)**
**For ROAD (Drop handle)**

## Build-in frame type



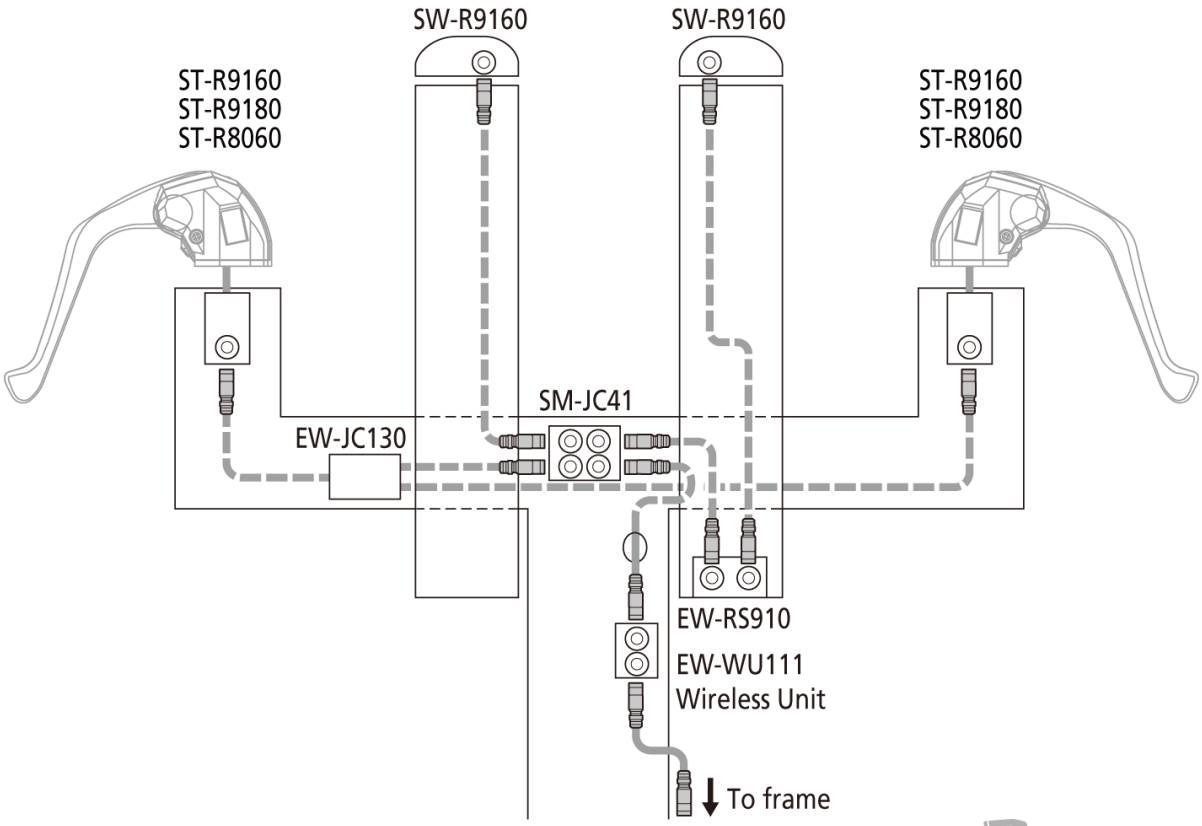
**EW-RS910 (build-in type)**
**For ROAD (Drop handle)**

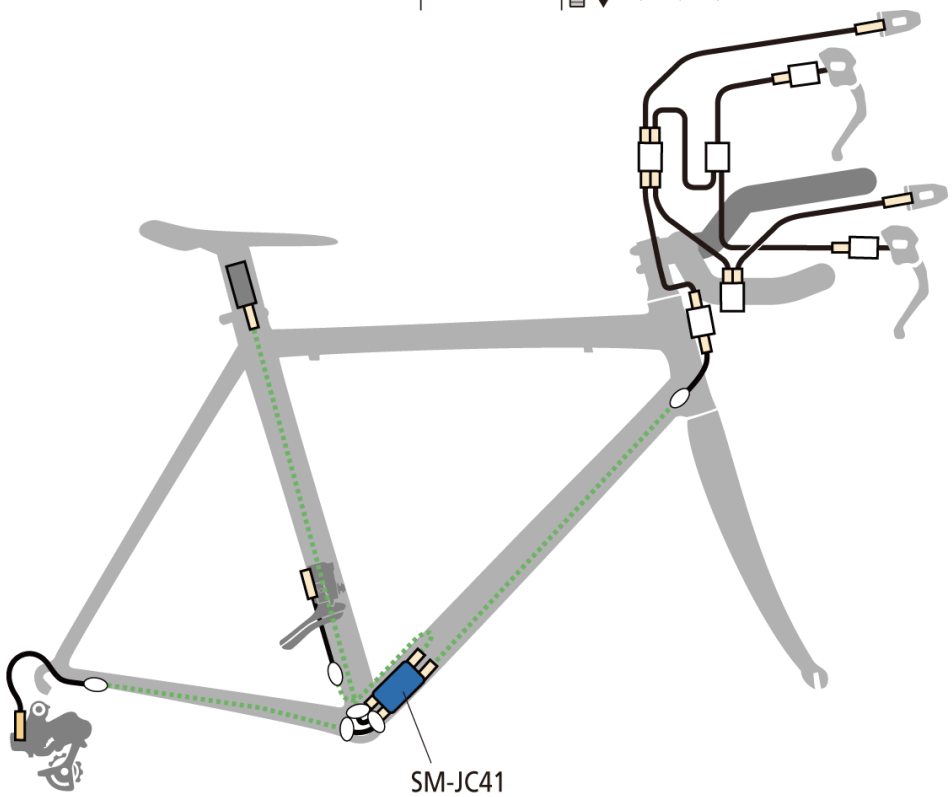
## Extension bar type



**EW-RS910 (build-in type)**
**For TT/TRIATHLON**

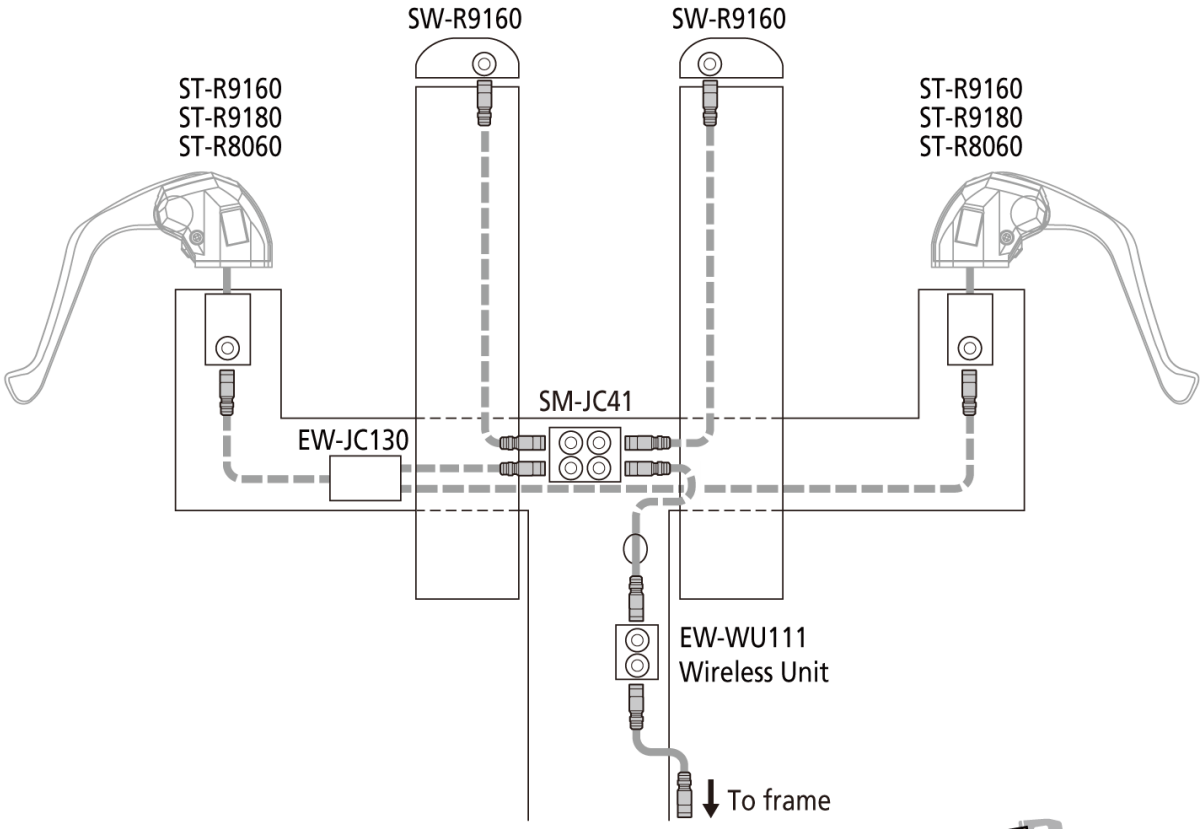
## Build-in handlebar type

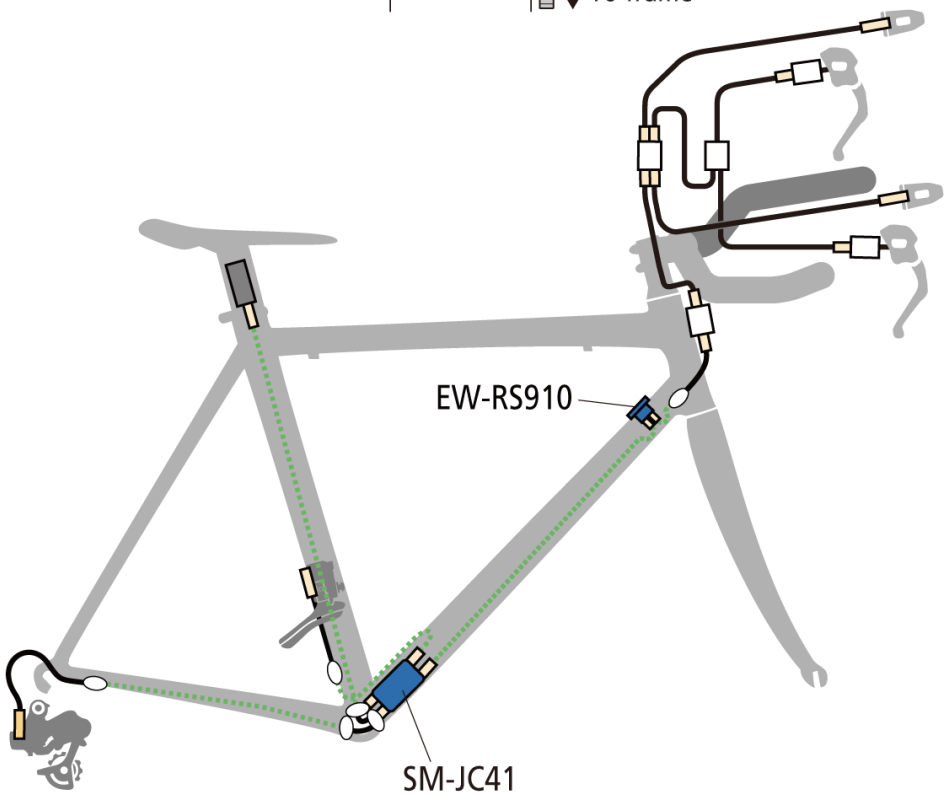


**EW-RS910 (build-in type)**
**For TT/TRIATHLON**

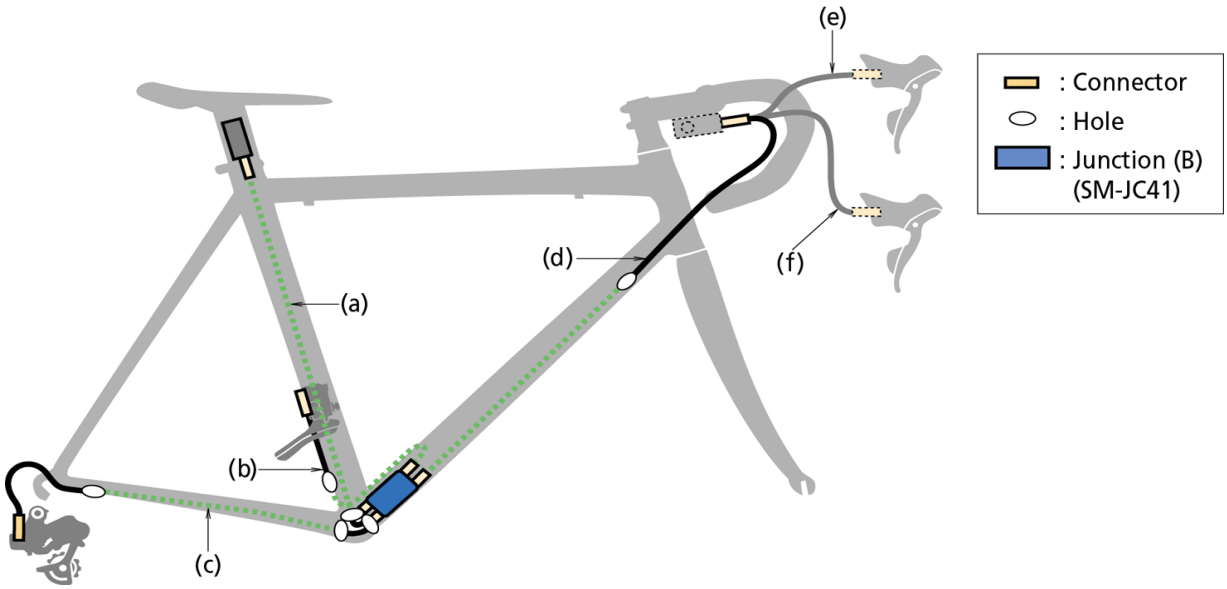
## Build-in frame type



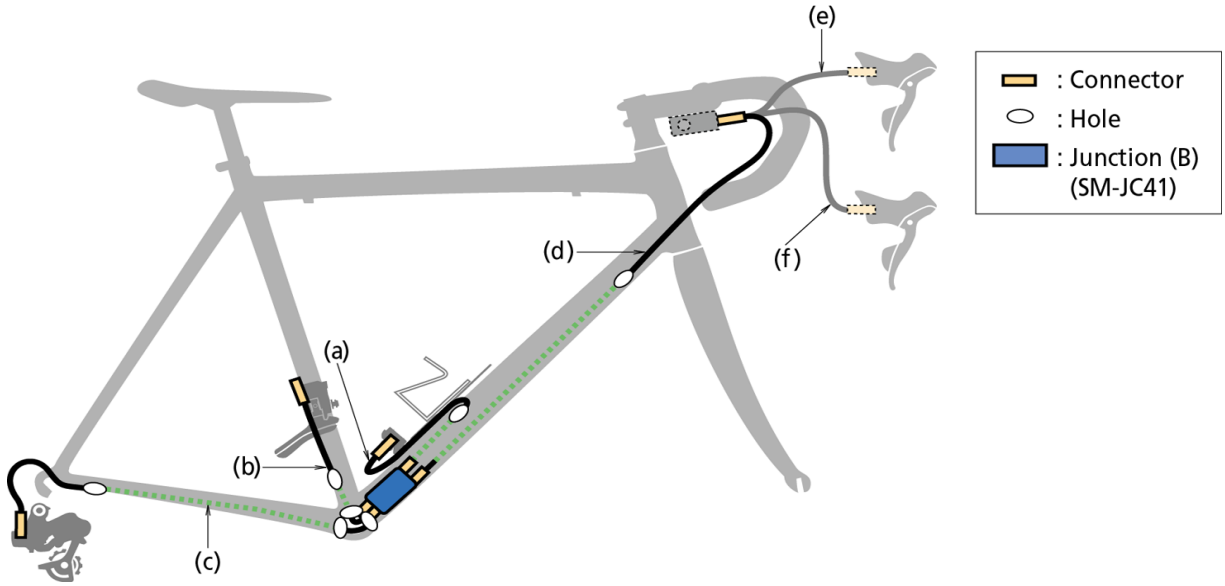
## DURA-ACE R9150 series / NEW ULTEGRA R8050 series

### Built-in battery mount type (built-in wire routing)



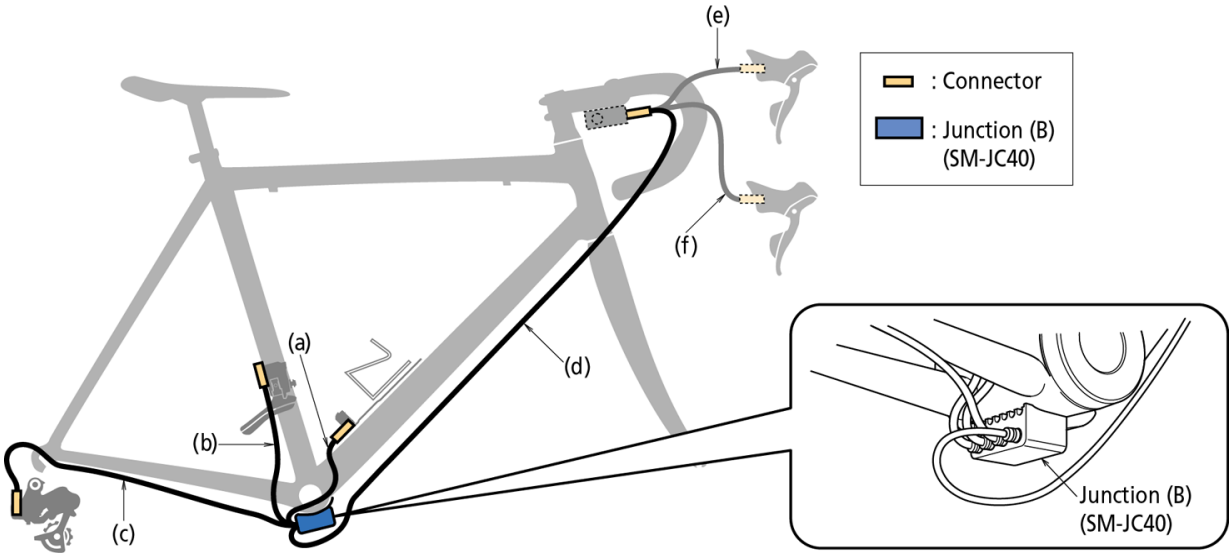

Each cable's maximum length
a)+ b) ≤ 1500mm
a)+ c) ≤ 1700mm
d) ≤ 1400mm
e)f) ≤ 500mm

### External battery mount type (built-in wire routing)




Each cable's maximum length
a)+ b) ≤ 1500mm
a)+ c) ≤ 1700mm
d) ≤ 1400mm
e)f) ≤ 500mm

## External battery mount type (external wire routing)

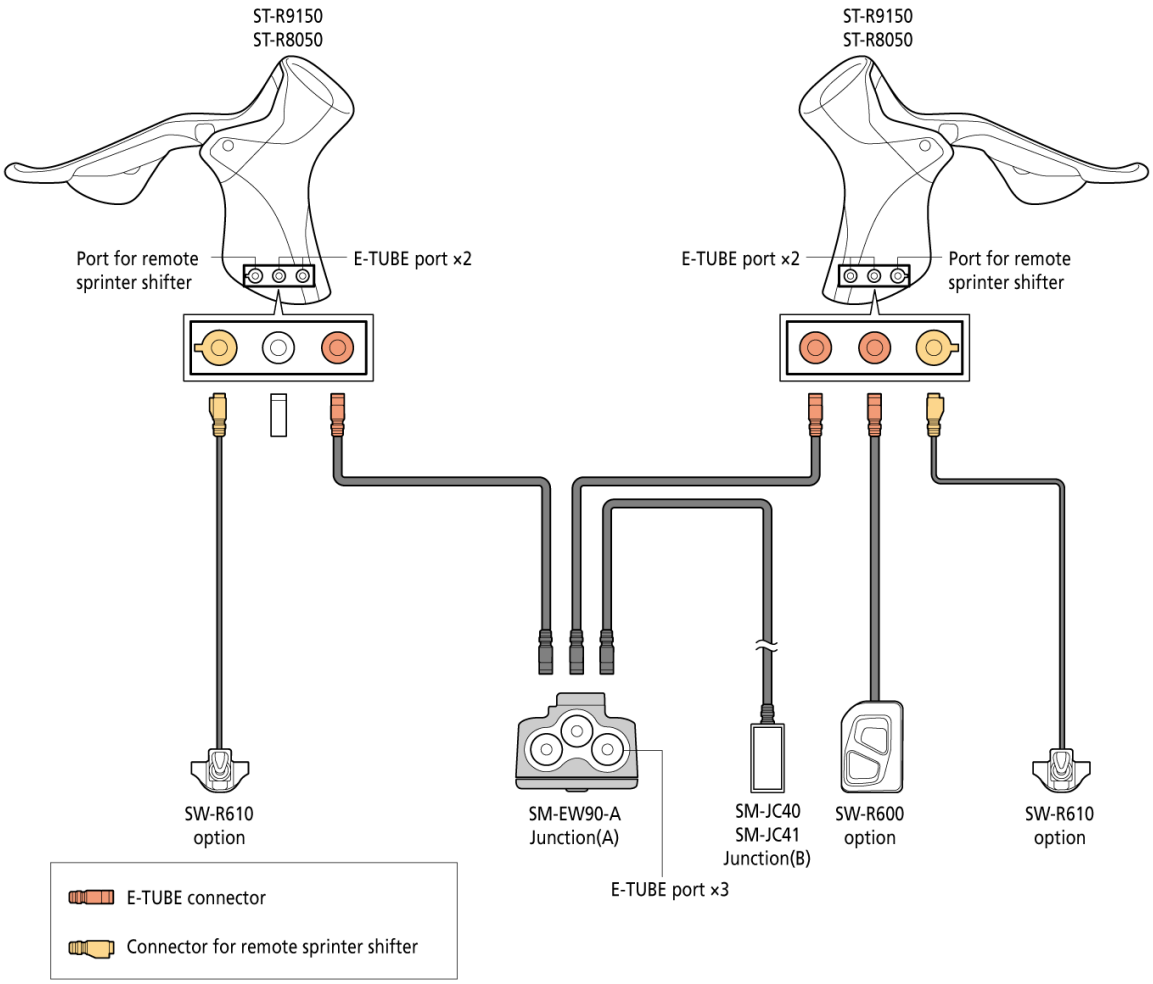



Each cable's maximum length
a)+ b) ≤ 900mm
a)+ c) ≤ 1100mm
d) ≤ 1400mm
e)f) ≤ 500mm

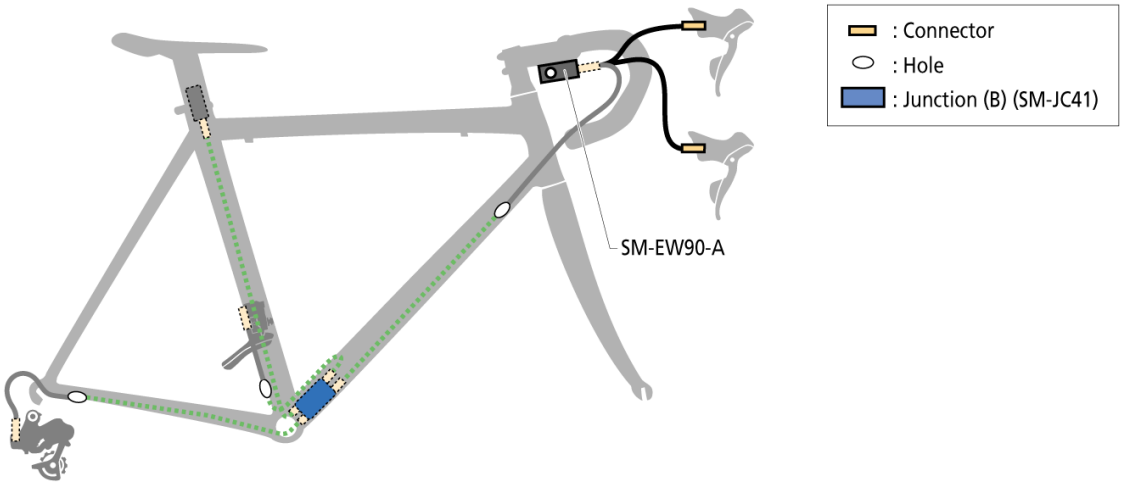
# Electric wire routing around cockpit area

## Drop handle type C-366

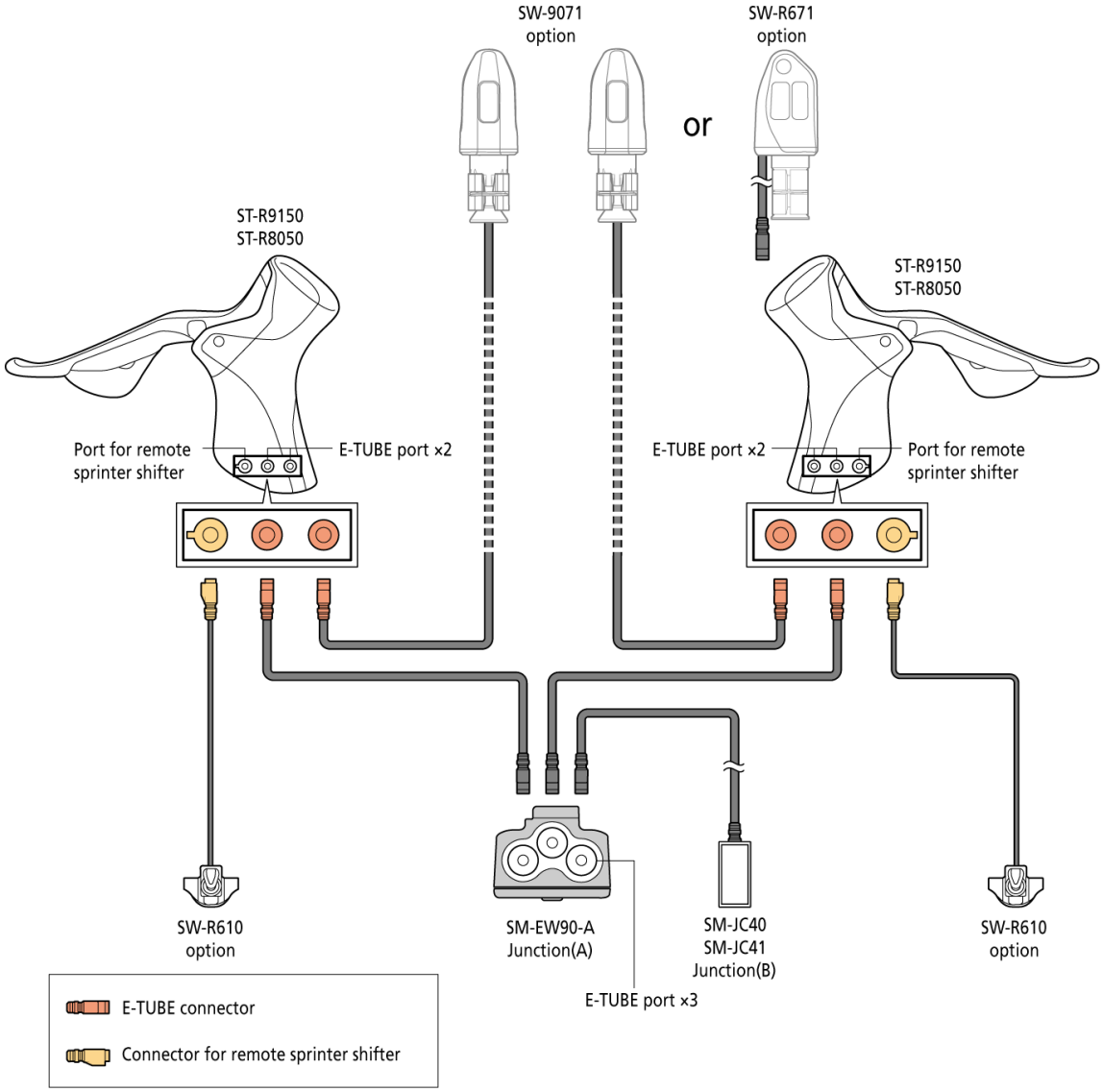
### 3 port type



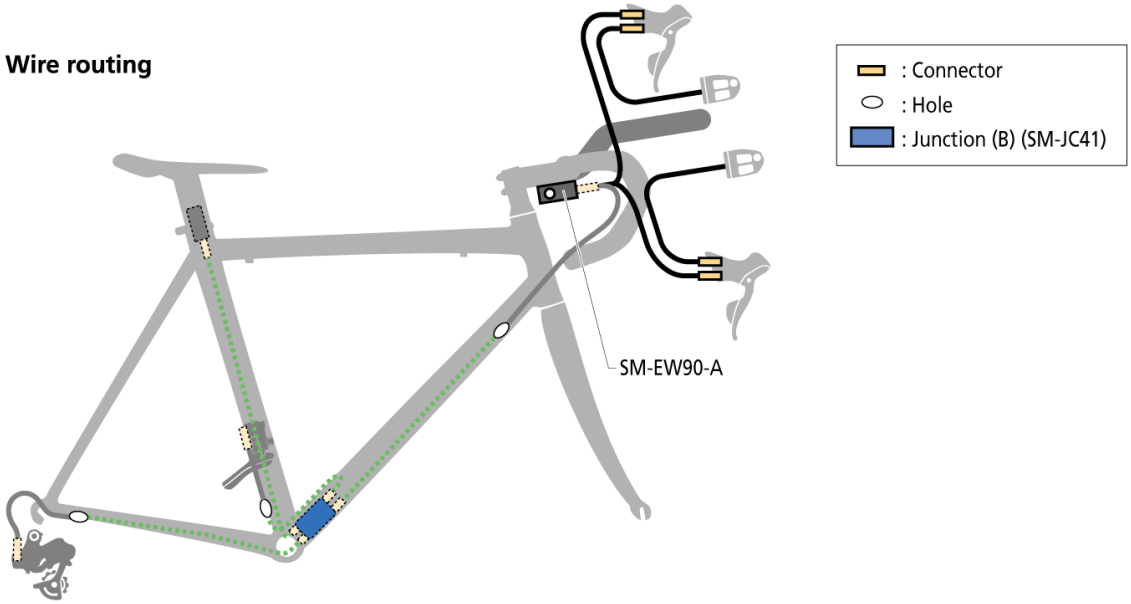

### Wire routing



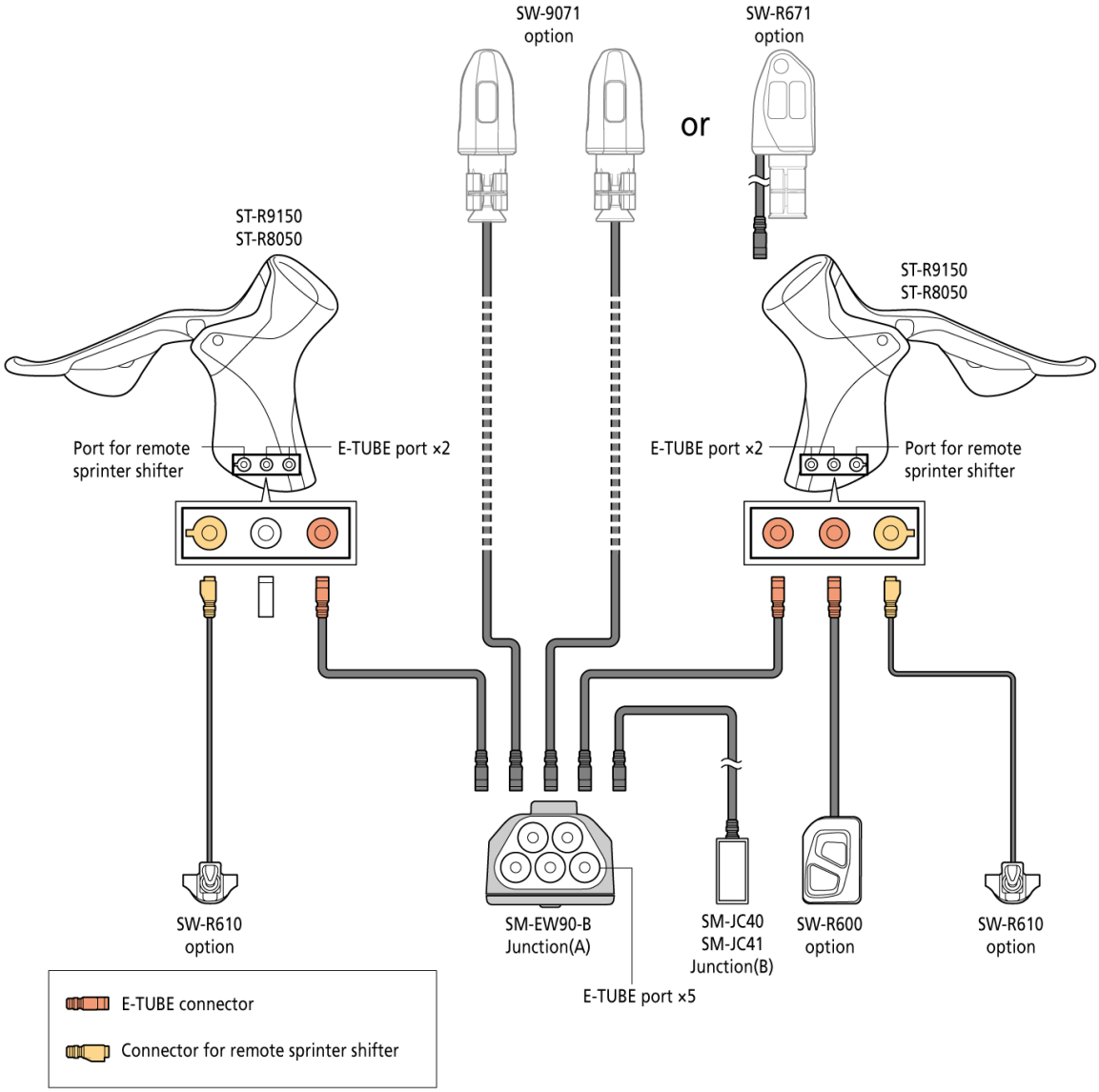
## 3 port type (with clip-on bar)



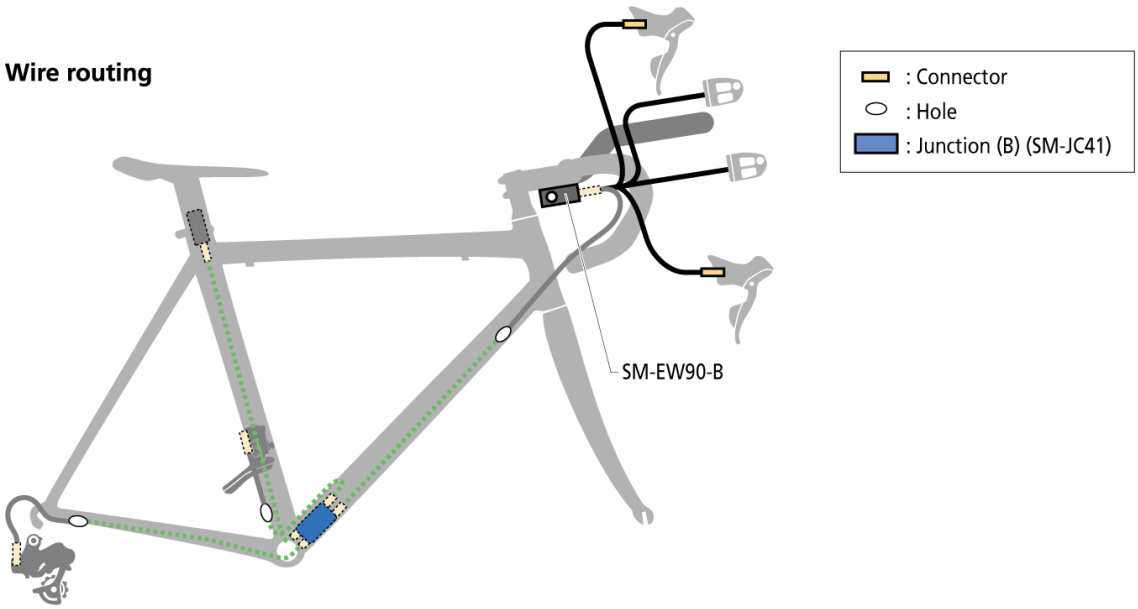

### Wire routing



## 5 port type (with clip-on bar)

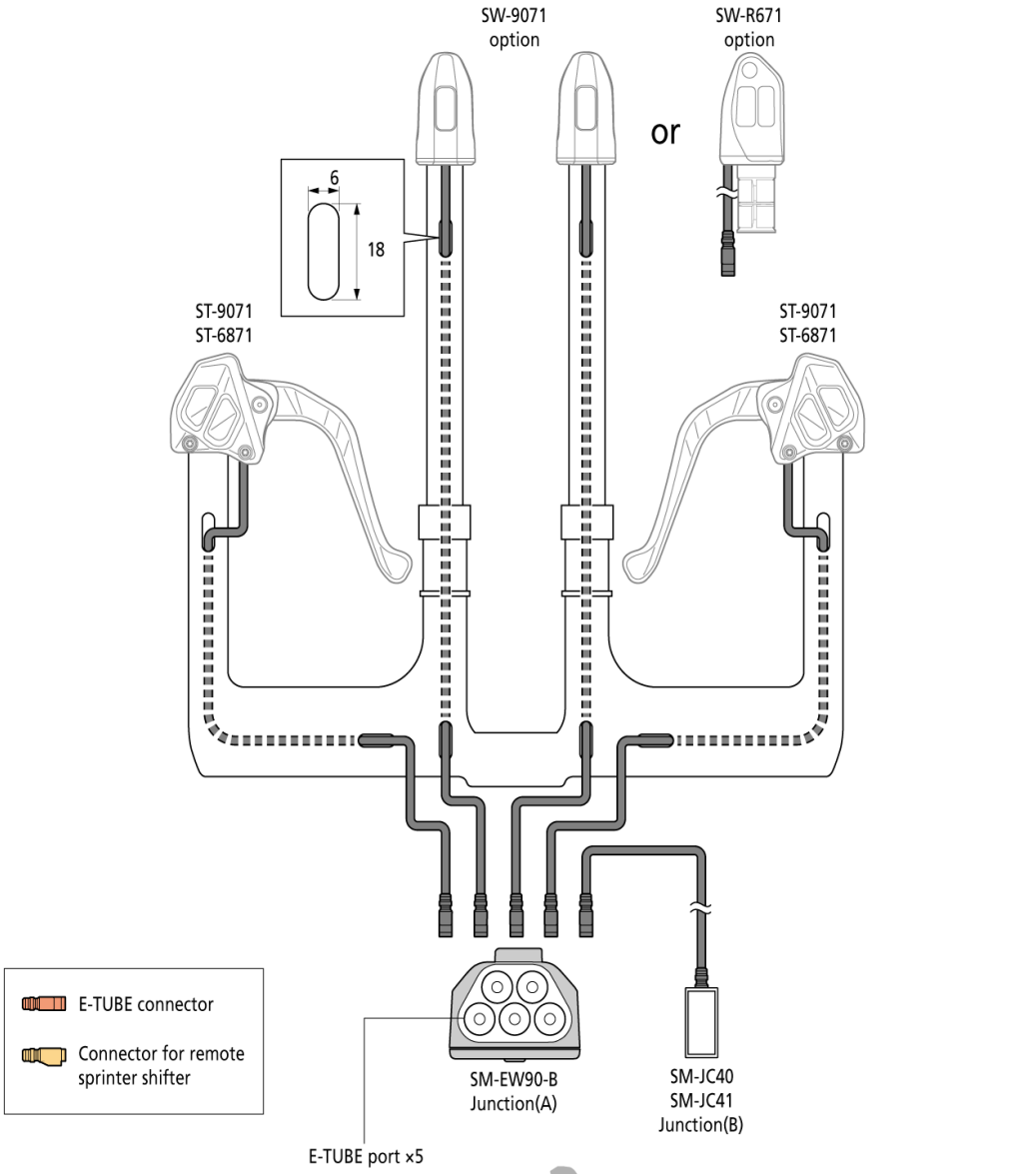



### Wire routing

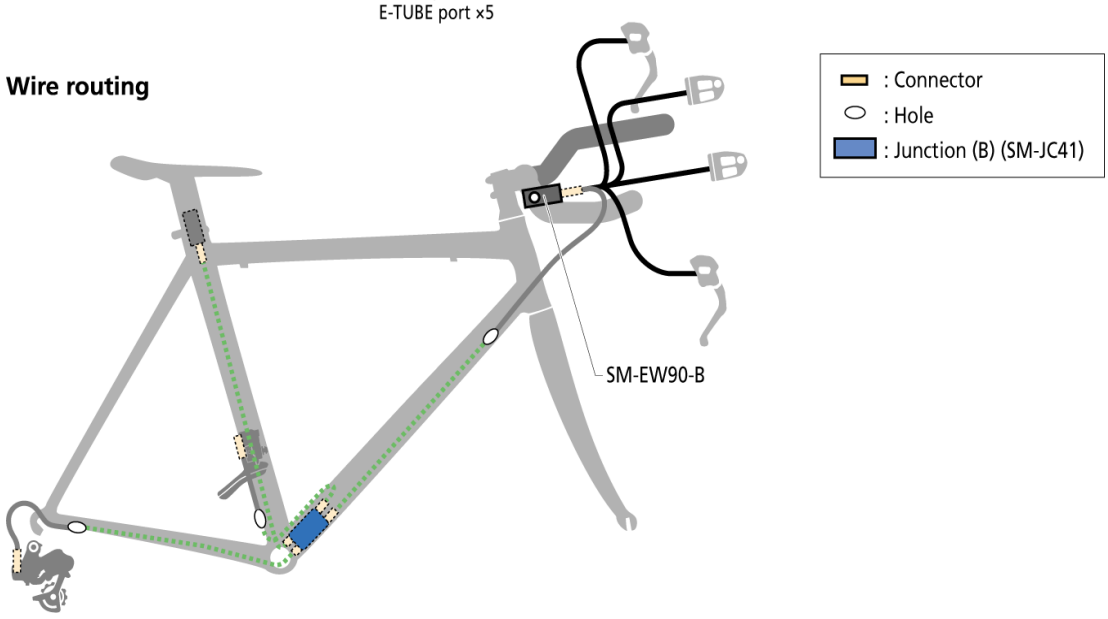


# TT / Triathlon handle type C-370

## 5 port type



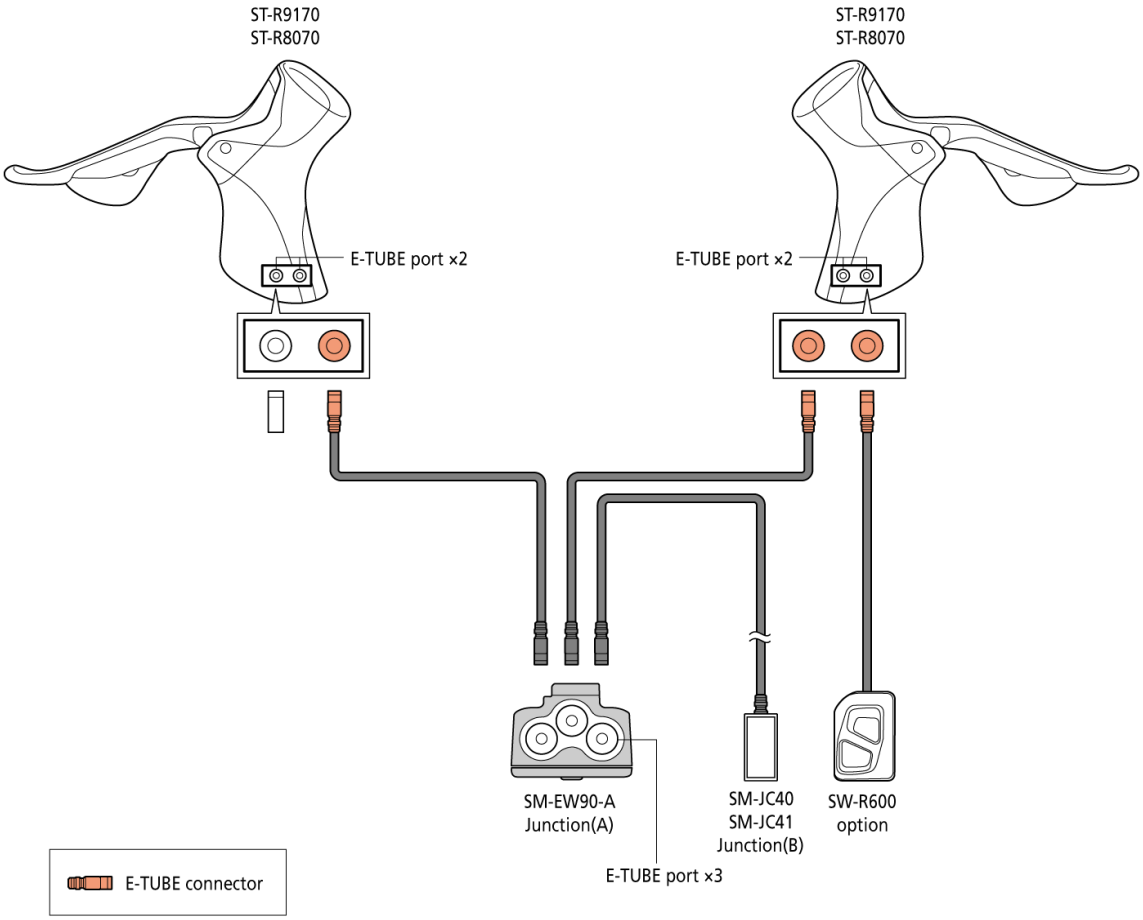

### Wire routing



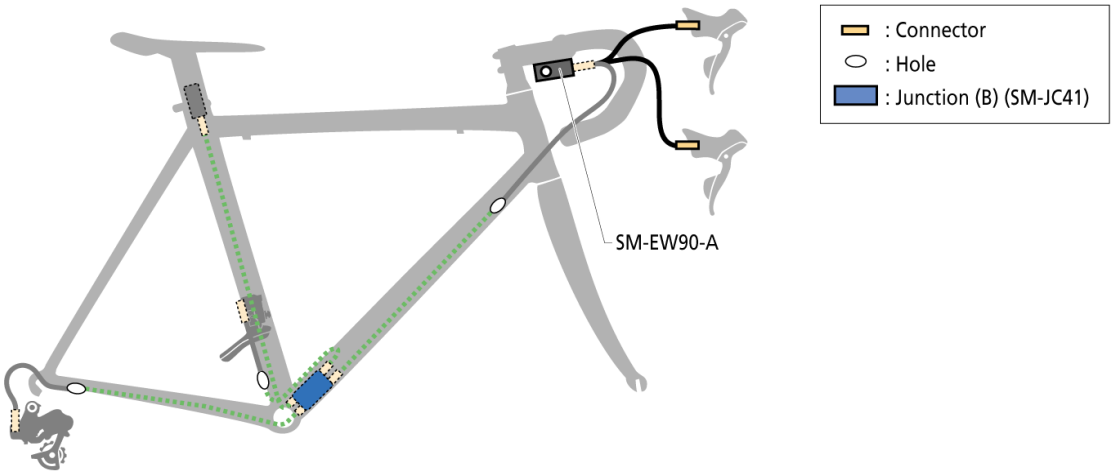
# Electric wire routing around cockpit area (without sprinter shifter) C-536

## Drop handle type C-537

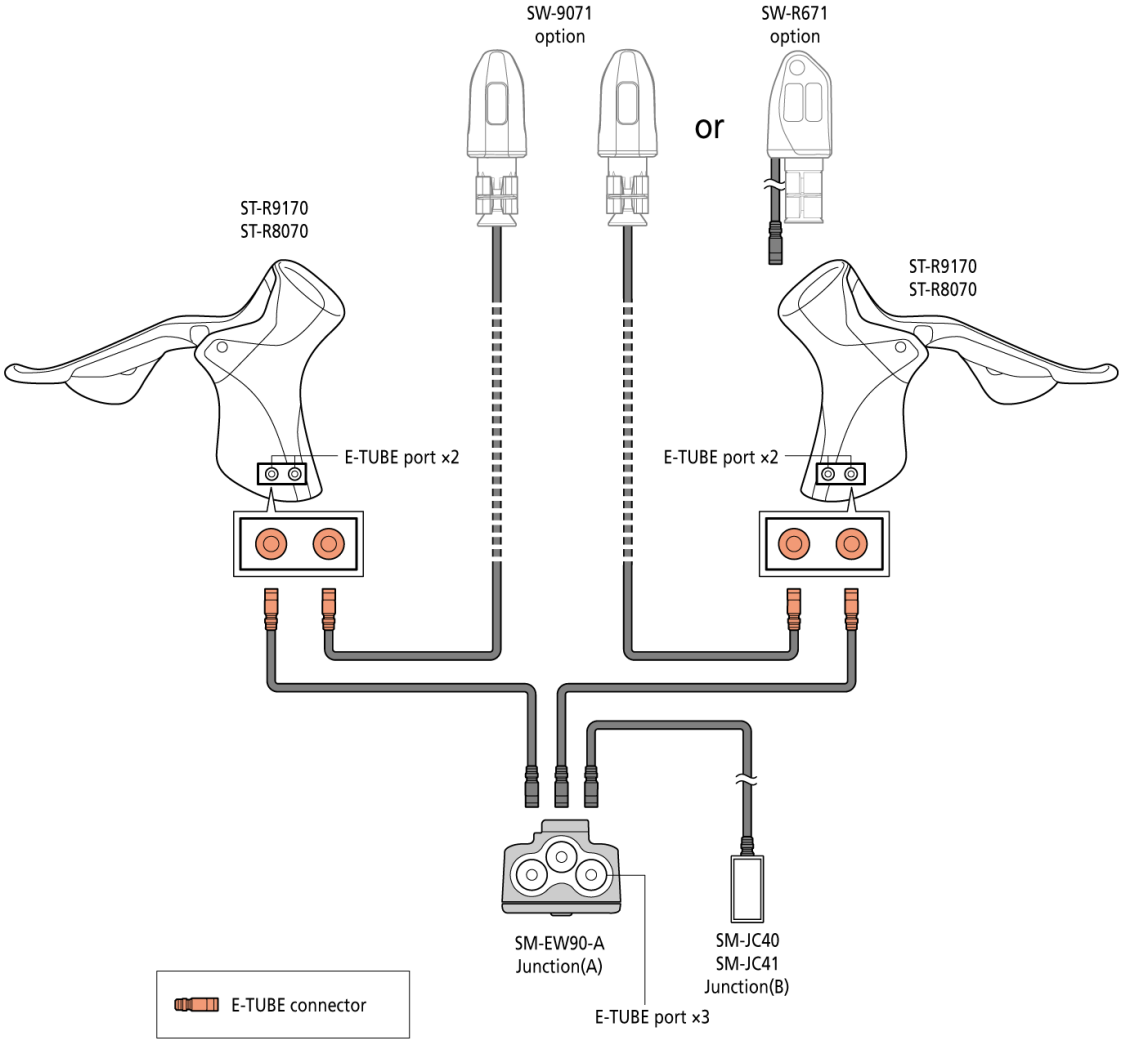
### 3 port type



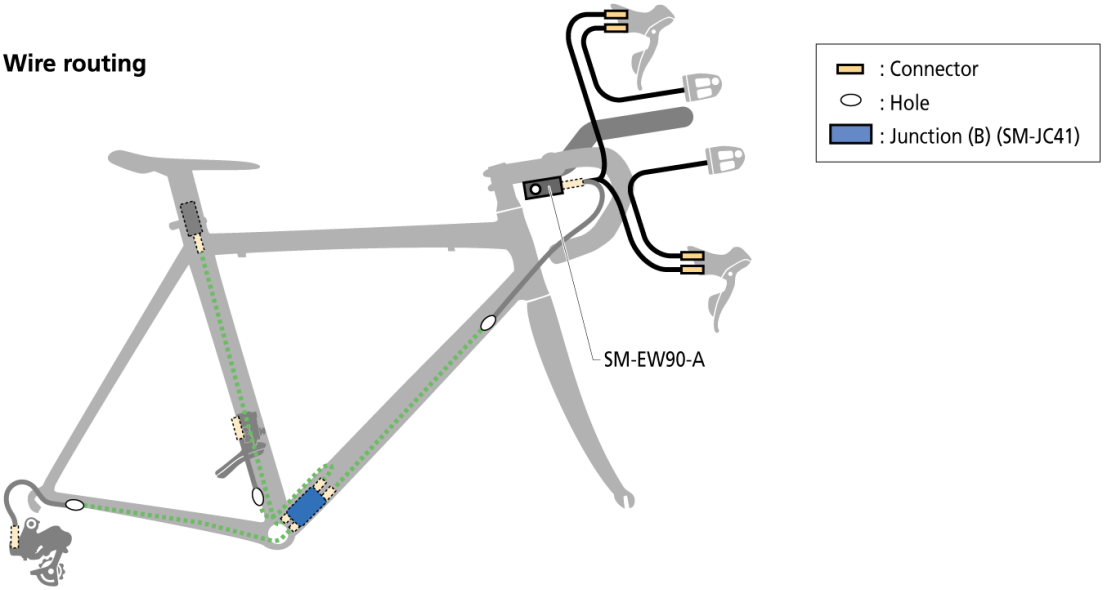

### Wire routing



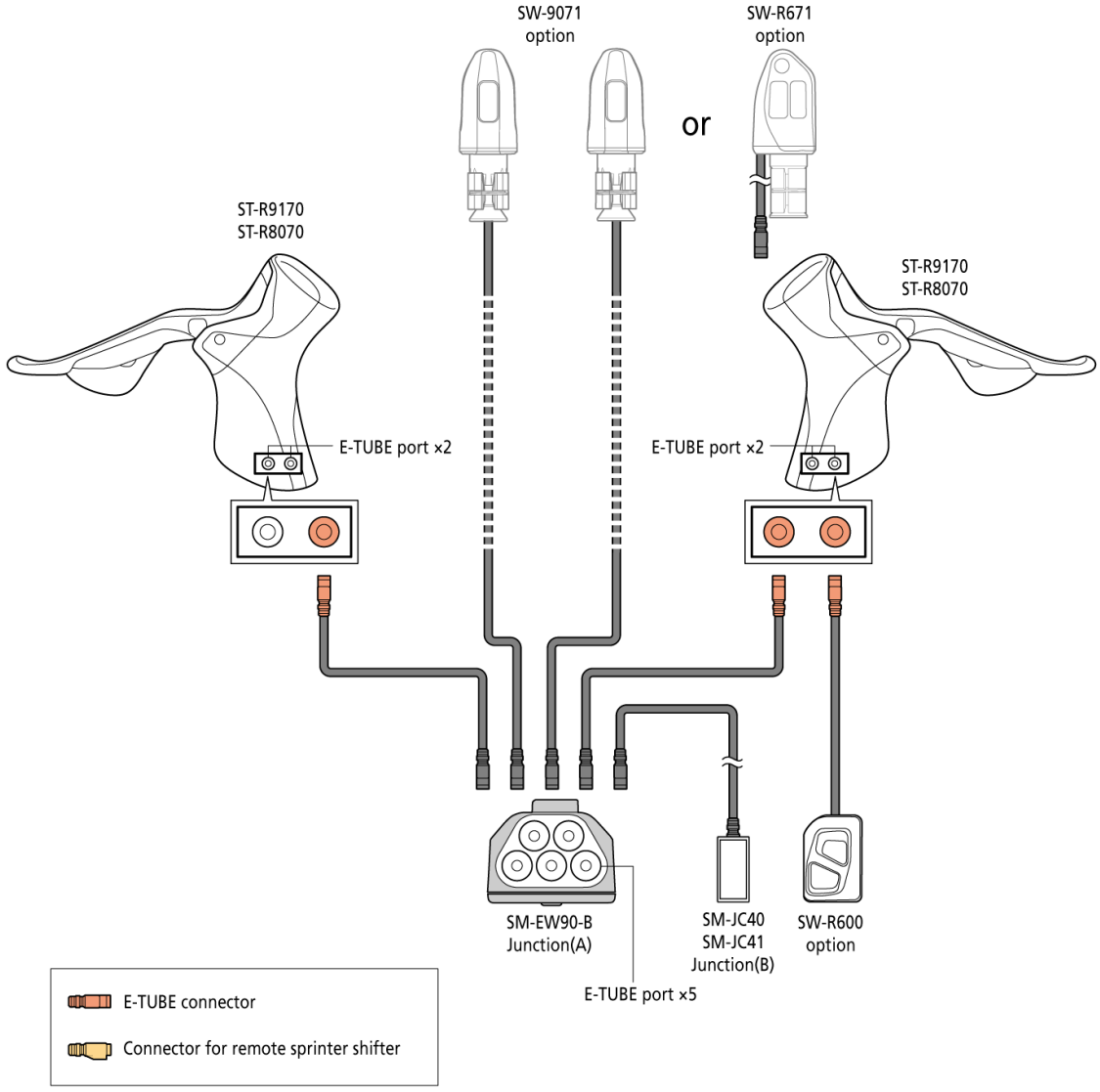
## 3 port type (with clip-on bar)



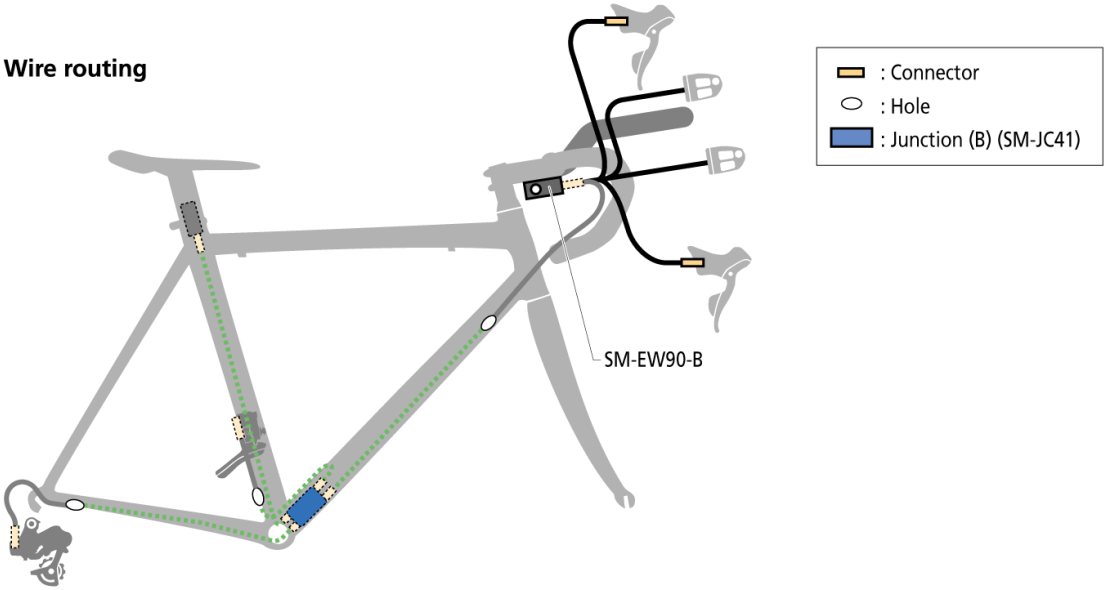

### Wire routing



## 5 port type (with clip-on bar)

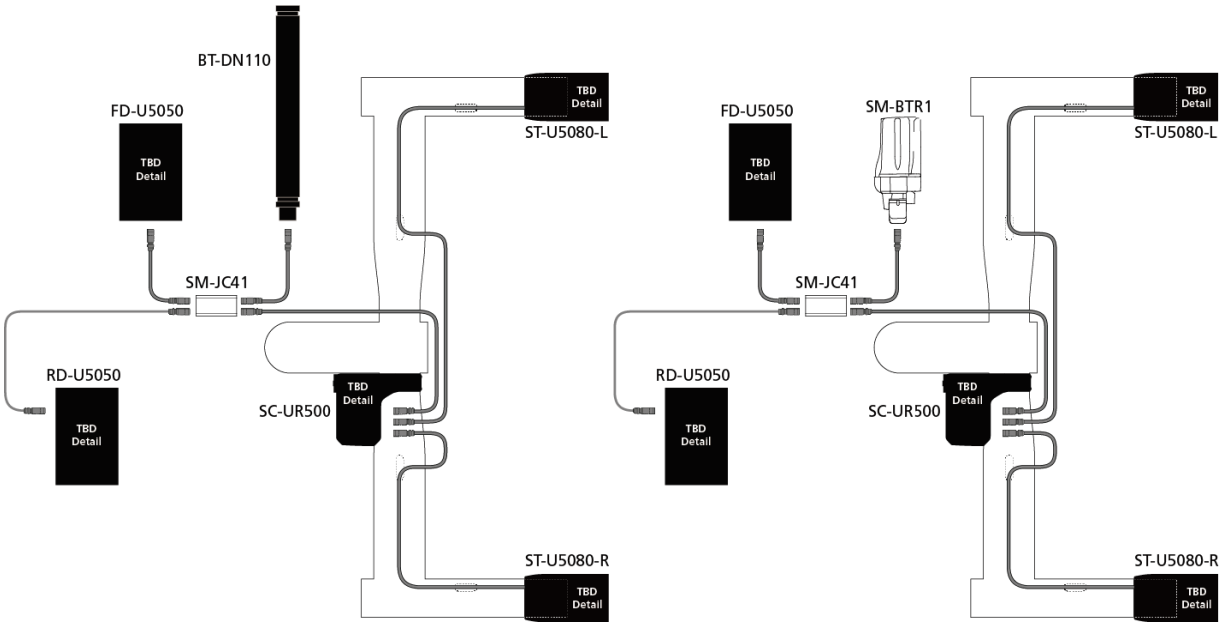



### Wire routing



# Electric wire routing for URBAN SPORT

## H type handlebar type C-539



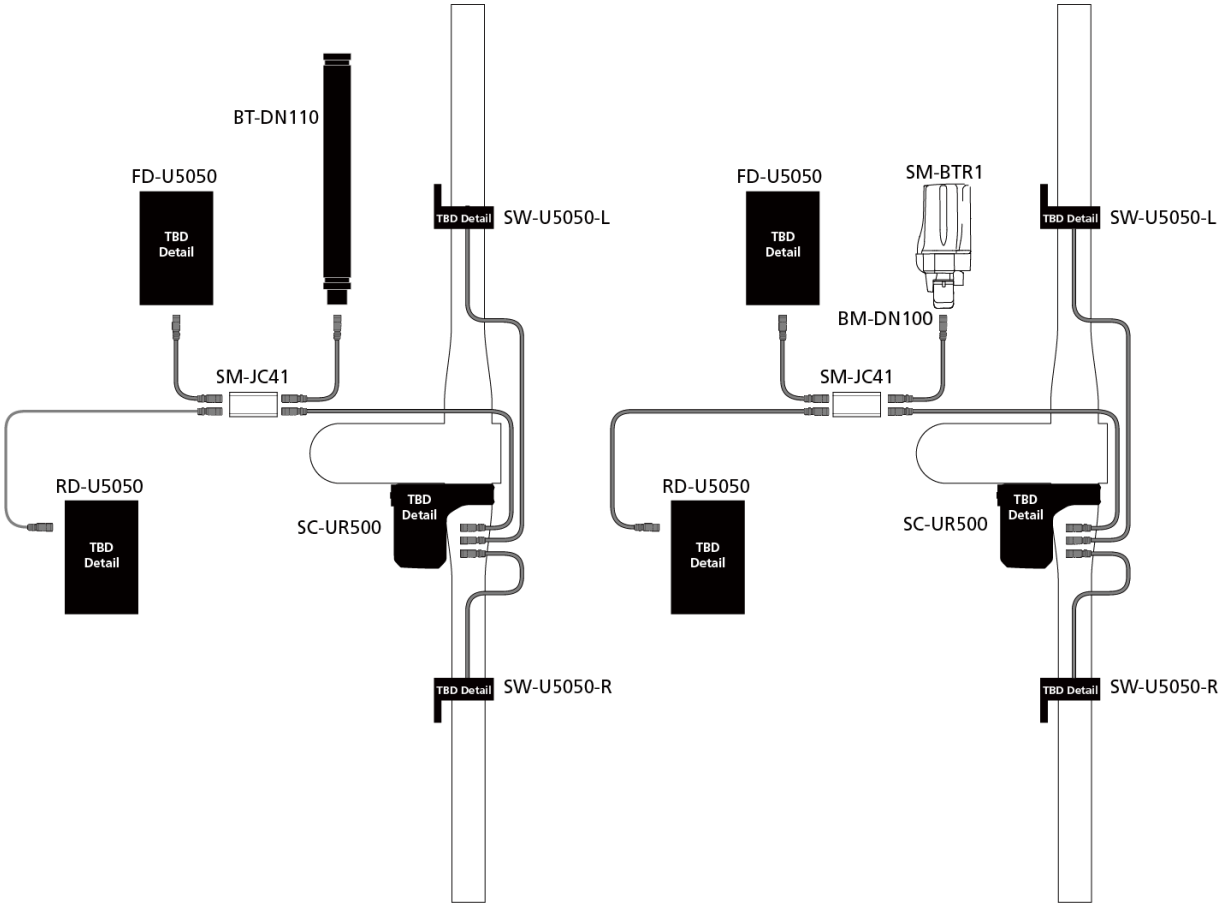

### Shifting lever

ST-U5080 (For H-type handlebar, 2 buttons, R/L)
* Detail is indicated in C-504 H-type handlebar requirement part.

### System information display

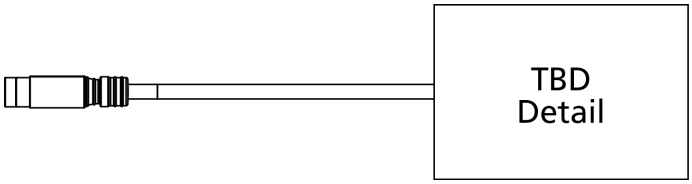
SC-UR500 (For both H-type & Flat handlebar)
* Detail is indicated in C-504 H-type handlebar requirement part.

# Flat handlebar type C-542




## Shift switch

SW-U5050(For Flat handlebar, 2 buttons, R/L)



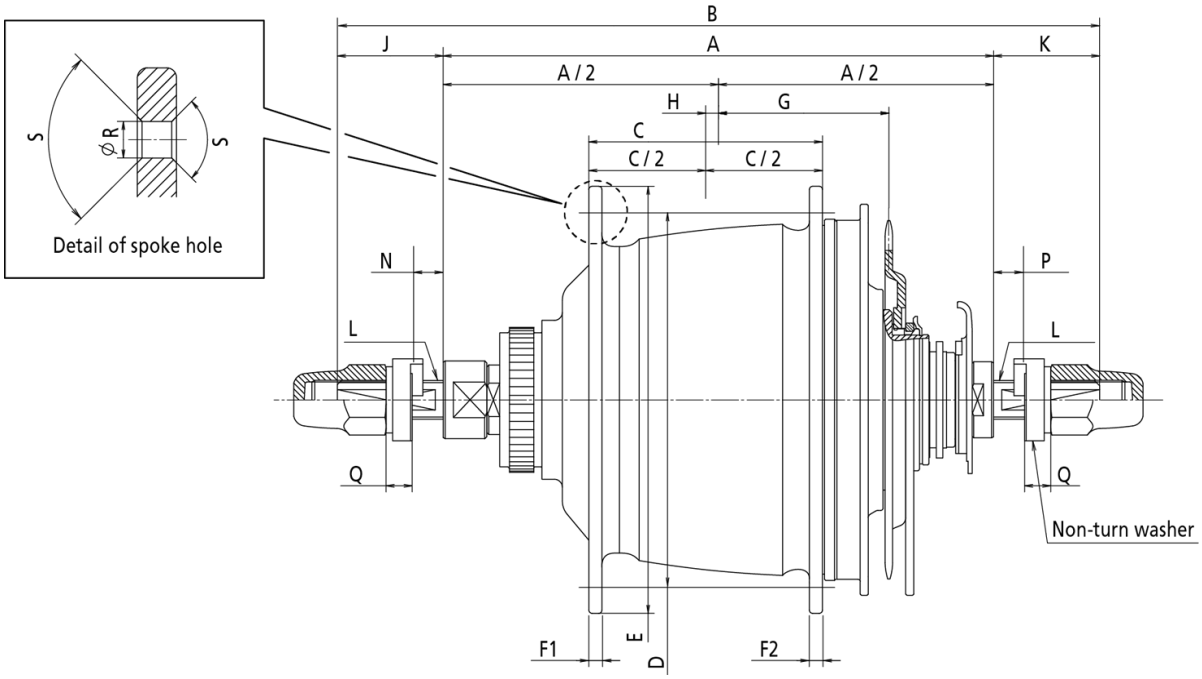

## System information display

SC-UR500 (For both H-type & Flat handlebar)

* Detail is indicated in C-504 H-type handlebar requirement part.

# Internal Geared Hub C-373

## Dimensions C-374




| | Series | | ALFINE | | NEXUS | | | |
|---|---|---|---|---|---|---|---|---|
| | Function name | | INTER-11 | INTER-8 | INTER-8 | | | |
| | Model No. | | SG-S7051-11 | SG-S7051-8 | SG-C6061-8R | SG-C6061-8C | SG-C6061-8D | SG-C6061-8CD |
| | Speed | | 11 | 8 | | | | |
| | Gear ratio | Total | 409% | 307% | | | | |
| A | Over locknut dim. / O.L.D. (mm) | | 135 | | | | | |
| B | Axle length (mm) | | 187 | | | | | |
| C | Flange distance (mm) | | 57.3 | | 58.3 | | 57.3 | 58.3 |
| D | Spoke hole P.C.D. (mm) | | 92.6 | | | | | |
| E | Flange diameter (mm) | | 104.3 | | 105.2 | | | |
| F | Flange width (mm): F1 (left) | | 3.2 | | | | | |
| | Flange width (mm): F2 (right) | | | | | | | |
| G | Chain line (mm): (inward assembly) | | 41.8 | | | | | |
| H | Offset (mm) | | 3.15 | | 3.1 | 3.7 | 3.3 | 3.7 |
| J | Axle length from hub (left) | | 26 | | | | | |
| K | Axle length from hub (right) | | | | | | | |
| L | Axle size | | BC3 / 8 TPI 26 | | | | | |
| N | Fork end mounting width (left, includes stay etc.) | | 5-9 | | | | | |
| P | Fork end mounting width (right, includes stay etc.) | | | | | | | |
| Q | Non turn washer width | | 6.4 | | | | | |
| R | Spoke hole diameter (mm) | | 2.9 | | | | | |
| S | Spoke hole chamfer | | 90° | | | | | |

| | Series | | NEXUS | | |
|---|---|---|---|---|---|
| | Function name | | INTER-5E | | |
| | Model No. | | SG-C7050-5D | SG-C7050-5R | SG-C7050-5C |
| | Speed | | 5 | | |
| | Gear ratio | Total | 263% | | |
| A | Over locknut dim. / O.L.D. (mm) | | 135 | | |
| B | Axle length (mm) | | 187 | | |
| C | Flange distance (mm) | | 57.3 | 58.3 | 58.3 |
| D | Spoke hole P.C.D. (mm) | | 92.6 | | |
| E | Flange diameter (mm) | | 105.2 | | |
| F | Flange width (mm): F1 (left) | | 3.2 | | |
| | Flange width (mm): F2 (right) | | | | |
| G | Chain line (mm): (inward assembly) | | 42.2 | | |
| H | Offset (mm) | | 3.2 | 3.7 | |
| J | Axle length from hub (left) | | 26 | | |
| K | Axle length from hub (right) | | | | |
| L | Axle size | | BC3 / 8 TPI 26 | | |
| N | Fork end mounting width (left, includes stay etc.) | | 5-9 | | |
| P | Fork end mounting width (right, includes stay etc.) | | | | |
| Q | Non turn washer width | | 6.4 | | |
| R | Spoke hole diameter (mm) | | 2.9 | | |
| S | Spoke hole chamfer | | 90° | | |

## Spoke lacing C-375

Use a wheel with 3x or 4x spoke lacing. Wheels with radial lacing cannot be used because the spokes and the wheel can be damaged when applying the brakes and brake noise can be generated.

## Recommended gear ratio C-376

| Series | Model No. | Speed | Sprocket ratio | Front | | | SM-GEAR | | | | | | | | | | CS-S500* | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Gear teeth | FC-S501 | FC-C6000 | Inward assembly** | | | | | | | | | | Inward assembly** | |
| | | | | | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 18 | 20 |
| ALFINE | SG-S7051-11 | 11S | 1.8-2.0 | 33 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | | | | 38 | – | X | – | – | – | – | – | X | X | X | – | – | – | X |
| | | | | 39 | X | – | – | – | – | – | – | – | X | X | – | – | – | X |
| | | | | 42 | X | – | – | – | – | – | – | – | – | X | X | X | – | – |
| | | | | 44 | – | – | – | – | – | – | – | – | – | – | X | X | – | – |
| | | | | 45 | X | – | – | – | – | – | – | – | – | – | – | X | – | – |
| | SG-S7051-8 | 8S | 2.0-2.25 | 33 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | | | | 38 | – | X | – | – | – | – | X | X | – | – | – | – | X | – |
| | | | | 39 | X | – | – | – | – | – | X | X | – | – | – | – | X | – |
| | | | | 42 | X | – | – | – | – | – | – | X | X | X | – | – | – | X |
| | | | | 44 | – | – | – | – | – | – | – | – | X | X | X | – | – | X |
| | | | | 45 | X | – | – | – | – | – | – | – | X | X | X | – | – | X |
| NEXUS | SG-C6061-8R<br>SG-C6061-8V<br>SG-C6061-8D | 8S | 2.0-2.2 | 33 | – | X | – | – | X | – | – | – | – | – | – | – | – | – |
| | | | | 38 | – | X | – | – | – | – | X | X | – | – | – | – | X | – |
| | | | | 39 | X | – | – | – | – | – | X | X | – | – | – | – | X | – |
| | | | | 42 | X | – | – | – | – | – | – | X | X | X | – | – | – | X |
| | | | | 44 | – | – | – | – | – | – | – | – | X | X | X | – | – | X |
| | | | | 45 | X | – | – | – | – | – | – | – | – | X | X | – | – | – |
| | SG-C6061-8C<br>SG-C6061-8CD | 8S | 2.0-2.2 | 33 | – | X | – | – | X | – | – | – | – | – | – | – | – | – |
| | | | | 38 | – | X | – | – | – | – | X | X | – | – | – | – | X | – |
| | | | | 39 | X | – | – | – | – | – | X | X | – | – | – | – | X | – |
| | | | | 42 | X | – | – | – | – | – | – | X | X | X | – | – | – | X |
| | | | | 44 | – | – | – | – | – | – | – | – | – | – | – | – | – | – |
| | | | | 45 | X | – | – | – | – | – | – | – | – | X | X | – | – | – |

* Only spec. without guard can be used

** In case of DI2 IGH spec., sprockets cannot be used with outward assembly.

X: Yes

2

| Series | Model No. | Speed | Sprocket ratio | Front | | CS-C7000 |
|---|---|---|---|---|---|---|
| | | | | Gear teeth | SM-CRE61 | Inward assembly* |
| | | | | | | 27 |
| NEXUS | SG-C7050-5R<br>SG-C7050-5V<br>SG-C7050-5D<br>SG-C7050-5C | 5S | 1.3-1.5 | 38 | X | X |

* In case of DI2 IGH spec., sprockets cannot be used with outward assembly.

X: Yes

## Dust cap information C-377

2

| Series | Speed | Model No. | Hub body (dust cap XX) | Right hand dust cap variation | Sealing performance |
|---|---|---|---|---|---|
| ALFINE | 11 | SG-S7051-11 | Right hand dust cap A w / Seal for SG-S700 | Right hand dust cap D for INTER-11 | 2.9 |
| | 8 | SG-S7051 | Right hand dust cap A w / Seal for SG-S501 | Right hand dust cap B for INTER-8 | 1.0 |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | Right hand dust cap A (Y-34R98110) | Right hand dust cap B for INTER-8 | 1.0 |
| | 5 | SG-C7050-5R<br>SG-C7050-5V<br>SG-C7050-5D<br>SG-C7050-5C | Right hand dust cap A w/ Seal for SG-C7050-5 | Right hand dust cap D for INTER-5E | 2.9 |

# Sprocket compatibility C-557

| Series | Speed | Model No. | SM-GEAR Inward assembly | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| ALFINE | 11 | SG-S7051-11 | - | - | - | - | - | - | X | X | X | X |
| | 8 | SG-S7051 | - | - | - | - | X | X | X | X | X | X |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | - | - | X | - | X | X | X | X | X | X |

| Series | Speed | Model No. | SM-GEAR Outward assembly | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 |
| ALFINE | 11 | SG-S7051-11 | - | - | - | - | - | - | - | - | - | - |
| | 8 | SG-S7051 | - | - | - | - | - | - | - | - | - | - |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | - | - | - | - | - | - | - | - | - | - |

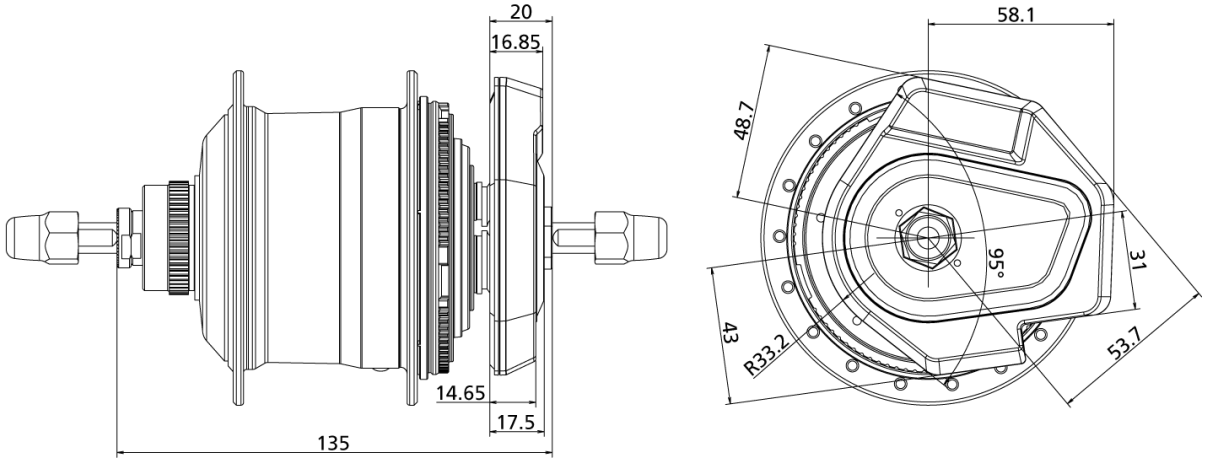
2

| Series | Speed | Model No. | CS-5500* | | | | CS-C7000 | |
|---|---|---|---|---|---|---|---|---|
| | | | Inward assembly | | Outward assembly | | Inward assembly | Outward assembly |
| | | | 18 | 20 | 18 | 20 | 27 | 27 |
| ALFINE | 11 | SG-S7051-11 | - | X | - | - | - | - |
| | 8 | SG-S7051 | X | X | - | - | - | - |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | X | X | - | - | - | - |
| | 5 | SG-C7050-5 | - | - | - | - | X | - |

* Only spec. without guard can be used
X: Yes

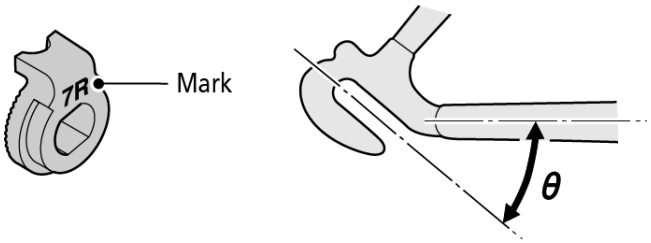
# Motor unit (MU-UR500)

## Dimensions C-379



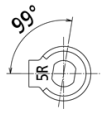
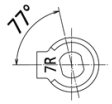
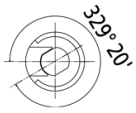

## Non-turn washer C-380

Use whichever non-turn washers match the shape of the fork end. Different non-turn washers are used at the left and right sides.

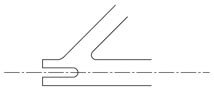
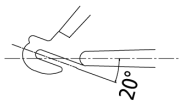
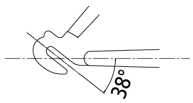
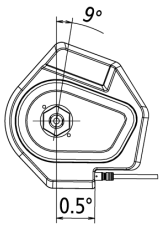
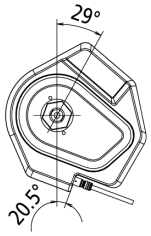
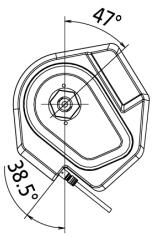
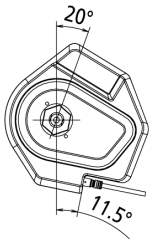
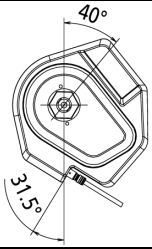
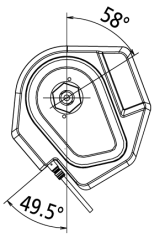
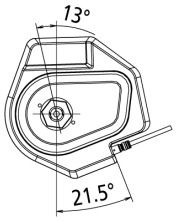
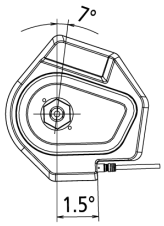
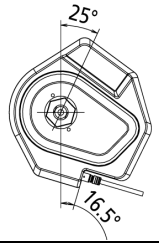


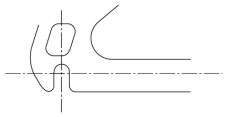
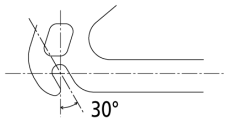
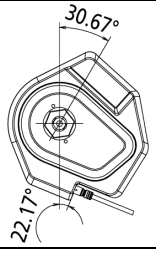
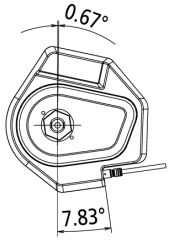

* The projecting parts should be on the fork end side.
* Install the non-turn washers so that the projecting parts are securely in the fork end grooves on either side of the hub axle.

