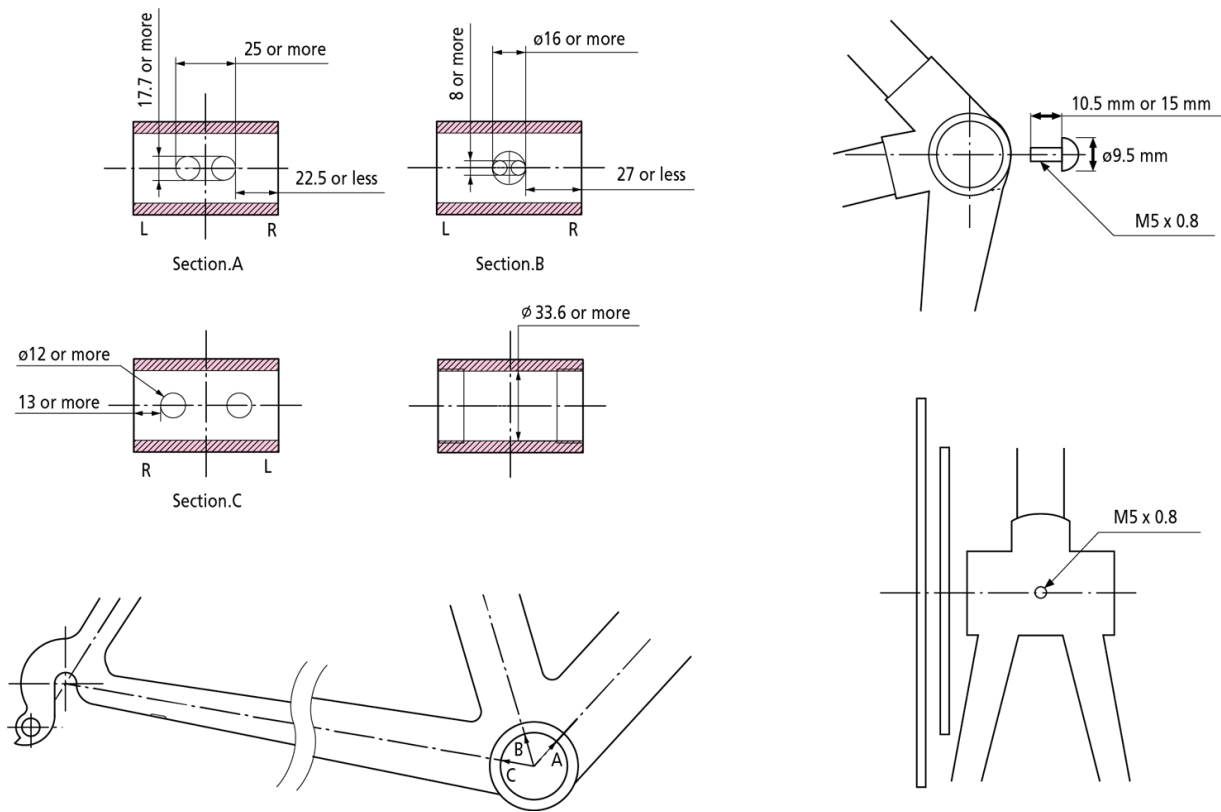


Bottom bracket hole dimensions

For SM-JC41



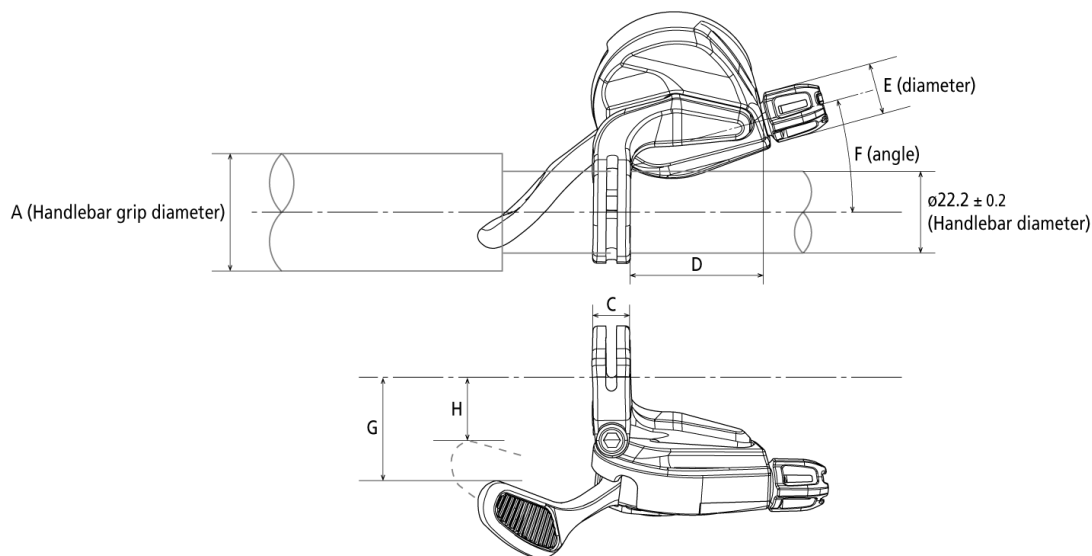
Shifting lever / Brake lever [MTB, ROAD, Gravel/Adventure, URBAN (ALFINE)]

C-143

RAPIDFIRE PLUS MONO

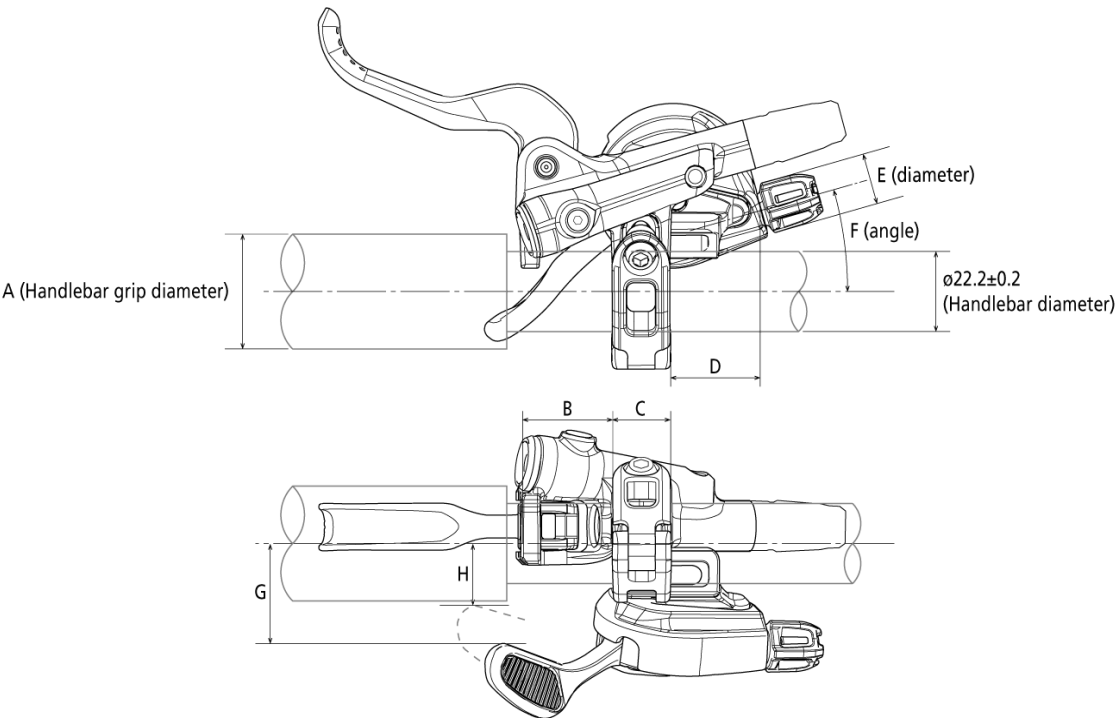
C-582

Standard type C-583



Model No.	Max. A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G (mm)	H* (mm)
SL-M9100-L	$\phi 32$	-	10	35.8	$\phi 14.5$	16°	27.9	11.7
SL-M8100-L	$\phi 32$	-	10.6	38.3	$\phi 14.5$	16°	26.6	13.3
SL-M7100-L	$\phi 36$	-	10.6	38.3	$\phi 14.5$	16°	26.6	13.3
SL-M5100-L	$\phi 36$	-	10	42	$\phi 15$	10°	20.1	20.1
SL-M3100-2L	$\phi 36$	-	13	40.6	$\phi 15$	10°	20.1	20.1

* Top position

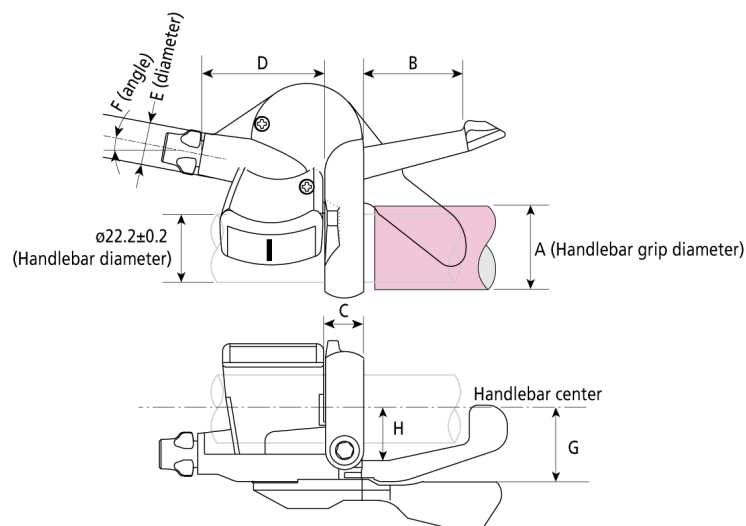


4

Shifting lever	Brake lever	Max. A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G (mm)	H* (mm)
SL-M9100-IL	BL-M9100-L	$\phi 32$	25.5	17	11.2-25.2	$\phi 14.5$	16°	27.9	11.7
SL-M8100-IL	BL-M8100-L	$\phi 32$	25.5	18	13.2-27.2	$\phi 14.5$	16°	26.6	13.3
SL-M7100-IL	BL-M7100-L	$\phi 36$	25.5	18	13.2-27.2	$\phi 14.5$	16°	26.6	13.3
SL-M5100-IL	BL-M6100-L	$\phi 36$	25.4	17.2	30.5	$\phi 15$	10°	20.1	20.1

* Top position

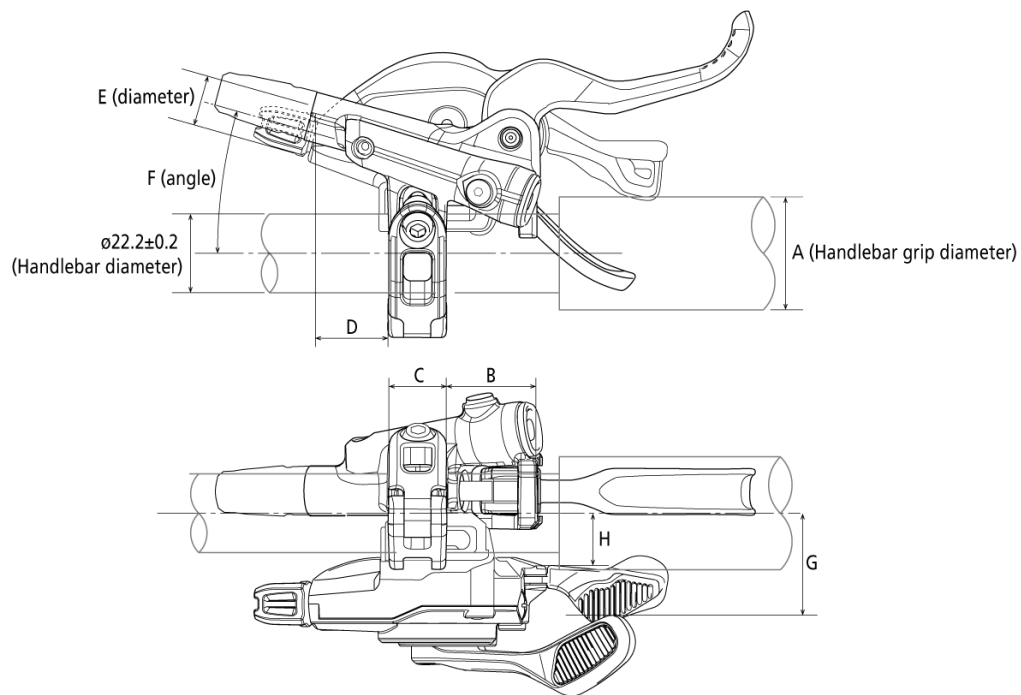
Standard type C-615



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	ø36	22.0	10.0	- / 41.8	ø15	15°	28.7	- / 14.8
SL-M9000	ø36	22.0	10.0	32.1 / 45.4	ø15	15°	29.6	23.0
SL-M8100	ø36	22.0	10.0	- / 41.8	ø15	15°	28.7	- / 14.8
SL-M8000	ø36	22.0	10.0	32.1 / 45.4	ø15	15°	29.6	23.0
SL-M7100	ø36	19.0	10.0	- / 39.0	ø15	15°	29.15	- / 25.8
SL-M7000-11 SL-M7000-10	ø36	19.0	10.0	35.8 / 46.5	ø15	15°	30.25	25.4
SL-M6100	ø36	19.0	10.0	- / 39.0	ø15	15°	29.15	- / 25.8
SL-M6000	ø36	19.0	13.0	35.8 / 46.5	ø15	15°	30.25	25.4
SL-M5100	ø36	19.0	10.0	- / 44.0	ø15	15°	29.15	- / 25.8
SL-M4100	ø36	19.0	10.0	- / 44.0	ø15	15°	29.15	- / 25.8
SL-M3100	ø36	28.5	13.0	40.2 / 40.5	ø15	10°	26.3	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-M2010	ø36	28.5	13	40.2 / 40.5	ø15	10°	26.3	22.8
SL-M820	ø36	26.6	13.0	- / 34.9	ø15	15°	27.9	23.0
SL-M360	ø36	31.0	14.6	39.3 / 39.7	ø15	10°	26.7	23.0
SL-M315	ø36	28.5	13	40.2 / 40.5	ø15	10°	26.3	22.8
SL-T8000	ø36	19.0	10.0	29.1 / 34.9	ø15	15°	29.8	23.0
SL-T6000	ø36	19.0	13.0	35.8 / 46.5	ø15	15°	30.25	25.4

RAPIDFIRE PLUS Shifting / Brake lever set

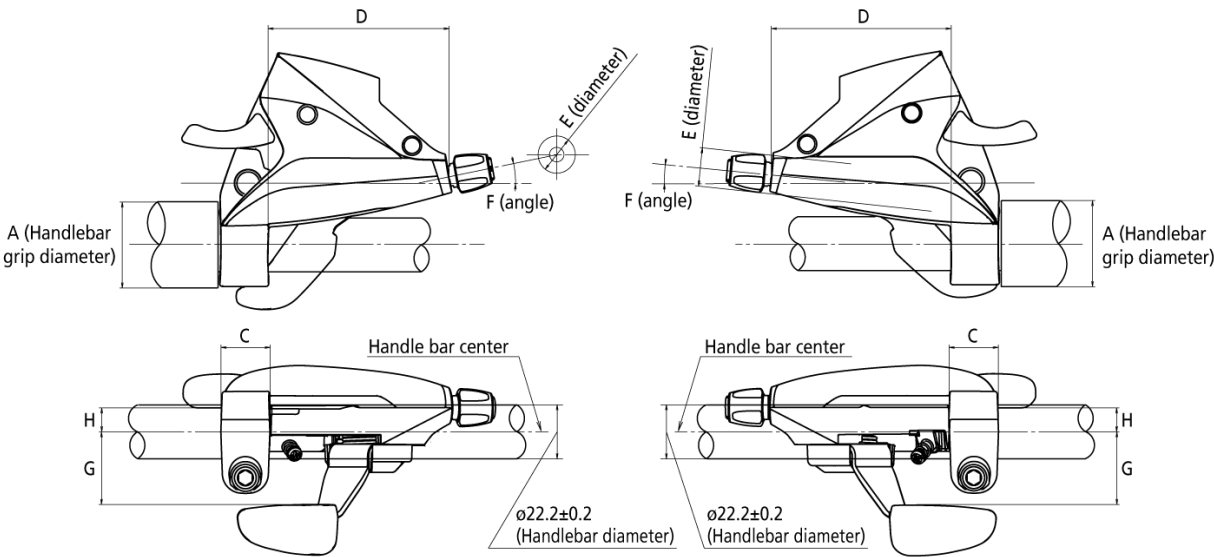
Model No.	Max. A (mm)	B (mm)	C (mm)	D (mm) Front / Rear	E (mm)	F	G (mm)	H (mm)
ST-M310	ø36	9.0	23.8	49.4 / 49.0	ø15	10°	26.7	23.0



Shifting lever	Brake lever	Max. A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G (mm)	H (mm)
SL-M9100-IR	BL-M9100-R	$\phi 36$	25.5	17	19.1-33.3	$\phi 15$	15°	28.7	14.8
SL-M8100-IR	BL-M8100-R	$\phi 36$	25.5	18	19.1-33.3	$\phi 15$	15°	28.7	14.8
SL-M7100-IR	BL-M7100-R	$\phi 36$	25.5	18	16.0-30.2	$\phi 15$	15°	29.1	25.8
SL-M6100-IR w/o OPTICAL GEAR DISPLAY	BL-M6100-R	$\phi 36$	25.5	18	16.0-30.2	$\phi 15$	15°	29.1	25.8
SL-M6100-IR w/ OPTICAL GEAR DISPLAY	BL-M6100-R	$\phi 36$	25.5	18	30.2	$\phi 15$	15°	29.1	25.8
SL-M5100-IR w/o OPTICAL GEAR DISPLAY	BL-M6100-R	$\phi 36$	25.5	18	16.0-30.2	$\phi 15$	15°	29.1	25.8
SL-M5100-IR w/ OPTICAL GEAR DISPLAY	BL-M6100-R	$\phi 36$	25.5	18	30.2	$\phi 15$	15°	29.1	25.8
SL-M4100-IR w/o OPTICAL GEAR DISPLAY	BL-M4100-R	$\phi 36$	25.5	18	16.0-30.2	$\phi 15$	15°	29.1	25.8
SL-M4100-IR w/ OPTICAL GEAR DISPLAY	BL-M4100-R	$\phi 36$	25.5	18	30.2	$\phi 15$	15°	29.1	25.8

EZ FIRE PLUS Shifting lever

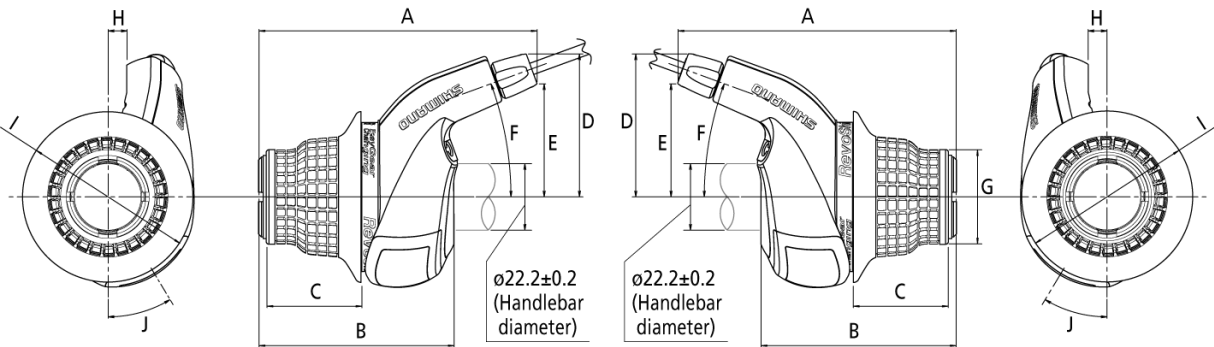
C-147



Model No.	Max. A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G (mm)	H (mm)
ST-EF505	$\phi 32$	-	16.0	L=64.1 R=64.1	L= $\phi 15.0$ R= $\phi 15.0$	L=20° R=20°	25.9	9.6
ST-EF500	$\phi 32$	-	16.0	L=64.1 R=67.9	L= $\phi 15.0$ R= $\phi 11.03$	L=20° R=20°	25.9	9.8
ST-TX800	$\phi 32$	-	24.8	L=50.5 R=48.9	L= $\phi 15.0$ R= $\phi 13.1$	15°	30.4	9.4
ST-EF41	$\phi 32$	-	24.8	L=50.5 R=48.9	L= $\phi 15.0$ R= $\phi 13.1$	15°	30.4	9.4