# Shape and color C-381

| | For right hand side | For left hand side |
|---|---|---|
| 5R<br>5L |  <br>5R: Yellow | <br>5L: Brown |
| 6R<br>6L | <br>6R: Silver | <br>6L: White |
| 7R<br>7L |  <br>7R: Black | <br>7L: Gray |
| 8R<br>8L | <br>8R: Dark blue |  <br>8L: Dark green |

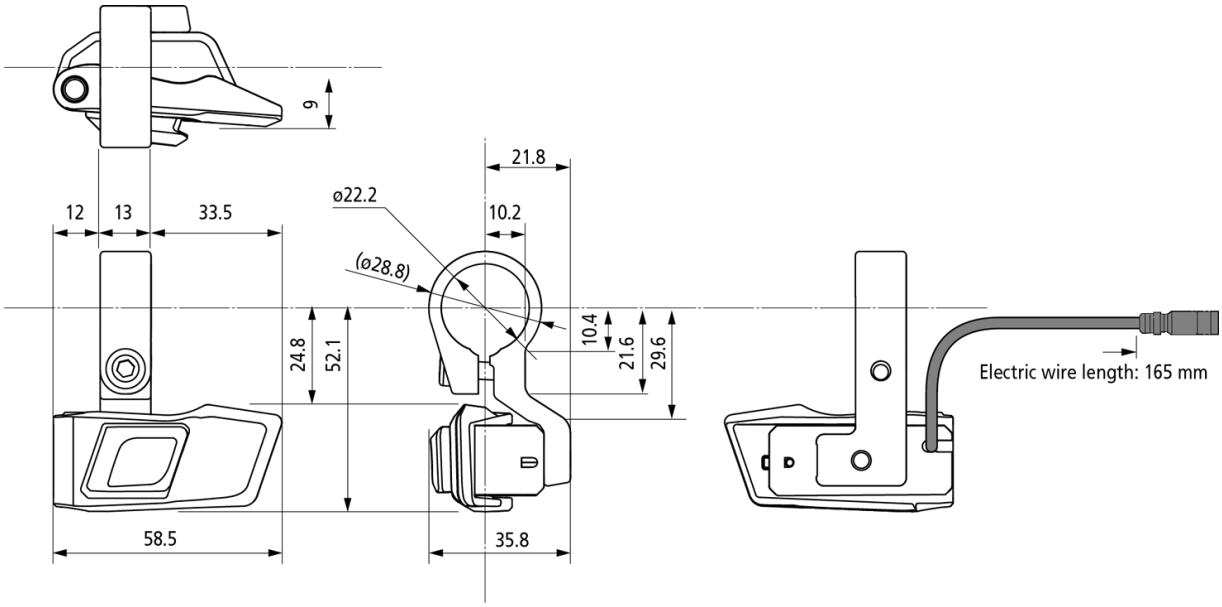
# Application chart C-382

| | Reversed fork end | Standard fork end | |
|---|---|---|---|
| |  |  |  |
| 5R<br>5L |  |  |  |
| 6R<br>6L |  |  |  |
| 7R<br>7L |  |  |  |

| | Vertical fork end | |
|---|---|---|
| |  |  |
| 8R<br>8L |  |  |

# Switch for flat handlebar use (SW-S705) C-386

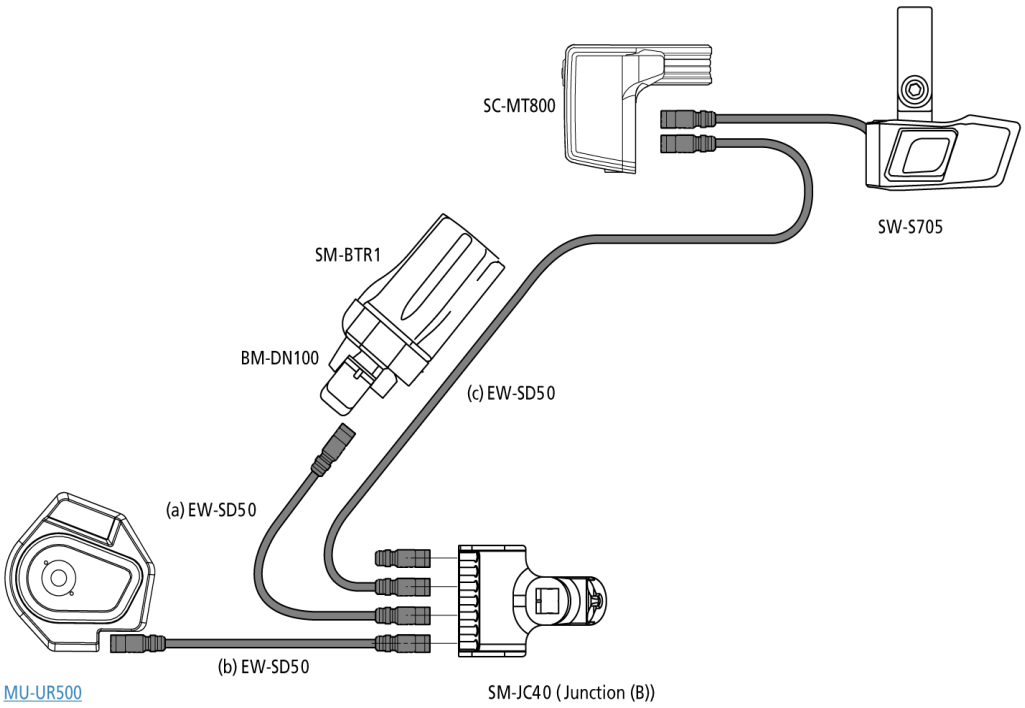
## Dimensions C-387



# Electric wire routing

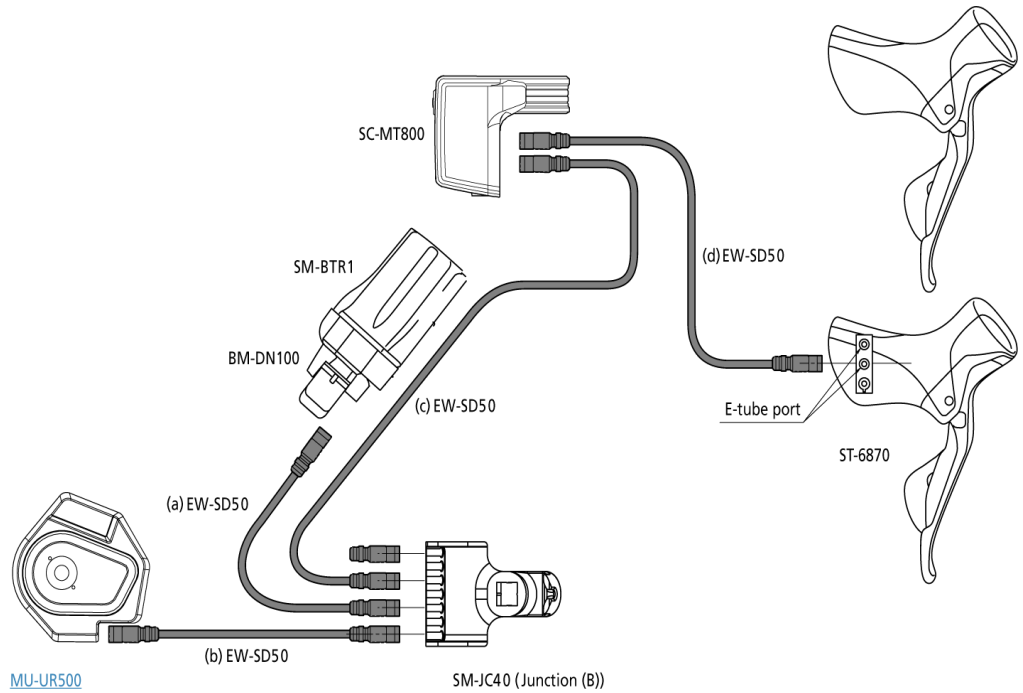
## External wire routing C-389

### Flat handlebar use




Each cable's maximum length
a)+ b) ≤ 1500mm
c) ≤ 1400mm

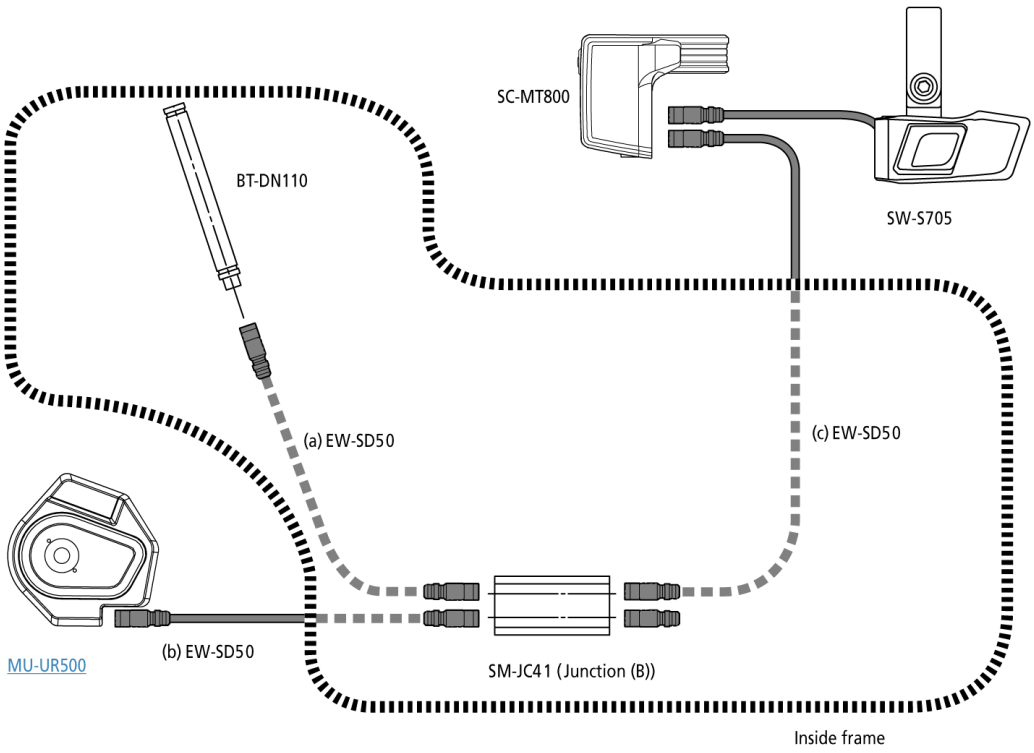
### Drop handlebar use




Each cable's maximum length
a)+ b) ≤ 1500mm
c) ≤ 1400mm
d) ≤ 500mm

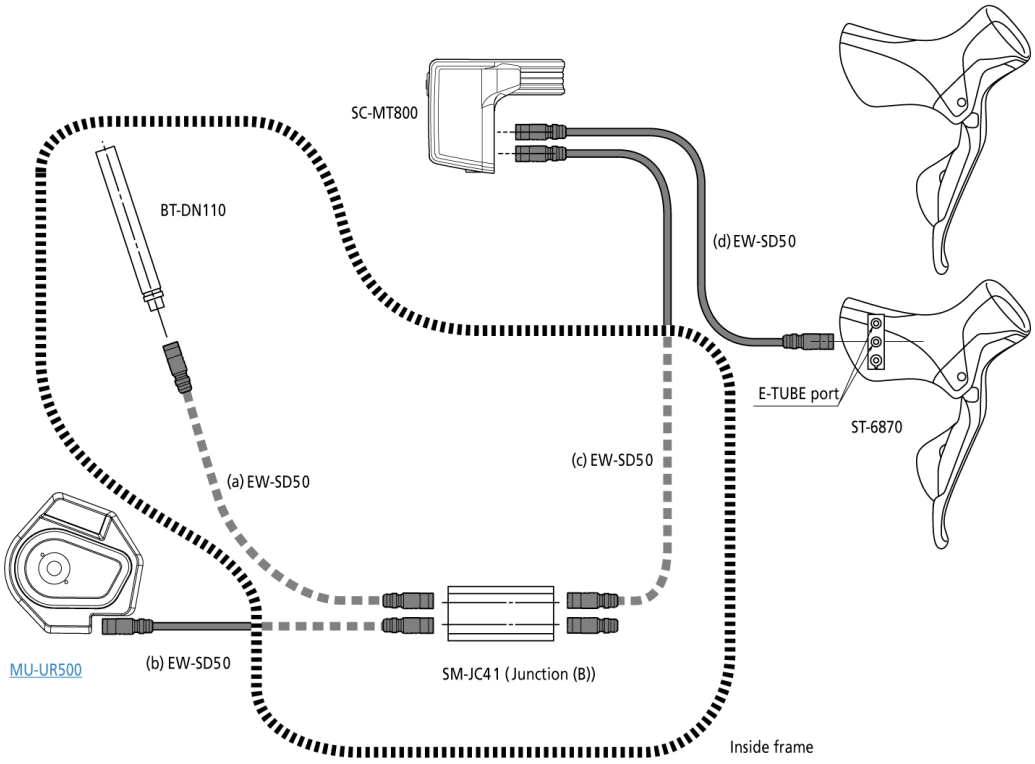
# Built-in battery mount type C-390

## Flat handlebar use




Each cable's maximum length
a)+ b) ≤ 1600mm
c) ≤ 1400mm

## Drop handlebar use



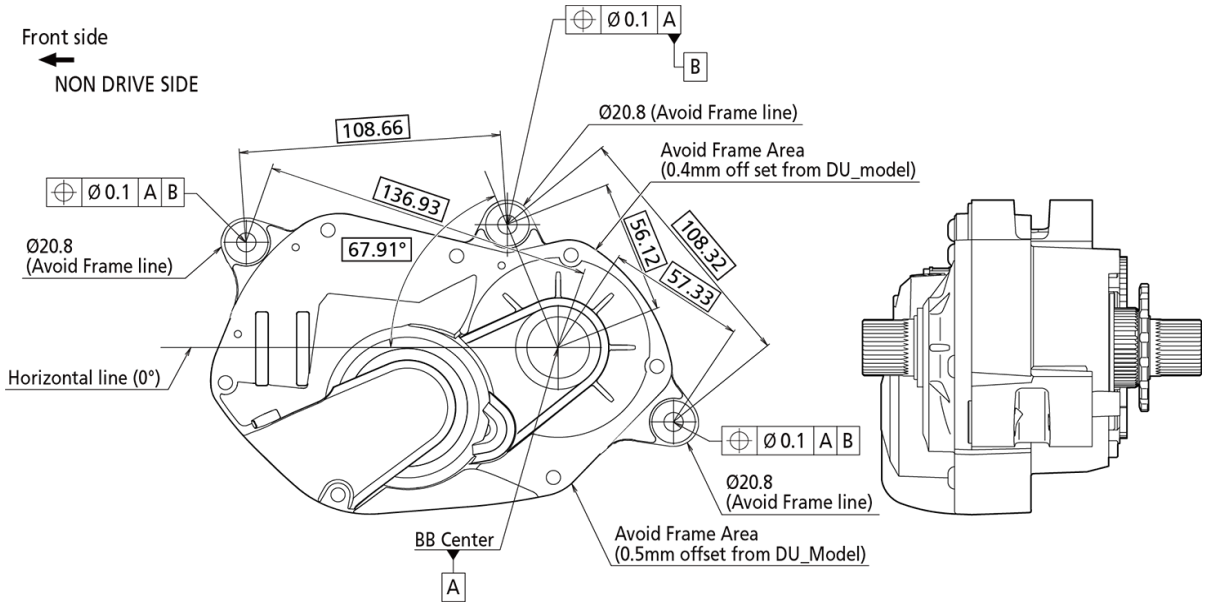

Each cable's maximum length
a)+ b) ≤ 1600mm
c) ≤ 1400mm
d) ≤ 500mm

# Drive unit dimensions

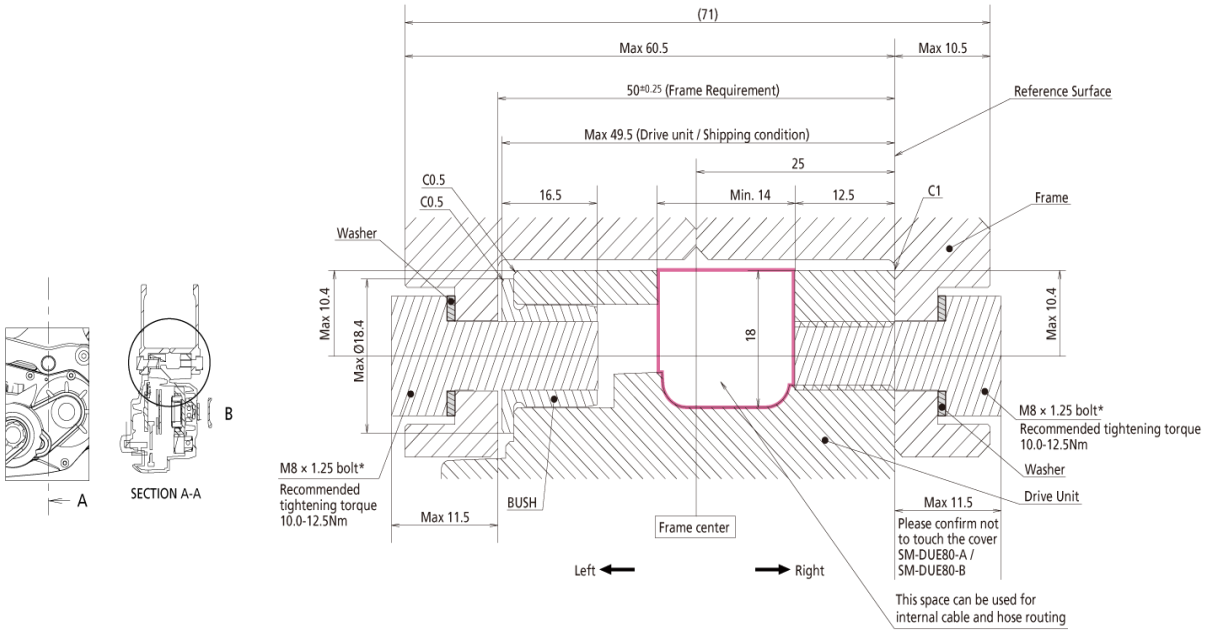
C-393

**E8000 / E8080 series**

## DU-E8000 / DU-E8080



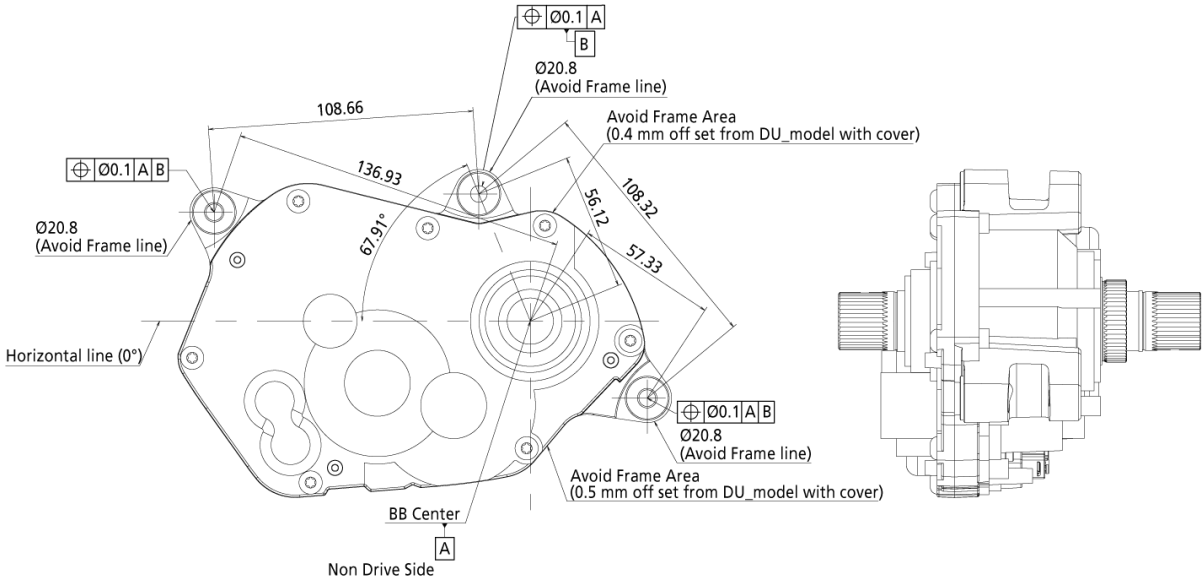

Drive unit angle on the bike : 0 - 60°
(This sketch shows 0° condition / 60° is clockwise on this sketch)



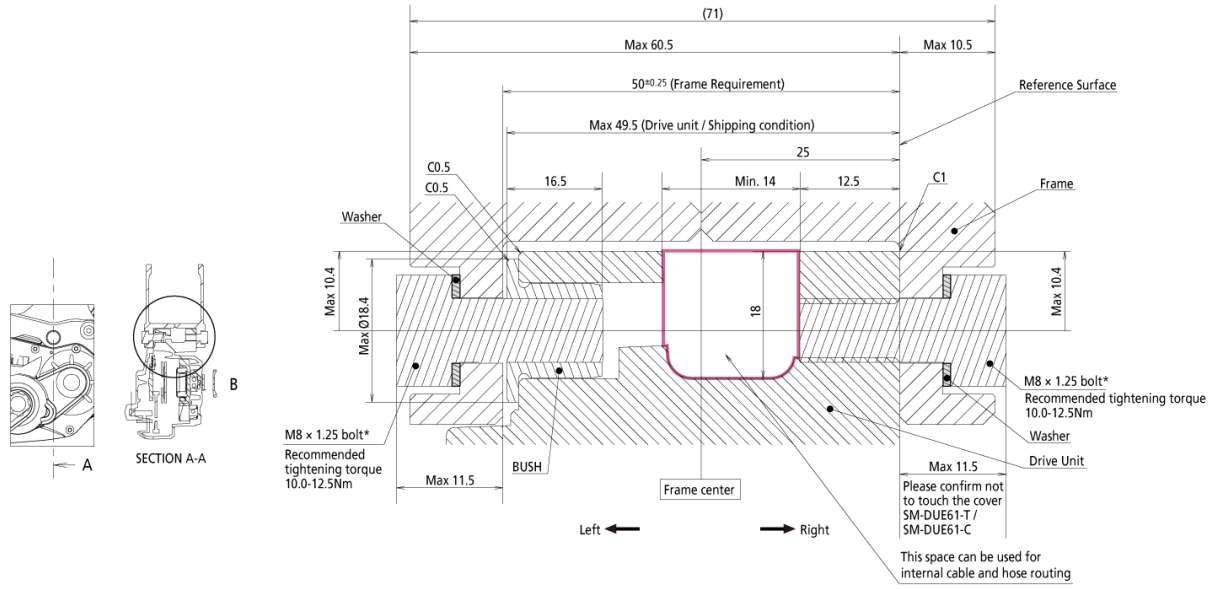

* Drive unit doesn't include M8 fixing bolts and washers.
- Make sure that at least 8 bolt threads are engaged.
- Bolt strength is not guaranteed.

## E6100 / E7000 series

### DU-E6100 / DU-E6110 and SM-DUE61
### DU-E7000 and SM-DUE70



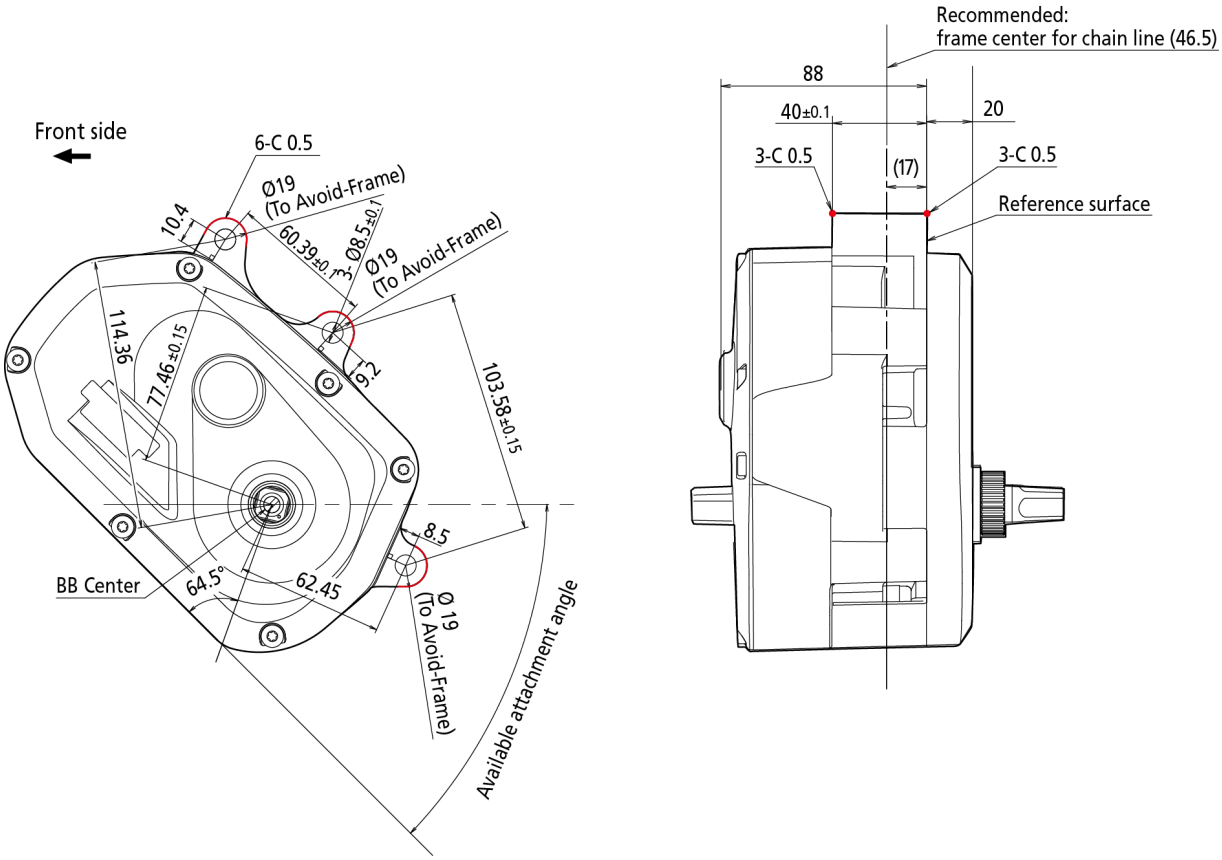

Drive unit angle on the bike : 0 - 60°
(This sketch shows 0° condition / 60° is clockwise on this sketch)




* Drive unit doesn't include M8 fixing bolts and washers.
- Make sure that at least 8 bolt threads are engaged.
- Bolt strength is not guaranteed.

## DU-E6012 / DU-E6010 / DU-E6002 / DU-E6001 and SM-DUE60

Drive unit doesn't include fixing bolts for frame




Available attachment angle

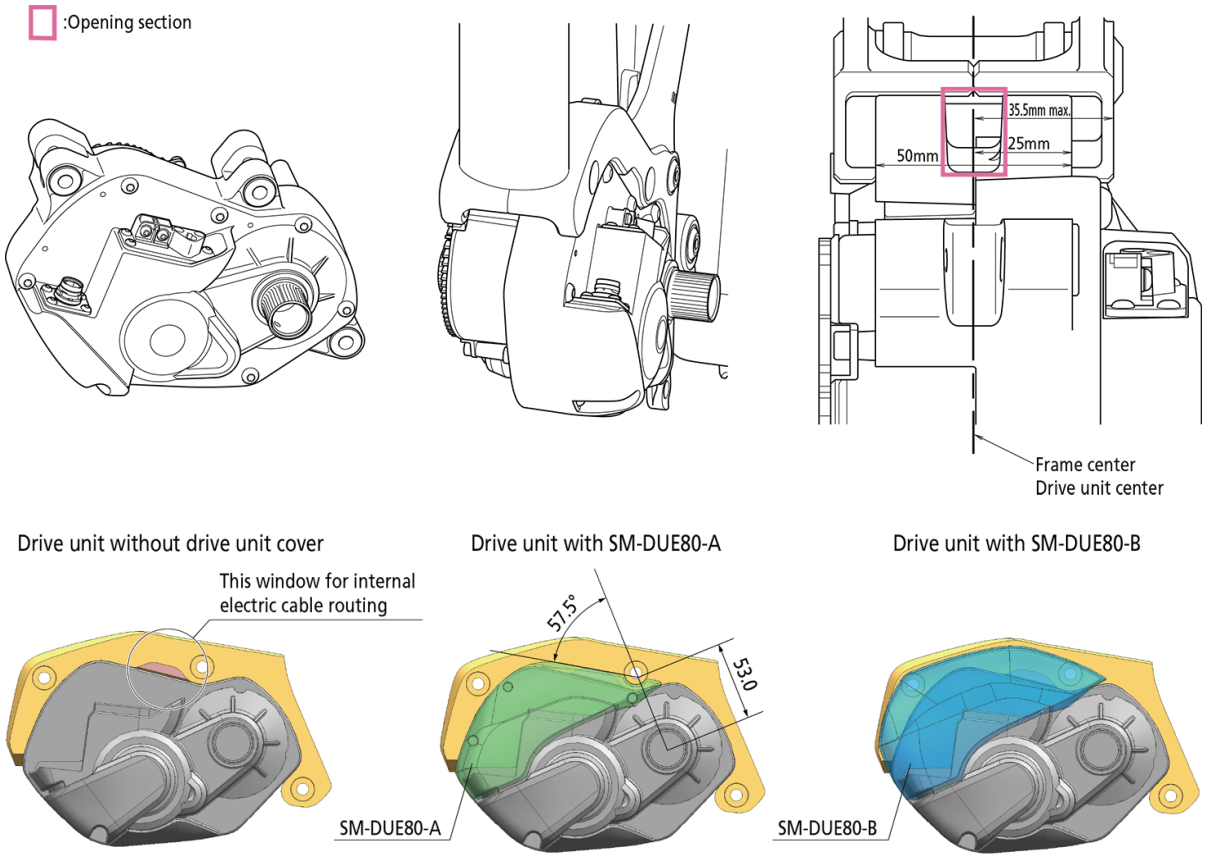
Internal geared hub type 0 - 60°
Rear derailleur type 0 - 60°

# Clearance for cables

## SM-DUE80-A / SM-DUE80-B

**NOTE**

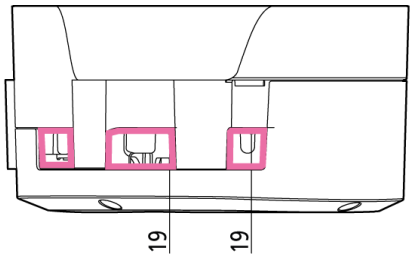
To fit an SM-DUE80-A cover, flat surface on left side of the frame is required to be 35.5 mm max. offset from frame / drive unit center line.
Frame max. thickness of 10.5mm (35.5 mm - 25 mm) is a requirement for SM-DUE80-A / SM-DUE80-B on left side.

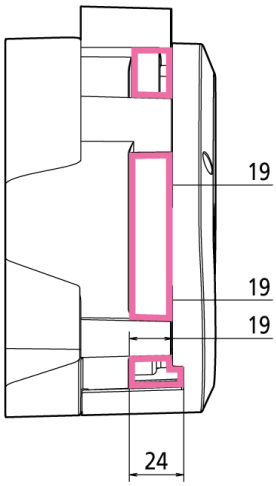


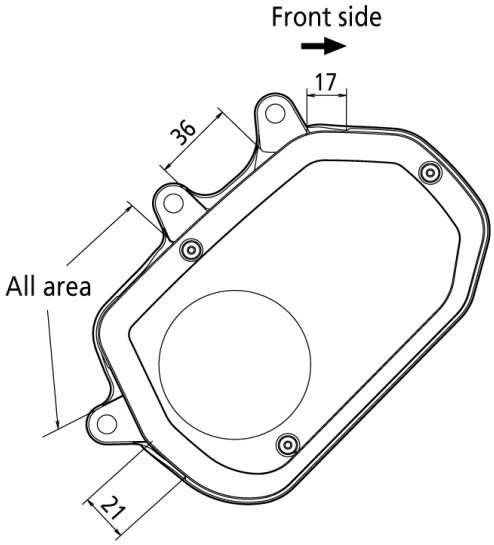

Refer to C-395 for the example of electric cable routing.

## SM-DUE60 (Drive Unit Cover)

:Opening section

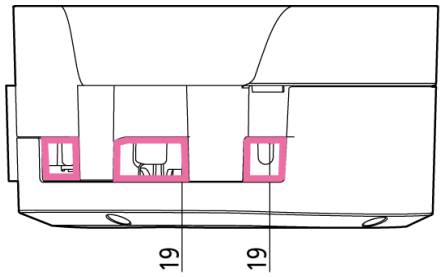


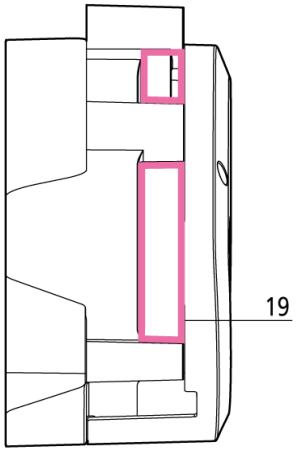



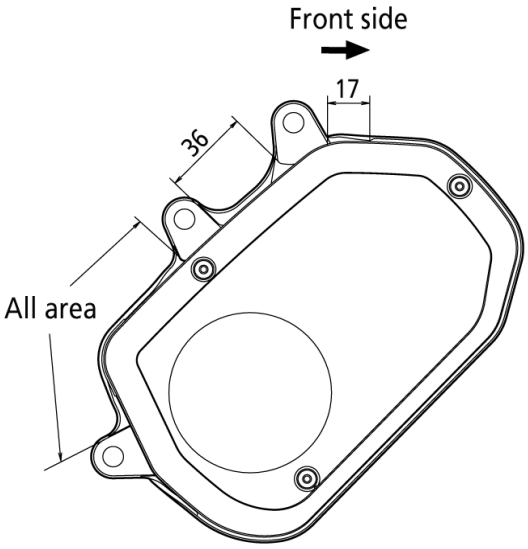




## SM-DUE60-A

:Opening section

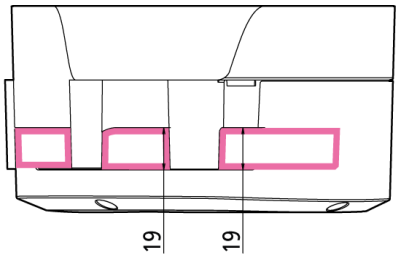


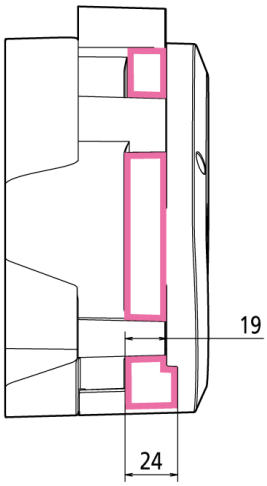



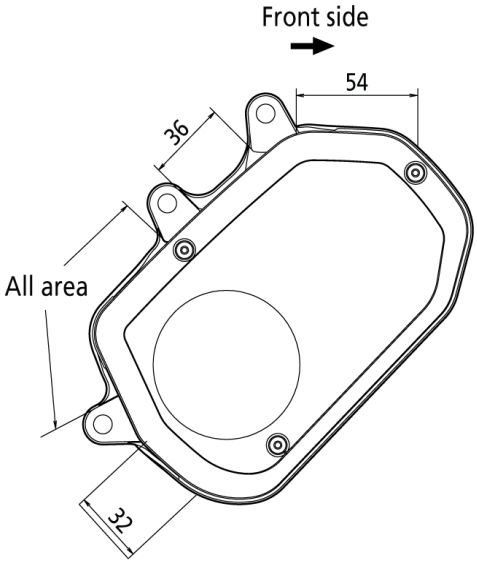



## SM-DUE60-45

:Opening section

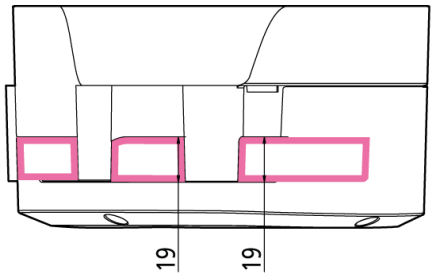


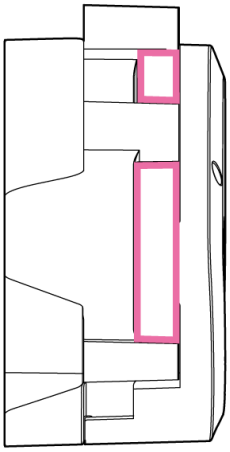



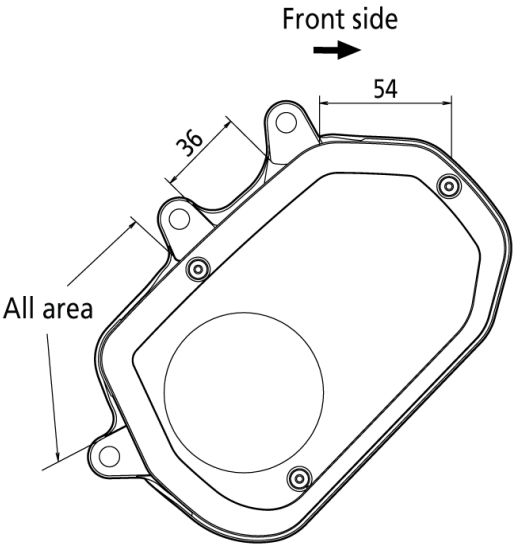




## SM-DUE60-45A

:Opening section

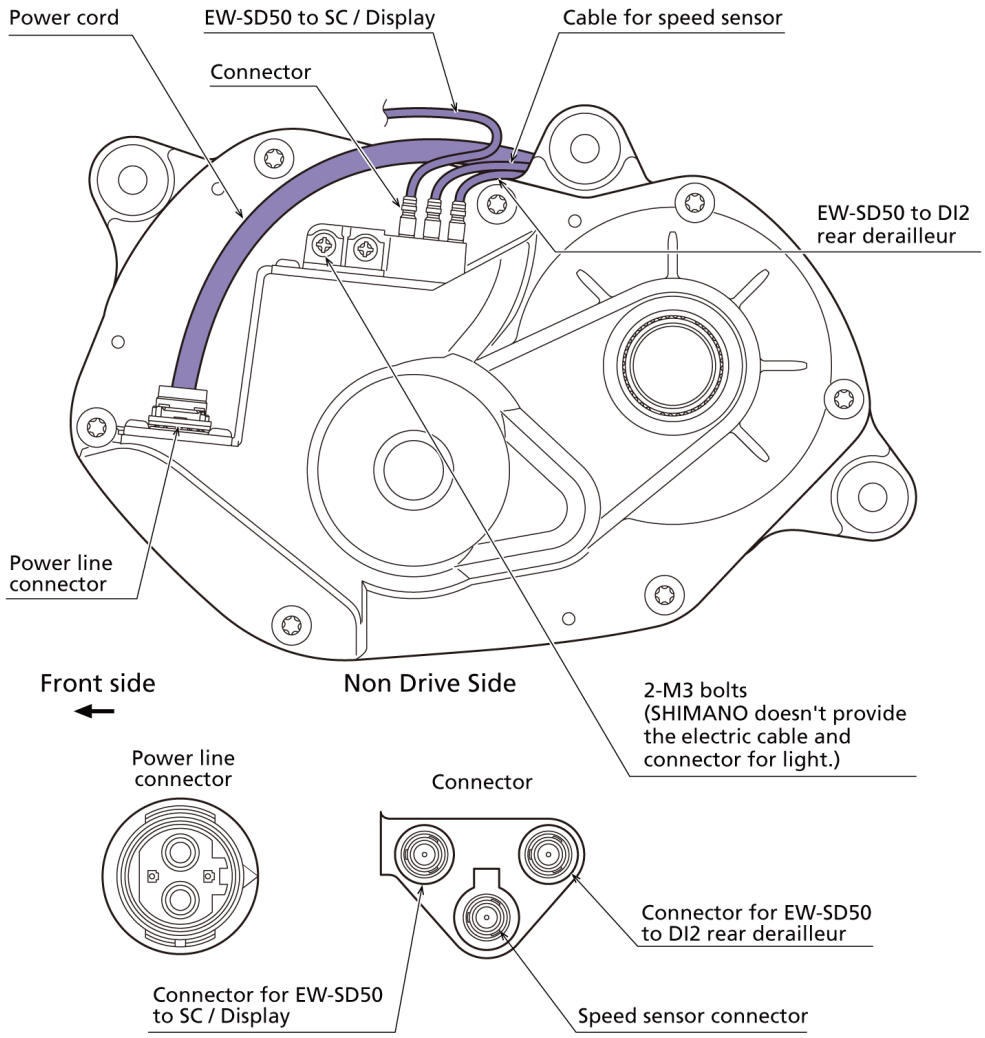




**E8000 / E8080 series**

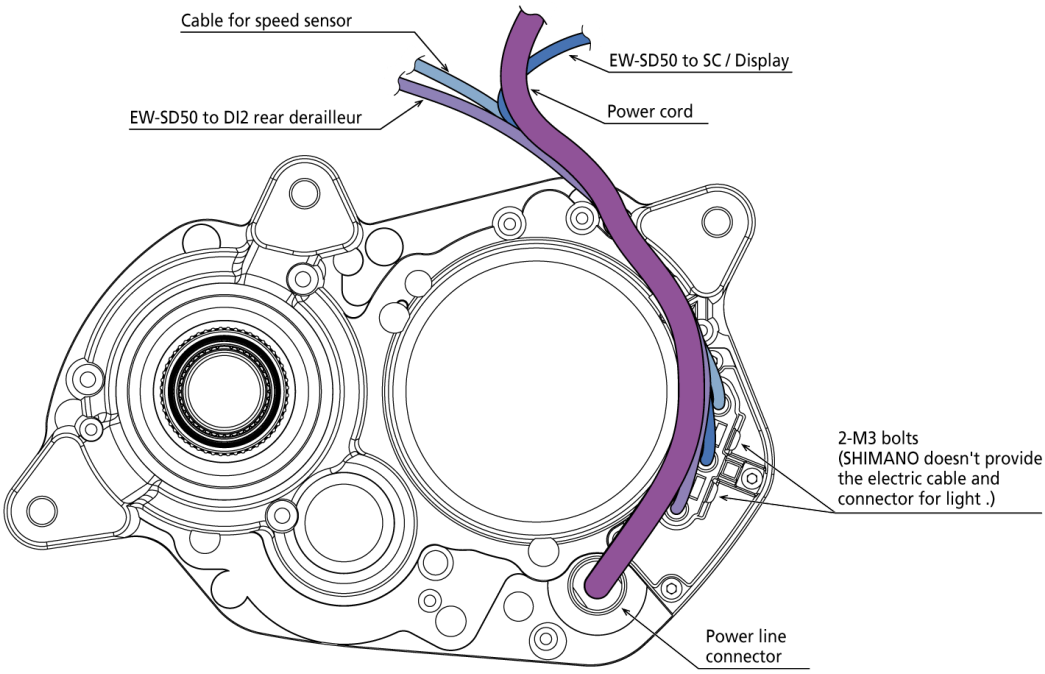
## DU-E8000 / DU-E8080



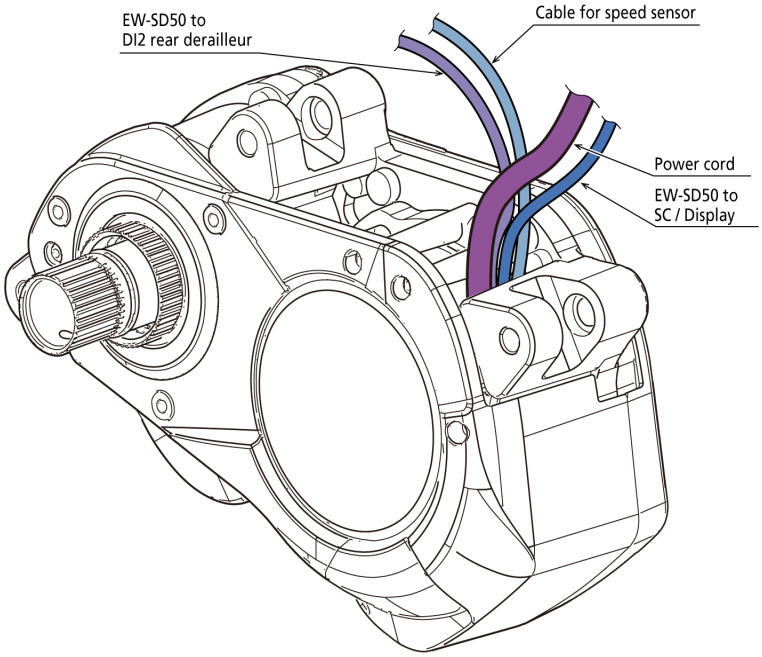

Please refer C-397, C-412 and C-512 for electric wire dimensions.

## E6100 / E7000 series

### DU-E6100 / DU-E6110 / DU-E7000

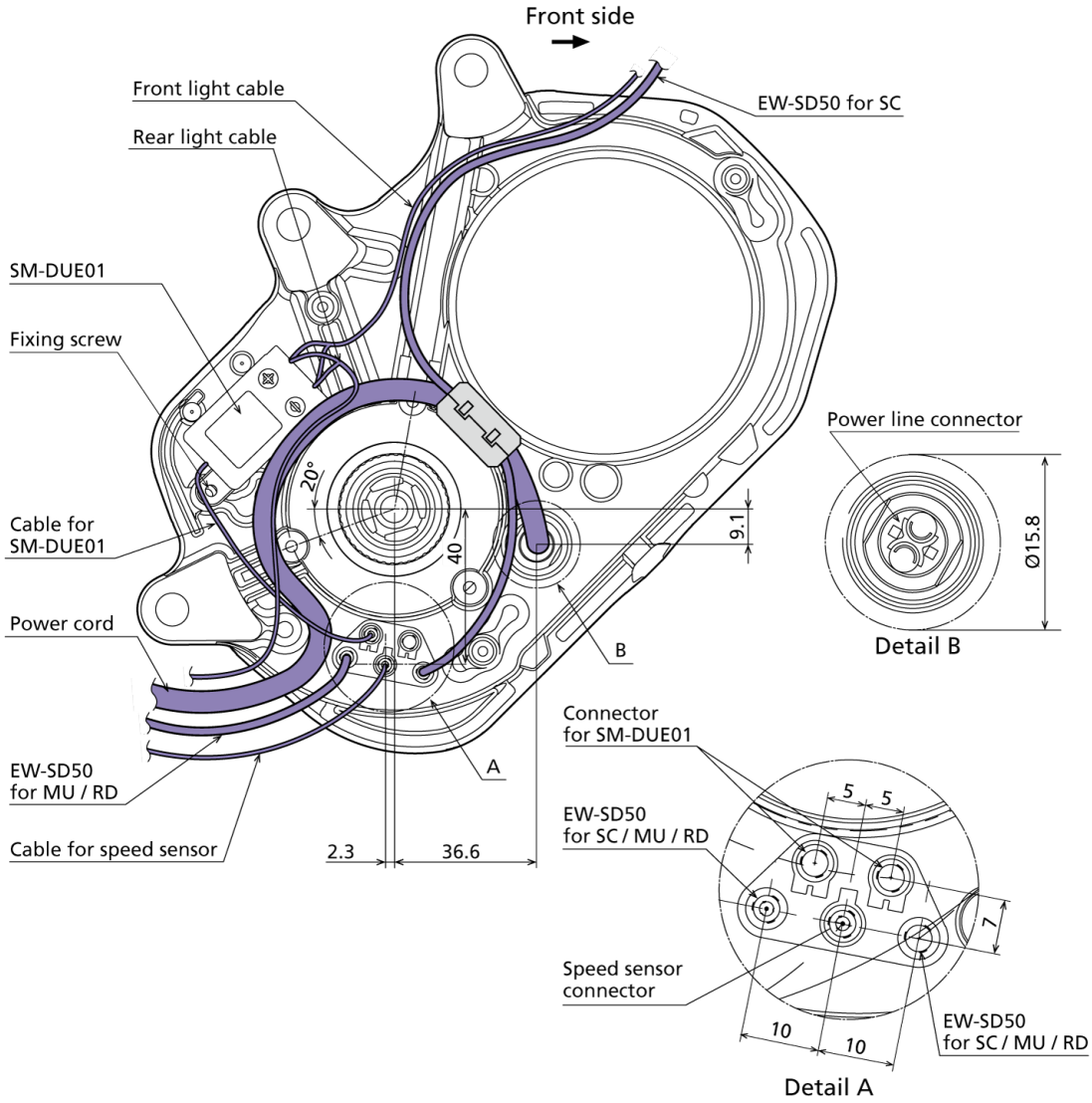



Drive side



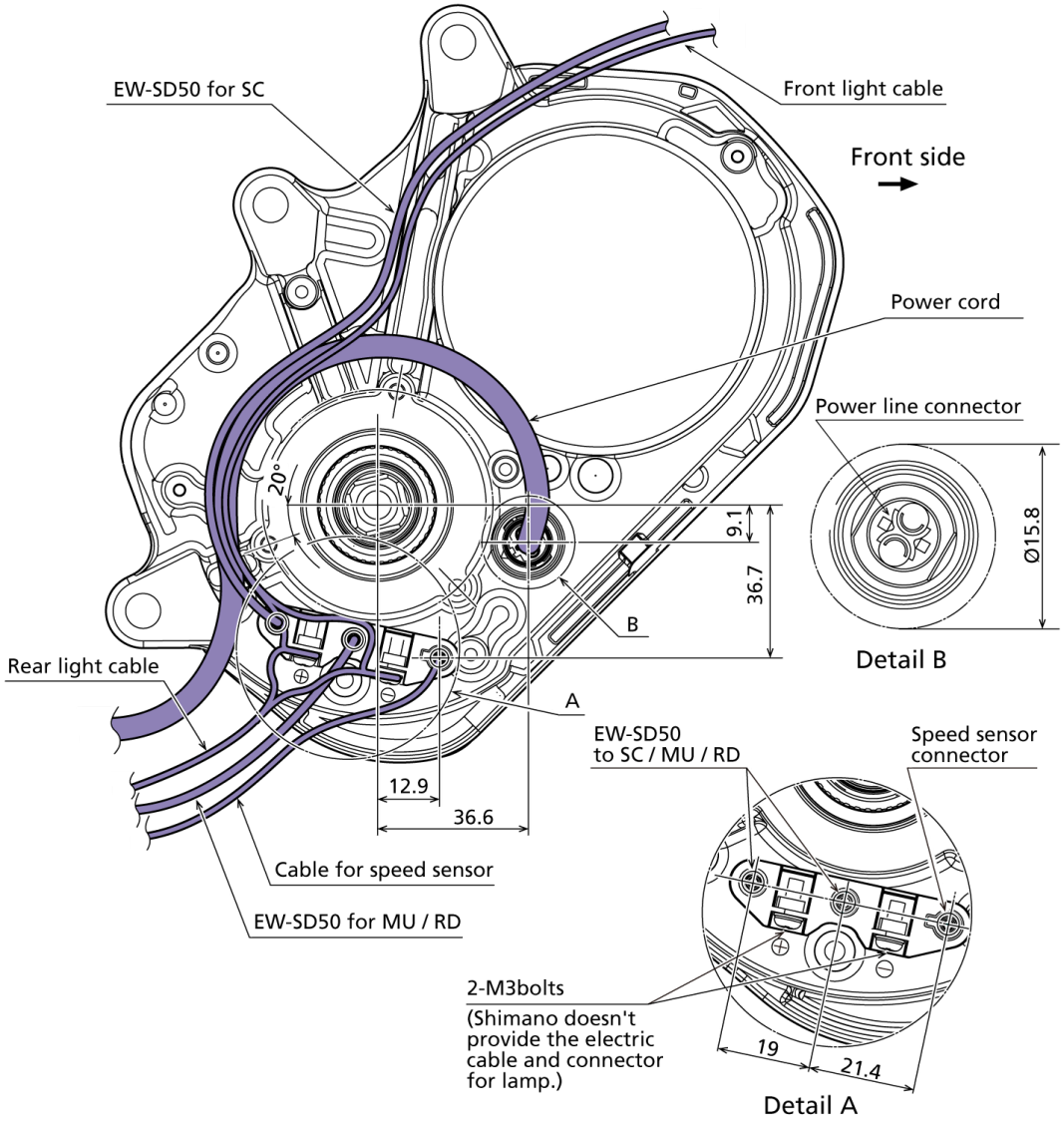
## DU-E6001 / DU-E6010 / DU-E6050

In case of assembly angle 45°



## DU-E6002 / DU-E6012

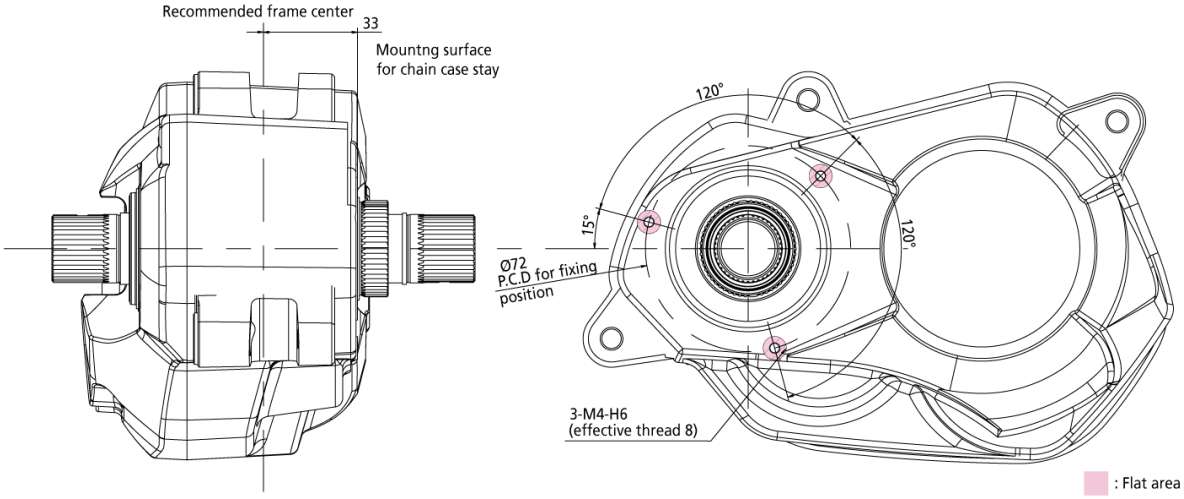
In case of assembly angle 45°



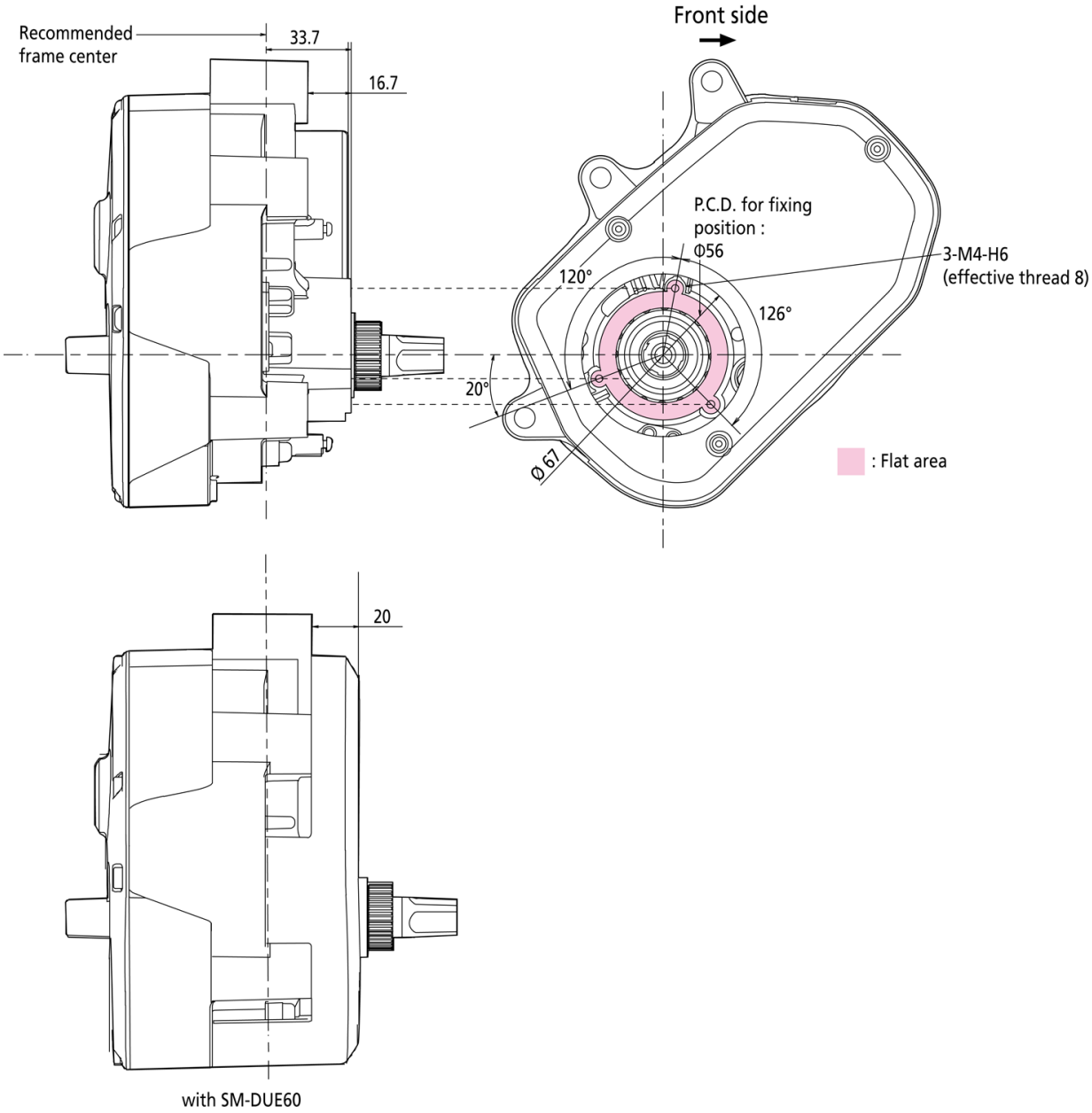
# Dimension for chain case stay



## E6100 series

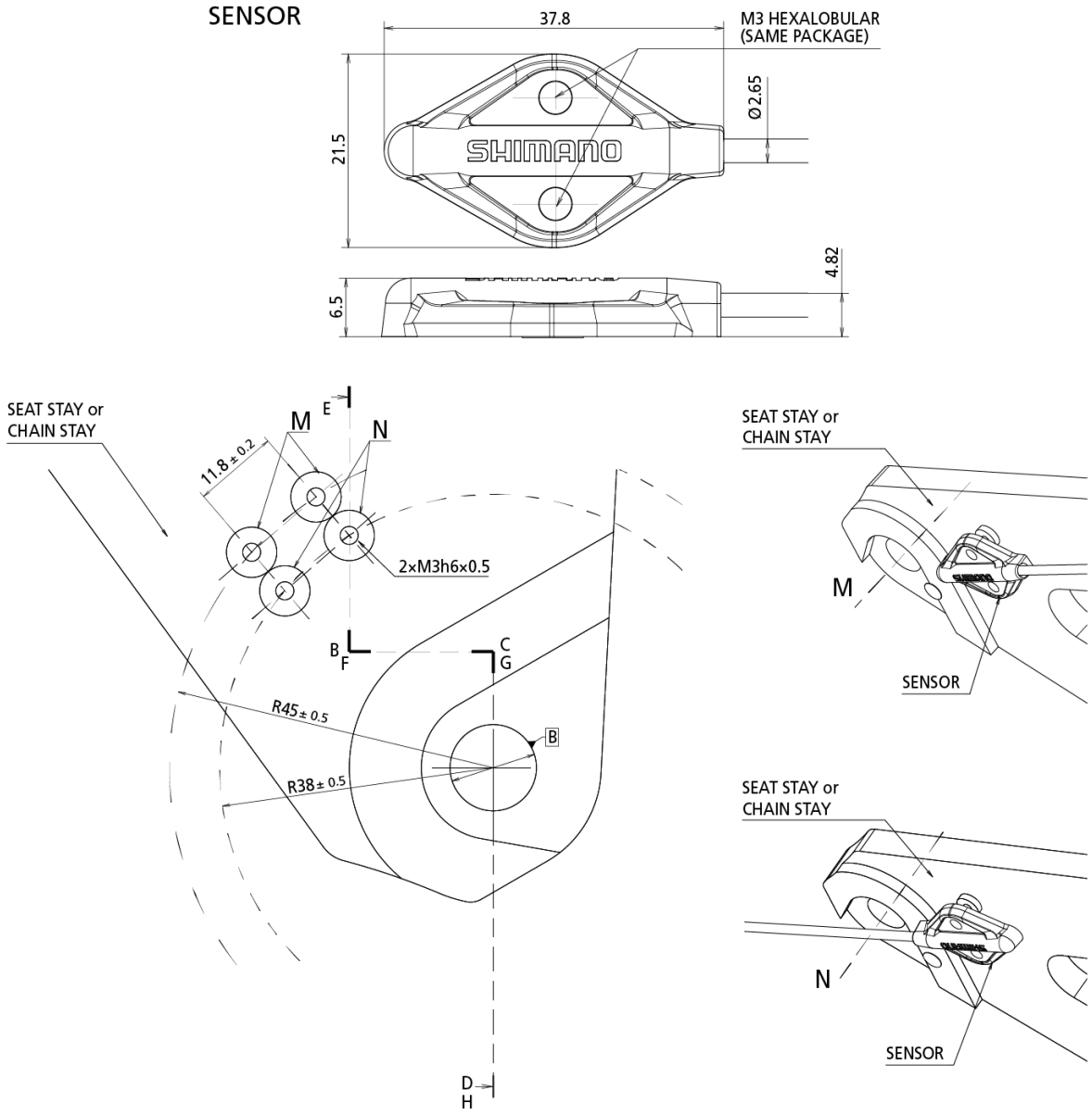


## E6000 series

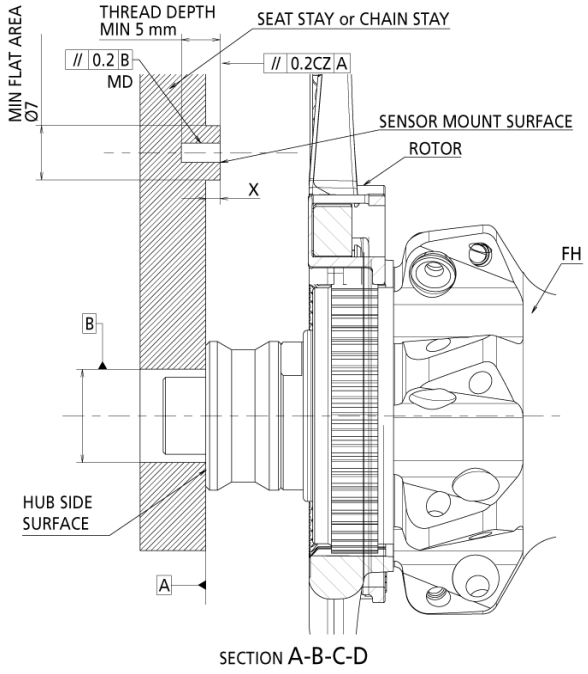


## Speed sensor dimensions C-397

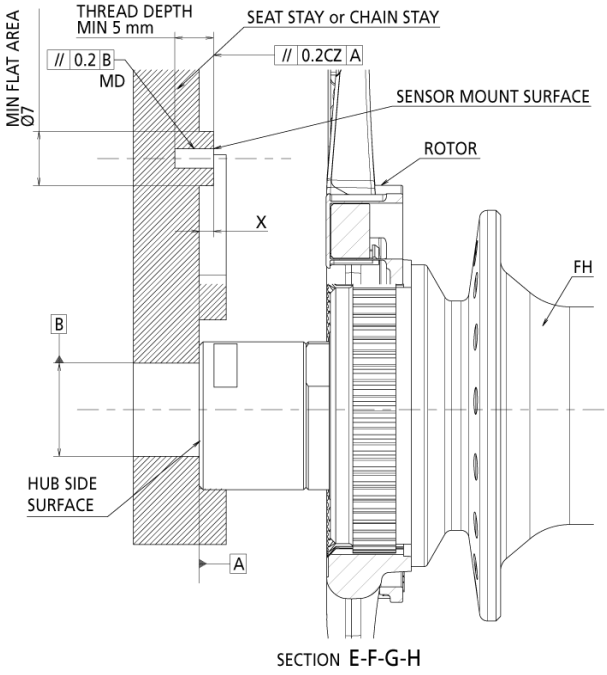
**E8000 / E8080 / E6100 / E6000 series (SM-DUE11)**



QR



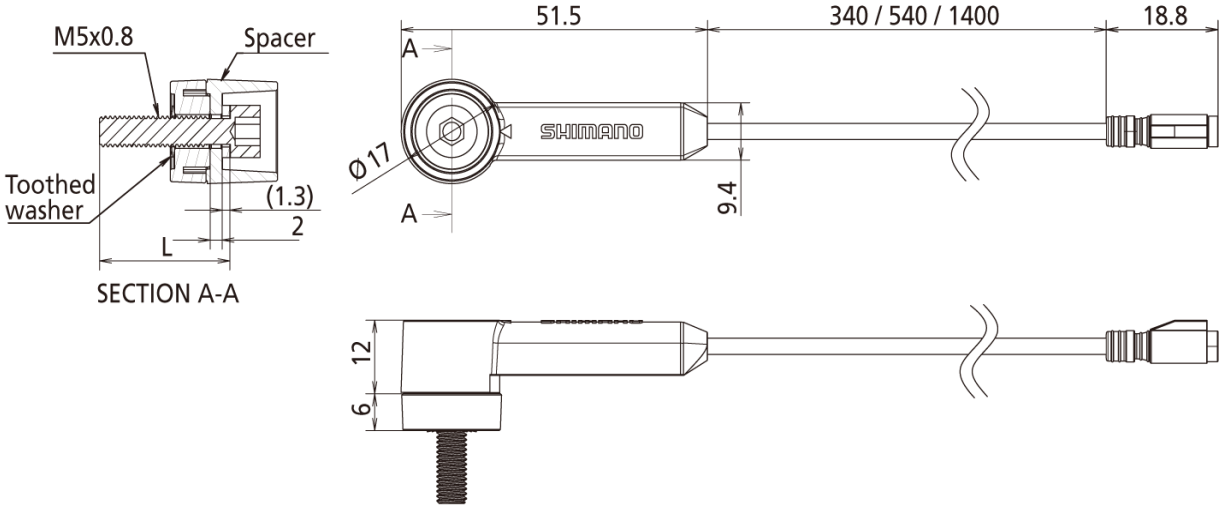

E-THRU




| | QR | E-THRU |
|---|---|---|
| X | -2.35 - 4 | 1.15 - 7.5 |

## E8000 / E6100 / E6000 series (SM-DUE10)

Drive unit includes speed sensor with fixing bolts, a spacer and magnet unit.

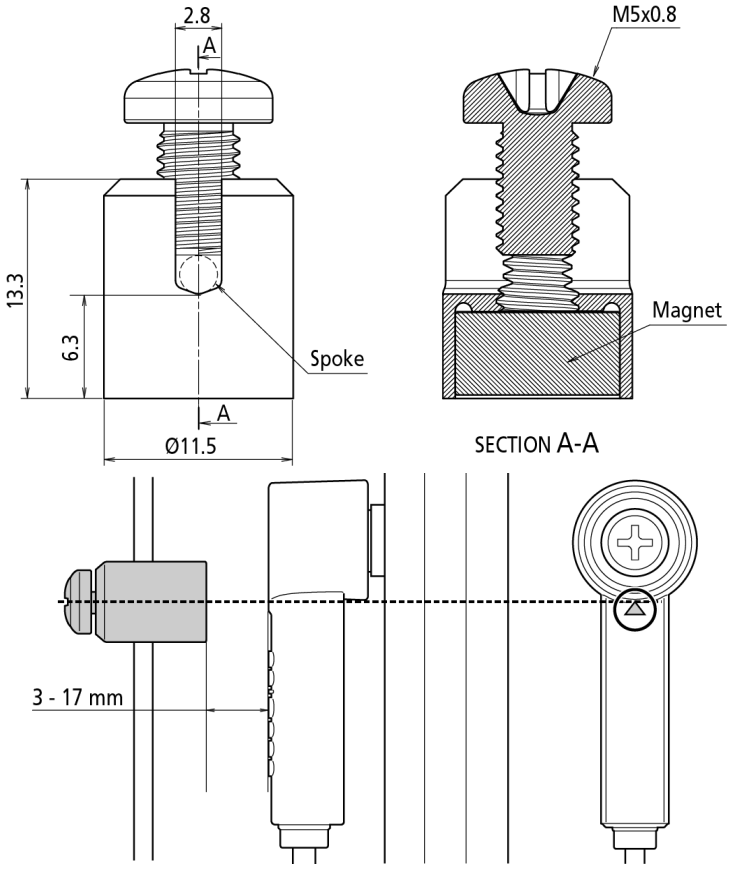



| | Fixing bolt length L (mm) |
|---|---|
| Without spacer spec. | 16 |
| With spacer spec. | 22 |

# Magnet for speed sensor



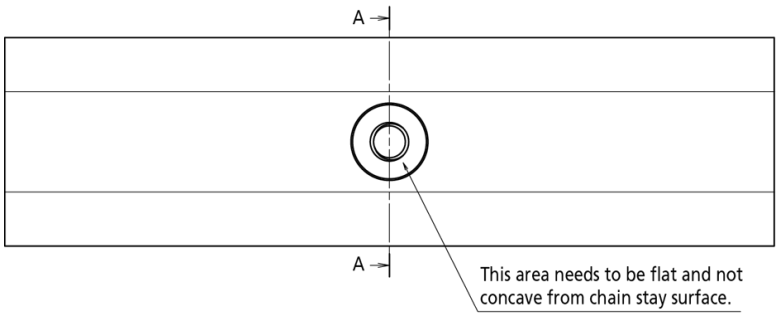
**E8000 / E6100 / E6000 series (SM-DUE10)**

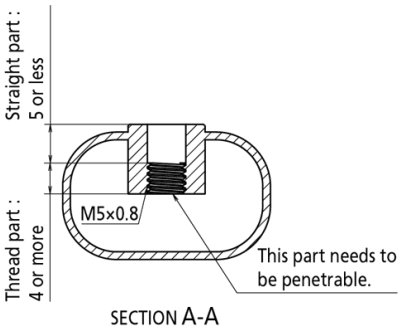


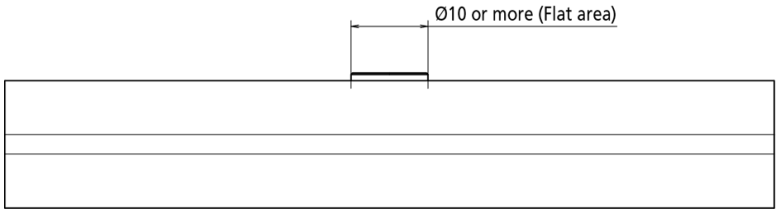
# Frame requirement for chainstay



Distance between speed sensor and magnet should be 3-17 mm
"Our expected tightening torque for this speed sensor is 1.5-2.0Nm. Design frame based on it"



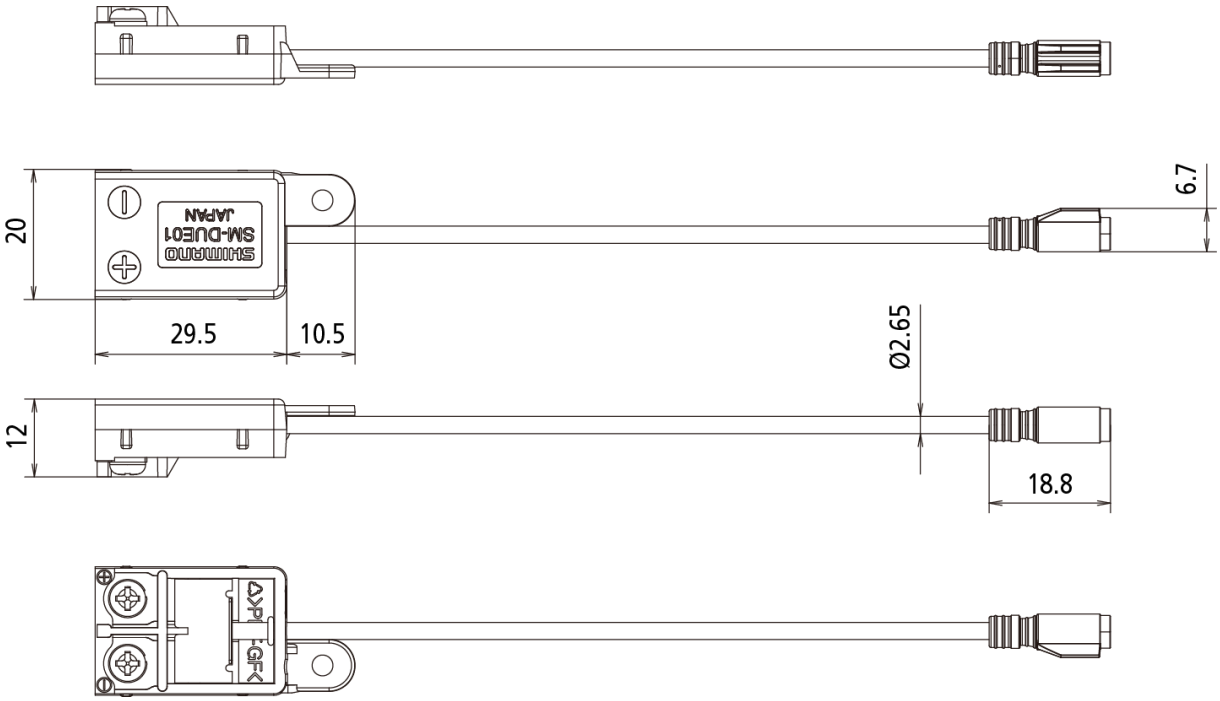



# Adapter for light C-403

## Dimensions C-404

**SM-DUE01**

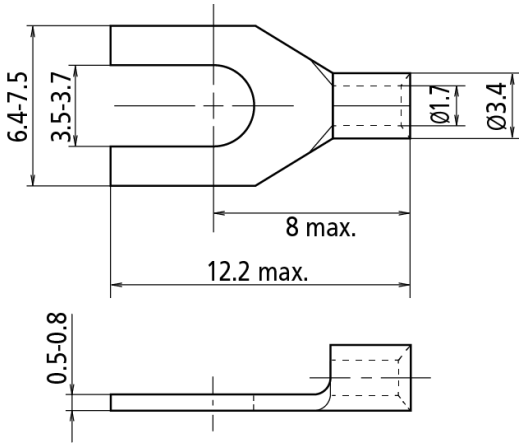
SM-DUE01 includes a M3 bolt for fixing to drive unit.




## Recommended terminal form dimensions C-405

**E8000/E6000 series**

**In case of using terminal with SM-DUE01**

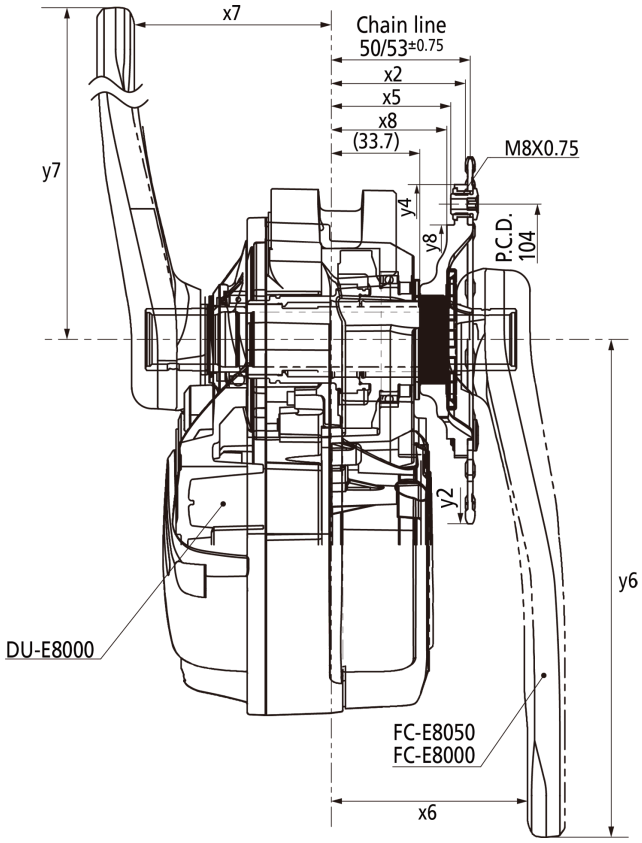


# Dimensions

C-401

## FC-M8050, FC-E8050, FC-E8000 / SM-CRE80

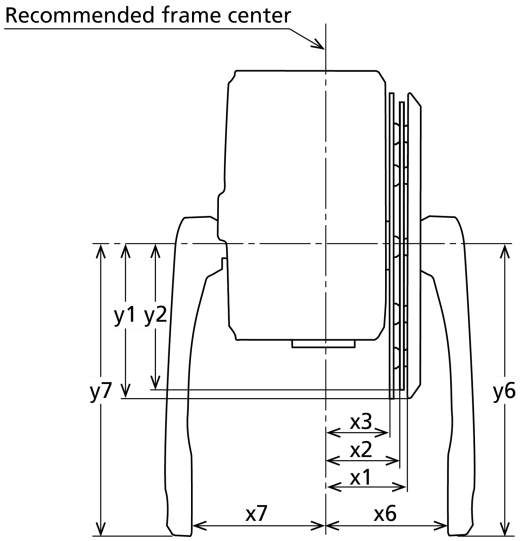
Dimension "X" is based on case of chain line : 50/53mm




| Crank arm | Gear | x2(mm) | x5(mm) | x6(mm) | x7(mm) | x8(mm) | y2(mm) | y4(mm) | y6(mm) | y7(mm) | y8(mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-M8050 | SM-CRE80 38T | 47.5 | 42.2 | 72.6 | 72.6 | - | 81.3 | 61 | 191.9 | 191.9 | - |
| | SM-CRE80 34T | | | | | | 73.3 | | | | |
| | SM-CRE80-B 38T | 50.5 | 45.2 | | | 43.8 | 81.3 | | | | 45.5 |
| | SM-CRE80-B 34T | | | | | | 73.3 | | | | |
| FC-E8050 | SM-CRE80 38T | 47.5 | 42.2 | 72.6 | 72.6 | - | 81.3 | 61 | 191.8 | 191.8 | - |
| | SM-CRE80 34T | | | | | | 73.3 | | | | |
| | SM-CRE80-B 38T | 50.5 | 45.2 | | | 43.8 | 81.3 | | | | 45.5 |
| | SM-CRE80-B 34T | | | | | | 73.3 | | | | |
| FC-E8000 | SM-CRE80 38T | 47.5 | 42.2 | 74.4 | 74.4 | - | 81.3 | 61 | 192.7 | 192.7 | - |
| | SM-CRE80 34T | | | | | | 73.3 | | | | |
| | SM-CRE80-B 38T | 50.5 | 45.2 | | | 43.8 | 81.3 | | | | 45.5 |
| | SM-CRE80-B 34T | | | | | | 73.3 | | | | |

## FC-M8050, FC-E8050, FC-E8000 / SM-CRE80

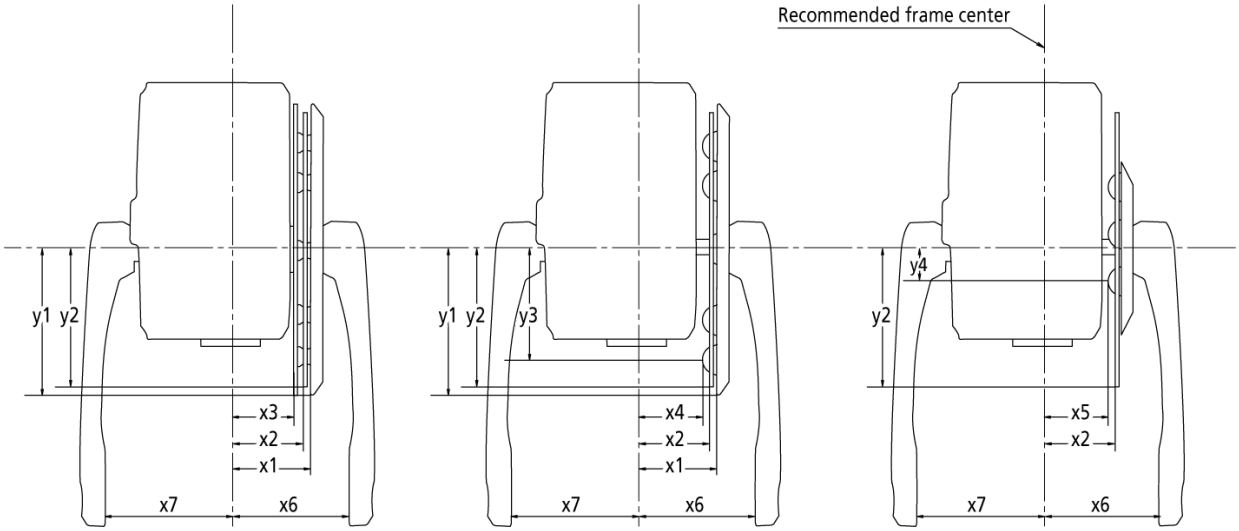
Dimension “X” is based on case of chain line : 50mm




| Crank arm | Gear | x1(mm) | x2(mm) | x3(mm) | x6(mm) | x7(mm) | y1(mm) | y2(mm) | y6(mm) | y7(mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| FC-M8050 | SM-CRE80 44T | 53.4 | 48.3 | 41.2 | 72.6 | 72.6 | 100.6 | 93.9 | 191.9 | 191.9 |
| FC-E8050 | SM-CRE80 44T | 53.4 | 48.3 | 41.2 | 72.6 | 72.6 | 100.6 | 93.9 | 191.8 | 191.8 |
| FC-E8000 | SM-CRE80 44T | 53.4 | 48.3 | 41.2 | 73.4 | 73.4 | 100.6 | 93.9 | 192.7 | 192.7 |

## FC-E6000, FC-E6010 / SM-CRE60

Dimension “X” is based on case of chain line : 46.5mm

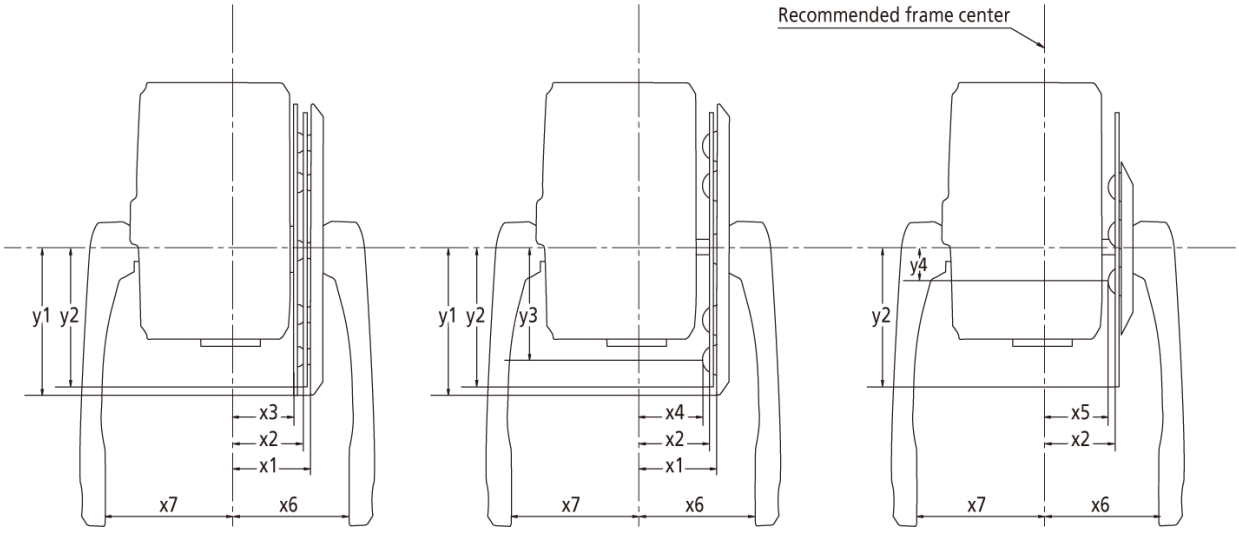



| Crank arm | Gear | CG | x1(mm) | x2(mm) | x3(mm) | x4(mm) | x5(mm) | x6(mm) | x7(mm) | y1(mm) | y2(mm) | y3(mm) | y4(mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-E6000 | 44T (SM-CRE60) | w/ Double | 51 | 44.2 | 38.5 | - | - | 73.4 | 82.2 | 98.6 | 95 | 76.6 | - |
| | | w/ Single | 51 | 44.2 | - | 41.7 | - | | | 98.6 | 95 | 76.6 | - |
| | | w/o | - | 44.2 | - | - | 41.7 | | | - | 95 | - | 38 |
| | 38T (SM-CRE60) | w/ Double | 51 | 44.2 | 38.5 | - | - | 73.4 | 82.2 | 85.8 | 83.8 | 67.7 | - |
| | | w/ Single | 51 | 44.2 | - | 41.7 | - | | | 85.8 | 83.8 | 67.7 | - |
| | | w/o | - | 44.2 | - | - | 41.7 | | | - | 83.8 | - | 38 |

| Crank arm | Gear | CG | x1(mm) | x2(mm) | x3(mm) | x4(mm) | x5(mm) | x6(mm) | x7(mm) | y1(mm) | y2(mm) | y3(mm) | y4(mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-E6010 | 44T (SM-CRE60) | w/ Double | 51 | 44.2 | 38.5 | - | - | 86.1 | 94.9 | 98.6 | 95 | 76.6 | - |
| | | w/ Single | 51 | 44.2 | - | 41.7 | - | | | 98.6 | 95 | 76.6 | - |
| | | w/o | - | 44.2 | - | - | 41.7 | | | - | 95 | - | 38 |
| | 38T (SM-CRE60) | w/ Double | 51 | 44.2 | 38.5 | - | - | 86.1 | 94.9 | 85.8 | 83.8 | 67.7 | - |
| | | w/ Single | 51 | 44.2 | - | 41.7 | - | | | 85.8 | 83.8 | 67.7 | - |
| | | w/o | - | 44.2 | - | - | 41.7 | | | - | 83.8 | - | 38 |

## FC-E8050, FC-E8000, FC-E6100 / SM-CRE61

Dimension “X” is based on case of chain line : 46.5mm




| Crank arm | Gear | CG | x1(mm) | x2(mm) | x3(mm) | x4(mm) | x5(mm) | x6(mm) | x7(mm) | y1(mm) | y2(mm) | y3(mm) | y4(mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-E8050 | 44T (SM-CRE61) | w/ Double | 49.8 | 44.8 | 38.9 | - | - | 75 | 75 | 98.4 | 95 | 82.5 | - |
| | | w/ Single | 49.8 | 44.8 | - | 41.8 | - | | | 98.4 | 95 | 82.5 | - |
| | | w/o | - | 44.8 | - | - | 41.8 | | | - | 95 | - | 40.7 |
| | 38T (SM-CRE61) | w/ Double | 49.8 | 44.8 | 38.9 | - | - | 75 | 75 | 86.3 | 83.8 | 68.7 | - |
| | | w/ Single | 49.8 | 44.8 | - | 41.8 | - | | | 86.3 | 83.8 | 68.7 | - |
| | | w/o | - | 44.8 | - | - | 41.8 | | | - | 83.8 | - | 40.7 |

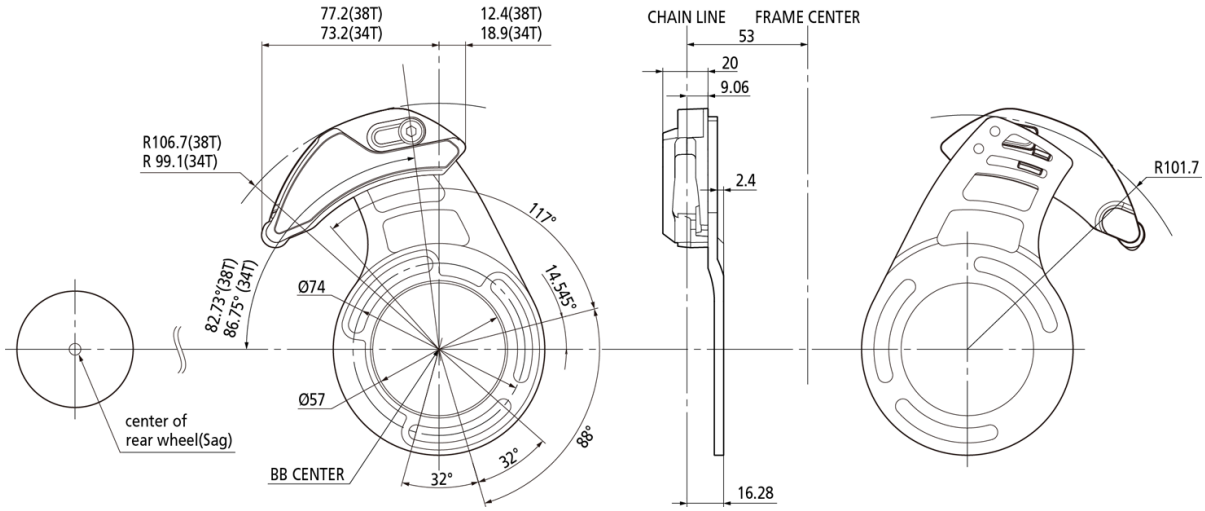
| Crank arm | Gear | CG | x1(mm) | x2(mm) | x3(mm) | x4(mm) | x5(mm) | x6(mm) | x7(mm) | y1(mm) | y2(mm) | y3(mm) | y4(mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FC-E8000 FC-E6100 | 44T (SM-CRE61) | w/ Double | 49.8 | 44.8 | 38.9 | - | - | 75.3 | 75.3 | 98.4 | 95 | 82.5 | - |
| | | w/ Single | 49.8 | 44.8 | - | 41.8 | - | | | 98.4 | 95 | 82.5 | - |
| | | w/o | - | 44.8 | - | - | 41.8 | | | - | 95 | - | 40.7 |
| | 38T (SM-CRE61) | w/ Double | 49.8 | 44.8 | 38.9 | - | - | 75.3 | 75.3 | 86.3 | 83.8 | 68.7 | - |
| | | w/ Single | 49.8 | 44.8 | - | 41.8 | - | | | 86.3 | 86.3 | 68.7 | - |
| | | w/o | - | 44.8 | - | - | 41.8 | | | - | 83.8 | - | 40.7 |

# Chain device dimensions C-510

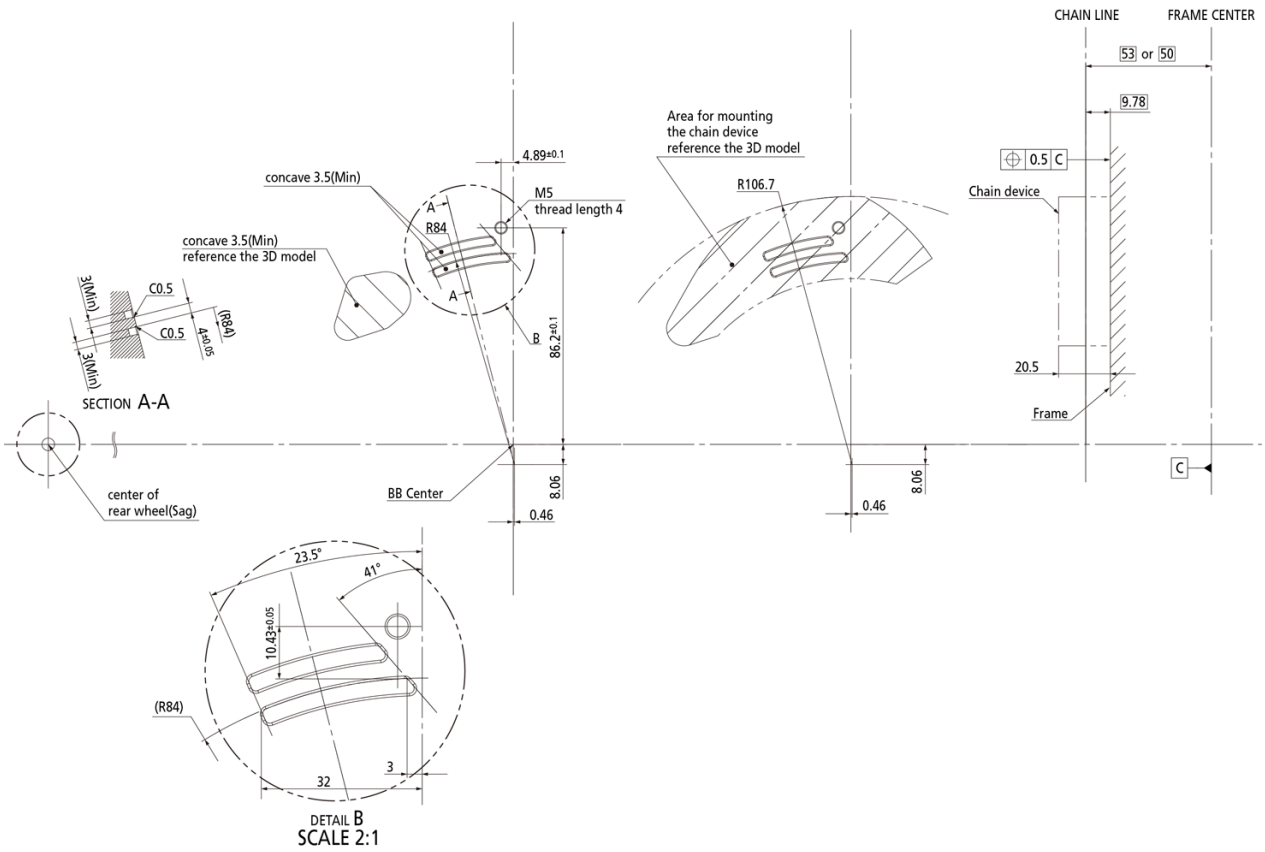
## SM-CDE80

If the chain and chain device interfere with each other when SM-CDE80 is used on a bicycle with rear suspension at sag position, please adjust angle the chain device not to touch chain in the position of low gear.