REVOSHIFT

C-148

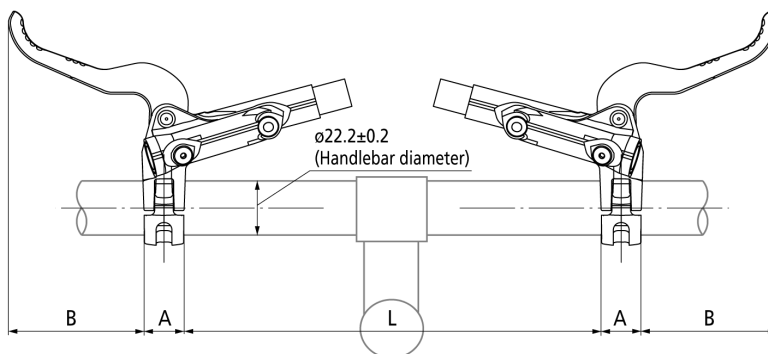


Model No.	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F	G (mm)	H (mm)	I (mm)	J
SL-RS47-L / R	94.1	66.0	32.1	48.4	38.2	20°	$\phi 32$	6.4	$\phi 57$	31°
SL-RS45-L / R	94.1	66.0	32.1	48.4	38.2	20°	$\phi 32$	6.4	$\phi 57$	31°
SL-RS36-L	94.1	66.0	35.4	48.4	38.2	20°	$\phi 32$	6.4	$\phi 58$	31°
SL-RS36-R	81.8	66.0	35.4	43.5	34.5	20°	$\phi 32$	6.4	$\phi 58$	31°
SL-RS35-L	87.3	68.3	38.2	58.0	47.7	20°	$\phi 32$	8.0	$\phi 58$	31°
SL-RS35-R	76.1	68.3	38.2	52.8	44.5	20°	$\phi 32$	8.0	$\phi 58$	31°

Hydraulic brake lever on handlebar

C-149

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

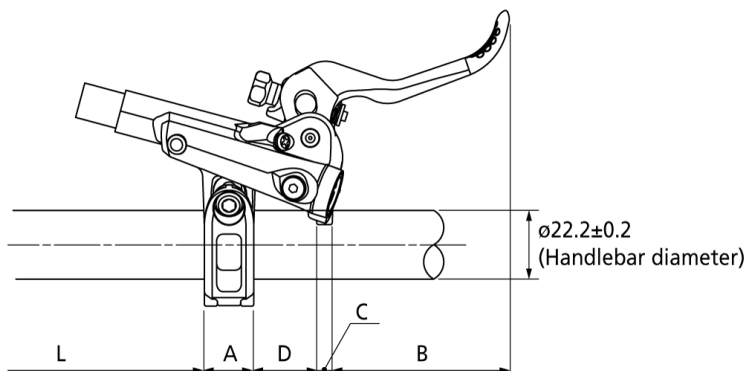


2

Model No.	A (mm)	B (mm)	L (mm)
BL-M820-B	17.0	54.0	≥ 180
BL-M8000	12.0	56.0	≥ 186
BL-T8100	12.0	85.1	≥ 186
BL-T6000	12.0	85.1	≥ 186
BL-S7000	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
BL-MT400	14.0	79.3	≥ 200
BL-MT401	14.0	79.3	≥ 200
BL-MT402-3A	14.0	85.0	≥ 200
BL-MT201	14.0	87.6	≥ 200
BL-MT200	14.0	87.6	≥ 200
ST-EF505	16.0	73.5	≥ 200

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

BL-M9100 / BL-M9120 / BL-M8100 / BL-M7100 / [BL-M6100](#) / [BL-M4100](#)



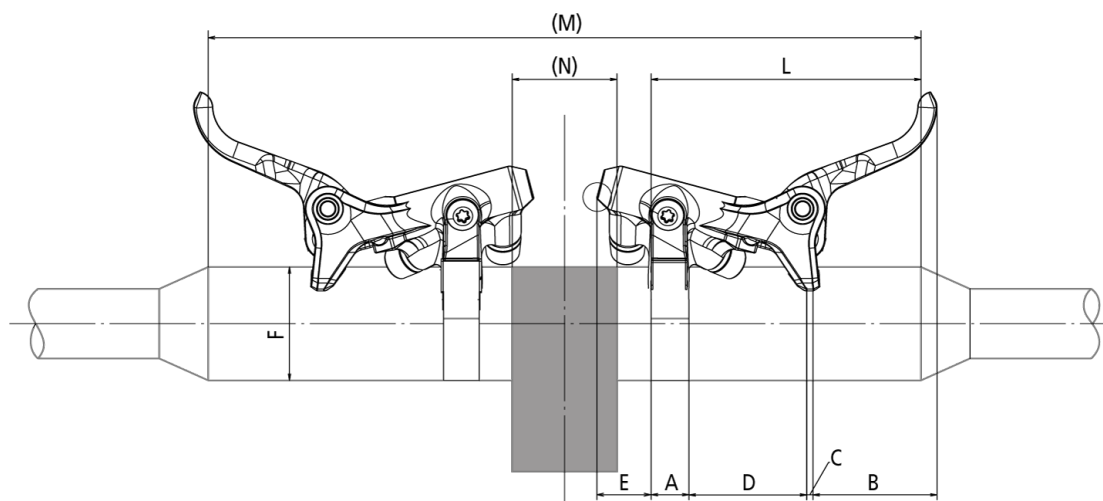
Model No.	A (mm)	B (mm)	C (mm)	D (mm)	L (mm)
BL-M9100	17	56.0	5.5	20	≥ 143.5
BL-M9120	17	56.0	5.5	20	≥ 143.5
BL-M8100	18	56.0	5.5	20	≥ 142.5
BL-M7100	18	56.0	5.5	20	≥ 142.5
BL-M6100	18	56.0	5.5	20	≥ 142.5
BL-M4100	18	79.0	5.5	20	≥ 142.5

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

Hydraulic Sub Brake Lever for Road ST

C-603

BL-RX812



Model No.	A	B	C	D	E	F	L	(M)	(N)
BL-RX812	13	51	10	18	19	$\varnothing 31.8 \pm 0.2$	≥ 35	≥ 120	≤ 45

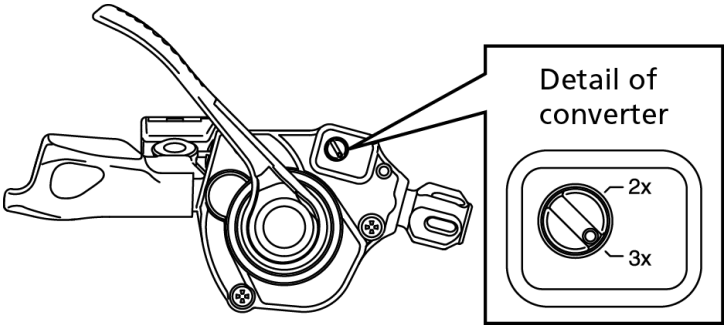
(mm)

Mode converter

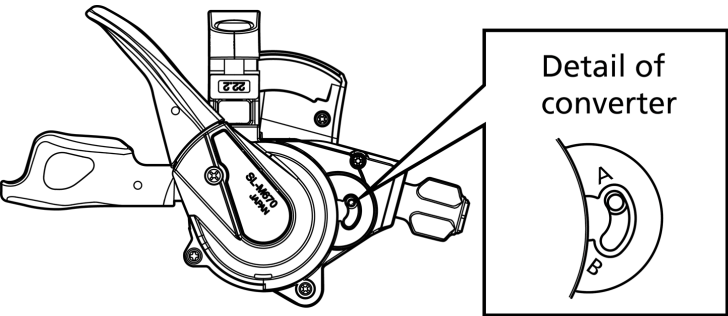
C-150

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 crankset.

XTR / DEORE XT series C-151



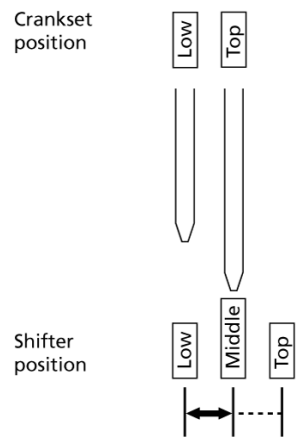
SLX / DEORE series C-152



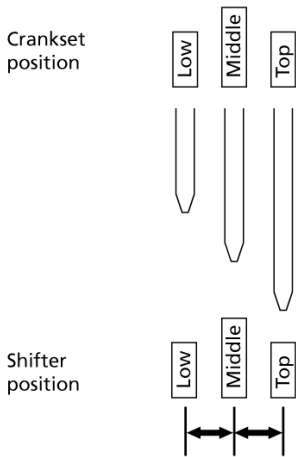
Speed	Model No.	2x / 3x or A / B mode converter
11	SL-M9000-L	-
	SL-M8000-L / SL-M8000-IL	
	SL-M7000-L / SL-M7000-IL / SL-M7000-B-IL	
10	SL-M780-L / SL-M780-B-IL	✓
	SL-M7000-L / SL-M7000-IL / SL-M7000-B-IL	-
	SL-M670-B-IL	✓
	SL-M610-IL	
	SL-M6000-L / SL-M6000-IL	-

11-speed MTB C-154

Double



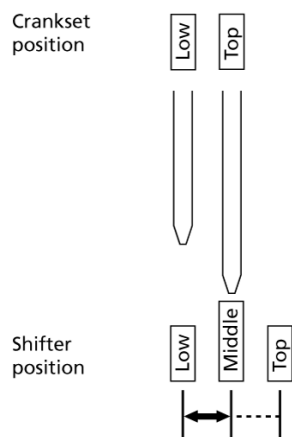
Triple



10,9-speed MTB C-155

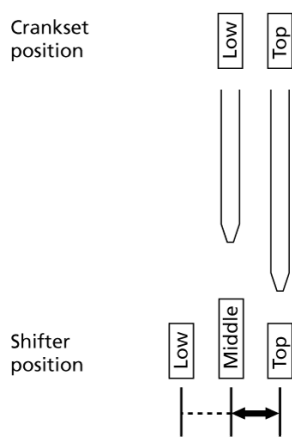
Double (NEW from MY 2016)

Please use front shifters with 3x / A mode.
Please refer compatibility of FC / FD / SL. [C-442](#), [C-445](#)

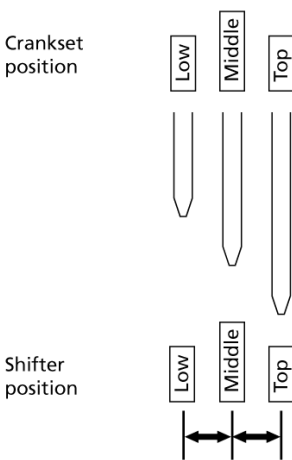


Double (Old)

Please use front shifters with 2x / B mode.
Please refer compatibility of FC / FD / SL. [C-442](#)



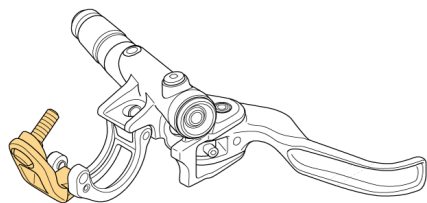
Triple



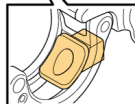
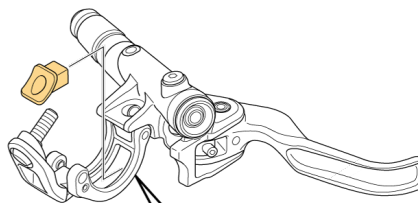
Installation of I-SPEC shifter with brake lever