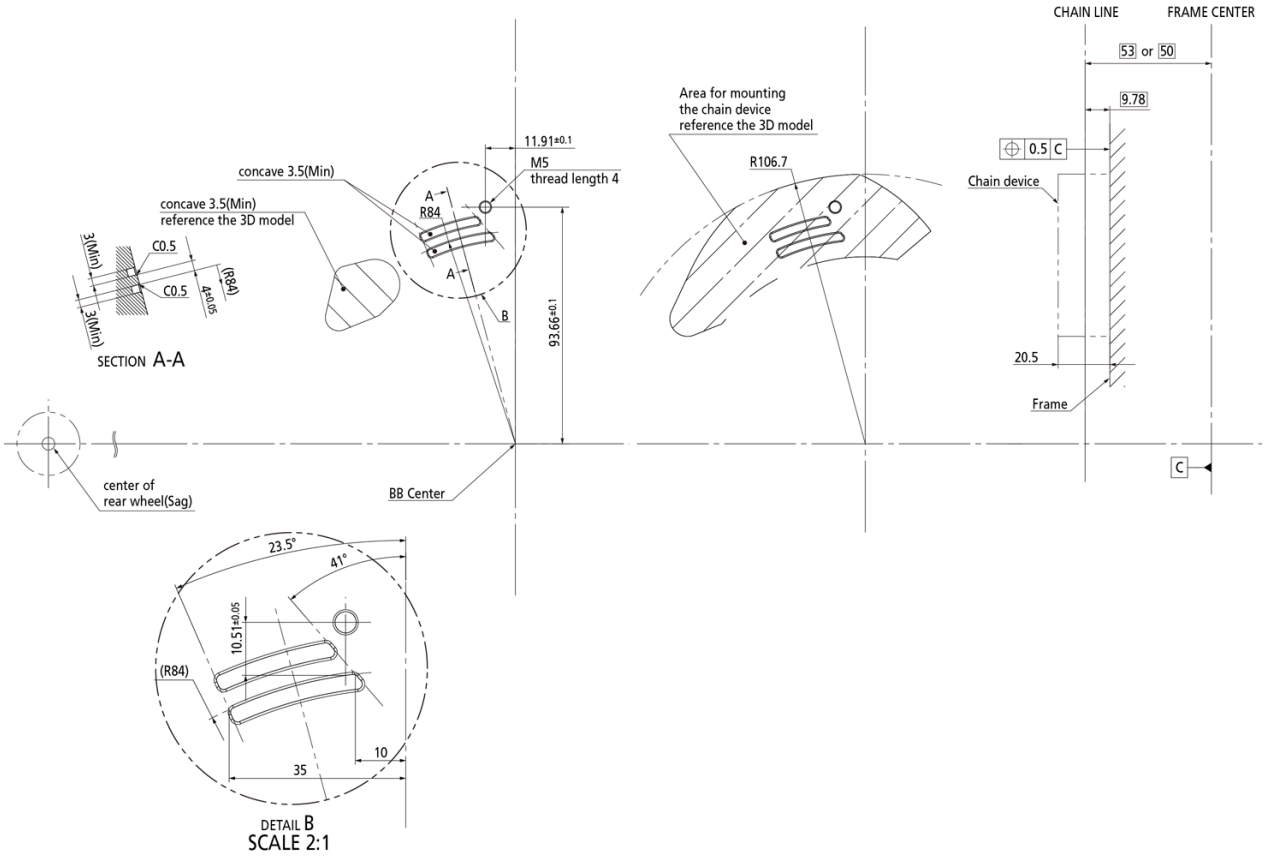
### SM-CDE80 (with plate)




### SM-CDE80 34T (without plate)



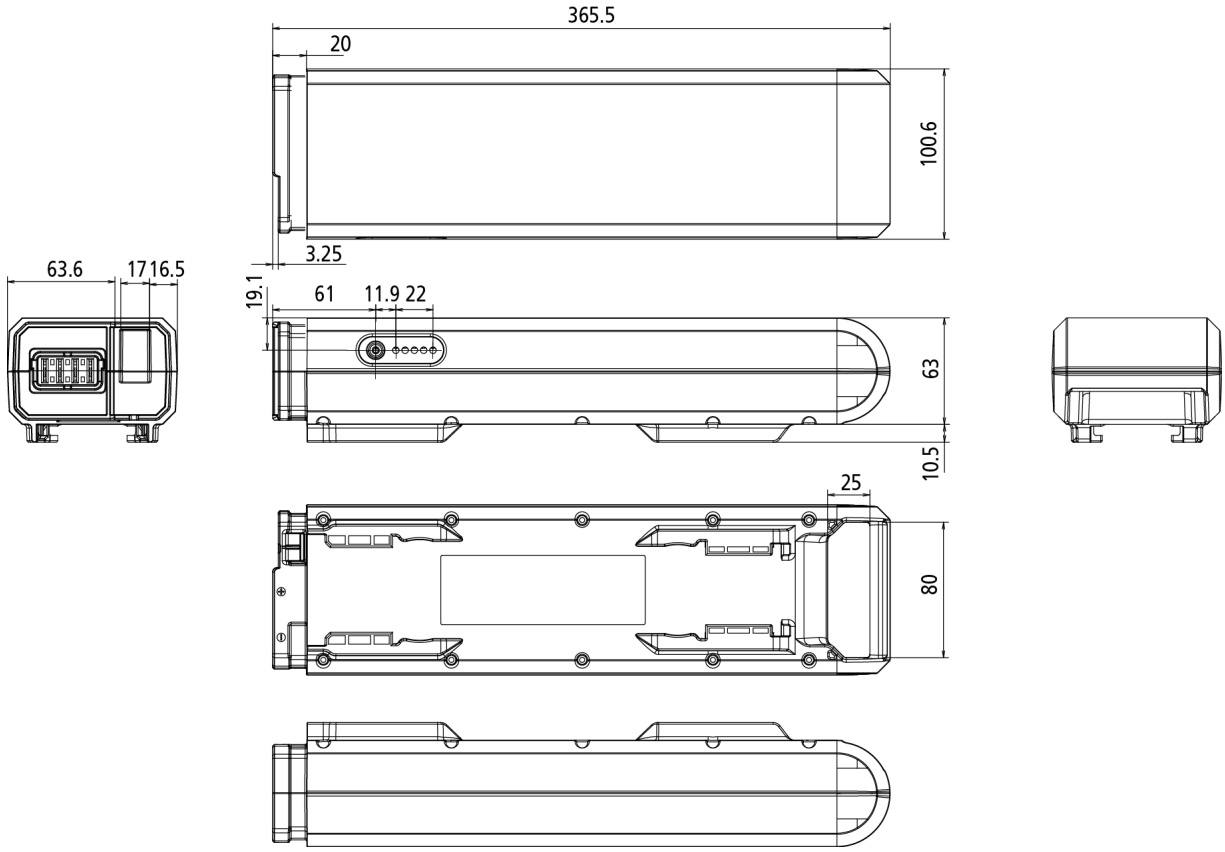
## SM-CDE80 38T (without plate)



# Carrier type battery and battery mount C-484

## Battery dimensions C-407

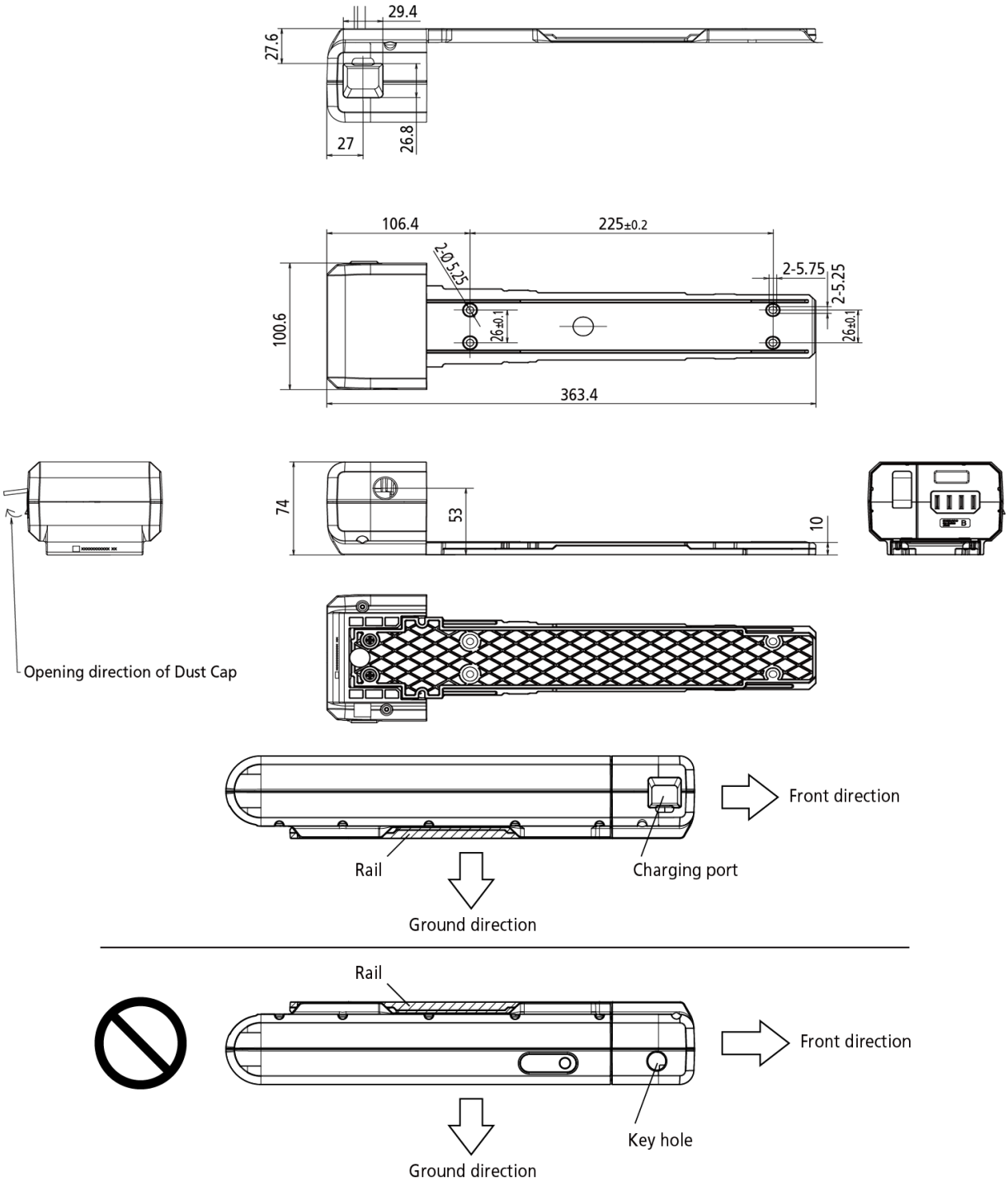
**BT-E6000 / BT-E6001**



# Mount dimensions C-408

Battery mount doesn't include fixing bolts with carrier.
Battery is recommended placing to horizontal.

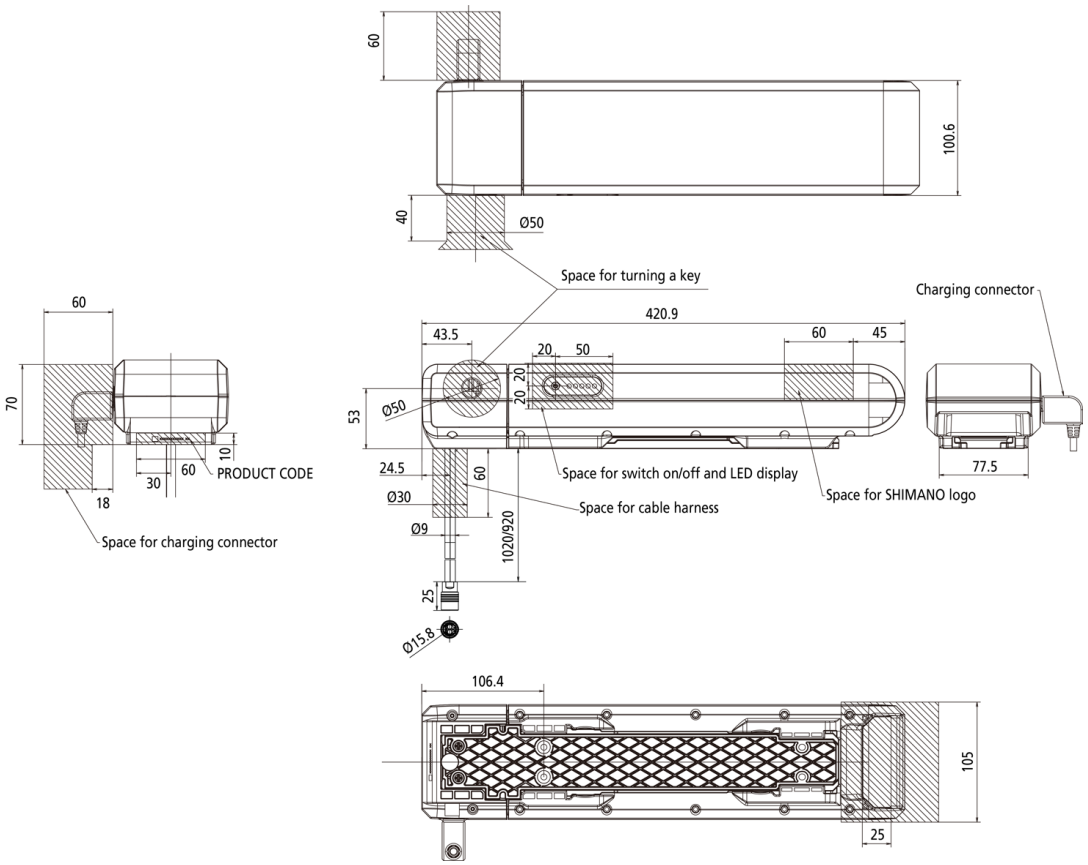
**BM-E6000**



# Interference dimensions C-409

In these shaded area, there is a possibility of interference.
Design avoiding these area.

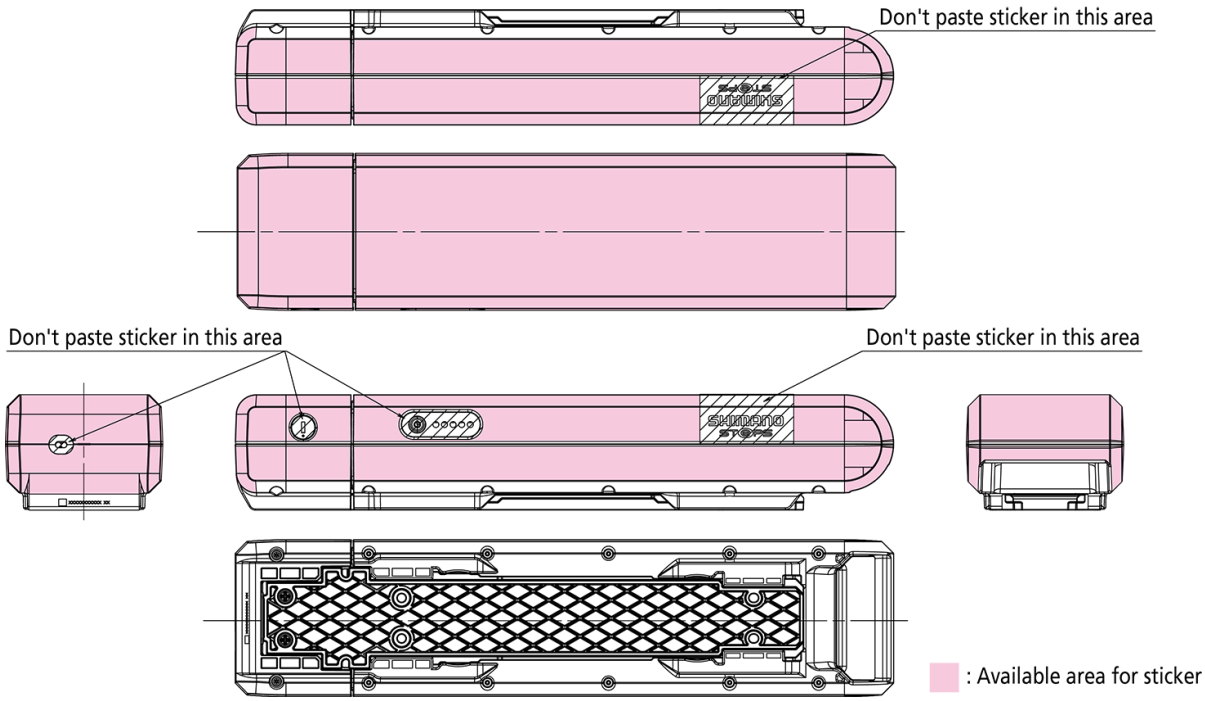
**BM-E6000**




| Model No. | a (mm) | b (mm) |
|---|---|---|
| BM-E6000-A | 72.4 | 34 |
| BM-E6000-B | 62.9 | 43.5 |

# Available area for sticker C-490

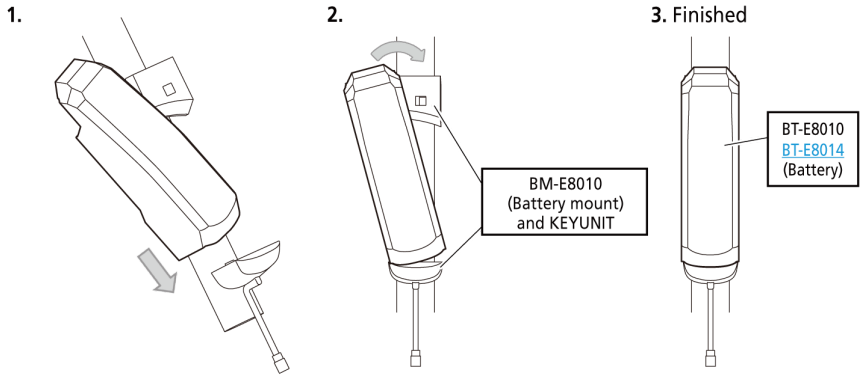
**BT-E6000 / BT-E6001 and BM-E6000**



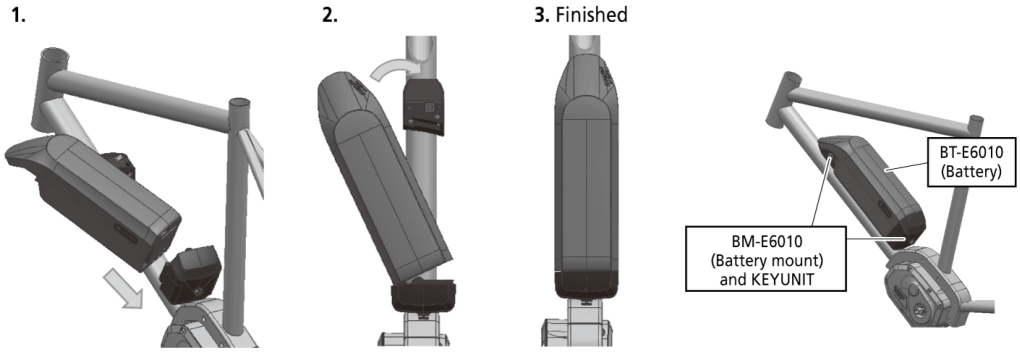
# Down tube type battery and battery mount C-480

## How to installing/removing the battery C-410

### BT-E8010 / BT-E8014



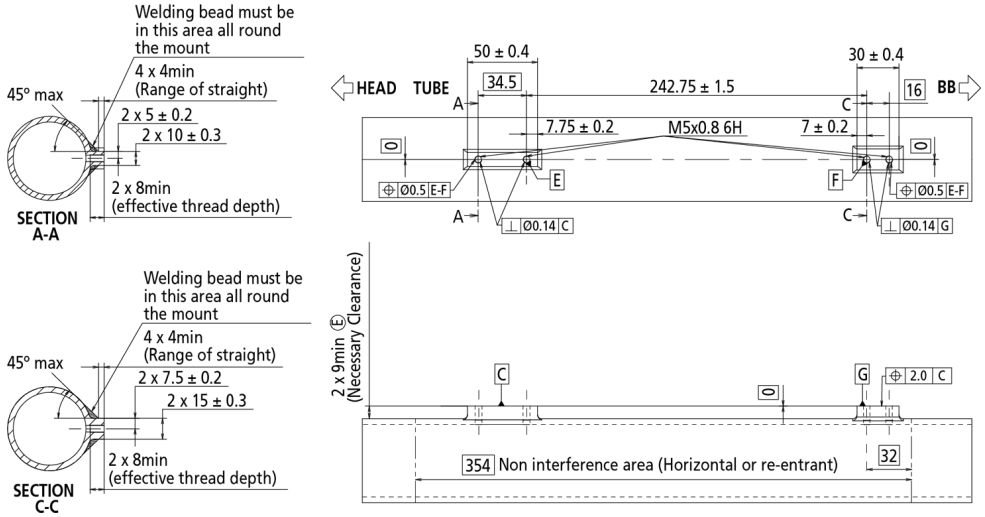

### BT-E6010




## Frame requirement for down tube type battery mount C-411

### BM-E8010 / BM-E6010

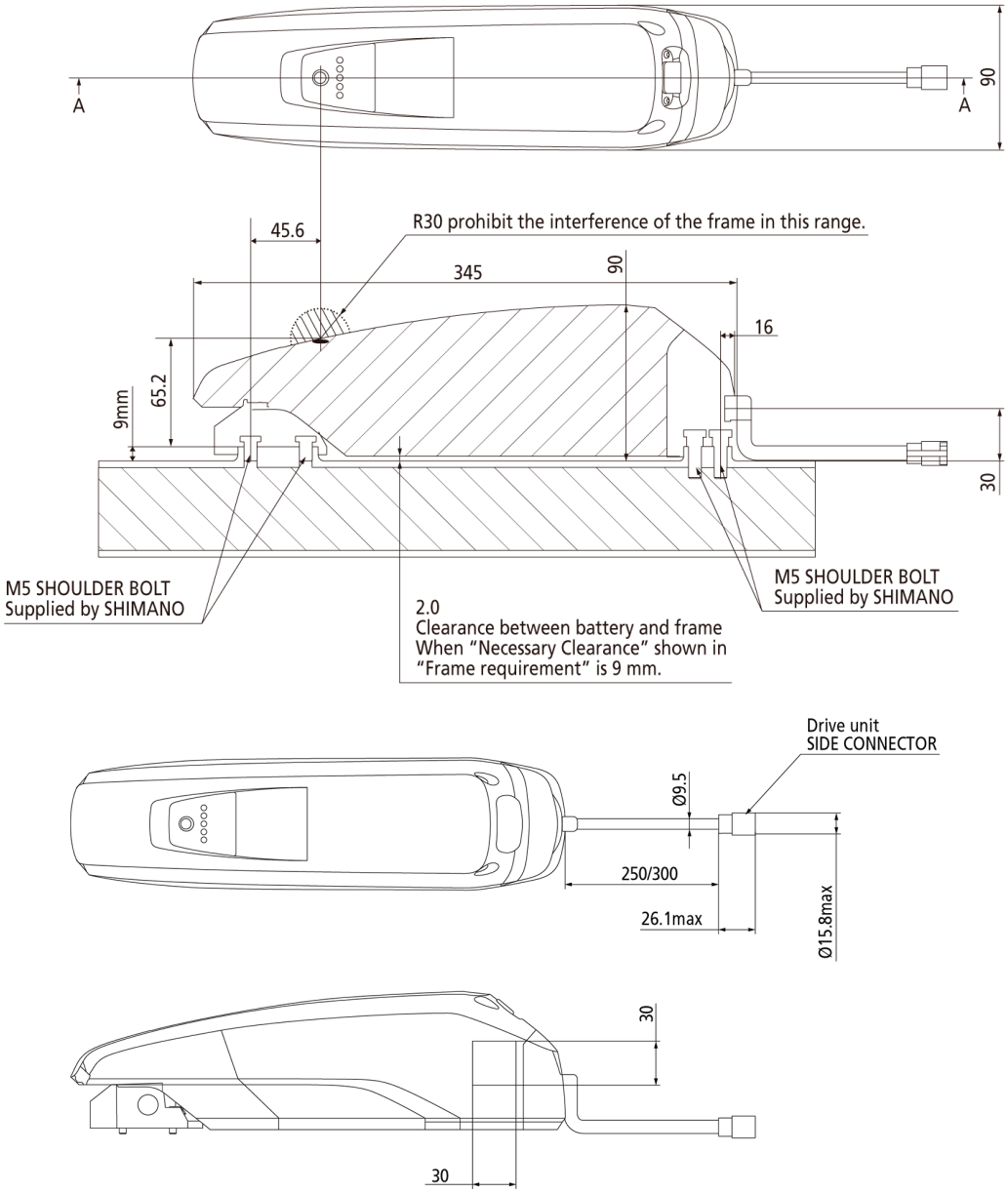
Our recommended tightening torque is 3Nm for four screw holes . Design frame based on it.



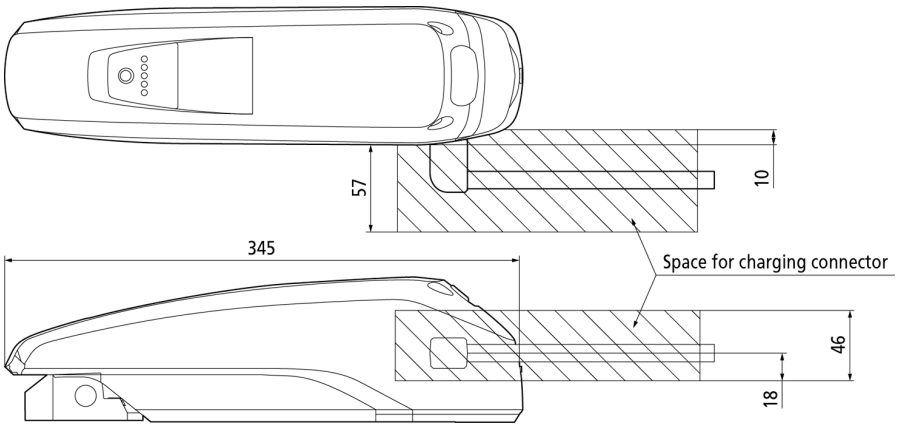

Battery position : Upper side of down tube only

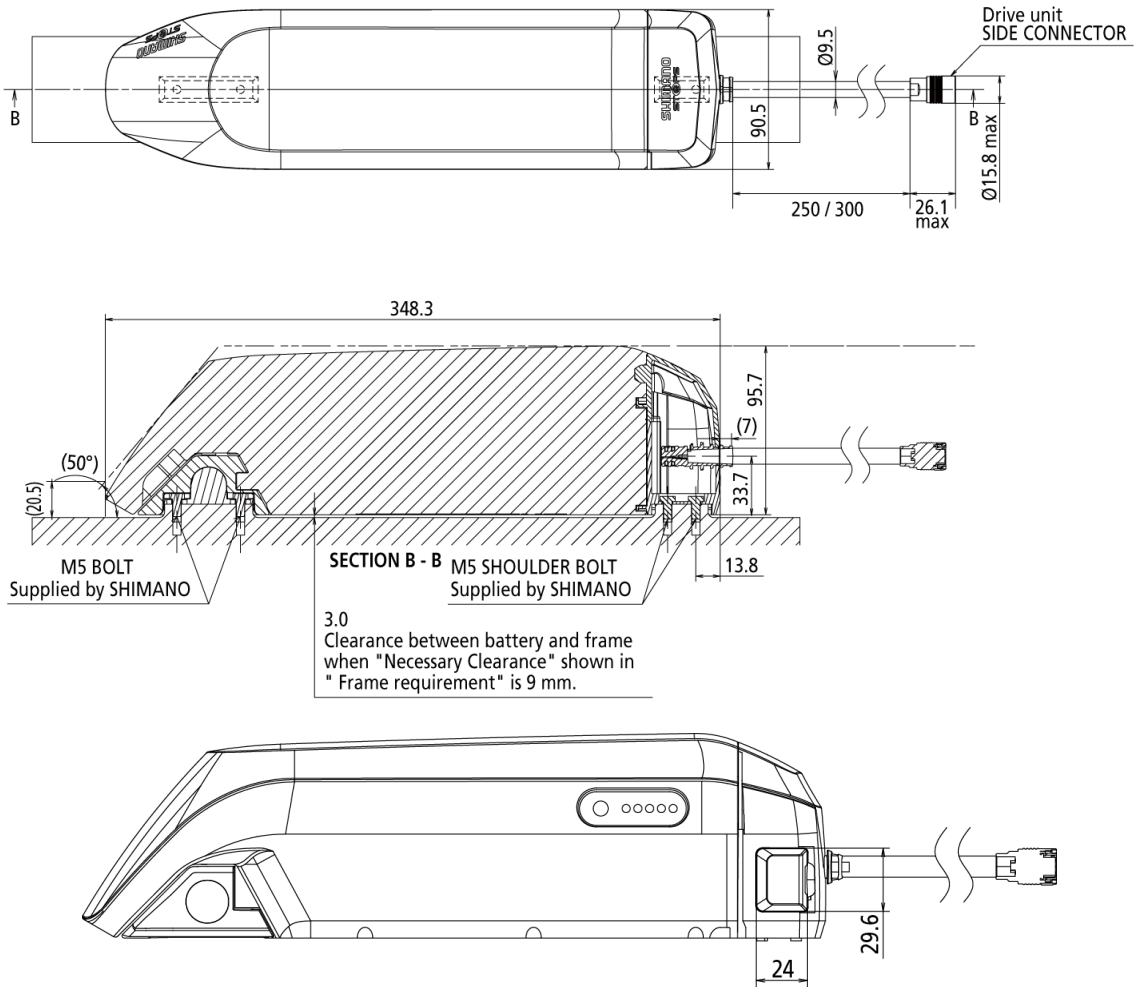
# Battery and battery mount dimensions C-412

**BT-E8010 / BT-E8014 and BM-E8010**

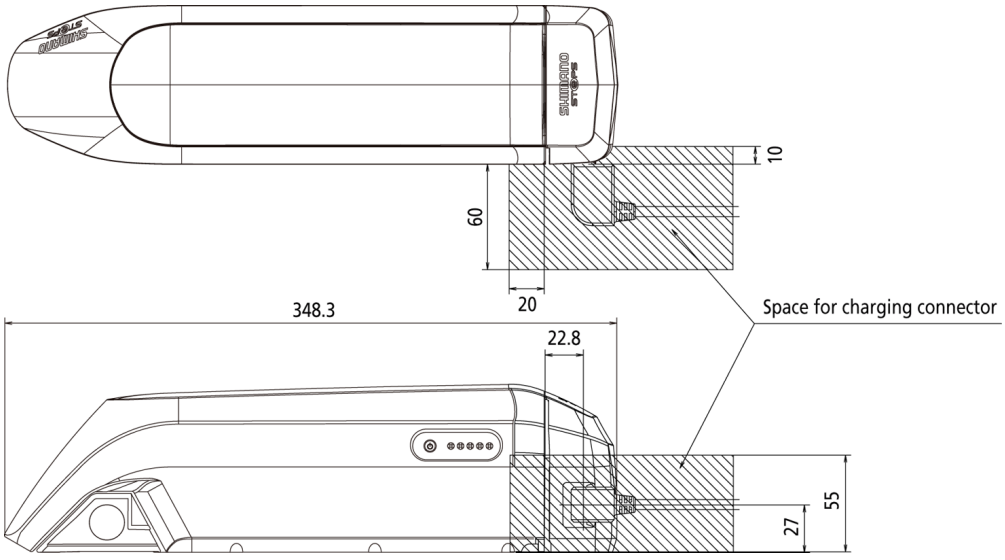



## Interference dimensions



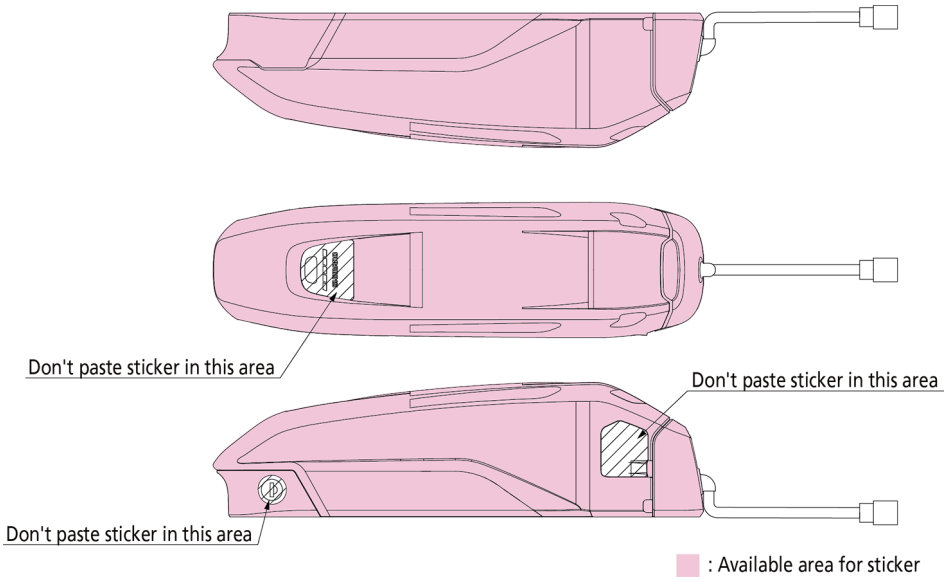



## Interference dimensions

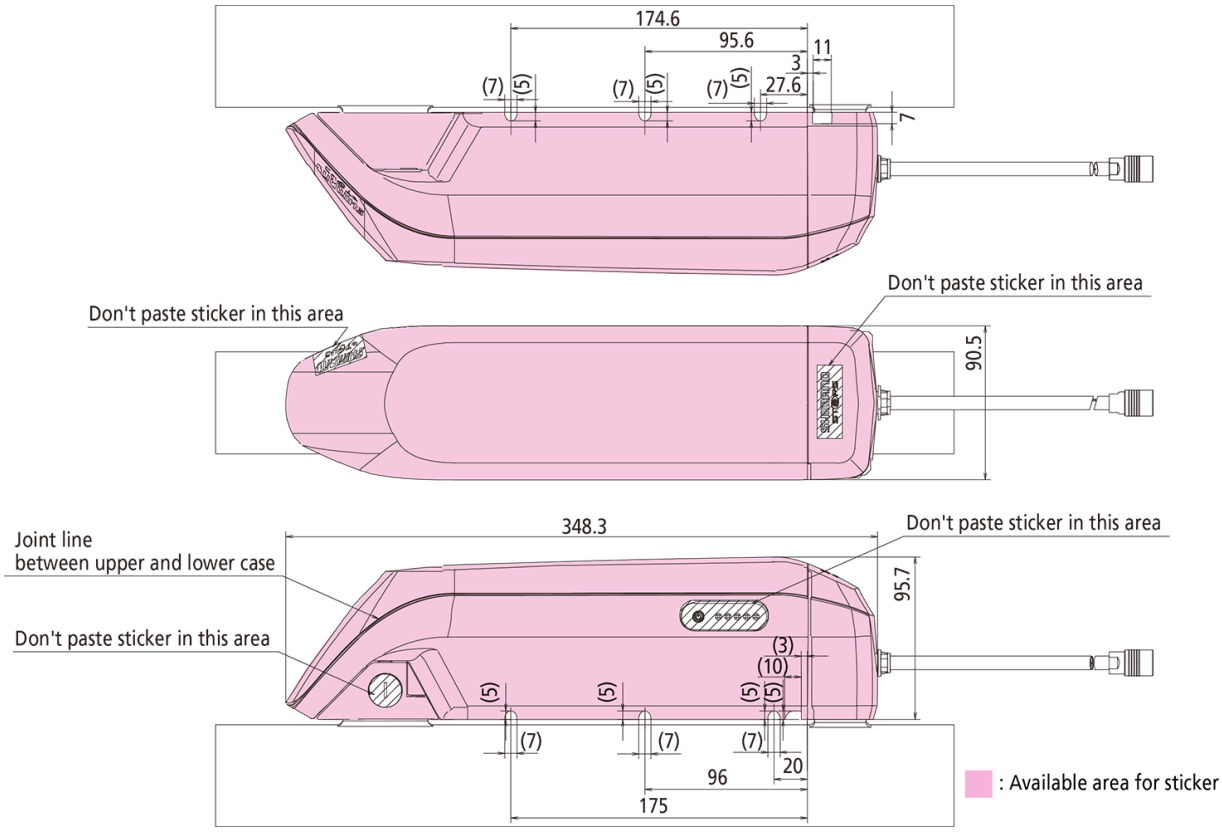


# Available area for sticker C-413

## BT-E8010 / BT-E8014



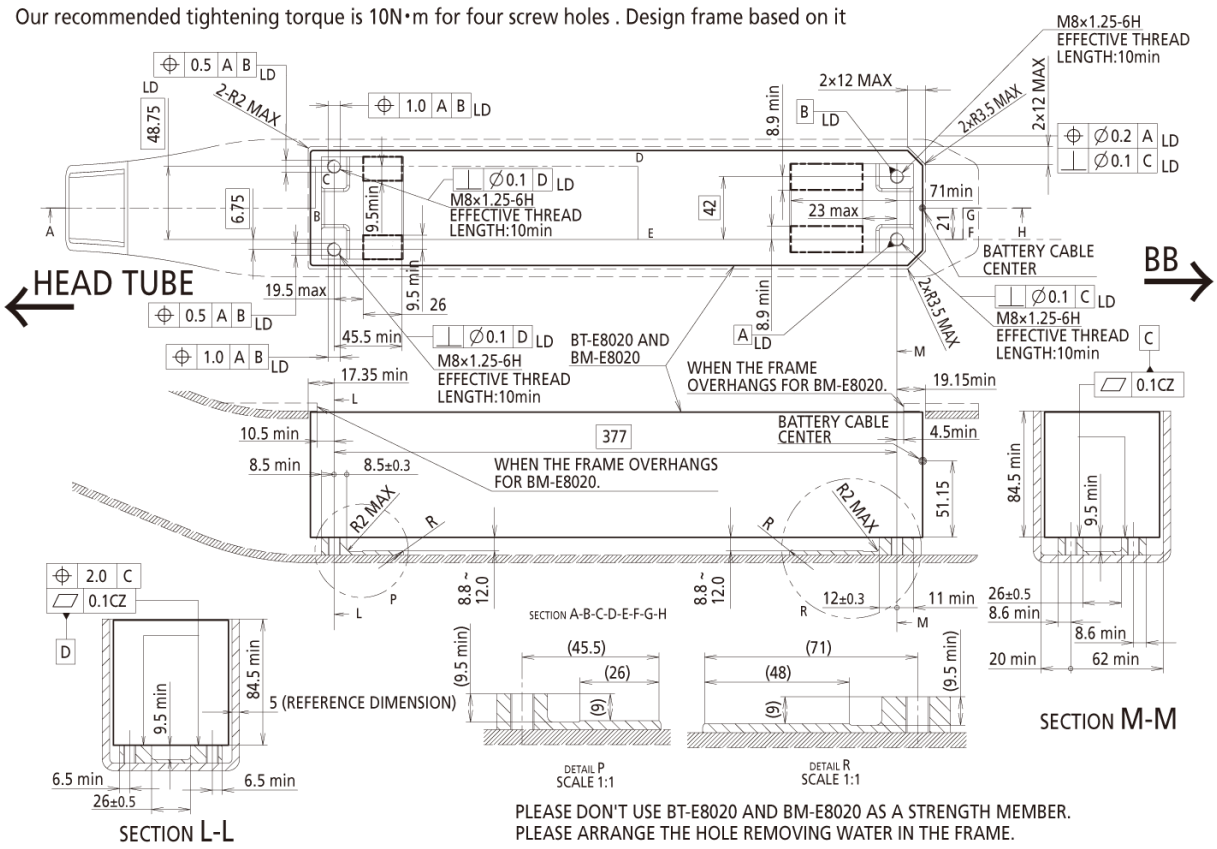

## BT-E6010



# Integrated type battery and battery mount

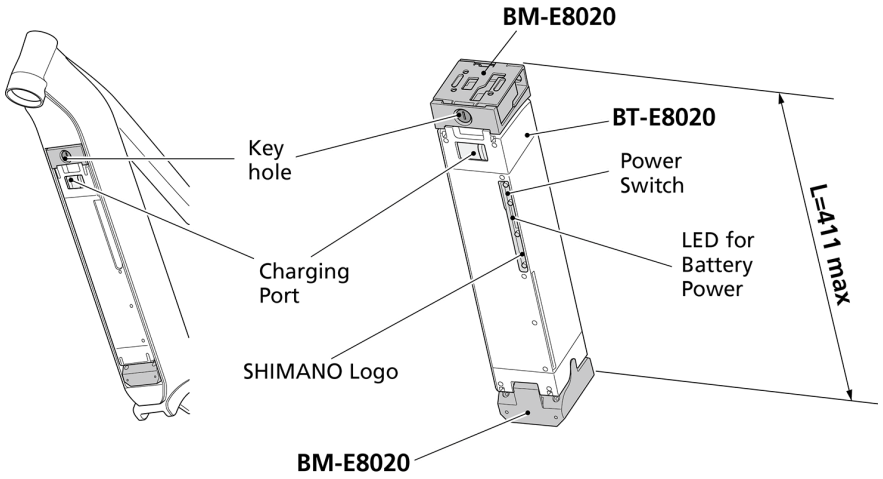
## Frame requirement for integrated battery mount C-516

### BT-E8020 / BM-E8020



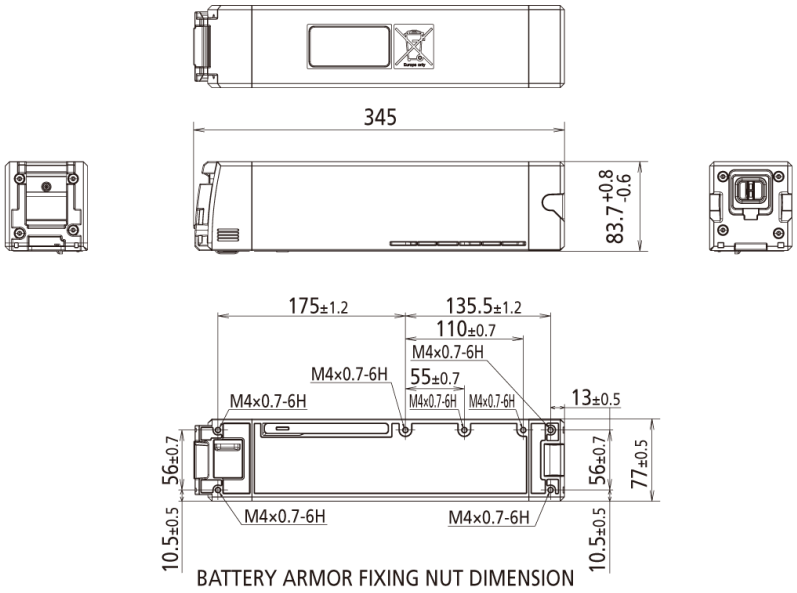

## Battery and battery mount dimensions C-517

### BT-E8020 / BM-E8020



# Battery dimensions C-528

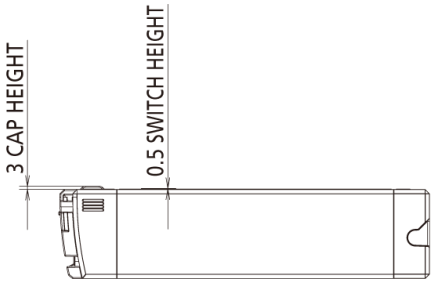
**BT-E8020**







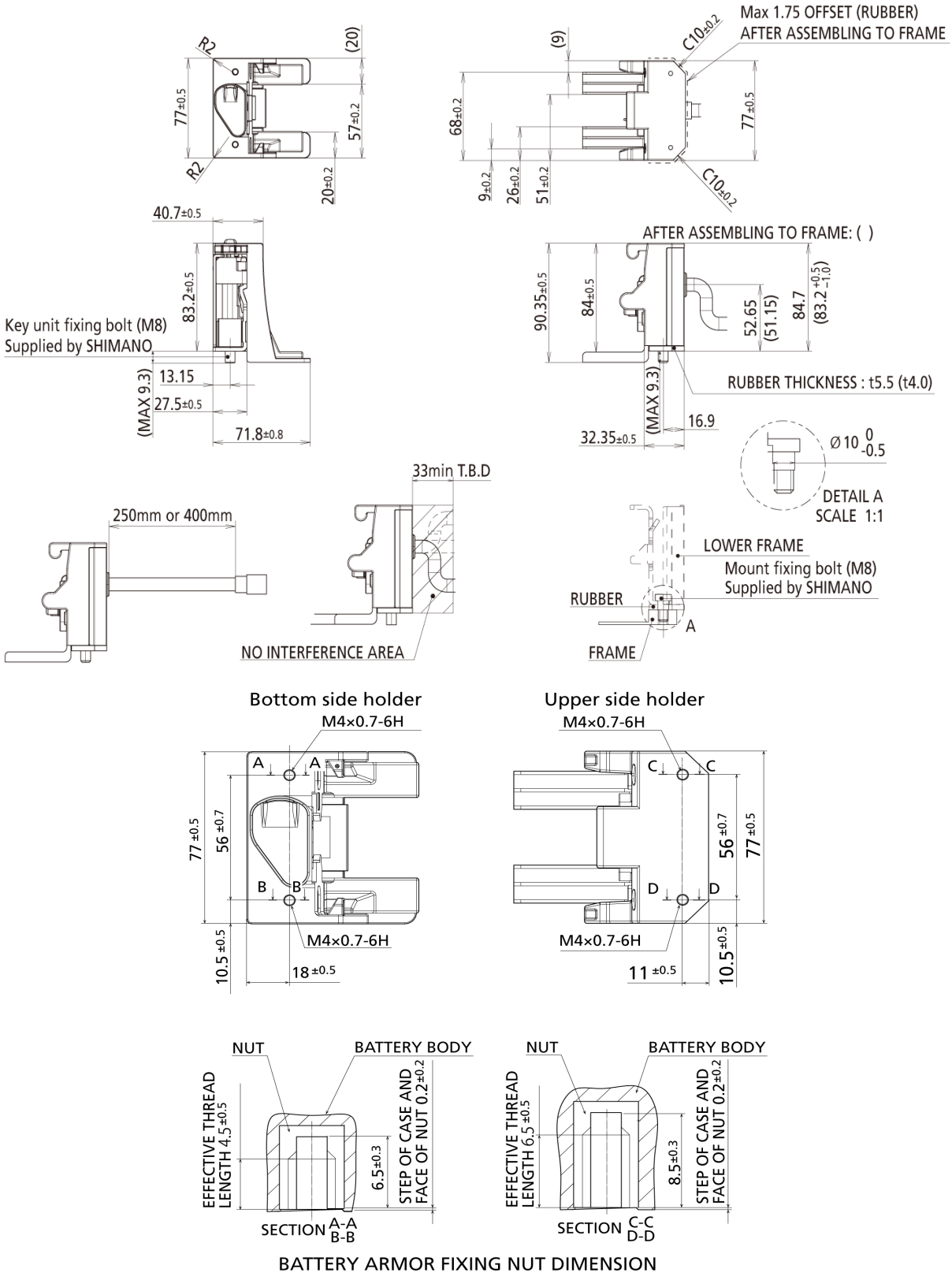
BATTERY ARMOR FIXING NUT DIMENSION



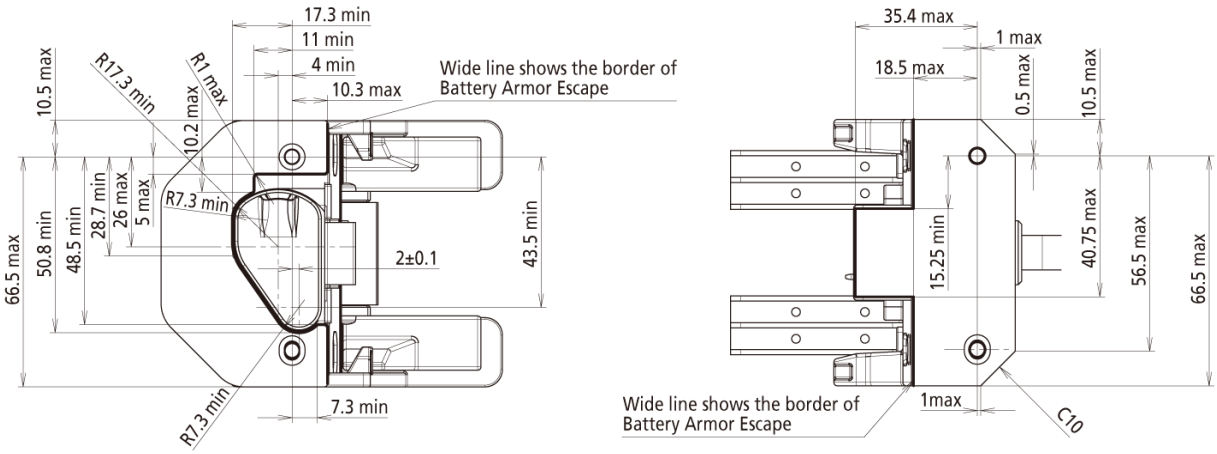

Please don't cover a battery with rubber or cushion over all surface.
There is a possibility that it may not operate by heat of a battery.

# Battery Mount dimensions C-529

**BM-E8020**




BATTERY ARMOR FIXING NUT DIMENSION

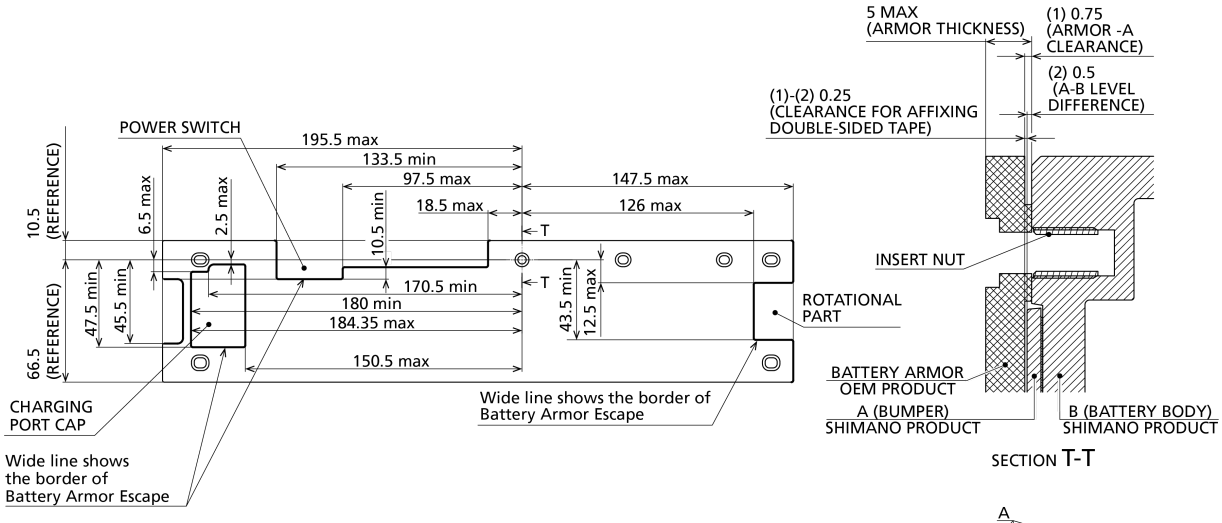


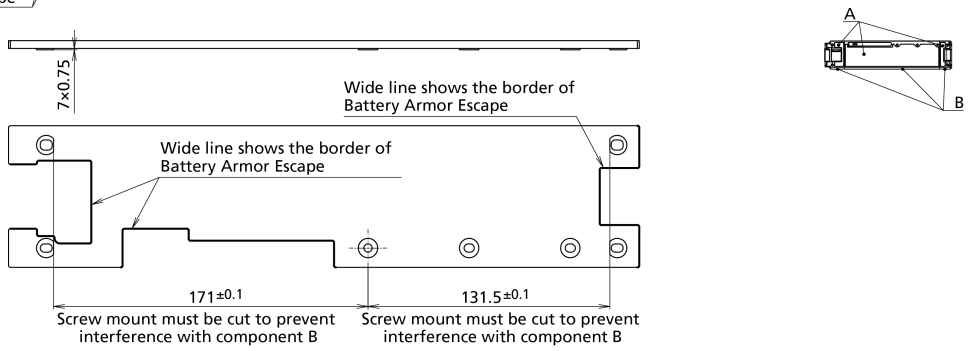

BATTERY ARMOR MAXIMUM DIMENSION

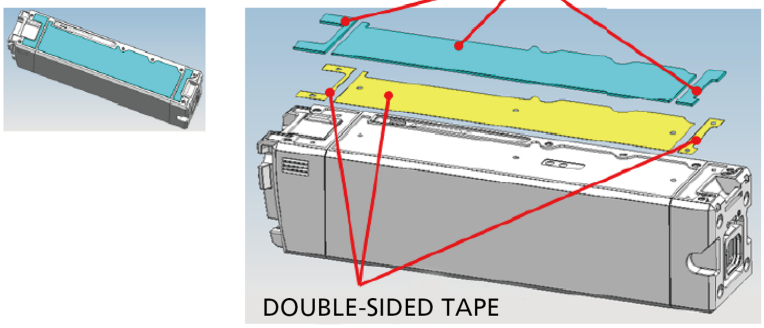
# Battery armor C-530

## Maximum size of battery armor

SHIMANO does not provide battery armor.

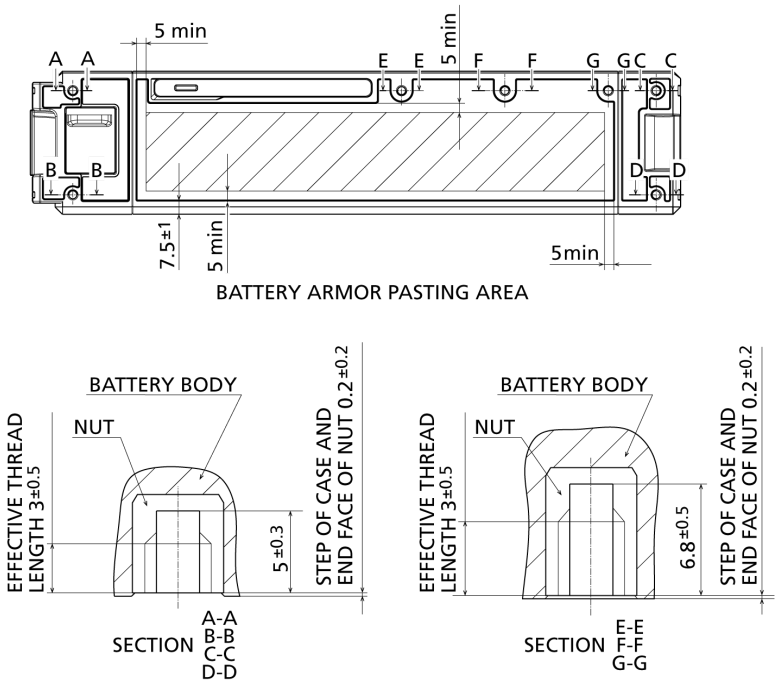


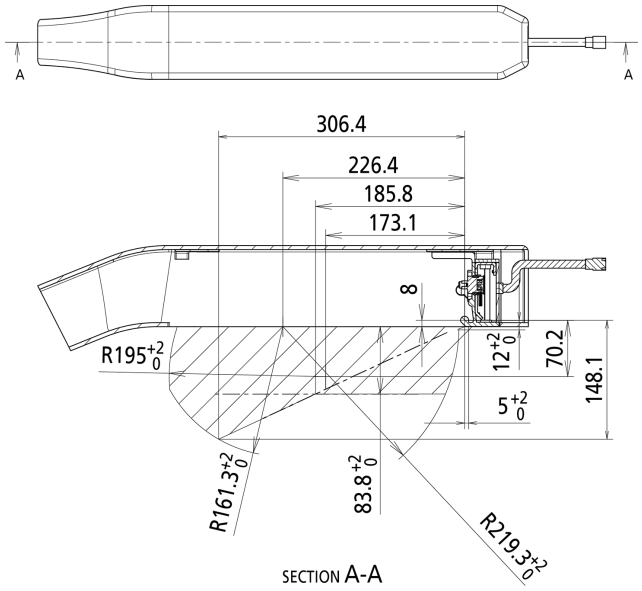
## Available area for battery armor pasting area

### BT-E8020 / BM-E8020

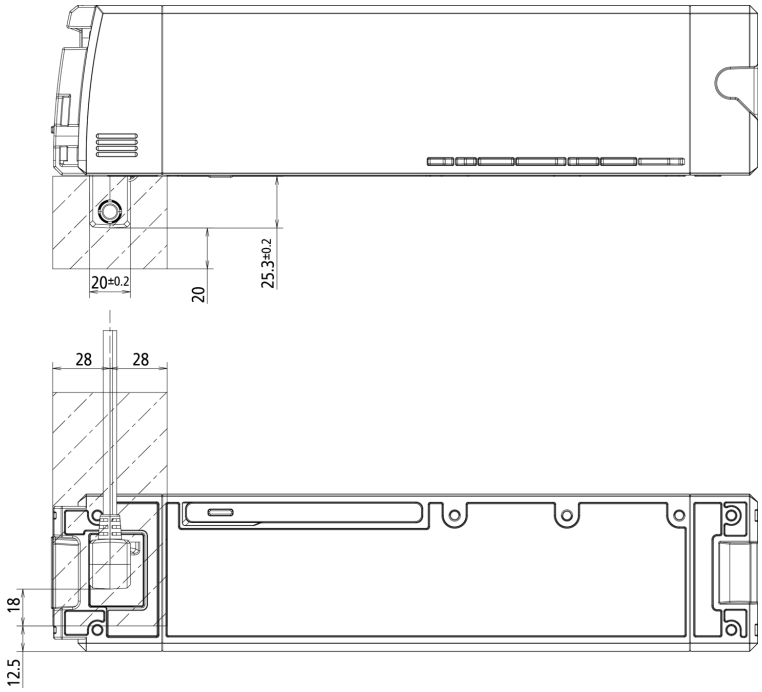


# Interference dimensions C-531

## BT-E8020

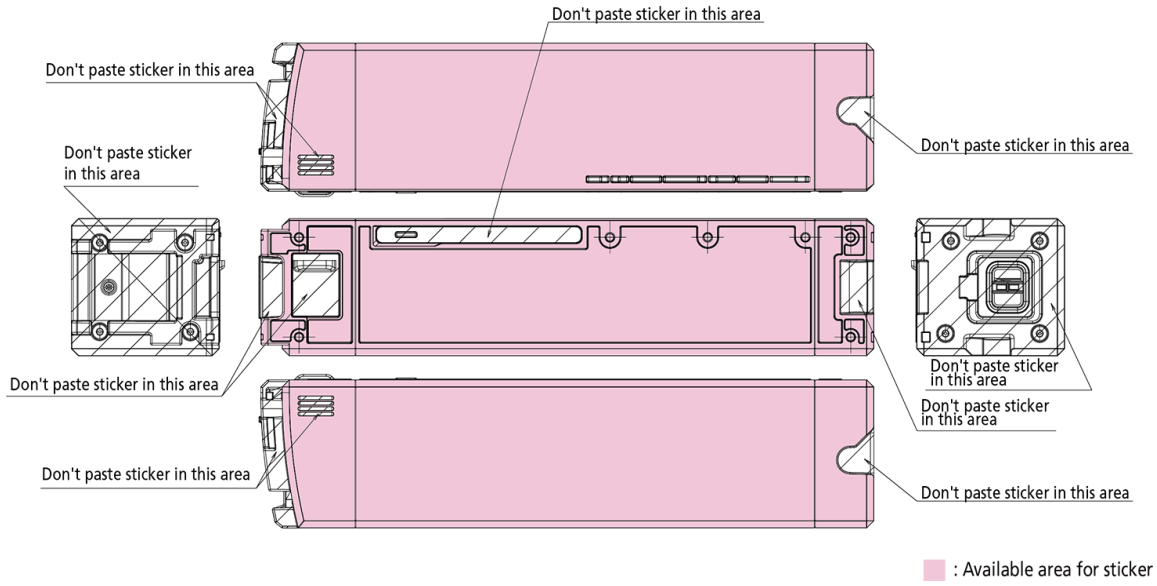



## BM-E8020



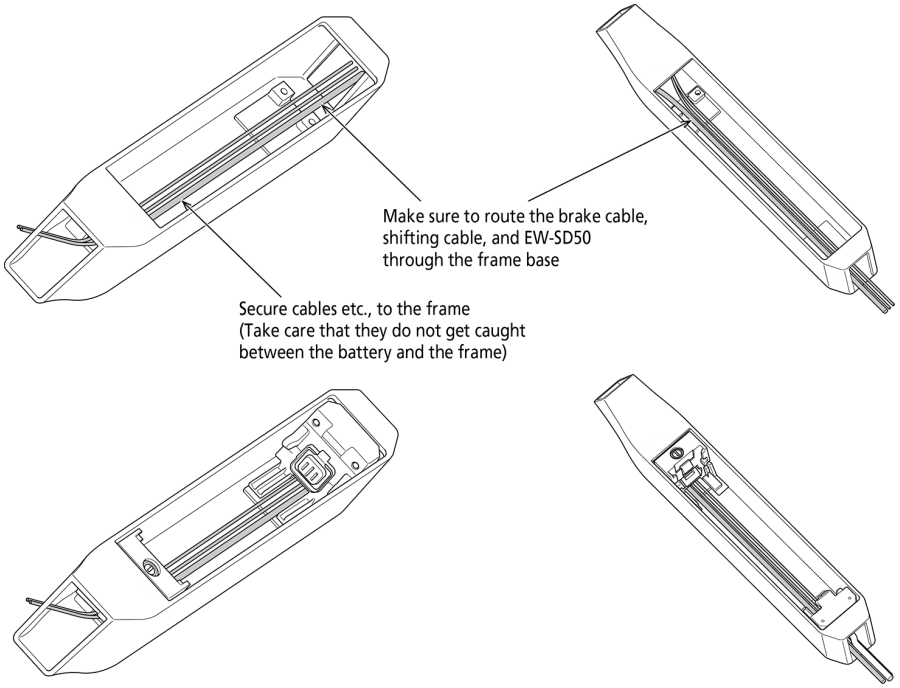
# Available area for sticker C-532

**BT-E8020 / BM-E8020**

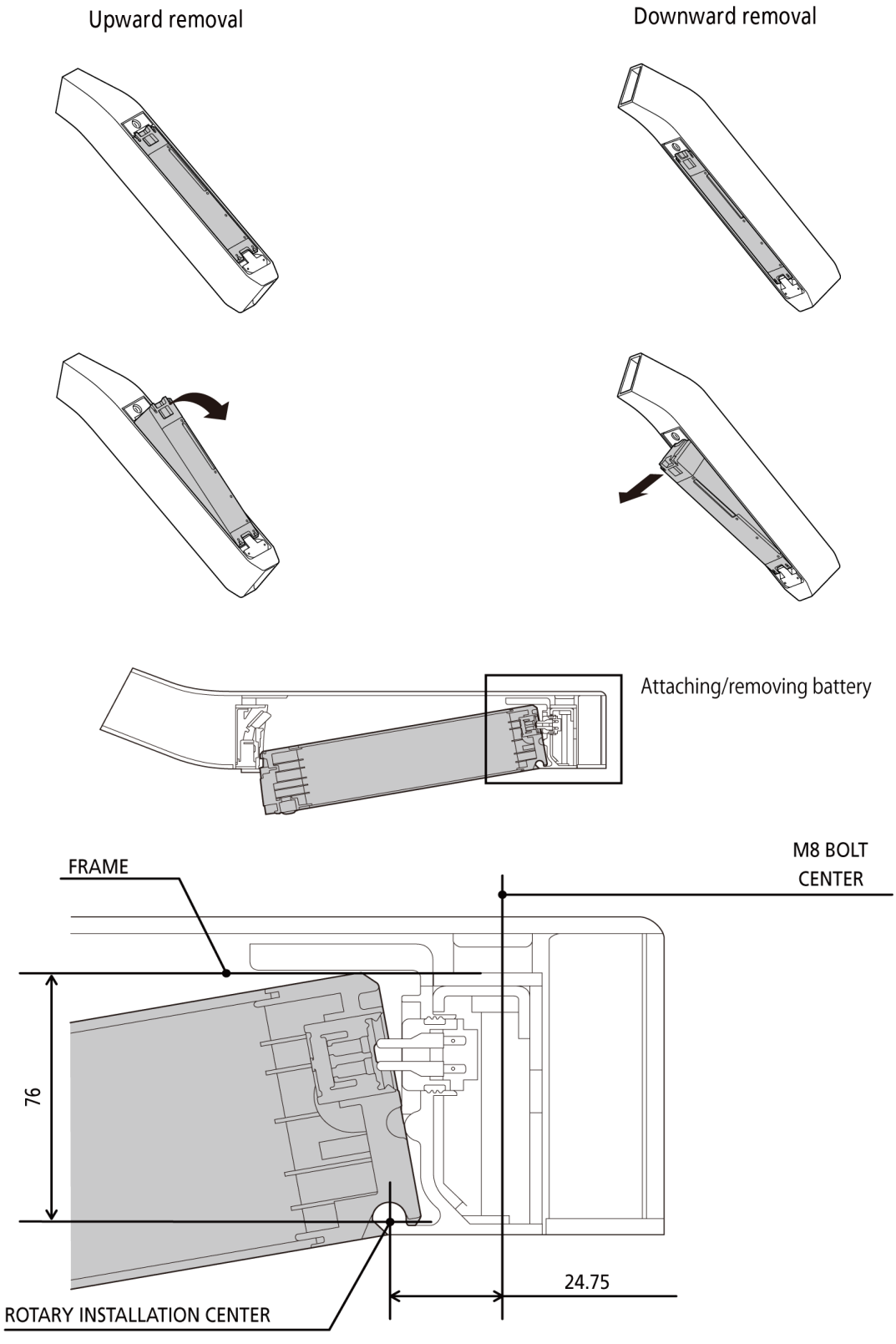



# Cable routing C-533

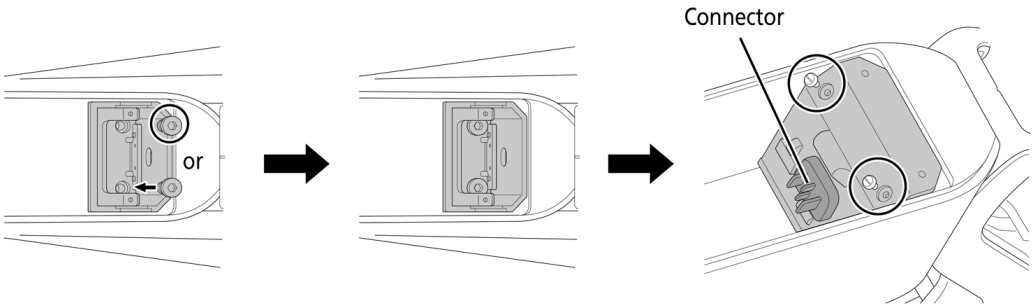
**BT-E8020 / BM-E8020**



## Battery removal direction : Up or down only C-518



## Assemble battery mount with connector C-519

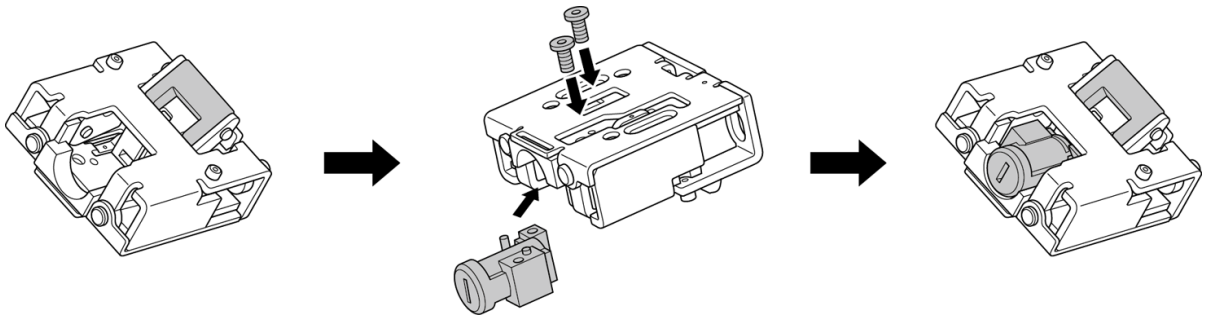



fix holder to frame
M8 hexagon head bolt x 2pcs
By 10Nm

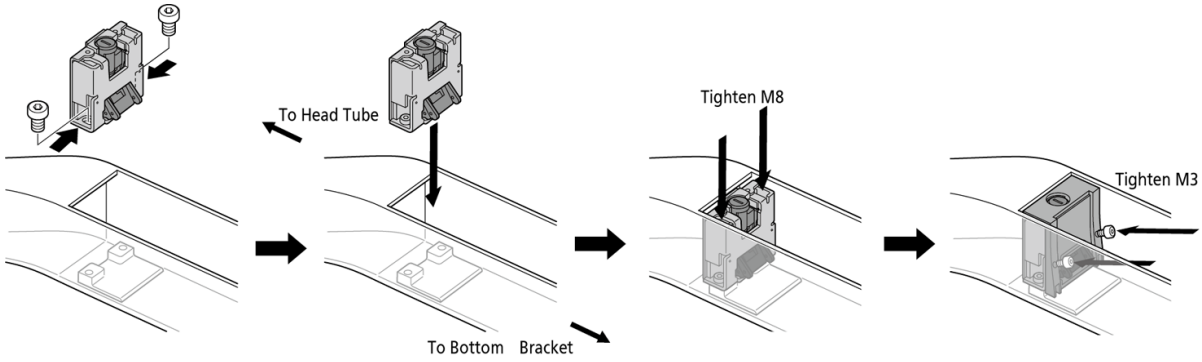
Fix resin cover
M3 hexagon head bolt x 2pcs
from diagonally upward

## Assemble Key unit and holder C-520

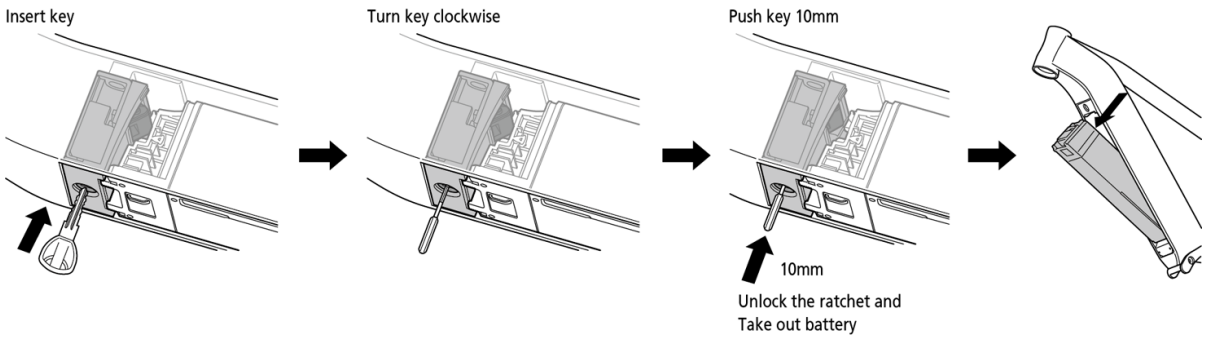
**Pre assembly to fix key cylinder to the Holder with M5 hexagon head bolt x 2pcs**



**Fix holder to frame M8 hexagon head bolt x 2pcs by 10Nm**



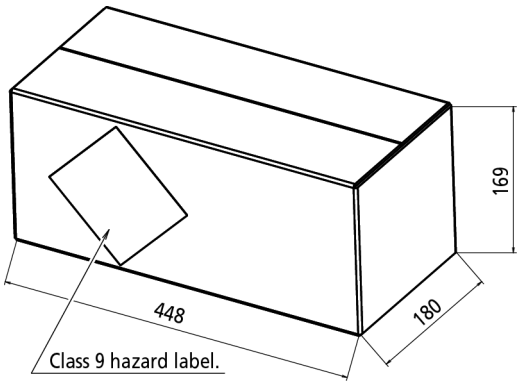

## Removal battery C-521



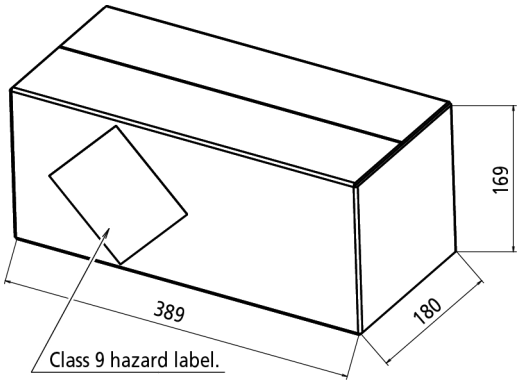
# Packing case (Class 9)

C-414

**BT-E8020 / BT-E8010 / BT-E8014 / BT-E6001**




**BT-E6000 / BT-E6010**




# Key unit

C-523

Battery mount doesn't include key unit.

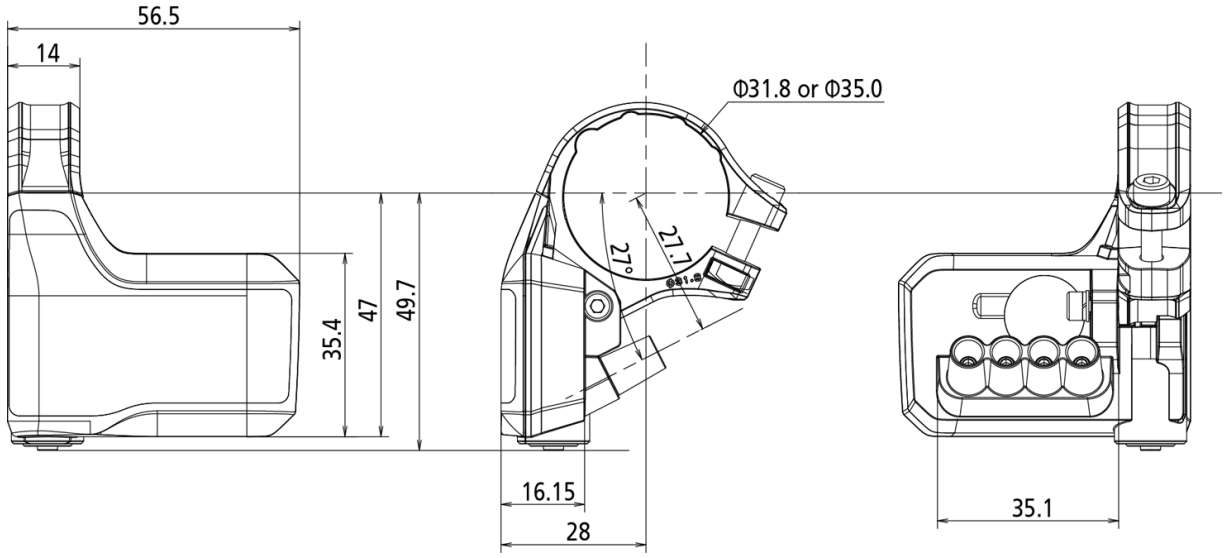
Contact below lock makers regarding compatibility with key unit and battery mount.

| Model No. | Lock makers |
|---|---|
| BM-E6000-A | Axa |
| BM-E6000-B | Abus / Trelock |
| BM-E6010 | Abus / Axa / Trelock |
| BM-E8010 | |
| BM-E8020 | |

## Dimensions

C-416

**SC-E8000**

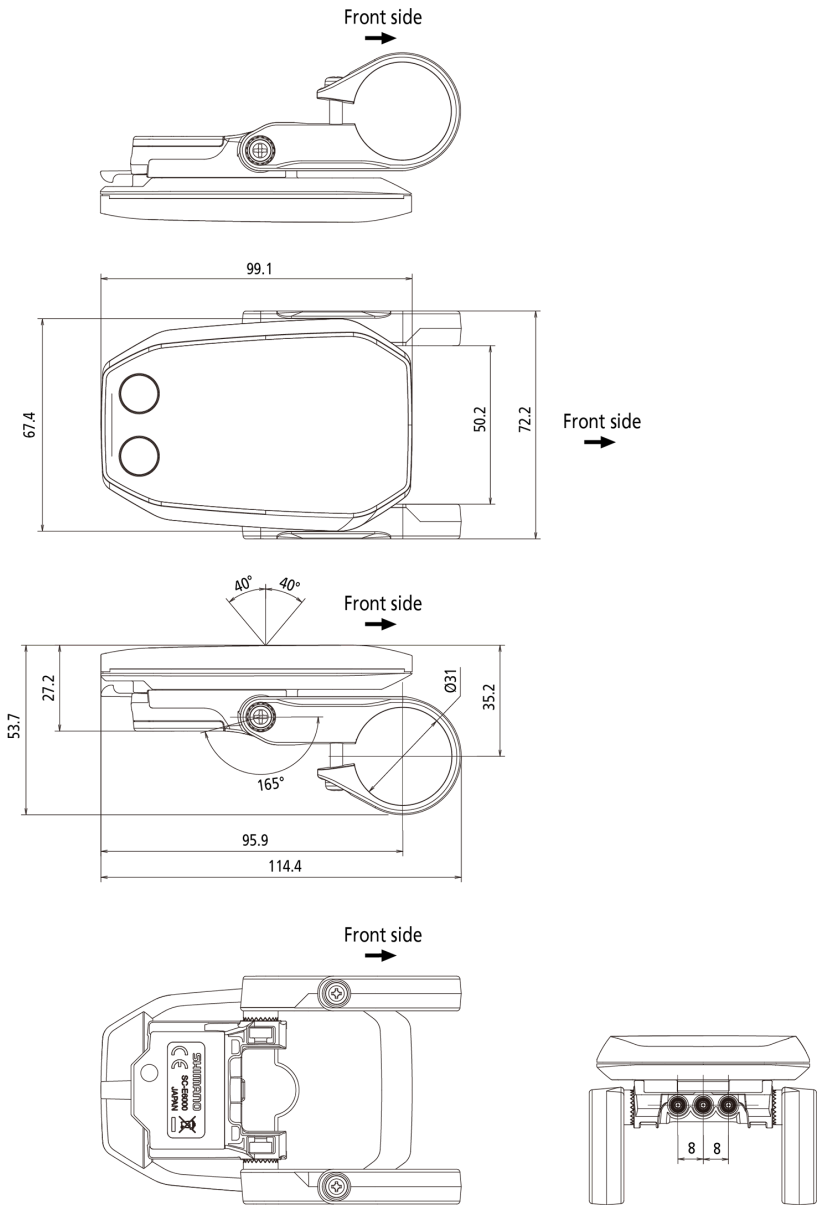



* different size of clamp band are available

**SC-E6100**

Mount is common with SC-E6010.
Dimension of SC-E6100 is TBD

## SC-E6010

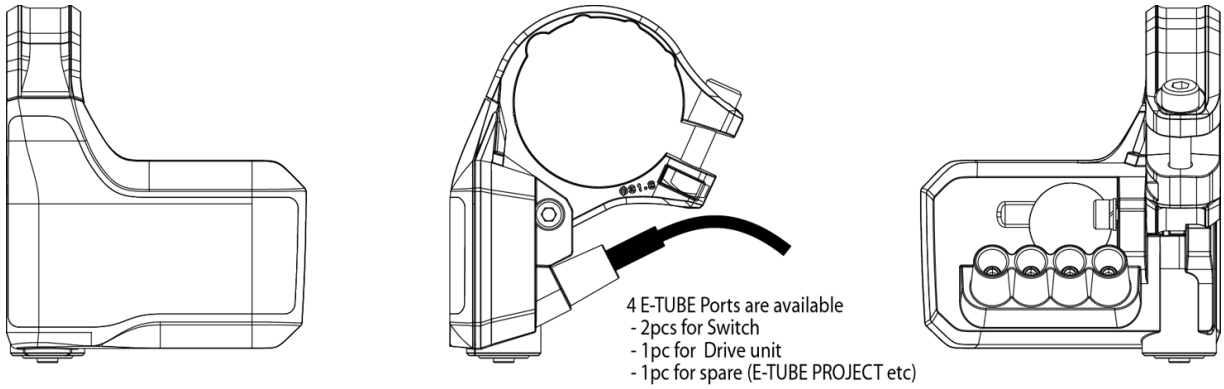



## EW-EN100

TBD (to be provided in October, 2017)

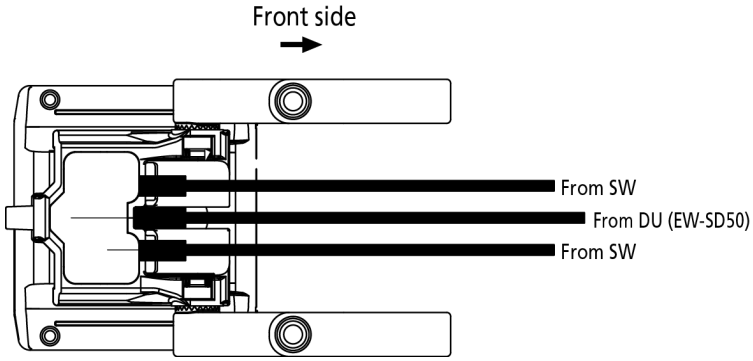
# Cable directions

**SC-E8000**




**SC-E6100 / SC-E6010**

SC-E6100 / SC-E6010 has three E-TUBE ports for EW-SD50.
Two ports are connected with SW units and one port is connected with the cable from DU.

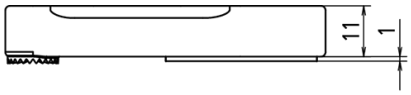


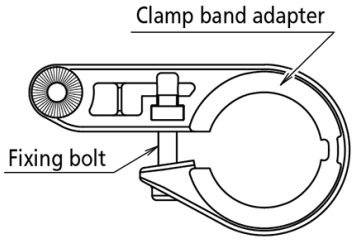
# Accessary for cycle computer and recommended handlebar dimensions

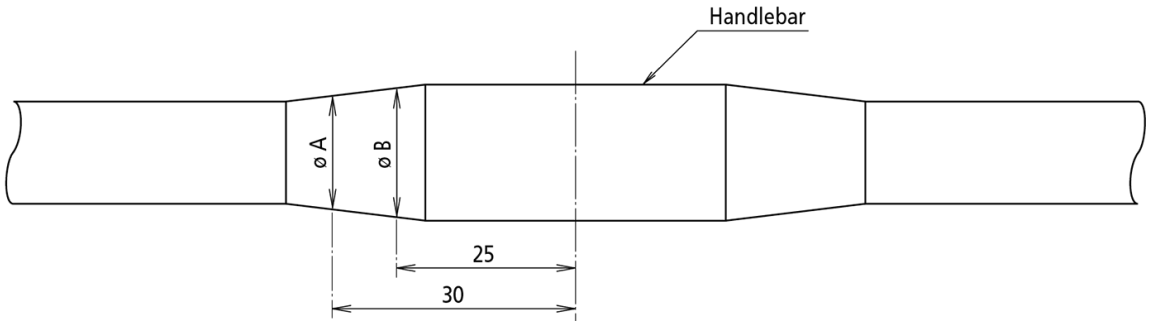
C-418

**SC-E8000 / SC-E6100 / SC-E6010**

This includes 1 pair of clamp band adapter and 2 pairs of 2 kinds of length of fixing bolts.
Please use them according to the below handlebar dimensions.



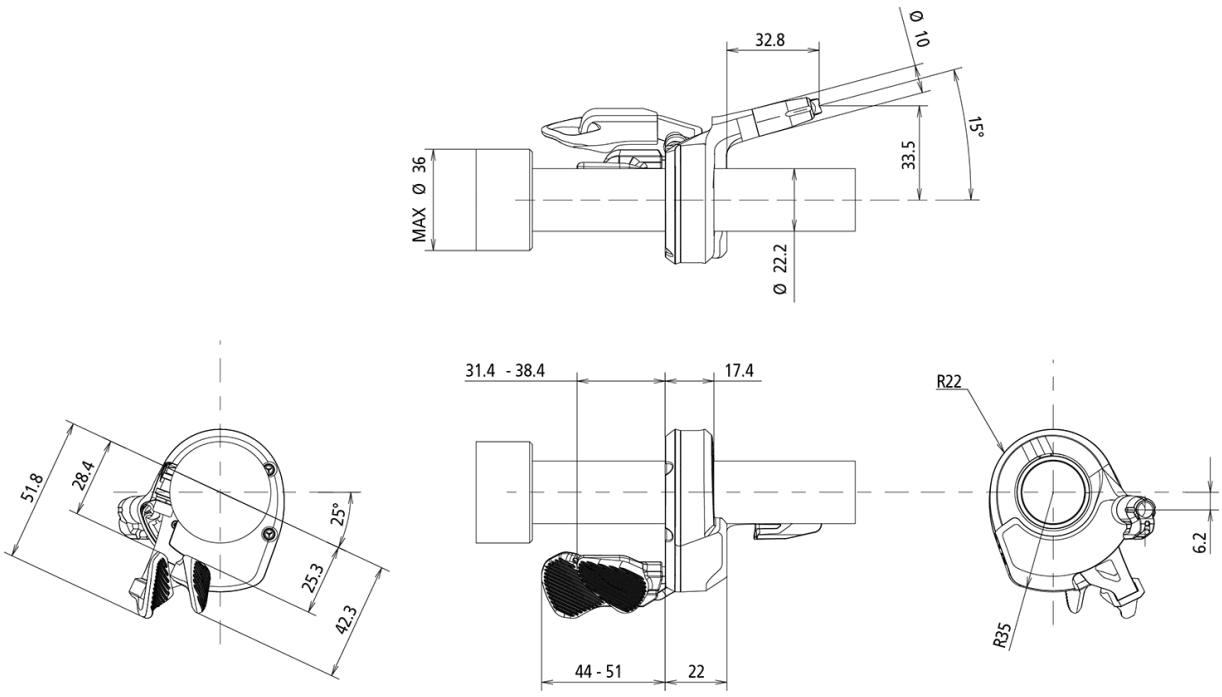




| øA | øB - øA | Adapter | Fixing bolt |
|---|---|---|---|
| ø23.4 - ø24 | 0 - 1.1 | X | 15.5mm |
| ø24 - ø25.5 | 0 - 1.1 | X | 20mm |
| ø31.3 - ø31.9 | 0 - 0.6 | - | 20mm |

X: Yes

## Dimensions for SW-E8000-L

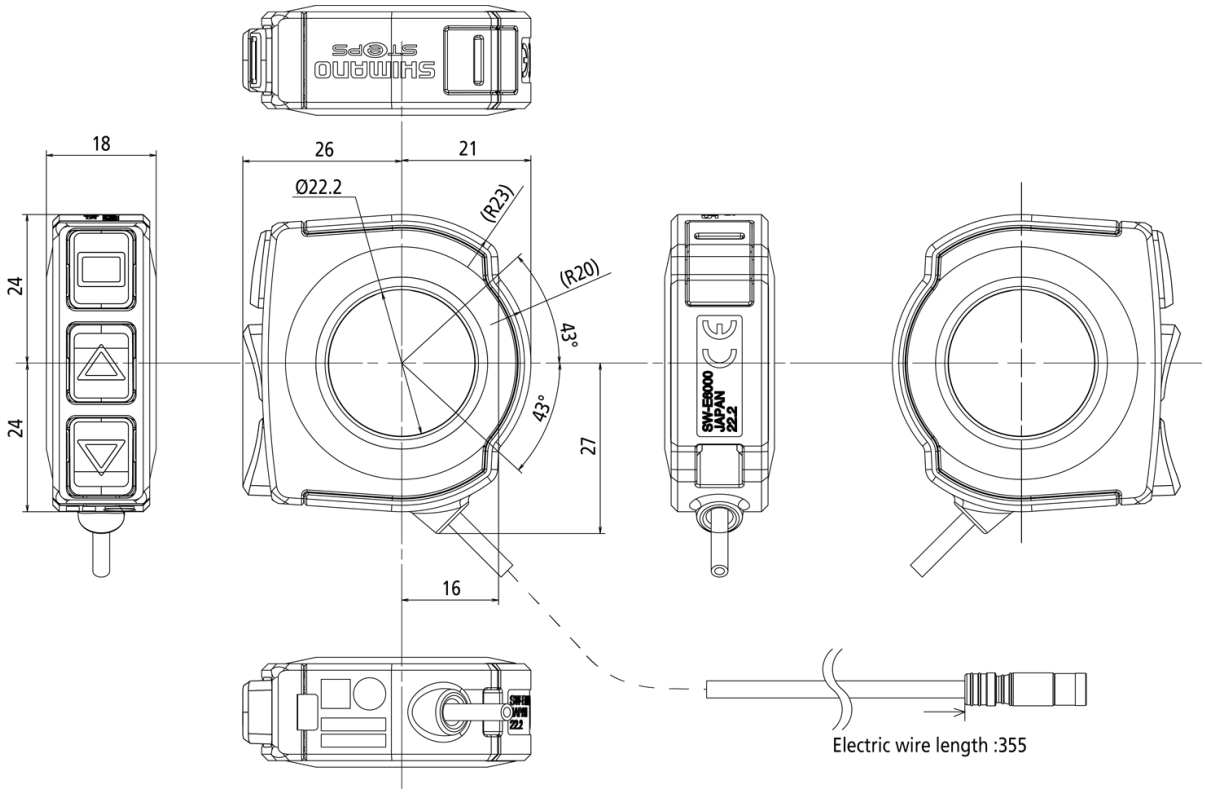
C-507



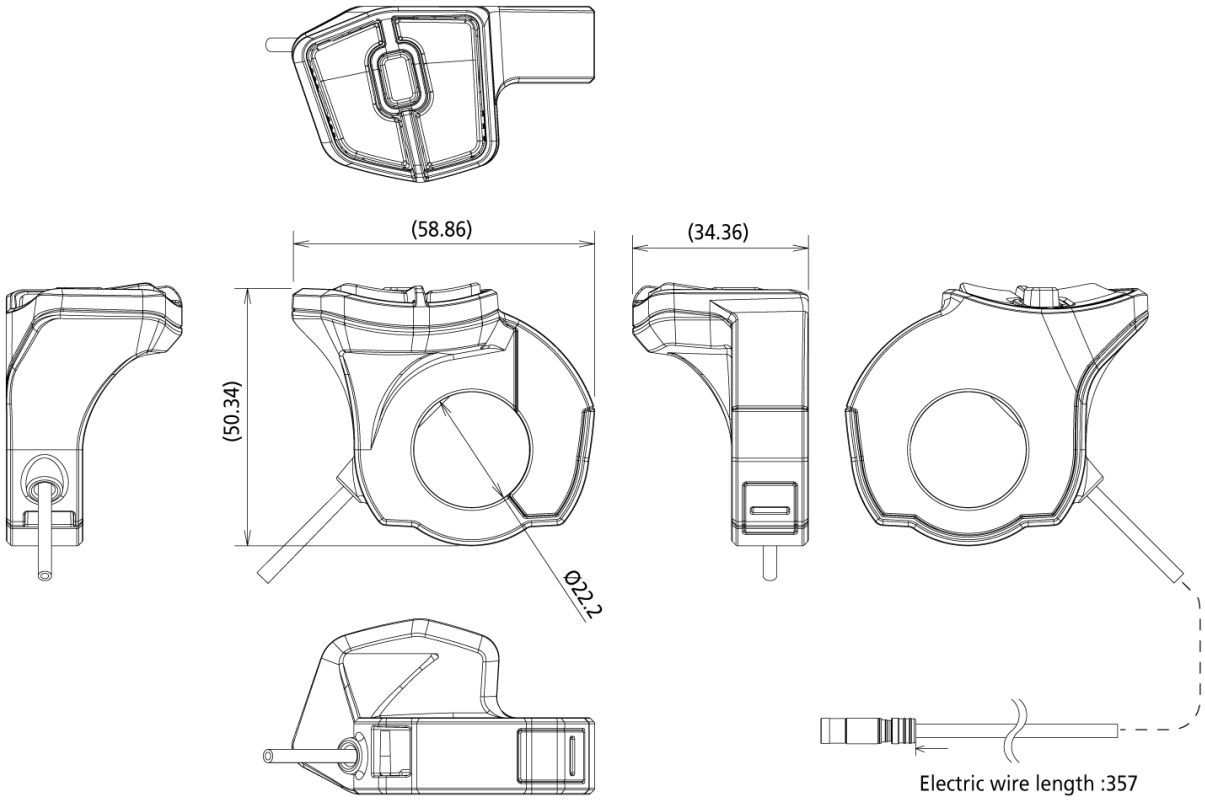
# Dimensions for SW-E6000



## SW-E6000



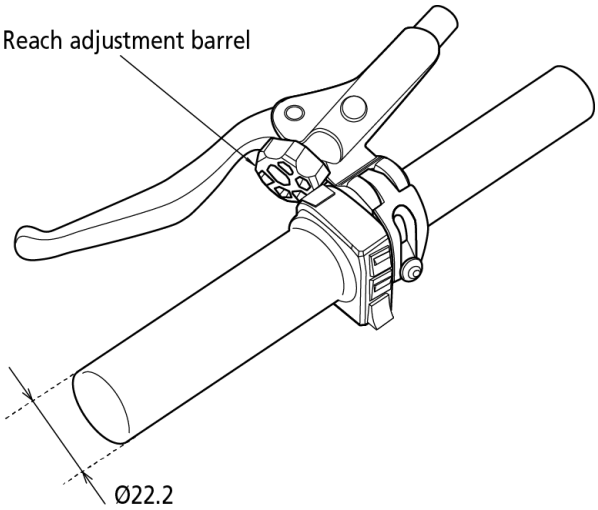

## SW-E6010



# Compatible handlebar diameter and brake lever



## SW-E6000




| | V-BRAKE | Disc brake | |
|---|---|---|---|
| | Model No. | Model No. | with Reach adjustment barrel |
| SW-E6000 | - | BL-S700-B * | X |
| | BL-T780-B | - | X |
| | - | BL-T6000 *<br>BL-T8000 * | X |
| | BL-T611 | - | - |
| | BL-T4000 | BL-T445 | - |

* In case of using these BL, install by referring the < Assembly angle>.

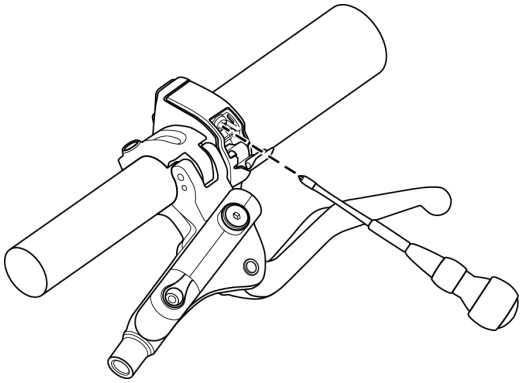
## SW-E6010

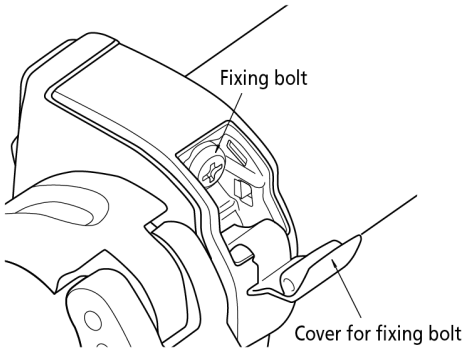
| | V-BRAKE | Disc brake | |
|---|---|---|---|
| | Model No. | Model No. | with Reach adjustment barrel |
| SW-E6010-L<br>SW-E6010-R | BL-C6010 | BL-S700-B * | X |
| | BL-T780-B | BL-T8000 * | X |
| | BL-T611 | BL-T6000 | - |
| | BL-T4010 | BL-T445 | - |
| | - | BL-MT201 | - |
| | - | BL-MT200 | - |

* In case of using these BL, install by referring the < Assembly angle>.

**SW-E6000**

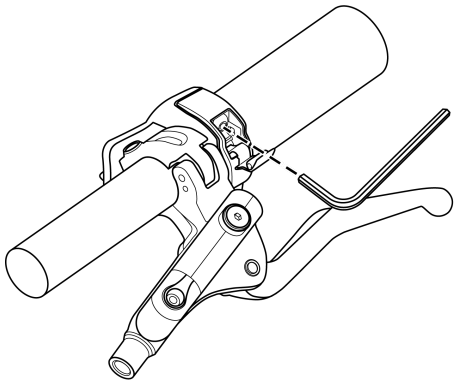
Open the cover for fixing bolt and fix by screw driver.

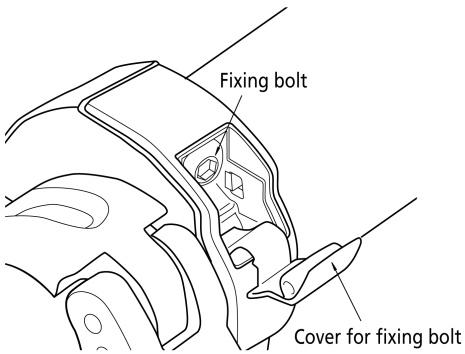





**SW-E6010**

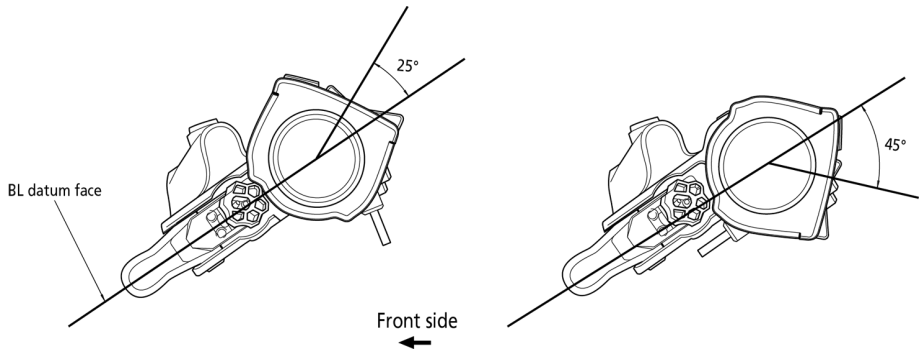
Open the cover for fixing bolt and fix by 3 mm hexagonal wrench.





## Assembly angle

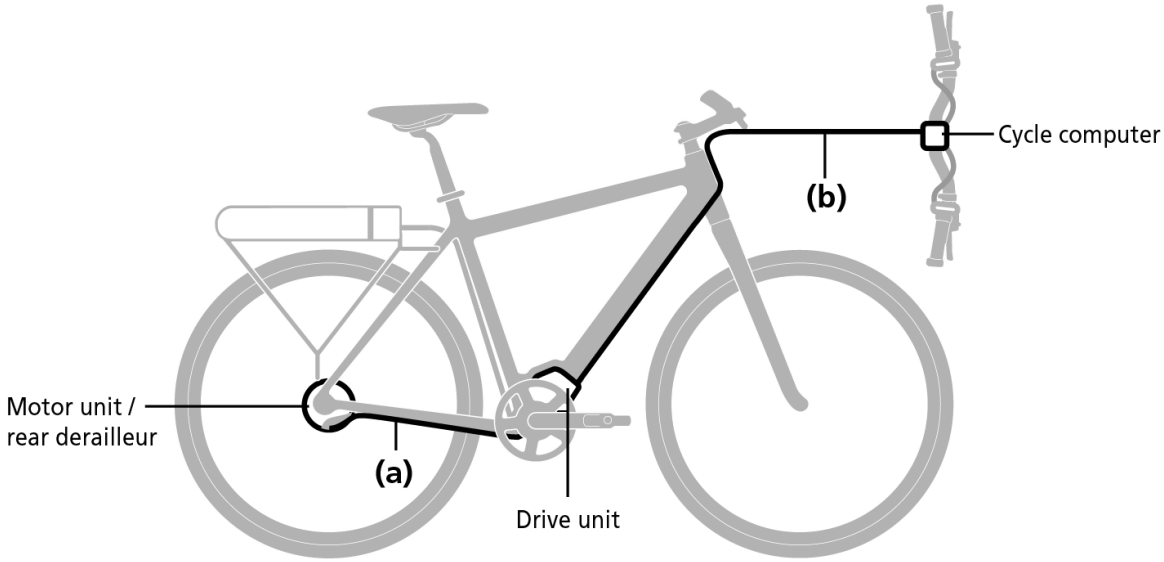
SW is assembled for BL datum face as below.



# Electric wire length C-424

**E8000 / E6000 series**

## The limit of maximum length about electric wire routing (Electrical shifting)



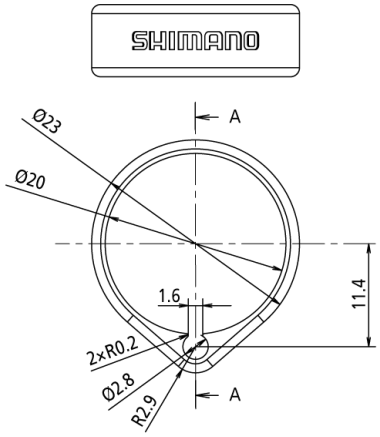

Each cable's maximum length
(a) ≤ 700mm between Motor unit and Drive unit
(b) ≤ 1600mm between Cycle computer and Drive unit

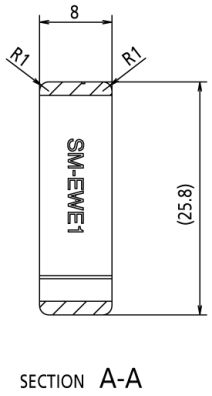
# Cord band for Electric wire



**SM-EWE1**

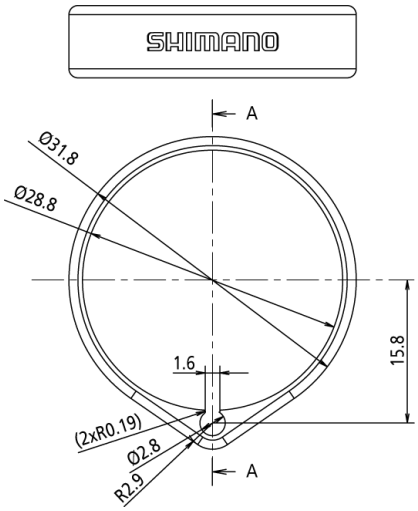
## CORD BAND A

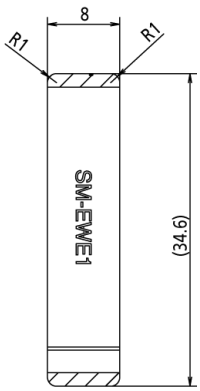



SECTION A-A

## CORD BAND B



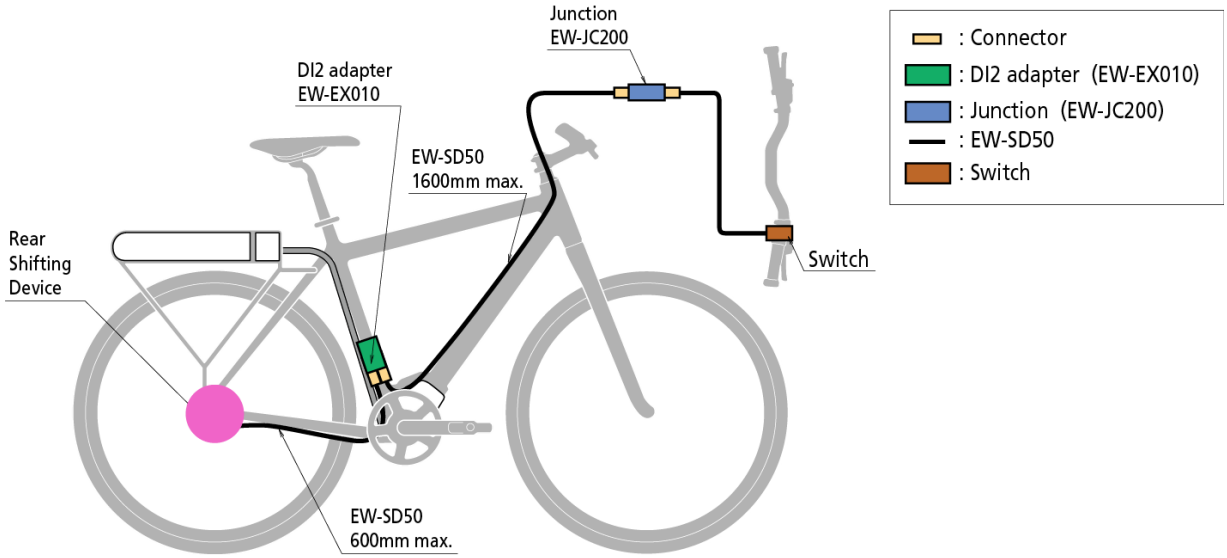

SECTION A-A

## Internal Geared Hub C-486

Please refer to C-272

# DI2 adapter B for EW-EX010 C-427

## Cable routing of DI2 adapter B (BOSCH) C-428




## Compatibility chart C-429

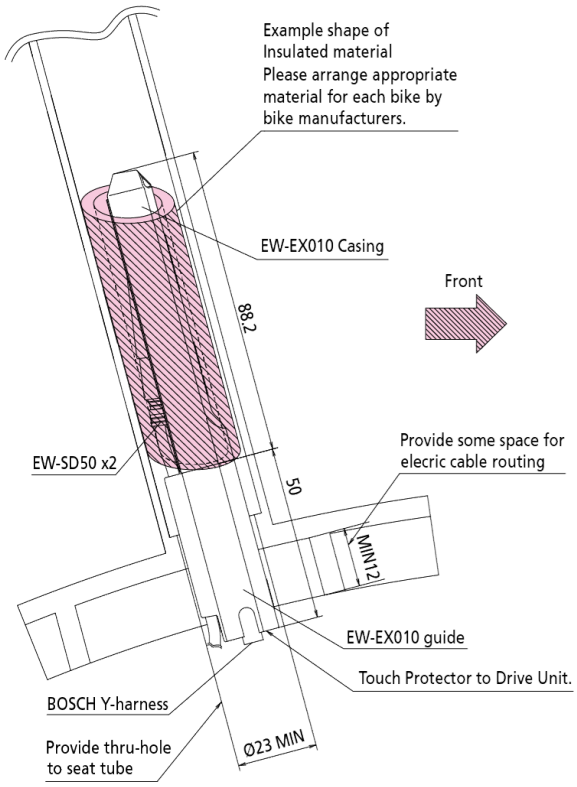
| | DI2 adapter B (for BOSCH system) |
|---|---|
| DI2 adapter | EW-EX010*1 |
| shifting switch | SW-E6000*2<br>SW-E6010-R<br>SW-S705<br>SW-M9050-R*3<br>SW-M8050-R*3 |
| Rear shifting unit | MU-UR500*4<br>RD-M9050<br>RD-M8050 |
| PC linkage device | SM-PCE1 |

**Limitation of function**

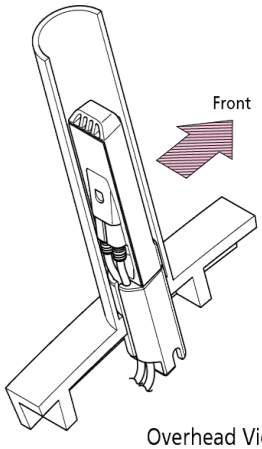
*1: EW-EX010 and BOSCH eBike system are connected by Y-harness which is provided from BOSCH.
*2: Need to change Switch setting by E-TUBE PROJECT.
*3: Cannot change manual shift to full automatic shift and its opposite.
*4: Full automatic shift is available only with internal geared hub and MU-UR500 (Not available with Rear Derailleur).

**NOTE**
The SW unit is not shown at compatibility chart for any external documents from SHIMANO.

# Installation of EW-EX010 (DI2 adapter B) C-430

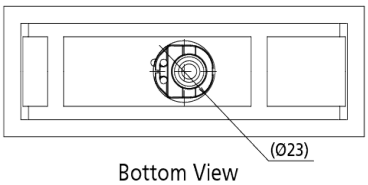



Side View

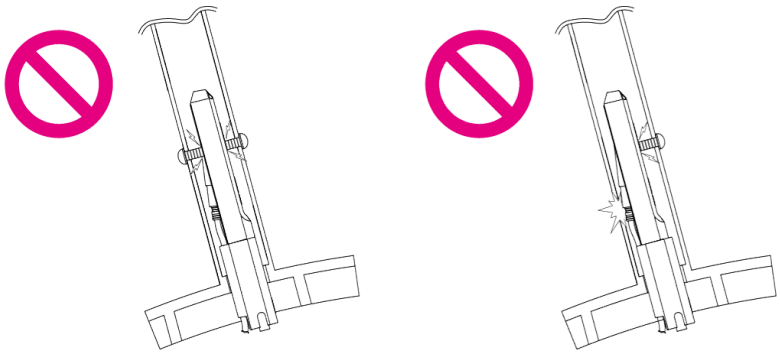


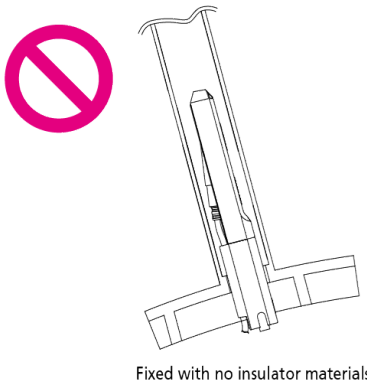

Overhead View

Note:
1. Please do not screw fixation by applying the casing.
2. Casing should be covered with insulator.
   Shimano recommend; PORON TR-24 5.0t (size 80x125x5)
   *In case of seat tube inner diameter :31.2
3. Please be careful of touching DI2 adaptor and seat post.
   Shimano recommend adding mechanical stopper to
   avoid damage DI2 adaptor.
4. SHIMANO does not recommend to use glue to fix
   EW-EX010

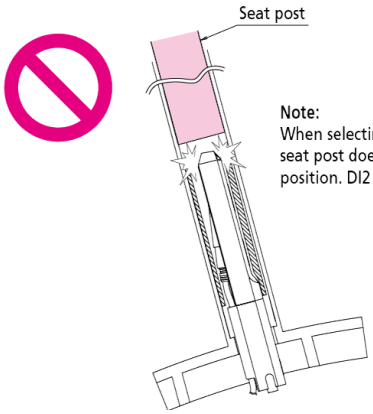



Bottom View

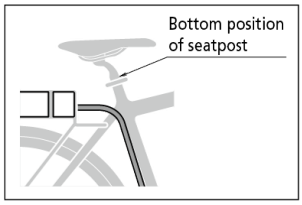




Fixed with no insulator materials




Note:
When selecting seat post, please carefully check that the seat post does not hit DI2 adaptor in the bottom position. DI2 adaptor may be damaged.

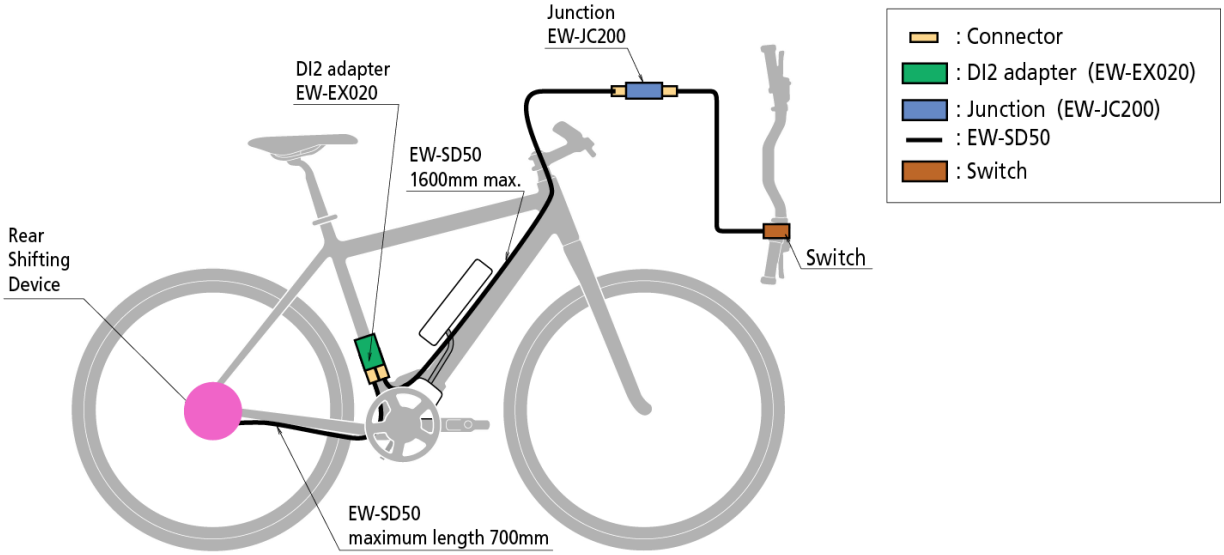


# DI2 adapter A for EW-EX020



## Cable routing of DI2 adapter A (Panasonic) C-493

Please follow Panasonic instructions for the installation method.




## Compatibility chart C-494

| | DI2 adapter A (for Panasonic system) |
|---|---|
| DI2 adapter | EW-EX020*1 |
| shifting switch | SW-E6000*2<br>SW-E6010-R<br>SW-S705<br>SW-M9050-R<br>SW-M8050-R |
| Rear shifting unit | MU-UR500*3 |
| PC linkage device | SM-PCE1 |

**Limitation of function**

*1: EW-EX020 and Panasonic eBike system are connected by Panasonic DI2 connection cable.
*2: Need to change Switch setting by E-TUBE PROJECT.
*3: Full automatic shift is not available with Panasonic system.

**NOTE**
The SW unit is not shown at compatibility chart for any external documents from SHIMANO.

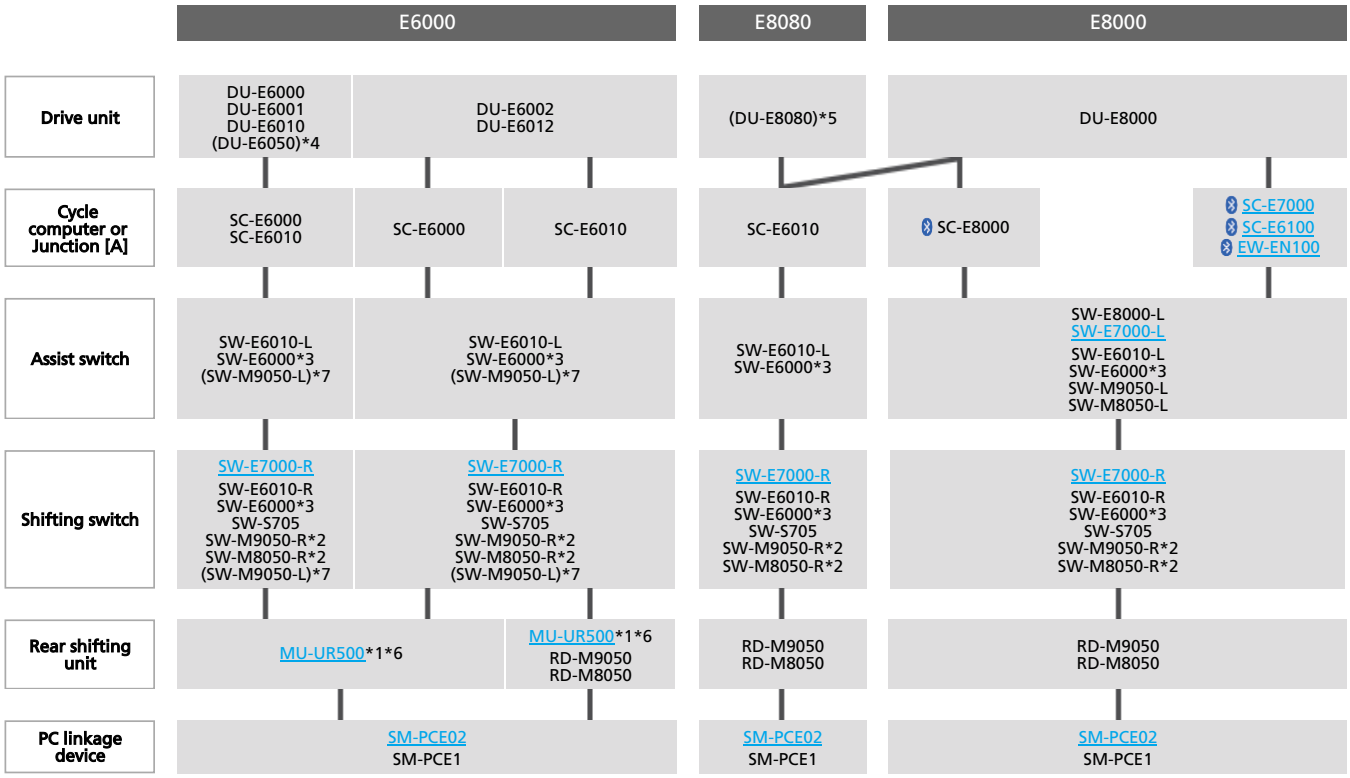
# E-BIKE compatibility chart C-431

## Handling Countries C-545

Refer to "Handling Countries of SHIMANO STEPS" on top page of the SHIMANO PRODUCT WEBSITE.

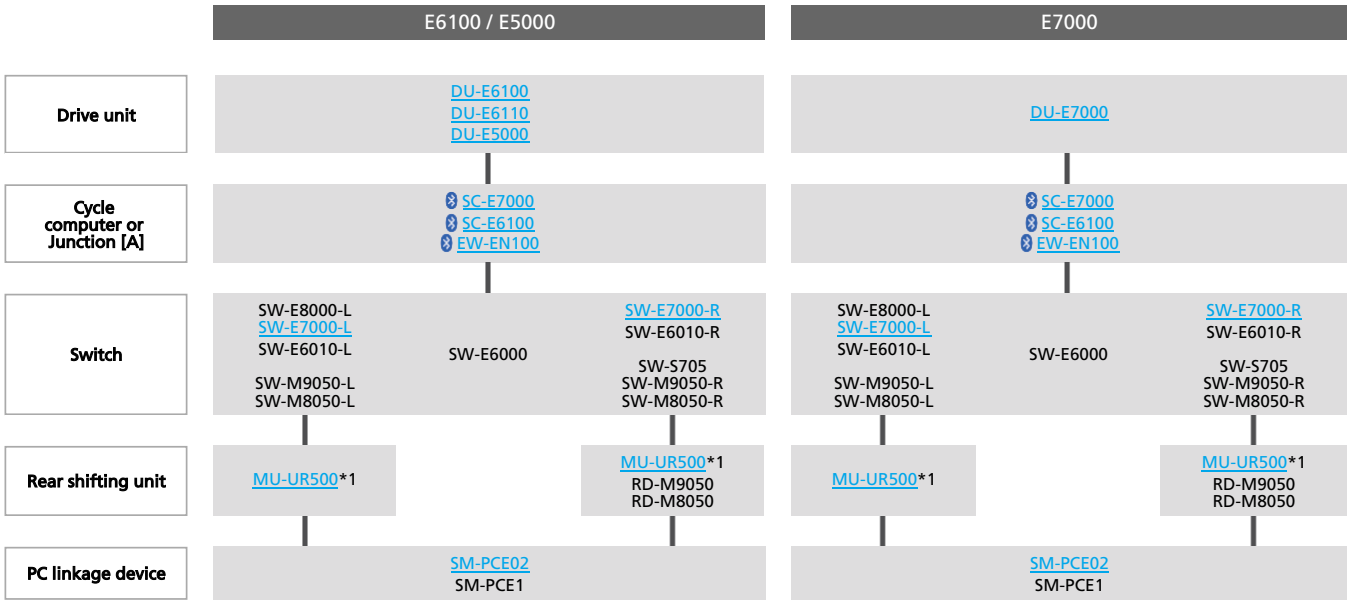
# E-BIKE system (with E-TUBE PROJECT ver.3.4)






**Limitation of function**

*1 Full automatic shift is available only with 8 speed and 5 speed internal geard hub system (Not available with Rear Derailleur).
*2 Not support full automatic shift.
*3 Need to change Switch setting by E-TUBE PROJECT.
*4 North American market only.
*5 Japanese market only.
*6 Compatible with 8 speed and 11 speed internal geared hub system only.
*7 The SW unit is not shown at compatibility chart for any external documents from Shimano.




**Limitation of function**

*1 Full automatic shift is available only with 8 speed and 5 speed internal geard hub system (Not available with Rear Derailleur)

# Drivetrain compatibility

## E8000 series

6

| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| Rear derailleur system | 11-speed | SM-CRE80 | - | with chain device (option) | - | MTB 11-speed CS | CN-HG901-11<br>CN-HG701-11<br>CN-HG601-11<br>CN-E8000-11 |
| | | SM-CRE80 44T | Double | - | - | | |
| | 10-speed | SM-CRE80 | - | with chain device (option) | - | MTB 10-speed CS | CN-E6090-10 |
| | | SM-CRE80 44T | Double | - | - | | |

## E6000 series

6

| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| DI2 Internal geared hub | 11-speed 8-speed | SM-CRE60 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| Mechanical Internal geared hub | ALFINE 11-speed 8-speed | SM-CRE60 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 8-speed | SM-CRE60 | Single | - | - | SM-GEAR | 8-speed |
| | | | w/o | - | | | CN-NX10 |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| Rear derailleur system | 11-speed | SM-CRE60 | Double | - | - | MTB 11-speed CS | CN-HG901-11<br>CN-HG701-11<br>CN-HG601-11<br>CN-E8000-11 |
| | 10-speed | SM-CRE60 | Double | - | - | MTB 10-speed CS | CN-E6090-10 |
| | 9-speed | SM-CRE60 | Double | - | - | MTB 9-speed CS | CN-E6070-9 |
| | 8-speed | NA | | | | | |

## E6100 series

2

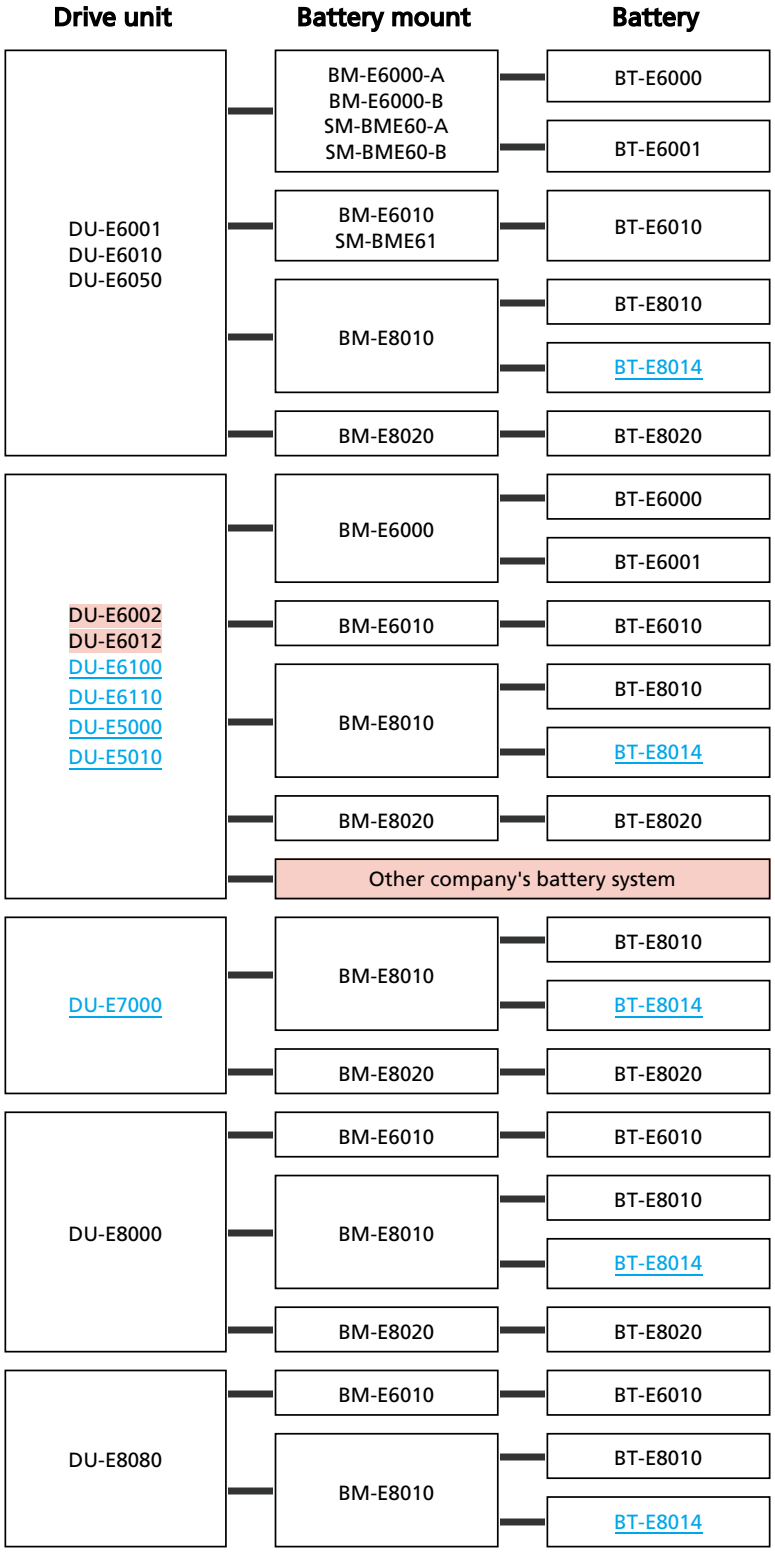
| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| DI2 Internal geared hub | 11-speed 8-speed | SM-CRE61 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | 5-speed | SM-CRE61 | Single / w/o | - | - | CS-C7000 | 8-speed |
| Mechanical Internal geared hub | ALFINE 11-speed 8-speed | SM-CRE61 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 8-speed | SM-CRE61 | Single | - | - | SM-GEAR | 8-speed |
| | | | w/o | - | | | CN-NX10 |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 5-speed | SM-CRE61 | Single | - | - | CS-C7000 | 8-speed |
| | | | w/o | - | - | | CN-NX10 |
| Rear derailleur system | 11-speed | SM-CRE61 | Double | - | - | MTB 11-speed CS | CN-HG901-11<br>CN-HG701-11<br>CN-HG601-11 |
| | 10-speed | SM-CRE61 | Double | - | - | MTB 10-speed CS | CN-E6090-10 |
| | 9-speed | SM-CRE61 | Double | - | - | MTB 9-speed CS | CN-E6070-9 |
| | 8-speed | NA | | | | | |

# Battery and battery mount compatibility



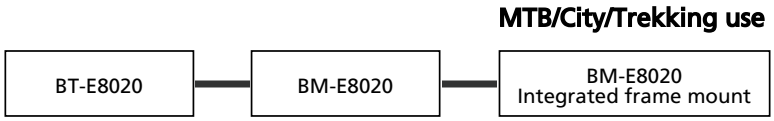
## Battery

2 5 7 8



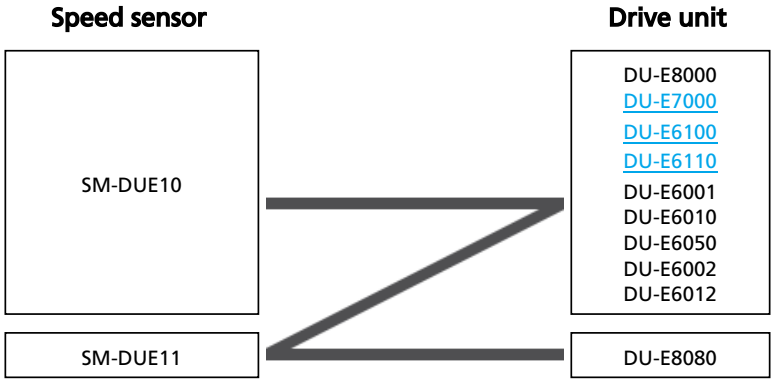
### External frame mount type

### Integrated frame mount type



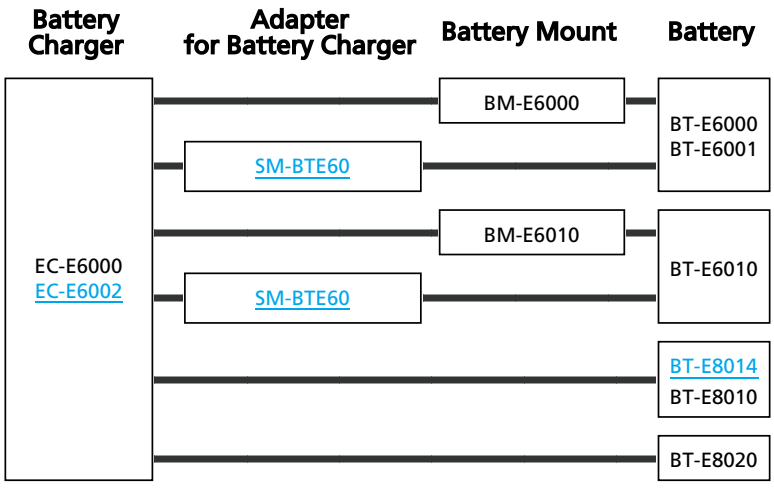

## Speed sensor and drive unit compatibility

C-549




## Battery and battery charger compatibility

C-562



## Electrical Specifications for lights C-402

- supply voltage: DC 6V (±0.5V)
- supply current:
  - MAX 1000mA (DU-E6001, DU-E6010, DU-E6050)
  - MAX 2000mA (DU-E8000, DU-E8080, DU-E6100, DU-E6110, DU-E6002)

**Requirement for lights**

- The total current consumption of the lights (front and rear lights inclusive) must be less than 1000mA (2000mA in the case of DU-E8000, DU-E8080, DU-E6100, DU-E6110, DU-E6002)
- Do not connect any drive unit with
  - any light which has a stand/parking light function
  - any light which doesn't meet EMC directive for CE marking
- Do not connect any light which has following peak current
  - DU-E6001, DU-E6010, DU-E6050: 1.4[A](peak current)
  - DU-E8000, DU-E8080, DU-E6100, DU-E6110, DU-E6002: 3[A](peak current)
- Refer to C-487 "Electromagnetic compatibility" information

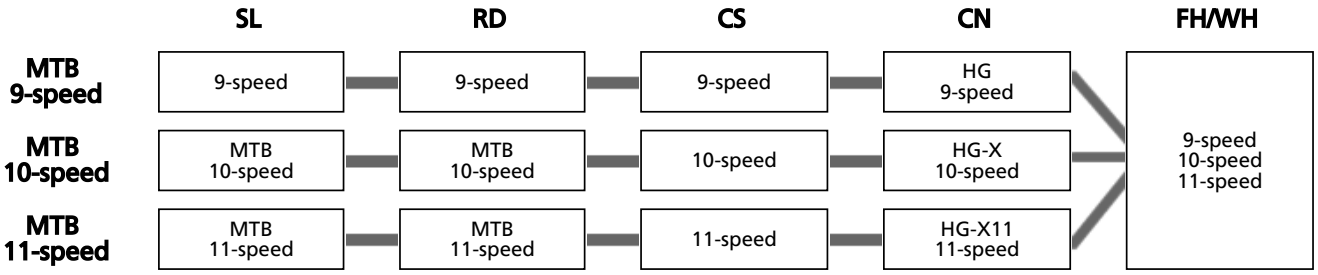
## Electromagnetic compatibility C-487

- European commission require to fulfill electromagnetic compatibility defined by 2014/30/EU on EN15194. It's a part of condition of CE marking on the products.
- EN15194 is requirement of complete assembled bicycle and bicycle supplier has responsible for it.
- Electromagnetic Compatibility on EPAC is affected by following conditions which need to be controlled by bicycle manufacture.
  - Frame design (shape, material, etc.)
  - Electric cable length, routing
  - Assembled electric components including lighting system
  - Etc.
- SHIMANO always try to supply a product with a larger margin about EMC to support bicycle manufacture.
  However we do not guarantee compliance with EMC directives for complete bicycles.

# Drivetrain for MTB components C-432

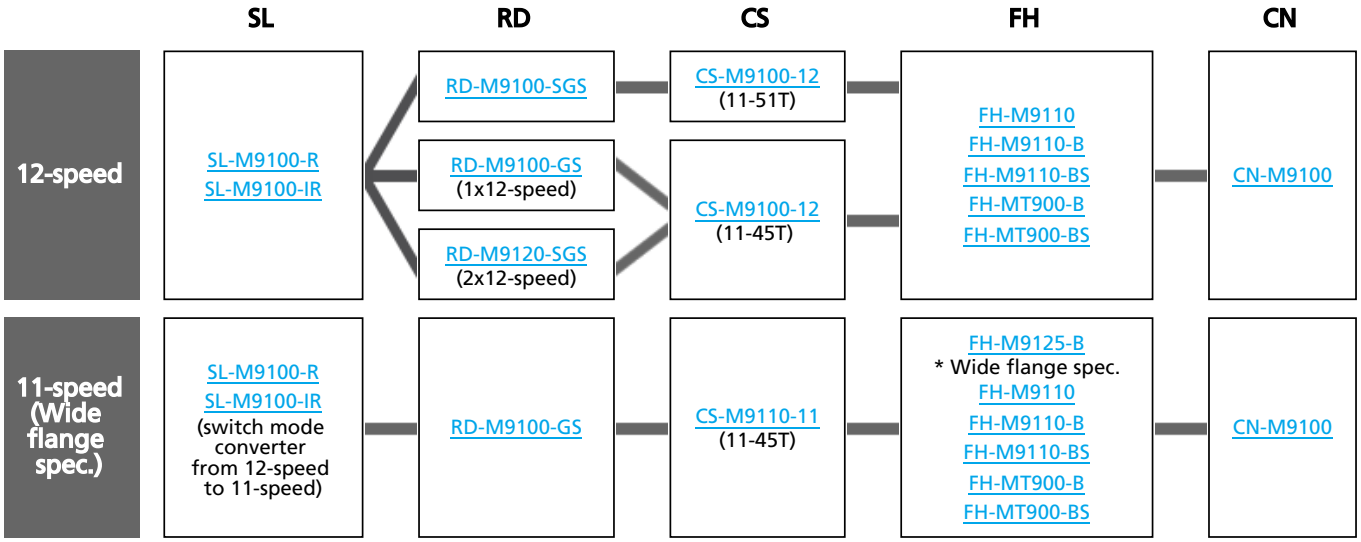
## Rear drivetrain compatibility [MTB] C-433

### 9,10,11-speed rear drivetrain compatibility C-434



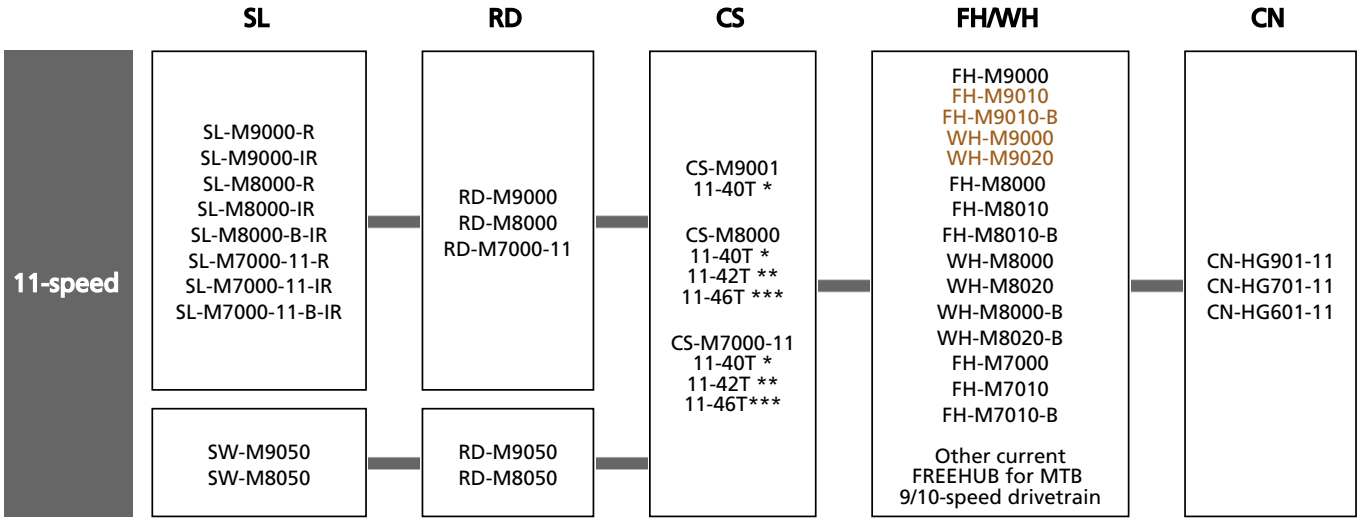

### ⚠6 12-speed and 11-speed rear drivetrain (MICRO SPLINE) [MTB] C-558

⚠3 ⚠4 ⚠6



# 11-speed rear drivetrain [MTB] C-435

## XTR M9000 / DEORE XT M8000 / SLX M7000 Series

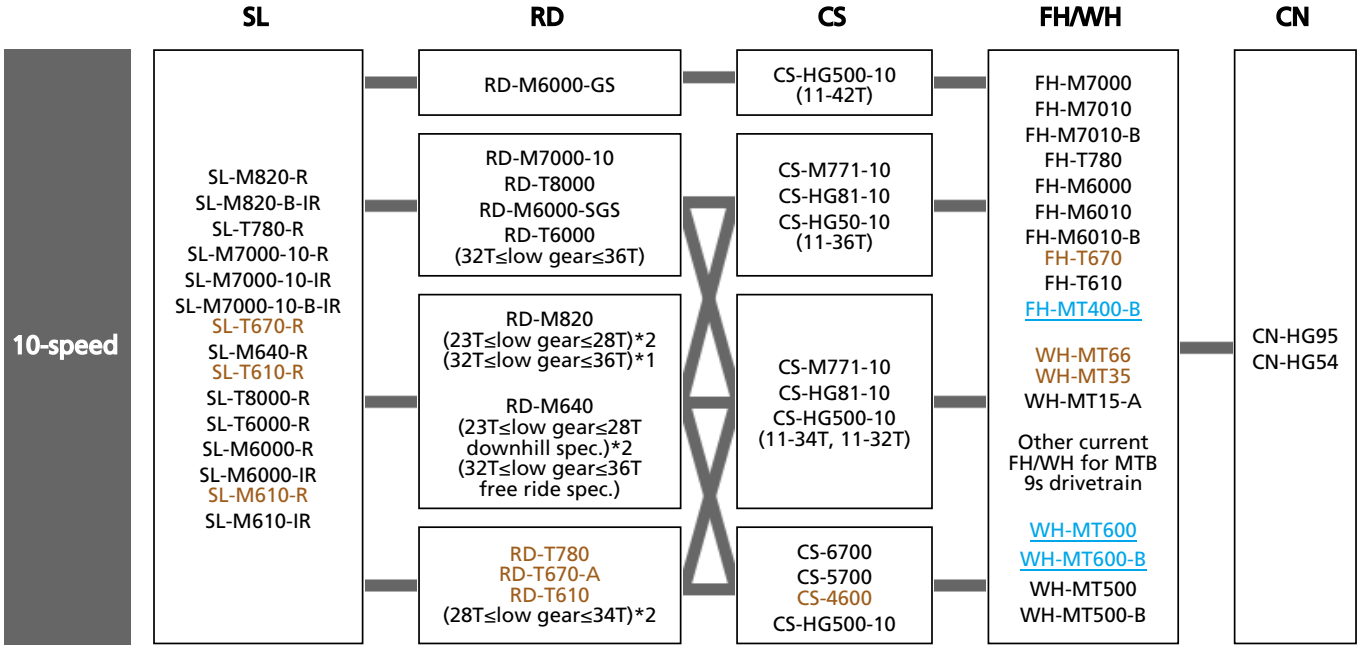



* 3/2/1x11-speed drive train

** 2/1x11-speed drive train

*** Only for 1x11-speed drivetrain

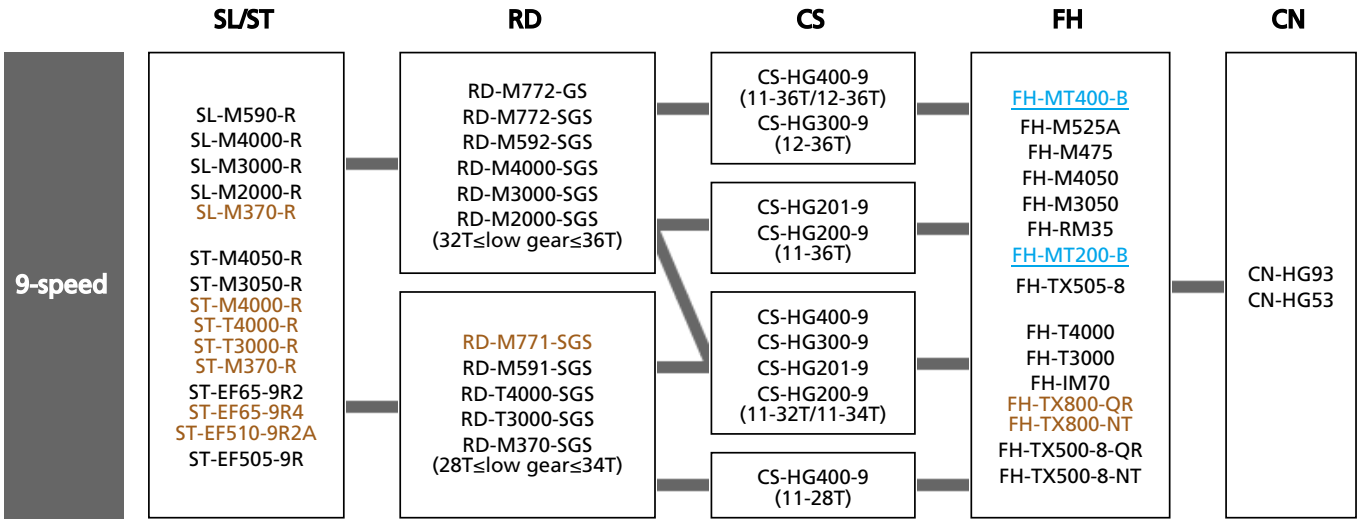
# 10-speed rear drivetrain [MTB] C-436




*1 Mode converter

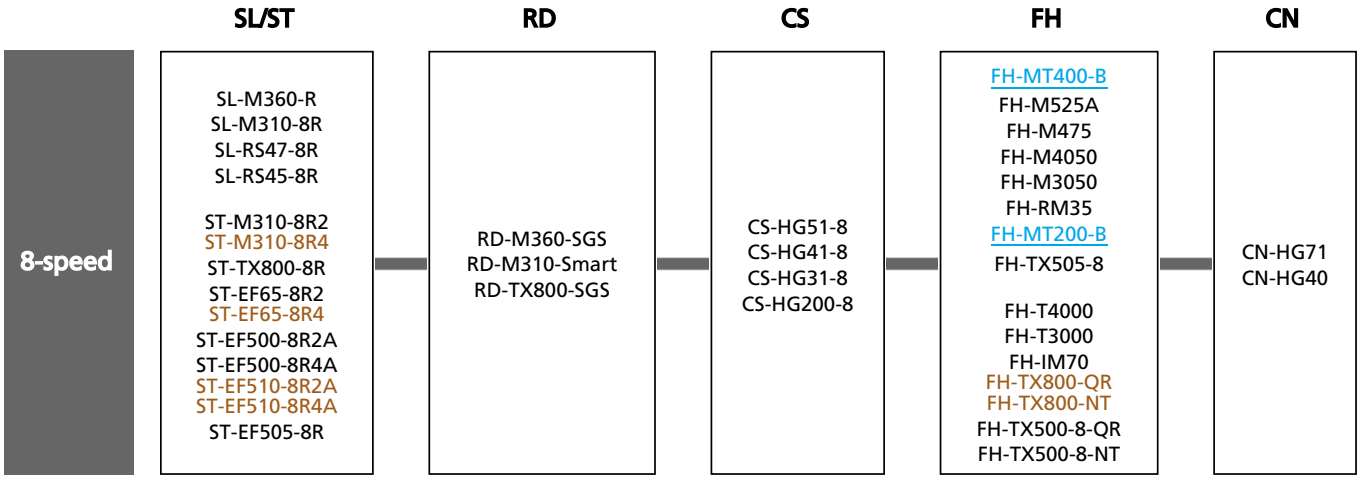
*2 Compatible with road Cassette sprocket

## 9-speed rear drivetrain [MTB] C-437

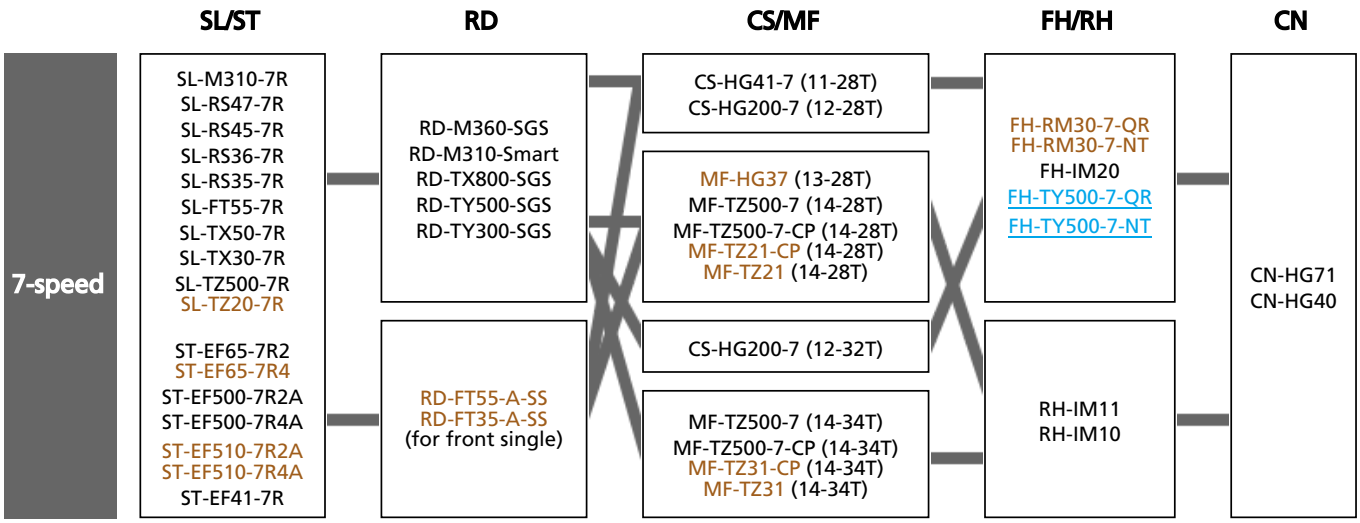



## 8-speed HG [MTB] C-438

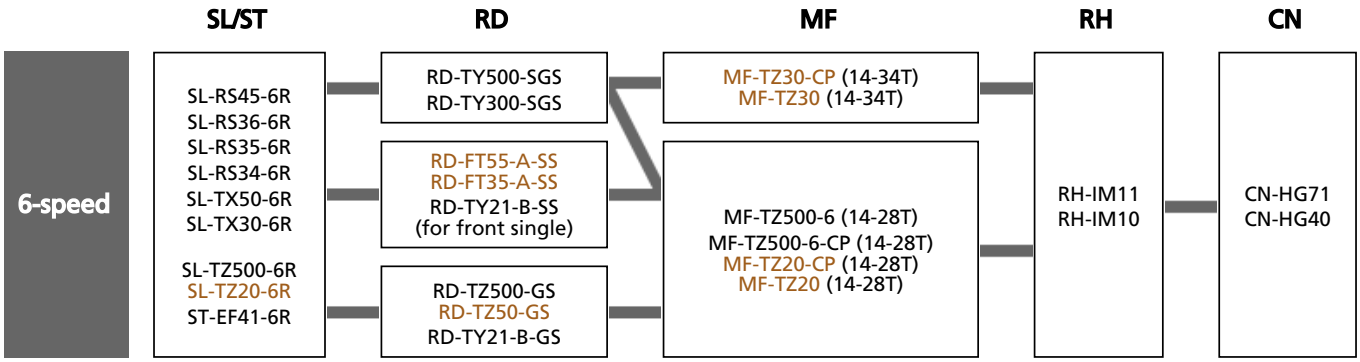
The rear derailleur for 8-speed can also be used for 7-speed drivetrain.




## 7-speed HG [MTB] C-439



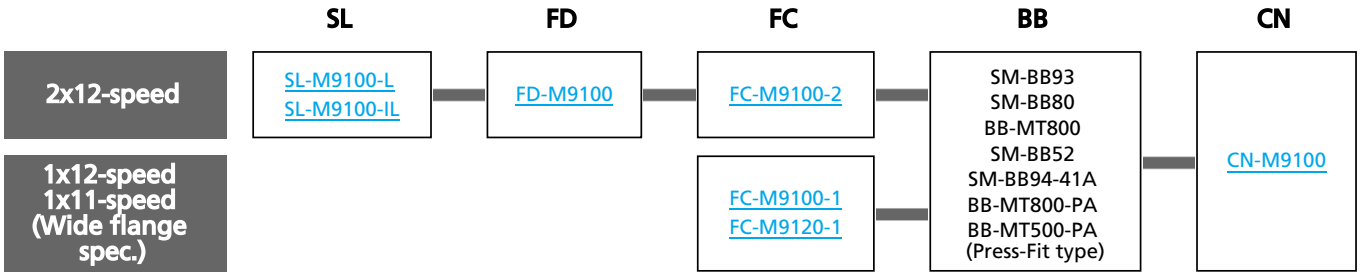
# 6-speed HG and 6-speed [MTB] C-546



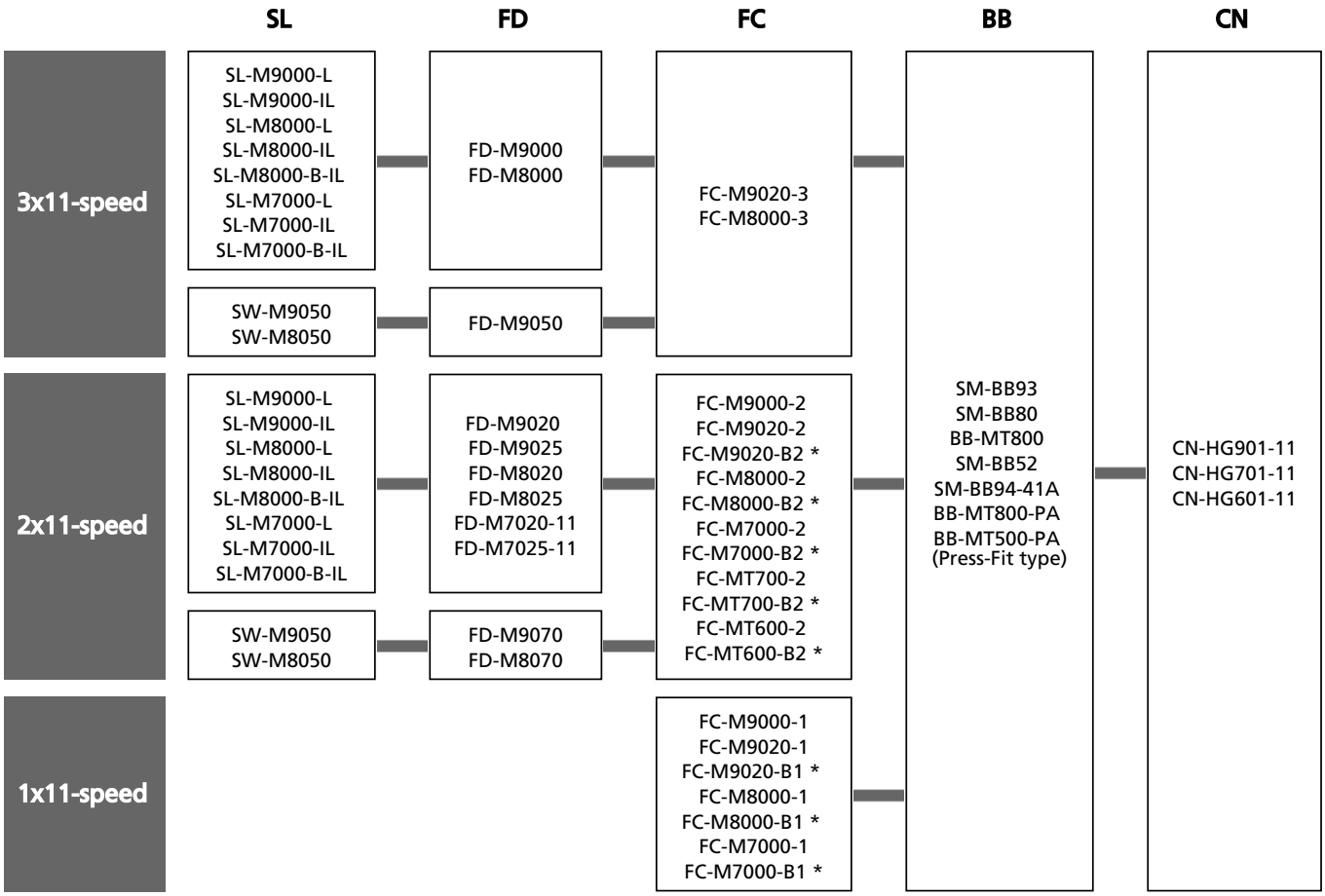
# Front drivetrain compatibility [MTB]



## 12-speed front drivetrain C-559



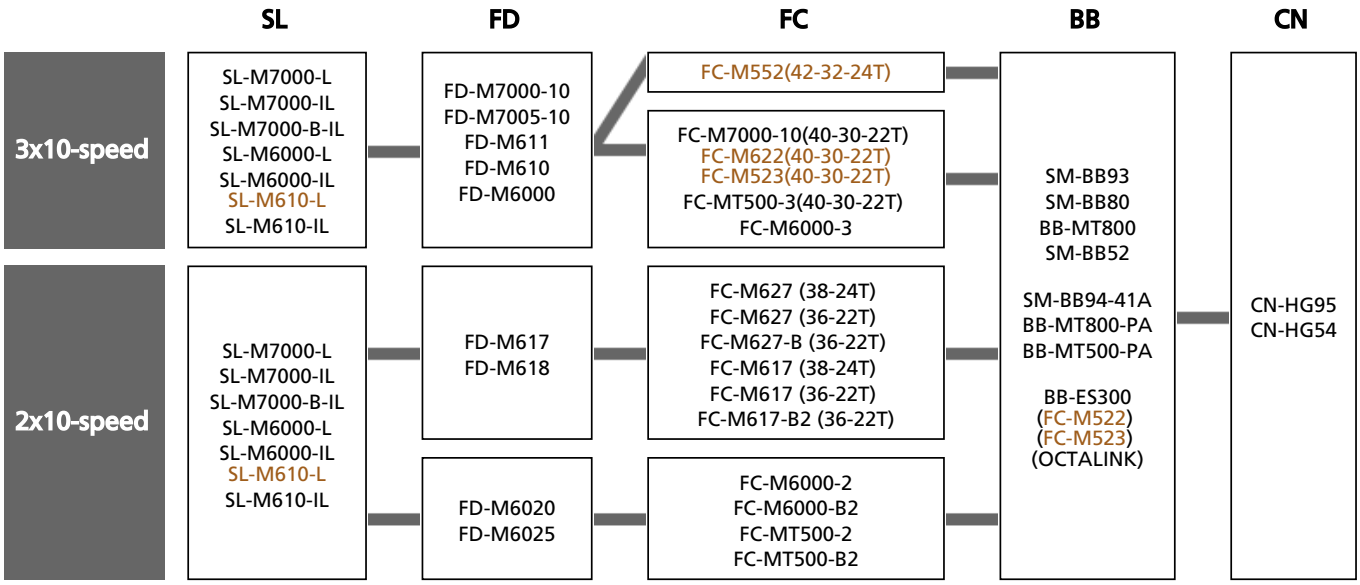

## 11-speed front drivetrain C-441



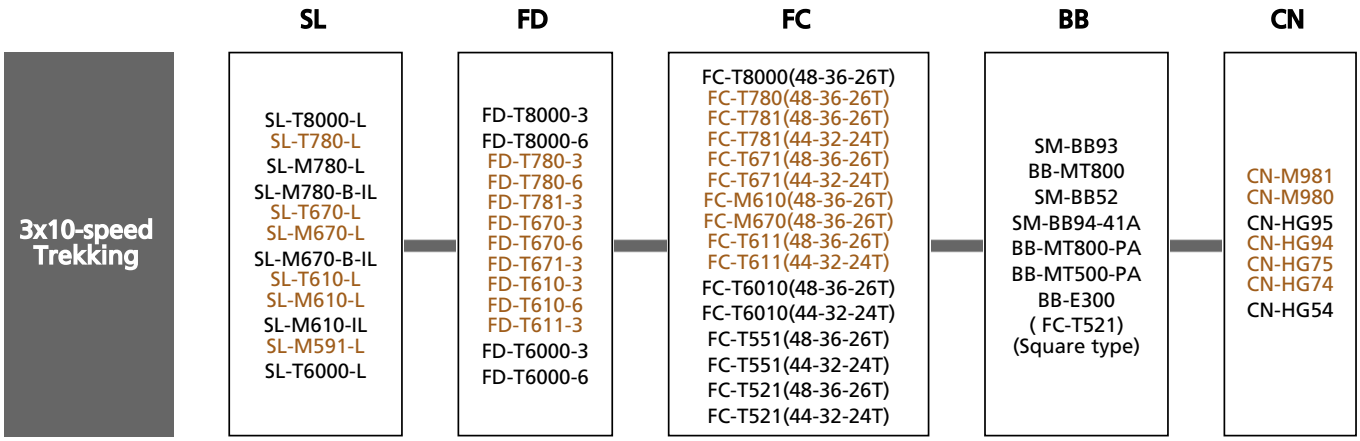

**NOTE**

*Please refer to technical information of Front Chainwheel dimension which is 3mm outboard spec.[C-119,C-120]
*It also requires new dimension of frame which cassette position is 3mm outboard

# 10-speed front drivetrain [MTB] C-442

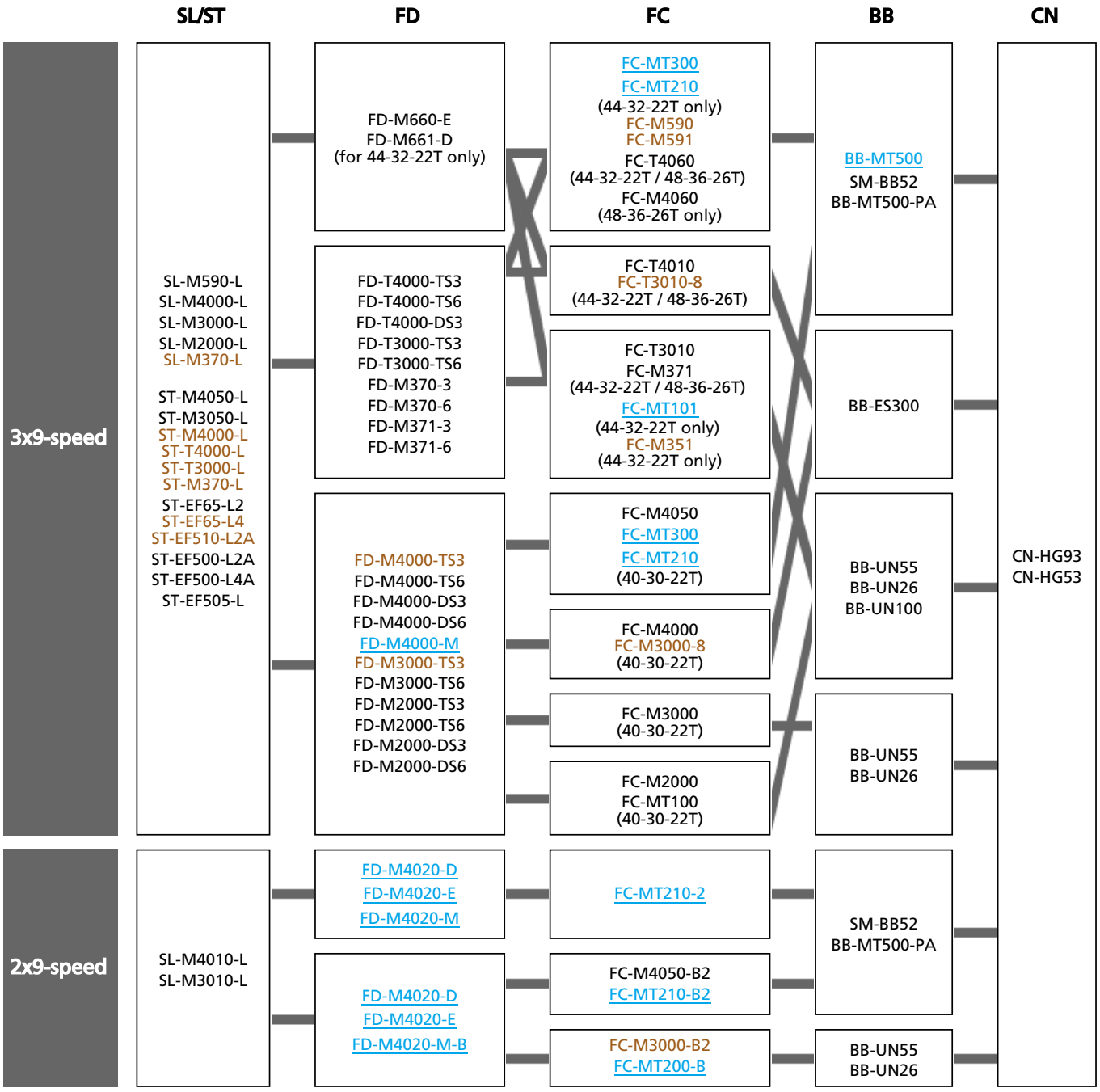



*: Not compatible with E2 type front derailleur.

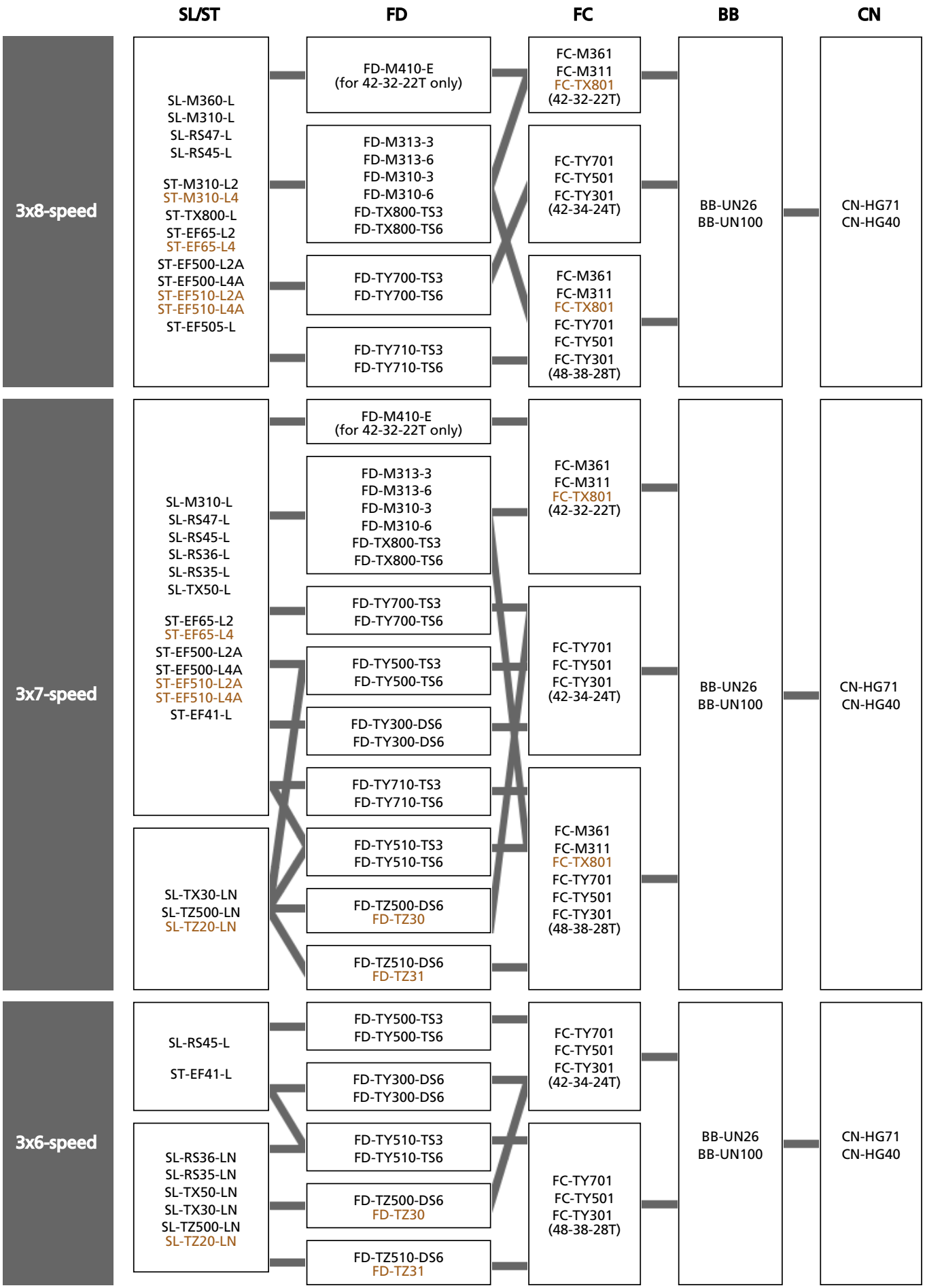


# 9-speed FC-FD compatibility [MTB] C-445

1 2 5



# 8,7,6-speed triple FC-FD compatibility [MTB] C-446



# Front derailleur and front chainwheel

C-447

The allowable combinations of front derailleurs depend on the difference in the number of teeth of the gears and the shape of the front derailleur plate.

If the conditions given below are not satisfied, then the desired shiftability may not be obtained.

| |
|---|
| FC (top gear) - (low gear) ≤ FD (top and low capacity)<br>FC (top gear) - (middle gear) = FD (allowance of difference in teeth number between top and middle) |

Each front derailleurs and the number of teeth of corresponding front chainwheels are given in the compatibility chart.

# Front derailleur and chain line (TOURNEY)

C-448

The SHIMANO line-up for front derailleurs and the chain lines they support are given in the chart below.

| | | 28.6 mm (S) | 31.8 mm (M) | 34.9 mm (L) |
|---|---|---|---|---|
| Chain line (mm) | FD-TY300 | 47.5 | | 50.0 |
| | FD-TZ510-DS6<br>FD-TZ500-DS6<br>FD-TZ31<br>FD-TZ30 | 47.5 | | - |

# Front chainwheel, bottom bracket and chain line [MTB] C-449

In order to use SIS (SHIMANO INDEX SYSTEM) to its full extent, the required correct chain line, along with the front chainwheel and bottom bracket required to obtain that, are given in the chart below.

## Separate type FC-BB compatibility [MTB] C-450

| Speed | Series | Front Chainwheel | | | | Bottom bracket | Chain line and axle mark | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | Model No. | Type of crank | | | Model No. | 47.5 mm | 50.0 mm | 52.5 mm | 47.5+t mm |
| | | | OCTALINK | Square | Chain case | | | | | |
| 10 | SHIMANO | FC-M523 | X | – | – | BB-ES300 | – | 118 | – | – |
| | | FC-M522 | X | – | – | BB-ES300 | – | 113 | – | – |
| 9 | SHIMANO | FC-M521 | X | – | X* | BB-ES300-AK | – | ** | – | – |
| | ALIVIO | FC-M4000 | X | – | – | BB-ES300 | – | 118 | – | – |
| | | FC-T4010 | X | – | X* | BB-ES300(-K) | – | 126(-K) | – | – |
| | | FC-M430-8 | X | – | – | BB-ES300(-E) | – | 118(-E) | – | – |
| | | FC-M430 | – | X | – | BB-UN26(-E) | – | LL113(-E) | – | – |
| | ACERA | FC-M3000-8 | X | – | – | BB-ES300 | – | 118 | – | – |
| | | FC-M3000<br>FC-M3000-B2 | – | X | – | BB-UN26 | – | LL113 | – | – |
| | | FC-T3010-8 | X | - | X* | BB-ES300(-K) | – | 126(-K) | – | – |
| | | FC-T3010 | – | X | X* | BB-UN26(-K) | – | LL123(-K) | – | – |
| | ALTUS | FC-M2000 | – | X | – | BB-UN26<br>BB-UN100 | – | LL123(-K) | – | – |
| | SHIMANO | FC-MT100 | – | X | – | BB-UN26<br>BB-UN100 | – | LL123 | – | – |
| | | FC-M371 | – | X | X* | BB-UN26(-K) | – | LL123(-K) | – | – |
| | | FC-M351 | | | | | | | | |
| 8, 7 | ACERA<br>ALTUS | FC-M361<br>FC-M311 | – | X | X* | BB-UN26(-K) | – | LL123(-K) | – | – |
| | TOURNEY | FC-TX801 | – | X | X* | BB-UN26(-K)<br>BB-UN100(-K) | – | LL123(-K) | – | – |
| 8, 7, 6 | SHIMANO | FC-TY701<br>FC-TY501<br>FC-TY301 | – | X | X | BB-UN26(-K)<br>BB-UN100(-K) | D-NL(122.5) | – | – | D-NL-K (122.5) |

X: Yes

*: Chain case stay thickness should be 1.5 mm to 2.1 mm.
**: Please refer to C-445 for detailed combination.

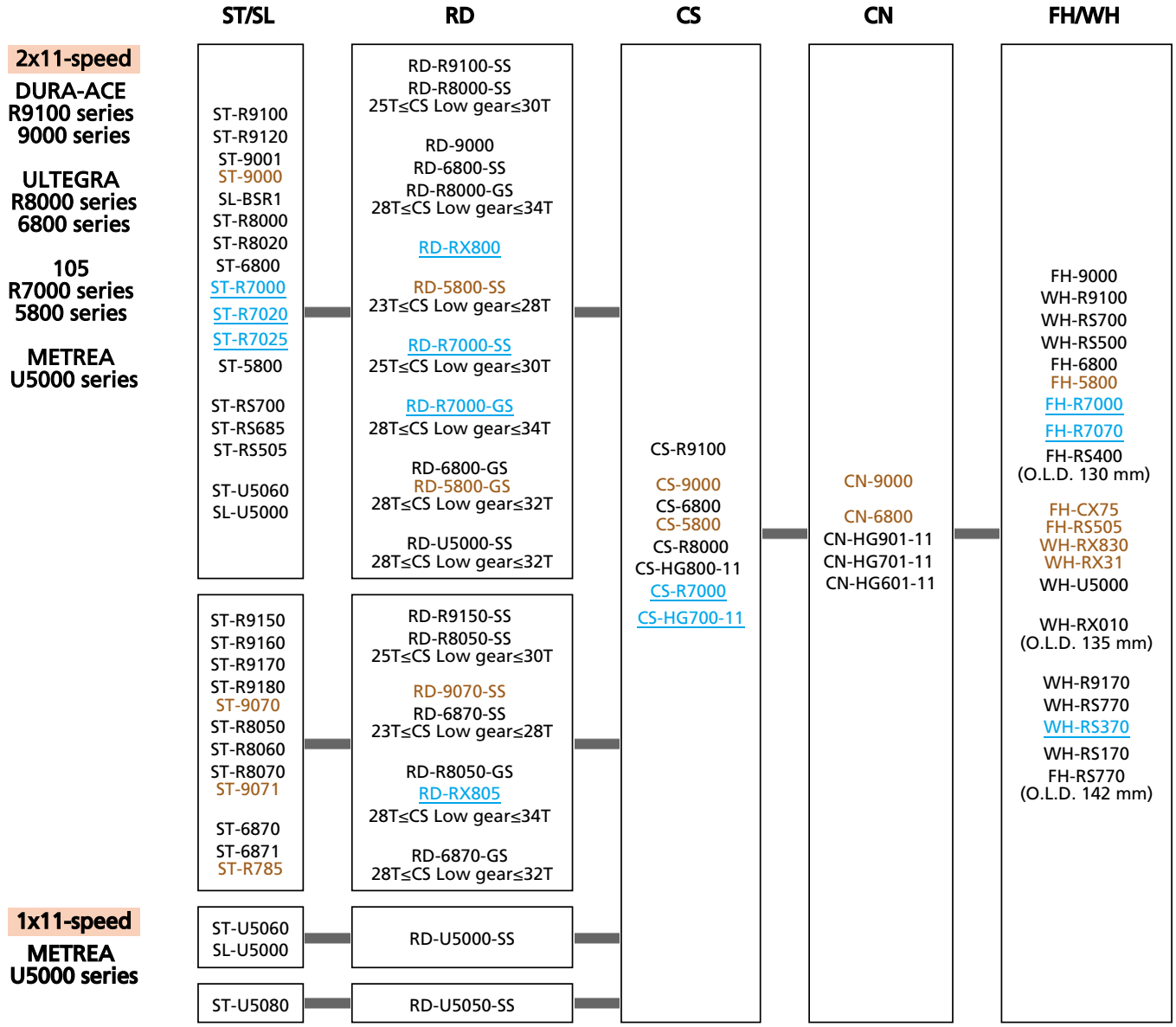
**NOTE**

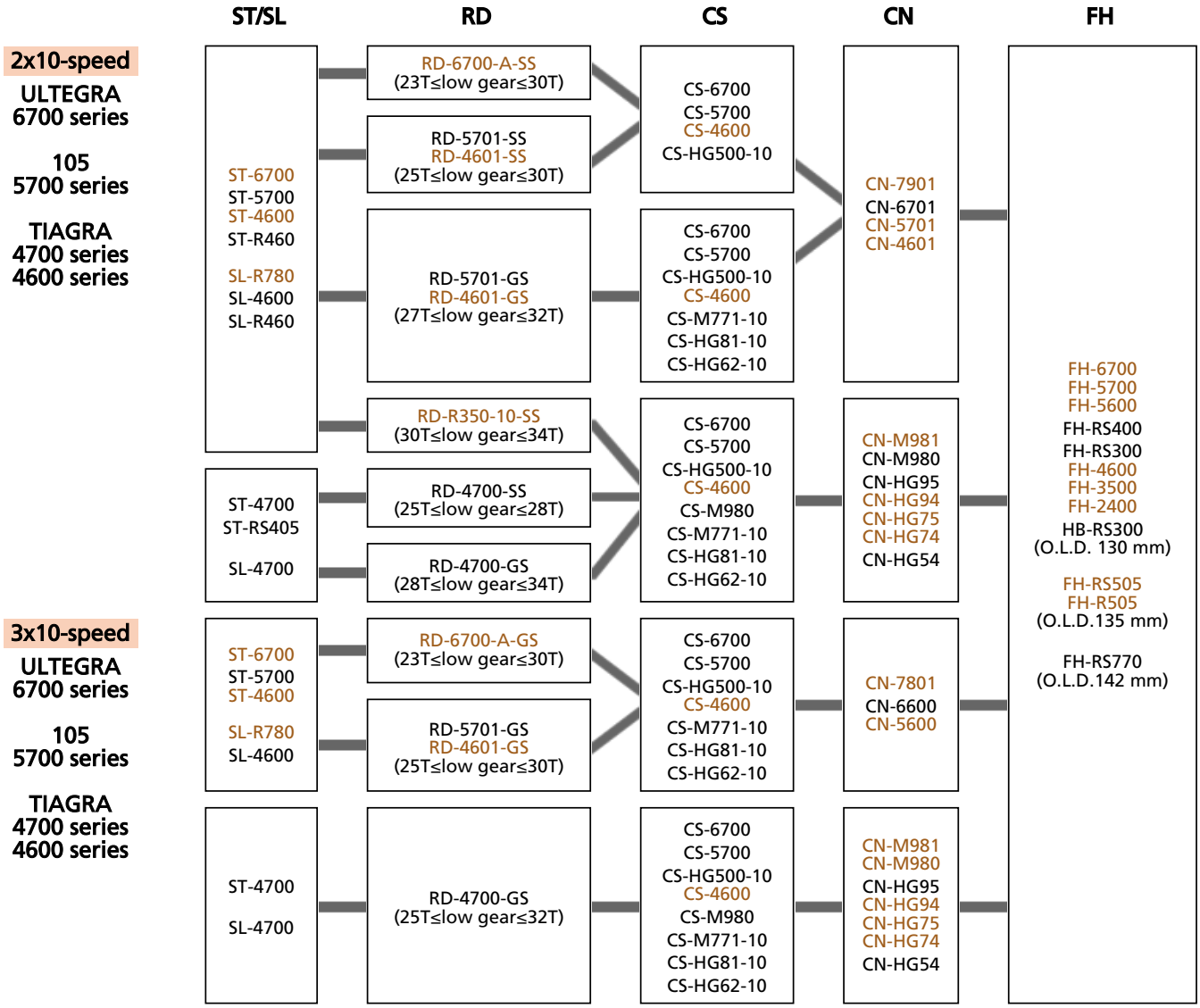
If using a chain case, select a BB-xxxx (-K) / -K bottom bracket.
If using an E-type front derailleur, select a BB-xxxx (-E) bottom bracket.
FC-M521: Use 121AK with 1.8 mm spacer if no chain case used.