C-158

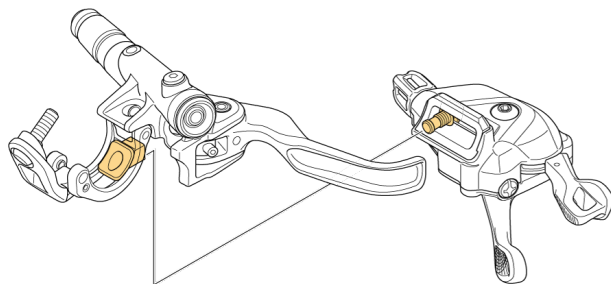
I-SPEC EV C-551



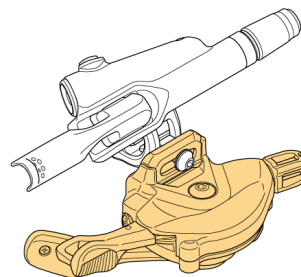
STEP 1



STEP 2

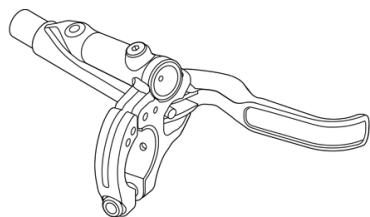


STEP 3

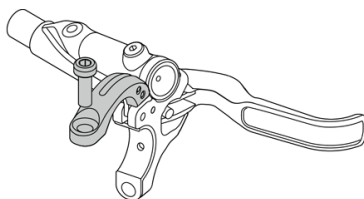


STEP 4

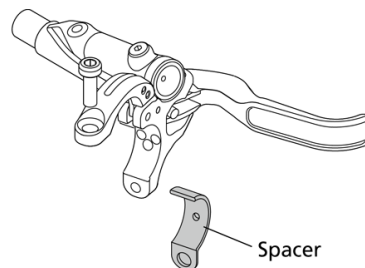
I-SPEC II C-159



STEP 1

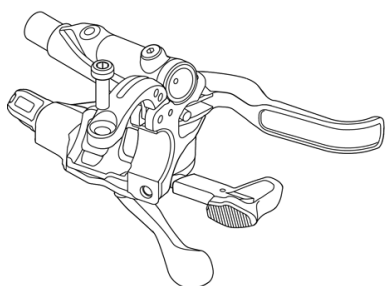


STEP 2

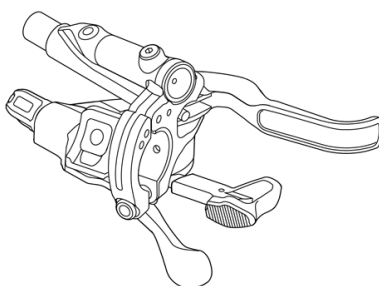


STEP 3

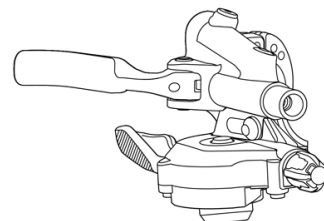
Spacer



STEP 4



STEP 5



STEP 6

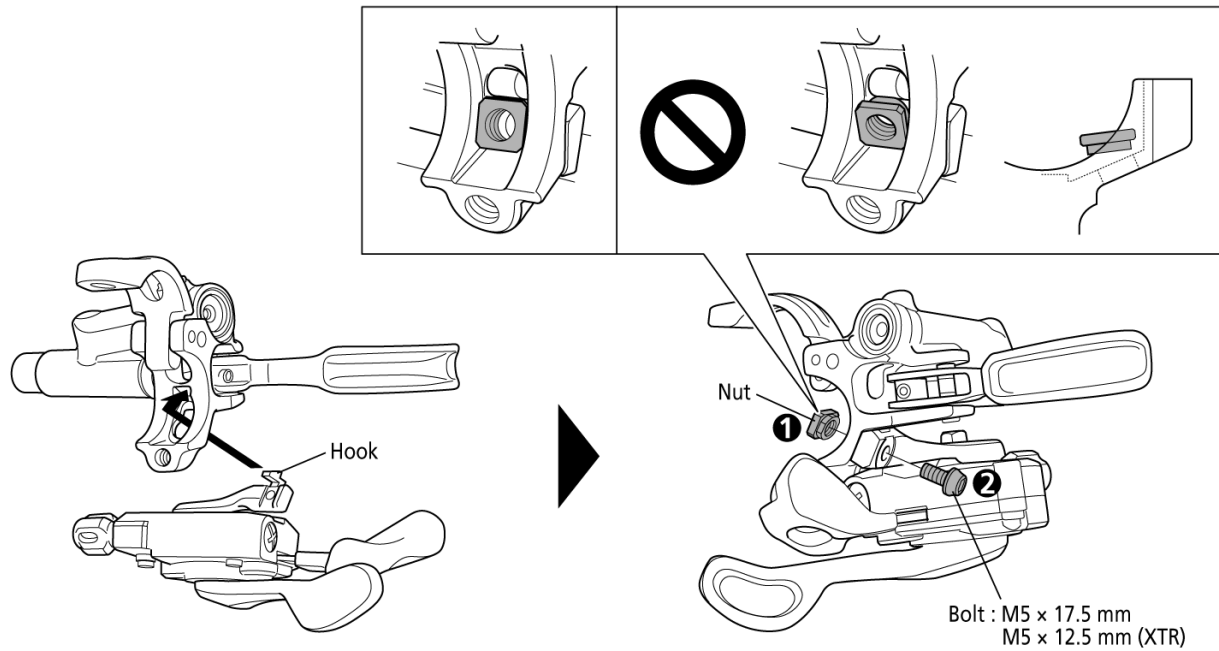
* If installing the BL only, make sure to include the spacer.

		Shifting Lever	
		B type	Conventional type
Brake lever	B type	[Assembly procedure]: In the case of B Bolt (small) Nut Bolt	
	A type	[Assembly procedure]: In the case of C * Nut Bolt	[Assembly procedure]: In the case of A Nut Bolt

* 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.

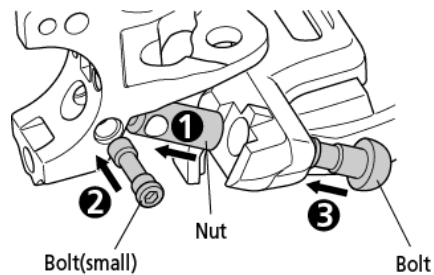


NOTE

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.

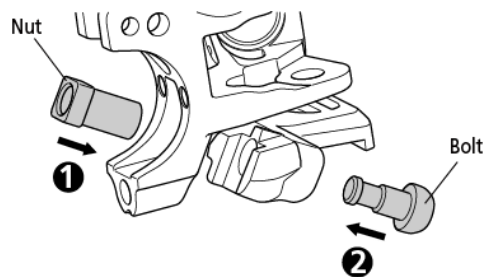
In the case of B

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.

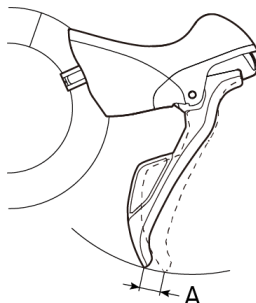


Reach adjustment range

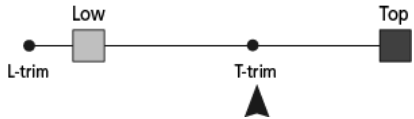
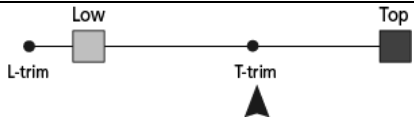
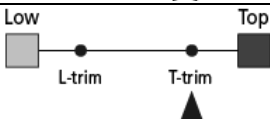
C-162

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



Model No.	Screw type adjustment range A (mm)
ST-R9100	20.8
ST-R9120	10.9
ST-R9150	20.8
ST-R9170	15.4
ST-R8000	20.8
ST-R8020	10.9
ST-R8025	10.9
ST-R8070	15.4
ST-R7000	20.8
ST-R7020	13.3
ST-R7025	13.3
ST-R3000	13.5
ST-R3030	
ST-R2000	13.5
ST-R2030	
ST-9001	13.5
ST-6800	13.5
ST-6870	15.0
ST-5800	13.5
ST-4700	13.5
ST-4703	13.5
ST-4720	13.3
ST-4725	13.3
ST-RS685	10.0
ST-A070	13.0
ST-A073	13.0
ST-RX810	10.9
ST-RX815	22.7
ST-RX600	13.3
ST-RX400	13.3
BL-RX810-L	10.9
ST-RX810-LA	10.9

Speed	STI lever	Inner cable tension adjustment position	Chain position during adjustment	Comments
2x11-speed	ST-R9100 ST-R9120 ST-R8000 ST-R8020 ST-R8025 ST-R7000 ST-R7020 ST-R7025 ST-9001 ST-6800 ST-5800 ST-RS685 ST-RX810 ST-RX600		Front: Top 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 SL-4700 ST-4720 ST-4725 ST-RX400			
2x9-speed	ST-R3000 SL-R3000			
2x8-speed	ST-R2000 SL-R2000 ST-RS200			
2x7-speed	ST-A070			
3x10-speed	ST-4703 SL-4703 SL-4603		Front: Middle 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 SL-R3030			
3x8-speed	ST-2030 SL-2030 ST-RS203			
3x7-speed	ST-A073			

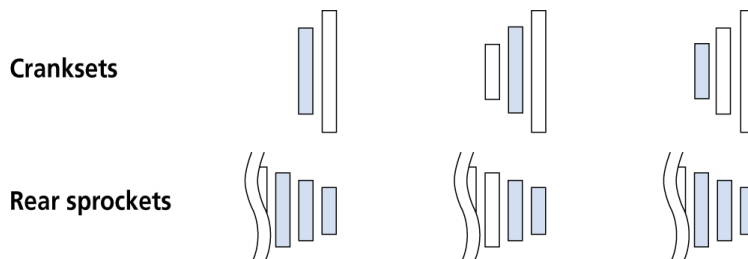
NOTE

This chart shows trim position of levers.

Contact between cranksets / Front derailleur and chain

When the chain is in the position shown in the illustration, the chain may contact the cranksets 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.