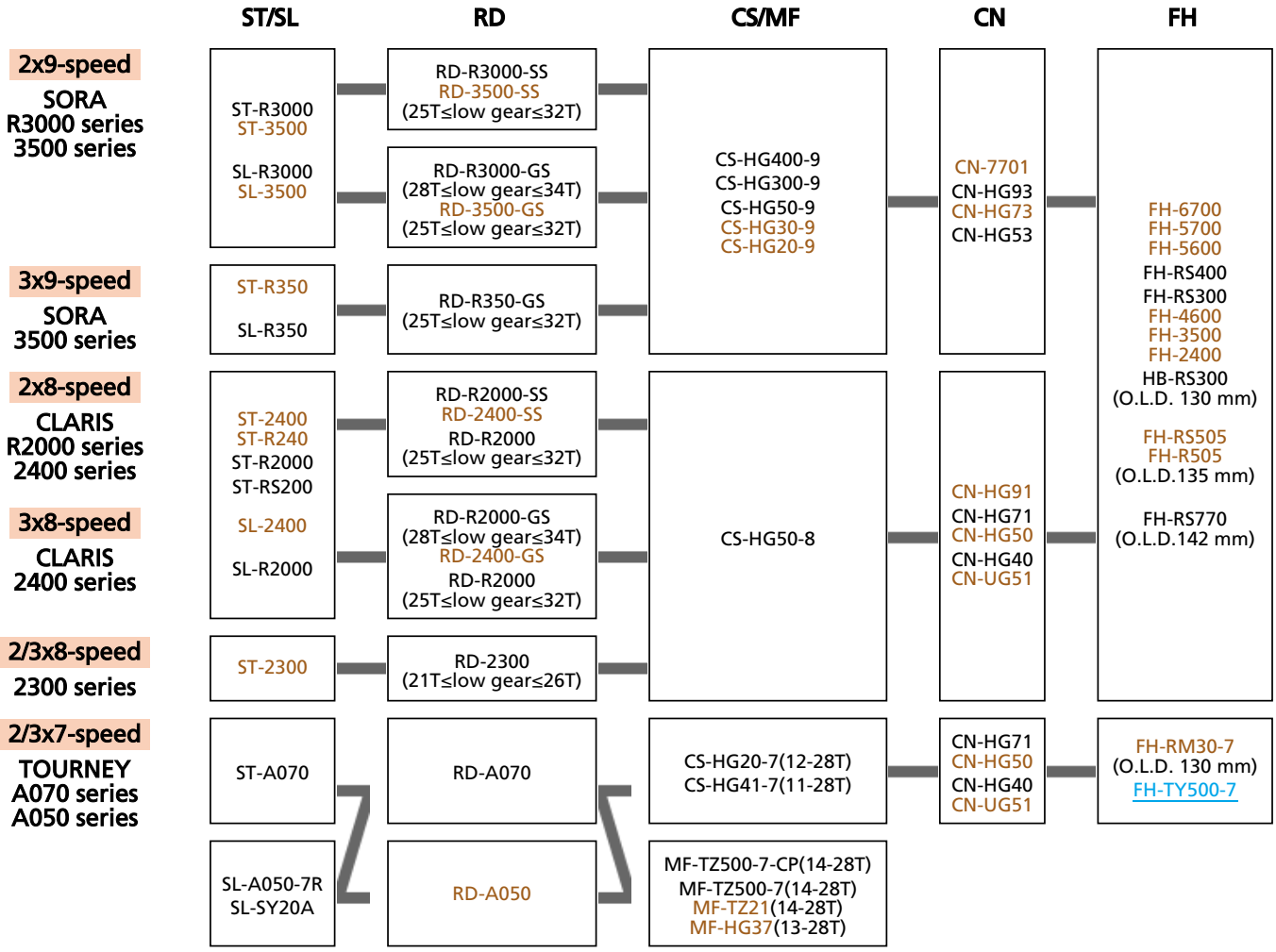
# Drivetrain for ROAD bike / URBAN SPORT components

## Rear drivetrain compatibility [ROAD, URBAN SPORT]

C-454

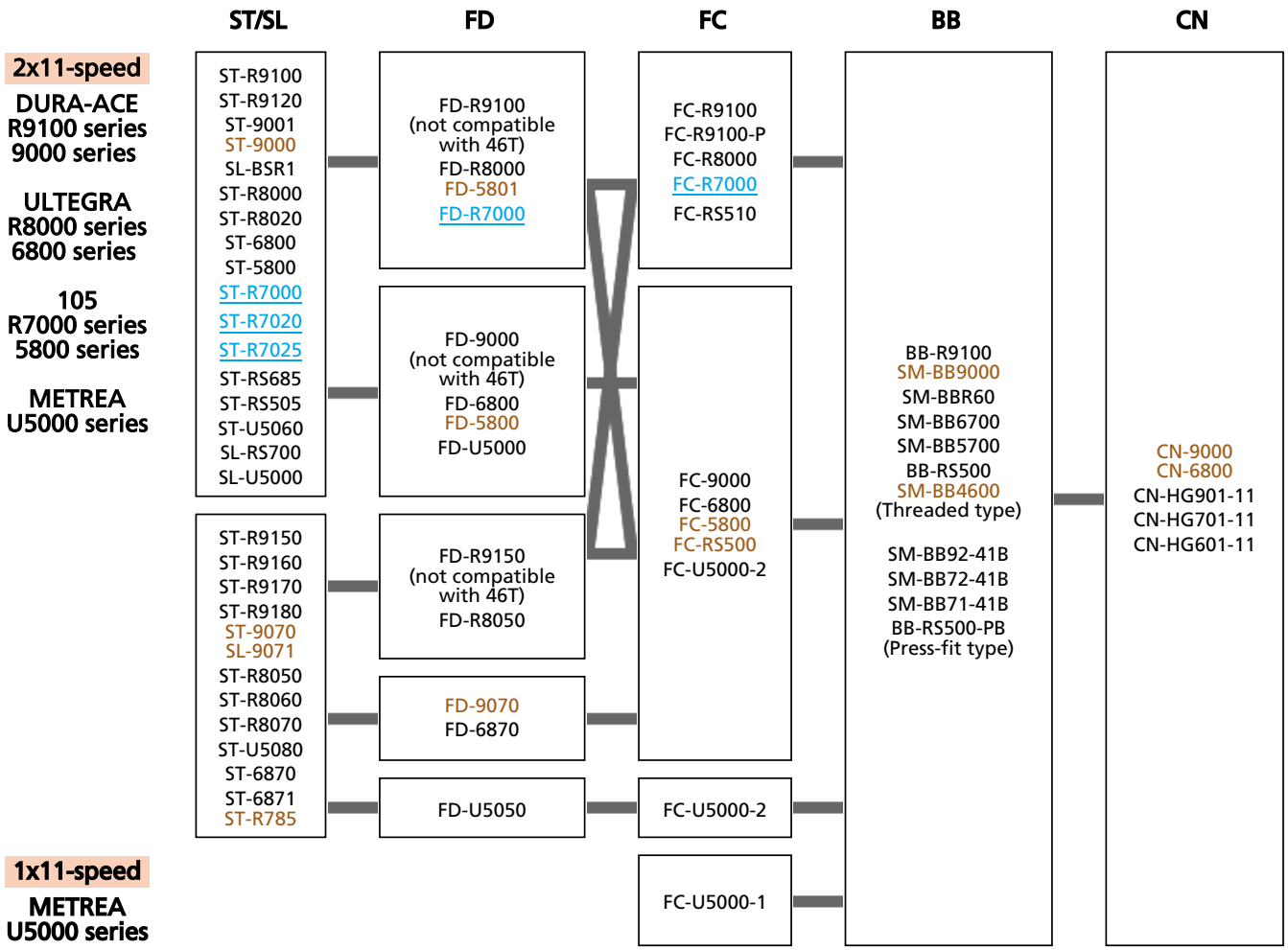


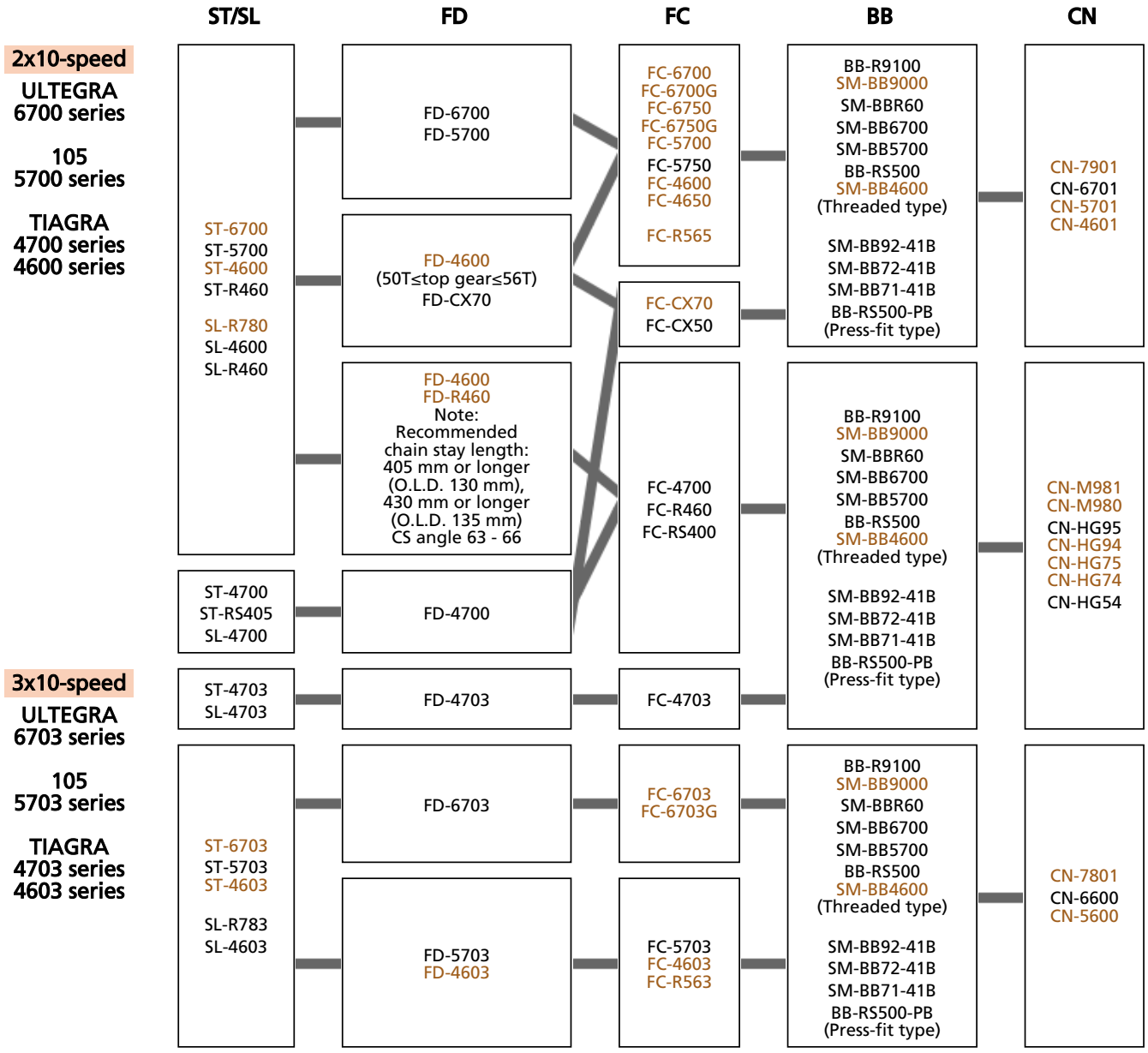

ST/SL
RD
CS
CN
FH
2x10-speed
ULTEGRA
6700 series
105
5700 series
TIAGRA
4700 series
4600 series
ST-6700
ST-5700
ST-4600
ST-R460
SL-R780
SL-4600
SL-R460
RD-6700-A-SS
(23T≤low gear≤30T)
RD-5701-SS
RD-4601-SS
(25T≤low gear≤30T)
RD-5701-GS
RD-4601-GS
(27T≤low gear≤32T)
CS-6700
CS-5700
CS-4600
CS-HG500-10
CS-6700
CS-5700
CS-HG500-10
CS-4600
CS-M771-10
CS-HG81-10
CS-HG62-10
CN-7901
CN-6701
CN-5701
CN-4601
FH-6700
FH-5700
FH-5600
FH-RS400
FH-RS300
FH-4600
FH-3500
FH-2400
HB-RS300
(O.L.D. 130 mm)
FH-RS505
FH-R505
(O.L.D.135 mm)
FH-RS770
(O.L.D.142 mm)
RD-R350-10-SS
(30T≤low gear≤34T)
ST-4700
ST-RS405
SL-4700
RD-4700-SS
(25T≤low gear≤28T)
RD-4700-GS
(28T≤low gear≤34T)
CS-6700
CS-5700
CS-HG500-10
CS-4600
CS-M980
CS-M771-10
CS-HG81-10
CS-HG62-10
CN-M981
CN-M980
CN-HG95
CN-HG94
CN-HG75
CN-HG74
CN-HG54
3x10-speed
ULTEGRA
6700 series
105
5700 series
TIAGRA
4700 series
4600 series
ST-6700
ST-5700
ST-4600
SL-R780
SL-4600
RD-6700-A-GS
(23T≤low gear≤30T)
RD-5701-GS
RD-4601-GS
(25T≤low gear≤30T)
CS-6700
CS-5700
CS-HG500-10
CS-4600
CS-M771-10
CS-HG81-10
CS-HG62-10
CN-7801
CN-6600
CN-5600
ST-4700
SL-4700
RD-4700-GS
(25T≤low gear≤32T)
CS-6700
CS-5700
CS-HG500-10
CS-4600
CS-M980
CS-M771-10
CS-HG81-10
CS-HG62-10
CN-M981
CN-M980
CN-HG95
CN-HG94
CN-HG75
CN-HG74
CN-HG54

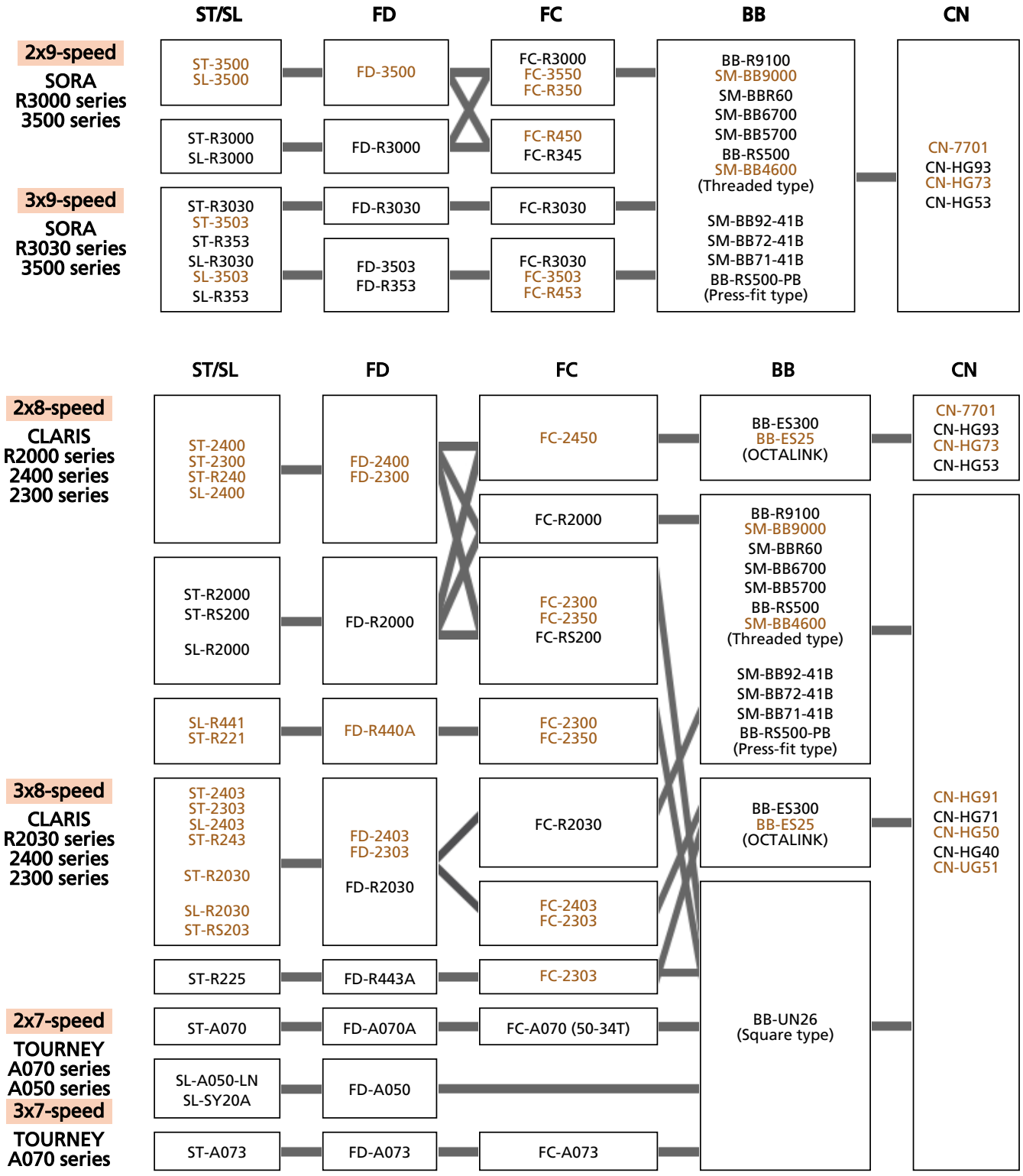

ST/SL
RD
CS/MF
CN
FH
2x9-speed
SORA
R3000 series
3500 series
3x9-speed
SORA
3500 series
2x8-speed
CLARIS
R2000 series
2400 series
3x8-speed
CLARIS
2400 series
2/3x8-speed
2300 series
2/3x7-speed
TOURNEY
A070 series
A050 series
ST-R3000
ST-3500
SL-R3000
SL-3500
ST-R350
SL-R350
ST-2400
ST-R240
ST-R2000
ST-RS200
SL-2400
SL-R2000
ST-2300
ST-A070
SL-A050-7R
SL-SY20A
RD-R3000-SS
RD-3500-SS
(25T≤low gear≤32T)
RD-R3000-GS
(28T≤low gear≤34T)
RD-3500-GS
(25T≤low gear≤32T)
RD-R350-GS
(25T≤low gear≤32T)
RD-R2000-SS
RD-2400-SS
RD-R2000
(25T≤low gear≤32T)
RD-R2000-GS
(28T≤low gear≤34T)
RD-2400-GS
RD-R2000
(25T≤low gear≤32T)
RD-2300
(21T≤low gear≤26T)
RD-A070
RD-A050
CS-HG400-9
CS-HG300-9
CS-HG50-9
CS-HG30-9
CS-HG20-9
CS-HG50-8
CS-HG20-7(12-28T)
CS-HG41-7(11-28T)
MF-TZ500-7-CP(14-28T)
MF-TZ500-7(14-28T)
MF-TZ21(14-28T)
MF-HG37(13-28T)
CN-7701
CN-HG93
CN-HG73
CN-HG53
CN-HG91
CN-HG71
CN-HG50
CN-HG40
CN-UG51
CN-HG71
CN-HG50
CN-HG40
CN-UG51
FH-6700
FH-5700
FH-5600
FH-RS400
FH-RS300
FH-4600
FH-3500
FH-2400
HB-RS300
(O.L.D. 130 mm)
FH-RS505
FH-R505
(O.L.D.135 mm)
FH-RS770
(O.L.D.142 mm)
FH-RM30-7
(O.L.D. 130 mm)
FH-TY500-7

# Front drivetrain compatibility [ROAD, URBAN SPORT]



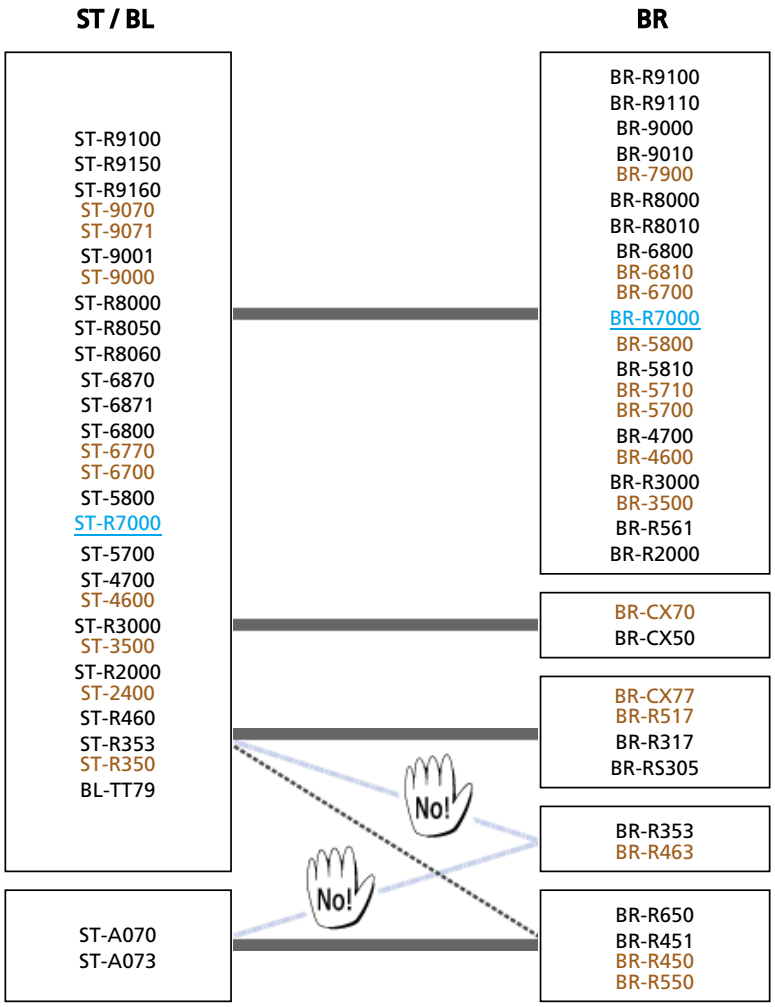



ST/SL
FD
FC
BB
CN
2x10-speed
ULTEGRA
6700 series
105
5700 series
TIAGRA
4700 series
4600 series
ST-6700
ST-5700
ST-4600
ST-R460
SL-R780
SL-4600
SL-R460
FD-6700
FD-5700
FD-4600
(50T≤top gear≤56T)
FD-CX70
FD-4600
FD-R460
Note:
Recommended
chain stay length:
405 mm or longer
(O.L.D. 130 mm),
430 mm or longer
(O.L.D. 135 mm)
CS angle 63 - 66
FC-6700
FC-6700G
FC-6750
FC-6750G
FC-5700
FC-5750
FC-4600
FC-4650
FC-R565
FC-CX70
FC-CX50
FC-4700
FC-R460
FC-RS400
BB-R9100
SM-BB9000
SM-BBR60
SM-BB6700
SM-BB5700
BB-RS500
SM-BB4600
(Threaded type)
SM-BB92-41B
SM-BB72-41B
SM-BB71-41B
BB-RS500-PB
(Press-fit type)
CN-7901
CN-6701
CN-5701
CN-4601
CN-M981
CN-M980
CN-HG95
CN-HG94
CN-HG75
CN-HG74
CN-HG54
ST-4700
ST-RS405
SL-4700
FD-4700
3x10-speed
ULTEGRA
6703 series
105
5703 series
TIAGRA
4703 series
4603 series
ST-4703
SL-4703
FD-4703
FC-4703
ST-6703
ST-5703
ST-4603
SL-R783
SL-4603
FD-6703
FD-5703
FD-4603
FC-6703
FC-6703G
FC-5703
FC-4603
FC-R563
CN-7801
CN-6600
CN-5600


ST/SL
FD
FC
BB
CN
2x9-speed
SORA
R3000 series
3500 series
ST-3500
SL-3500
FD-3500
FC-R3000
FC-3550
FC-R350
ST-R3000
SL-R3000
FD-R3000
FC-R450
FC-R345
3x9-speed
SORA
R3030 series
3500 series
ST-R3030
ST-3503
ST-R353
SL-R3030
SL-3503
SL-R353
FD-R3030
FD-3503
FD-R353
FC-R3030
FC-3503
FC-R453
BB-R9100
SM-BB9000
SM-BBR60
SM-BB6700
SM-BB5700
BB-RS500
SM-BB4600
(Threaded type)
SM-BB92-41B
SM-BB72-41B
SM-BB71-41B
BB-RS500-PB
(Press-fit type)
CN-7701
CN-HG93
CN-HG73
CN-HG53
ST/SL
FD
FC
BB
CN
2x8-speed
CLARIS
R2000 series
2400 series
2300 series
ST-2400
ST-2300
ST-R240
SL-2400
FD-2400
FD-2300
FC-2450
FC-R2000
ST-R2000
ST-RS200
SL-R2000
FD-R2000
FC-2300
FC-2350
FC-RS200
SL-R441
ST-R221
FD-R440A
FC-2300
FC-2350
BB-ES300
BB-ES25
(OCTALINK)
BB-R9100
SM-BB9000
SM-BBR60
SM-BB6700
SM-BB5700
BB-RS500
SM-BB4600
(Threaded type)
SM-BB92-41B
SM-BB72-41B
SM-BB71-41B
BB-RS500-PB
(Press-fit type)
CN-7701
CN-HG93
CN-HG73
CN-HG53
3x8-speed
CLARIS
R2030 series
2400 series
2300 series
ST-2403
ST-2303
SL-2403
ST-R243
ST-R2030
SL-R2030
ST-RS203
FD-2403
FD-2303
FD-R2030
FC-R2030
FC-2403
FC-2303
BB-ES300
BB-ES25
(OCTALINK)
CN-HG91
CN-HG71
CN-HG50
CN-HG40
CN-UG51
ST-R225
FD-R443A
FC-2303
2x7-speed
TOURNEY
A070 series
A050 series
ST-A070
FD-A070A
FC-A070 (50-34T)
SL-A050-LN
SL-SY20A
FD-A050
BB-UN26
(Square type)
3x7-speed
TOURNEY
A070 series
ST-A073
FD-A073
FC-A073

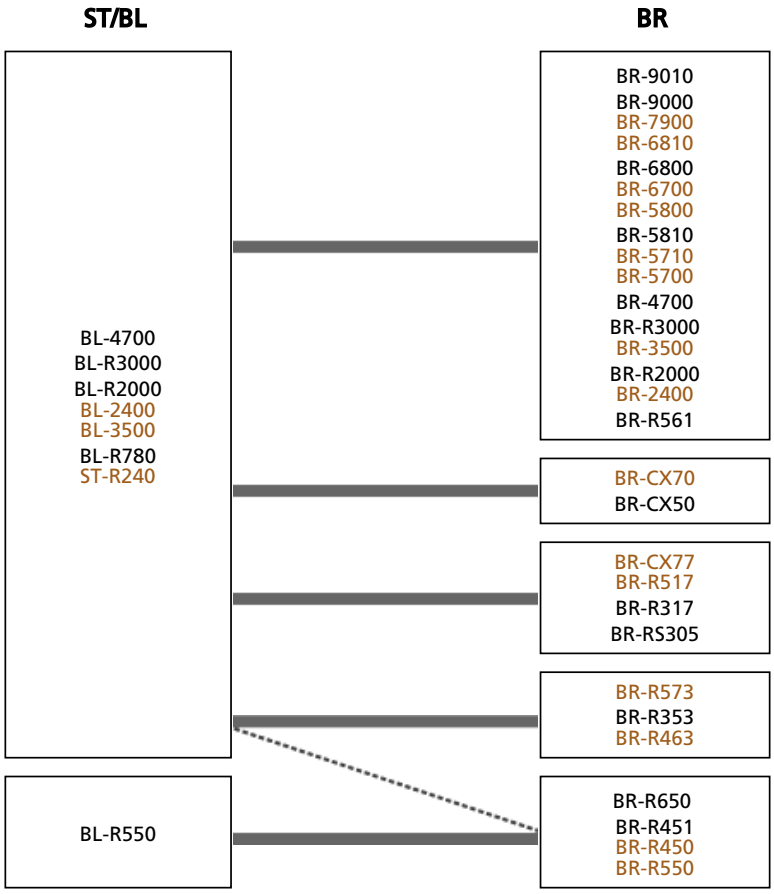
# Brake systems compatibility [ROAD]






: Braking power is slightly less than standard combination.

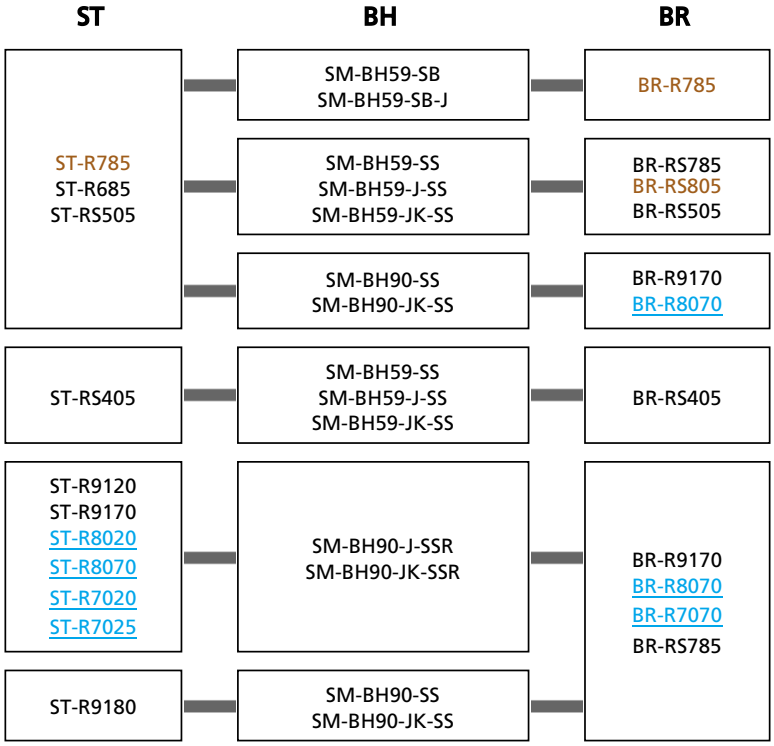
: The “NO!” symbols indicate combinations that should not be used under any circumstances.




: Braking power is slightly less than standard combination.

## Hydraulic systems compatibility [ROAD]

C-499



# Hydraulic systems compatibility [URBAN SPORT]

# Compatibility of I-SPEC shifter and brake lever

C-157

Clamp band type shifter can be compatible as I-SPEC when you change upper body with integration unit.

| | Model No. | I-SPEC EV shifter | DI2 shifter | | I-SPEC II shifter | | | | | I-SPEC B shifter | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SL-M9100-I | SW-M9050 | SW-M8050 | SL-M9000-I | SL-M8000-I | SL-M7000-11-I / SL-M7000-10-I | SL-U5000 | SL-M6000-I | SL-M8000-B-I | SL-M7000-11 / SL-M7000-10-B-I | SL-M820-B-I, SL-M820 (with SM-SL82-B) |
| I-SPEC EV | BL-M9100 | X | - | - | - | - | - | - | - | - | - | - |
| | BL-M9120 | X | - | - | - | - | - | - | - | - | - | - |
| I-SPEC II | BL-M9000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M9020 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M8000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-T8000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M7000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M6000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-T6000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-RS600 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-MT500 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-MT501 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-U5000 | - | - | - | X | X | X | X | X | - | - | - |
| I-SPEC B | BL-M987 | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M988-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M820-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M640-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T780-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T675-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T670-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T610 | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M506 | - | - | - | - | - | - | - | - | X | X | X |
| | BL-S700-B | - | - | - | - | - | - | - | - | X | X | X |

## Compatibility of SL-MT800 (SL for dropper seat post) and brake lever

| | Model No. | I-SPEC EV shifter |
|---|---|---|
| | | SL-MT800 |
| I-SPEC EV | BL-M9100 | X |
| | BL-M9120 | X |
| I-SPEC II | BL-M9000 | - |
| | BL-M9020 | - |
| | BL-M8000 | - |
| | BL-T8000 | - |
| | BL-M7000 | - |
| | BL-M6000 | - |
| | BL-T6000 | - |
| | BL-RS600 | - |
| | BL-MT500 | - |
| | BL-MT501 | - |
| | BL-U5000 | - |
| I-SPEC B | BL-M987 | - |
| | BL-M988-B | - |
| | BL-M820-B | - |
| | BL-M640-B | - |
| | BL-T780-B | - |
| | BL-T675-B | - |
| | BL-T670-B | - |
| | BL-T610 | - |
| | BL-M506 | - |
| | BL-S700-B | - |

# Disc brake caliper and Rotor compatibility

C-461

2 6

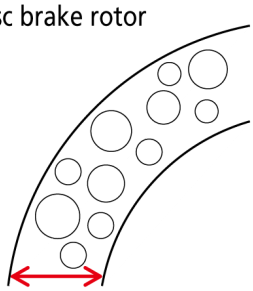
| Brake caliper | Brake pad material | Pad type | Disc brake rotor | | | |
|---|---|---|---|---|---|---|
| | | | 203 mm (L) | 180 mm (M) | 160 mm (S) | 140 mm (SS) |
| BR-M9100<br>BR-M9120<br>BR-M9000<br>BR-M9020<br>BR-M8000<br>BR-M8020<br>BR-M7000<br>BR-M6000<br>BR-MT520 | Metal / Resin | Narrow | RT-MT900-L<br>SM-RT99-L<br>SM-RT86-L<br>SM-RT81-L<br>RT-EM900-L*<br>SM-RT76-L<br>SM-RT70-L<br>SM-RT66-L<br>SM-RT64-L | RT-MT900-M<br>SM-RT99-M<br>SM-RT86-M<br>SM-RT81-M<br>RT-EM900-M*<br>RT-EM800-M*<br>SM-RT76-M<br>SM-RT70-M<br>SM-RT66-M<br>SM-RT64-M | RT-MT900-S<br>SM-RT900-S<br>SM-RT800-S<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>RT-EM900-S*<br>RT-EM800-S*<br>SM-RT76-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | RT-MT900-SS<br>SM-RT900-SS<br>SM-RT800-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-M820<br>BR-M640 | Metal / Resin | | | | | |
| BR-S700 | Resin | | | | | |
| BR-T675<br>BR-T615<br>BR-M4050<br>BR-MT500<br>BR-M446<br>BR-MT400<br>BR-M3050<br>BR-M395<br>BR-M375<br>BR-MT200<br>BR-M365<br>BR-M315<br>BR-TX805 | Resin | Wide | - | SM-RT56-M<br>SM-RT54-M<br>SM-RT30-M<br>SM-RT26-M<br>SM-RT10-M | SM-RT56-S<br>SM-RT54-S<br>SM-RT30-S<br>SM-RT26-S<br>SM-RT10-S | - |
| BR-UR300 | Resin | Wide | - | - | SM-RT56-S<br>SM-RT54-S<br>SM-RT30-S<br>SM-RT26-S<br>SM-RT10-S | - |
| BR-R9170<br>BR-R8070<br>BR-R7070<br>BR-RS805<br>BR-R785<br>BR-RS785<br>BR-RS505<br>BR-RS405 | Metal / Resin | Narrow | - | - | SM-RT900-S<br>SM-RT800-S<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT70-S | SM-RT900-SS<br>SM-RT800-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-CX77<br>BR-R517<br>BR-R317<br>BR-RS305 | Metal / Resin | Narrow | - | - | SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT76-S<br>SM-RT75-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-U5000 | Metal / Resin | Narrow | - | - | SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT76-S<br>SM-RT75-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | SM-RT500-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |

* Disc brake rotor for speed sensor SM-DUE11, rear only.

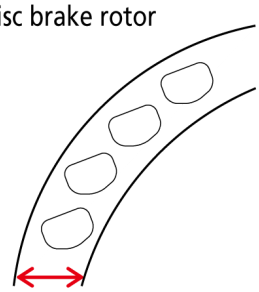
**NOTE**

- SM-RT56 / SM-RT54 / SM-RT30 / SM-RT26 / SM-RT10 are compatible with Resin pad caliper specification only. If use with metal pads, rotor will be easily damaged.
- When using 140mm rotor, braking power is less than 160 mm, please confirm the power is enough for your purpose. 140 mm rotor is recommended for rear use only.
- Durability of B-type pad become shorter when the pad is used with narrow type rotor.
- Narrow type 2 piece rotor are not compatible to caliper for Wide type rotor because of interference.
- BR-UR300 doesn't need front mount bracket and rear adapter.

Wide type disc brake rotor



Narrow type disc brake rotor



### Interference between brake caliper and adapter of rotor

Do not use these combinations for a reason of interference between brake caliper and adapter of disc brake rotor .

| Brake caliper | Disc brake rotor | | | |
|---|---|---|---|---|
| | 203 mm (L) | 180 mm (M) | 160 mm (S) | 140 mm (SS) |
| BR-T675<br>BR-T615<br>BR-M4050<br>BR-MT500<br>BR-M446<br>BR-MT400<br>BR-M3050<br>BR-M395<br>BR-MT200<br>BR-M365<br>BR-M315 | SM-RT99<br>SM-RT86<br>SM-RT81<br>SM-RT76<br>SM-RT70 | SM-RT99<br>SM-RT70 | SM-RT900<br>SM-RT99<br>SM-RT86<br>SM-RT81<br>SM-RT76<br>SM-RT70 | SM-RT900<br>SM-RT500<br>SM-RT99<br>SM-RT99-A<br>SM-RT81 |

# Combination chart (Mechanical Disc) C-462

## Mechanical Disc Brake combination chart C-463

In order to realize the best performance, we recommend that the following combination be used.

| Model No. | Mount type | Brake lever |
|---|---|---|
| BR-M375<br>BR-TX805 | * | V-BRAKE BL<br>(2 finger) |
| BR-R517 | * | Road lever** |
| BR-R317 | * | Road lever** |
| BR-CX77 | * | Road lever** |
| BR-RS305 | FLAT MOUNT | Road lever** |

* Front mount: International standard / Post mount, Rear mount: International standard / Post mount
** For BL-R780 / 4600 / 5700 / 4600

## Mechanical Disc brake and Brake lever compatibility C-464

| Model No. | Brake lever type | | |
|---|---|---|---|
| | 2 finger | 3,4 finger | 3,4 finger w / POWER MODULATOR*<br>w / SM-PM50 |
| BR-M375 | X | - | X |
| BR-TX805 | X | - | X |

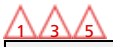
* POWER MODULATOR must be used for front brake

# Compatibility between hydraulic disc brake hose



1 3 5

| | | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 | SM-BH90-SS |
|---|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Straight |
| Rigidity | | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | – | – | – | – | – | X |
| BL-M9120 | BR-M9120 | – | X | – | – | – | – |
| BL-M9000 | BR-M9000 | – | X | – | – | – | – |
| BL-M9020 | BR-M9020 | – | X | – | – | X | – |
| BL-M820 | BR-M820 | – | – | X | – | – | – |
| BL-M8000 | BR-M8000 | – | X | – | – | X | – |
| BL-M8000 | BR-M8020 | – | – | X | – | – | – |
| BL-T8000 | BR-M8000 | – | X | – | – | X | – |
| BL-M7000 | BR-M7000 | – | X | – | – | X | – |
| BL-T675 | BR-T675 | – | – | – | – | – | X |
| BL-M640 | BR-M640 | – | – | X | X | – | – |
| BL-M6000 | BR-M6000 | – | – | – | – | – | X |
| BL-T6000 | BR-M6000 | – | – | – | – | – | – |
| BL-RS600 | BR-RS405 | – | – | – | – | – | – |
| BL-MT501 | BR-MT520 | – | – | – | – | – | X |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | – | – | – | – |
| ST-M3050 | BR-M3050 | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – |
| BL-T445 | BR-M446 | – | – | – | – | – | – |
| BL-MT400 | BR-MT400 | – | – | – | – | – | – |
| BL-M425<br>BL-M396 | BR-M395 | – | – | – | – | – | – |
| BL-MT201 | BR-MT200 | – | – | – | – | – | – |
| BL-MT200 | BR-MT200 | – | – | – | – | – | – |
| BL-MT201 | BR-UR300 | – | – | – | – | – | – |
| BL-MT200 | BR-UR300 | – | – | – | – | – | – |
| BL-M365 | BR-M365 | – | – | – | – | – | – |
| BL-M315 | BR-M315 | – | – | – | – | – | – |
| ST-EF505 | BR-M315 | – | – | – | – | – | – |
| BL-S700 | BR-S700 | – | X | – | – | X | – |
| ST-R9120<br>ST-R9170 | BR-R9170 | X | – | – | – | – | – |
| ST-R9180 | BR-R9170 | X | – | – | – | – | – |
| ST-R8020<br>ST-R8070 | BR-R8070 | X | – | – | – | – | – |
| ST-R7020 | BR-R7070 | X | – | – | – | – | – |
| ST-R7025 | BR-R7070 | X | – | – | – | – | – |
| ST-R785 | BR-RS805 | – | – | – | – | – | – |
| ST-R785 | BR-RS785 | – | – | – | – | – | – |
| ST-R785 | BR-R785 | – | – | – | – | – | – |
| ST-RS685 | BR-RS805 | – | – | – | – | – | – |
| ST-RS685 | BR-RS785 | – | – | – | – | – | – |
| ST-RS685 | BR-R785 | – | – | – | – | – | – |
| ST-RS505 | BR-RS785 | – | – | – | – | – | – |
| ST-RS505 | BR-RS505 | – | – | – | – | – | – |
| ST-RS405 | BR-RS785 | – | – | – | – | – | – |
| ST-RS405 | BR-RS505 | – | – | – | – | – | – |
| ST-RS405 | BR-RS405 | – | – | – | – | – | – |
| BL-U5000 | BR-U5000 | – | – | – | – | – | – |
| BL-U5010 | | – | – | – | – | – | – |
| ST-U5060 | | – | – | – | – | – | – |
| ST-U5080 | | – | – | – | – | – | – |



| | | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | – | – | – | – | – |
| BL-M9120 | BR-M9120 | – | – | – | – | – |
| BL-M9000 | BR-M9000 | – | – | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | – | – |
| BL-M820 | BR-M820 | – | – | – | – | – |
| BL-M8000 | BR-M8000 | – | – | – | – | – |
| BL-M8000 | BR-M8020 | – | – | – | – | – |
| BL-T8000 | BR-M8000 | – | – | – | – | – |
| BL-M7000 | BR-M7000 | – | – | – | – | – |
| BL-T675 | BR-T675 | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | – |
| BL-M6000 | BR-M6000 | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | X | – | – | – |
| BL-RS600 | BR-RS405 | – | X | – | – | – |
| BL-MT501 | BR-MT520 | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | X | – | – | – |
| ST-M3050 | BR-M3050 | – | X | – | – | – |
| BL-MT500 | BR-MT500 | – | X | – | – | – |
| BL-T445 | BR-M446 | – | X | – | – | – |
| BL-MT400 | BR-MT400 | – | X | – | – | – |
| BL-M425<br>BL-M396 | BR-M395 | – | X | – | – | – |
| BL-MT201 | BR-MT200 | – | X | – | – | – |
| BL-MT200 | BR-MT200 | – | X | – | – | – |
| BL-MT201 | BR-UR300 | – | X | – | – | – |
| BL-MT200 | BR-UR300 | – | X | – | – | – |
| BL-M365 | BR-M365 | – | X | – | – | – |
| BL-M315 | BR-M315 | – | X | – | – | – |
| ST-EF505 | BR-M315 | – | X | – | – | – |
| BL-S700 | BR-S700 | – | – | – | – | – |
| ST-R9120<br>ST-R9170 | BR-R9170 | – | – | – | – | – |
| ST-R9180 | BR-R9170 | – | – | – | – | – |
| ST-R8020<br>ST-R8070 | BR-R8070 | – | – | – | – | – |
| ST-R7020 | BR-R7070 | – | – | – | – | – |
| ST-R7025 | BR-R7070 | – | – | – | – | – |
| ST-R785 | BR-RS805 | X | – | – | – | – |
| ST-R785 | BR-RS785 | X | – | – | – | – |
| ST-R785 | BR-R785 | – | – | – | X | X |
| ST-RS685 | BR-RS805 | X | – | X | – | – |
| ST-RS685 | BR-RS785 | X | – | X | – | – |
| ST-RS685 | BR-R785 | – | – | – | X | X |
| ST-RS505 | BR-RS785 | X | – | X | – | – |
| ST-RS505 | BR-RS505 | X | – | X | – | – |
| ST-RS405 | BR-RS785 | – | – | X | – | – |
| ST-RS405 | BR-RS505 | – | – | X | – | – |
| ST-RS405 | BR-RS405 | – | – | X | – | – |
| BL-U5000 | BR-U5000 | – | – | X | – | – |
| BL-U5010 | | – | – | X | – | – |
| ST-U5060 | | – | – | X | – | – |
| ST-U5080 | | – | – | X | – | – |

Level of compatibility

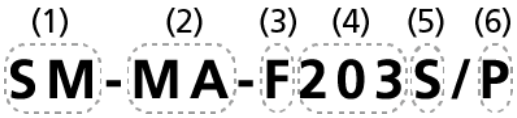
X: Compatible
*: Refer Service Instruction of SM-BH80, SM-BH59 (brake hose 10 m coil) for assembling / disassembling banjo unit
-: Impossible to use

*1: Banjo (long), Banjo bolt (short)
*2: Banjo (normal), Banjo bolt (short)
*3: Banjo (normal), Banjo bolt (normal)
*4: Banjo (special), Banjo bolt (special)

# Disc brake mount adapter



## How to read Model No. C-194




| | |
|---|---|
| (1) | Small parts |
| (2) | Mount adapter |
| (3) | F = Front and Rear *<br>R = Rear |
| (4) | Rotor size ** |
| (5) | Caliper mount type<br>S = International A-standard<br>P = Post<br>D = Flat mount |
| (6) | Suspension / Frame type<br>S = International A-standard<br>P = Post<br>D = Flat mount |

**NOTE**

* This part may be used in the rear.
In this case, the rotor size description is also different. Refer to the table below.
** The rotor size description is 160 mm. Direct post mount/International A-standard forks and frames are supported. Refer to the table below for other mount types.

## Application table for adapter C-195

### For post mount brake caliper

| Fork and frame mount type | | | Rotor size | | | |
|---|---|---|---|---|---|---|
| | | | 140 mm (SS) | 160 mm (S) | 180 mm (M) | 203 mm (L) |
| Post mount | Front | 140 mm direct | Direct mount | SM-MA90-F180P / P<br>SM-MA-F180P / P2<br>(for R785) | - | - |
| | | 160 mm direct | - | Direct mount | SM-MA90-F180P / P<br>SM-MA-F180P / P2 | SM-MA-F203P / P |
| | | 180 mm direct | - | - | Direct mount | SM-MA90-F203P / PM<br>SM-MA-F203P / PM |
| | | 203 mm direct | - | - | - | Direct mount |
| | Rear | 140 mm direct | Direct mount | SM-MA90-F180P / P<br>SM-MA-F180P / P2 | - | - |
| | | 160 mm direct | - | Direct mount | SM-MA90-F180P / P<br>SM-MA-F180P / P2 | SM-MA-F203P / P |
| | | 180 mm direct | - | - | Direct mount | SM-MA90-F203P / PM<br>SM-MA-F203P / PM |
| | | 203 mm direct | - | - | - | Direct mount |
| International A-standard | Front | | - | SM-MA90-F160P / S<br>SM-MA-F160P / S | SM-MA-F180P / S | SM-MA-F203P / S |
| | Rear | | SM-MA90-R140P / S | SM-MA90-R160P / S<br>SM-MA-R160P / S | SM-MA90-R180P / S<br>SM-MA-R180P / S | SM-MA-R203P / S |
| Flat mount | Front | | SM-MA-F140P / D | SM-MA-F160P / D | - | - |
| | Rear | | SM-MA-R140P / D | SM-MA-R160P / D | - | - |

### For flat mount brake caliper

| Fork and frame mount type | | Rotor size | |
|---|---|---|---|
| | | 140 mm (SS) | 160 mm (S) |
| Flat mount | Front | (with product / Y8N298010) | (with product / Y8N298010) |
| | Rear | Direct mount | SM-MA-R160D / D |

**NOTE**

BR-UR300 is compatible only with 160mm (S) without adapter. (Direct mount)

## Compatibility between brake systems C-466

Depending on the brake and brake lever combination to be used, the relationship between the input at the brake lever and the actual braking force output at the wheels is very easily affected.

Be very careful when combining a brake and brake lever. Incorrect combinations can cause accidents or insufficient braking forces due to improper cable strokes. Be sure to carefully consult the chart below and select the brake and the matching brake lever.

| | | V-BRAKE | | Roller Brake |
|---|---|---|---|---|
| | | BR-T780<br>BR-MX70<br>BR-R573<br>BR-R463<br>BR-R353<br>BR-T670<br>BR-T610<br>BR-T4010<br>BR-T4000 | With POWER MODULATOR* model<br>BR-T780 with SM-PM70<br>BR-T670 with SM-PM70<br>BR-T610 with SM-PM70<br>BR-T4010 with SM-PM40<br>BR-T4000 with SM-PM40<br>BR-R573 with SM-PM70<br>BR-R463 with SM-PM40<br>BR-R353 with SM-PM70 | BR-C6000<br>BR-C3010<br>BR-C3000 |
| V-BRAKE Levers (2-finger) | | | | |
| ST-M4000<br>ST-EF41<br>ST-TX800<br>ST-M370<br>ST-M310<br>ST-EF510<br>ST-EF500<br>ST-EF65<br>ST-EF51 | BL-T610<br>BL-M571<br>BL-T4000<br>BL-MX70 | X | X | NOTE |
| V-BRAKE Levers (3-finger) | | | | |
| ST-T4000<br>ST-T3000 | BL-T780<br>BL-T611<br>BL-T670<br>BL-T780-B<br>BL-T4010<br>BL-T670-B | | X | |
| Brake Levers with switch | | | | |
| ST-R240 | BL-4600<br>BL-R780<br>BL-4700<br>BL-R3000<br>BL-R2000<br>BL-2400 | X | X | |
| V-BRAKE lever with switch | | | | |
| ST-M310 (4-finger)<br>SB-C6000-8<br>SB-C3000-7<br>ST-EF65 (4-finger)<br>ST-EF51 (4-finger)<br>ST-EF510 (4-finger)<br>ST-EF500 (4-finger) | BL-C6010<br>BL-C6000 | | X | X |

X: Yes

* POWER MODULATOR must be used for front brake

**The "NO!" symbols indicate combinations that should not be used under any circumstances.**

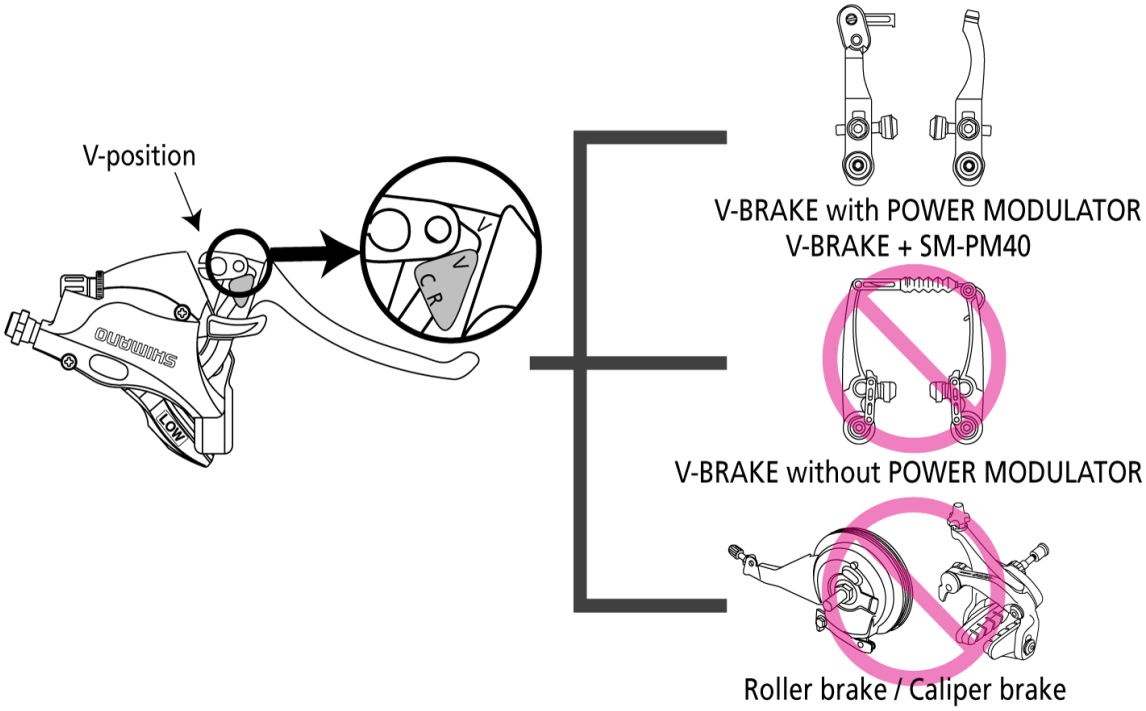
**NOTE**

This combination will not provide the sufficient amount of braking force.

# Brake lever with switch compatibility C-467

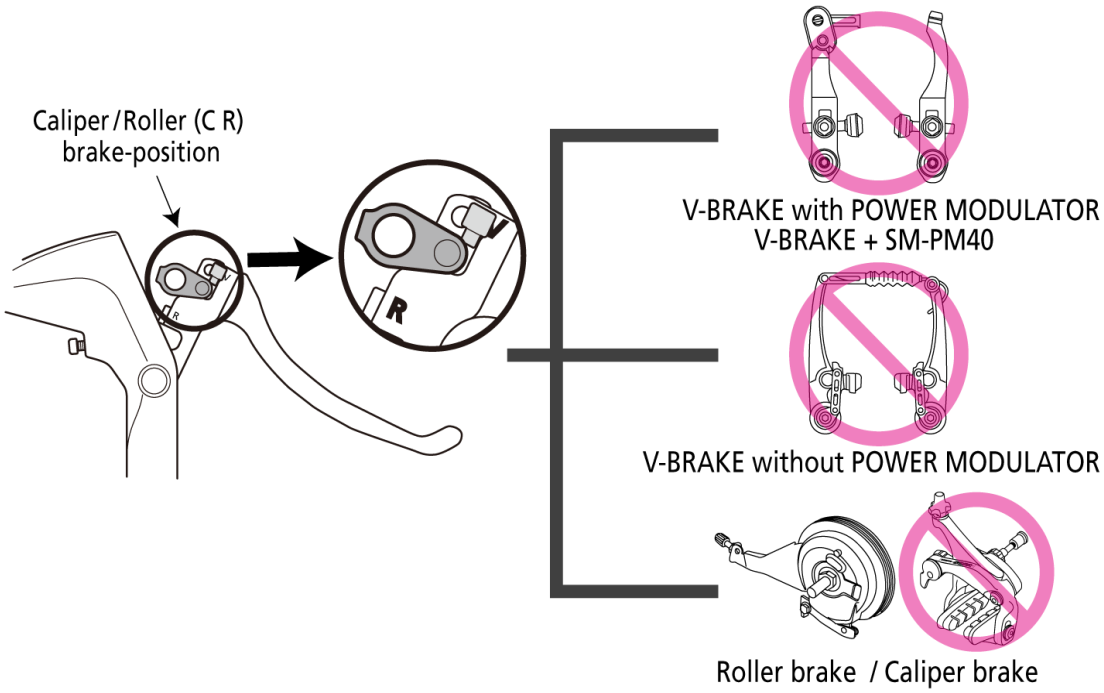
Four finger brake levers such as brake levers are equipped with a switch to change between the V-BRAKE with modulator mode (for example with SM-PM40) and the caliper brake or roller brake mode.

## For V-BRAKE (with POWER MODULATOR) mode C-468

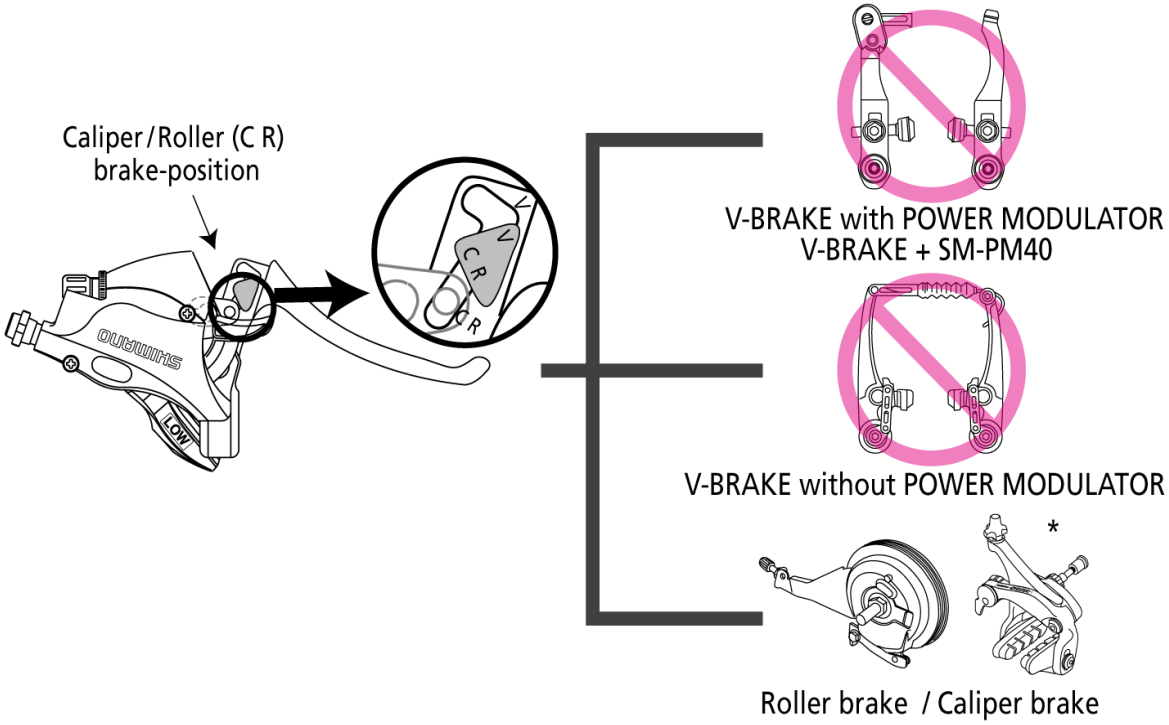



## For Caliper brake / Roller brake C-469

**BL-C6010**



## Other models



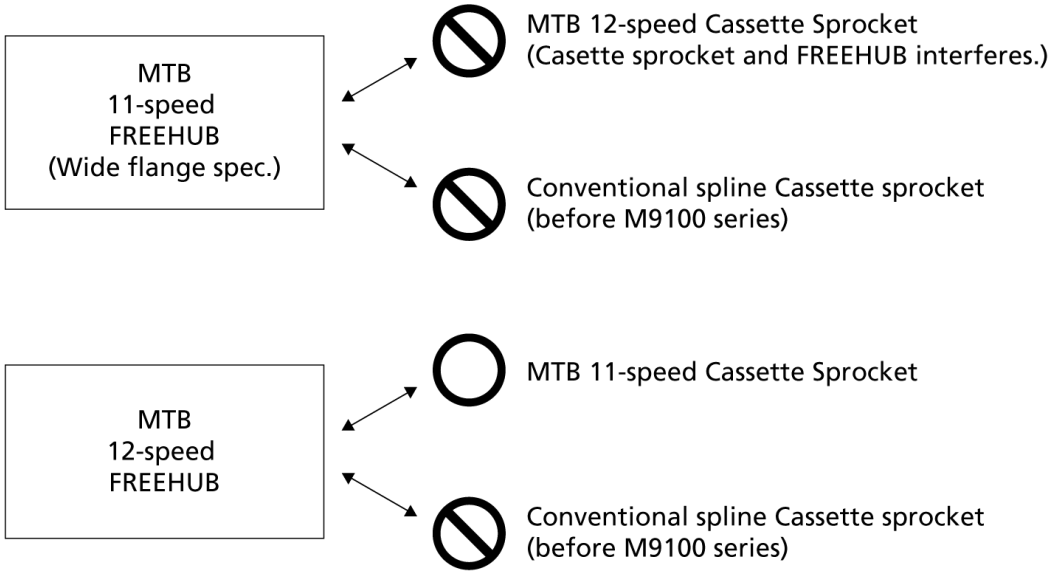

* 3 types of caliper brake is available (SLR EV / NEW SUPER SLR / SUPER SLR)
Please refer spec hand book for caliper brake compatibility.
Some models can't be used with roller brake, please refer to C-466 for more information.

**WARNING**

If the mode is not matched to the type of brake being used, this could result in inadequate or excessive braking power. Please proceed with caution when selecting the correct mode for the corresponding brake.

## 12-speed FREEHUB and 11-speed FREEHUB (MICRO SPLINE) compatibility

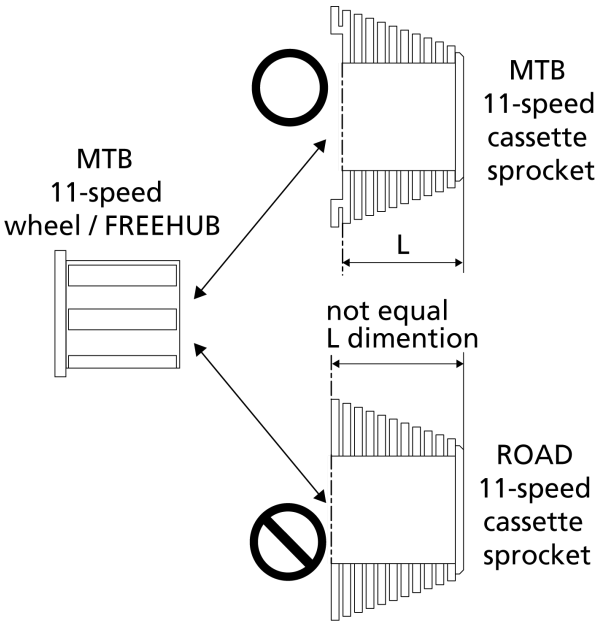
C-560



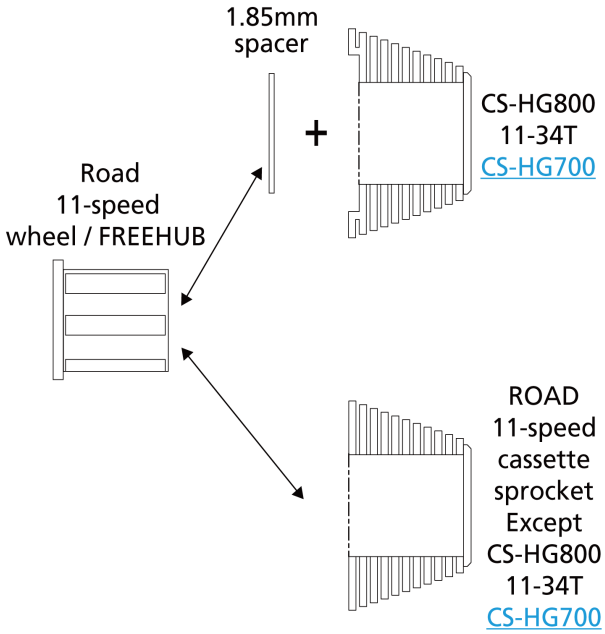
# 11-speed FREEHUB dimension



MTB 11speed wheel and FREEHUB have same serration with 10, 9-speed FREEHUB.




**CS-HG800**



# Compatibility between rear derailleur and cassette sprocket gear teeth [ROAD, URBAN SPORT]

C-254

## 11-speed C-255

3

| Gear | 11-speed | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | RD-R9150 / RD-R9100 | RD-9000 | RD-R8050 / RD-R8000 | | RD-RX800 / RD-RX805 | | RD-6870 | |
| | - | SS | SS | GS Front double | GS Front double | | SS | GS Front double |
| 11-23T | - | X | - | - | - | - | X | - |
| 11-25T | X | X | X | - | - | - | X | - |
| 11-28T | X | X | X | X | X | X | X | X |
| 11-30T | X | - | X | X | X | X | - | X |
| 11-32T | - | - | - | X | X | X | - | X |
| 11-34T | | | - | X | X | X | | |
| 12-25T | X | X | X | - | - | - | X | - |
| 12-28T | X | X | X | X | - | - | X | X |
| 14-28T | X | X | X | - | - | - | X | - |

| Gear | 11-speed | | | | |
|---|---|---|---|---|---|
| | RD-R7000 | | RD-6800 / RD-5800 | | RD-U5000-SS / RD-U5050-SS |
| | SS | GS Front double | SS | GS Front double | SS |
| 11-23T | - | - | X | - | - |
| 11-25T | - | - | X | - | - |
| 11-28T | X | X | X | X | X |
| 11-30T | X | X | - | X | - |
| 11-32T | - | X | - | X | X |
| 11-34T | | X | | | |
| 12-25T | X | - | X | - | - |
| 12-28T | - | X | X | X | - |
| 14-28T | X | - | X | - | - |

## 10-speed C-256

| Gear | 10-speed | | | | | |
|---|---|---|---|---|---|---|
| | RD-4700 | | | RD-4601 | | |
| | SS | GS Front double | GS Front triple | SS | GS Front double | GS Front triple |
| 11-25T | X | - | X | X | - | X |
| 11-27T | X | - | X | X | X | X |
| 11-28T | - | X | X | X | X | X |
| 11-32T | - | X | X | - | X | - |
| 11-34T | - | X | - | - | - | - |
| 12-25T | X | - | X | X | - | X |
| 12-27T | X | - | X | X | X | X |
| 12-28T | X | X | X | X | X | X |
| 12-30T | - | X | X | X | X | X |
| 13-25T | X | - | - | X | - | X |
| 14-25T | X | - | - | X | - | X |

## 9-speed C-257

| Gear | 9-speed | | |
|---|---|---|---|
| | RD-R3000 | | |
| | SS | GS Front double | GS Front Triple |
| 11-25T | X | - | - |
| 11-28T | X | X | X |
| 11-30T | X | X | X |
| 11-32T | X | X | X |
| 11-34T | - | X | - |
| 12-25T | X | - | - |
| 12-27T | X | - | - |
| 13-25T | X | - | - |
| 14-25T | X | - | - |

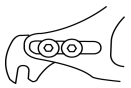
## 8-speed C-258

| Gear | 8-speed | | |
|---|---|---|---|
| | RD-R2000 | | |
| | SS | GS Front double | GS Front Triple |
| 11-28T | X | X | X |
| 11-30T | X | X | X |
| 11-32T | X | X | X |
| 11-34T | - | X | - |
| 12-25T | X | - | X |
| 13-26T | X | - | - |

## 7-speed C-259

| Gear | 7-speed |
|---|---|
| | RD-A070 |
| | SMART CAGE |
| 11-28T | X |
| 12-28T | X |
| 13-28T | X |
| 14-28T | X |

## Available combinations of the fork end, cassette sprocket/single gear and front chainwheel for designing the frame C-471

| | | | |
|---|---|---|---|
| Fork end design | A | Reversed (Track end, w/o RD mount) | |
| | B | Standard ( w/o RD mount ) | |
| | C | Adjustable Disc brake mount / Eccentric BB |  |
| | D | Vertical fork end ( Road bike type, w/ RD mount ) | |
| Compatibility | | NR: Not recommend | |
| FC | E | E: FC-NX75 | |
| | F | FC-S501 : Double guard spec | |
| | G | FC-S501 : Single guard spec | |
| CN | H | H: CN-NX10(1/2 x 1/8 inch) or HG 8S(1/2 x 3/32 inch) | |
| | I | Super Narrow HG 9S | |
| | J | HG 8S(1/2 x 3/32 inch) | |

⚠2

| Series | Speed | Brake type | Fork end design | Compatibility | CT use | CS / SM-GEAR | FC | CN | additional condition |
|---|---|---|---|---|---|---|---|---|---|
| ALFINE | 11S / 8S | Disc brake | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | Ok | CT-S510 | SM-GEAR | G | J | |
| | | V-BRAKE | A | OK | - | SM-GEAR | G | J | |
| | | | B | OK | - | SM-GEAR | G | J | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| NEXUS | 8S / 7S / 5S for E-BIKE | Disc brake | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | Ok | CT-S510 | SM-GEAR | G | J | |
| | 8S / 7S / 3S (except 3D) / 5S for E-BIKE | Hub roller brake V-BRAKE | A | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | B | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | C | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | D | NR | CT-S500 | CS-S500 | F | I | *2 |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| | | Coaster brake | A | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | B | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | C | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | D | NR | CT-S500 | - | - | - | *3 |
| | | | | NR | CT-S510 | - | - | - | *4 |
| | 3D | Disc brake | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| | | V-BRAKE | A | OK | - | SM-GEAR | G | J | |
| | | | B | OK | - | SM-GEAR | G | J | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |

*1 Special disc brake mount design is needed.
*2 without chain guard for hub gear side.
*3 Structure of CT-S500 can't transfer chain tension by back pedalling.
*4 Not enough force of fixation against back pedalling power.

## Spoke protector C-491

Select the spoke protector after checking the chart below.
It is decided by hole number of hub and number of the gear teeth, other than multiple freewheel.

| Cassette sprocket | | | | | | | | | | | | Spoke protector model | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | Flange diameter of rear hub (FH side) | | | | | |
| | | | | | | | | | | | | 53.8 mm | | | 70.6 mm | | |
| Speed | Model No. | Cassette sprocket low gear No. | | | | | | | | | | Spoke hole No. | | | Spoke hole No. | | |
| | | 28T | 30T | 32T | 34T | 36T | 40T | 42T | 45T | 46T | 51T | 28H | 32H | 36H | 28H | 32H | 36H |
| 12-speed | CS-M9100 | - | - | - | - | - | - | - | X | - | X | - | - | - | - | - | - |
| 11-speed | CS-M9110 | - | - | - | - | - | - | - | X | - | - | - | - | - | - | - | - |
| | CS-M9001 | - | - | - | - | - | X | - | - | - | - | - | - | - | - | - | - |
| | CS-M8000 | - | - | - | - | - | X | X | - | X | - | - | - | - | - | - | - |
| | CS-M7000 | - | - | - | - | - | X | X | - | X | - | - | - | - | - | - | - |
| 10-speed | CS-M771-10 | - | - | - | X | X | - | - | - | - | - | - | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG81-10 | - | - | - | X | X | - | - | - | - | - | - | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG500-10 | - | - | - | - | - | - | X | - | - | - | - | - | - | - | - | - |
| | CS-HG50-10 | - | - | - | - | X | - | - | - | - | - | - | CP-FH56 | CP-FH53 | - | | |
| 9-speed | CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9 | - | - | - | - | X | - | - | - | - | - | - | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9 | - | - | X | X | - | - | - | - | - | - | CP-WH12 | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG400-9 / CS-HG300-9 | X | - | - | - | - | - | - | - | - | - | - | CP-FH35 | CP-FH50 | - | CP-FH76 | CP-FH76 |
| | CS-ROAD | X | - | - | - | - | - | - | - | - | - | CP-FH08 | CP-FH35 | CP-FH31 | - | - | - |
| 8-speed | CS-HG60-81 | - | - | - | X | - | - | - | - | - | - | CP-WH12 | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG51-8 | X | X | - | - | - | - | - | - | - | - | CP-FH40 | CP-FH35 | CP-FH50 | - | - | - |
| | CS-HG51-8 | - | - | - | X | - | - | - | - | - | - | CP-WH12 | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG41-8 CS-HG31-8 | - | X | - | - | - | - | - | - | - | - | CP-FH40 | CP-FH35 | CP-FH50 | - | - | - |
| | CS-HG41-8 CS-HG31-8 | - | - | X | X | - | - | - | - | - | - | CP-WH12 | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG200-8 | - | - | X | - | - | - | - | - | - | - | CP-WH12 | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| 7-speed | CS-HG41-7 | X | - | - | - | - | - | - | - | - | - | CP-FH40 | CP-FH35 | CP-FH50 | - | - | - |
| | CS-HG200-7 | - | - | X | - | - | - | - | - | - | - | - | CP-FH56 | CP-FH53 | - | CP-FH76 | CP-FH76 |
| | CS-HG200-7 | X | - | - | - | - | - | - | - | - | - | - | CP-FH35 | CP-FH50 | - | - | - |

| Speed | Model No. | Cassette sprocket: Cassette sprocket low gear No. 28T | 30T | 32T | 34T | 36T | 40T | 42T | 45T | 46T | 51T | Spoke protector model: WH-M9000 / WH-M9020 / WH-M8000 / WH-M8020 / WH-M8000-B / WH-M8020-B |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-speed | CS-M9100 | - | - | - | - | - | - | - | X | - | X | - |
| 11-speed | CS-M9110 | - | - | - | - | - | - | - | X | - | - | - |
| | CS-M9001 | - | - | - | - | - | X | - | - | - | - | CP-WH17-A |
| | CS-M8000 | - | - | - | - | - | X | X | - | X | - | CP-WH17-A |
| | CS-M7000 | - | - | - | - | - | X | X | - | X | - | CP-WH17-A |
| 10-speed | CS-M771-10 | - | - | - | X | X | - | - | - | - | - | - |
| | CS-HG81-10 | - | - | - | X | X | - | - | - | - | - | - |
| | CS-HG500-10 | - | - | - | - | - | - | X | - | - | - | - |
| | CS-HG50-10 | - | - | - | - | X | - | - | - | - | - | - |
| 9-speed | CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9 | - | - | X | X | X | - | - | - | - | - | - |
| | CS-HG400-9 / CS-HG300-9 | X | - | - | - | - | - | - | - | - | - | - |

| Speed | Model No. | Cassette sprocket: Cassette sprocket low gear No. 28T | 30T | 32T | 34T | 36T | 40T | 42T | 45T | 46T | 51T | Spoke protector model: WH-MT66-29 | WH-MT35 / WH-MT35-275 / WH-MT35-29 / WH-MT15-A-275 / WH-MT15-A-29 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-speed | CS-M9100 | - | - | - | - | - | - | - | X | - | X | - | - |
| 11-speed | CS-M9110 | - | - | - | - | - | - | - | X | - | - | - | - |
| | CS-M9001 | - | - | - | - | - | X | - | - | - | - | - | - |
| | CS-M8000 | - | - | - | - | - | X | X | - | X | - | - | - |
| | CS-M7000 | - | - | - | - | - | X | X | - | X | - | - | - |
| 10-speed | CS-M771-10 | - | - | - | X | X | - | - | - | - | - | CP-WH16 | CP-WH12 |
| | CS-HG81-10 | - | - | - | X | X | - | - | - | - | - | CP-WH16 | CP-WH12 |
| | CS-HG500-10 | - | - | - | - | - | - | X | - | - | - | - | CP-WH19 |
| | CS-HG50-10 | - | - | - | - | X | - | - | - | - | - | CP-WH16 | CP-WH12 |
| 9-speed | CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9 | - | - | X | X | X | - | - | - | - | - | CP-WH16 | CP-WH12 |
| | CS-HG400-9 / CS-HG300-9 | X | - | - | - | - | - | - | - | - | - | CP-WH16 | CP-WH08 |

| Speed | Model No. | Cassette sprocket: Cassette sprocket low gear No. 28T | 30T | 32T | 34T | 36T | 40T | 42T | 45T | 46T | 51T | Spoke protector model: WH-MT500 | WH-MT600 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 12-speed | CS-M9100 | - | - | - | - | - | - | - | X | - | X | - | - |
| 11-speed | CS-M9110 | - | - | - | - | - | - | - | X | - | - | - | - |
| | CS-M9001 | - | - | - | - | - | X | - | - | - | - | - | CP-WH22 |
| | CS-M8000 | - | - | - | - | - | X | X | - | X | - | - | CP-WH22 |
| | CS-M7000 | - | - | - | - | - | X | X | - | X | - | - | CP-WH22 |
| 10-speed | CS-M771-10 | - | - | - | X | X | - | - | - | - | - | CP-WH21 | CP-WH16 |
| | CS-HG81-10 | - | - | - | X | X | - | - | - | - | - | CP-WH21 | CP-WH16 |
| | CS-HG500-10 | - | - | - | - | - | - | X | - | - | - | CP-WH21 | - |
| | CS-HG50-10 | - | - | - | - | X | - | - | - | - | - | CP-WH21 | CP-WH16 |
| 9-speed | CS-HG400-9 / CS-HG300-9 / CS-HG201-9 / CS-HG200-9 | - | - | X | X | X | - | - | - | - | - | - | - |
| | CS-HG400-9 / CS-HG300-9 | X | - | - | - | - | - | - | - | - | - | - | - |

# ROAD, URBAN SPORT



| Model No. | Cassette Sprocket total gear No. | | | Cassette Sprocket low gear No. | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | 9-speed | 10-speed | 11-speed** | 23T | 25T | 27T | 28T | 30T | 32T* | 34T |
| WH-R9170-C60<br>WH-R9170-C40 | - | - | X | - | CP-W1460 | | | | | - |
| | - | X | - | - | CP-W1460 | | | | | - |
| WH-R9100-C60<br>WH-R9100-C40 | - | - | X | - | CP-W124 | | | | | - |
| | - | X | - | - | CP-W124 | | | | | - |
| WH-R9100-C24 | - | - | X | CP-WH23 | CP-W120 | | | | | - |
| | - | X | - | CP-W020 | | | | | | - |
| WH-RS770-C30 | - | - | X | - | CP-W1460 | | | | | CP-W1460 |
| | - | X | - | - | CP-W1460 | | | | | - |
| WH-RS700-C30 | - | - | X | - | CP-W124 | | | | | CP-W124 |
| | - | X | - | - | CP-W124 | | | | | - |
| WH-RS500<br>WH-RS300<br>WH-RS11 | - | - | X | CP-WH23 | | | | - | CP-W120 | - |
| WH-RS11 | - | X | - | CP-W020 | | | | | | - |
| WH-9000-C24-TU<br>WH-RS330-CL | - | - | X | CP-W184 | | | | - | CP-W124 | - |
| | - | X | - | CP-W024 | | | | | | - |
| WH-RX830 | - | X | X | - | CP-W1220 | | | | | CP-WH14<br>CP-WH14A |
| WH-RS100 | - | X | X | - | CP-WH24 | | | | | CP-FH53 |
| WH-RS010-CL | - | X | X | - | CP-WH24 | | | | | CP-FH53 |
| WH-R501<br>WH-R501-A | X | X | - | CP-FH06 | | CP-FH31 | | CP-FH46 | CP-WH24 | - |
| WH-RS170 | - | - | X | CP-FH08 | | | | - | CP-WH12 | - |
| | - | X | - | CP-FH40<br>CP-FH41 | | | | CP-FH40<br>CP-FH41 | CP-WH12 | CP-WH12 |
| WH-RX010-CL | - | - | X | CP-FH08 | | | | - | CP-WH12 | - |
| | - | X | - | CP-FH40<br>CP-FH41 | | | | CP-FH40<br>CP-FH41 | CP-WH12 | CP-WH12 |
| WH-RX010 | X | X | - | CP-FH08 | | | | CP-FH40<br>CP-FH41 | CP-WH12 | - |
| WH-U5000 | - | X | X | - | CP-W122 | | | | | |
| WH-RS370 | - | - | X | TBD | TBD | TBD | TBD | TBD | TBD | TBD |

* For compact crank set
** 11-speed : CS-R9100 / CS-6800 / CS-5800

# Spoke protector for Road

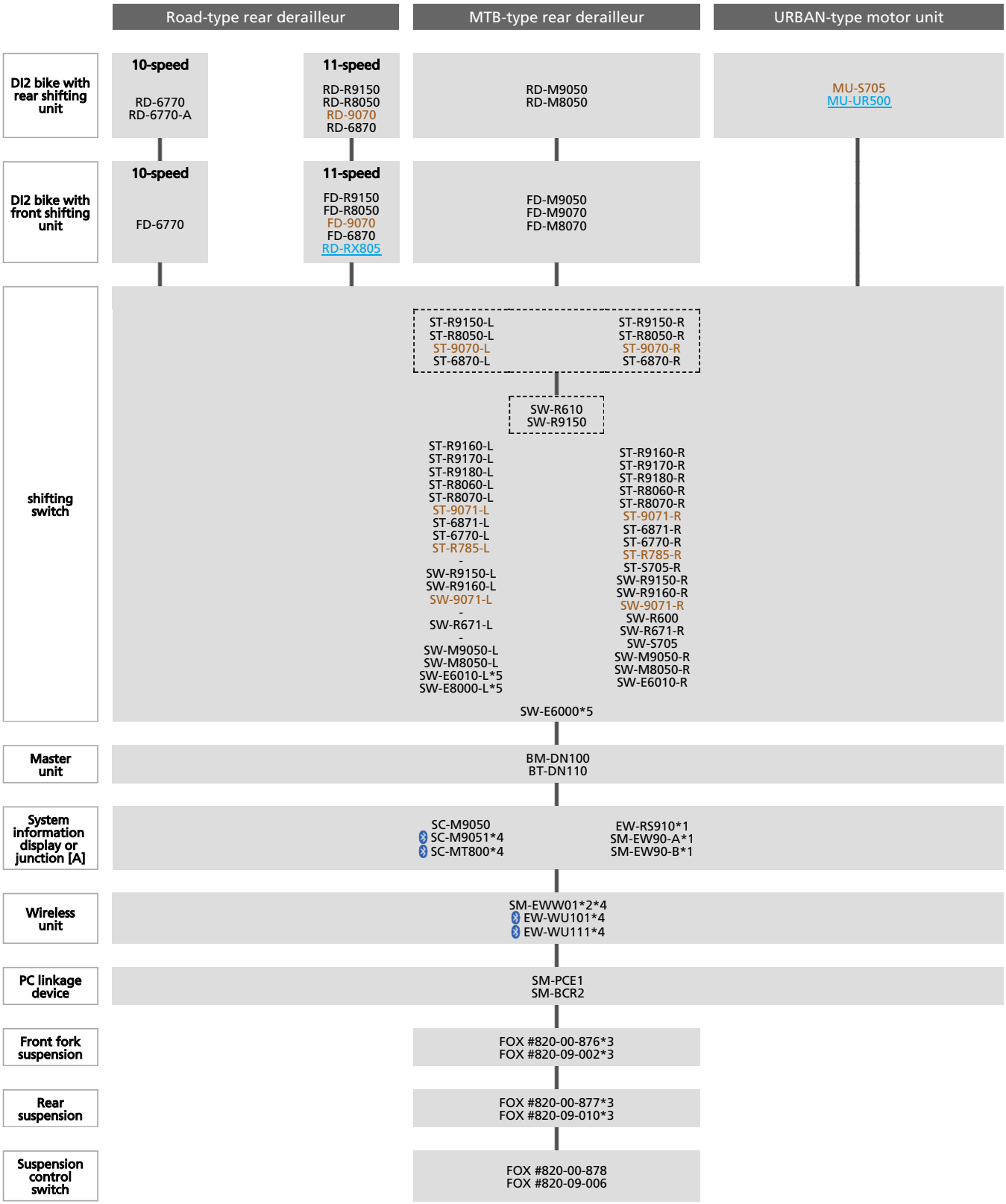


| Speed | Model No. | Cassette sprocket low gear No. | | | | | | | | | | Spoke holes No. | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 21T | 23T | 24T | 25T | 26T | 27T | 28T | 30T | 32T | 34T | 24H | 28H | 32H | 36H |
| 8, 9, 10-speed | Road | X | X | - | X | - | - | - | - | - | - | CP-FH06 | CP-FH08 | CP-FH05 | CP-FH06 |
| | | - | - | - | - | X | - | - | - | - | - | CP-FH31 | CP-FH08 | CP-FH35 | CP-FH31 |
| | | - | - | - | - | - | X | X | - | - | - | CP-FH31 | CP-FH08 | CP-FH35 | CP-FH31 |
| | | - | - | - | - | - | - | - | X | - | - | - | - | CP-FH45 | CP-FH46 |
| 7-speed | CS-HG200-7 | - | - | - | - | - | - | X | - | - | - | - | - | CP-FH35 | CP-FH50 |
| | MF-TZ500-7<br>MF-TZ21 | - | - | - | - | - | - | X | - | - | - | - | - | - | CP-HG22/<br>MF-TZ500-7-CP/<br>MF-TZ21-CP |

Spoke protector is not available for Road 11-speed FREEHUB.

# E-TUBE compatibility chart with E-TUBE PROJECT ver.3.3 C-473

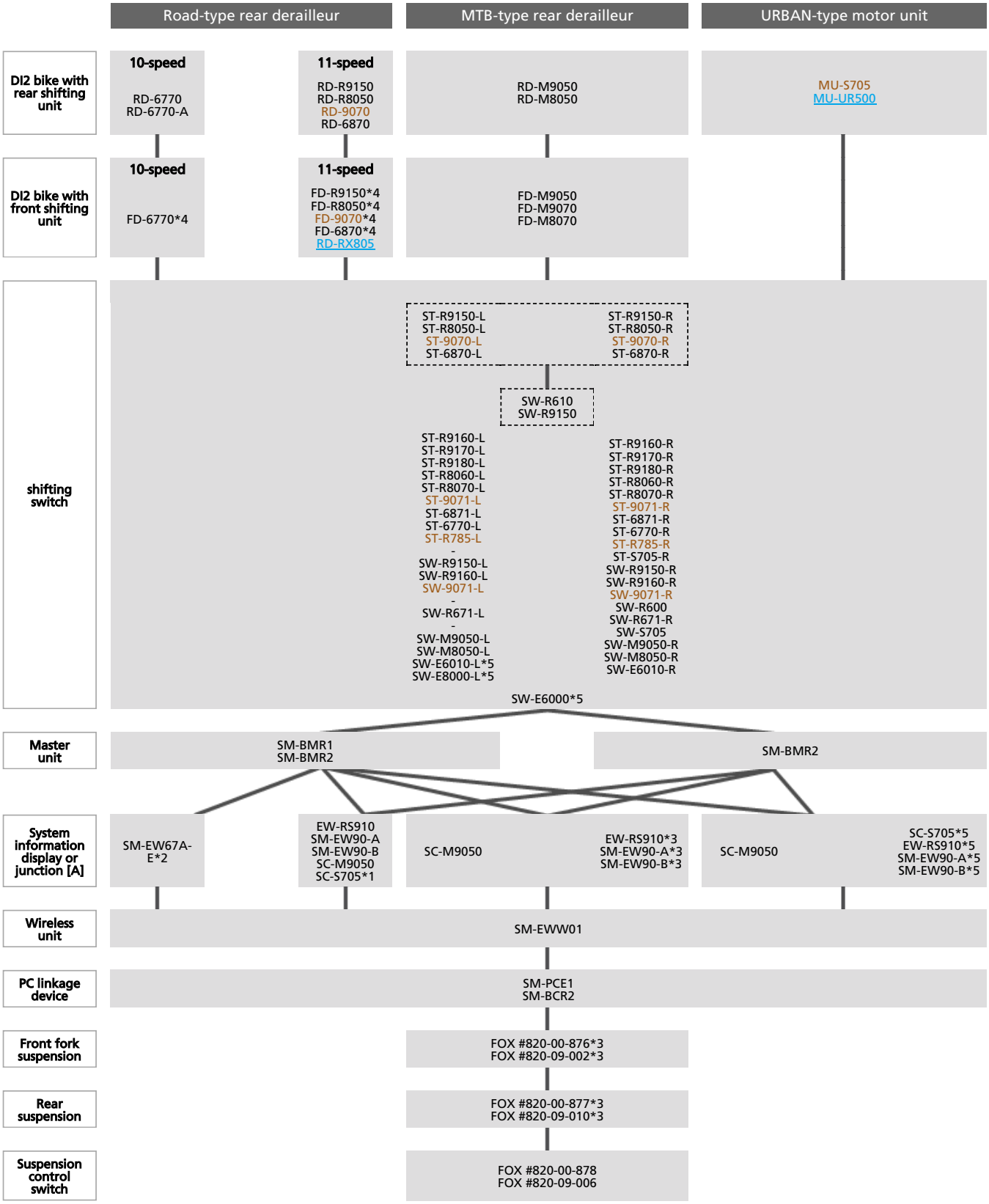
## DI2 with BM-DN100 / BT-DN110



**Limitation of function with BM-DN100 / BT-DN110**

*1 Shifting adjustment mode for MU-S705 is not supported (need E-TUBE PROJECT to adjust).
*2 Not possible to connect to E-TUBE PROJECT for tablet/smartphone, as no support for Bluetooth®LE.
*3 A designated control switch and/or the combination SW-M9050/M8050-L with SC-M9050/SC-M9051/SC-MT800 is required to operate.
*4 The system accepts just 1 unit with wireless chip (doesn't work if plural units with wireless chip are connected).
*5 Need to change Switch setting by E-TUBE PROJECT.
*6 SC-M9050, SC-M9051 or SC-MT800 is required for SYNCHRONIZED SHIFT in MTB category.

## DI2 with SM-BMR1 / SM-BMR2 / SM-BTR2



**Limitation of function with SM-BMR1 / SM-BMR2 / SM-BTR2**

*1 SC-S705

- Front derailleur position will not appear on display.
- Recovery from Rear derailleur protection function is not available.
- Front / Rear derailleur adjustment mode is not available. Use E-TUBE PROJECT software.
- SC-S705 has only 1 E-TUBE port for ST / SW.
- SC-S705 may not turn on the display by front shifting switch.

*2 SM-BCR2 requires any device which has charging connector.
SM-EW67-A-E (Junction [A]) is not compatible with SM-BCR2 and SM-BTR2.

*3 SC-M9050 is required for SYNCHRONIZED SHIFT in case with MTB-type Rear Derailleur.

*4 SYNCHRONIZED SHIFT is not available with Road-type Rear Derailleur.

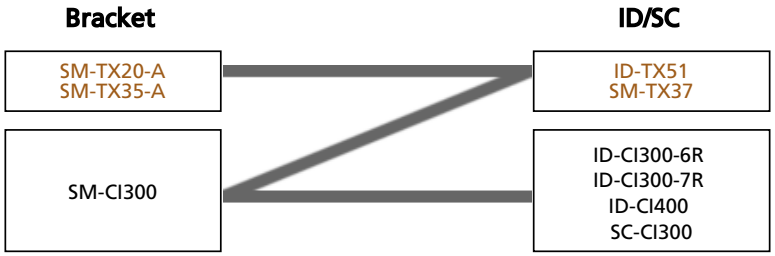
*5 Shifting adjustment mode for MU-S705 is not supported (need E-TUBE PROJECT to adjust).

*6 Need to change Switch setting by E-TUBE PROJECT.

*7 A designated control switch is needed to operate the suspension system.

## Compatibility between Bracket and ID/SC

C-548



## User's manual / Dealer's manual C-475

Please note that SHIMANO provides 2 styles of service instructions for better service on our products.
User manual, this comes together with product, which provide basic information for consumer basis.
Dealer manual, this is available on our website for business customers which contains more technical and professional information on how to assemble and maintain the performance of SHIMANO products on bike.

We retain all service instruction and new formats of information are available at si.shimano.com for customers' convenience.

# Technical information

Update history

## January 9, 2018 (Ver 1.8)

C-036 Frame Requirement / Fork end / Fork end thickness and QR skewer length -
Added (MTB rear O.L.D. 141 mm spec.)

version 1.8 - January 9, 2018

| | | O.L.D. (mm) | Fork end thickness (mm) | | | QR skewer length (mm) | |
|---|---|---|---|---|---|---|---|
| | | | Left hand fork end | Right hand fork end | Left/Right Total | Alloy QR lever | Steel QR lever |
| Rear | MTB | 141 | 6 - 8 | 6 - 8 | 12 - 16 | - | 172 |
| | | | 8 - 10 | 8 - 10 | 16 - 20 | - | 176 |
| | | 135 | 6 - 8 | 6 - 8 | 12 - 16 | 168 | 166 |
| | | 135 | 8 - 10 | 8 - 10 | 16 - 20 | 173 | 170 |
| | Road Cyclocross | 130 | 6 - 8 | 6 - 8 | 12 - 16 | - | 161 |
| | | 135 | 6 - 8 | 6 - 8 | 12 - 16 | 168 | 166 |
| | | 135 | 8 - 10 | 8 - 10 | 16 - 20 | 173 | 170 |
| | | 130 | 6 - 8 | 6 - 8 | 12 - 16 | 163 | 161 |
| | | 130 | 8 - 10 | 8 - 10 | 16 - 20 | 168 | - |
| | URBAN SPORT | 135 | 6 - 8 | 6 - 8 | 12 - 16 | 168 | 166 |
| | | 135 | 8 - 10 | 8 - 10 | 16 - 20 | 173 | 170 |
| Front | MTB Road Cyclocross URBAN SPORT Comfort | 100 | 5 - 6 | 5 - 6 | 10 - 12 | 129 | 129 |
| | | | 6 - 8 | 6 - 8 | 12 - 16 | 133 | 133 |
| | | | 7.5 - 9.5 | 7.5 - 9.5 | 15 - 19 | 136 | 136 |

C-053 Frame Requirement / Front derailleur / TOP SWING [MTB] -
Revised (FC-TY500/TY510, dimension E)

version 1.7 - December 19, 2017

| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (deg.) | I (mm) | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP SWING (dual pull) | 8, 7 | FD-M310-3 | 42T | 46 | 47 | 99 | 28 | 27 | 82 | 56 | 63 | 10 | |
| | | FD-M310-6 | 48T | 46 | 57 | 111 | 28 | 24 | 82 | 66 | 63 | 10 | |
| | | FD-TX800-TS3 | 42T | 46 | 47 | 99 | 28 | 27 | 82 | 56 | 63 | 10 | |
| | | FD-TX800-TS6 | 48T | 46 | 57 | 111 | 28 | 24 | 82 | 66 | 63 | 10 | |
| | | FD-TY700-TS3 | 42T | 42 | 45 | 98 | 28 | 24 | 81 | 54 | 63 | 14 | |
| | | FD-TY700-TS6 | 42T | 42 | 45 | 98 | 28 | 24 | 83 | 51 | 66 | 15 | |
| | | FD-TY710-TS3 | 48T | 42 | 57 | 100 | 28 | 24 | 81 | 66 | 63 | 14 | |
| | | FD-TY710-TS6 | 48T | 42 | 57 | 110 | 28 | 24 | 83 | 63 | 66 | 15 | |
| | 7,6 | FD-TY500-TS3 | 42T | 42 | 45 | 98 | 28 | 32 | 81 | 54 | 63 | 14 | |
| | | FD-TY500-TS6 | 42T | 42 | 45 | 98 | 28 | 32 | 83 | 51 | 66 | 15 | |
| | | FD-TY510-TS3 | 48T | 42 | 57 | 110 | 28 | 32 | 81 | 66 | 63 | 14 | |
| | | FD-TY510-TS6 | 48T | 42 | 57 | 110 | 28 | 32 | 83 | 63 | 66 | 15 | |

version 1.8 - January 9, 2018

| FD type | Speed | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) | E (mm) | F (mm) | G (mm) | H (deg.) | I (mm) | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| TOP SWING (dual pull) | 8, 7 | FD-M310-3 | 42T | 46 | 47 | 99 | 28 | 27 | 82 | 56 | 63 | 10 | |
| | | FD-M310-6 | 48T | 46 | 57 | 111 | 28 | 24 | 82 | 66 | 63 | 10 | |
| | | FD-TX800-TS3 | 42T | 46 | 47 | 99 | 28 | 27 | 82 | 56 | 63 | 10 | |
| | | FD-TX800-TS6 | 48T | 46 | 57 | 111 | 28 | 24 | 82 | 66 | 63 | 10 | |
| | | FD-TY700-TS3 | 42T | 42 | 45 | 98 | 28 | 24 | 81 | 54 | 63 | 14 | |
| | | FD-TY700-TS6 | 42T | 42 | 45 | 98 | 28 | 24 | 83 | 51 | 66 | 15 | |
| | | FD-TY710-TS3 | 48T | 42 | 57 | 100 | 28 | 24 | 81 | 66 | 63 | 14 | |
| | | FD-TY710-TS6 | 48T | 42 | 57 | 110 | 28 | 24 | 83 | 63 | 66 | 15 | |
| | 7,6 | FD-TY500-TS3 | 42T | 42 | 45 | 98 | 28 | 24 | 81 | 54 | 63 | 14 | |
| | | FD-TY500-TS6 | 42T | 42 | 45 | 98 | 28 | 24 | 83 | 51 | 66 | 15 | |
| | | FD-TY510-TS3 | 48T | 42 | 57 | 110 | 28 | 24 | 81 | 66 | 63 | 14 | |
| | | FD-TY510-TS6 | 48T | 42 | 57 | 110 | 28 | 24 | 83 | 63 | 66 | 15 | |

C-118 Frame Requirement / Crankset / Crankset dimensions [MTB] / X dimensions -
Revised (FC-M9120-1, dimension x6 and x7)

version 1.7 - December 19, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | 50.1 | - | 50.3 | 42.9 | 42.6 | 41.6 | 65 | 63.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9020-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.5 | 42.5 | 41.5 | 68.5 | 68.5 | - |
| | FC-M8000-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.5 | 40.8 | 39.6 | 72.2 | 72.2 | - |

version 1.8 - January 9, 2018

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | 50.1 | - | 50.3 | 42.9 | 42.6 | 41.6 | 65 | 63.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | FC-M9020-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.5 | 42.5 | 41.5 | 68.5 | 68.5 | - |
| | FC-M8000-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.5 | 40.8 | 39.6 | 72.2 | 72.2 | - |

C-120 Frame Requirement / Crankset / Crankset dimensions [MTB] / Chain line 3mm outboard spec. X dimensions - Revised (FC-M9100-1, dimension x6 and x7)

version 1.7 - December 19, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9120-B2 | 38-28T | 53.1 | - | 53.3 | 45.9 | 45.6 | 44.6 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |

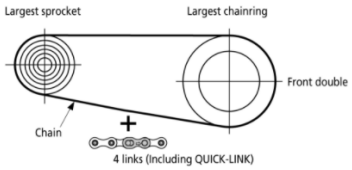
version 1.8 - January 9, 2018

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9120-B2 | 38-28T | 53.1 | - | 53.3 | 45.9 | 45.6 | 44.6 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |

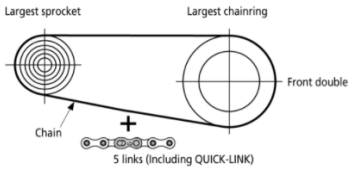
## C-496 Product Information / Chain / Chain length / Chain length [MTB, COMFORT] - Revised (RD-M9100/9120, case of front single was added)

### version 1.7 - December 19, 2017

Hardtail



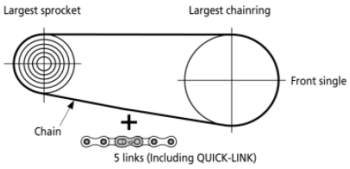

Full Suspension




- Set the chain length when the rear suspension is at the top of its travel.
- When the rear suspension is at the bottom of its travel, confirm that there is a remainder in the chain length.

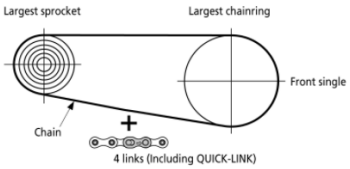
### version 1.8 - January 9, 2018

⚠For front single, full suspension bike

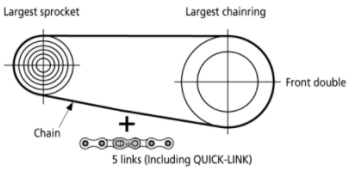



- Set the chain length when the rear suspension is at the top of its travel.
- When the rear suspension is at the bottom of its travel, confirm that there is a remainder in the chain length.

⚠For front single, hardtail bike

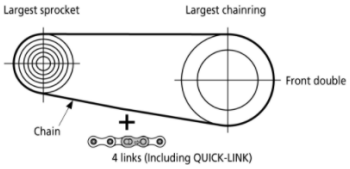



⚠For front double, full suspension bike




- Set the chain length when the rear suspension is at the top of its travel.
- When the rear suspension is at the bottom of its travel, confirm that there is a remainder in the chain length.

⚠For front double, hardtail bike



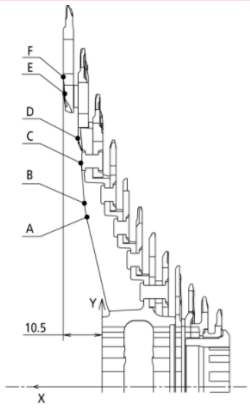
C-251 Product Information / Cassette Sprocket / Cautionary points for installing -
Added (CS-M9100-12, CS-M9110-11)

version 1.8 - January 9, 2018

## Cautionary points for installing C-251

### 12-speed C-555

CS-M9100-12 (10-51T)



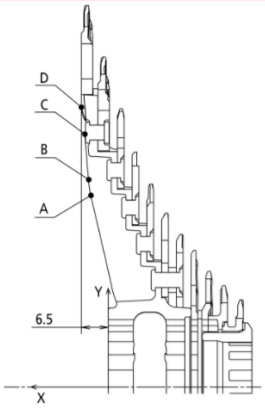

| | X mm | Y mm (ø) |
|---|---|---|
| A | 4.14 | 91.9 |
| B | 4.74 | 99.4 |
| C | 5.65 | 121.2 |
| D | 6.5 | 134.5 |
| E | 10.05 | 158.8 |
| F | 10.5 | 167.9 |

CS-M9100-12 (10-45T)

TBD

### 11-speed C-252

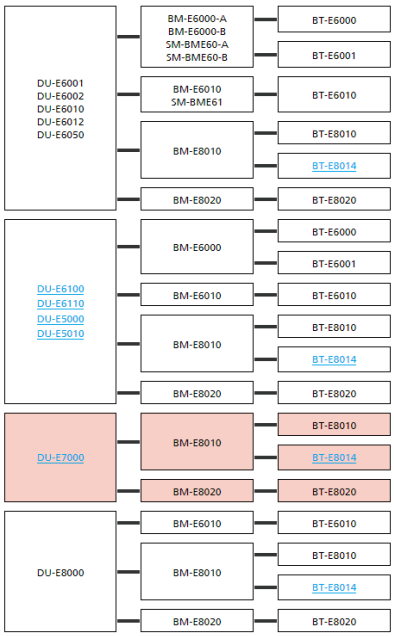
CS-M9110-11 (10-45T)



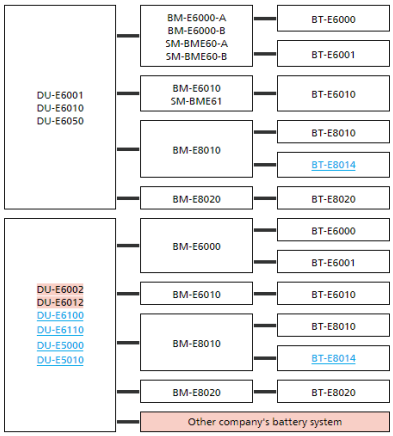

| | X mm | Y mm (ø) |
|---|---|---|
| A | 4.14 | 91.9 |
| B | 4.74 | 99.4 |
| C | 5.65 | 121.2 |
| D | 6.5 | 134.5 |

C-511 E-BIKE components / E-BIKE compatibility chart / Battery and battery mount compatibility - Revised (DU-E6002/E6012, compatibility), Added (other company's battery system)

version 1.7 - December 19, 2017




version 1.8 - January 9, 2018



# December 19, 2017 (Ver 1.7)

C-123 Frame Requirement / Crankset / Crankset dimensions [ROAD, URBAN SPORT] / Y dimensions - Revised (FC-RS200, dimension y2 and y5)

version 1.6 - December 5, 2017

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 103.8 | 81.6 | 63.4 | 26.9 | 43.6 | 194.1 | 193.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 194.1 | 193.0 |
| | FC-R345 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| 8 | FC-R2030 | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.3 | 193.3 |
| | | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.9 | 193.9 |
| | FC-A073 | 50-39-30T | 45.0 | 103.9 | 81.8 | 63.6 | 23.4 | 41.7 | 187 | 187 |
| | FC-R2000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 193.9 | 193.9 |
| | FC-R5200 | 50-34T | 43.5 | - | 95.8 | 70.8 | - | 55.2 | 192.1 | 192.1 |
| | | 46-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| | FC-A070 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 187 | 187 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 114.7 | - | - | - | 193.0 | 193.0 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 114.7 | - | - | - | | |

version 1.7 - December 19, 2017

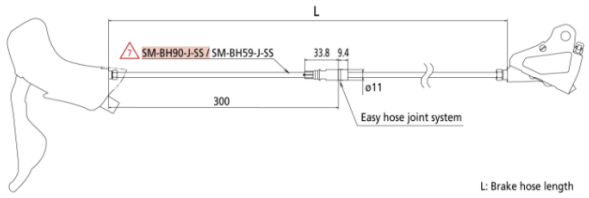
⚠

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 103.8 | 81.6 | 63.4 | 26.9 | 43.6 | 194.1 | 193.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 194.1 | 193.0 |
| | FC-R345 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| 8 | FC-R2030 | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.3 | 193.3 |
| | | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.9 | 193.9 |
| | FC-A073 | 50-39-30T | 45.0 | 103.9 | 81.8 | 63.6 | 23.4 | 41.7 | 187 | 187 |
| | FC-R2000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 193.9 | 193.9 |
| | FC-R5200 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | - | 192.1 | 192.1 |
| | | 46-34T | 43.5 | - | 103.9 | 70.8 | - | - | 192.1 | 192.1 |
| | FC-A070 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | - | 187 | 187 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 114.7 | - | - | - | 193.0 | 193.0 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 114.7 | - | - | - | | |

C-197 Product Information / Disc brake / Brake hose dimensions - Added (SM-BH90-J-SS/BH90-JK-SS)

version 1.7 - December 19, 2017

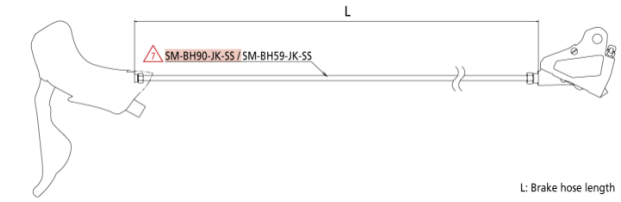
⚠SM-BH90-J-SS / SM-BH59-J-SS

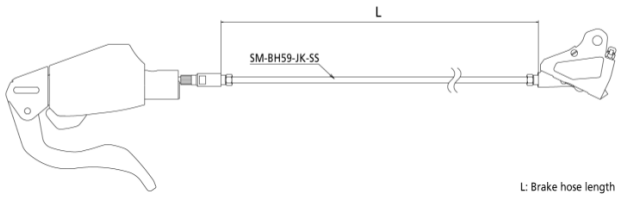



⚠

| Model No. | Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH90-J-SS | ST-R8020<br>ST-R8070<br>ST-R7020<br>ST-R7025 | BR-R8070<br>BR-R7070 |
| SM-BH59-J-SS | ST-RS685<br>ST-RS505<br>ST-RS405 | BR-RS785<br>BR-RS505<br>BR-RS405 |

⚠SM-BH90-JK-SS / SM-BH59-JK-SS



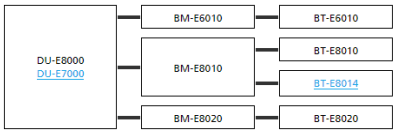




⚠

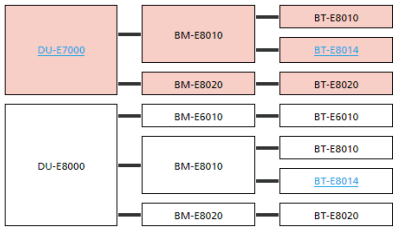
| Model No. | Shifting/Brake Lever | Brake |
|---|---|---|
| SM-BH90-JK-SS | ST-R9120<br>ST-R9170<br>ST-R8020<br>ST-R8070<br>ST-R7020<br>ST-R7025 | BR-R9170<br>BR-R8070<br>BR-R7070 |
| SM-BH59-JK-SS | ST-RS685<br>ST-RS505<br>ST-R5405<br>ST-U5060<br>BL-U5010<br>ST-U5080 | BR-RS785<br>BR-RS505<br>BR-RS405<br>BR-U5000 |

C-511 E-BIKE components / E-BIKE compatibility chart / Battery and battery mount compatibility - Revised (Compatibility chart from DU-E7000 was revised.)

version 1.6 - December 5, 2017




version 1.7 - December 19, 2017



# December 5, 2017 (Ver 1.6)

C-488 E-BIKE components / E-BIKE compatibility chart / Drivetrain compatibility - Added (CN-E8000-11)

version 1.6 - December 5, 2017

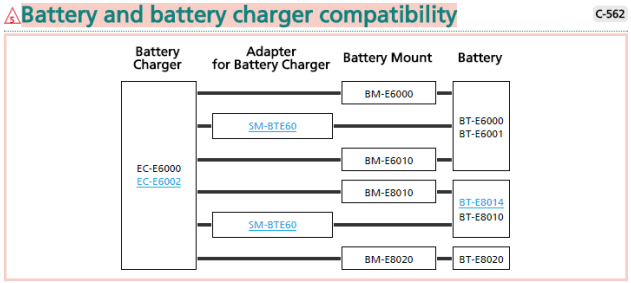
| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| Rear derailleur system | 11-speed | SM-CRE80 | - | with chain device (option) | - | MTB 11-speed CS | CN-HG901-11<br>CN-HG701-11<br>CN-HG601-11<br>CN-E8000-11 |
| | | SM-CRE80 44T | Double | - | - | | |
| | 10-speed | SM-CRE80 | - | with chain device (option) | - | MTB 10-speed CS | CN-E6090-10 |
| | | SM-CRE80 44T | Double | - | - | | |

E6000 series

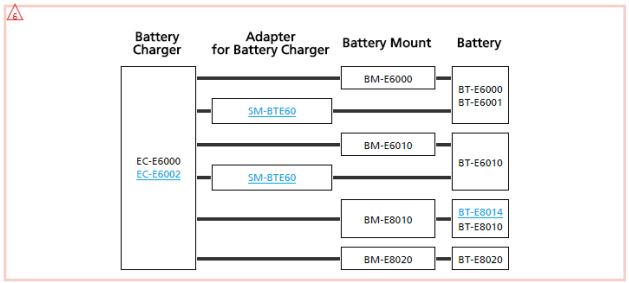
| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| DI2 Internal geared hub | 11-speed 8-speed | SM-CRE60 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| Mechanical Internal geared hub | ALFINE 11-speed 8-speed | SM-CRE60 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 8-speed | SM-CRE60 | Single | - | - | SM-GEAR | 8-speed |
| | | | w/o | - | | | CN-NX10 |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| Rear derailleur system | 11-speed | SM-CRE60 | Double | - | - | MTB 11-speed CS | CN-HG901-11<br>CN-HG701-11<br>CN-HG601-11<br>CN-E8000-11 |
| | 10-speed | SM-CRE60 | Double | - | - | MTB 10-speed CS | CN-E6090-10 |
| | 9-speed | SM-CRE60 | Double | - | - | MTB 9-speed CS | CN-E6070-9 |
| | 8-speed | NA | | | | | |

C-562 E-BIKE components / E-BIKE compatibility chart / Battery and battery charger compatibility - Revised (All the compatibility chart was revised)

version 1.5 - November 21, 2017

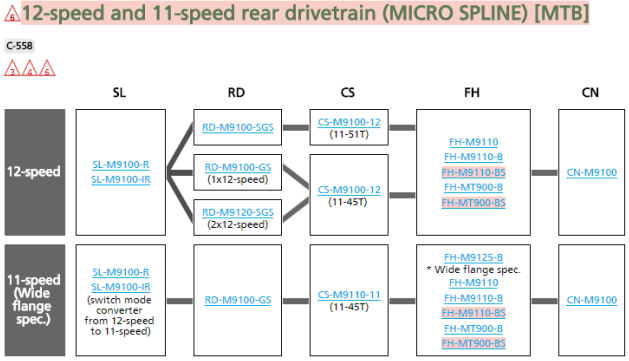



version 1.6 - December 5, 2017



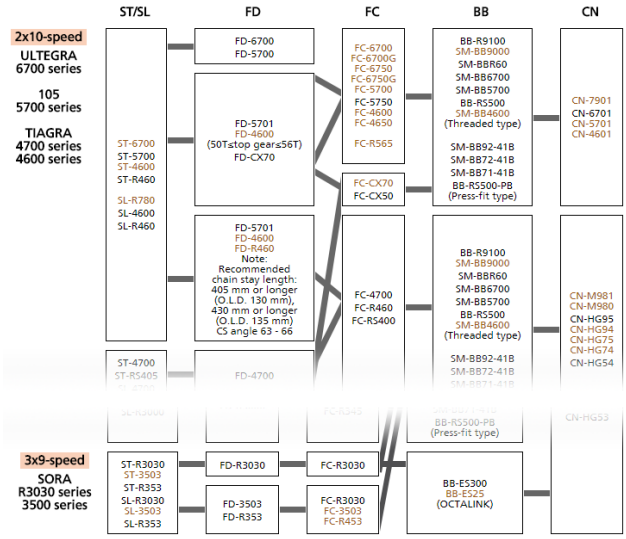

C-558 Compatibility / Drivetrain for MTB components / Rear drivetrain compatibility [MTB] / 12-speed and 11-speed rear drivetrain (MICRO SPLINE) [MTB] - Added (FH-M9110-BS/MT900-BS)

version 1.6 - December 5, 2017

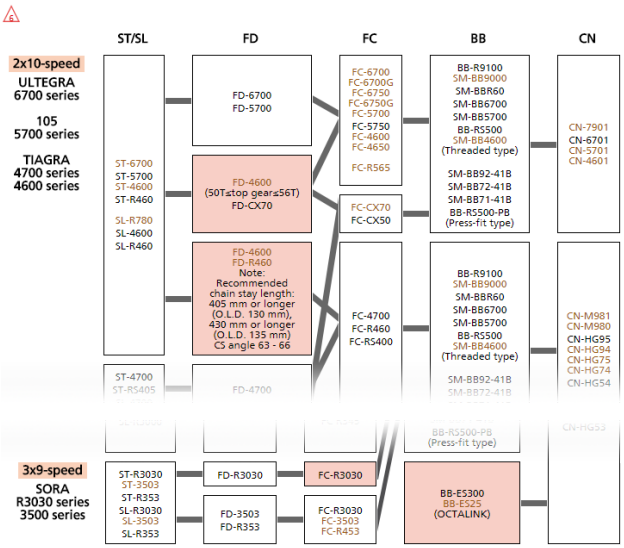


C-455 Compatibility / Drivetrain for ROAD bike / URBAN SPORT components / Front drivetrain compatibility [ROAD, URBAN SPORT] - Revised (FC-R3030, BB compatibility), Deleted (FD-5701)

version 1.5 - November 21, 2017




version 1.6 - December 5, 2017




C-461 Compatibility / Disc brake / Disc brake caliper and Rotor compatibility - Added (SM-RT900-S/SS, SM-RT800-S/SS, RT-MT900-SS)

version 1.6 - December 5, 2017

| Brake caliper | Brake pad material | Pad type | Disc brake rotor | | | |
|---|---|---|---|---|---|---|
| | | | 203 mm (L) | 180 mm (M) | 160 mm (S) | 140 mm (SS) |
| BR-M9100<br>BR-M9120<br>BR-M9000<br>BR-M9020<br>BR-M8000<br>BR-M8020<br>BR-M7000<br>BR-M6000<br>BR-MT520 | Metal / Resin | Narrow | RT-MT900-L<br>SM-RT99-L<br>SM-RT86-L<br>SM-RT81-L<br>RT-EM900-L*<br>SM-RT76-L<br>SM-RT70-L<br>SM-RT66-L<br>SM-RT64-L | RT-MT900-M<br>SM-RT99-M<br>SM-RT86-M<br>SM-RT81-M<br>RT-EM900-M*<br>SM-RT76-M<br>SM-RT70-M<br>SM-RT66-M<br>SM-RT64-M | RT-MT900-S<br>SM-RT900-S<br>SM-RT800-S<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>RT-EM900-S*<br>RT-EM800-S*<br>SM-RT76-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | RT-MT900-SS<br>SM-RT900-SS<br>SM-RT800-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-M820<br>BR-M640 | Metal / Resin | | | | | |
| BR-5700 | Resin | | | | | |

# November 21, 2017 (Ver 1.5)

C-177 Product Information / Rear derailleur / Dropout and Rear derailleur [MTB, Trekking] - Deleted (RD-M9100/M9120)

version 1.4 - November 7, 2017

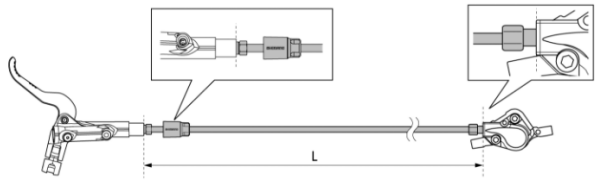
| | Speed | Direct mount compatible models |
|---|---|---|
| MTB | 12-speed | ~~RD-M9100~~<br>~~RD-M9120~~ |
| | 11-speed | RD-M9000<br>RD-M9050<br>RD-M8000<br>RD-M8050<br>RD-M7000-11 |
| | 10-speed | RD-M820<br>RD-M7000-10<br>RD-M640<br>RD-M6000 |
| | 9-speed | RD-M4000<br>RD-M3000 |
| Trekking | 10-speed | RD-T8000<br>RD-T6000 |
| Road | 11-speed | RD-R9100<br>RD-R9150<br>RD-R8000<br>RD-R8050<br>RD-RX800<br>RD-RX805<br>RD-R7000 |

## C-197 Product Information / Disc brake / Brake hose dimensions -
## Revised (BL-M9100/M9120 and BR-M9100/M9120, corresponding brake hose)

### version 1.4 - November 7, 2017

⚠1 SM-BH910-SS

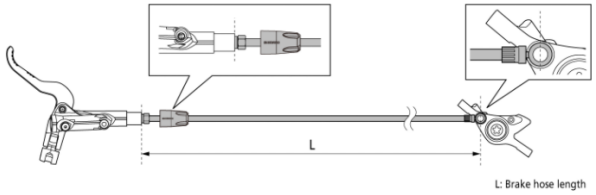
⚠1




| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH910-SS | BL-M9100 | BR-M9100 |

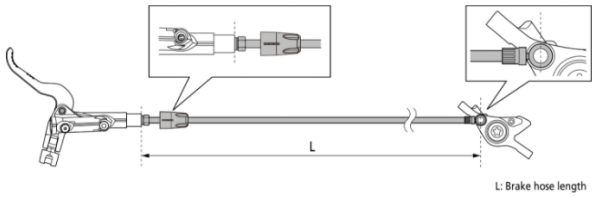
⚠1 SM-BH910-SB

⚠1



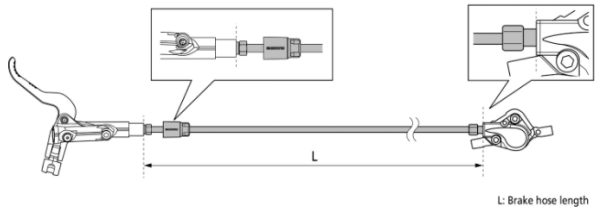

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH910-SB | BL-M9120 | BR-M9120 |

SM-BH90-SBM / SM-BH90-SB




| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SBM / SM-BH90-SB | BL-M9000 | BR-M9000 |
| | BL-M9020 | BR-M9020 |
| | BL-M820-B (SM-BH90-SBLS) | BR-M820 (SM-BH90-SBLS) |
| | BL-M8000 | BR-M8000 |
| | BL-M7000 | BR-M7000 |
| | BL-T8000 | BR-M8000 |
| | BL-M640-B (SM-BH90-SBS) | BR-M640 (SM-BH90-SBS) |
| | BL-M8000 | BR-M8020 (SM-BH90-SBLS) |

SM-BH90-SS

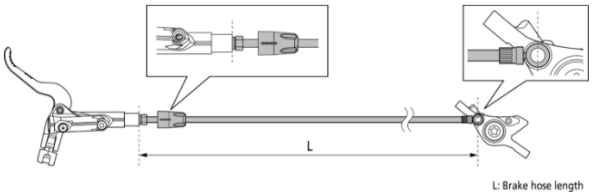



⚠2

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SS | BL-M6000 | BR-M6000 |
| | BL-MT501 | BR-MT520 |

### version 1.5 - November 21, 2017

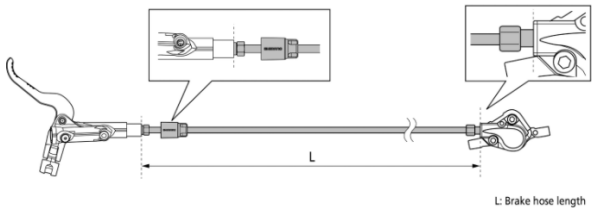
SM-BH90-SBM / SM-BH90-SB / SM-BH90-SBS / SM-BH90-SBLS




⚠2

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SBM SM-BH90-SB SM-BH90-SBS SM-BH90-SBLS | BL-M9120 (SM-BH90-SBM) | BR-M9120 (SM-BH90-SBM) |
| | BL-M9000 | BR-M9000 |
| | BL-M9020 | BR-M9020 |
| | BL-M820-B (SM-BH90-SBLS) | BR-M820 (SM-BH90-SBLS) |
| | BL-M8000 | BR-M8000 |
| | BL-M7000 | BR-M7000 |
| | BL-T8000 | BR-M8000 |
| | BL-M640-B (SM-BH90-SBS) | BR-M640 (SM-BH90-SBS) |
| | BL-M8000 | BR-M8020 (SM-BH90-SBLS) |

SM-BH90-SS




⚠2⚠2

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SS | BL-M9100 | BR-M9100 |
| | BL-M6000 | BR-M6000 |
| | BL-MT501 | BR-MT520 |

C-314 Product Information / SHIMANO Cable System / Outer casing length / Rear dropouts (with derailleur hanger) - Added (RD-RX800)

version 1.5 - November 21, 2017

△3△5

| | Model No. | Recommended outer casing model | Dimension C | | | | |
|---|---|---|---|---|---|---|---|
| | | | 100 mm | 110 mm | 120 mm | 130 mm | 140 mm |
| Outer Casing Length (mm) | RD-M9100 | OT-SP41 | 190 | 200 | 210 | – | – |
| | RD-M9120 | OT-SP41 | | | | | |
| | RD-M9000 | OT-SP41 | 200 | 210 | 220 | – | – |
| | RD-M820 (FR mode, DH mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-T8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-T8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec, DH spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-T6000 | OT-SP41 | 290 | 310 | 330 | – | – |
| | RD-M4000 | OT-SP41 | 180 | 190 | 200 | – | – |
| | RD-M3000 | OT-SP41 | | | | | |
| | RD-M2000 | OT-SP41 | | | | | |
| | RD-TY500 | OT-SP41 | | | | | |
| | Other models (w / o Roller Guide RD) | OT-SP41 | 280 | 300 | 320 | – | – |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-RX800-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | | | | | |
| | RD-R7000-GS | OT-RS900 | | | | | |

△3△5

| | Model No. | Recommended outer casing model | Dimension D | | |
|---|---|---|---|---|---|
| | | | 150 mm | 165 mm | 180 mm |
| Outer Casing Length (mm) | RD-M9100 | OT-SP41 | 200 | 210 | 230 |
| | RD-M9120 | OT-SP41 | | | |
| | RD-M9000 | OT-SP41 | 210 | 220 | 240 |
| | RD-M986 | OT-SP41 | | | |
| | RD-M820 (FR mode) | OT-SP41 | | | |
| | RD-M8000 | OT-SP41 | | | |
| | RD-T8000 | OT-SP41 | | | |
| | RD-M7000-11 | OT-SP41 | | | |
| | RD-M7000-10 | OT-SP41 | | | |
| | RD-M640 (FR spec) | OT-SP41 | | | |
| | RD-M6000 | OT-SP41 | | | |
| | RD-T6000 | OT-SP41 | 290 | 310 | 330 |
| | RD-M820 (DH mode) | OT-SP41 | 220 | 230 | 250 |
| | RD-M640 (DH spec) | OT-SP41 | | | |
| | RD-M4000 | OT-SP41 | 200 | 210 | 230 |
| | RD-M3000 | OT-SP41 | | | |
| | RD-M2000 | OT-SP41 | | | |
| | RD-TY500 | OT-SP41 | 190 | 200 | 210 |
| | RD-TX55 | OT-SP41 | | | |
| | RD-TY21-B | OT-SP41 | 280 | 300 | 320 |
| | RD-FT35-A | OT-SP41 | 250 | 270 | 310 |
| | RD-TX800 | OT-SP41 | 280 | 310 | 340 |
| | RD-TY300 | OT-SP41 | | | |
| | RD-TX35 | OT-SP41 | | | |
| | Other models (w / o Roller Guide RD) | OT-SP41 | 280 | 300 | 320 |
| | RD-R9100 | OT-RS900 | 200 | 220 | 240 |
| | RD-R8000-SS | OT-RS900 | | | |
| | RD-R8000-GS | OT-RS900 | | | |
| | RD-RX800-GS | OT-RS900 | | | |
| | RD-R7000-SS | OT-RS900 | | | |
| | RD-R7000-GS | OT-RS900 | | | |

C-315 Product Information / SHIMANO Cable System / Outer casing length / Rear dropouts (Direct mount) - Added (RD-RX800)

version 1.5 - November 21, 2017

△3△5

| | Model No. | Recommended outer casing model | Dimension C' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 125 mm | 135 mm | 145 mm | 155 mm | 165 mm |
| Outer Casing Length (mm) | RD-M9000 | OT-SP41 | 200 | 210 | 220 | - | - |
| | RD-M820 (FR mode, DH mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec, DH spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-M4000 | OT-SP41 | | | | | |
| | RD-M3000 | OT-SP41 | | | | | |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-RX800-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | | | | | |
| | RD-R7000-GS | OT-RS900 | | | | | |

| | Model No. | Recommended outer casing model | Dimension D' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 162 mm | 172 mm | 177 mm | 182 mm | 192 mm |
| Outer Casing Length (mm) | RD-M9000 | OT-SP41 | 210 | - | 220 | - | 240 |
| | RD-M820 (FR mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-M820 (DH mode) | OT-SP41 | 220 | | 230 | | 250 |
| | RD-M640 (DH spec) | OT-SP41 | | | | | |
| | RD-M4000 | OT-SP41 | 210 | | 220 | | 240 |
| | RD-M3000 | OT-SP41 | 200 | | | | |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-RX800-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | | | | | |
| | RD-R7000-GS | OT-RS900 | | | | | |

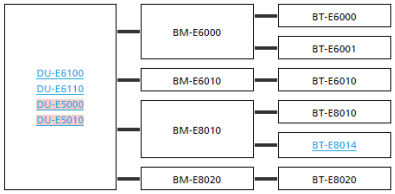
C-316 Product Information / SHIMANO Cable System / Outer casing length / Built-in wire routing (For Road 11-speed) - Added (RD-RX800)

version 1.5 - November 21, 2017

| | Model No. | Recommended outer casing model | Dimension E | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | 40mm | 50mm | 60mm | 80mm | 100mm | 125mm | 150mm |
| Outer Casing Length (mm) | RD-R9100 | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R8000-SS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R8000-GS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-RX800-GS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R7000-SS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-R7000-GS | OT-RS900 | 110 | 130 | 150 | 170 | 200 | 220 | 240 |
| | RD-9000<br>RD-6800 | OT-SP41 | 220 | 240 | 260 | 300 | 340 | 390 | 440 |

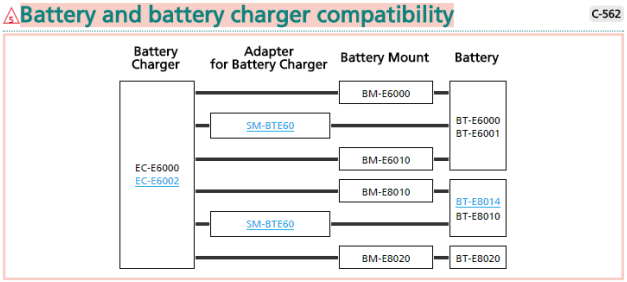
C-511 E-BIKE components / E-BIKE compatibility chart / Battery and battery mount compatibility - Added (DU-E5000/E5010)

version 1.5 - November 21, 2017



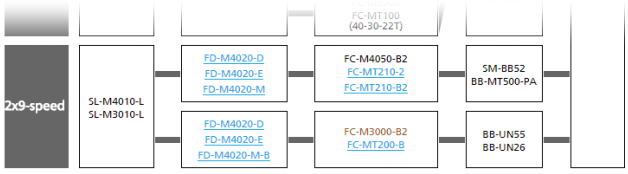

C-562 E-BIKE components / E-BIKE compatibility chart / Battery and battery charger compatibility - Added (Initial release)

version 1.5 - November 21, 2017

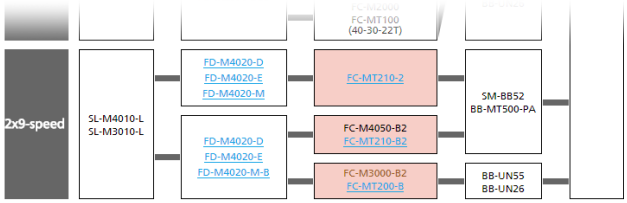



C-445 Compatibility / Drivetrain for MTB components / Front drivetrain compatibility [MTB] / 9-speed FC-FD compatibility [MTB] - Revised (2x9-speed, FD/FC/BB compatibility)

version 1.4 - November 7, 2017




version 1.5 - November 21, 2017



# C-186 Compatibility / Disc brake / Compatibility between hydraulic disc brake hose - Revised (BL-M9100/M9120 and BR-M9100/M9120, corresponding brake hose)

## version 1.4 - November 7, 2017

| | | SM-BH910-SB | SM-BH910-SS | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 |
|---|---|---|---|---|---|---|---|---|
| Connection | | Straight - Banjo | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | – | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | X | – | – | – | – | – | X |
| BL-M9000 | BR-M9000 | – | – | – | X | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | X | – | – | X |
| BL-M820 | BR-M820 | – | – | – | – | X | – | – |
| BL-M8000 | BR-M8000 | – | – | – | X | – | – | X |

| | | SM-BH90-SS | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | – | – | – | – | – | – |
| BL-M9000 | BR-M9000 | – | – | – | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | – | – | – |
| BL-M820 | BR-M820 | – | – | – | – | – | – |
| BL-M8000 | BR-M8000 | – | – | – | – | – | – |

## version 1.5 - November 21, 2017

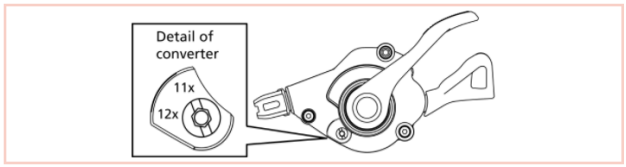
| | | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 | SM-BH90-SS |
|---|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Straight |
| Rigidity | | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | – | – | – | – | – | X |
| BL-M9120 | BR-M9120 | – | X | – | – | – | – |
| BL-M9000 | BR-M9000 | – | X | – | – | – | – |
| BL-M9020 | BR-M9020 | – | X | – | – | X | – |
| BL-M820 | BR-M820 | – | – | X | – | – | – |
| BL-M8000 | BR-M8000 | – | X | – | – | X | – |

| | | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | – | – | – | – | – |
| BL-M9120 | BR-M9120 | – | – | – | – | – |
| BL-M9000 | BR-M9000 | – | – | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | – | – |
| BL-M820 | BR-M820 | – | – | – | – | – |
| BL-M8000 | BR-M8000 | – | – | – | – | – |

# November 7, 2017 (Ver 1.4)

C-552 Product Information / Shifting lever / Brake lever [MTB, ROAD, URBAN SPORT] / Mode converter / XTR series - Added (Rear shift mode converter, enlarged view)

version 1.4 - November 7, 2017




C-261 Product Information / Hub / Front hub dimension [MTB,Trekking] - Added (HB-MT900-B)

version 1.4 - November 7, 2017

Disc brake (Thru axle type)

| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | P | P' | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HB-M9110 | 100 | 60.2 | 5.4 | 44 | ø2.6 | 53 | 52.8 | 3.2 / 3.2 | ø21.0 | ø21.0 | 19.5 | 15 |
| HB-M8010 | | | | | | | | | | | | |
| HB-M7010 | | | 5.3 | | | | | | | | | |
| HB-M6010 | | | | | | | | | | | | |
| HB-M9110-B | 110 | 70.2 | 5.4 | | | | | | | | | |
| HB-MT900-B | | | | | | | | | | | | |
| HB-M8010-B | | | | | | | | | | | | |
| HB-M7010-B | | | | | | | | | | | | |
| HB-M6010-B | | | | | | | | | | | | |
| HB-MT400-B | | 70.2 | 5.4 | 44 | | 52.8 | 52.8 | | ø21.0 | ø21.0 | 19.5 | 15 |
| HB-M820 | | 61.55 | 5.8 | 50 | | 60 | 59.6 | | ø24.0 | ø24.0 | 24.25 | 20 |
| HB-M640 | | | 5.6 | 52 | | 62 | 61.6 | | | | | |

(mm)

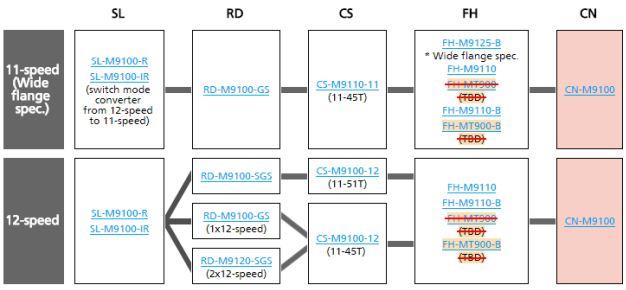
C-262 Product Information / Hub / E-THRU hub / Thru axle / E-THRU axle dimensions [MTB, ROAD] - Added (FH-MT900-B)

version 1.4 - November 7, 2017

| FREEHUB | | Wheel | |
|---|---|---|---|
| O.L.D.142mm | O.L.D.148mm | O.L.D.142mm | O.L.D.148mm |
| FH-M9110<br>FH-M8010<br>FH-M7010<br>FH-M6010 | FH-M9110-B<br>FH-M9125-B<br>FH-MT900-B<br>FH-M8010-B<br>FH-M7010-B<br>FH-M6010-B | WH-M8000<br>WH-M8020 | WH-M8000-B<br>WH-M8020-B |

C-558 Compatibility / Drivetrain for MTB components / Rear drivetrain compatibility [MTB] / 12-speed and 11-speed (Wide flange spec.) rear drivetrain [MTB] - Deleted (FH-MT900)

version 1.3 - October 24, 2017



# October 24, 2017 (Ver 1.3)

C-540 Frame Requirement / Front derailleur / Band type [MTB] / Middle clamp type - Revised (FD-M9100-M, dimension A, B, C, D)

version 1.2 - October 10, 2017

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 12 | 66-69 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD |
| 10 | 66-69 | FD-M6000-M | 40T | 93 | 93 | 116 | 117 |
| | | | 42T | 97 | 97 | 120 | 121 |
| | | FD-M6020-M | 34T | 85 | 85 | 108 | 109 |
| | | | 36T | 89 | 89 | 112 | 113 |
| | | | 38T | 93 | 93 | 116 | 117 |
| 9 | 66-69 | FD-M4000-M | 40T | 92 | 93 | 118 | 115 |
| | 64-69 | FD-M4020-M | 36T | 92 | 89 | 109 | 107 |
| | 64-69 | FD-M4020-M-B | 36T | 92 | 89 | 109 | 107 |

version 1.3 - October 24, 2017

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 12 | 66-69 | FD-M9100-M | 38T | 93 | 93 | 116 | 117 |
| 10 | 66-69 | FD-M6000-M | 40T | 93 | 93 | 116 | 117 |
| | | | 42T | 97 | 97 | 120 | 121 |
| | | FD-M6020-M | 34T | 85 | 85 | 108 | 109 |
| | | | 36T | 89 | 89 | 112 | 113 |
| | | | 38T | 93 | 93 | 116 | 117 |
| 9 | 66-69 | FD-M4000-M | 40T | 92 | 93 | 118 | 115 |
| | 64-69 | FD-M4020-M | 36T | 92 | 89 | 109 | 107 |
| | 64-69 | FD-M4020-M-B | 36T | 92 | 89 | 109 | 107 |

C-051 Frame Requirement / Front derailleur / Direct mount type [MTB] / Frame requirement and compatibility [MTB] - Revised (FD-M9100-D, gear teeth)

version 1.2 - October 10, 2017

| FD type | Mount (Y) | Speed | Gear | Model No. | | |
|---|---|---|---|---|---|---|
| | | | | FD-M9000-D FD-M8000-D | FD-M9020-D FD-M8020-D FD-M7020-11-D | FD-M9100-D |
| SIDE SWING | 155.5 mm | 12 | 40-28T | – | – | X |
| | | 11 | 40-30-22T | X | – | – |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | X | – |
| | 159.5 mm | 11 | 40-30-22T | X | – | – |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | – | – |

version 1.3 - October 24, 2017

| FD type | Mount (Y) | Speed | Gear | Model No. | | |
|---|---|---|---|---|---|---|
| | | | | FD-M9000-D FD-M8000-D | FD-M9020-D FD-M8020-D FD-M7020-11-D | FD-M9100-D |
| SIDE SWING | 155.5 mm | 12 | 38-28T | – | – | X |
| | | 11 | 40-30-22T | X | – | – |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | X | – |
| | 159.5 mm | 11 | 40-30-22T | X | – | – |
| | | | 38-28T | – | X | – |
| | | | 36-26T | – | X | – |
| | | | 34-24T | – | – | – |

C-052 Frame Requirement / Front derailleur / Bottom bracket mount type [MTB] - Revised (FD-M9100-E, dimension H)

version 1.2 - October 10, 2017

| FD type | Speed | Model No. | Outer chainring teeth | Dimension H (mm) | BB shell width (mm) |
|---|---|---|---|---|---|
| SIDE SWING | 12 | FD-M9100-E | 38T | TBD | |
| | 11 | FD-M9000-E FD-M8000-E | 40T | 46 | |
| | | FD-M9020-E FD-M8020-E FD-M7020-11-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| TOP SWING (down pull only) | | FD-M9025-E FD-M8025-E FD-M7025-11-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| | | FD-M9050 | 40T | 46 | |
| DI2 (with SM-FD905-E / SM-FD805-E) | | FD-M9070 | 34T | 38 | |
| | | | 36T | 42 | |

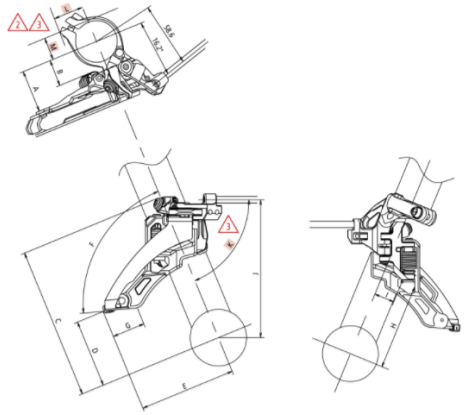
version 1.3 - October 24, 2017

| FD type | Speed | Model No. | Outer chainring teeth | Dimension H (mm) | BB shell width (mm) |
|---|---|---|---|---|---|
| SIDE SWING | 12 | FD-M9100-E | 38T | 46 | |
| | 11 | FD-M9000-E FD-M8000-E | 40T | 46 | |
| | | FD-M9020-E FD-M8020-E FD-M7020-11-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| TOP SWING (down pull only) | | FD-M9025-E FD-M8025-E FD-M7025-11-E | 34T | 38 | |
| | | | 36T | 42 | |
| | | | 38T | 46 | |
| | | FD-M9050 | 40T | 46 | |
| DI2 (with SM-FD905-E / SM-FD805-E) | | FD-M9070 | 34T | 38 | |
| | | | 36T | 42 | |

## C-056 Frame Requirement / Front derailleur / SIDE SWING type [MTB] -

Added (All the models, dimension K, L, M / FD-M9100-D/E)

### version 1.3 - October 24, 2017



A: From frame center to back side of the cage most critical point for interference with tire.
B: From frame center to spring most inside position during movement.
C: From bottom bracket center to cable fixing part highest position during movement. (E,L spec only)
D,E: From bottom bracket center to edge of cage for interference with chainstay.
F,G: Dimension of bottom side of cage for interference with chainstay.
H,I: From bottom bracket center to lowest position of inner link.

△1 △3

| FD type | Speed | Model No. | Crank set | A (mm) Chain line (mm) 48.8 | A 50 | A 51.8 | B (mm) Chain line (mm) 48.8 | B 50 | B 51.8 | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) | J (mm) | K (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SIDE SWING | 12 | FD-M9100-D<br>FD-M9100-E<br>FD-M9100-M | 38T | 32 | – | 35 | 21 | – | 24 | 124 | 61 | 71 | 72.6 | 21 | 75 | 21 | 98 | 57.6 |
| | 11 | FD-M9000-H<br>FD-M9000-L<br>FD-M9000-D<br>FD-M9000-E<br>FD-M8000-H<br>FD-M8000-L<br>FD-M8000-D<br>FD-M8000-E | 40T | – | 31 | – | – | 18 | – | 129 | 52 | 83 | 72 | 26 | 75 | 15 | 115 | 67.6 |
| | | FD-M9020-H<br>FD-M9020-L<br>FD-M8020-H<br>FD-M8020-L<br>FD-M7020-11-H<br>FD-M7020-11-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | 67.6 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M9020-D<br>FD-M9020-E<br>FD-M8020-D<br>FD-M8020-E<br>FD-M7020-11-D<br>FD-M7020-11-E | 34T | 33 | – | 36 | 22 | – | 25 | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | 67.6 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | 10 | FD-M7000-10-H<br>FD-M7000-10-L<br>FD-M7000-10-D<br>FD-M7000-10-E<br>FD-M6000-H<br>FD-M6000-M<br>FD-M6000-L<br>FD-M6000-D<br>FD-M6000-E | 40T | – | 32 | – | – | 18 | – | 129 | 54 | 83 | 72 | 26 | 76 | 15 | 115 | 67.6 |
| | | | 42T | | | | | | | 133 | 58 | 83 | 72 | 26 | 80 | 15 | 119 | |
| | | FD-M617-H<br>FD-M617-L | 36T | 32 | – | – | 21 | – | – | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | 67.6 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M617-D<br>FD-M617-E | 36T | 32 | – | 35 | 21 | – | 24 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M6020-H<br>FD-M6020-M<br>FD-M6020-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | | FD-M6020-D<br>FD-M6020-E | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 | |
| | | | 36T | | | 36 | | | 25 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 | |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 | |
| | 9 | FD-M4000-M | 40T | – | 26 | – | – | 11 | – | 134 | 54 | 88 | 72 | 33 | 74 | 10 | 116 | 67.6 |
| | | FD-M4020-M | 36T | 30 | – | – | 13 | – | – | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |
| | | FD-M4020-M-B | 36T | – | – | 33 | – | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |
| | | FD-M4020-D | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |
| | | FD-M4020-E | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 | |

* Only E/D type FD are compatible with chain line 3mm outboard spec.

△2 △3

| FD type | Speed | Model No. | Crank set | L (mm) | M (mm) |
|---|---|---|---|---|---|
| | 12 | FD-M9100-D<br>FD-M9100-E | 38T | – | – |
| | | FD-M9100-M | | 27 | 14 |
| | | FD-M9000-H | | 25 | 18 |

## C-098 Frame Requirement / Caliper brake / Caliper brake dimensions - Added (BR-R7010-F/R/RS)

### version 1.3 - October 24, 2017

△3

| Model No. | Washer A (mm) (Front / Rear) | Dimension B (mm) Front | Dimension B (mm) Rear | D (mm) | E (mm) | F (mm) | G (mm) | Bolt length Front | Bolt length Rear | H (mm) Front | H (mm) Rear |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BR-R9100 | 1.8 | 10.5<br>12.5<br>18.0*<br>27.0*<br>32.0* | 10.5 | 41 - 51 | BR-R9100 : 27.3 - 29.9<br>BR-9000 : 27.1 - 30.1 | 1.0 | 8.7 | 27.5 | 12.8 | 9.0 | 7.7 |
| BR-9000 | | | | 39 - 49 | | 0.6 | 7.7 | | | | |
| BR-R9110-F | – | NOTE | | 24-34 | 14.2 - 15.4 | – | – | – | – | – | – |
| BR-R9110-R | | | | 26-34 NOTE | 27.1 | | | | | | |
| BR-R9110-RS | | | | 24-34 | 14.2 - 15.4 | | | | | | |
| BR-9010-F | – | NOTE | | 25-34 NOTE | 14.2 - 15.4 | | – | – | – | – | – |
| BR-9010-RS | | | | 25-34 NOTE | 14.2 - 15.4 | | | | | | |
| BR-R8000 | 2.0 | 10.5<br>12.5<br>18.0*<br>27.0*<br>32.0* | 10.5 | 41 - 51 | 27.3 - 29.9 | 1.0 | 8.7 | 27.5 | 12.8 | 16.0 | 10.3 |
| BR-R7000 | | | | | | 0.4 | 10.3 | | | | |
| BR-4700 | | | | | 25.4 - 28.0 | | 9.4 | | | 15.5 | 9.8 |
| BR-R8010-F | – | NOTE | | 24-34 | 14.1-15.4 | | – | – | – | – | – |
| BR-R8010-R | | | | 26-34 NOTE | 27.1 | | | | | | |
| BR-R8010-RS | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-R7010-F | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-R7010-R | | | | 26-34 | 29 | | | | | | |
| BR-R7010-RS | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-5810-F | | | | 25-34 NOTE | 14.2-25.4 | | | | | | |
| BR-5810-R | | | | 26-34 NOTE | 29,<br>w/o ADAPTER : 27.3 | | | | | | |
| BR-5810-RS | | | | 25-34 NOTE | 14.2-15.4 | | | | | | |
| BR-R561 | 2.0 | 10.5<br>12.5<br>18.0*<br>27.0*<br>32.0* | 10.5 | 39 - 49 | 26.3-29 | – | 9.4 | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R3000 | 2.0 | 10.5<br>12.5<br>18.0<br>27.0<br>32.0 | | 41 - 51 | 25.4-28.0 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R2000 | 2.0 | 10.5<br>12.5<br>18.0<br>27.0<br>32.0 | | 41 - 51 | 25.4-28.0 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R650 | 2.0 | 10.5<br>12.5<br>18.0*<br>27.0* | | 47 - 57 | 26.8-29.5 | | 11.3 | 27.5 | 12.8 | 15.5 | 9.8 |
| | | | | | | | | 47 | 30 | 18 | 18 |
| BR-R451 | 2.0 | | | | | | | 27.5 | 12.8 | 15.5 | 9.8 |

## C-120 Frame Requirement / Crankset / Crankset dimensions [MTB] / Chain line 3mm outboard spec. X dimensions - Added (FC-M9120-B2), Revised (FC-M6000-B2/MT500-B2, gear teeth and dimension x2)

### version 1.2 - October 10, 2017

△2

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-B2 | 38-28T | 53.1 | - | 53.3 | 45.9 | 45.6 | 44.6 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| 11 | FC-M9020-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |
| | FC-M9020-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 71.5 | 71.5 | 49.7 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | | | |
| | FC-M8000-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.2 | 72.2 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.2 | 72.2 | - |
| | FC-M8000-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | FC-M7000-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.2 | 72.2 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.2 | 72.2 | - |
| | FC-M7000-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | FC-MT700-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.0 | 72.0 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.0 | 72.0 | - |
| | FC-MT600-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.7 | 72.8 | - |
| 10 | FC-M627-B | 36-22T | 51.8 | - | 53.2 | 45.8 | 45.8 | 44.1 | 73.0 | 72.4 | - |
| | FC-M617-B2 | 36-22T | 52.05 | - | 53.2 | 45.9 | 45.9 | 44.1 | 73.0 | 72.4 | - |
| | FC-M6000-B2 | 36-22T | 52.1 | - | 50.2 | 42.8 | 42.8 | 41.0 | 74.5 | 74.5 | - |
| | FC-MT500-B2 | 36-22T | 52.1 | - | 50.2 | 42.8 | 42.8 | 41.0 | 74.5 | 74.5 | - |
| 9 | FC-M4050-B2 | 36-22T | 51.8 | - | 53.5 | 45.6 | 45.6 | 43.8 | 72.9 | 72.9 | - |

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△3

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9120-B2 | 38-28T | 51.8 | - | 53.3 | 45.9 | 45.6 | 44.6 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| 11 | FC-M9020-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |
| | FC-M9020-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 71.5 | 71.5 | 49.7 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | | | |
| | FC-M8000-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.2 | 72.2 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.2 | 72.2 | - |
| | FC-M8000-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | FC-M7000-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.2 | 72.2 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.2 | 72.2 | - |
| | FC-M7000-B1 | 32T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | | 30T | 53.4 | - | 50.8 | - | - | - | 72.2 | 72.2 | 48.3 |
| | FC-MT700-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.0 | 72.0 | - |
| | | 34-24T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 72.0 | 72.0 | - |
| | FC-MT600-B2 | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.8 | 43.8 | 72.7 | 72.8 | - |
| 10 | FC-M627-B | 36-22T | 51.8 | - | 53.2 | 45.8 | 45.8 | 44.1 | 73.0 | 72.4 | - |
| | FC-M617-B2 | 36-22T | 52.05 | - | 53.2 | 45.9 | 45.9 | 44.1 | 73.0 | 72.4 | - |
| | FC-M6000-B2 | 36-26T | 52.1 | - | 53.2 | 42.8 | 42.8 | 41.0 | 74.5 | 74.5 | - |
| | FC-MT500-B2 | 36-26T | 52.1 | - | 53.2 | 42.8 | 42.8 | 41.0 | 74.5 | 74.5 | - |
| 9 | FC-M4050-B2 | 36-22T | 51.8 | - | 53.5 | 45.6 | 45.6 | 43.8 | 72.9 | 72.9 | - |

C-149 Product Information / Shifting lever / Brake lever [MTB, ROAD, URBAN SPORT]] / Hydraulic brake lever on handlebar - Added (BL-MT501)

version 1.3 - October 24, 2017

| Model No. | A (mm) | B (mm) | L (mm) |
|---|---|---|---|
| BL-M9000 | 12.0 | 56.0 | ≥186 |
| BL-M9020 | 12.0 | 56.0 | ≥186 |
| BL-M820-B | 17.0 | 54.0 | ≥180 |
| BL-M8000 | 12.0 | 56.0 | ≥186 |
| BL-T8000 | 12.0 | 85.1 | ≥186 |
| BL-M7000 | 12.0 | 56.0 | ≥186 |
| BL-M640-B | 21.1 | 53.0 | ≥180 |
| BL-M6000 | 12.0 | 56.0 | ≥186 |
| BL-T6000 | 12.0 | 85.1 | ≥186 |
| BL-R5600 | 12.0 | 56.0 | ≥186 |
| BL-MT501 | 12.0 | 56.0 | ≥186 |
| BL-MT500 | 12.0 | 56.0 | ≥186 |
| ST-M4050 | 16.0 | 78.3 | ≥200 |
| ST-M3050 | 16.0 | 78.3 | ≥200 |
| BL-T445 | 16.0 | 83.5 | ≥200 |
| BL-MT400 | 14.0 | 79.3 | ≥200 |
| BL-MT201 | 14.0 | 87.6 | ≥200 |
| BL-MT200 | 14.0 | 87.6 | ≥200 |
| ST-EF505 | 16.0 | 73.5 | ≥200 |
| BL-U5000 | 12.0 | 80.2 | ≥186 |

The dimensions are measured at the factory set 'start' position

C-163 Product Information / STI lever [ROAD, URBAN SPORT] / Reach adjustment range / Screw type - Revised (ST-R7025, adjustment range)

version 1.2 - October 10, 2017

| Model No. | Screw type adjustment range A (mm) |
|---|---|
| ST-R9170 | 15.4 |
| ST-R9150 | 20.8 |
| ST-R9120 | 15.4 |
| ST-R9100 | 20.8 |
| ST-9001 | 13.5 |
| ST-R8000 | 20.8 |
| ST-R8020 | 15.4 |
| ST-R8070 | 15.4 |
| ST-R7000 | 20.8 |
| ST-R7020 | 15.4 |
| ST-R7025 | TBD |
| ST-6800 | 13.5 |
| ST-6870 | 15.0 |
| ST-5800 | 13.5 |

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| Model No. | Screw type adjustment range A (mm) |
|---|---|
| ST-R9170 | 15.4 |
| ST-R9150 | 20.8 |
| ST-R9120 | 15.4 |
| ST-R9100 | 20.8 |
| ST-9001 | 13.5 |
| ST-R8000 | 20.8 |
| ST-R8020 | 15.4 |
| ST-R8070 | 15.4 |
| ST-R7000 | 20.8 |
| ST-R7020 | 15.4 |
| ST-R7025 | 15.4 |
| ST-6800 | 13.5 |
| ST-6870 | 15.0 |
| ST-5800 | 13.5 |

## C-192 Product Information / Disc brake / Brake pad line-up -

Revised (BR-MT520/MT400/MT200, corresponding brake pads), Added (Brake pads N04A/N03A)

### version 1.2 - October 10, 2017

| Model No. | Type | B01S | D02S | D01S | TBD | TBD |
|---|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal | Resin |
| Pad Shape Type | | B-type: Wide type | D-type: Narrow type | | TBD | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | TBD | TBD |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | TBD | TBD |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | TBD | TBD |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | TBD | TBD |
| | Silence | ★★★★★ | ★★★☆☆ | ★★★★★ | TBD | TBD |
| Pad Radiator fin | | – | – | – | X | X |
| High heat insulation | | – | – | – | TBD | TBD |
| Pad Back plate | Titanium | – | – | – | TBD | TBD |
| | Aluminum | – | – | – | TBD | TBD |
| | Stainless steel/ Aluminum | – | – | – | TBD | TBD |
| | Stainless steel | X | X | X | TBD | TBD |
| BR-R9170 | Hydraulic | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | Option | Option | Standard | Standard |
| BR-M9000 | Hydraulic | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – |
| BR-M820 | Hydraulic | – | Option | Option | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | Standard | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | Standard | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – |
| BR-MT520 | Hydraulic | Standard | – | – | TBD | TBD |
| BR-MT500 | Hydraulic | Standard | – | – | – | – |
| BR-M446 | Hydraulic | Standard | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | – | – |
| BR-R317 | Mechanical | – | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – | – |
| BR-M375 | Mechanical | Standard | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | – | – |
| BR-UR300 | Hydraulic | Standard | – | – | – | – |
| BR-TX805 | Mechanical | Standard | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – | – |

| Model No. | Type | G01A | G01S | G02A | G02S | G03S | G03Ti | G04S | G04Ti |
|---|---|---|---|---|---|---|---|---|---|
| | | Resin | Resin | Resin | Resin | Metal | Metal | Metal | Metal |
| Pad Shape Type | | | G-type: Narrow type | | | | G-type: Narrow type | | |
| Characteristics | Modulation | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Anti-fading | ★★★☆☆ | ★★★★☆ | ★★★☆☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – | – | – | – | – |
| High heat insulation | | – | – | – | – | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – | – | – | – | – |
| | Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel | X | X | X | X | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-R317 | Mechanical | – | Standard | – | – | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-S700 | Hydraulic | Standard | – | – | – | – | – | – | – |

| Model No. | Type | F01A | F03C | H01A | H03C | L02A | L04C | K02S | K04S |
|---|---|---|---|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal | Resin | Metal | Resin | Metal |
| Pad Shape Type | | F-type: Narrow type | | H-type: Narrow type | | L-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – | – | – | – | – |
| High heat insulation | | – | – | – | – | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – | – | – | – | – |
| | Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel | X | X | X | X | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – | Option | – | Standard | – |
| BR-MT400 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – | Option | – | Standard | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | Standard | Option |
| BR-S700 | Hydraulic | Option | – | – | – | – | – | – | – |

| Model No. | Type | J02A | J04C | K02Ti | K04Ti |
|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal |
| Pad Shape Type | | F-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – |
| High heat insulation | | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – |
| | Aluminum | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – |
| | Stainless steel | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – |
| BR-MT400 | Hydraulic | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – |

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| Model No. | Type | B01S | D02S | D01S | N04A | N03A |
|---|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal | Resin |
| Pad Shape Type | | B-type: Wide type | D-type: Narrow type | | TBD | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★☆ |
| | Silence | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| Pad Radiator fin | | – | – | – | X | X |
| High heat insulation | | – | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – | – |
| | Aluminum | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – |
| | Stainless steel | X | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | Standard | Standard |
| BR-M9000 | Hydraulic | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – |
| BR-M820 | Hydraulic | – | Option | Option | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | Standard | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | Standard | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | Standard | Standard | – | – |
| BR-MT500 | Hydraulic | Standard | – | – | – | – |
| BR-M446 | Hydraulic | Standard | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – | – |
| BR-MT400 | Hydraulic | Standard | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – | – |
| BR-M375 | Mechanical | Standard | – | – | – | – |
| BR-MT200 | Hydraulic | Standard | – | – | – | – |
| BR-UR300 | Hydraulic | Standard | – | – | – | – |
| BR-TX805 | Mechanical | Standard | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – | – |

| Model No. | Type | G01A | G01S | G02A | G02S | G03S | G03Ti | G04S | G04Ti |
|---|---|---|---|---|---|---|---|---|---|
| | | Resin | Resin | Resin | Resin | Metal | Metal | Metal | Metal |
| Pad Shape Type | | | G-type: Narrow type | | | | G-type: Narrow type | | |
| Characteristics | Modulation | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Anti-fading | ★★★☆☆ | ★★★★☆ | ★★★☆☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – | – | – | – | – |
| High heat insulation | | – | – | – | – | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – | – | – | – | – |
| | Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel | X | X | X | X | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT400 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | Standard | – | – | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-S700 | Hydraulic | Standard | – | – | – | – | – | – | – |

| Model No. | Type | F01A | F03C | H01A | H03C | L02A | L04C | K02S | K04S |
|---|---|---|---|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal | Resin | Metal | Resin | Metal |
| Pad Shape Type | | F-type: Narrow type | | H-type: Narrow type | | L-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – | – | – | – | – |
| High heat insulation | | – | – | – | – | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – | – | – | – | – |
| | Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel | X | X | X | X | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – | Option | – | Standard | – |
| BR-MT400 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – | Option | – | Standard | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | Standard | Option |
| BR-S700 | Hydraulic | Option | – | – | – | – | – | – | – |

| Model No. | Type | J02A | J04C | K02Ti | K04Ti |
|---|---|---|---|---|---|
| | | Resin | Metal | Resin | Metal |
| Pad Shape Type | | F-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – |
| High heat insulation | | – | – | – | – |
| Pad Back plate | Titanium | – | – | – | – |
| | Aluminum | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – |
| | Stainless steel | X | X | X | X |
| BR-R9170 | Hydraulic | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – |
| BR-R585 | Hydraulic | – | – | – | – |
| BR-R505 | Hydraulic | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – |
| BR-R5405 | Hydraulic | – | – | – | – |
| BR-MT400 | Hydraulic | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – |
| BR-R5305 | Mechanical | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – |
| BR-MT200 | Hydraulic | – | – | – | – |
| BR-UR300 | Hydraulic | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – |

## C-197 Product Information / Disc brake / Brake hose dimensions - Added (BL-MT501)

### version 1.3 - October 24, 2017

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH90-SS | BL-M6000 | BR-M6000 |
| | BL-MT501 | BR-MT520 |

## C-201 Product Information / Caliper brake / Brake / Shoe line-up -
Revised (BR-R7000, corresponding brake pads)

### version 1.2 - October 10, 2017

| Model No. | | R55C4 | R55C4 FOR CARBON RIM | R55C4-A FOR CARBON RIM | R55C2 | R55C3 |
|---|---|---|---|---|---|---|
| Brake shoe shape | | | | | | |
| Cartridge type | | X | X | X | X | X |
| Recommended rim | | Aluminum | Carbon | Carbon | Aluminum | Aluminum |
| Characteristics | DRY Power | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | WET Power | ★★☆☆☆ | ★★★☆☆ | ★★★☆☆ | ★☆☆☆☆ | ★★☆☆☆ |
| | Silence | ★★★★☆ | ★★★☆☆ | ★★★☆☆ | ★★★★☆ | ★★★★☆ |
| | Anti-fading | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability (on road) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | Durability (muddy condition) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | Anti-rim attack | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | BR-9000 | Standard | Option | Option | - | - |
| | BR-9010 | Standard | Option | Option | - | - |
| | BR-R8000 | Standard | Option | Option | - | - |
| | BR-R8010 | Standard | Option | Option | - | - |
| | BR-R7000 | Standard | Option | - | - | - |
| | BR-R7010 | Standard | Option | Option | - | - |
| | BR-5810 | Standard | Option | Option | - | - |
| | BR-4700 | - | - | - | - | - |
| | BR-R3000 | - | - | - | - | - |
| | BR-R2000 | - | - | - | - | - |
| | BR-CX50 | - | - | - | - | - |
| | BR-R650 | - | - | - | Standard | - |
| | BR-R561 | - | - | - | - | Standard |
| | BR-R451 | - | - | - | - | - |

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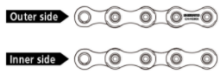
| Model No. | | R55C4 | R55C4 FOR CARBON RIM | R55C4-A FOR CARBON RIM | R55C2 | R55C3 |
|---|---|---|---|---|---|---|
| Brake shoe shape | | | | | | |
| Cartridge type | | X | X | X | X | X |
| Recommended rim | | Aluminum | Carbon | Carbon | Aluminum | Aluminum |
| Characteristics | DRY Power | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | WET Power | ★★☆☆☆ | ★★★☆☆ | ★★★☆☆ | ★☆☆☆☆ | ★★☆☆☆ |
| | Silence | ★★★★☆ | ★★★☆☆ | ★★★☆☆ | ★★★★☆ | ★★★★☆ |
| | Anti-fading | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability (on road) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | Durability (muddy condition) | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ |
| | Anti-rim attack | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | BR-9000 | Standard | Option | Option | - | - |
| | BR-9010 | Standard | Option | Option | - | - |
| | BR-R8000 | Standard | Option | Option | - | - |
| | BR-R8010 | Standard | Option | Option | - | - |
| | BR-R7000 | Standard | Option | Option | - | - |
| | BR-R7010 | Standard | Option | Option | - | - |
| | BR-5810 | Standard | Option | Option | - | - |
| | BR-4700 | - | - | - | - | - |
| | BR-R3000 | - | - | - | - | - |
| | BR-R2000 | - | - | - | - | - |
| | BR-CX50 | - | - | - | - | - |
| | BR-R650 | - | - | - | Standard | - |
| | BR-R561 | - | - | - | - | Standard |
| | BR-R451 | - | - | - | - | - |

## C-229 Product Information / Chain / How to connect chain / Directional chain - Added (CN-M9100)

### version 1.3 - October 24, 2017

△3 CN-M9100 / CN-HG901-11 / CN-HG701-11 / CN-HG601-11 / CN-HG95 / CN-HG54

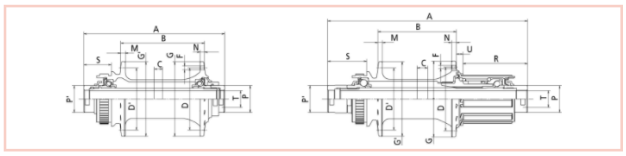



## C-266 Product Information /Hub / Front hub / FREEHUB dimensions [ROAD] -
Added (Illustration of hubs for disc brake)

### version 1.3 - October 24, 2017

△2 For disc brake (E-THRU type)

△3

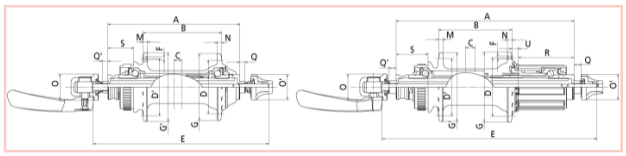


| Model No. | A O.L.D. | B Flange distance | C Off set | D P.C.D.1 (FH SIDE) | D' P.C.D.2 | F Spoke hole | G / G' Flange diameter | M / N Flange thickness |
|---|---|---|---|---|---|---|---|---|
| HB-R5770 | 100 | 59.6 | 6 | 44 | 44 | ø2.6 | 52.8 / 52.8 | 3.2 / 3.2 |
| FH-R5770 | 142 | 55.7 | 7.45 | 45 | 44 | ø2.6 | 53.8 / 52.8 | 3.5 / 3.2 |

| Model No. | O | O' | P | P' | Q | Q' | R | S | T | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|
| HB-R5770 | - | - | ø19 | ø19 | - | - | - | 19.5 | 12 | - |
| HB-R5770 | - | - | ø19 | ø19 | - | - | 42.4 | 27.75 | 12 | 4.7 |

△2 For disc brake (QR type)

△3



| Model No. | A O.L.D. | B Flange distance | C Off set | D P.C.D.1 (FH SIDE) | D' P.C.D.2 | E QR | F Spoke hole | G / G' Flange diameter | M / N Flange thickness |
|---|---|---|---|---|---|---|---|---|---|
| HB-CX75 | 100 | 59.6 | 6 | 44 | 44 | 133 | ø2.6 | 52.8 / 52.8 | 3.2 / 3.2 |
| FH-CX75 | 135 | 55.7 | 7.4 | 45 | 45 | 168-173 | ø2.6 | 53.8 / 52.8 | 3.5 / 3.25 |

| Model No. | O | O' | P | P' | Q | Q' | R | S | T | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|
| HB-CX75 | ø19.5 | ø20 | - | - | 4 | 4 | - | 19.5 | - | - |
| FH-CX75 | ø19.5 | ø20 | - | - | 5.5 | 5.5 | 42.4 | 24.25 | - | 4.7 |

C-314 Product Information / SHIMANO Cable System / Outer casing length / Rear dropouts (with derailleur hanger) -

Revised (Various models, recommended outer casing / RD-M9100/M9120/R7000-SS/R7000-SS, dimension C)

version 1.2 - October 10, 2017

| | Model No. | Recommended outer casing model | Dimension C | | | | |
|---|---|---|---|---|---|---|---|
| | | | 100 mm | 110 mm | 120 mm | 130 mm | 140 mm |
| Outer Casing Length (mm) | RD-M9100 | TBD | TBD | TBD | TBD | TBD | TBD |
| | RD-M9120 | TBD | TBD | TBD | TBD | TBD | TBD |
| | RD-M9000 | TBD | 200 | 210 | 220 | - | - |
| | RD-M820 (FR mode, DH mode) | TBD | | | | | |
| | RD-M8000 | TBD | | | | | |
| | RD-T8000 | TBD | | | | | |
| | RD-M7000-11 | TBD | | | | | |
| | RD-M7000-10 | TBD | | | | | |
| | RD-T8000 | TBD | | | | | |
| | RD-M7000-11 | TBD | | | | | |
| | RD-M7000-10 | TBD | | | | | |
| | RD-M640 (FR spec, DH spec) | TBD | | | | | |
| | RD-M6000 | TBD | | | | | |
| | RD-T6000 | TBD | 290 | 310 | 330 | - | - |
| | RD-M4000 | TBD | 180 | 190 | 200 | - | - |
| | RD-M3000 | TBD | | | | | |
| | RD-M2000 | TBD | | | | | |
| | RD-TY500 | TBD | | | | | |
| | Other models (w / o Roller Guide RD) | TBD | 280 | 300 | 320 | - | - |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | 200 | TBD | 220 | TBD | 240 |
| | RD-R7000-GS | OT-RS900 | | TBD | | TBD | |

| | Model No. | Recommended outer casing model | Dimension D | | |
|---|---|---|---|---|---|
| | | | 150 mm | 165 mm | 180 mm |
| Outer Casing Length (mm) | RD-M9100 | TBD | TBD | TBD | TBD |
| | RD-M9120 | TBD | TBD | TBD | TBD |
| | RD-M9000 | TBD | 210 | 220 | 240 |
| | RD-M986 | TBD | | | |
| | RD-M820 (FR mode) | TBD | | | |
| | RD-M8000 | TBD | | | |
| | RD-T8000 | TBD | | | |
| | RD-M7000-11 | TBD | | | |
| | RD-M7000-10 | TBD | | | |
| | RD-M640 (FR spec) | TBD | | | |
| | RD-M6000 | TBD | | | |
| | RD-T6000 | TBD | 290 | 310 | 330 |
| | RD-M820 (DH mode) | TBD | 220 | 230 | 250 |
| | RD-M640 (DH spec) | TBD | | | |
| | RD-M4000 | TBD | 200 | 210 | 230 |
| | RD-M3000 | TBD | | | |
| | RD-M2000 | TBD | | | |
| | RD-TY500 | TBD | 190 | 200 | 210 |
| | RD-TX55 | TBD | | | |
| | RD-TY21-B | TBD | 280 | 300 | 320 |
| | RD-FT35-A | TBD | 250 | 270 | 310 |
| | RD-TX800 | TBD | 280 | 310 | 340 |
| | RD-TY300 | TBD | | | |
| | RD-TX35 | TBD | | | |
| | Other models (w / o Roller Guide RD) | TBD | 280 | 300 | 320 |
| | RD-R9100 | OT-RS900 | 200 | 220 | 240 |
| | RD-R8000-SS | OT-RS900 | | | |
| | RD-R8000-GS | OT-RS900 | | | |
| | RD-R7000-SS | OT-RS900 | 200 | 220 | 240 |
| | RD-R7000-GS | OT-RS900 | | | |

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| | Model No. | Recommended outer casing model | Dimension C | | | | |
|---|---|---|---|---|---|---|---|
| | | | 100 mm | 110 mm | 120 mm | 130 mm | 140 mm |
| Outer Casing Length (mm) | RD-M9100 | OT-SP41 | 190 | 200 | 210 | – | – |
| | RD-M9120 | OT-SP41 | 190 | 200 | 210 | – | – |
| | RD-M9000 | OT-SP41 | 200 | 210 | 220 | - | - |
| | RD-M820 (FR mode, DH mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-T8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-T8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec, DH spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-T6000 | OT-SP41 | 290 | 310 | 330 | - | - |
| | RD-M4000 | OT-SP40 | 180 | 190 | 200 | - | - |
| | RD-M3000 | OT-SP40 | | | | | |
| | RD-M2000 | OT-SP40 | | | | | |
| | RD-TY500 | OT-SIS40 | | | | | |
| | Other models (w / o Roller Guide RD) | TBD | 280 | 300 | 320 | - | - |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R7000-GS | OT-RS900 | | | | | |

| | Model No. | Recommended outer casing model | Dimension D | | |
|---|---|---|---|---|---|
| | | | 150 mm | 165 mm | 180 mm |
| Outer Casing Length (mm) | RD-M9100 | OT-SP41 | 200 | 210 | 230 |
| | RD-M9120 | OT-SP41 | 200 | 210 | 230 |
| | RD-M9000 | OT-SP41 | 210 | 220 | 240 |
| | RD-M986 | OT-SP41 | | | |
| | RD-M820 (FR mode) | OT-SP41 | | | |
| | RD-M8000 | OT-SP41 | | | |
| | RD-T8000 | OT-SP41 | | | |
| | RD-M7000-11 | OT-SP41 | | | |
| | RD-M7000-10 | OT-SP41 | | | |
| | RD-M640 (FR spec) | OT-SP41 | | | |
| | RD-M6000 | OT-SP41 | | | |
| | RD-T6000 | OT-SP41 | 290 | 310 | 330 |
| | RD-M820 (DH mode) | OT-SP41 | 220 | 230 | 250 |
| | RD-M640 (DH spec) | OT-SP41 | | | |
| | RD-M4000 | OT-SP40 | 200 | 210 | 230 |
| | RD-M3000 | OT-SP40 | | | |
| | RD-M2000 | OT-SP40 | | | |
| | RD-TY500 | OT-SIS40 | 190 | 200 | 210 |
| | RD-TX55 | OT-SIS40 | | | |
| | RD-TY21-B | OT-SIS40 | 280 | 300 | 320 |
| | RD-FT35-A | OT-SIS40 | 250 | 270 | 310 |
| | RD-TX800 | OT-SIS40 | 280 | 310 | 340 |
| | RD-TY300 | OT-SIS40 | | | |
| | RD-TX35 | OT-SIS40 | | | |
| | Other models (w / o Roller Guide RD) | TBD | 280 | 300 | 320 |
| | RD-R9100 | OT-RS900 | 200 | 220 | 240 |
| | RD-R8000-SS | OT-RS900 | | | |
| | RD-R8000-GS | OT-RS900 | | | |
| | RD-R7000-SS | OT-RS900 | 200 | 220 | 240 |
| | RD-R7000-GS | OT-RS900 | | | |

C-315 Product Information / SHIMANO Cable System / Outer casing length / Rear dropouts (Direct mount) -