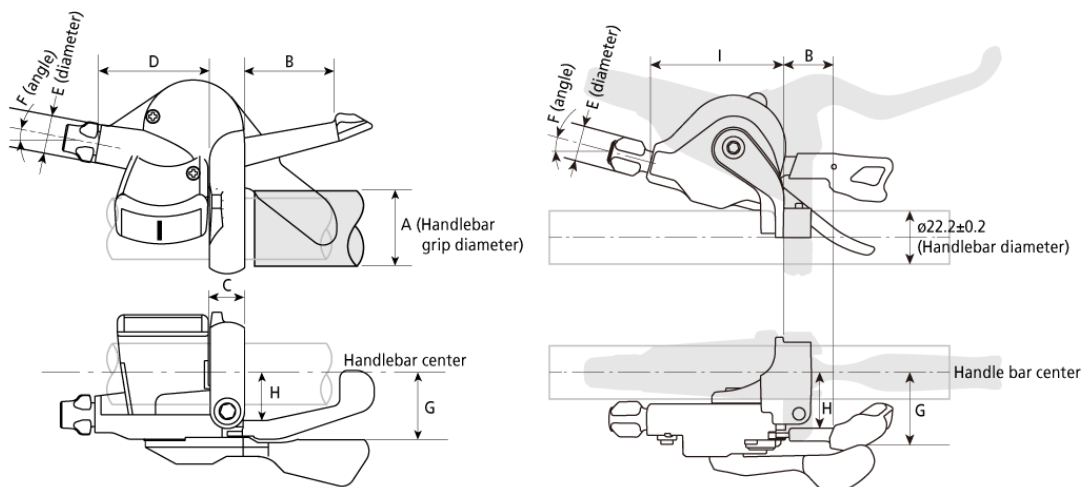
When specifying the 135 / 142 mm O.L.D. hubs with any road crankset be aware of the following conditions.

- 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 chainstay 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 SL-4703 SL-4603	ø36	28.0 / 26.7	13.5	39.0 / 36.6	ø15	16°	30.4	23.4	-
SL-R3000 SL-R3030	ø36	31	13.0	40.3 / 40	ø15	10°	27.3	22.8	-
SL-R350 SL-R353	ø36	28.7	13.0	40.3	ø15	10°	25.3	22.6	-
SL-R2000 SL-R2030	ø36	31.0	13.0	40.3 / 40	ø15	10°	25.4	22.8	-
ST-RS200 ST-RS203	ø36	5.0	16.0	63.0	ø15	10°	25.4	22.8	-

CAUTION

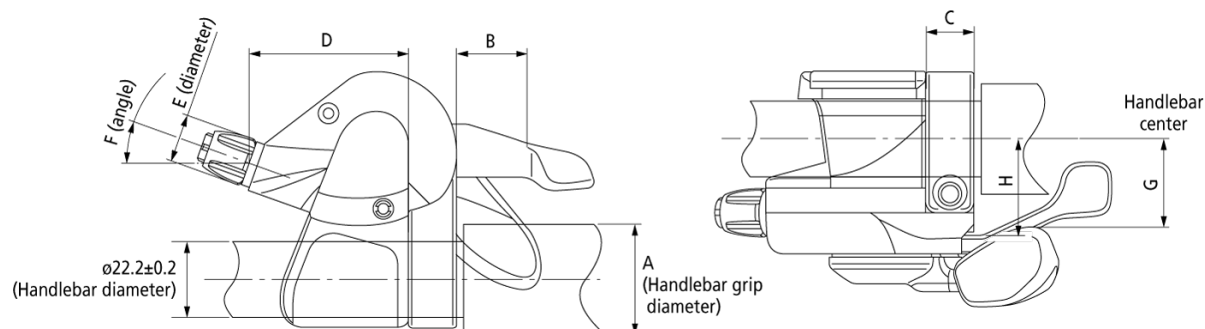
Some brake lever designs may interfere with the Shifting lever and should not be used. You may also want to check that the brake lever has adequate clearance not to injure an index finger that is placed on the release trigger.

Shifting lever / Brake lever [URBAN (ALFINE, NEXUS)]

C-169

RAPIDFIRE PLUS shifter for ALFINE / NEXUS

C-170

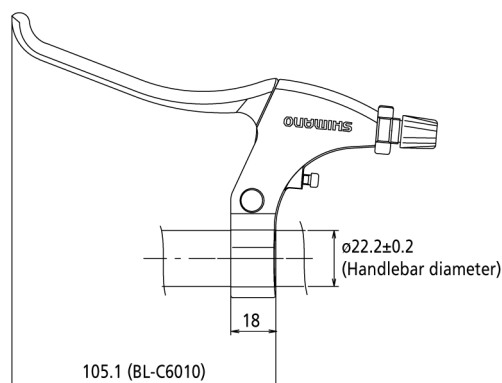


Model No.	Max. A (mm)	B (mm) Front / Rear	C (mm)	D (mm) Front / Rear	E (mm)	F	G (mm)	H (mm) Front / Rear
SL-S700	ø34	33.7	12	52.7	ø14	20.0°	32.3	21.15
SL-S7000-8 SL-S503 SL-7S50 SL-5S50	ø32	24.5	14	46.6	ø14	19.67°	32.7	28.1
SL-C2010-3	ø36	28.5	13	40.3 / 40.0	ø15	10°	25.2	22.8

REVOSHIFT / Brake lever

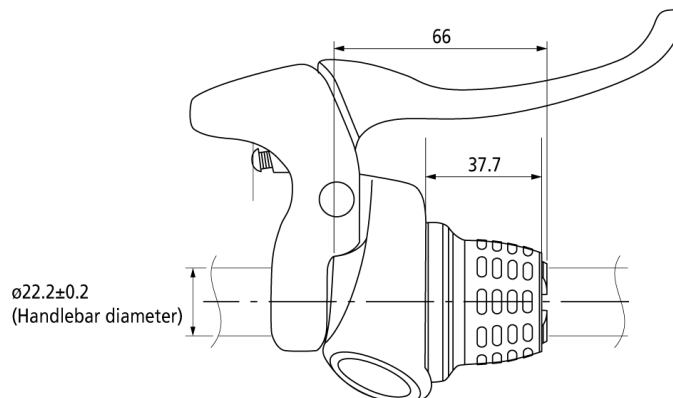
C-171

BL-C6010

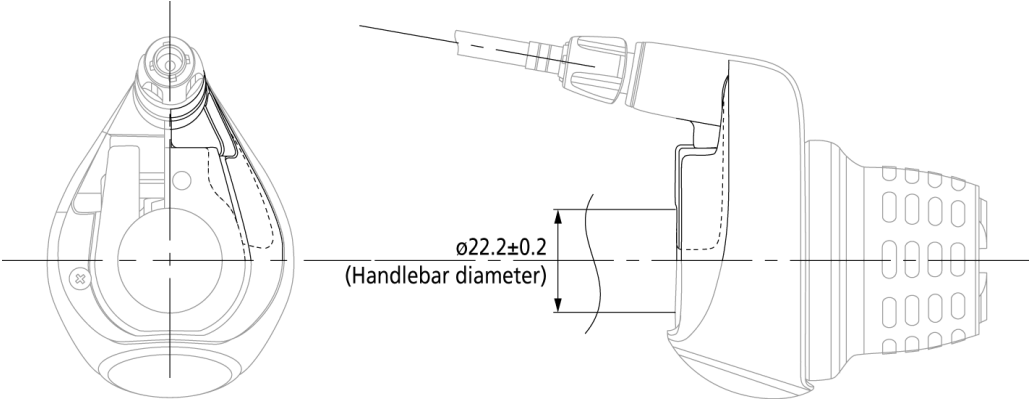


SL-5S30 / 5S30-A

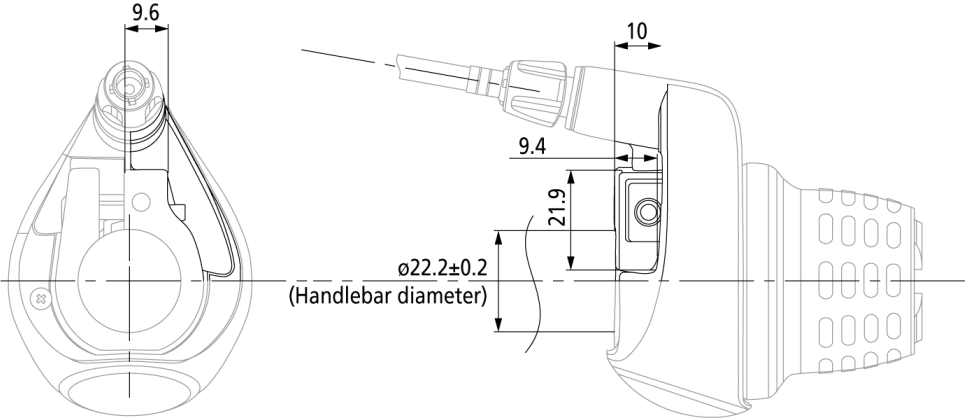
SL-5S30 and SL-5S30-A differ in cover shape as follows.



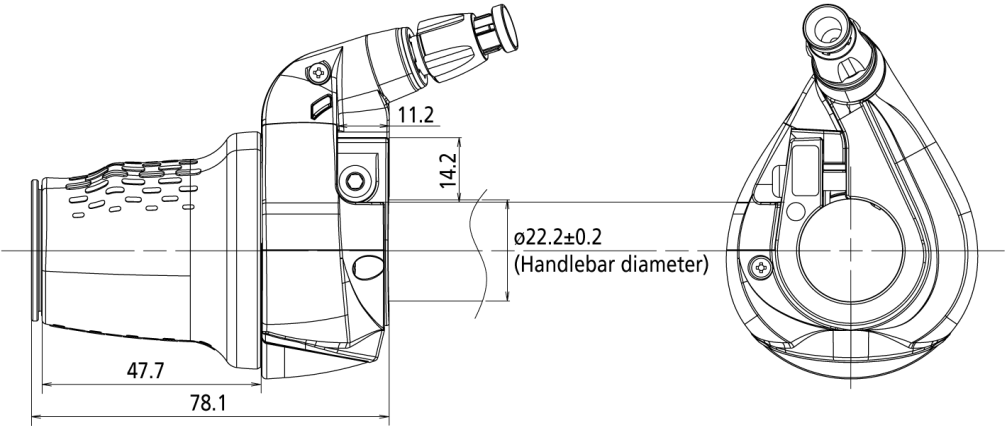
SL-5S30



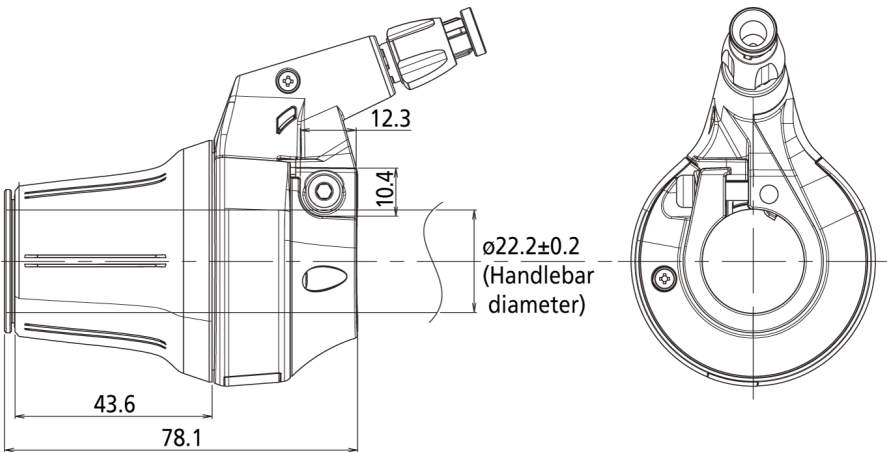
SL-5S30-A



SL-C6000-8 / SL-C3000-7



SL-C7000-5



Tool variations for assembly on handlebar

C-172

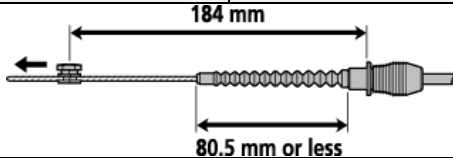
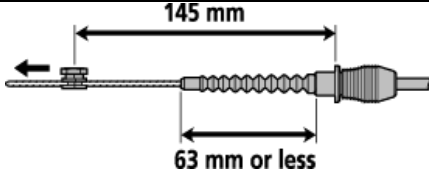
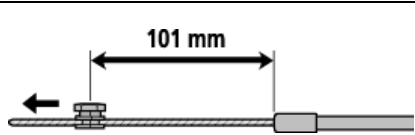
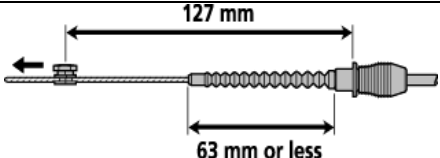
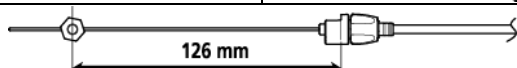
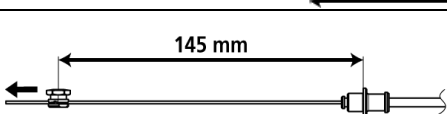
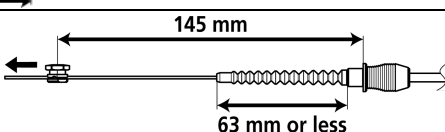
4

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
	7	SL-7S50	M6 x 17.8	Hexagon socket 5 mm
		SL-C3000-7	M4 x 18.7	Hexagon socket 3 mm
	5E	SL-C7000-5	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-C2010-3	M6 x 17.5	Hexagon socket 5 mm
		SL-3S41E	M4 x 23.5	Hexagon socket 3 mm
		SL-3S42E		
		SL-3S43		
		SL-3S58		
		SL-3S35E	M4 x 16.0	Hexagon socket 4 mm
		SL-3S90	M5 x 20.0	Cross recess No.2
		SL-3S91		

Protruded lengths of the inner cable

C-173

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

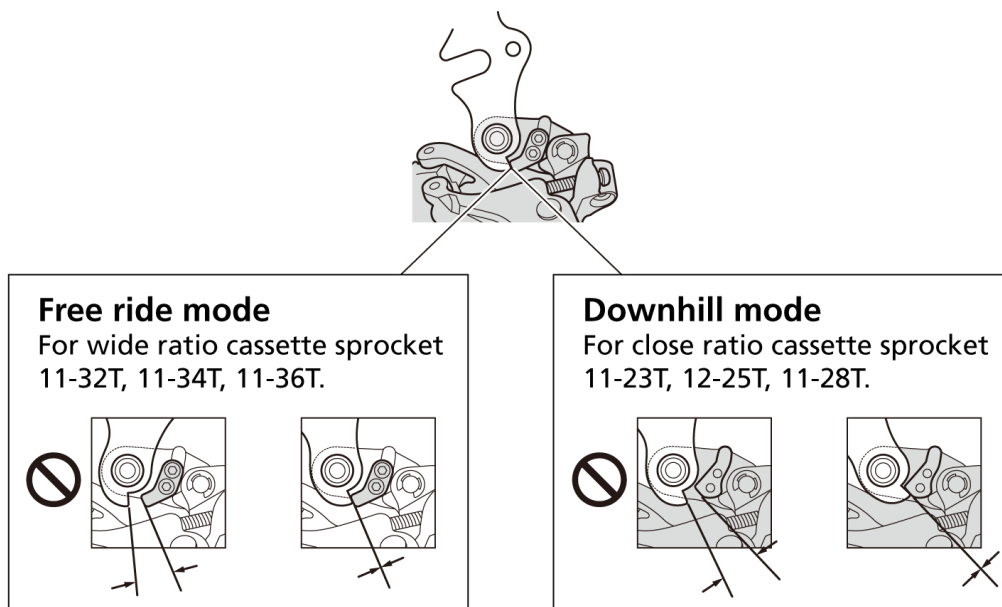
Model No.	Standard	DX	Tool
SL-S700			TL-S700-B
SL-S7000-8			
SL-8S31 SL-C6000-8 SL-C3000-7 SL-5S50 SL-5S30			TL-CJ40
SL-3S58 SL-3S43			
SL-C7000-5			TL-S700-B

Free ride / Downhill mode converter

C-175

RD-M820

Mode converter setting



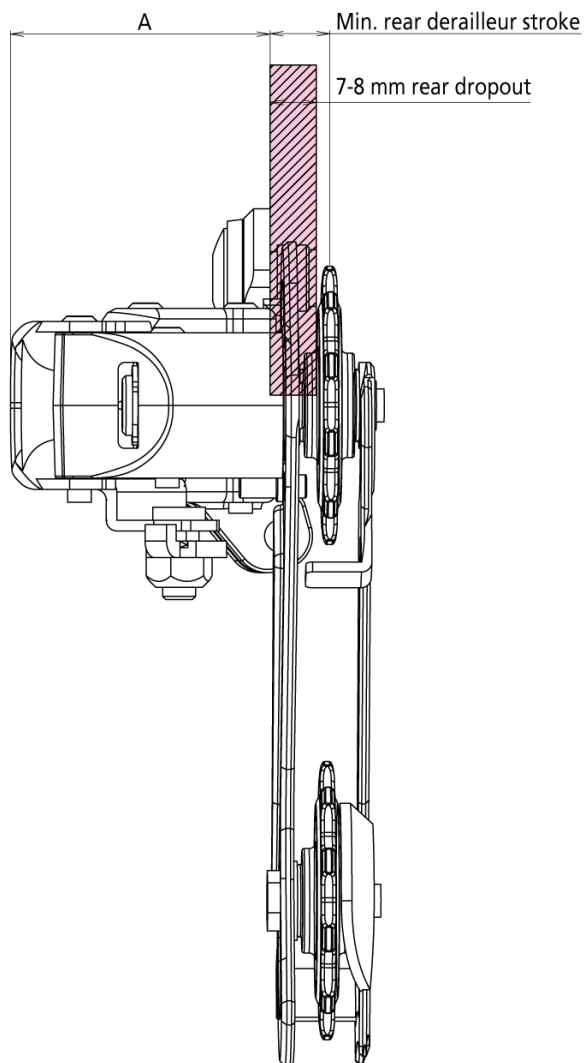
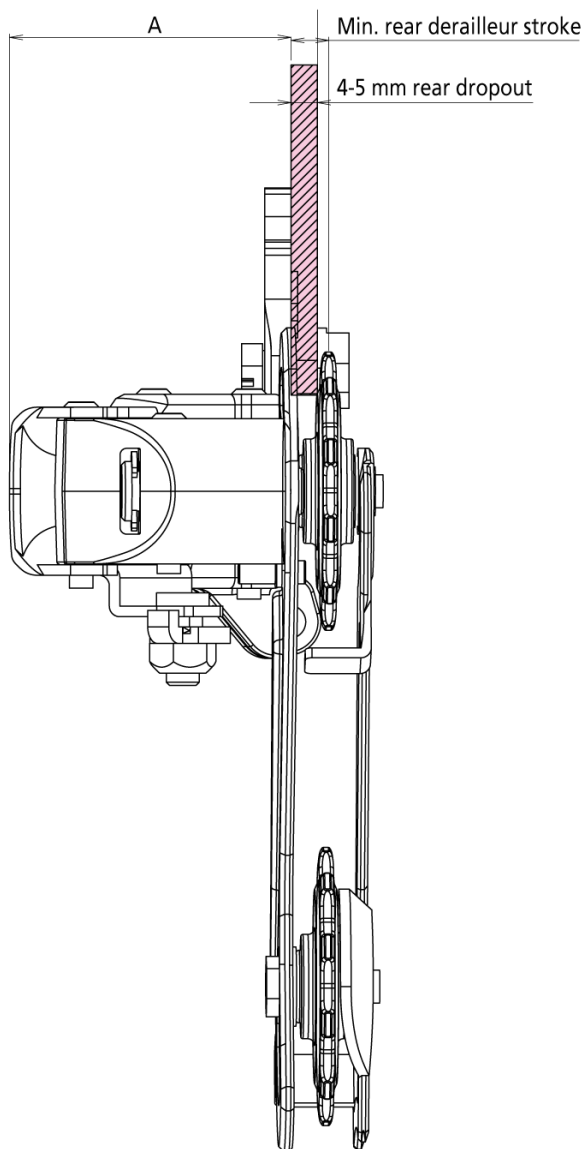
Recommended clearance for outer link protrusion

C-176

RD-TY21-B / RD-TY200

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
RD-TY200	With normal and reverse adapter (4 mm end)	42 mm
	Direct attachment (7 mm end)	39 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 rear dropout design.
- Please check the interference with screw driver for H / L adjustment bolt by using actual sample.

Rear dropout and rear derailleur [MTB, Trekking, ROAD, Gravel/Adventure]

C-177

Type	Speed	Direct mount compatible models
MTB	11-speed	RD-M8000 RD-M8050
	11/10-speed	RD-M5120 RD-M4120
	10-speed	RD-M820 RD-M7000-10 RD-M6000
	9-speed	RD-M3100 RD-M2000
Trekking	10-speed	RD-T8000 RD-T6000
Road	11-speed	RD-R9100 RD-R9150 RD-R8000 RD-R8050 RD-R7000 RD-RX800 RD-RX805
Gravel/Adventure	11-speed	RD-RX810 RD-RX812 RD-RX815 RD-RX817
	10-speed	RD-RX400

NOTE

- With use bracket mount, SHADOW RD and SHADOW RD+ can install to rear dropout (with derailleur hanger).
- Without bracket mount, SHADOW RD and SHADOW RD+ can install to direct mount rear dropout.
- RD-M9100 and RD-M9120 can install to only rear dropout (with derailleur hanger).
- Direct mount rear dropout for RD-M820 downhill mode require difference dimension, please refer to [C-022](#), [C-175](#).
- RD-M5120 and RD-M4120 are for rear 42T, 2x10-speed, 2x11-speed. These models are also for rear 45T, 1x10-speed.