Revised (Various models, recommended outer casing / RD-R7000-SS/R7000-SS, dimension C'/D')

version 1.2 - October 10, 2017

| | Model No. | Recommended outer casing model | Dimension C' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 125 mm | 135 mm | 145 mm | 155 mm | 165 mm |
| Outer Casing Length (mm) | RD-M9000 | TBD | 200 | 210 | 220 | - | - |
| | RD-M820 (FR mode, DH mode) | TBD | | | | | |
| | RD-M8000 | TBD | | | | | |
| | RD-M7000-11 | TBD | | | | | |
| | RD-M7000-10 | TBD | | | | | |
| | RD-M640 (FR spec, DH spec) | TBD | | | | | |
| | RD-M6000 | TBD | | | | | |
| | RD-M4000 | TBD | | | | | |
| | RD-M3000 | TBD | | | | | |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | 200 | TBD | 220 | TBD | 240 |
| | RD-R7000-GS | OT-RS900 | | TBD | | TBD | |

| | Model No. | Recommended outer casing model | Dimension D' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 162 mm | 172 mm | 177 mm | 182 mm | 192 mm |
| Outer Casing Length (mm) | RD-M9000 | TBD | 210 | - | 220 | - | 240 |
| | RD-M820 (FR mode) | TBD | | | | | |
| | RD-M8000 | TBD | | | | | |
| | RD-M7000-11 | TBD | | | | | |
| | RD-M7000-10 | TBD | | | | | |
| | RD-M640 (FR spec) | TBD | | | | | |
| | RD-M6000 | TBD | | | | | |
| | RD-M820 (DH mode) | TBD | 220 | | 230 | | 250 |
| | RD-M640 (DH spec) | TBD | | | | | |
| | RD-M4000 | TBD | 210 | | 220 | | 240 |
| | RD-M3000 | TBD | 200 | | | | |
| | RD-R9100 | OT-RS900 | | | | | |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | 200 | TBD | 220 | TBD | 240 |
| | RD-R7000-GS | OT-RS900 | | TBD | | TBD | |

version 1.3 - October 24, 2017

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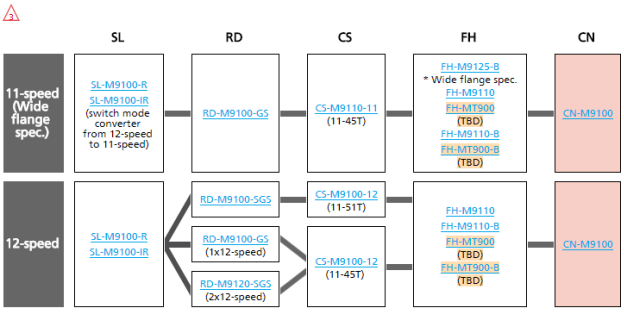
| | Model No. | Recommended outer casing model | Dimension C' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 125 mm | 135 mm | 145 mm | 155 mm | 165 mm |
| Outer Casing Length (mm) | RD-M9000 | OT-SP41 | 200 | 210 | 220 | - | - |
| | RD-M820 (FR mode, DH mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec, DH spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-M4000 | OT-SP40 | | | | | |
| | RD-M3000 | OT-SP40 | | | | | |
| | RD-R9100 | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R7000-GS | OT-RS900 | | | | | |

| | Model No. | Recommended outer casing model | Dimension D' | | | | |
|---|---|---|---|---|---|---|---|
| | | | 162 mm | 172 mm | 177 mm | 182 mm | 192 mm |
| Outer Casing Length (mm) | RD-M9000 | OT-SP41 | 210 | - | 220 | - | 240 |
| | RD-M820 (FR mode) | OT-SP41 | | | | | |
| | RD-M8000 | OT-SP41 | | | | | |
| | RD-M7000-11 | OT-SP41 | | | | | |
| | RD-M7000-10 | OT-SP41 | | | | | |
| | RD-M640 (FR spec) | OT-SP41 | | | | | |
| | RD-M6000 | OT-SP41 | | | | | |
| | RD-M820 (DH mode) | OT-SP41 | 220 | | 230 | | 250 |
| | RD-M640 (DH spec) | OT-SP41 | | | | | |
| | RD-M4000 | OT-SP40 | 210 | | 220 | | 240 |
| | RD-M3000 | OT-SP40 | 200 | | | | |
| | RD-R9100 | OT-RS900 | | | | | |
| | RD-R8000-SS | OT-RS900 | | | | | |
| | RD-R8000-GS | OT-RS900 | | | | | |
| | RD-R7000-SS | OT-RS900 | 200 | | 220 | | 240 |
| | RD-R7000-GS | OT-RS900 | | | | | |

C-558 Compatibility / Drivetrain for MTB components / Rear drivetrain compatibility [MTB] / 12-speed and 11-speed (Wide flange spec.) rear drivetrain [MTB] - Added (CN-M9100)

version 1.3 - October 24, 2017




C-157 Compatibility / I-SPEC /Compatibility of I-SPEC shifter and brake lever - Added (BL-MT501)

version 1.3 - October 24, 2017

| | Model No. | I-SPEC EV shifter | DI2 shifter | | I-SPEC II shifter | | | | | I-SPEC B shifter | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | SL-M9100-I | SW-M9050 | SW-M8050 | SL-M9000-I | SL-M8000-I | SL-M7000-11-I / SL-M7000-10-I | SL-U5000 | SL-M6000-I | SL-M8000-B-I | SL-M7000-11 / SL-M7000-10-B-I | SL-M820-B-I, SL-M820 (with SM-SL82-B) |
| I-SPEC EV | BL-M9100 | X | - | - | - | - | - | - | - | - | - | - |
| | BL-M9120 | X | - | - | - | - | - | - | - | - | - | - |
| I-SPEC II | BL-M9000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M9020 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M8000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-T8000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M7000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-M6000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-T6000 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-R5600 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-MT500 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-MT501 | - | - | - | X | X | X | X | X | - | - | - |
| | BL-U5000 | - | - | - | X | X | X | X | X | - | - | - |
| I-SPEC B | BL-M987 | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M988-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M820-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M640-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T780-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T675-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T670-B | - | - | - | - | - | - | - | - | X | X | X |
| | BL-T610 | - | - | - | - | - | - | - | - | X | X | X |
| | BL-M506 | - | - | - | - | - | - | - | - | X | X | X |
| | BL-5700-B | - | - | - | - | - | - | - | - | X | X | X |

Compatibility of SL-MT800 (SL for dropper seat post) and brake lever

| | Model No. | I-SPEC EV shifter |
|---|---|---|
| | | SL-MT800 |
| I-SPEC EV | BL-M9100 | X |
| | BL-M9120 | X |
| I-SPEC II | BL-M9000 | - |
| | BL-M9020 | - |
| | BL-M8000 | - |
| | BL-T8000 | - |
| | BL-M7000 | - |
| | BL-M6000 | - |
| | BL-T6000 | - |
| | BL-R5600 | - |
| | BL-MT500 | - |
| | BL-MT501 | - |
| | BL-U5000 | - |
| I-SPEC B | BL-M987 | - |
| | BL-M988-B | - |
| | BL-M820-B | - |
| | BL-M640-B | - |
| | BL-T780-B | - |
| | BL-T675-B | - |
| | BL-T670-B | - |
| | BL-T610 | - |
| | BL-M506 | - |
| | BL-5700-B | - |

## C-186 Compatibility / Disc brake / Compatibility between hydraulic disc brake hose - Revised (Compatible brake hoses between various brake levers and brake calipers), Added (BL-MT501)

### version 1.2 - October 10, 2017

| | | SM-BH910-SB | SM-BH910-SS | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 |
|---|---|---|---|---|---|---|---|---|
| Connection | | Straight - Banjo | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | – | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | X | – | – | – | – | – | X |
| BL-M9000 | BR-M9000 | – | – | – | X | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | X | – | – | X |
| BL-M820 | BR-M820 | – | – | – | – | X | – | – |
| BL-M8000 | BR-M8000 | – | – | – | X | – | – | X |
| BL-M8000 | BR-M8020 | – | – | – | – | X | – | – |
| BL-T8000 | BR-M8000 | – | – | – | X | – | – | X |
| BL-M7000 | BR-M7000 | – | – | – | X | – | – | X |
| BL-T675 | BR-T675 | – | – | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | X | X | – |
| BL-M6000 | BR-M6000 | – | – | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | – | – | – | – | – | – |
| BL-R5600 | BR-R5405 | – | – | – | – | – | – | – |
| BL-MT520 | BR-MT520 | – | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | – | – | – | – | – |
| ST-M3050 | BR-M3050 | – | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – | – |
| BL-T445 | BR-M446 | – | – | – | – | – | – | – |
| BL-MT400 | BR-MT400 | – | – | TBD | TBD | TBD | TBD | TBD |
| BL-M425 BL-M396 | BR-M395 | – | – | – | – | – | – | – |
| BL-MT201 | BR-MT200 | – | – | TBD | TBD | TBD | TBD | TBD |
| BL-MT200 | BR-MT200 | – | – | TBD | TBD | TBD | TBD | TBD |
| BL-MT201 | BR-UR300 | – | – | – | – | – | – | – |
| BL-MT200 | BR-UR300 | – | – | – | – | – | – | – |

| | | SM-BH90-SS | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | – | – | – | – | – | – |
| BL-M9000 | BR-M9000 | – | – | – | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | – | – | – |
| BL-M820 | BR-M820 | – | – | – | – | – | – |
| BL-M8000 | BR-M8000 | – | – | – | – | – | – |
| BL-M8000 | BR-M8020 | – | – | – | – | – | – |
| BL-T8000 | BR-M8000 | – | – | – | – | – | – |
| BL-M7000 | BR-M7000 | – | – | – | – | – | – |
| BL-T675 | BR-T675 | X | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | – | – |
| BL-M6000 | BR-M6000 | X | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | – | X | – | – | – |
| BL-R5600 | BR-R5405 | – | – | X | – | – | – |
| BL-MT520 | BR-MT520 | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | X | – | – | – |
| ST-M3050 | BR-M3050 | – | – | X | – | – | – |
| BL-MT500 | BR-MT500 | – | – | X | – | – | – |
| BL-T445 | BR-M446 | – | – | X | – | – | – |
| BL-MT400 | BR-MT400 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M425 BL-M396 | BR-M395 | – | – | X | – | – | – |
| BL-MT201 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT200 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT201 | BR-UR300 | – | – | X | – | – | – |
| BL-MT200 | BR-UR300 | – | – | X | – | – | – |

### version 1.3 - October 24, 2017

| | | SM-BH910-SB | SM-BH910-SS | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 |
|---|---|---|---|---|---|---|---|---|
| Connection | | Straight - Banjo | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | – | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | X | – | – | – | – | – | X |
| BL-M9000 | BR-M9000 | – | – | – | X | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | X | – | – | X |
| BL-M820 | BR-M820 | – | – | – | – | X | – | – |
| BL-M8000 | BR-M8000 | – | – | – | X | – | – | X |
| BL-M8000 | BR-M8020 | – | – | – | – | X | – | – |
| BL-T8000 | BR-M8000 | – | – | – | X | – | – | X |
| BL-M7000 | BR-M7000 | – | – | – | X | – | – | X |
| BL-T675 | BR-T675 | – | – | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | X | X | – |
| BL-M6000 | BR-M6000 | – | – | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | – | – | – | – | – | – |
| BL-R5600 | BR-R5405 | – | – | – | – | – | – | – |
| BL-MT501 | BR-MT520 | – | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | – | – | – | – | – |
| ST-M3050 | BR-M3050 | – | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – | – |
| BL-T445 | BR-M446 | – | – | – | – | – | – | – |
| BL-MT400 | BR-MT400 | – | – | – | – | – | – | – |
| BL-M425 BL-M396 | BR-M395 | – | – | – | – | – | – | – |
| BL-MT201 | BR-MT200 | – | – | – | – | – | – | – |
| BL-MT200 | BR-MT200 | – | – | – | – | – | – | – |
| BL-MT201 | BR-UR300 | – | – | – | – | – | – | – |
| BL-MT200 | BR-UR300 | – | – | – | – | – | – | – |

| | | SM-BH90-SS | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | – | – | – | – | – | – |
| BL-M9000 | BR-M9000 | – | – | – | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | – | – | – |
| BL-M820 | BR-M820 | – | – | – | – | – | – |
| BL-M8000 | BR-M8000 | – | – | – | – | – | – |
| BL-M8000 | BR-M8020 | – | – | – | – | – | – |
| BL-T8000 | BR-M8000 | – | – | – | – | – | – |
| BL-M7000 | BR-M7000 | – | – | – | – | – | – |
| BL-T675 | BR-T675 | X | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | – | – |
| BL-M6000 | BR-M6000 | X | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | – | X | – | – | – |
| BL-R5600 | BR-R5405 | – | – | X | – | – | – |
| BL-MT501 | BR-MT520 | X | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | X | – | – | – |
| ST-M3050 | BR-M3050 | – | – | X | – | – | – |
| BL-MT500 | BR-MT500 | – | – | X | – | – | – |
| BL-T445 | BR-M446 | – | – | X | – | – | – |
| BL-MT400 | BR-MT400 | – | – | X | – | – | – |
| BL-M425 BL-M396 | BR-M395 | – | – | X | – | – | – |
| BL-MT201 | BR-MT200 | – | – | X | – | – | – |
| BL-MT200 | BR-MT200 | – | – | X | – | – | – |
| BL-MT201 | BR-UR300 | – | – | X | – | – | – |
| BL-MT200 | BR-UR300 | – | – | X | – | – | – |

## C-255 Compatibility / Cassette Sprocket / Compatibility between rear derailleur and cassette sprocket gear teeth [ROAD, URBAN SPORT] / 11-speed - Revised (RD-RX800/RX805)

### version 1.2 - October 10, 2017

| | 11-speed | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gear | RD-R9150 / RD-R9100 | RD-9000 | RD-R8050 / RD-R8000 | | RD-RX800 / RD-RX805 | | RD-6870 | |
| | - | SS | SS | GS Front double | GS Front double | | SS | GS Front double |
| 11-23T | - | X | - | - | TBD | TBD | X | - |
| 11-25T | X | X | X | - | TBD | TBD | X | - |
| 11-28T | X | X | X | X | TBD | TBD | X | X |
| 11-30T | X | - | X | X | TBD | TBD | - | X |
| 11-32T | - | - | - | X | TBD | TBD | - | X |
| 11-34T | | | - | X | TBD | TBD | | |
| 12-25T | X | X | X | - | TBD | TBD | X | - |
| 12-28T | X | X | X | X | TBD | TBD | X | X |
| 14-28T | X | X | X | - | TBD | TBD | X | - |

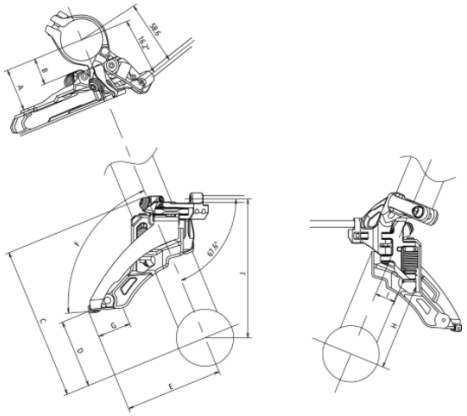
### version 1.3 - October 24, 2017

| | 11-speed | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Gear | RD-R9150 / RD-R9100 | RD-9000 | RD-R8050 / RD-R8000 | | RD-RX800 / RD-RX805 | | RD-6870 | |
| | - | SS | SS | GS Front double | GS Front double | | SS | GS Front double |
| 11-23T | - | X | - | - | - | - | X | - |
| 11-25T | X | X | X | - | - | - | X | - |
| 11-28T | X | X | X | X | X | X | X | X |
| 11-30T | X | - | X | X | X | X | - | X |
| 11-32T | - | - | - | X | X | X | - | X |
| 11-34T | | | - | X | X | X | | |
| 12-25T | X | X | X | - | - | - | X | - |
| 12-28T | X | X | X | X | - | - | X | X |
| 14-28T | X | X | X | - | - | - | X | - |

# October 10, 2017 (Ver 1.2)

C-056 Frame Requirement / Front derailleur / SIDE SWING type [MTB] - Added (Dimension K and L)

version 1.1 - September 19, 2017



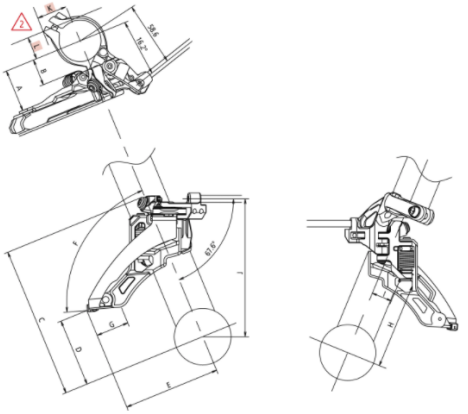
A: From frame center to back side of the cage most critical point for interference with tire.
B: From frame center to spring most inside position during movement.
C: From bottom bracket center to cable fixing part highest position during movement. (E,L spec only)
D,E: From bottom bracket center to edge of cage for interference with chainstay.
F,G: Dimension of bottom side of cage for interference with chainstay.
H,I: From bottom bracket center to lowest position of inner link.

△1

| FD type | Speed | Model No. | Crank set | A (mm) Chain line (mm) | | | B (mm) Chain line (mm) | | | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) | J (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 48.8 | 50 | 51.8 | 48.8 | 50 | 51.8 | | | | | | | | |
| SIDE SWING | 12 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | 11 | FD-M9000-H FD-M9000-L FD-M9000-D FD-M9000-E FD-M8000-H FD-M8000-L FD-M8000-D FD-M8000-E | 40T | – | 31 | – | – | 18 | – | 129 | 52 | 83 | 72 | 26 | 75 | 15 | 115 |
| | | FD-M9020-H FD-M9020-L FD-M8020-H FD-M8020-L FD-M7020-11-H FD-M7020-11-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M9020-D FD-M9020-E FD-M8020-D FD-M8020-E FD-M7020-11-D FD-M7020-11-E | 34T | 33 | – | 36 | 22 | – | 25 | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | 10 | FD-M7000-10-H FD-M7000-10-L FD-M7000-10-D FD-M7000-10-E FD-M6000-H FD-M6000-M FD-M6000-L FD-M6000-D FD-M6000-E | 40T | – | 32 | – | – | 18 | – | 129 | 54 | 83 | 72 | 26 | 76 | 15 | 115 |
| | | | 42T | | | | | | | 133 | 58 | 83 | 72 | 26 | 80 | 15 | 119 |
| | | FD-M617-H FD-M617-L | 36T | 32 | – | – | 21 | – | – | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M617-D FD-M617-E | 36T | 32 | – | 35 | 21 | – | 24 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M6020-H FD-M6020-M FD-M6020-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M6020-D FD-M6020-E | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | 36 | | | 25 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | 9 | FD-M4000-M | 40T | – | 26 | – | – | 11 | – | 134 | 54 | 88 | 72 | 33 | 74 | 10 | 116 |
| | | FD-M4020-M | 36T | 30 | – | – | 13 | – | – | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |
| | | FD-M4020-M-B | 36T | – | – | 33 | – | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |
| | | FD-M4020-D | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |
| | | FD-M4020-E | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |

* Only E/D type FD are compatible with chain line 3mm outboard spec.

version 1.2 - October 10, 2017



A: From frame center to back side of the cage most critical point for interference with tire.
B: From frame center to spring most inside position during movement.
C: From bottom bracket center to cable fixing part highest position during movement. (E,L spec only)
D,E: From bottom bracket center to edge of cage for interference with chainstay.
F,G: Dimension of bottom side of cage for interference with chainstay.
H,I: From bottom bracket center to lowest position of inner link.

△1

| FD type | Speed | Model No. | Crank set | A (mm) Chain line (mm) | | | B (mm) Chain line (mm) | | | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) | J (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 48.8 | 50 | 51.8 | 48.8 | 50 | 51.8 | | | | | | | | |
| | 12 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | | FD-M9000-H FD-M9000-L | | | | | | | | | | | | | | | |

△2

| FD type | Speed | Model No. | Crank set | K (mm) | L (mm) |
|---|---|---|---|---|---|
| SIDE SWING | 12 | FD-M9100-M | 38T | 27 | 14 |
| | 11 | FD-M9000-H | 40T | 25 | 18 |
| | | FD-M9000-L | | 26 | 18 |
| | | FD-M9000-D | | – | – |
| | | FD-M9000-E | | – | – |
| | | FD-M8000-H | | 27 | 15 |
| | | FD-M8000-L | | 27 | 14 |
| | | FD-M8000-D | | – | – |
| | | FD-M8000-E | | – | – |
| | | FD-M9020-H | 34T | 25 | 18 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M9020-L | 34T | 26 | 18 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M8020-H FD-M7020-11-H | 34T | 27 | 15 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M8020-L FD-M7020-11-L | 34T | 27 | 14 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M9020-D FD-M9020-E FD-M8020-D FD-M8020-E FD-M7020-11-D FD-M7020-11-E | 34T | – | – |
| | | | 36T | | |
| | | | 38T | | |
| | 10 | FD-M7000-10-H FD-M6000-H | 42T | 27 | 15 |
| | | FD-M7000-10-L FD-M6000-M FD-M6000-L | | 27 | 14 |
| | | FD-M7000-10-D FD-M7000-10-E FD-M6000-D FD-M6000-E | 40T | – | – |
| | | | 42T | | |
| | | FD-M617-H | 36T | 27 | 15 |
| | | | 38T | | |
| | | FD-M617-L | 36T | 27 | 14 |
| | | | 38T | | |
| | | FD-M617-D FD-M617-E | 36T | – | – |
| | | | 38T | | |
| | | FD-M6020-H | 34T | 27 | 15 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M6020-M FD-M6020-L | 34T | 27 | 14 |
| | | | 36T | | |
| | | | 38T | | |
| | | FD-M6020-D FD-M6020-E | 34T | – | – |
| | | | 36T | | |
| | | | 38T | | |
| | 9 | FD-M4000-M | 40T | 30 | 14 |
| | | FD-M4020-M FD-M4020-M-B | 36T | 30 | 14 |
| | | FD-M4020-D FD-M4020-E | 36T | – | – |

## C-117 Frame Requirement / Crankset / Crankset dimensions [MTB] / Y dimensions - Revised (FC-M9100-2, dimension y2, y3, y5)

### version 1.1 - September 19, 2017

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) | y8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | - | 84.6 | 61.2 | 36.5 | 47.8 | 193.3 | 193.3 | - |
| | FC-M9100-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9120-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9020-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 24.5 | 40.5 | 197.8 | 197.8 | - |
| | FC-M8000-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 24.5 | 38.5 | 196.9 | 196.9 | - |
| | | 38-28T | - | 79.3 | 59.4 | 24.5 | 44.9 | | | - |
| | | 36-26T | - | 75.3 | 55.4 | 24.5 | 44.9 | 192.7 | 192.7 | - |

### version 1.2 - October 10, 2017

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) | y8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | - | 78.8 | 59.7 | 36.5 | 50.5 | 193.3 | 193.3 | - |
| | FC-M9100-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9120-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9020-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 24.5 | 40.5 | 197.8 | 197.8 | - |
| | FC-M8000-3 | 40-30-22T | 83.6 | 63.6 | 48.1 | 24.5 | 38.5 | 196.9 | 196.9 | - |
| | | 38-28T | - | 79.3 | 59.4 | 24.5 | 44.9 | | | - |

## C-119 Frame Requirement / Crankset / Crankset dimensions [MTB] / Chain line 3mm outboard spec. Y dimensions - Revised (FC-M9100-2, dimension y2, y3, y5)

### version 1.1 - September 19, 2017

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) | y8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | - | 84.6 | 61.2 | 36.5 | 47.8 | 193.3 | 193.3 | - |
| | FC-M9100-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9120-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36-26T | - | 75.3 | 55.4 | 24.5 | 44.9 | 192.7 | 192.7 | - |

### version 1.2 - October 10, 2017

| Speed | Model No. | Gear | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) | y8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | - | 78.8 | 59.7 | 36.5 | 50.5 | 193.3 | 193.3 | - |
| | FC-M9100-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |
| | FC-M9120-1 | 38T | - | 80.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 36T | - | 76.6 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 34T | - | 72.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 32T | - | 68.5 | - | 24.6 | - | 193.3 | 193.3 | - |
| | | 30T | - | 64.4 | - | 24.6 | - | 193.3 | 193.3 | - |

## C-118 Frame Requirement / Crankset / Crankset dimensions [MTB] / X dimensions - Revised (FC-M9100-2, dimension x2, x3, x4, x5)

### version 1.1 - September 19, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | 50.1 | - | 49.6 | 42.5 | 42.5 | 41.3 | 65 | 63.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9020-3 | 40-30-22T | 50.0 | 56.7 | 49.2 | 41.8 | 43.6 | 41.5 | 68.5 | 68.5 | - |

### version 1.2 - October 10, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-2 | 38-28T | 50.1 | - | 50.3 | 42.9 | 42.6 | 41.6 | 65 | 63.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 65 | 63.8 | - |

## C-120 Frame Requirement / Crankset / Crankset dimensions [MTB] / Chain line 3mm outboard spec. X dimensions - Revised (FC-M9100-B2, dimension x2, x3, x4, x5)

### version 1.1 - September 19, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-B2 | 38-28T | 53.1 | - | 52.6 | 45.5 | 45.5 | 44.3 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36-26T | 51.8 | - | 53.2 | 45.8 | 45.1 | 43.9 | 71.4 | 71.5 | - |

### version 1.2 - October 10, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) | x8 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 12 | FC-M9100-B2 | 38-28T | 53.1 | - | 53.3 | 45.9 | 45.6 | 44.6 | 68 | 66.8 | - |
| | FC-M9100-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | FC-M9120-1 | 38T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 36T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 34T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 32T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |
| | | 30T | 52 | - | 48.9 | - | 45.5 | - | 68 | 66.8 | - |

## C-123 Frame Requirement / Crankset / Crankset dimensions [ROAD, URBAN SPORT] / Y dimensions - Revised (FC-RS510, Y dimensions of 52-36T/46-36T spec. / FC-RS200, dimension y2,y5)

### version 1.1 - September 19, 2017

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | FC-R9100 | 55-42T | 43.5 | - | 113.1 | 88.2 | 46.9 | 80.2 | 195.5 | 195.5 |
| | | 54-42T | 43.5 | - | 111.1 | 88.2 | 46.9 | 80.2 | 195.5 | 195.5 |
| | | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.9 | 74.2 | 195.5 | 195.5 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.9 | 68.2 | 195.5 | 195.5 |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.9 | 64.0 | 195.5 | 195.5 |
| | FC-R8000 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 71.9 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 65.9 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 63.0 | | |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | 46.4 | 65.9 | | |
| | FC-6800 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 74.2 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 68.2 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 64.2 | | |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | 46.4 | 68.2 | | |
| | FC-R7000 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 71.9 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 65.9 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 63.0 | | |
| | FC-RS510 | 52-36T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | - | 64.2 | 193.4 | 193.4 |
| | | 46-36T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | FC-U5000-2 | 46-32T | 43.5 | - | 94.9 | 68.1 | - | - | 192.6 | 192.4 |
| | FC-U5000-1 | 42T | 46.6 | - | 88.3 | - | - | - | 192.6 | 192.4 |

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-5703 | 50-39-30T | 45.0 | 103.8 | 81.6 | 64.2 | 26.9 | 43.6 | 192.8 | 192.8 |
| | FC-4703 | 50-39-30T | 45.0 | 103.8 | 81.6 | 64.2 | 26.9 | 52.6 | 193.6 | 193.6 |
| | FC-4700 | 52-36T | 43.5 | - | 107.3 | 76.1 | - | 68.2 | 193.6 | 193.6 |
| | FC-4700 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | 64.2 | | |
| | FC-R460 | 48-34T | 43.5 | - | 99.2 | 70.8 | - | 64.0 | 192.7 | 192.7 |
| | | 46-34T | 43.5 | - | 95.7 | 70.8 | - | 64.0 | | |
| | FC-RS400 | 50-34T | 45.0 | - | 103.8 | 70.8 | - | - | 192.7 | 192.7 |
| | FC-CX50 | 46-36T | 43.5 | - | 95.8 | 75.1 | - | 67.9 | 192.8 | 192.8 |

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 103.8 | 81.6 | 63.4 | 26.9 | 43.6 | 194.1 | 193.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 194.1 | 193.0 |
| | FC-R345 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| 8 | FC-R2030 | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.3 | 193.3 |
| | | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.9 | 193.9 |
| | FC-A073 | 50-39-30T | 45.0 | 103.9 | 81.8 | 63.6 | 23.4 | 41.7 | 187 | 187 |
| | FC-R2000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 193.9 | 193.9 |
| | FC-RS200 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| | | 46-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| | FC-A070 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 187 | 187 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 114.7 | - | - | - | 193.0 | 193.0 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 114.7 | - | - | - | | |

### version 1.2 - October 10, 2017

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | FC-R9100 | 55-42T | 43.5 | - | 113.1 | 88.2 | 46.9 | 80.2 | 195.5 | 195.5 |
| | | 54-42T | 43.5 | - | 111.1 | 88.2 | 46.9 | 80.2 | 195.5 | 195.5 |
| | | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.9 | 74.2 | 195.5 | 195.5 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.9 | 68.2 | 195.5 | 195.5 |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.9 | 64.0 | 195.5 | 195.5 |
| | FC-R8000 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 71.9 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 65.9 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 63.0 | | |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | 46.4 | 65.9 | | |
| | FC-6800 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 74.2 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 68.2 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 64.2 | | |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | 46.4 | 68.2 | | |
| | FC-R7000 | 53-39T | 43.5 | - | 109.1 | 82.2 | 46.4 | 71.9 | 191.9 | 191.9 |
| | | 52-36T | 43.5 | - | 107.1 | 76.1 | 46.4 | 65.9 | | |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | 46.4 | 63.0 | | |
| | FC-RS510 | 52-36T | 43.5 | - | 107.1 | 76.1 | - | 67.3 | 193.4 | 193.4 |
| | | 50-34T | 43.5 | - | 103.0 | 72.1 | - | 64.2 | 193.4 | 193.4 |
| | | 46-36T | 43.5 | - | 95.4 | 76.1 | - | 67.3 | 193.4 | 193.4 |
| | FC-U5000-2 | 46-32T | 43.5 | - | 94.9 | 68.1 | - | - | 192.6 | 192.4 |
| | FC-U5000-1 | 42T | 46.6 | - | 88.3 | - | - | - | 192.6 | 192.4 |

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-5703 | 50-39-30T | 45.0 | 103.8 | 81.6 | 64.2 | 26.9 | 43.6 | 192.8 | 192.8 |
| | FC-4703 | 50-39-30T | 45.0 | 103.8 | 81.6 | 64.2 | 26.9 | 52.6 | 193.6 | 193.6 |
| | FC-4700 | 52-36T | 43.5 | - | 107.3 | 76.1 | - | 68.2 | 193.6 | 193.6 |
| | FC-4700 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | 64.2 | | |
| | FC-R460 | 48-34T | 43.5 | - | 99.2 | 70.8 | - | 64.0 | 192.7 | 192.7 |
| | | 46-34T | 43.5 | - | 95.7 | 70.8 | - | 64.0 | | |
| | FC-RS400 | 50-34T | 45.0 | - | 103.8 | 70.8 | - | - | 192.7 | 192.7 |
| | FC-CX50 | 46-36T | 43.5 | - | 95.8 | 75.1 | - | 67.9 | 192.8 | 192.8 |

| Speed | Model No. | Gear | Chain line (mm) | y1 (mm) | y2 (mm) | y3 (mm) | y4 (mm) | y5 (mm) | y6 (mm) | y7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 103.8 | 81.6 | 63.4 | 26.9 | 43.6 | 194.1 | 193.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 194.1 | 193.0 |
| | FC-R345 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| 8 | FC-R2030 | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.3 | 193.3 |
| | | 50-39-30T | 45.0 | 103.8 | 81.7 | 63.5 | 23.4 | 43.6 | 193.9 | 193.9 |
| | FC-A073 | 50-39-30T | 45.0 | 103.9 | 81.8 | 63.6 | 23.4 | 41.7 | 187 | 187 |
| | FC-R2000 | 50-34T | 43.5 | - | 103.8 | 70.8 | - | - | 193.9 | 193.9 |
| | FC-RS200 | 50-34T | 43.5 | - | 95.8 | 70.8 | - | 55.2 | 192.1 | 192.1 |
| | | 46-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 192.1 | 192.1 |
| | FC-A070 | 50-34T | 43.5 | - | 103.9 | 70.8 | - | 63.7 | 187 | 187 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 114.7 | - | - | - | 193.0 | 193.0 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 114.7 | - | - | - | | |

## C-124 Frame Requirement / Crankset / Crankset dimensions [ROAD, URBAN SPORT] / X dimensions - Revised (FC-RS510, X dimensions of 52-36T/46-36T spec. / FC-RS200, X dimensions of 46-34T spec.)

### version 1.1 - September 19, 2017

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | FC-R9100 FC-R9100-P | 55-42T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 54-42T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 53-39T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | FC-R8000 | 53-39T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 46-36T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | FC-6800 | 53-39T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 52-36T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 50-34T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 46-36T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | FC-R7000 | 53-39T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | FC-RS510 | 52-36T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | | 46-36T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | FC-U5000-2 | 46-32T | 43.5 | - | 46.0 | 38.1 | - | - | 62.7 | 63.0 |
| | FC-U5000-1 | 42T | 46.6 | - | 44.1 | - | - | - | 62.7 | 63.0 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-5703 | 50-39-30T | 45.0 | 51.2 | 44.1 | 36.0 | 36.9 | 34.9 | 63.3 | 60.8 |
| | FC-4703 | 50-39-30T | 45.0 | 51.2 | 44.1 | 36.0 | 36.9 | 34.9 | 65.0 | 63.2 |
| | FC-4700 | 52-36T | 43.5 | - | 45.9 | 38.0 | - | 35.8 | 59.2 | 60.2 |
| | FC-4700 | 50-34T | 43.5 | - | 45.9 | 38.1 | - | 35.8 | 59.2 | 60.2 |
| | FC-R460 | 48-34T | 43.5 | - | 45.9 | 38.1 | - | 36.5 | 59.3 | 60.2 |
| | | 46-34T | 43.5 | - | 45.9 | 38.1 | - | 36.5 | 59.3 | 60.2 |
| | FC-RS400 | 50-34T | 43.5 | - | 45.9 | 38.1 | - | - | 59.3 | 60.2 |
| | FC-CX50 | 46-36T | 43.5 | - | 45.8 | 37.9 | - | 36.1 | 59.4 | 60.4 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 51.8 | 44.2 | 36.1 | 36.0 | 34.3 | 65.2 | 63.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 45.8 | 38.1 | - | - | 59.2 | 60.0 |
| | FC-R345 | 50-34T | 43.5 | - | 45.5 | 37.8 | - | 36.0 | 61.0 | 59.4 |
| 8 | FC-R2000 | 50-34T | 43.5 | - | 46.0 | 38.4 | - | 37.4 | 59.8 | 60.5 |
| | FC-R2030 | 50-39-30T | 45.0 | 51.7 | 44.0 | 36.0 | 36.1 | 34.1 | 64.0 | 62.5 |
| | FC-RS200 | 50-34T | 43.5 | - | 45.9 | 38.3 | - | 36.5 | 61.4 | 61.0 |
| | | 46-34T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | FC-A070 | 50-34T | 43.5 | - | 45.9 | 38.3 | - | 38.4 | 67.7 | 69.7 |
| | FC-A073 | 50-39-30T | 45.0 | 51.5 | 43.9 | 35.9 | 35.9 | 34.9 | 70.0 | 69.3 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 39.4 | - | - | - | 52.5 | 52.5 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 39.9 | - | - | - | 52.5 | 52.5 |

### version 1.2 - October 10, 2017

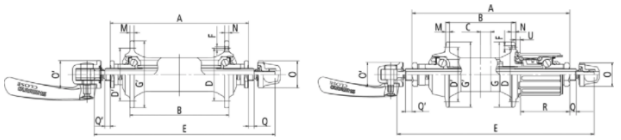
| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 11 | FC-R9100 FC-R9100-P | 55-42T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 54-42T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 53-39T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 36.3 | 35.2 | 56.4 | 56.4 |
| | FC-R8000 | 53-39T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | | 46-36T | 43.5 | - | 46.0 | 37.8 | 36.6 | 35.4 | 56.9 | 57.4 |
| | FC-6800 | 53-39T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 52-36T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 50-34T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | | 46-36T | 43.5 | - | 46.0 | 38.1 | 37.1 | 35.9 | 57.7 | 57.7 |
| | FC-R7000 | 53-39T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | | 52-36T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | 37.4 | 35.3 | 56.9 | 57.4 |
| | FC-RS510 | 52-36T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | | 50-34T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | | 46-36T | 43.5 | - | 46.0 | 37.8 | - | 35.6 | 58.9 | 59.9 |
| | FC-U5000-2 | 46-32T | 43.5 | - | 46.0 | 38.1 | - | - | 62.7 | 63.0 |
| | FC-U5000-1 | 42T | 46.6 | - | 44.1 | - | - | - | 62.7 | 63.0 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | FC-5703 | 50-39-30T | 45.0 | 51.2 | 44.1 | 36.0 | 36.9 | 34.9 | 63.3 | 60.8 |
| | FC-4703 | 50-39-30T | 45.0 | 51.2 | 44.1 | 36.0 | 36.9 | 34.9 | 65.0 | 63.2 |
| | FC-4700 | 52-36T | 43.5 | - | 45.9 | 38.0 | - | 35.8 | 59.2 | 60.2 |
| | FC-4700 | 50-34T | 43.5 | - | 45.9 | 38.1 | - | 35.8 | 59.2 | 60.2 |
| | FC-R460 | 48-34T | 43.5 | - | 45.9 | 38.1 | - | 36.5 | 59.3 | 60.2 |
| | | 46-34T | 43.5 | - | 45.9 | 38.1 | - | 36.5 | 59.3 | 60.2 |
| | FC-RS400 | 50-34T | 43.5 | - | 45.9 | 38.1 | - | - | 59.3 | 60.2 |
| | FC-CX50 | 46-36T | 43.5 | - | 45.8 | 37.9 | - | 36.1 | 59.4 | 60.4 |

| Speed | Model No. | Gear | Chain line (mm) | x1 (mm) | x2 (mm) | x3 (mm) | x4 (mm) | x5 (mm) | x6 (mm) | x7 (mm) |
|---|---|---|---|---|---|---|---|---|---|---|
| 9 | FC-R3030 | 50-39-30T | 45.0 | 51.8 | 44.2 | 36.1 | 36.0 | 34.3 | 65.2 | 63.0 |
| | FC-R3000 | 50-34T | 43.5 | - | 45.8 | 38.1 | - | - | 59.2 | 60.0 |
| | FC-R345 | 50-34T | 43.5 | - | 45.5 | 37.8 | - | 36.0 | 61.0 | 59.4 |
| 8 | FC-R2000 | 50-34T | 43.5 | - | 46.0 | 38.4 | - | 37.4 | 59.8 | 60.5 |
| | FC-R2030 | 50-39-30T | 45.0 | 51.7 | 44.0 | 36.0 | 36.1 | 34.1 | 64.0 | 62.5 |
| | FC-RS200 | 50-34T | 43.5 | - | 45.9 | 38.3 | - | 36.5 | 61.4 | 61.0 |
| | | 46-34T | 43.5 | - | 45.8 | 38.3 | - | 39.1 | 61.4 | 61.0 |
| | FC-A070 | 50-34T | 43.5 | - | 45.9 | 38.3 | - | 38.4 | 67.7 | 69.7 |
| | FC-A073 | 50-39-30T | 45.0 | 51.5 | 43.9 | 35.9 | 35.9 | 34.9 | 70.0 | 69.3 |
| TRACK | FC-7710 (1/2 x 1/8 inch) | - | 42.5 | - | 39.4 | - | - | - | 52.5 | 52.5 |
| | FC-7710 (1/2 x 3/32 inch) | - | 42.5 | - | 39.9 | - | - | - | 52.5 | 52.5 |

# C-266 Product Information / Hub / Front hub / FREEHUB dimensions [ROAD] -
# Revised (Illustration and table divides for disc brake hubs)

## version 1.1 - September 19, 2017



| Model No. | Type | QR type | A O.L.D | B flange distance | C off set | D P.C.D.1 (FH side) | D' P.C.D.2 |
|---|---|---|---|---|---|---|---|
| HB-9000 | For rim brake | X | 100 | 74.0 | - | 38 | 38 |
| FH-9000 (except for 28H) | | X | 130 | 56.9 | 9.75 | 45 | 44 |
| FH-9000 (28H) | | X | 130 | 56.5 | 9.95 | 45 | 44 |
| HB-6800 | | X | 100 | 71.6 | - | 40 | 40 |
| FH-6800 | | X | 130 | 56.9 | 9.7 | 45 | 44 |
| HB-R7000 | | X | 100 | 71.6 | - | 38 | 38 |
| FH-R7000 | | X | 130 | 56.9 | 9.75 | 45 | 44 |
| HB-RS400 | | X | 100 | 71.6 | - | 38 | 38 |
| FH-RS400 | | X | 130 | 56.9 | 9.75 | 45 | 44 |
| HB-RS300 | | X | 100 | 71.6 | 0 | 38 | 38 |
| FH-RS300 | | X | 130 | 57.9 | 8.4 | 45 | 45 |
| HB-TX500-QR | | X | 100 | 71.6 | 0 | 38 | 38 |
| FH-TX500-8-QR | | X | 135 | 57.4 | 6.8 | 45 | 45 |
| FH-TX500-8-NT | | - | 135 | 57.4 | 6.8 | 45 | 45 |
| FH-TY500-QR | | X | 130 | 57.4 | 7.1 | 45 | 45 |
| FH-TY500-NT | | - | 130 | 57.4 | 7.1 | 45 | 45 |
| HB-CX75 | For disc brake | X | 100 | 59.6 | 6 | 44 | 44 |
| FH-CX75 | | X | 135 | 55.7 | 7.4 | 45 | 44 |

(mm)
X: Yes

| Model No. | Type | QR type | E QR | F Spoke hole | G flange diameter (FH side) | G' left flange diameter | M / N flange thickness |
|---|---|---|---|---|---|---|---|
| HB-9000 | For rim brake | X | 133 | ø2.4 | - | 48.4 | 3.2 / 3.2 |
| FH-9000 (except for 28H) | | X | 163 - 168 | ø2.4 | 53.8 | 52.8 | 3.2 / 3.5 |
| FH-9000 (28H) | | X | 163 - 168 | ø2.4 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-6800 | | X | 133 | ø2.6 | - | 50.4 | 3.2 / 3.2 |
| FH-6800 | | X | 163 - 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-R7000 | | X | 133 | ø2.6 | - | 48.4 | 3.2 / 3.2 |
| FH-R7000 | | X | 163 - 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-RS400 | | X | 133 | ø2.6 | - | 48.4 | 3.2 / 3.2 |
| FH-RS400 | | X | 163 - 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-RS300 | | X | 129 - 133 | ø2.6 | 48.4 | 48.4 | 3.2 / 3.2 |
| FH-RS300 | | X | 163 - 168 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| HB-TX500-QR | | X | 129 - 133 | ø2.6 | 46.0 | 46.0 | 3.2 / 3.2 |
| FH-TX500-8-QR | | X | 166 - 170 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TX500-8-NT | | - | - | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TY500-QR | | X | 161 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TY500-NT | | - | - | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| HB-CX75 | For disc brake | X | 133 | ø2.6 | 52.8 | 52.8 | 3.2 / 3.2 |
| FH-CX75 | | X | 168 -173 | ø2.6 | 53.8 | 52.8 | 3.5 / 3.25 |

(mm)
X: Yes

| Model No. | Type | O | O' | Q | Q' | R | *S | U low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|
| HB-9000 | For rim brake | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-9000 (except for 28H) | | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| FH-9000 (28H) | | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 4.3 |
| HB-6800 | | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-6800 | | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-R7000 | | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-R7000 | | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-RS400 | | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-RS400 | | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-RS300 | | ø19.5 | ø20.0 | 4 | 4 | - | - | - |
| FH-RS300 | | ø19.5 | ø20.0 | 5.5 | 5.5 | 40.55 | - | 3.9 |
| FH-TX500-8-QR | | ø19.5 | ø20.0 | 5.5 | 5.5 | 40.75 | - | 4.7 |
| FH-TX500-8-NT | | - | - | - | - | 40.75 | - | 4.7 |
| FH-TY500-QR | | ø19.5 | ø20.0 | 5.5 | 5.5 | 38.1 | - | 5.3 |
| FH-TY500-NT | | - | - | - | - | 38.1 | - | 5.3 |
| HB-CX75 | For disc brake | ø19.5 | ø20.0 | 4.0 | 4.0 | - | 19.5 | - |
| FH-CX75 | | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | 24.25 | 4.7 |

(mm)
X: Yes

* Please refer to C-262 for definition of "S" dimension.

**Front Hub / Disc brake (Thru axle type)**

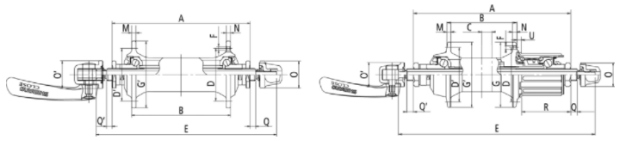
| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | P | P' | S | T |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HB-RS770 | 100 | 59.6 | 6 | 44 / 44 | 28 / 32 / 36 | 52.8 | 52.8 | 3.2 / 3.2 | ø19 | ø19 | 19.5 | 12 |

**FREEHUB / Disc brake (Thru axle type)**

| Model No. | A O.L.D. | B Flange distance | C Off set | D / D' P.C.D. | F Spoke hole | G / G' Flange diameter | | M / N Flange thickness | P | P' | R | S | T | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FH-RS770 | 142 | 55.7 | 7.45 | 45 / 44 | 28 / 32 / 36 | 53.8 | 52.8 | 3.5 / 3.2 | ø19 | ø19 | 42.4 | 27.75 | 12 | 4.7 |

## version 1.2 - October 10, 2017

**For rim brake**



| Model No. | QR type | A O.L.D | B flange distance | C off set | D P.C.D.1 (FH side) | D' P.C.D.2 |
|---|---|---|---|---|---|---|
| HB-9000 | X | 100 | 74.0 | - | 38 | 38 |
| FH-9000 (except for 28H) | X | 130 | 56.9 | 9.75 | 45 | 44 |
| FH-9000 (28H) | X | 130 | 56.5 | 9.95 | 45 | 44 |
| HB-6800 | X | 100 | 71.6 | - | 40 | 40 |
| FH-6800 | X | 130 | 56.9 | 9.7 | 45 | 44 |
| HB-R7000 | X | 100 | 71.6 | - | 38 | 38 |
| FH-R7000 | X | 130 | 56.9 | 9.75 | 45 | 44 |
| HB-RS400 | X | 100 | 71.6 | - | 38 | 38 |
| FH-RS400 | X | 130 | 56.9 | 9.75 | 45 | 44 |
| HB-RS300 | X | 100 | 71.6 | 0 | 38 | 38 |
| FH-RS300 | X | 130 | 57.9 | 8.4 | 45 | 45 |
| HB-TX500-QR | X | 100 | 71.6 | 0 | 38 | 38 |
| FH-TX500-8-QR | X | 135 | 57.4 | 6.8 | 45 | 45 |
| FH-TX500-8-NT | - | 135 | 57.4 | 6.8 | 45 | 45 |
| FH-TY500-QR | X | 130 | 57.4 | 7.1 | 45 | 45 |
| FH-TY500-NT | - | 130 | 57.4 | 7.1 | 45 | 45 |

(mm)
X: Yes

| Model No. | QR type | E QR | F Spoke hole | G flange diameter (FH side) | G' left flange diameter | M / N flange thickness |
|---|---|---|---|---|---|---|
| HB-9000 | X | 133 | ø2.4 | - | 48.4 | 3.2 / 3.2 |
| FH-9000 (except for 28H) | X | 163 - 168 | ø2.4 | 53.8 | 52.8 | 3.2 / 3.5 |
| FH-9000 (28H) | X | 163 - 168 | ø2.4 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-6800 | X | 133 | ø2.6 | - | 50.4 | 3.2 / 3.2 |
| FH-6800 | X | 163 - 168 | ø2.6 | 53.8 | 52.8 | 3.2 / 3.5 |
| HB-TX500-QR | X | 129 - 133 | ø2.6 | 46.0 | 46.0 | 3.2 / 3.2 |
| FH-TX500-8-QR | X | 166 - 170 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TX500-8-NT | - | - | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TY500-QR | X | 161 | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |
| FH-TY500-NT | - | - | ø2.6 | 53.8 | 53.8 | 3.2 / 3.5 |

(mm)
X: Yes

| Model No. | O | O' | Q | Q' | R | *S | U low gear contact face to flange |
|---|---|---|---|---|---|---|---|
| HB-9000 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-9000 (except for 28H) | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| FH-9000 (28H) | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 4.3 |
| HB-6800 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-6800 | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-R7000 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-R7000 | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-RS400 | ø19.5 | ø20.0 | 4.0 | 4.0 | - | - | - |
| FH-RS400 | ø19.5 | ø20.0 | 5.5 | 5.5 | 42.4 | - | 3.9 |
| HB-RS300 | ø19.5 | ø20.0 | 4 | 4 | - | - | - |
| FH-RS300 | ø19.5 | ø20.0 | 5.5 | 5.5 | 40.55 | - | 3.9 |
| FH-TX500-8-QR | ø19.5 | ø20.0 | 5.5 | 5.5 | 40.75 | - | 4.7 |
| FH-TX500-8-NT | - | - | - | - | 40.75 | - | 4.7 |
| FH-TY500-QR | ø19.5 | ø20.0 | 5.5 | 5.5 | 38.1 | - | 5.3 |
| FH-TY500-NT | - | - | - | - | 38.1 | - | 5.3 |

(mm)
X: Yes

* Please refer to C-262 and C-541 for definition of "S" dimension.

**For disc brake (E-THRU type)**

TBD

| Model No. | A O.L.D. | B Flange distance | C Off set | D P.C.D.1 (FH SIDE) | D' P.C.D.2 | F Spoke hole | G / G' Flange diameter | M / N Flange thickness |
|---|---|---|---|---|---|---|---|---|
| HB-RS770 | 100 | 59.6 | 6 | 44 | 44 | ø2.6 | 52.8 / 52.8 | 3.2 / 3.2 |
| FH-RS770 | 142 | 55.7 | 7.45 | 45 | 44 | ø2.6 | 53.8 / 52.8 | 3.5 / 3.2 |

| Model No. | O | O' | P | P' | Q | Q' | R | S | T | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|
| HB-RS770 | - | - | ø19 | ø19 | - | - | - | 19.5 | 12 | - |
| FH-RS770 | - | - | ø19 | ø19 | - | - | 42.4 | 27.75 | 12 | 4.7 |

**For disc brake (QR type)**

TBD

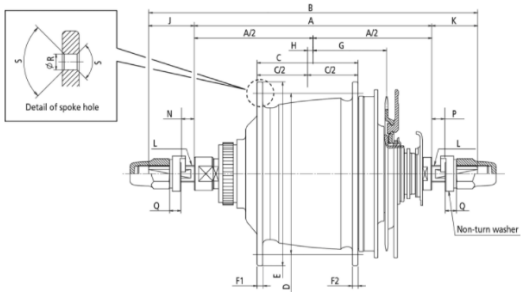
| Model No. | A O.L.D. | B Flange distance | C Off set | D P.C.D.1 (FH SIDE) | D' P.C.D.2 | E QR | F Spoke hole | G / G' Flange diameter | M / N Flange thickness |
|---|---|---|---|---|---|---|---|---|---|
| HB-CX75 | 100 | 59.6 | 6 | 44 | 44 | 133 | ø2.6 | 52.8 / 52.8 | 3.2 / 3.2 |
| FH-CX75 | 135 | 55.7 | 7.4 | 45 | 45 | 168-173 | ø2.6 | 53.8 / 52.8 | 3.5 / 3.25 |

| Model No. | O | O' | P | P' | Q | Q' | R | S | T | U Low gear contact face to flange |
|---|---|---|---|---|---|---|---|---|---|---|
| HB-CX75 | ø19.5 | ø20 | - | - | 4 | 4 | - | 19.5 | - | - |
| FH-CX75 | ø19.5 | ø20 | - | - | 5.5 | 5.5 | 42.4 | 24.25 | - | 4.7 |

## C-273 Product Information / Internal geared hub / ALFINE 11, 8 / NEXUS INTER-8, 7, 5E - Added (SG-C7000-5D/5R/5V)

### version 1.1 - September 19, 2017

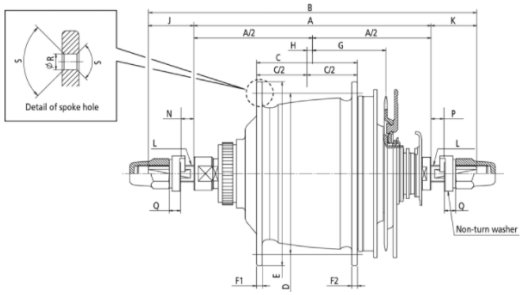
**ALFINE 11, 8 / NEXUS INTER-8, 7** C-273




| | Series | ALFINE | | NEXUS | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Function name | INTER-11 | INTER-8 | INTER-8 | INTER-8 | INTER-8 | INTER-8 | INTER-7 | INTER-7 | INTER-7 |
| | Model No. | SG-S7001-11 | SG-S7001-8 | SG-C6011-8R SG-C6001-8R SG-C6011-8V SG-C6001-8V | SG-C6001-8C | SG-C6001-8D | SG-C6001-8CD | SG-C3001-7R | SG-C3001-7C | SG-C3001-7D |
| | Speed | 11 | | 8 | | | | 7 | | |
| | Gear ratio: Total | 409% | | 307% | | | | 244% | | |
| | Spoke size | #13 / #14 | | | | | | | | |
| A | Over locknut dim. / O.L.D. (mm) | 135 | | 132 | 132.3 | 135 | | 130 | 127 | 135 |
| B | Axle length (mm) | 187 | | 184 | | 187 | | 182 \| 201 | 175.5 | 187 |
| C | Flange distance (mm) | 57.3 | | 58.3 | | 57.3 | 58.3 | 54.6 | 56.2 | 54.6 |
| D | Spoke hole P.C.D. (mm) | 92.6 | | | | | | 87 | 83.5 | 87 |
| E | Flange diameter (mm) | 104.3 | | 105.2 | | | | 99.6 | 92.5 | 99.6 |
| F | Flange width (mm): F1 (left) | 3.2 | | | | | | | 2.7 | 3.2 |
| | Flange width (mm): F2 (right) | 3.2 | | | | | | | 2.3 | 3.2 |
| G | Chain line (mm): G1 (outward assembly) | 46.8 | | 47.7 | 47.85 | 46.8 | | 45.3 | 46.5 | 46.8 |
| | Chain line (mm): G2 (inward assembly) | 41.8 | | 42.7 | 42.85 | 41.8 | | 40.3 | 41.5 | 41.8 |
| H | Offset (mm) | 3.15 | | 2.7 | 2.55 | 3.15 | 4 | 3.85 | 4.6 | 2.5 |
| J | Axle length from hub (left) | 26 | | | 25.7 | 26 | 26.6 | 26 \| 37 | 24.5 | 26 |
| K | Axle length from hub (right) | 26 | | | | | 25.4 | 26 \| 34 | 24 | 26 |
| L | Axle size | BC3 / 8 TPI 26 | | | | | | | | |
| N | Dropout width (left, includes stay etc.) | 5-9 | | 4-9 | | 5-9 | 4-9 | 15-20 | 4-9 | 5-9 |
| P | Dropout width (right, includes stay etc.) | 5-9 | | 4-9 | | 5-9 | 4-9 | 12 - 17 | 4-9 | 5-9 |
| Q | Non-turn washer width | 6.4 | | | | | | | | |
| R | Spoke hole diameter (mm) | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.9 | 2.7 | 2.9 |
| S | Spoke hole chamfer | 90° | | | | | | | 105° | 90° |

### version 1.2 - October 10, 2017

**△2 ALFINE 11, 8 / NEXUS INTER-8, 7, 5E** C-273




| | Series | ALFINE | | NEXUS | | | |
|---|---|---|---|---|---|---|---|
| | Function name | INTER-11 | INTER-8 | INTER-8 | INTER-8 | INTER-8 | INTER-8 |
| | Model No. | SG-S7001-11 | SG-S7001-8 | SG-C6011-8R SG-C6001-8R SG-C6011-8V SG-C6001-8V | SG-C6001-8C | SG-C6001-8D | SG-C6001-8CD |
| | Speed | 11 | | 8 | | | |
| | Gear ratio: Total | 409% | | 307% | | | |
| | Spoke size | #13 / #14 | | | | | |

△2

| | Series | NEXUS | | | | |
|---|---|---|---|---|---|---|
| | Function name | INTER-7 | INTER-7 | INTER-7 | INTER-5E | INTER-5E |
| | Model No. | SG-C3001-7R | SG-C3001-7C | SG-C3001-7D | SG-C7000-5D | SG-C7000-5R SG-C7000-5V |
| | Speed | 7 | | | 5 | |
| | Gear ratio: Total | 244% | | | 263% | |
| | Spoke size | #13 / #14 | | | | |
| A | Over locknut dim. / O.L.D. (mm) | 130 | 127 | 135 | | |
| B | Axle length (mm) | 182 \| 201 | 175.5 | 187 | | |
| C | Flange distance (mm) | 54.6 | 56.2 | 54.6 | 57.3 | 58.3 |
| D | Spoke hole P.C.D. (mm) | 87 | 83.5 | 87 | 92.6 | |
| E | Flange diameter (mm) | 99.6 | 92.5 | 99.6 | 105.2 | |
| F | Flange width (mm): F1 (left) | 3.2 | 2.7 | 3.2 | | |
| | Flange width (mm): F2 (right) | 3.2 | 2.3 | 3.2 | | |
| G | Chain line (mm): G1 (outward assembly) | 45.3 | 46.5 | 46.8 | 47.2 | |
| | Chain line (mm): G2 (inward assembly) | 40.3 | 41.5 | 41.8 | 42.2 | |
| H | Offset (mm) | 3.85 | 4.6 | 2.5 | 3.2 | 3.7 |
| J | Axle length from hub (left) | 26 \| 37 | 24.5 | 26 | | |
| K | Axle length from hub (right) | 26 \| 34 | 24 | 26 | | |
| L | Axle size | BC3 / 8 TPI 26 | | | | |
| N | Dropout width (left, includes stay etc.) | 4-9 \| 15-20 | 4-9 | 5-9 | | |
| P | Dropout width (right, includes stay etc.) | 4-9 \| 12-17 | 4-9 | 5-9 | | |
| Q | Non-turn washer width | 6.4 | | | | |
| R | Spoke hole diameter (mm) | 2.9 | 2.7 | 2.9 | | |
| S | Spoke hole chamfer | 90° | 105° | 90° | | |

## C-283 Product Information / Internal geared hub / Installation of disc brake rotor / Recommended genuine tool numbers - Added (SG-C7000-5D, SG-C7050-5D)

### version 1.1 - September 19, 2017

| Model No. | A (mm) | B (mm) | Tool |
|---|---|---|---|
| SG-S7001-11 SG-S7051-11 | 24.25 | 16.25 | TL-LR10 |
| SG-S7001-8 SG-S7051-8 | 24.25 | 10.45 | TL-LR10 |
| SG-C6001-8D | 24.25 | 10.45 | TL-LR10 |
| SG-C6061-8D | 24.25 | 10.45 | TL-LR10 |
| SG-C3001-7D | 24.25 | 10.45 | TL-LR10 |
| SG-3D55 | 24.25 | 10.45 | TL-LR10 |

### version 1.2 - October 10, 2017

△2

| Model No. | A (mm) | B (mm) | Tool |
|---|---|---|---|
| SG-S7001-11 SG-S7051-11 | 24.25 | 16.25 | TL-LR10 |
| SG-S7001-8 SG-S7051-8 | 24.25 | 10.45 | TL-LR10 |
| SG-C6001-8D | 24.25 | 10.45 | TL-LR10 |
| SG-C6061-8D | 24.25 | 10.45 | TL-LR10 |
| SG-C3001-7D | 24.25 | 10.45 | TL-LR10 |
| SG-3D55 | 24.25 | 10.45 | TL-LR10 |
| SG-C7000-5D | 24.25 | 10.45 | TL-LR10 |
| SG-C7050-5D | 24.25 | 10.45 | TL-LR10 |

## C-286 Product Information / Internal geared hub / Recommended gear ratio - Added (SM-CRE61, CS-C7000)

### version 1.1 - September 19, 2017

| Series | Speed | Sprocket ratio | Front | | Rear | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Model No. | Gear | SM-GEAR | | | | | | | | | CS-S500 | | |
| | | | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 18 | 20 |
| ALFINE | 11 | 1.8 - 2.0 | FC-S501 | 45T | – | – | – | – | – | – | – | – | X | – | – | |
| | | | | 42T | – | – | – | – | – | – | – | X | X | X | – | – |
| | | | | 39T | – | – | – | – | – | – | X | X | – | – | – | X |
| | 8 | 2.0 - 2.25 | FC-S501 | 45T | – | – | – | – | – | – | X | X | X | – | – | X |
| | | | | 42T | – | – | – | – | – | X | X | X | – | – | – | X |
| | | | | 39T | – | – | – | – | X | X | – | – | – | – | X | – |
| NEXUS | 8 | 2.0 - 2.2 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – |
| | 7 | 2.0 - 2.2 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – |
| | 5 | 1.9 - 2.1 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – |
| | 3 | 2.0 - 2.65 | FC-C6000 | 38T | – | X | X | – | X | X | – | – | – | – | – | – |
| | | | | 33T | X | X | X | – | – | – | – | – | – | – | – | – |

### version 1.2 - October 10, 2017

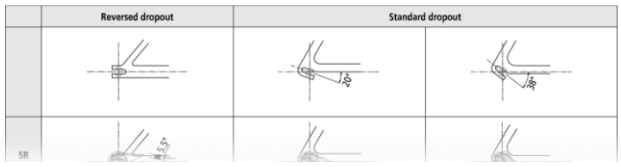
△2

| Series | Speed | Sprocket ratio | Front | | Rear | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Model No. | Gear | SM-GEAR | | | | | | | | | | CS-S500 | | CS-C7000 |
| | | | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 18 | 20 | 27 |
| ALFINE | 11 | 1.8 - 2.0 | FC-S501 | 45T | – | – | – | – | – | – | – | – | – | X | – | – | – |
| | | | | 42T | – | – | – | – | – | – | – | X | X | X | – | – | – |
| | | | | 39T | – | – | – | – | – | – | – | X | X | – | – | X | – |
| | 8 | 2.0 - 2.25 | FC-S501 | 45T | – | – | – | – | – | – | – | X | X | X | – | – | X |
| | | | | 42T | – | – | – | – | – | – | X | X | X | – | – | X | – |
| | | | | 39T | – | – | – | – | – | X | X | X | – | – | – | X | – |
| NEXUS | 8 | 2.0 - 2.2 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – | – |
| | 7 | 2.0 - 2.2 | FC-C6000 | 38T | – | – | – | – | X | X | – | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – | – |
| | 5E | 1.3 - 1.5 | SM-CRE61 | 38T | – | – | – | – | – | – | – | – | – | – | – | – | X |
| | 5 | 1.9 - 2.1 | FC-C6000 | 38T | – | – | – | – | X | X | X | – | – | – | – | – | – |
| | | | | 33T | – | – | X | – | – | – | – | – | – | – | – | – | – |
| | 3 | 2.0 - 2.65 | FC-C6000 | 38T | – | X | X | – | X | X | – | – | – | – | – | – | – |
| | | | | 33T | X | X | X | – | – | – | – | – | – | – | – | – | – |

## C-289 Product Information / Internal geared hub / Non-turn washer (for ALFINE INTER-11, 8 / NEXUS INTER-8, 7, 5) / Application chart - Added (SG-C7000-5, CS-C7000)

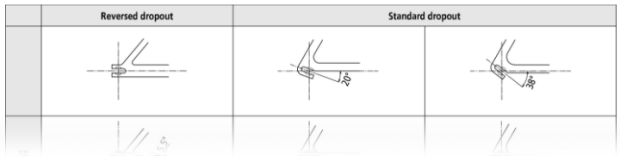
### version 1.1 - September 19, 2017

INTER-8 (SG-S7001-8 w/ CJ-S7000-8)




### version 1.2 - October 10, 2017

△2 INTER-8 (SG-S7001-8 w/ CJ-S7000-8) , INTER-5E (SG-C7000-5 w/ CJ-C7000-5)




## C-291 Product Information / Internal geared hub / Dust cap information - Added (SG-C7000-5D/5R/5V/5C)

### version 1.1 - September 19, 2017

| Series | Speeds | Model No. | Hub Body (Dust Cap XX) | Right hand dust cap Variation | Sealing performance |
|---|---|---|---|---|---|
| ALFINE | 11 | SG-S7001-11 | Right hand dust cap A w / Seal for SG-S700 | Right hand dust cap D for INTER-11 | 2.9 |
| | 8 | SG-S7001-8 | Right hand dust cap A w / Seal for SG-S501 | Right hand dust cap B for INTER-8 | 1 |
| NEXUS | 8 | Standard Spec SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8D SG-C6001-8C SG-C6001-8CD | Right hand dust cap A ( Y-37G 98080 ) | Right hand dust cap C for INTER-8 | 2.9 |
| | | w / 8R20 Type Right hand dust cap A SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8C | Right hand dust cap A ( Y-34R 98110 ) | Right hand dust cap B for INTER-8 | 1 |
| | 7 | SG-C3001-7R | Right hand dust cap B for INTER-7 roller brake spec | Right hand dust cap C for INTER-7 | 2.9 |
| | | SG-C3001-7C | Right hand dust cap B for INTER-7 coaster brake spec | | |
| | | SG-C3001-7D | Right hand dust cap B for INTER-7 roller brake spec | | |
| | 5 (JPN) | SG-5R30 | Right hand dust cap A for INTER-5 | Right hand dust cap D for INTER-5 | |
| | 3 (ALL) | SG-3D55 | Right hand dust cap A for INTER-3 Disc brake spec | Right hand dust cap B for INTER-3 | 1 |
| | | SG-3C41 | Right hand dust cap A for INTER-3 roller / coaster brake | | |
| | 3 (JPN) | SG-3R42 SG-3540 | | | |
| | 3 (ALL) | SG-3R75-B | Right hand dust cap B for INTER-7 roller brake spec | Right hand dust cap C for INTER-7 | 2.9 |

### version 1.2 - October 10, 2017

△2

| Series | Speeds | Model No. | Hub Body (Dust Cap XX) | Right hand dust cap Variation | Sealing performance |
|---|---|---|---|---|---|
| ALFINE | 11 | SG-S7001-11 | Right hand dust cap A w / Seal for SG-S700 | Right hand dust cap D for INTER-11 | 2.9 |
| | 8 | SG-S7001-8 | Right hand dust cap A w / Seal for SG-S501 | Right hand dust cap B for INTER-8 | 1 |
| NEXUS | 8 | Standard Spec SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8D SG-C6001-8C SG-C6001-8CD | Right hand dust cap A ( Y-37G 98080 ) | Right hand dust cap C for INTER-8 | 2.9 |
| | | w / 8R20 Type Right hand dust cap A SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8C | Right hand dust cap A ( Y-34R 98110 ) | Right hand dust cap B for INTER-8 | 1 |
| | 7 | SG-C3001-7R | Right hand dust cap B for INTER-7 roller brake spec | Right hand dust cap C for INTER-7 | 2.9 |
| | | SG-C3001-7C | Right hand dust cap B for INTER-7 coaster brake spec | | |
| | | SG-C3001-7D | Right hand dust cap B for INTER-7 roller brake spec | | |
| | 5E | SG-C7000-5D SG-C7000-5R SG-C7000-5V SG-C7000-5C | Right hand dust cap A ( Y-37G 98080 ) | Right hand dust cap D for INTER-5E | |
| | 5 (JPN) | SG-5R30 | Right hand dust cap A for INTER-5 | Right hand dust cap D for INTER-5 | |
| | 3 (ALL) | SG-3D55 | Right hand dust cap A for INTER-3 Disc brake spec | Right hand dust cap B for INTER-3 | 1 |
| | | SG-3C41 | Right hand dust cap A for INTER-3 roller / coaster brake | | |
| | 3 (JPN) | SG-3R42 SG-3540 | | | |
| | 3 (ALL) | SG-3R75-B | Right hand dust cap B for INTER-7 roller brake spec | Right hand dust cap C for INTER-7 | 2.9 |

## C-556 Product Information / Internal geared hub / Sprocket compatibility - Added (SG-C7000-5D/5R/5V, CS-C7000)

### version 1.1 - September 19, 2017

| Series | Speeds | Model No. | CS-S500 | | | |
|---|---|---|---|---|---|---|
| | | | Inward assembly | | Outward assembly | |
| | | | 18 | 20 | 18 | 20 |
| ALFINE | 11 | SG-S7001-11 | – | X | – | – |
| | 8 | SG-S7001-8 | X | X | – | – |
| NEXUS | 8 | Standard Spec SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8D SG-C6001-8C SG-C6001-8CD | – | – | – | – |
| | | w / 8R20 type Right hand dust cap A SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8C | – | – | – | – |
| | 7 | SG-C3001-7R | – | – | – | – |
| | | SG-C3001-7C | – | – | – | – |
| | | SG-C3001-7D | – | – | – | – |
| | 5 (JPN) | SG-5R30 | – | – | – | – |
| | 3 (ALL) | SG-3D55 | X | X | – | – |
| | | SG-3C41 | – | – | – | – |
| | 3 (JPN) | SG-3R42 | – | – | – | – |
| | 3 (ALL) | SG-3R75-B | – | – | – | – |

X: Yes

### version 1.2 - October 10, 2017

△2

| Series | Speeds | Model No. | CS-S500 | | | | CS-C7000 | |
|---|---|---|---|---|---|---|---|---|
| | | | Inward assembly | | Outward assembly | | Inward assembly | Outward assembly |
| | | | 18 | 20 | 18 | 20 | 27 | 27 |
| ALFINE | 11 | SG-S7001-11 | X | X | – | – | – | – |
| | 8 | SG-S7001-8 | X | X | – | – | – | – |
| NEXUS | 8 | Standard Spec SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8D SG-C6001-8C SG-C6001-8CD | – | – | – | – | – | – |
| | | w / 8R20 type Right hand dust cap A SG-C6011-8R SG-C6011-8V SG-C6001-8R SG-C6001-8V SG-C6001-8C | – | – | – | – | – | – |
| | 7 | SG-C3001-7R | – | – | – | – | – | – |
| | | SG-C3001-7C | – | – | – | – | – | – |
| | | SG-C3001-7D | – | – | – | – | – | – |
| | 5E | SG-C7000-5D SG-C7000-5R SG-C7000-5V | – | – | – | – | X | X |
| | 5 (JPN) | SG-5R30 | – | – | – | – | – | – |
| | 3 (ALL) | SG-3D55 | X | X | – | – | – | – |
| | | SG-3C41 | – | – | – | – | – | – |
| | 3 (JPN) | SG-3R42 | – | – | – | – | – | – |
| | 3 (ALL) | SG-3R75-B | – | – | – | – | – | – |

X: Yes

C-479 Product Information / Internal geared hub / Internal geared hub performance - Added (SG-C7000-5D/5R/5V, SG-C7050-5D/5R/5V)

version 1.1 - September 19, 2017

| Series | | ALFINE | ALFINE | NEXUS | NEXUS | NEXUS | NEXUS |
|---|---|---|---|---|---|---|---|
| Model No. | | SG-S7001-11<br>SG-S7051-11 | SG-S7001-8<br>SG-S7051-8 | SG-C6011-8R<br>SG-C6011-8V<br>SG-C6061-8R<br>SG-C6061-8V<br>SG-C6061-8C<br>SG-C6061-8D<br>SG-C6061-8CD | SG-C6001-8R<br>SG-C6001-8V<br>SG-C6001-8C<br>SG-C6001-8D<br>SG-C6001-8CD | SG-C3001-7R<br>SG-C3001-7C<br>SG-C3001-7D | SG-3R75-B |
| Maximum torque for shifting (Nm) (*see NOTE 1 and 2) | Up Shift (Low ⇒ Top) | 5Nm | 5Nm | 5Nm | 5Nm | 5Nm | 40Nm |
| | Down Shift (Top ⇒ Low) | 10Nm | 12Nm | 12Nm | 12Nm | 8Nm | 7Nm |
| Static strength | | Fulfil EN 14764 4.13.6 Requirements | | | | | |
| Maximum continuous input allowed (to guarantee the durability of the hub) | Maximum torque (Nm) (*see NOTE 1 and 2) | 40 | 40 | 40 | 35 | 35 | 40 |
| | With the above mentioned Maxium torque, below Maximum input at the crank is calculated (with mentioned gear ratio) | | | | | | |
| | Gear ratio (Front sprocket teeth/ Rear sprocket teeth) | 1.9 | 2.1 | 2.1 | 2.1 | 2.1 | 2.6 |
| | Maximum continuous input at crank (Watt) (*see NOTE 2) | 500 | 500 | 500 | 440 | 440 | 500 |
| Maximum input allowed at 50Nm to the crank arm by rider plus motor torque | Maximum torque (Nm) (*see NOTE 1, 2 and 3) | 60 | 60 | 60 | 60 | 60 | 60 |

version 1.2 - October 10, 2017

| Series | | NEXUS | | |
|---|---|---|---|---|
| Model No. | | SG-C3001-7R<br>SG-C3001-7C<br>SG-C3001-7D | SG-3R75-B | SG-C7000-5D<br>SG-C7000-5R<br>SG-C7000-5V<br>SG-C7050-5D<br>SG-C7050-5R<br>SG-C7050-5V |
| Maximum torque for shifting (Nm) (*see NOTE 1 and 2) | Up Shift (Low ⇒ Top) | 5Nm | 40Nm | 80Nm |
| | Down Shift (Top ⇒ Low) | 8Nm | 7Nm | 35Nm (TBD, to be provided in January, 2018) |
| Static strength | | Fulfil EN 14764 4.13.6 Requirements | | |
| Maximum continuous input allowed (to guarantee the durability of the hub) | Maximum torque (Nm) (*see NOTE 1 and 2) | 35 | 40 | 55 (TBD, to be provided in January, 2018) |
| | With the above mentioned Maxium torque, below Maximum input at the crank is calculated (with mentioned gear ratio) | | | |
| | Gear ratio (Front sprocket teeth/ Rear sprocket teeth) | 2.1 | 2.6 | 1.4 |
| | Maximum continuous input at crank (Watt) (*see NOTE 2) | 440 | 500 | 700 |
| Maximum input allowed at 50Nm to the crank arm by rider plus motor torque | Maximum torque (Nm) (*see NOTE 1, 2 and 3) | 60 | 60 | 80 (TBD, to be provided in January, 2018) |

C-374 Electronic Product Information / Comfort components / Internal Geared Hub / Dimensions - Added (SG-C7050-5D/5R/5C)

version 1.2 - October 10, 2017

| | Series | NEXUS | | |
|---|---|---|---|---|
| | Function name | INTER-5E | | |
| | Model No. | SG-C7050-5D | SG-C7050-5R | SG-C7050-5C |
| | Speed | 5 | | |
| | Gear ratio Total | 263% | | |
| A | Over locknut dim. / O.L.D. (mm) | 135 | | |
| B | Axle length (mm) | 187 | | |
| C | Flange distance (mm) | 57.3 | 58.3 | 58.3 |
| D | Spoke hole P.C.D. (mm) | 92.6 | | |
| E | Flange diameter (mm) | 105.2 | | |
| F | Flange width (mm): F1 (left)<br>Flange width (mm): F2 (right) | 3.2 | | |
| G | Chain line (mm): (inward assembly) | 42.2 | | |
| H | Offset (mm) | 3.2 | 3.7 | |
| J | Axle length from hub (left) | 26 | | |
| K | Axle length from hub (right) | | | |
| L | Axle size | BC3 / 8 TPI 26 | | |
| N | Dropout width (left, includes stay etc.) | 5-9 | | |
| P | Dropout width (right, includes stay etc.) | | | |
| Q | Non turn washer width | 6.4 | | |
| R | Spoke hole diameter (mm) | 2.9 | | |
| S | Spoke hole chamfer | 90° | | |

C-376 Electronic Product Information / Comfort components / Internal Geared Hub / Recommended gear ratio - Added (SG-C7000-5R/5V/5D/5C, SM-CRE61, CS-C7000)

version 1.2 - October 10, 2017

| Series | Model No. | Speed | Sprocket ratio | CS-C7000 | | |
|---|---|---|---|---|---|---|
| | | | | Gear teeth | SM-CRE61 | Inward assembly* |
| | | | | | | 27 |
| NEXUS | SG-C7050-5R<br>SG-C7050-5V<br>SG-C7050-5D<br>SG-C7050-5C | 5S | 1.3-1.5 | 38 | X | X |

* In case of DI2 IGH spec., sprockets cannot be used with outward assembly.
X: Yes

C-377 Electronic Product Information / Comfort components / Internal Geared Hub / Dust cap information - Added (SG-C7000-5R/5V/5D/5C)

version 1.1 - September 19, 2017

| Series | Speed | Model No. | Hub body (dust cap XX) | Right hand dust cap variation | Sealing performance |
|---|---|---|---|---|---|
| ALFINE | 11 | SG-S7051-11 | Right hand dust cap A w / Seal for SG-S700 | Right hand dust cap D for INTER-11 | 2.9 |
| | 8 | SG-S7051 | Right hand dust cap A w / Seal for SG-S501 | Right hand dust cap B for INTER-8 | 1.0 |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | Right hand dust cap A (Y-34R98110) | Right hand dust cap B for INTER-8 | 1.0 |

version 1.2 - October 10, 2017

| Series | Speed | Model No. | Hub body (dust cap XX) | Right hand dust cap variation | Sealing performance |
|---|---|---|---|---|---|
| ALFINE | 11 | SG-S7051-11 | Right hand dust cap A w / Seal for SG-S700 | Right hand dust cap D for INTER-11 | 2.9 |
| | 8 | SG-S7051 | Right hand dust cap A w / Seal for SG-S501 | Right hand dust cap B for INTER-8 | 1.0 |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | Right hand dust cap A (Y-34R98110) | Right hand dust cap B for INTER-8 | 1.0 |
| | 5 | SG-C7050-5R<br>SG-C7050-5V<br>SG-C7050-5D<br>SG-C7050-5C | Right hand dust cap A w/ Seal for SG-C7050-5 | Right hand dust cap D for INTER-5E | 2.9 |

C-557 Electronic Product Information / Comfort components / Internal Geared Hub / Sprocket compatibility - Added (SG-C7000-5, CS-C7000)

version 1.1 - September 19, 2017

| Series | Speed | Model No. | CS-5500* | | | |
|---|---|---|---|---|---|---|
| | | | Inward assembly | | Outward assembly | |
| | | | 18 | 20 | 18 | 20 |
| ALFINE | 11 | SG-S7051-11 | - | X | - | - |
| | 8 | SG-S7051 | X | X | - | - |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | X | X | - | - |

version 1.2 - October 10, 2017

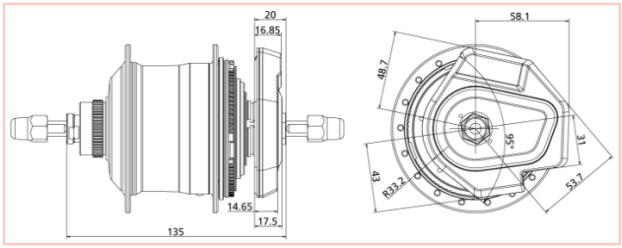
| Series | Speed | Model No. | CS-5500* | | | | CS-C7000 | |
|---|---|---|---|---|---|---|---|---|
| | | | Inward assembly | | Outward assembly | | Inward assembly | Outward assembly |
| | | | 18 | 20 | 18 | 20 | 27 | 27 |
| ALFINE | 11 | SG-S7051-11 | - | X | - | - | - | - |
| | 8 | SG-S7051 | X | X | - | - | - | - |
| NEXUS | 8 | SG-C6061-8R<br>SG-C6061-8D<br>SG-C6061-8C<br>SG-C6061-8CD | X | X | - | - | - | - |
| | 5 | SG-C7050-5 | - | - | - | - | X | - |

C-379 Electronic Product Information / Comfort components / Motor unit (MU-UR500) / Dimensions - Added (MU-UR500, dimension diagram)

version 1.1 - September 19, 2017

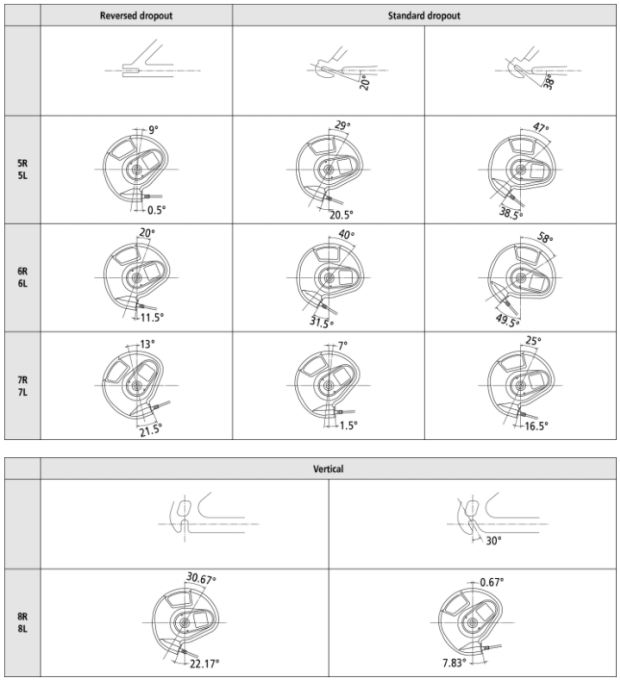
TBD

version 1.2 - October 10, 2017

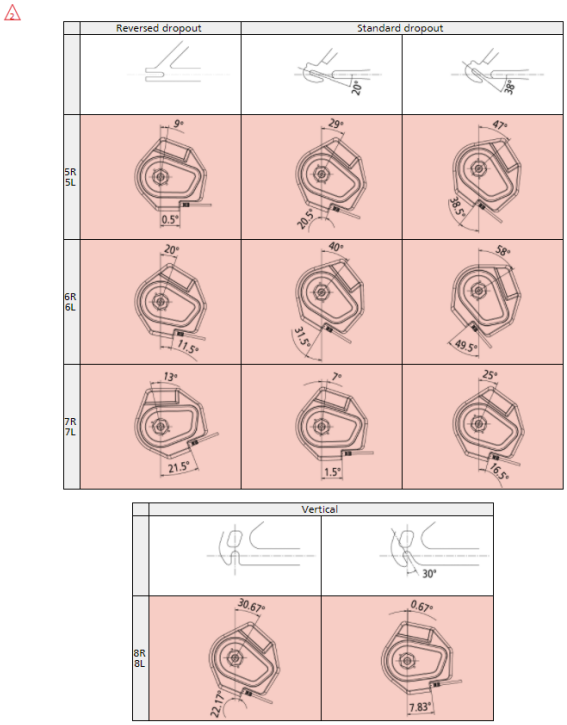



C-382 Electronic Product Information / Comfort components / Motor unit (MU-UR500) / Application chart - Revised (All the table was revised)

version 1.1 - September 19, 2017



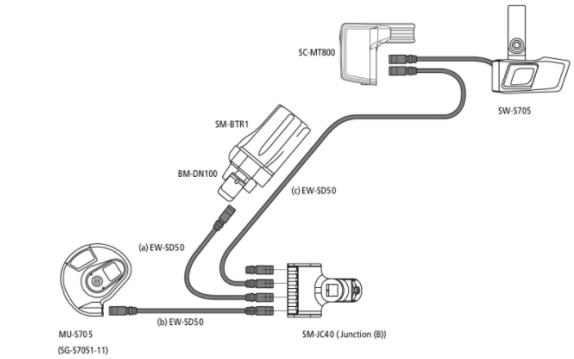

version 1.2 - October 10, 2017



C-389 Electronic Product Information / Comfort components / Electric wire routing / External wire routing - Revised (Motor unit changes to MU-UR500)

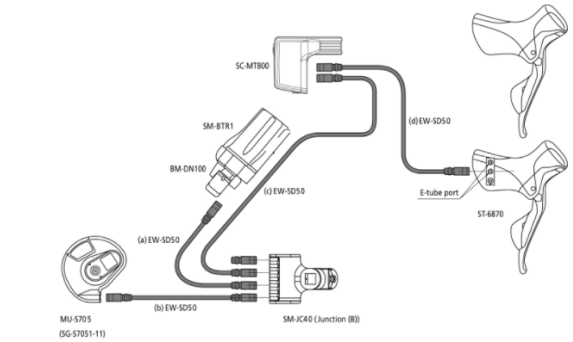
## version 1.1 - September 19, 2017

**Flat handlebar use**




Each cable's maximum length
a)+ b) ≤ 1500mm
c) ≤ 1400mm

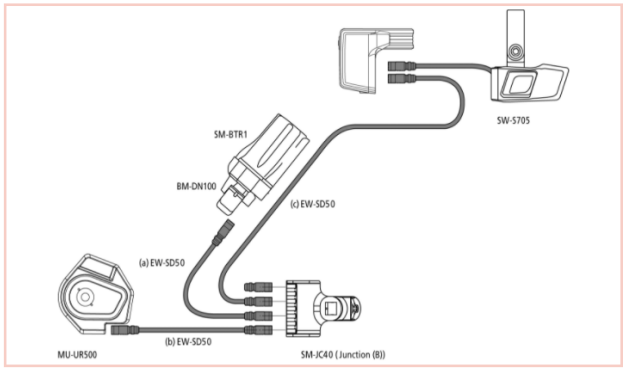
**Drop handlebar use**




Each cable's maximum length
a)+ b) ≤ 1500mm
c) ≤ 1400mm
d) ≤ 500mm

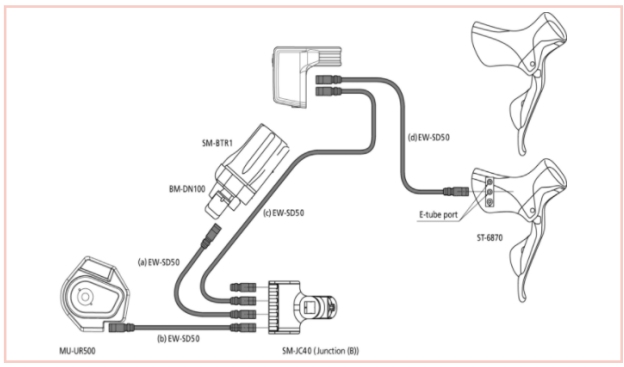
## version 1.2 - October 10, 2017

**Flat handlebar use**




Each cable's maximum length
a)+ b) ≤ 1500mm
c) ≤ 1400mm

**Drop handlebar use**

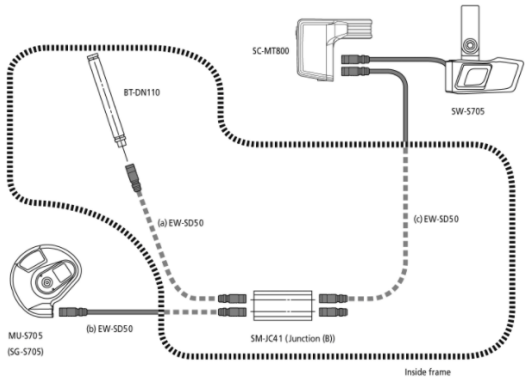



Each cable's maximum length
a)+ b) ≤ 1500mm
c) ≤ 1400mm
d) ≤ 500mm

## C-390 Electronic Product Information / Comfort components / Electric wire routing / Built-in battery mount type - Revised (Motor unit changes to MU-UR500)

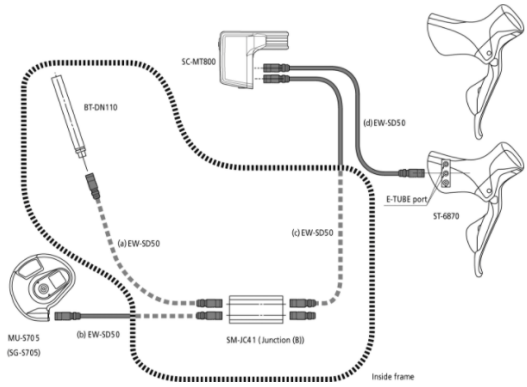
### version 1.1 - September 19, 2017

**Flat handlebar use**




Each cable's maximum length
a)+ b) ≤ 1600mm
c) ≤ 1400mm

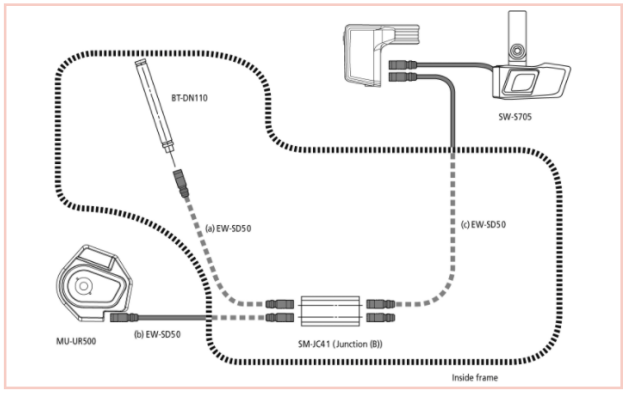
**Drop handlebar use**




Each cable's maximum length
a)+ b) ≤ 1600mm
c) ≤ 1400mm
d) ≤ 500mm

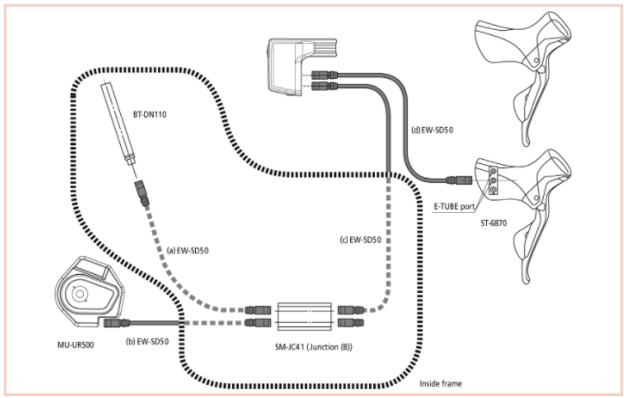
### version 1.2 - October 10, 2017

**Flat handlebar use**




Each cable's maximum length
a)+ b) ≤ 1600mm
c) ≤ 1400mm

**Drop handlebar use**




Each cable's maximum length
a)+ b) ≤ 1600mm
c) ≤ 1400mm
d) ≤ 500mm

## C-393 E-BIKE components / Drive unit / Drive unit dimensions - Added (DU-E7000, SM-DUE70)

### version 1.1 - September 19, 2017

**E6100 series**

DU-E6100 / DU-E6110 / SM-DUE61

### version 1.2 - October 10, 2017

**E6100 / E7000 series**

DU-E6100 / DU-E6110 and SM-DUE61
DU-E7000 and SM-DUE70

## C-395 E-BIKE components / Drive unit / Cable routing - Added (DU-E7000)

### version 1.1 - September 19, 2017

**E6100 series**

DU-E6100 / DU-E6110

### version 1.2 - October 10, 2017

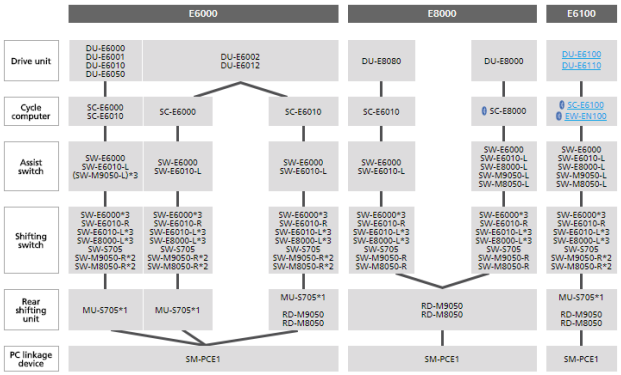
**E6100 / E7000 series**

DU-E6100 / DU-E6110 / DU-E7000

## C-525 E-BIKE components / E-bike compatibility chart / E-bike system (with E-TUBE PROJECT ver.3.4) - Revised (All the table was revised)

### version 1.1 - September 19, 2017

**E-bike system** C-525



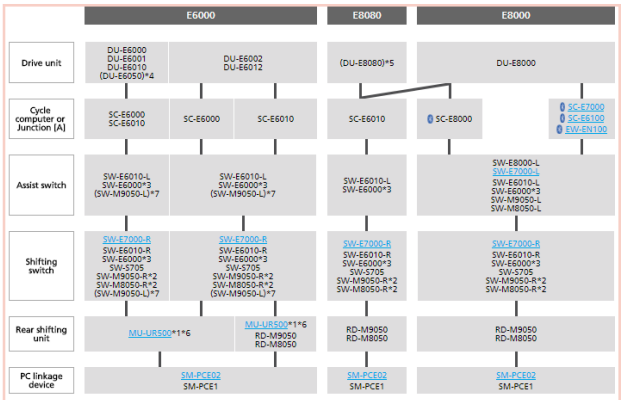

**Limitation of function**

*1 Full automatic shift is available only with 8 speed internal geard hub system (Not available with Rear Derailleur).
*2 Not support full automatic shift.
*3 Need to change Switch setting by E-TUBE PROJECT.