Front derailleur and seat tube adapter

C-183

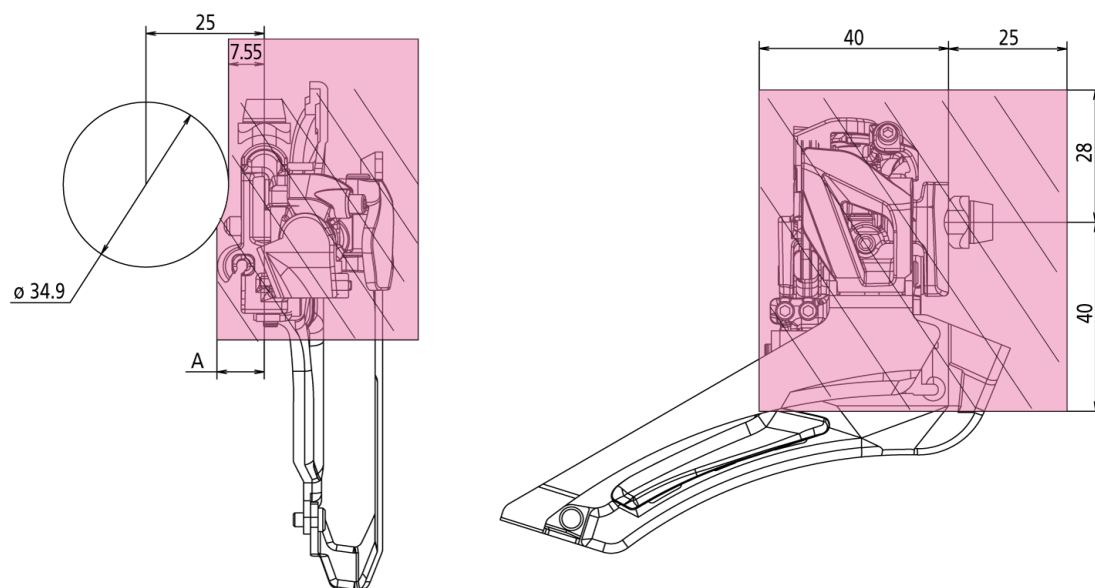


Speed	Model No.	Size	
		ø28.6 mm	ø31.8 mm
12	FD-M9100-M	-	KSMAD17M
	FD-M8100-M	-	KSMAD17M
	FD-M7100-M	-	KSMAD17M
11	SM-FD905-H for FD-M8070	KSMAD17S	KSMAD17M
	SM-FD905-L for FD-M8070		
	FD-M7025-11-H		
	FD-M7025-11-L	-	KSMAD17M
10	FD-M5100-M		
	FD-T8000	KSMAD17S	KSMAD17M
	FD-T6000		
	FD-M6000-H		
	FD-M6000-M		
	FD-M6000-L		
	FD-M6025-H		
	FD-M6025-L		
	FD-M4100-M	-	KSMAD17M
	FD-M617-H	KSMAD17S	KSMAD17M
	FD-M617-L		
9	FD-M4020-M	Y2B198010	Y2B198020
	FD-M4000-TS	ASMFDSTABS16	ASMFDSTABM16
	FD-M4000-DS6	ASMFDSTABS17	ASMFDSTABM17
	FD-M3100-M	Y2B198010	Y2B198020
	FD-M3120-M	Y2B198010	Y2B198020
	FD-M3120-M-B	Y2B198010	Y2B198020
	FD-M3000-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-T3000-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-T3000-2-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-M2000-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-M2000-DS	ASMFDSTABS17	ASMFDSTABM17
	FD-M2020-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-M370	ASMFDSTABS17	ASMFDSTABM17
	FD-M371	ASMFDSTABS16	ASMFDSTABM16
8	FD-M310	ASMFDSTABS17	ASMFDSTABS17
	FD-M313	ASMFDSTABS16	ASMFDSTABM16
	FD-M315-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-TX800-TS	ASMFDSTABS17	ASMFDSTABM17
	FD-TY710-2	ASMFDSTABS17	ASMFDSTABS17
	FD-TY700	ASMFDSTABS18	ASMFDSTABM18
7	FD-TY710		
	FD-TY500		
7	FD-TY510	ASMFDSTABS18	ASMFDSTABM18
	FD-TY510		

Interference area of front derailleur [ROAD, Gravel/Adventure]