### version 1.2 - October 10, 2017

**△2E-bike system (with E-TUBE PROJECT ver.3.4)** C-525

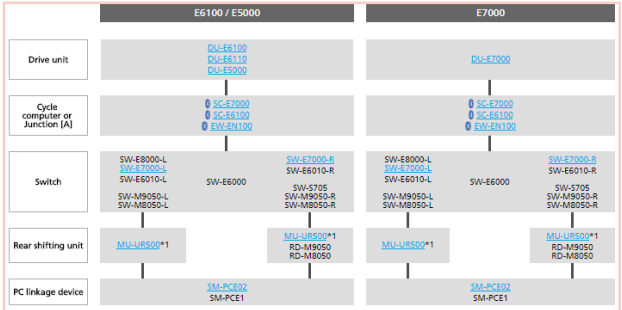
△1△2




**Limitation of function**

*1 Full automatic shift is available only with 8 speed and 5 speed internal geard hub system (Not available with Rear Derailleur).
*2 Not support full automatic shift.
*3 Need to change Switch setting by E-TUBE PROJECT.
*4 North American market only.
*5 Japanese market only.
*6 Compatible with 8 speed and 11 speed internal geared hub system only.
*7 The SW unit is not shown at compatibility chart for any external documents from Shimano.

△2




**Limitation of function**

*1 Full automatic shift is available only with 8 speed and 5 speed internal geard hub system (Not available with Rear Derailleur)

## C-488 E-BIKE components / E-bike compatibility chart / Drivetrain compatibility - Added (NEXUS INTER-5/5E, CS-C7000)

### version 1.1 - September 19, 2017

| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| DI2 Internal geared hub | 11-speed 8-speed | SM-CRE61 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| Mechanical Internal geared hub | ALFINE 11-speed 8-speed | SM-CRE61 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 8-speed | SM-CRE61 | Single | - | - | SM-GEAR | 8-speed |
| | | | w/o | - | | | CN-NX10 |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| Rear derailleur system | 11-speed | SM-CRE61 | Double | - | - | MTB 11-speed CS | CN-HG901-11 CN-HG701-11 CN-HG601-11 |
| | 10-speed | SM-CRE61 | Double | - | - | MTB 10-speed CS | CN-E6090-10 |
| | 9-speed | SM-CRE61 | Double | - | - | MTB 9-speed CS | CN-E6070-9 |
| | 8-speed | NA | | | | | |

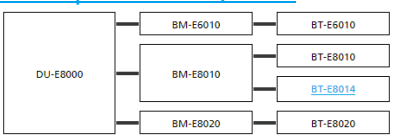
### version 1.2 - October 10, 2017

△2

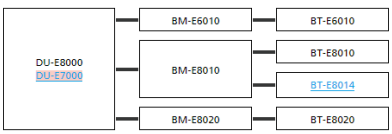
| Shifting system | Speed | Chainring | Chain guard | Chain device | CT use | Rear sprocket | Chain |
|---|---|---|---|---|---|---|---|
| DI2 Internal geared hub | 11-speed 8-speed | SM-CRE61 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | 5-speed | SM-CRE61 | Single / w/o | - | - | CS-C7000 | 8-speed |
| Mechanical Internal geared hub | ALFINE 11-speed 8-speed | SM-CRE61 | Single / w/o | - | - | SM-GEAR | 8-speed |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 8-speed | SM-CRE61 | Single | - | - | SM-GEAR | 8-speed |
| | | | w/o | - | | | CN-NX10 |
| | | | Double | - | CT-S500 | CS-S500 | 9/10-speed |
| | | | Single / w/o | - | CT-S510 | SM-GEAR | 8-speed |
| | NEXUS 5-speed | SM-CRE61 | Single | - | - | CS-C7000 | 8-speed |
| | | | w/o | - | | | CN-NX10 |
| Rear derailleur system | 11-speed | SM-CRE61 | Double | - | - | MTB 11-speed CS | CN-HG901-11 CN-HG701-11 CN-HG601-11 |
| | 10-speed | SM-CRE61 | Double | - | - | MTB 10-speed CS | CN-E6090-10 |
| | 9-speed | SM-CRE61 | Double | - | - | MTB 9-speed CS | CN-E6070-9 |
| | 8-speed | NA | | | | | |

## C-511 E-BIKE components / E-bike compatibility chart / Battery and battery mount compatibility - Added (DU-E7000)

### version 1.1 - September 19, 2017

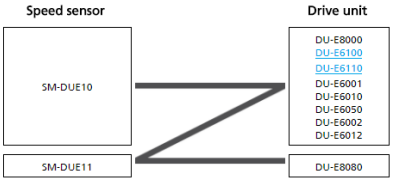



### version 1.2 - October 10, 2017



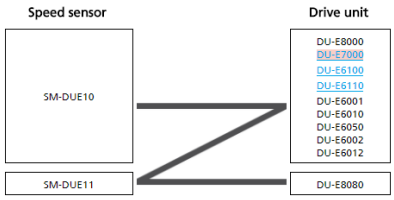
C-549 E-BIKE components / E-bike compatibility chart / Speed sensor and drive unit compatibility - Added (DU-E7000)

version 1.1 - September 19, 2017




version 1.2 - October 10, 2017

⚠2




C-402 E-BIKE components / Electrical Specifications / Electrical Specifications for lights - Revised (DU-E6002, supply current and peak current spec.)

version 1.1 - September 19, 2017

- supply voltage: DC 6V (±0.5V)
- supply current:
  - MAX 1000mA (DU-E6001, DU-E6010, DU-E6050, DU-E6002)
  - MAX 2000mA (DU-E8000, DU-E8080, DU-E6100, DU-E6110)

**Requirement for lights**

- The total current consumption of the lights (front and rear lights inclusive) must be less than 1000mA (2000mA in the case of DU-E8000, DU-E8080, DU-E6100, DU-E6110)
- Do not connect DU-E8000, DU-E8080, DU-E6050, DU-E6010 , DU-E6001 and DU-E6002 with
  - any light which has a stand/parking light function
  - any light which doesn't meet EMC directive for CE marking
- Do not connect any light which has following peak current
  - DU-E6001, DU-E6010, DU-E6050, DU-E6002: 1.4[A](peak current)
  - DU-E8000, DU-E8080, DU-E6100, DU-E6110: 3[A](peak current)
- Refer to C-487 "Electromagnetic compatibility" information

version 1.2 - October 10, 2017

⚠2

- supply voltage: DC 6V (±0.5V)
- supply current:
  - MAX 1000mA (DU-E6001, DU-E6010, DU-E6050)
  - MAX 2000mA (DU-E8000, DU-E8080, DU-E6100, DU-E6110, DU-E6002)

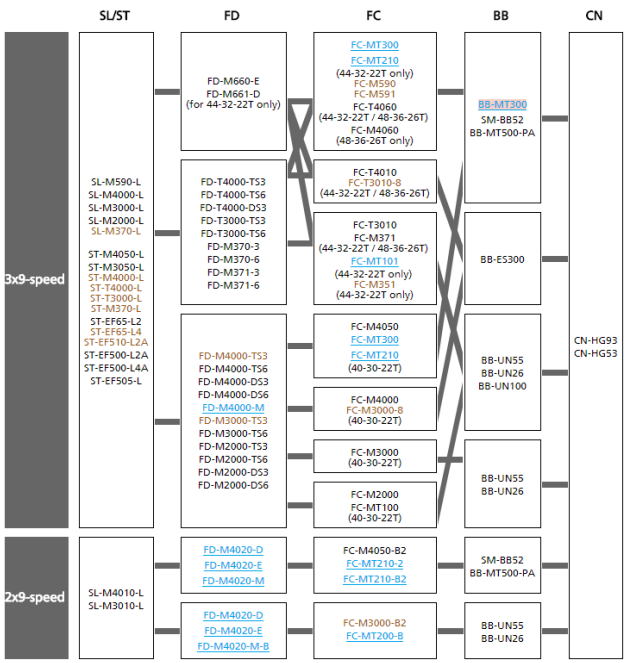
**Requirement for lights**

- The total current consumption of the lights (front and rear lights inclusive) must be less than 1000mA (2000mA in the case of DU-E8000, DU-E8080, DU-E6100, DU-E6110, DU-E6002)
- Do not connect any drive unit with
  - any light which has a stand/parking light function
  - any light which doesn't meet EMC directive for CE marking
- Do not connect any light which has following peak current
  - DU-E6001, DU-E6010, DU-E6050: 1.4[A](peak current)
  - DU-E8000, DU-E8080, DU-E6100, DU-E6110, DU-E6002: 3[A](peak current)
- Refer to C-487 "Electromagnetic compatibility" information

C-445 Compatibility / Drivetrain for MTB components / Front drivetrain compatibility [MTB] / 9-speed FC-FD compatibility [MTB] - Added (BB-MT500)

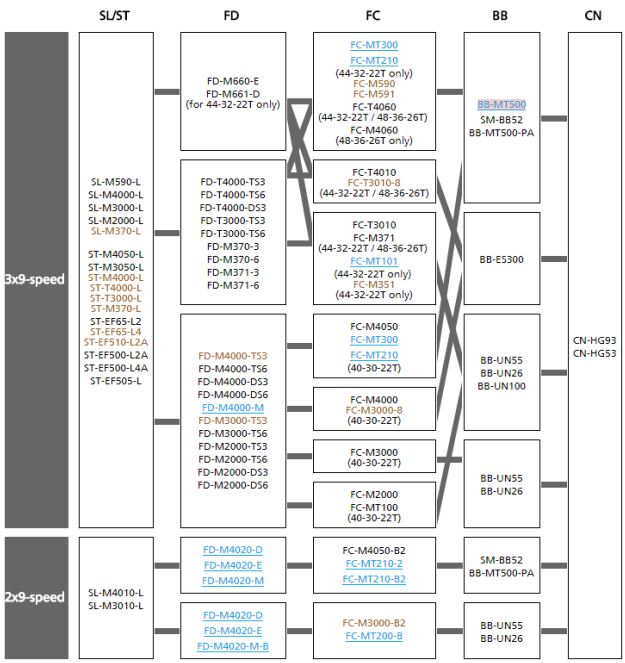
version 1.1 - September 19, 2017

⚠




version 1.2 - October 10, 2017

⚠2



## C-461 Compatibility / Disc brake / Disc brake caliper and Rotor compatibility - Revised (SM-RT56/RT54 are compatible with Resin pad caliper specification only)

### version 1.1 - September 19, 2017

| Brake caliper | Brake pad material | Pad type | Disc brake rotor | | | |
|---|---|---|---|---|---|---|
| | | | 203 mm (L) | 180 mm (M) | 160 mm (S) | 140 mm (SS) |
| BR-M9100<br>BR-M9120<br>BR-M9000<br>BR-M9020<br>BR-M8000<br>BR-M8020<br>BR-M7000<br>BR-M6000<br>BR-MT520 | Metal / Resin | Narrow | RT-MT900-L<br>SM-RT99-L<br>SM-RT86-L<br>SM-RT81-L<br>RT-EM900-L*<br>SM-RT76-L<br>SM-RT70-L<br>SM-RT66-L<br>SM-RT64-L | RT-MT900-M<br>SM-RT99-M<br>SM-RT86-M<br>SM-RT81-M<br>RT-EM900-M*<br>RT-EM800-M*<br>SM-RT76-M<br>SM-RT70-M<br>SM-RT66-M<br>SM-RT64-M<br>SM-RT56-M<br>SM-RT54-M | RT-MT900-S<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>RT-EM900-S*<br>RT-EM800-S*<br>SM-RT76-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S<br>SM-RT56-S<br>SM-RT54-S | SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-M820<br>BR-M640 | Metal / Resin | | | | | |
| BR-S700 | Resin | | | | | |
| BR-T675<br>BR-T615<br>BR-M4050<br>BR-MT500<br>BR-M446<br>BR-MT400<br>BR-M3050<br>BR-M395<br>BR-M375<br>BR-MT200<br>BR-M365<br>BR-M315<br>BR-TX805 | Resin | Wide | - | SM-RT56-M<br>SM-RT54-M<br>SM-RT30-M<br>SM-RT26-M<br>SM-RT10-M | SM-RT56-S<br>SM-RT54-S<br>SM-RT30-S<br>SM-RT26-S<br>SM-RT10-S | - |
| BR-UR300 | Resin | Wide | - | - | SM-RT56-S<br>SM-RT54-S<br>SM-RT30-S<br>SM-RT26-S<br>SM-RT10-S | - |
| BR-R9170<br>BR-R8070<br>BR-R7070<br>BR-RS805<br>BR-R785<br>BR-RS785<br>BR-RS505<br>BR-RS405 | Metal / Resin | Narrow | - | - | SM-RT900-S<br>SM-RT800-SS<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT70-S | SM-RT900-SS<br>SM-RT800-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-CX77<br>BR-RS17<br>BR-R317<br>BR-RS305 | Metal / Resin | Narrow | - | - | SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT76-S<br>SM-RT75-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S<br>SM-RT56-S<br>SM-RT54-S | SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-U5000 | Metal / Resin | Narrow | - | - | SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT76-S<br>SM-RT75-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S<br>SM-RT56-S<br>SM-RT54-S | SM-RT500-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |

* Disc brake rotor for speed sensor SM-DUE11, rear only.

### version 1.2 - October 10, 2017

| Brake caliper | Brake pad material | Pad type | Disc brake rotor | | | |
|---|---|---|---|---|---|---|
| | | | 203 mm (L) | 180 mm (M) | 160 mm (S) | 140 mm (SS) |
| BR-M9100<br>BR-M9120<br>BR-M9000<br>BR-M9020<br>BR-M8000<br>BR-M8020<br>BR-M7000<br>BR-M6000<br>BR-MT520 | Metal / Resin | Narrow | RT-MT900-L<br>SM-RT99-L<br>SM-RT86-L<br>SM-RT81-L<br>RT-EM900-L*<br>SM-RT76-L<br>SM-RT70-L<br>SM-RT66-L<br>SM-RT64-L | RT-MT900-M<br>SM-RT99-M<br>SM-RT86-M<br>SM-RT81-M<br>RT-EM900-M*<br>RT-EM800-M*<br>SM-RT76-M<br>SM-RT70-M<br>SM-RT66-M<br>SM-RT64-M | RT-MT900-S<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>RT-EM900-S*<br>RT-EM800-S*<br>SM-RT76-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-M820<br>BR-M640 | Metal / Resin | | | | | |
| BR-S700 | Resin | | | | | |
| BR-T675<br>BR-T615<br>BR-M4050<br>BR-MT500<br>BR-M446<br>BR-MT400<br>BR-M3050<br>BR-M395<br>BR-M375<br>BR-MT200<br>BR-M365<br>BR-M315<br>BR-TX805 | Resin | Wide | - | SM-RT56-M<br>SM-RT54-M<br>SM-RT30-M<br>SM-RT26-M<br>SM-RT10-M | SM-RT56-S<br>SM-RT54-S<br>SM-RT30-S<br>SM-RT26-S<br>SM-RT10-S | - |
| BR-UR300 | Resin | Wide | - | - | SM-RT56-S<br>SM-RT54-S<br>SM-RT30-S<br>SM-RT26-S<br>SM-RT10-S | - |
| BR-R9170<br>BR-R8070<br>BR-R7070<br>BR-RS805<br>BR-R785<br>BR-RS785<br>BR-RS505<br>BR-RS405 | Metal / Resin | Narrow | - | - | SM-RT900-S<br>SM-RT800-SS<br>SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT70-S | SM-RT900-SS<br>SM-RT800-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-CX77<br>BR-RS17<br>BR-R317<br>BR-RS305 | Metal / Resin | Narrow | - | - | SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT76-S<br>SM-RT75-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |
| BR-U5000 | Metal / Resin | Narrow | - | - | SM-RT99-S<br>SM-RT86-S<br>SM-RT81-S<br>SM-RT76-S<br>SM-RT75-S<br>SM-RT70-S<br>SM-RT66-S<br>SM-RT64-S | SM-RT500-SS<br>SM-RT99-SS<br>SM-RT99-A-SS<br>SM-RT81-SS |

* Disc brake rotor for speed sensor SM-DUE11, rear only.

## C-471 Compatibility / Comfort components / Combinations of the rear gear, cassette sprocket, and crankset for designing the frame - Added (NEXUS 8S / 7S / 5S for E-BIKE - Disc brake use)

### version 1.1 - September 19, 2017

| Series | Speed | Brake type | Dropout design | Compatibility | CT use | CS / SM-GEAR | FC | CN | additional condition |
|---|---|---|---|---|---|---|---|---|---|
| ALFINE | 11S / 8S | Disc use | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | Ok | CT-S510 | SM-GEAR | G | J | |
| | | V-BR use | A | OK | - | SM-GEAR | G | J | |
| | | | B | OK | - | SM-GEAR | G | J | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| NEXUS | 8S / 7S / 3S (except 3D)<br>5S for E-BIKE | HRB / V-BR | A | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | B | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | C | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | D | NR | CT-S500 | CS-S500 | F | I | *2 |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| | | Coaster | A | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | B | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | C | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | D | NR | CT-S500 | - | - | - | *3 |
| | | | | NR | CT-S510 | - | - | - | *4 |
| | 3D | Disc use | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| | | V-BR use | A | OK | - | SM-GEAR | G | J | |
| | | | B | OK | - | SM-GEAR | G | J | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |

*1 Special disc brake mount design is needed.
*2 without chain guard for hub gear side.
*3 Structure of CT-S500 can't transfer chain tension by back pedalling.
*4 Not enough force of fixation against back pedalling power.

### version 1.2 - October 10, 2017

| Series | Speed | Brake type | Dropout design | Compatibility | CT use | CS / SM-GEAR | FC | CN | additional condition |
|---|---|---|---|---|---|---|---|---|---|
| ALFINE | 11S / 8S | Disc brake | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | Ok | CT-S510 | SM-GEAR | G | J | |
| | | V-BRAKE | A | OK | - | SM-GEAR | G | J | |
| | | | B | OK | - | SM-GEAR | G | J | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| NEXUS | 8S / 7S / 5S for E-BIKE | Disc brake | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | Ok | CT-S510 | SM-GEAR | G | J | |
| | 8S / 7S / 3S (except 3D) / 5S for E-BIKE | Hub roller brake V-BRAKE | A | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | B | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | C | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | D | NR | CT-S500 | CS-S500 | F | I | *2 |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| | | Coaster brake | A | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | B | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | C | OK | - | SM-GEAR | E | H | |
| | | | | | | | G | J | |
| | | | D | NR | CT-S500 | - | - | - | *3 |
| | | | | NR | CT-S510 | - | - | - | *4 |
| | 3D | Disc brake | A | NR | - | - | - | - | *1 |
| | | | B | NR | - | - | - | - | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |
| | | V-BRAKE | A | OK | - | SM-GEAR | G | J | |
| | | | B | OK | - | SM-GEAR | G | J | |
| | | | C | OK | - | SM-GEAR | G | J | |
| | | | D | OK | CT-S500 | CS-S500 | F | I | |
| | | | | OK | CT-S510 | SM-GEAR | G | J | |

*1 Special disc brake mount design is needed.
*2 without chain guard for hub gear side.
*3 Structure of CT-S500 can't transfer chain tension by back pedalling.
*4 Not enough force of fixation against back pedalling power.

# September 19, 2017 (Ver 1.1)

## C-540 Frame Requirement / Front derailleur / Band type [MTB] / Middle clamp type - Revised (FD-M4000-M, dimension A and D)

### version 1.0 - September 5, 2017

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 12 | 66-69 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD |
| 10 | 66-69 | FD-M6000-M | 40T | 93 | 93 | 116 | 117 |
| | | | 42T | 97 | 97 | 120 | 121 |
| | | FD-M6020-M | 34T | 85 | 85 | 108 | 109 |
| | | | 36T | 89 | 89 | 112 | 113 |
| | | | 38T | 93 | 93 | 116 | 117 |
| 9 | 66-69 | FD-M4000-M | 40T | 96 | 93 | 116 | 115 |
| | 64-69 | FD-M4020-M | 36T | 92 | 89 | 109 | 107 |
| | 64-69 | FD-M4020-M-B | 36T | 92 | 89 | 109 | 107 |

### version 1.1 - September 19, 2017

⚠1

| Speed | θ (deg.) | Model No. | Crankset | A (mm) | B (mm) | C (mm) | D (mm) |
|---|---|---|---|---|---|---|---|
| 12 | 66-69 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD |
| 10 | 66-69 | FD-M6000-M | 40T | 93 | 93 | 116 | 117 |
| | | | 42T | 97 | 97 | 120 | 121 |
| | | FD-M6020-M | 34T | 85 | 85 | 108 | 109 |
| | | | 36T | 89 | 89 | 112 | 113 |
| | | | 38T | 93 | 93 | 116 | 117 |
| 9 | 66-69 | FD-M4000-M | 40T | 92 | 93 | 118 | 115 |
| | 64-69 | FD-M4020-M | 36T | 92 | 89 | 109 | 107 |
| | 64-69 | FD-M4020-M-B | 36T | 92 | 89 | 109 | 107 |

## C-056 Frame Requirement / Front derailleur / SIDE SWING type [MTB] - Revised (FD-M4000/M4020, various dimension)

### version 1.0 - September 5, 2017

| FD type | Speed | Model No. | Crank set | A (mm) Chain line (mm) | | | B (mm) Chain line (mm) | | | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) | J (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 48.8 | 50 | 51.8 | 48.8 | 50 | 51.8 | | | | | | | | |
| SIDE SWING | 12 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | 11 | FD-M9000-H<br>FD-M9000-L<br>FD-M9000-D<br>FD-M9000-E<br>FD-M8000-H<br>FD-M8000-L<br>FD-M8000-D<br>FD-M8000-E | 40T | – | 31 | – | – | 18 | – | 129 | 52 | 83 | 72 | 26 | 75 | 15 | 115 |
| | | FD-M9020-H<br>FD-M9020-L<br>FD-M8020-H<br>FD-M8020-L<br>FD-M7020-11-H<br>FD-M7020-11-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M9020-D<br>FD-M9020-E<br>FD-M8020-D<br>FD-M8020-E | 34T | 33 | – | 36 | 22 | – | 25 | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | FD-M7020-11-D<br>FD-M7020-11-E | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | 10 | FD-M7000-10-H<br>FD-M7000-10-L<br>FD-M7000-10-D<br>FD-M7000-10-E<br>FD-M6000-H<br>FD-M6000-M<br>FD-M6000-L<br>FD-M6000-D<br>FD-M6000-E | 40T | – | 32 | – | – | 18 | – | 129 | 54 | 83 | 72 | 26 | 76 | 15 | 115 |
| | | | 42T | | | | | | | 133 | 58 | 83 | 72 | 26 | 80 | 15 | 119 |
| | | FD-M617-H<br>FD-M617-L | 36T | 32 | – | – | 21 | – | – | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M617-D<br>FD-M617-E | 36T | 32 | – | 35 | 21 | – | 24 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M6020-H<br>FD-M6020-M<br>FD-M6020-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M6020-D<br>FD-M6020-E | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | 36 | | | 25 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | 9 | FD-M4000-M | 40T | – | 31 | – | – | 11 | – | 130 | 45 | 87 | 72 | 32 | 74 | 11 | 116 |
| | | FD-M4020-M | 36T | 30 | – | – | 13 | – | – | 123 | 55 | 70 | 72.6 | 18 | 72 | 18 | 111 |
| | | FD-M4020-M-B | 36T | – | – | 33 | – | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 18 | 111 |
| | | FD-M4020-D | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 18 | 111 |
| | | FD-M4020-E | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 18 | 111 |

* Only E/D type FD are compatible with chain line 3mm outboard spec.

### version 1.1 - September 19, 2017

⚠1

| FD type | Speed | Model No. | Crank set | A (mm) Chain line (mm) | | | B (mm) Chain line (mm) | | | C (mm) | D (mm) | E (mm) | F (deg.) | G (mm) | H (mm) | I (mm) | J (mm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | 48.8 | 50 | 51.8 | 48.8 | 50 | 51.8 | | | | | | | | |
| SIDE SWING | 12 | FD-M9100-M | 38T | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | 11 | FD-M9000-H<br>FD-M9000-L<br>FD-M9000-D<br>FD-M9000-E<br>FD-M8000-H<br>FD-M8000-L<br>FD-M8000-D<br>FD-M8000-E | 40T | – | 31 | – | – | 18 | – | 129 | 52 | 83 | 72 | 26 | 75 | 15 | 115 |
| | | FD-M9020-H<br>FD-M9020-L<br>FD-M8020-H<br>FD-M8020-L<br>FD-M7020-11-H<br>FD-M7020-11-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M9020-D<br>FD-M9020-E<br>FD-M8020-D<br>FD-M8020-E | 34T | 33 | – | 36 | 22 | – | 25 | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | FD-M7020-11-D<br>FD-M7020-11-E | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | 10 | FD-M7000-10-H<br>FD-M7000-10-L<br>FD-M7000-10-D<br>FD-M7000-10-E<br>FD-M6000-H<br>FD-M6000-M<br>FD-M6000-L<br>FD-M6000-D<br>FD-M6000-E | 40T | – | 32 | – | – | 18 | – | 129 | 54 | 83 | 72 | 26 | 76 | 15 | 115 |
| | | | 42T | | | | | | | 133 | 58 | 83 | 72 | 26 | 80 | 15 | 119 |
| | | FD-M617-H<br>FD-M617-L | 36T | 32 | – | – | 21 | – | – | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M617-D<br>FD-M617-E | 36T | 32 | – | 35 | 21 | – | 24 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M6020-H<br>FD-M6020-M<br>FD-M6020-L | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | | | | | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | | | | | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | | FD-M6020-D<br>FD-M6020-E | 34T | 33 | – | – | 22 | – | – | 122 | 52 | 70 | 72.6 | 18 | 67 | 18 | 108 |
| | | | 36T | | | 36 | | | 25 | 126 | 56 | 70 | 72.6 | 18 | 71 | 18 | 111 |
| | | | 38T | | | – | | | – | 130 | 60 | 70 | 72.6 | 18 | 75 | 18 | 115 |
| | 9 | FD-M4000-M | 40T | – | 26 | – | – | 11 | – | 134 | 54 | 88 | 72 | 33 | 74 | 10 | 116 |
| | | FD-M4020-M | 36T | 30 | – | – | 13 | – | – | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |
| | | FD-M4020-M-B | 36T | – | – | 33 | – | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |
| | | FD-M4020-D | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |
| | | FD-M4020-E | 36T | 30 | – | 33 | 13 | – | 16 | 123 | 55 | 70 | 72.6 | 18 | 72 | 8 | 111 |

* Only E/D type FD are compatible with chain line 3mm outboard spec.

## C-069 Frame Requirement / Disc brake / Front disc brake mount dimensions / QR type - Added (BR-M9100/M9120, various dimension)

### version 1.0 - September 5, 2017

| | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M8020 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | 2.0 | 6.0 | 90° | 95° |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 BR-M9020 | | | | | 0 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | 2.0 | 6.0 | 90° | 95° |
| | BR-M8000 BR-M7000 | | | | | 0 | | | |
| | BR-M6000 | | | | | 0 | | | |
| | BR-T675 | | | | | 1.0 | | | |
| | BR-M640 | | | | | 2.0 | | | |
| | BR-M4050 BR-M3050 BR-MT500 | | | | | 1.0 | | | |
| | BR-M446 | | | | | 0 | | | |
| | BR-MT400 | | | | | 1.0 | | | |
| | BR-M395 | | | | | 1.0 | | | |
| | BR-M375 | | | | | 1.5 | | | |
| | BR-MT200 | | | | | 1.0 | | | |
| | BR-M365 BR-M315 | | | | | 1.0 | | | |
| | BR-TX805 | | | | | 1.5 | | | |
| | BR-5700 BR-R5785 BR-R785 | | | | | 0 | | | |
| | BR-CX77 BR-R317 | | | | | 1.5 | | | |

| | Model No. | Dimension | | | | |
|---|---|---|---|---|---|---|
| | | A (mm) | B (mm) | C (mm) | D (mm) | Min. E (mm) |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | TBD | TBD | TBD | TBD | TBD |
| | BR-M8020 | 140 mm (SS): 47.5 ± 0.1 160 mm (S): 55.9 ± 0.1 180 mm (M) 64.0 ± 0.1 203mm (L) 73.9 ± 0.1 | 140 mm (SS): 74.2 ± 0.1 160 mm (S): 74.2 ± 0.1 180 mm (M) 74.2 ± 0.1 203mm (L) 74.2 ± 0.1 | 140 mm (SS): 1.7 ± 0.1 160 mm (S): 6.8 ± 0.1 180 mm (M) 12.4 ± 0.1 203mm (L) 18.8 ± 0.1 | 140 mm (SS): 0.94+0.3 - 1.3 160 mm (S): 0.94+0.3 - 1.3 180 mm (M) 0.94+0.3 - 1.3 203mm (L) 0.94+0.3 - 1.3 | 11.5 |
| | BR-MT520 | | | | | 11.5 |
| | BR-M9000 | | | | | 10.0 |
| | BR-M9020 | | | | | 11.0 |
| Cap type | BR-M8000 | | | | | 10.0 |
| | BR-M820 | | | | | 11.5 |
| | BR-M7000 | | | | | 10.0 |
| | BR-M6000 | | | | | 10.0 |
| | BR-T675 | | | | | 11.5 |
| | BR-M640 | | | | | 11.5 |
| | BR-M4050 | | | | | 11.5 |
| | BR-M3050 | | | | | 11.5 |
| | BR-MT500 | | | | | 11.5 |
| | BR-M446 | | | | | 11.5 |
| | BR-MT400 | | | | | 11.5 |
| | BR-M395 | | | | | 11.5 |
| | BR-M375 | | | | | 11.0 |
| | BR-MT200 | | | | | 11.5 |
| | BR-M365 | | | | | 11.5 |
| | BR-M315 | | | | | 11.5 |
| | BR-TX805 | | | | | 11.0 |
| | BR-5700 | | | | | 10.0 |
| | BR-R5785 | | | | | 10.0 |
| | BR-R785 | | | | | 10.0 |
| | BR-CX77 | | | | | 11.0 |
| | BR-R317 | | | | | 11.0 |

### version 1.1 - September 19, 2017

| | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | 0 | 6.0 | 90° | 95° |
| | BR-M9120 | | | | | | | | |
| | BR-M8020 | | | | | 2.0 | | | |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 BR-M9020 | | | | | 0 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | 2.0 | 6.0 | 90° | 95° |
| | BR-M8000 BR-M7000 | | | | | 0 | | | |
| | BR-M6000 | | | | | 0 | | | |
| | BR-M640 | | | | | 2.0 | | | |
| | BR-MT500 | | | | | 1.0 | | | |
| | BR-M446 | | | | | 0 | | | |
| | BR-MT400 | | | | | 1.0 | | | |
| | BR-M375 | | | | | 1.5 | | | |
| | BR-MT200 | | | | | 1.0 | | | |
| | BR-TX805 | | | | | 1.5 | | | |
| | BR-5700 BR-R5785 | | | | | 0 | | | |
| | BR-R317 | | | | | 1.5 | | | |

| | Model No. | Dimension | | | | |
|---|---|---|---|---|---|---|
| | | A (mm) | B (mm) | C (mm) | D (mm) | Min. E (mm) |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | 140 mm (SS): 47.5 ± 0.1 160 mm (S): 55.9 ± 0.1 180 mm (M) 64.0 ± 0.1 203 mm (L) 73.9 ± 0.1 | 140 mm (SS): 74.2 ± 0.1 160 mm (S): 74.2 ± 0.1 180 mm (M) 74.2 ± 0.1 203 mm (L) 74.2 ± 0.1 | 140 mm (SS): 1.7 ± 0.1 160 mm (S): 6.8 ± 0.1 180 mm (M) 12.4 ± 0.1 203 mm (L) 18.8 ± 0.1 | 140 mm (SS): 0.94+0.3 - 1.3 160 mm (S): 0.94+0.3 - 1.3 180 mm (M) 0.94+0.3 - 1.3 203 mm (L) 0.94+0.3 - 1.3 | 11.5 |
| | BR-M8020 | | | | | 11.5 |
| | BR-MT520 | | | | | 11.5 |
| | BR-M9000 | | | | | 10.0 |
| | BR-M9020 | | | | | 11.0 |
| Cap type | BR-M8000 | | | | | 10.0 |
| | BR-M820 | | | | | 11.5 |
| | BR-M7000 | | | | | 10.0 |
| | BR-M6000 | | | | | 10.0 |
| | BR-M640 | | | | | 11.5 |
| | BR-MT500 | | | | | 11.5 |
| | BR-M446 | | | | | 11.5 |
| | BR-MT400 | | | | | 11.5 |
| | BR-M375 | | | | | 11.0 |
| | BR-MT200 | | | | | 11.5 |
| | BR-TX805 | | | | | 11.0 |
| | BR-5700 | | | | | 10.0 |
| | BR-R5785 | | | | | 10.0 |
| | BR-R317 | | | | | 11.0 |

## C-074 Frame Requirement / Disc brake / Rear disc brake mount dimensions / For international standard mount - Added (BR-M9100/M9120, various dimension)

### version 1.0 - September 5, 2017

| | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M8020 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 | | | | | -5.0 | | | |
| | BR-M9020 | | | | | -0.5 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8000 BR-M7000 | | | | | -5.0 | | | |
| | BR-M6000 | | | | | -6.5 | | | |
| | BR-T675 | | | | | -4.0 | | | |
| | BR-M640 | | | | | -3.0 | | | |
| | BR-M4050 BR-M3050 BR-MT500 BR-M446 | | | | | -4.0 | | | |
| | BR-MT400 | | | | | -4.0 | | | |
| | BR-M395 | | | | | -4.0 | | | |
| | BR-M375 | | | | | -3.5 | | | |
| | BR-MT200 | | | | | -4.0 | | | |
| | BR-M365 BR-M315 | | | | | -4.0 | | | |
| | BR-TX805 | | | | | -3.5 | | | |
| | BR-5700 BR-R5785 BR-R785 | | | | | -5.0 | | | |
| | BR-CX77 BR-R317 | | | | | -3.5 | | | |

| | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M8020 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 | | | | | -5.0 | | | |
| | BR-M9020 | | | | | -0.5 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8000 BR-M7000 | | | | | -5.0 | | | |
| | BR-M6000 | | | | | -6.5 | | | |
| | BR-T675 | | | | | -4.0 | | | |
| | BR-M640 | | | | | -3.0 | | | |
| | BR-M4050 BR-M3050 BR-MT500 BR-M446 | | | | | -4.0 | | | |
| | BR-MT400 | | | | | -4.0 | | | |
| | BR-M395 | | | | | -4.0 | | | |
| | BR-M375 | | | | | -3.5 | | | |
| | BR-MT200 | | | | | -4.0 | | | |
| | BR-M365 BR-M315 | | | | | -4.0 | | | |
| | BR-TX805 | | | | | -3.5 | | | |
| | BR-5700 BR-R5785 BR-R785 | | | | | -5.0 | | | |
| | BR-CX77 BR-R317 | | | | | -3.5 | | | |

### version 1.1 - September 19, 2017

| | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -5.0 | 6.0 | 90° | 95° |
| | BR-M9120 | | | | | | | | |
| | BR-M8020 | | | | | -3.0 | | | |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 | | | | | -5.0 | | | |
| | BR-M9020 | | | | | -0.5 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8000 BR-M7000 | | | | | -5.0 | | | |
| | BR-M6000 | | | | | -6.5 | | | |
| | BR-M640 | | | | | -3.0 | | | |
| | BR-MT500 BR-M446 | | | | | -4.0 | | | |
| | BR-MT400 | | | | | -4.0 | | | |
| | BR-M375 | | | | | -3.5 | | | |
| | BR-MT200 | | | | | -4.0 | | | |
| | BR-TX805 | | | | | -3.5 | | | |
| | BR-5700 BR-R5785 | | | | | -5.0 | | | |
| | BR-R317 | | | | | -3.5 | | | |

| | Model No. | Dimension | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Min. A (mm) | Max. B (mm) | Max. C | Max. D | Min. E (mm) | Min. F (mm) | Min. G | Min. H |
| Wiring type | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| | BR-M9120 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8020 | | | | | | | | |
| | BR-MT520 | | | | | | | | |
| | BR-M9000 | | | | | -5.0 | | | |
| | BR-M9020 | | | | | -0.5 | | | |
| Cap type | BR-M820 | 8.0 | Part M: 6.5 Part N: 8.0 | 45° | 45° | -3.0 | 6.0 | 90° | 95° |
| | BR-M8000 BR-M7000 | | | | | -5.0 | | | |
| | BR-M6000 | | | | | -6.5 | | | |
| | BR-M640 | | | | | -3.0 | | | |
| | BR-MT500 BR-M446 | | | | | -4.0 | | | |
| | BR-MT400 | | | | | -4.0 | | | |
| | BR-M375 | | | | | -3.5 | | | |
| | BR-MT200 | | | | | -4.0 | | | |
| | BR-TX805 | | | | | -3.5 | | | |
| | BR-5700 BR-R5785 | | | | | -5.0 | | | |
| | BR-R317 | | | | | -3.5 | | | |

C-075 Frame Requirement / Disc brake / Rear disc brake mount dimensions / For post mount - Added (BR-M9120, dimension min.E)

version 1.0 - September 5, 2017

| | Model No. | Dimension | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | A (mm) | B (mm) | C (mm) | D (mm) O.L.D. 135, 150 mm straight and BMX type | D (mm) O.L.D. 142 mm E-THRU type | D (mm) O.L.D. 148 mm E-THRU type | Min. E (mm) |
| Wiring type | BR-M9100 | | | | | | | TBD |
| | BR-M9120 | | | | | | | TBD |
| | BR-M8020 | | | | | | | 11.5 |
| | BR-MT520 | | | | | | | 11.5 |
| | BR-M9000 | | | | | | | 10.0 |
| | BR-M9020 | | | | | | | 11.0 |
| Cap type | BR-M820 | | | | | | | 11.5 |
| | BR-M8000 | | | | | | | 10.0 |
| | BR-M7000 | | | | | | | 10.0 |
| | BR-M6000 | 140 mm (SS): 47.5 ± 0.1 | 140 mm (SS): 74.2 ± 0.1 | 140 mm (SS): 1.7 ± 0.1 | 140 mm (SS): 5.7 +0.3 - 1.3 | 140 mm (SS): 9.2 +0.3 - 1.3 | 140 mm (SS): 9.2 +0.3 - 1.3 | 9.0 |
| | BR-T675 | | | | | | | 11.5 |
| | BR-M640 | 160 mm (S): 55.9 ± 0.1 | 160 mm (S): 74.2 ± 0.1 | 160 mm (S): 6.8 ± 0.1 | 160 mm (S): 5.7 +0.3 - 1.3 | 160 mm (S): 9.2 +0.3 - 1.3 | 160 mm (S): 9.2 +0.3 - 1.3 | 11.5 |
| | BR-M4050 | | | | | | | 11.5 |
| | BR-M3050 | | | | | | | 11.5 |
| | BR-MT500 | 180 mm (M): 64.0 ± 0.1 | 180 mm (M): 74.2 ± 0.1 | 180 mm (M): 12.4 ± 0.1 | 180 mm (M): 5.7 +0.3 - 1.3 | 180 mm (M): 9.2 +0.3 - 1.3 | 180 mm (M): 9.2 +0.3 - 1.3 | 11.5 |
| | BR-M446 | | | | | | | 11.5 |
| | BR-MT400 | 203mm (L): 73.9 ± 0.1 | 203mm (L): 74.2 ± 0.1 | 203mm (L): 18.8 ± 0.1 | 203mm (L): 5.7 +0.3 - 1.3 | 203mm (L): 9.2 +0.3 - 1.3 | 203mm (L): 9.2 +0.3 - 1.3 | 11.5 |
| | BR-M395 | | | | | | | 11.5 |
| | BR-M375 | | | | | | | 11.0 |
| | BR-MT200 | | | | | | | 11.0 |
| | BR-M365 | | | | | | | 11.5 |
| | BR-M315 | | | | | | | 11.5 |
| | BR-TX805 | | | | | | | 11.0 |
| | BR-S700 | | | | | | | 10.0 |
| | BR-R5785 | | | | | | | 10.0 |
| | BR-R785 | | | | | | | 10.0 |
| | BR-CX77 | | | | | | | 11.0 |
| | BR-R317 | | | | | | | 11.0 |

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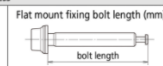
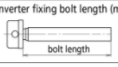
| | Model No. | Dimension | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | A (mm) | B (mm) | C (mm) | D (mm) O.L.D. 135, 150 mm straight and BMX type | D (mm) O.L.D. 142 mm E-THRU type | D (mm) O.L.D. 148 mm E-THRU type | Min. E (mm) |
| Wiring type | BR-M9100 | | | | | | | TBD |
| | BR-M9120 | | | | | | | 11.5 |
| | BR-M8020 | | | | | | | 11.5 |
| | BR-MT520 | | | | | | | 11.5 |
| | BR-M9000 | | | | | | | 10.0 |
| | BR-M9020 | 140 mm (SS): 47.5 ± 0.1 | 140 mm (SS): 74.2 ± 0.1 | 140 mm (SS): 1.7 ± 0.1 | 140 mm (SS): 5.7 +0.3 - 1.3 | 140 mm (SS): 9.2 +0.3 - 1.3 | 140 mm (SS): 9.2 +0.3 - 1.3 | 11.0 |
| Cap type | BR-M820 | | | | | | | 11.5 |
| | BR-M8000 | | | | | | | 10.0 |
| | BR-M7000 | 160 mm (S): 55.9 ± 0.1 | 160 mm (S): 74.2 ± 0.1 | 160 mm (S): 6.8 ± 0.1 | 160 mm (S): 5.7 +0.3 - 1.3 | 160 mm (S): 9.2 +0.3 - 1.3 | 160 mm (S): 9.2 +0.3 - 1.3 | 10.0 |
| | BR-M6000 | | | | | | | 9.0 |
| | BR-M640 | 180 mm (M): 64.0 ± 0.1 | 180 mm (M): 74.2 ± 0.1 | 180 mm (M): 12.4 ± 0.1 | 180 mm (M): 5.7 +0.3 - 1.3 | 180 mm (M): 9.2 +0.3 - 1.3 | 180 mm (M): 9.2 +0.3 - 1.3 | 11.5 |
| | BR-MT500 | | | | | | | 11.5 |
| | BR-M446 | 203 mm (L): 73.9 ± 0.1 | 203 mm (L): 74.2 ± 0.1 | 203 mm (L): 18.8 ± 0.1 | 203 mm (L): 5.7 +0.3 - 1.3 | 203 mm (L): 9.2 +0.3 - 1.3 | 203 mm (L): 9.2 +0.3 - 1.3 | 11.5 |
| | BR-MT400 | | | | | | | 11.5 |
| | BR-M375 | | | | | | | 11.0 |
| | BR-MT200 | | | | | | | 11.0 |
| | BR-TX805 | | | | | | | 11.0 |
| | BR-S700 | | | | | | | 10.0 |
| | BR-R5785 | | | | | | | 10.0 |
| | BR-R317 | | | | | | | 11.0 |

C-080 Frame Requirement / Disc brake / Flat mount / REAR MOUNT for ø140 disc brake rotor (ø160 rotor compatible w/adapter) - Revised (Fixing bolt length depends on rear mount thickness)

version 1.0 - September 5, 2017

| Rear mount thickness | | 20 (mm) | 25 (mm) | 30 (mm) |
|---|---|---|---|---|
| Fixing bolt length | Flat mount fixing bolt length (mm)   | 33.0 | 38.0 | 43.0 |
| | Converter fixing bolt length (mm)   | 26.8 | 31.8 | 36.8 |

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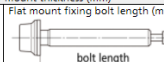
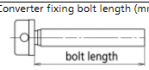
| Rear mount thickness (mm) | | 10 | 15 | 20 | 25 | 30 | 35 |
|---|---|---|---|---|---|---|---|
| Fixing bolt length | Flat mount fixing bolt length (mm)   | 23.2 | 28.2 | 33.2 | 38.2 | 43.2 | 48.2 |
| | Converter fixing bolt length (mm)   | 16.8 | 28.2 | 26.8 | 31.8 | 36.8 | 41.8 |

C-098 Frame Requirement / Caliper brake / Caliper brake dimensions - Revised (BR-R7000, dimension F/G)

version 1.0 - September 5, 2017

| Model No. | Washer A (mm) (Front / Rear) | Dimension B (mm) Front | Dimension B (mm) Rear | D (mm) | E (mm) | F (mm) | G (mm) | Bolt length Front | Bolt length Rear | H (mm) Front | H (mm) Rear |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BR-R9100 | 1.8 | 10.5 12.5 18.0* 27.0* 32.0* | 10.5 | 41 - 51 | BR-R9100 : 27.3 - 29.9 BR-9000 : 27.1 - 30.1 | 1.0 | 8.7 | 27.5 | 12.8 | 9.0 | 7.7 |
| BR-9000 | | | | 39 - 49 | | 0.6 | 7.7 | | | | |
| BR-R9110-F | – | Note | | 24-34 | 14.2 - 15.4 | – | – | – | – | – | – |
| BR-R9110-R | | | | 26-34 Note | 27.1 | | | | | | |
| BR-R9110-RS | | | | 24-34 | 14.2 - 15.4 | | | | | | |
| BR-9010-F | – | Note | | 25-34 Note | 14.2 - 15.4 | | – | – | – | – | – |
| BR-9010-R | | | | 26-34 Note | 27.1 | | | | | | |
| BR-9010-RS | | | | 25-34 Note | 14.2 - 15.4 | | | | | | |
| BR-R8000 | 2.0 | 10.5 12.5 18.0* 27.0* 32.0* | 10.5 | 41 - 51 | 27.3 - 29.9 | 1.0 | 8.7 | 27.5 | 12.8 | 16.0 | 10.3 |
| BR-R7000 | | | | | | 0.7 | 11.2 | | | | |
| BR-5800 | | | | | | | | | | | |
| BR-4700 | | | | | 25.4 - 28.0 | – | 9.4 | | | 15.5 | 9.8 |
| BR-R8010-F | – | Note | | 24-34 | 14.1-15.4 | | – | – | – | – | – |
| BR-R8010-R | | | | 26-34 Note | 27.1 | | | | | | |
| BR-R8010-RS | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-5810-F | | | | 25-34 Note | 14.2-25.4 | | | | | | |
| BR-5810-R | | | | 26-34 Note | 29, w/o ADAPTER : 27.3 | | | | | | |
| BR-5810-RS | | | | 25-34 Note | 14.2-15.4 | | | | | | |
| BR-R561 | 2.0 | 10.5 12.5 18.0* 27.0* 32.0* | 10.5 | 39 - 49 | 26.3-29 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R3000 | 2.0 | 10.5 12.5 18.0 27.0 32.0 | | 41 - 51 | 25.4-28.0 | | 9.4 | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R2000 | 2.0 | 10.5 12.5 18.0 27.0 32.0 | | 41 - 51 | 25.4-28.0 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R650 | 2.0 | 10.5 12.5 18.0* 27.0* | | 47 - 57 | 26.8-29.5 | | 11.3 | 27.5 | 12.8 | 15.5 | 9.8 |
| | | | | | | | | 47 | 30 | 18 | 18 |
| BR-R451 | 2.0 | | | | | | | 27.5 | 12.8 | 15.5 | 9.8 |

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| Model No. | Washer A (mm) (Front / Rear) | Dimension B (mm) Front | Dimension B (mm) Rear | D (mm) | E (mm) | F (mm) | G (mm) | Bolt length Front | Bolt length Rear | H (mm) Front | H (mm) Rear |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BR-R9100 | 1.8 | 10.5 12.5 18.0* 27.0* 32.0* | 10.5 | 41 - 51 | BR-R9100 : 27.3 - 29.9 BR-9000 : 27.1 - 30.1 | 1.0 | 8.7 | 27.5 | 12.8 | 9.0 | 7.7 |
| BR-9000 | | | | 39 - 49 | | 0.6 | 7.7 | | | | |
| BR-R9110-F | – | Note | | 24-34 | 14.2 - 15.4 | – | – | – | – | – | – |
| BR-R9110-R | | | | 26-34 Note | 27.1 | | | | | | |
| BR-R9110-RS | | | | 24-34 | 14.2 - 15.4 | | | | | | |
| BR-9010-F | – | Note | | 25-34 Note | 14.2 - 15.4 | | – | – | – | – | – |
| BR-9010-RS | | | | 25-34 Note | 14.2 - 15.4 | | | | | | |
| BR-R8000 | 2.0 | 10.5 12.5 18.0* 27.0* 32.0* | 10.5 | 41 - 51 | 27.3 - 29.9 | 1.0 | 8.7 | 27.5 | 12.8 | 16.0 | 10.3 |
| BR-R7000 | | | | | | 0.4 | 10.3 | | | | |
| BR-4700 | | | | | 25.4 - 28.0 | – | 9.4 | | | 15.5 | 9.8 |
| BR-R8010-F | – | Note | | 24-34 | 14.1-15.4 | | – | – | – | – | – |
| BR-R8010-R | | | | 26-34 Note | 27.1 | | | | | | |
| BR-R8010-RS | | | | 24-34 | 14.1-15.4 | | | | | | |
| BR-5810-F | | | | 25-34 Note | 14.2-25.4 | | | | | | |
| BR-5810-R | | | | 26-34 Note | 29, w/o ADAPTER : 27.3 | | | | | | |
| BR-5810-RS | | | | 25-34 Note | 14.2-15.4 | | | | | | |
| BR-R561 | 2.0 | 10.5 12.5 18.0* 27.0* 32.0* | 10.5 | 39 - 49 | 26.3-29 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R3000 | 2.0 | 10.5 12.5 18.0 27.0 32.0 | | 41 - 51 | 25.4-28.0 | | 9.4 | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R2000 | 2.0 | 10.5 12.5 18.0 27.0 32.0 | | 41 - 51 | 25.4-28.0 | | | 27.5 | 12.8 | 15.5 | 9.8 |
| BR-R650 | 2.0 | 10.5 12.5 18.0* 27.0* | | 47 - 57 | 26.8-29.5 | | 11.3 | 27.5 | 12.8 | 15.5 | 9.8 |
| | | | | | | | | 47 | 30 | 18 | 18 |
| BR-R451 | 2.0 | | | | | | | 27.5 | 12.8 | 15.5 | 9.8 |

C-192 Product Information / Disc brake / Brake pad line-up - Revised (All the table was revised)

version 1.0 - September 5, 2017

| Model No. | Type | B01S Resin | D02S Metal | D01S Resin | G01A Resin | G01S Resin | G02A Resin | G02S Resin |
|---|---|---|---|---|---|---|---|---|
| Pad Shape Type | | B-type: Wide type | D-type: Narrow type | | G-type: Narrow type | | | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ |
| | Silence | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| Pad Radiator fin | | – | – | – | – | – | – | – |
| High heat insulation | | – | – | – | – | – | X | X |
| Pad Back plate | Titanium | – | – | – | – | – | – | – |
| | Aluminum | – | – | – | X | – | X | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – |
| | Stainless steel | X | X | X | – | X | – | X |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | X | X | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | Option | Option | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | Option | Standard | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | Standard |
| BR-T675 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-RS805 | Hydraulic | – | – | – | – | – | – | – |
| BR-R785 | Hydraulic | – | – | – | Option | – | – | – |
| BR-R5785 | Hydraulic | – | – | – | – | – | Option | – |
| BR-RS505 | Hydraulic | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | Standard | Standard | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | Standard |
| BR-M4050 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-M3050 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-M446 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-M395 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-CX77 | Mechanical | – | – | – | Standard | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | Standard | – | – |
| BR-RS305 | Mechanical | – | – | – | – | – | – | – |
| BR-M375 | Mechanical | Standard | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-M365 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-M315 | Hydraulic | Standard | – | – | – | – | – | – |
| BR-TX805 | Mechanical | Standard | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | Standard | – | – | – |

| Model No. | Type | G03S Metal | G03Ti Metal | G04S Metal | G04Ti Metal | F01A Resin | F03C Metal | H01A Resin | H03C Metal |
|---|---|---|---|---|---|---|---|---|---|
| Pad Shape Type | | G-type: Narrow type | | | | F-type: Narrow type | | H-type: Narrow type | |
| Characteristics | Modulation | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Silence | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| Pad Radiator fin | | – | – | X | X | X | X | X | X |
| High heat insulation | | – | – | X | X | – | – | – | – |
| Pad Back plate | Titanium | – | X | – | X | – | – | – | – |
| | Aluminum | – | – | – | – | X | – | X | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | X | – | X |
| | Stainless steel | X | – | X | – | – | – | – | – |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | X | X |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | Standard | Standard |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | Standard | Option |
| BR-M7000 | Hydraulic | – | – | Option | – | – | – | – | – |
| BR-T675 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS805 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R785 | Hydraulic | Option | – | – | – | Standard | Standard | – | – |
| BR-R5785 | Hydraulic | Option | – | – | – | – | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | – | – | Option | Option |
| BR-M640 | Hydraulic | – | – | Option** | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M4050 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M3050 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-M395 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-CX77 | Mechanical | – | Option | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M365 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M315 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | Option | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – | Option | – | – | – |

| Model No. | Type | L02A Resin | L04C Metal | K02S Resin | K04S Metal | J02A Resin | J04C Metal | K02Ti Resin | K04Ti Metal |
|---|---|---|---|---|---|---|---|---|---|
| Pad Shape Type | | L-type: Narrow type | | K-type: Narrow type | | F-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ |
| Pad Radiator fin | | X | X | | | X | X | – | |
| High heat insulation | | – | X | – | X | X | – | – | X |
| Pad Back plate | Titanium | – | – | – | – | – | – | X | X |
| | Aluminum | X | – | – | – | X | – | – | – |
| | Stainless steel/ Aluminum | – | X | – | – | – | X | – | – |
| | Stainless steel | – | – | X | X | – | – | X | Option |
| BR-R9170 | Hydraulic | Standard | Option | – | – | – | – | Standard | – |
| BR-M9100 | Hydraulic | X | X | Standard | Standard | – | – | X | X |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | Option | Option | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | Standard | Standard | – | – |
| BR-R8070 | Hydraulic | Standard | Option | – | – | – | – | Standard | Option |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | Standard | Option | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | Standard | Option | – | – |
| BR-T675 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS805 | Hydraulic | Standard | Option | Option | Option | – | – | – | – |
| BR-R785 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R5785 | Hydraulic | – | – | – | – | Standard | Standard | – | – |
| BR-RS505 | Hydraulic | Standard | Option | Option | Option | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | Standard | – | – | – |
| BR-M4050 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M3050 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | Option | – | Standard | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-M395 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-CX77 | Mechanical | – | – | – | – | – | – | – | – |
| BR-R317 | Mechanical | – | – | – | – | – | – | – | – |
| BR-RS305 | Mechanical | Option | – | Standard | – | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M365 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M315 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | Standard | Option | – | – | – | – |

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| Model No. | Type | B01S Resin | D02S Metal | D01S Resin | TBD Metal | TBD Resin |
|---|---|---|---|---|---|---|
| Pad Shape Type | | B-type: Wide type | D-type: Narrow type | | TBD | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | TBD | TBD |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | TBD | TBD |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | TBD | TBD |
| | Anti-fading | ★★★☆☆ | ★★★★★ | ★★★☆☆ | TBD | TBD |
| | Silence | ★★★★★ | ★★★☆☆ | ★★★★★ | TBD | TBD |
| Pad Radiator fin | | – | – | – | X | X |
| High heat insulation | | – | – | – | TBD | TBD |
| Pad Back plate | Titanium | – | – | – | TBD | TBD |
| | Aluminum | – | – | – | TBD | TBD |
| | Stainless steel/ Aluminum | – | – | – | TBD | TBD |
| | Stainless steel | X | X | X | TBD | TBD |
| BR-R9170 | Hydraulic | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | Option | Option | Standard | Standard |
| BR-M9000 | Hydraulic | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – |
| BR-M8070 | Hydraulic | – | – | – | – | – |
| BR-M820 | Hydraulic | – | Option | Option | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | Standard | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | – |
| BR-R5785 | Hydraulic | – | – | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | Standard | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – |
| BR-MT520 | Hydraulic | Standard | – | – | TBD | TBD |
| BR-MT500 | Hydraulic | Standard | – | – | – | – |
| BR-M446 | Hydraulic | Standard | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | – | – |
| BR-R317 | Mechanical | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | – |
| BR-M375 | Mechanical | Standard | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | – | – |
| BR-UR300 | Hydraulic | Standard | – | – | – | – |
| BR-TX805 | Mechanical | Standard | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – | – |

| Model No. | Type | G01A Resin | G01S Resin | G02A Resin | G02S Resin | G03S Metal | G03Ti Metal | G04S Metal | G04Ti Metal |
|---|---|---|---|---|---|---|---|---|---|
| Pad Shape Type | | G-type: Narrow type | | | | G-type: Narrow type | | | |
| Characteristics | Modulation | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Anti-fading | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★★ | ★★★★★ | ★★★★★ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ | ★★★☆☆ |
| Pad Radiator fin | | – | – | – | – | – | – | – | – |
| High heat insulation | | – | – | X | X | – | – | X | X |
| Pad Back plate | Titanium | – | – | – | – | X | – | X | – |
| | Aluminum | X | – | X | – | – | – | – | – |
| | Stainless steel/ Aluminum | – | – | – | – | – | – | – | – |
| | Stainless steel | – | X | – | X | X | – | X | – |
| BR-R9170 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9120 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R8070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | Standard | – | – | Option | – |
| BR-M7070 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R5785 | Hydraulic | – | – | Option | – | Option | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | Standard | – | – | Option** | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-R317 | Mechanical | – | Standard | – | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-S700 | Hydraulic | Standard | – | – | – | – | – | – | – |

| Model No. | Type | F01A Resin | F03C Metal | H01A Resin | H03C Metal | L02A Resin | L04C Metal | K02S Resin | K04S Metal |
|---|---|---|---|---|---|---|---|---|---|
| Pad Shape Type | | F-type: Narrow type | | H-type: Narrow type | | L-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ |
| Pad Radiator fin | | X | X | X | X | X | X | – | |
| High heat insulation | | – | – | – | – | – | – | X | X |
| Pad Back plate | Titanium | – | – | – | – | – | – | – | – |
| | Aluminum | X | – | X | – | X | – | – | – |
| | Stainless steel/ Aluminum | – | X | – | X | – | X | – | – |
| | Stainless steel | – | – | – | – | – | – | X | X |
| BR-R9170 | Hydraulic | – | – | – | – | Standard | Option | – | – |
| BR-M9100 | Hydraulic | – | – | – | – | – | – | Option | Option |
| BR-M9120 | Hydraulic | – | – | Option | Option | – | – | – | – |
| BR-M9000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M9020 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-R8070 | Hydraulic | – | – | – | – | Standard | Option | Standard | Option |
| BR-M820 | Hydraulic | – | – | Standard | – | – | – | – | – |
| BR-M8000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M8020 | Hydraulic | – | – | Standard | Option | – | – | – | – |
| BR-M7000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M7070 | Hydraulic | – | – | – | – | Standard | Option | Standard | Option |
| BR-R5785 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS505 | Hydraulic | – | – | – | – | Standard | Option | Option | Option |
| BR-M640 | Hydraulic | – | – | Option | Option | – | – | – | – |
| BR-M6000 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – | Option | – | Standard | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-R317 | Mechanical | – | – | – | – | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – | Option | – | Standard | – |
| BR-M375 | Mechanical | – | – | – | – | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | – | – | – | – | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – | – | – | Standard | Option |
| BR-S700 | Hydraulic | Option | – | – | – | – | – | – | – |

| Model No. | Type | J02A Resin | J04C Metal | K02Ti Resin | K04Ti Metal |
|---|---|---|---|---|---|
| Pad Shape Type | | F-type: Narrow type | | K-type: Narrow type | |
| Characteristics | Modulation | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★★☆ |
| | Power | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Durability | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Anti-fading | ★★★★☆ | ★★★★★ | ★★★★☆ | ★★★★★ |
| | Silence | ★★★★★ | ★★★★☆ | ★★★★★ | ★★★☆☆ |
| Pad Radiator fin | | X | X | – | – |
| High heat insulation | | X | X | – | X |
| Pad Back plate | Titanium | – | – | X | X |
| | Aluminum | X | – | – | – |
| | Stainless steel/ Aluminum | – | X | – | – |
| | Stainless steel | – | – | – | – |
| BR-R9170 | Hydraulic | – | – | Standard | Option |
| BR-M9100 | Hydraulic | – | – | Standard | Standard |
| BR-M9120 | Hydraulic | – | – | – | – |
| BR-M9000 | Hydraulic | Option | Option | – | – |
| BR-M9020 | Hydraulic | Standard | Standard | – | – |
| BR-R8070 | Hydraulic | – | – | – | – |
| BR-M820 | Hydraulic | – | – | – | – |
| BR-M8000 | Hydraulic | Standard | Option | – | – |
| BR-M8020 | Hydraulic | – | – | – | – |
| BR-M7000 | Hydraulic | Standard | Option | – | – |
| BR-M7070 | Hydraulic | – | – | – | – |
| BR-R5785 | Hydraulic | Standard | Standard | – | – |
| BR-RS505 | Hydraulic | – | – | – | – |
| BR-M640 | Hydraulic | – | – | – | – |
| BR-M6000 | Hydraulic | Standard | – | – | – |
| BR-MT520 | Hydraulic | – | – | – | – |
| BR-MT500 | Hydraulic | – | – | – | – |
| BR-M446 | Hydraulic | – | – | – | – |
| BR-RS405 | Hydraulic | – | – | – | – |
| BR-MT400 | Hydraulic | TBD | TBD | TBD | TBD |
| BR-R317 | Mechanical | – | – | – | – |
| BR-RS305 | Mechanical | – | – | – | – |
| BR-M375 | Mechanical | – | – | – | – |
| BR-MT200 | Hydraulic | TBD | TBD | TBD | TBD |
| BR-UR300 | Hydraulic | – | – | – | – |
| BR-TX805 | Mechanical | – | – | – | – |
| BR-U5000 | Hydraulic | – | – | – | – |
| BR-S700 | Hydraulic | – | – | – | – |

## C-197 Product Information / Disc brake / Brake hose dimensions -
Added (SM-BH910-SS, BR-R7070), Revised (SM-BH910-SB)

### version 1.0 - September 5, 2017

SM-BH910-SB

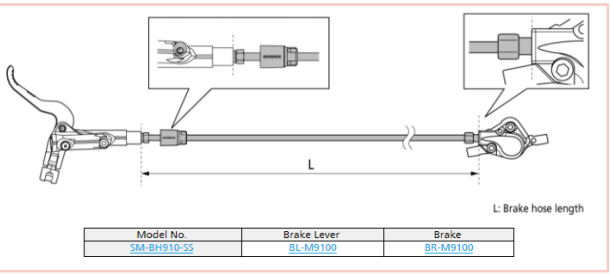
TBD

| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH910-SB | BL-M9100 | BR-M9100 |
| | BL-M9120 | BR-M9120 |

### version 1.1 - September 19, 2017

⚠SM-BH910-SS

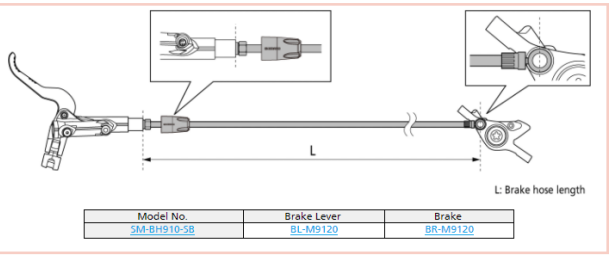
⚠




| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH910-SS | BL-M9100 | BR-M9100 |

⚠SM-BH910-SB

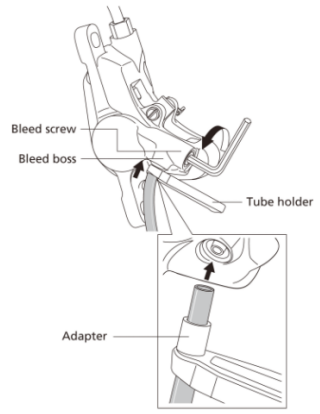
⚠




| Model No. | Brake Lever | Brake |
|---|---|---|
| SM-BH910-SB | BL-M9120 | BR-M9120 |

## C-199 Product Information / Disc brake / Bleeding method -
Revised (BR-R9170/R8070/R7070/RS805/RS405, illustration)

### version 1.0 - September 5, 2017




### version 1.1 - September 19, 2017

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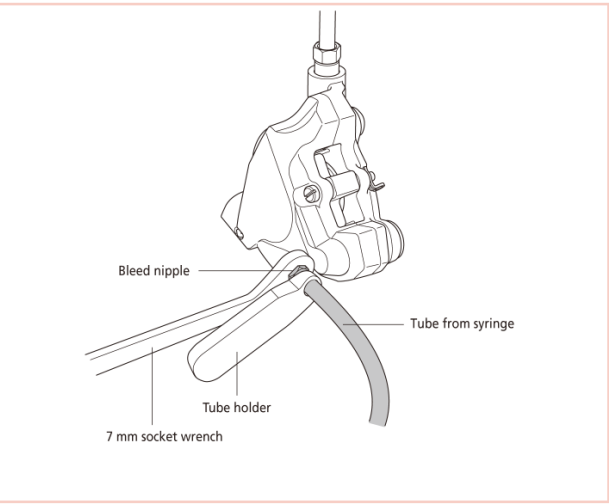
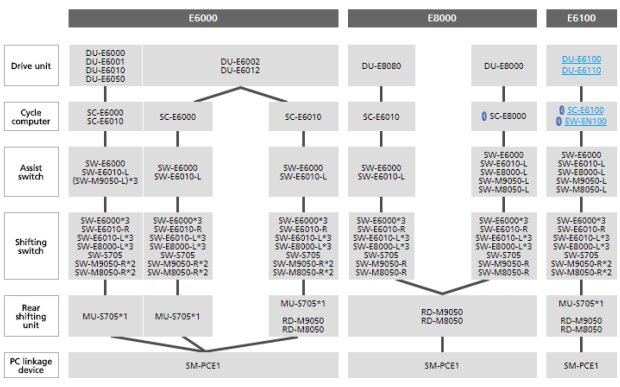



## C-525 E-BIKE components / E-bike compatibility chart / E-bike system -
Revised (DU-E8000, compatibility with SC-E6010)

### version 1.0 - September 5, 2017




### version 1.1 - September 19, 2017

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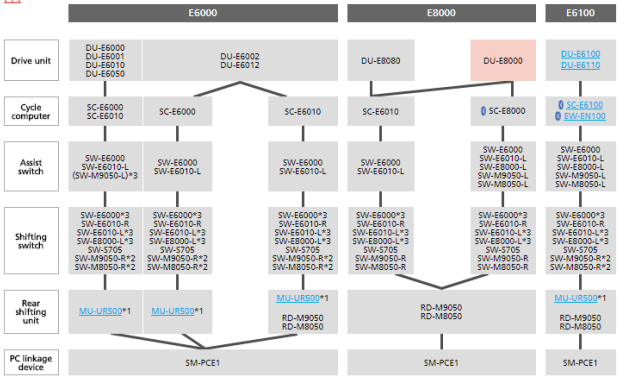
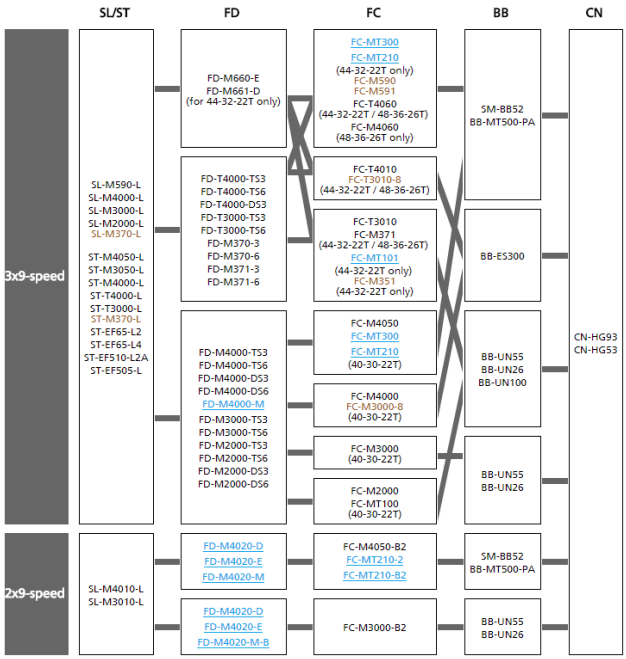


C-445 Compatibility / Drivetrain for MTB components / Front drivetrain compatibility [MTB] / 9-speed FC-FD compatibility [MTB] - Added (BB-MT300)

version 1.0 - September 5, 2017




version 1.1 - September 19, 2017

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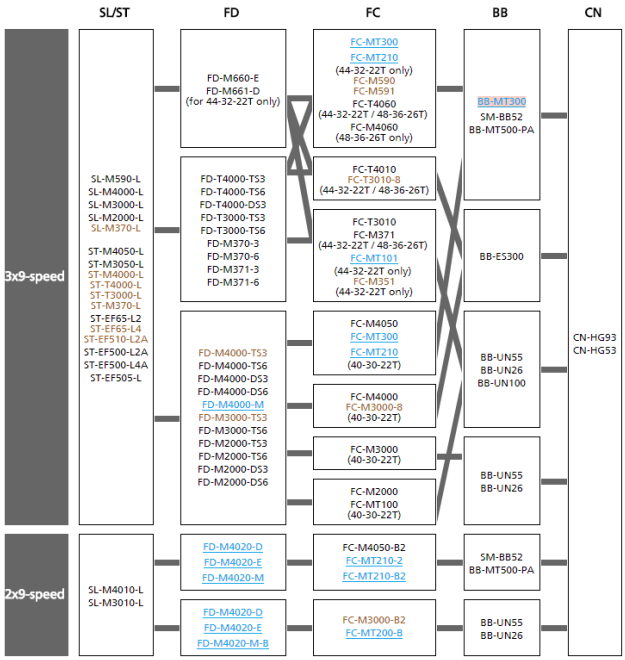

C-186 Compatibility / Disc brake / Compatibility between hydraulic disc brake hose -
Revised (All the table was revised)

## version 1.0 - September 5, 2017

| | | SM-BH910-SB | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 | SM-BH90-SS |
|---|---|---|---|---|---|---|---|---|
| Connection | | TBD | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Straight |
| Rigidity | | TBD | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M9120 | BR-M9120 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M9000 | BR-M9000 | TBD | – | X | – | – | – | – |
| BL-M9020 | BR-M9020 | TBD | – | X | – | – | X | – |
| BL-M820 | BR-M820 | TBD | – | – | X | – | – | – |
| BL-M8000 | BR-M8000 | TBD | – | X | – | – | X | – |
| BL-M8000 | BR-M8020 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-T8000 | BR-M8000 | TBD | – | X | – | – | X | – |
| BL-M7000 | BR-M7000 | TBD | – | X | – | – | X | – |
| BL-T675 | BR-T675 | TBD | – | – | – | – | – | X |
| BL-M640 | BR-M640 | TBD | – | – | X | X | – | – |
| BL-M6000 | BR-M6000 | TBD | – | – | – | – | – | X |
| BL-T6000 | BR-M6000 | TBD | – | – | – | – | – | – |
| BL-R5600 | BR-R5405 | TBD | – | – | – | – | – | – |
| BL-MT520 | BR-MT520 | TBD | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | TBD | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | TBD | – | – | – | – | – | – |
| ST-M3050 | BR-M3050 | TBD | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | TBD | – | – | – | – | – | – |
| BL-T445 | BR-M446 | TBD | – | – | – | – | – | – |
| BL-MT400 | BR-MT400 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M425<br>BL-M396 | BR-M395 | TBD | – | – | – | – | – | – |
| BL-MT201 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT200 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT201 | BR-UR300 | TBD | – | – | – | – | – | – |
| BL-MT200 | BR-UR300 | TBD | – | – | – | – | – | – |
| BL-M365 | BR-M365 | TBD | – | – | – | – | – | – |
| BL-M315 | BR-M315 | TBD | – | – | – | – | – | – |
| ST-EF505 | BR-M315 | TBD | – | – | – | – | – | – |
| BL-S700 | BR-S700 | TBD | – | X | – | – | X | – |
| ST-R9120<br>ST-R9170 | BR-R9170 | TBD | X | – | – | – | – | – |
| ST-R9180 | BR-R9170 | TBD | X | – | – | – | – | – |
| ST-R8020<br>ST-R8070 | BR-R8070 | TBD | X | – | – | – | – | – |
| ST-R7020 | BR-R7070 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| ST-R7025 | BR-R7070 | TBD | TBD | TBD | TBD | TBD | TBD | TBD |
| ST-R785 | BR-R5805 | TBD | – | – | – | – | – | – |
| ST-R785 | BR-R5785 | TBD | – | – | – | – | – | – |
| ST-R785 | BR-R785 | TBD | – | – | – | – | – | – |
| ST-R5685 | BR-R5805 | TBD | – | – | – | – | – | – |
| ST-R5685 | BR-R5785 | TBD | – | – | – | – | – | – |
| ST-R5685 | BR-R785 | TBD | – | – | – | – | – | – |
| ST-R5505 | BR-R5785 | TBD | – | – | – | – | – | – |
| ST-R5505 | BR-R5505 | TBD | – | – | – | – | – | – |
| ST-R5405 | BR-R5785 | TBD | – | – | – | – | – | – |
| ST-R5405 | BR-R5505 | TBD | – | – | – | – | – | – |
| ST-R5405 | BR-R5405 | TBD | – | – | – | – | – | – |
| BL-U5000 | BR-U5000 | TBD | – | – | – | – | – | – |
| BL-U5010 | | TBD | – | – | – | – | – | – |
| ST-U5060 | | TBD | – | – | – | – | – | – |
| ST-U5080 | | TBD | – | – | – | – | – | – |

| | | SM-BH910-SB | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|---|
| Connection | | TBD | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | TBD | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M9120 | BR-M9120 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M9000 | BR-M9000 | TBD | – | – | – | – | – |
| BL-M9020 | BR-M9020 | TBD | – | – | – | – | – |
| BL-M820 | BR-M820 | TBD | – | – | – | – | – |
| BL-M8000 | BR-M8000 | TBD | – | – | – | – | – |
| BL-T8000 | BR-M8000 | TBD | – | – | – | – | – |
| BL-M7000 | BR-M7000 | TBD | – | – | – | – | – |
| BL-T675 | BR-T675 | TBD | – | – | – | – | – |
| BL-M640 | BR-M640 | TBD | – | – | – | – | – |
| BL-M6000 | BR-M6000 | TBD | – | – | – | – | – |
| BL-T6000 | BR-M6000 | TBD | – | X | – | – | – |
| BL-R5600 | BR-R5405 | TBD | – | X | – | – | – |
| BL-MT520 | BR-MT520 | TBD | – | – | – | – | – |
| ST-M4050 | BR-M4050 | TBD | – | X | – | – | – |
| ST-M3050 | BR-M3050 | TBD | – | X | – | – | – |
| BL-MT500 | BR-MT500 | TBD | – | X | – | – | – |
| BL-T445 | BR-M446 | TBD | – | X | – | – | – |
| BL-MT400 | BR-MT400 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M425<br>BL-M396 | BR-M395 | TBD | – | X | – | – | – |
| BL-MT201 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT200 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT201 | BR-UR300 | TBD | – | X | – | – | – |
| BL-MT200 | BR-UR300 | TBD | – | X | – | – | – |
| BL-M365 | BR-M365 | TBD | – | X | – | – | – |
| BL-M315 | BR-M315 | TBD | – | X | – | – | – |
| ST-EF505 | BR-M315 | TBD | – | X | – | – | – |
| BL-S700 | BR-S700 | TBD | – | – | – | – | – |
| ST-R9120<br>ST-R9170 | BR-R9170 | TBD | – | – | – | – | – |
| ST-R9180 | BR-R9170 | TBD | – | – | – | – | – |
| ST-R8020<br>ST-R8070 | BR-R8070 | TBD | – | – | – | – | – |
| ST-R7020 | BR-R7070 | TBD | – | – | – | – | – |
| ST-R7025 | BR-R7070 | TBD | – | – | – | – | – |
| ST-R785 | BR-R5805 | TBD | X | – | – | – | – |
| ST-R785 | BR-R5785 | TBD | X | – | – | – | – |
| ST-R785 | BR-R785 | TBD | – | – | – | X | X |
| ST-R5685 | BR-R5805 | TBD | X | – | X | – | – |
| ST-R5685 | BR-R5785 | TBD | X | – | X | – | – |
| ST-R5685 | BR-R785 | TBD | – | – | – | X | X |
| ST-R5505 | BR-R5785 | TBD | X | – | X | – | – |
| ST-R5505 | BR-R5505 | TBD | X | – | X | – | – |
| ST-R5405 | BR-R5785 | TBD | – | – | X | – | – |
| ST-R5405 | BR-R5505 | TBD | – | – | X | – | – |
| ST-R5405 | BR-R5405 | TBD | – | – | X | – | – |
| BL-U5000 | BR-U5000 | TBD | – | – | X | – | – |
| BL-U5010 | | TBD | – | – | X | – | – |
| ST-U5060 | | TBD | – | – | X | – | – |
| ST-U5080 | | TBD | – | – | X | – | – |

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| | | SM-BH910-SB | SM-BH910-SS | SM-BH90-JK-SSR | SM-BH90-SBM *4 | SM-BH90-SBLS *1 | SM-BH90-SBS *2 | SM-BH90-SB *3 |
|---|---|---|---|---|---|---|---|---|
| Connection | | Straight - Banjo | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | High power | High power | High power | High power | High power | High power |
| BL-M9100 | BR-M9100 | – | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | X | – | – | – | – | – | X |
| BL-M9000 | BR-M9000 | – | – | – | X | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | X | – | – | X |
| BL-M820 | BR-M820 | – | – | – | – | X | – | – |
| BL-M8000 | BR-M8000 | – | – | – | X | – | – | X |
| BL-M8000 | BR-M8020 | – | – | – | – | X | – | – |
| BL-T8000 | BR-M8000 | – | – | – | X | – | – | X |
| BL-M7000 | BR-M7000 | – | – | – | X | – | – | X |
| BL-T675 | BR-T675 | – | – | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | X | X | – |
| BL-M6000 | BR-M6000 | – | – | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | – | – | – | – | – | – |
| BL-R5600 | BR-R5405 | – | – | – | – | – | – | – |
| BL-MT520 | BR-MT520 | – | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | – | – | – | – | – |
| ST-M3050 | BR-M3050 | – | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – | – |
| BL-T445 | BR-M446 | – | – | – | – | – | – | – |
| BL-MT400 | BR-MT400 | – | – | TBD | TBD | TBD | TBD | TBD |
| BL-M425<br>BL-M396 | BR-M395 | – | – | – | – | – | – | – |
| BL-MT201 | BR-MT200 | – | – | TBD | TBD | TBD | TBD | TBD |
| BL-MT200 | BR-MT200 | – | – | TBD | TBD | TBD | TBD | TBD |
| BL-MT201 | BR-UR300 | – | – | – | – | – | – | – |
| BL-MT200 | BR-UR300 | – | – | – | – | – | – | – |
| BL-M365 | BR-M365 | – | – | – | – | – | – | – |
| BL-M315 | BR-M315 | – | – | – | – | – | – | – |
| ST-EF505 | BR-M315 | – | – | – | – | – | – | – |
| BL-S700 | BR-S700 | – | – | – | X | – | – | X |
| ST-R9120<br>ST-R9170 | BR-R9170 | – | – | X | – | – | – | – |
| ST-R9180 | BR-R9170 | – | – | X | – | – | – | – |
| ST-R8020<br>ST-R8070 | BR-R8070 | – | – | X | – | – | – | – |
| ST-R7020 | BR-R7070 | – | – | X | – | – | – | – |
| ST-R7025 | BR-R7070 | – | – | X | – | – | – | – |
| ST-R785 | BR-R5805 | – | – | – | – | – | – | – |
| ST-R785 | BR-R5785 | – | – | – | – | – | – | – |
| ST-R785 | BR-R785 | – | – | – | – | – | – | – |
| ST-R5685 | BR-R5805 | – | – | – | – | – | – | – |
| ST-R5685 | BR-R5785 | – | – | – | – | – | – | – |
| ST-R5685 | BR-R785 | – | – | – | – | – | – | – |
| ST-R5505 | BR-R5785 | – | – | – | – | – | – | – |
| ST-R5505 | BR-R5505 | – | – | – | – | – | – | – |
| ST-R5405 | BR-R5785 | – | – | – | – | – | – | – |
| ST-R5405 | BR-R5505 | – | – | – | – | – | – | – |
| ST-R5405 | BR-R5405 | – | – | – | – | – | – | – |
| BL-U5000 | BR-U5000 | – | – | – | – | – | – | – |
| BL-U5010 | | – | – | – | – | – | – | – |
| ST-U5060 | | – | – | – | – | – | – | – |
| ST-U5080 | | – | – | – | – | – | – | – |

| | | SM-BH90-SS | SM-BH59-J-SS | SM-BH59-JK-SS (MTB) | SM-BH59-JK-SS (Road) | SM-BH59-SB *3 | SM-BH59-SB-J *3 |
|---|---|---|---|---|---|---|---|
| Connection | | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Straight | Straight - Banjo | Straight - Banjo |
| Rigidity | | High power | Standard | Standard | Standard | Standard | Standard |
| BL-M9100 | BR-M9100 | X | – | – | – | – | – |
| BL-M9120 | BR-M9120 | – | – | – | – | – | – |
| BL-M9000 | BR-M9000 | – | – | – | – | – | – |
| BL-M9020 | BR-M9020 | – | – | – | – | – | – |
| BL-M820 | BR-M820 | – | – | – | – | – | – |
| BL-M8000 | BR-M8000 | – | – | – | – | – | – |
| BL-M8000 | BR-M8020 | – | – | – | – | – | – |
| BL-T8000 | BR-M8000 | – | – | – | – | – | – |
| BL-M7000 | BR-M7000 | – | – | – | – | – | – |
| BL-T675 | BR-T675 | X | – | – | – | – | – |
| BL-M640 | BR-M640 | – | – | – | – | – | – |
| BL-M6000 | BR-M6000 | X | – | – | – | – | – |
| BL-T6000 | BR-M6000 | – | – | X | – | – | – |
| BL-R5600 | BR-R5405 | – | – | X | – | – | – |
| BL-MT520 | BR-MT520 | – | – | – | – | – | – |
| BL-MT500 | BR-MT500 | – | – | – | – | – | – |
| ST-M4050 | BR-M4050 | – | – | X | – | – | – |
| ST-M3050 | BR-M3050 | – | – | X | – | – | – |
| BL-MT500 | BR-MT500 | – | – | X | – | – | – |
| BL-T445 | BR-M446 | – | – | X | – | – | – |
| BL-MT400 | BR-MT400 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-M425<br>BL-M396 | BR-M395 | – | – | X | – | – | – |
| BL-MT201 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT200 | BR-MT200 | TBD | TBD | TBD | TBD | TBD | TBD |
| BL-MT201 | BR-UR300 | – | – | X | – | – | – |
| BL-MT200 | BR-UR300 | – | – | X | – | – | – |
| BL-M365 | BR-M365 | – | – | X | – | – | – |
| BL-M315 | BR-M315 | – | – | X | – | – | – |
| ST-EF505 | BR-M315 | – | – | X | – | – | – |
| BL-S700 | BR-S700 | – | – | – | – | – | – |
| ST-R9120<br>ST-R9170 | BR-R9170 | – | – | – | – | – | – |
| ST-R9180 | BR-R9170 | – | – | – | – | – | – |
| ST-R8020<br>ST-R8070 | BR-R8070 | – | – | – | – | – | – |
| ST-R7020 | BR-R7070 | – | – | – | – | – | – |
| ST-R7025 | BR-R7070 | – | – | – | – | – | – |
| ST-R785 | BR-R5805 | – | X | – | – | – | – |
| ST-R785 | BR-R5785 | – | X | – | – | – | – |
| ST-R785 | BR-R785 | – | – | – | – | X | X |
| ST-R5685 | BR-R5805 | – | X | – | X | – | – |
| ST-R5685 | BR-R5785 | – | X | – | X | – | – |
| ST-R5685 | BR-R785 | – | – | – | – | X | X |
| ST-R5505 | BR-R5785 | – | X | – | X | – | – |
| ST-R5505 | BR-R5505 | – | X | – | X | – | – |
| ST-R5405 | BR-R5785 | – | – | – | X | – | – |
| ST-R5405 | BR-R5505 | – | – | – | X | – | – |
| ST-R5405 | BR-R5405 | – | – | – | X | – | – |
| BL-U5000 | BR-U5000 | – | – | – | X | – | – |
| BL-U5010 | | – | – | – | X | – | – |
| ST-U5060 | | – | – | – | X | – | – |
| ST-U5080 | | – | – | – | X | – | – |