FD-R9100 / FD-R8000 / FD-R7000 / FD-RX810 / FD-RX400

C-508

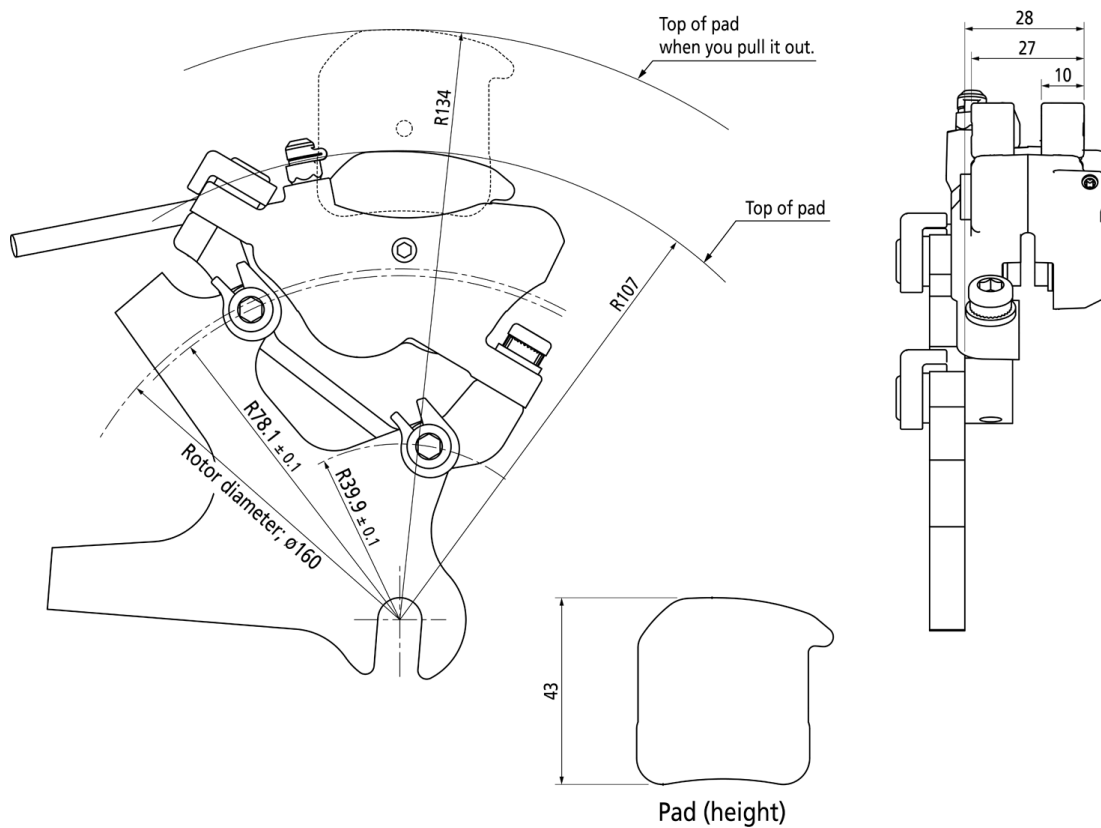


Model No.	A (mm)
FD-R9100	10
FD-R8000	10
FD-R7000	10
FD-RX810	7.5
FD-RX400	7.5

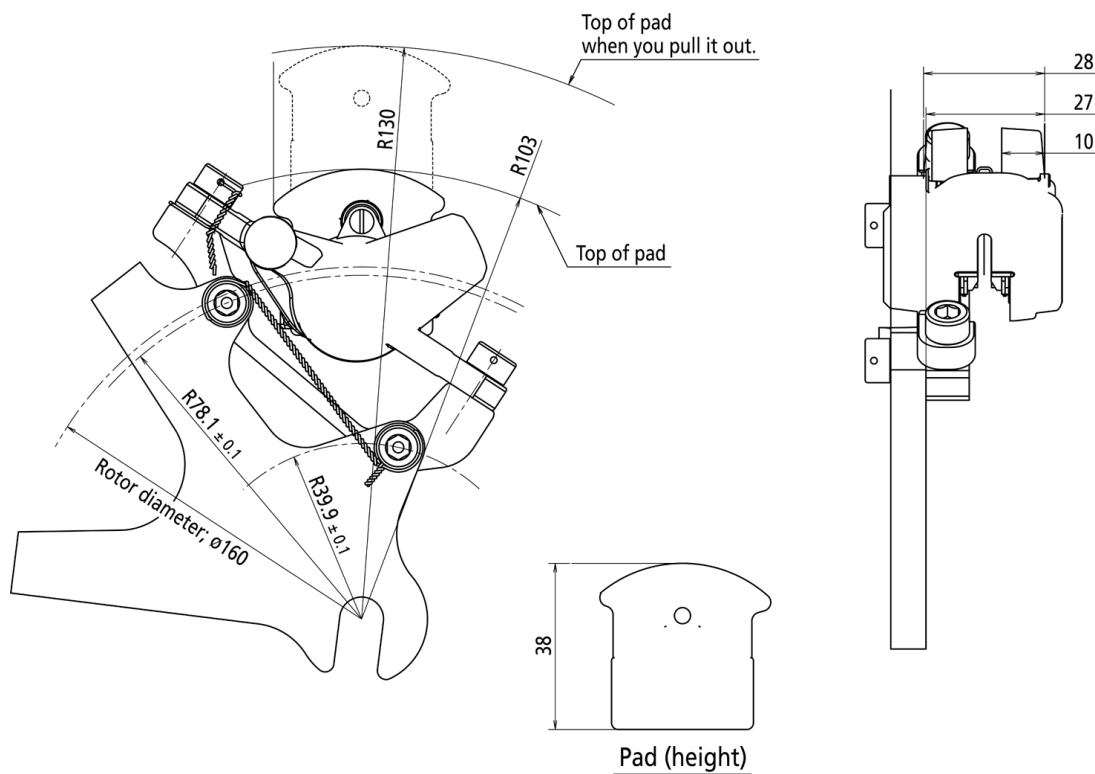
Dimensions for brake pad

C-185

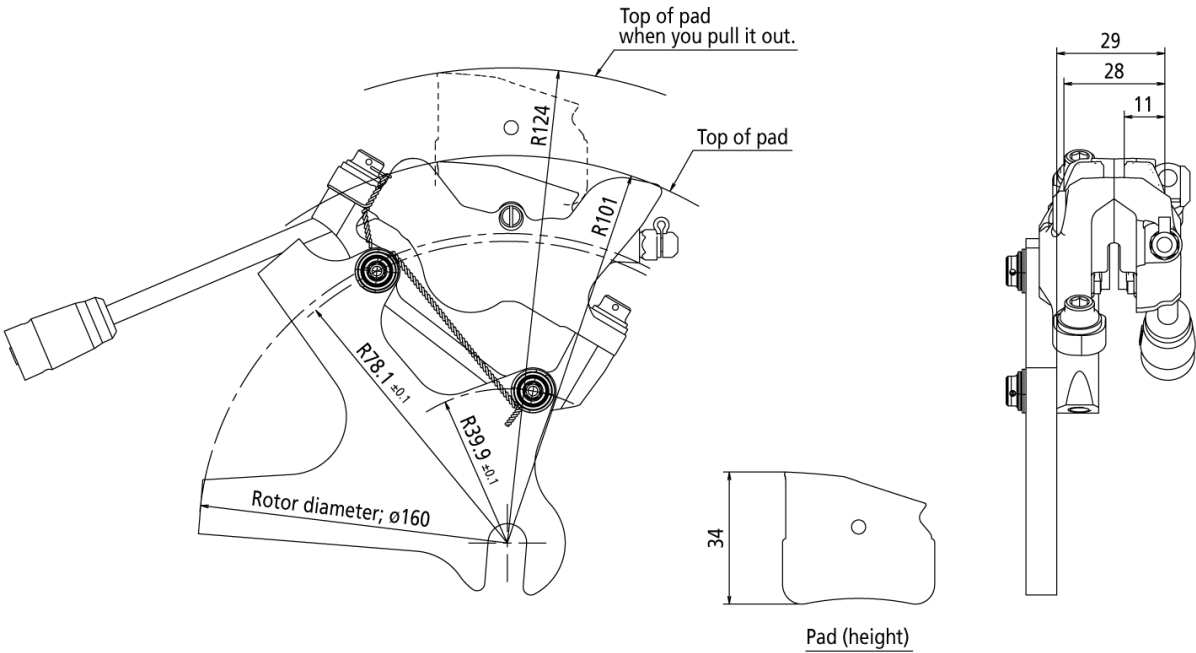
BR-M820 / BR-M8020



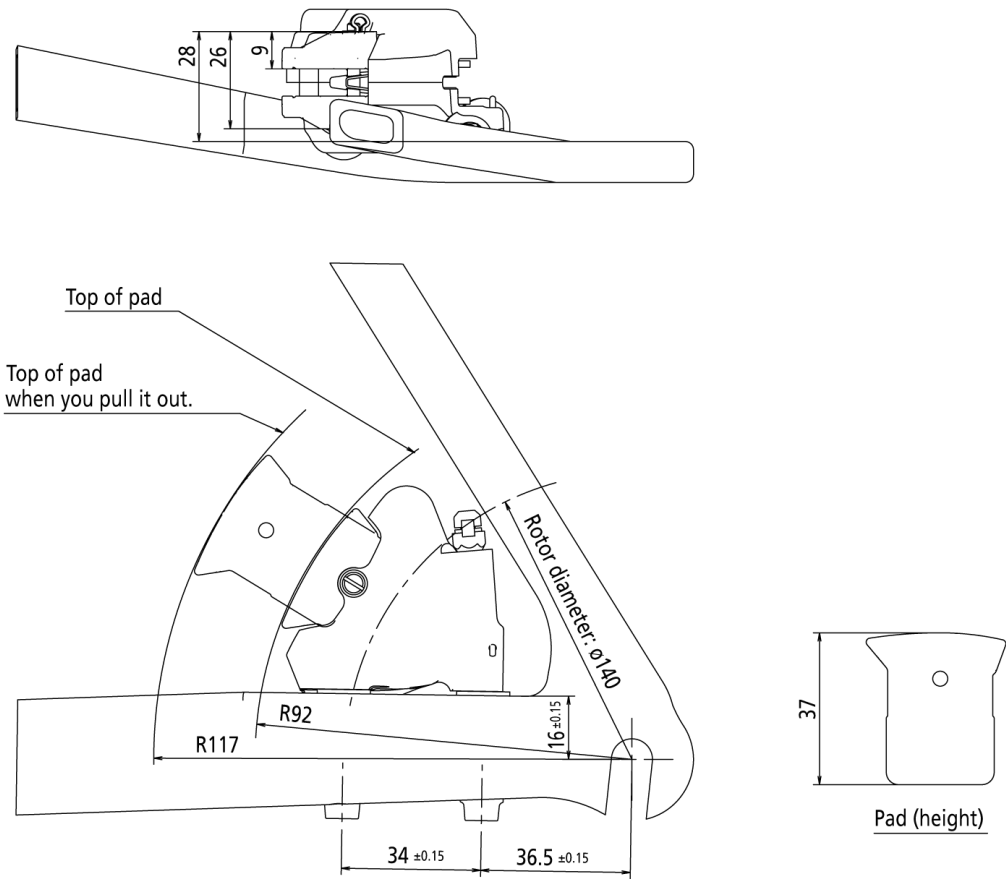
BR-M8000 / BR-RS785 / BR-M8100 / BR-M7100



BR-M9120 / BR-M8120 / BR-M7120



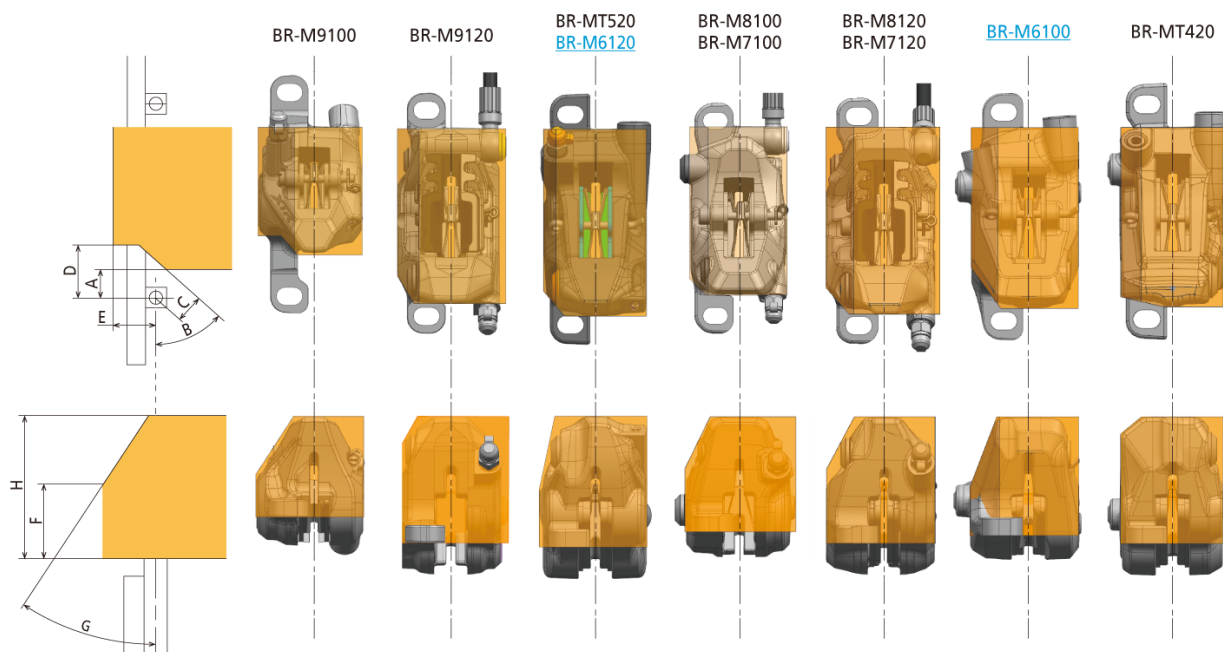
BR-R9170 / BR-R8070 / BR-R7070 / BR-4770 / BR-RX810 / BR-RX400 / BR-RS405 / [BR-M9110](#) / [BR-M8110](#) / [BR-M7110](#)



BR-M9100 / BR-M9120 / BR-M8100 / BR-M8120 / BR-M7100 / BR-M7120 / BR-MT520

Brake caliper dimension to avoid seat stay interference

Refer to interference check 3D data for detailed dimensions and the International Standard Mount.

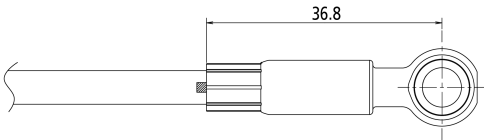


	A	B	C	D	E	F	G	H
BR-M9100	15	49	11	22	13	15	33	35
BR-M9120	4.5	31	-2.8	4.5	12	30	29	44
BR-M8100	7.9	45	2.8	14	10	22	26	40
BR-M8120	4	41	0	13	11.6	26.5	28	44.7
BR-M7100	7.9	45	2.8	14	10	22	26	40
BR-M7120	4	41	0	13	11.6	26.5	28	44.7
BR-M6100	4.5	36	1.8	19	10	17	21	41.5
BR-M6120	3	40	-0.8	11.9	11	20	12	45.5
BR-MT520	3	40	-0.8	11.9	11	20	12	45.5
BR-MT410	9.2	26.4	1.7	15	10.6	18.5	21.2	39.1
BR-MT420	4.3	13	5.5	7.7	9	38	50	44

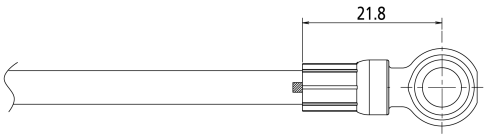
NOTE

Flat mount disc brake calipers have bleed nipple part protruding. Refer to 3D data for details.

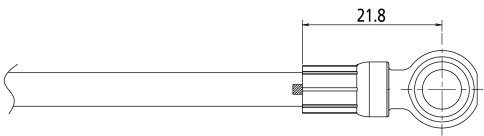
Long



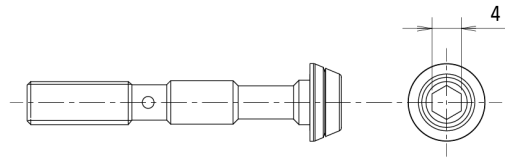
Normal, special coating



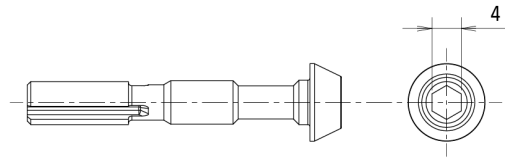
Normal



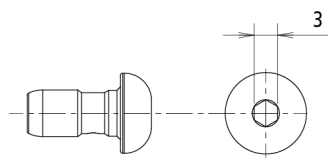
Special



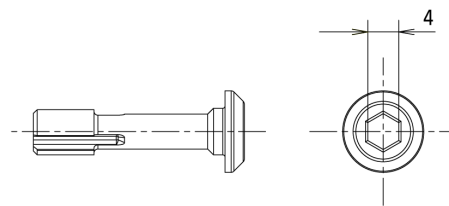
Normal



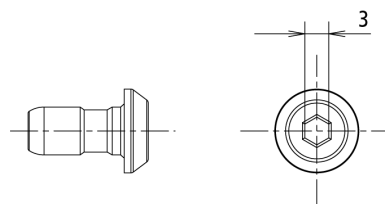
Short



BR-M9120 SPEC.



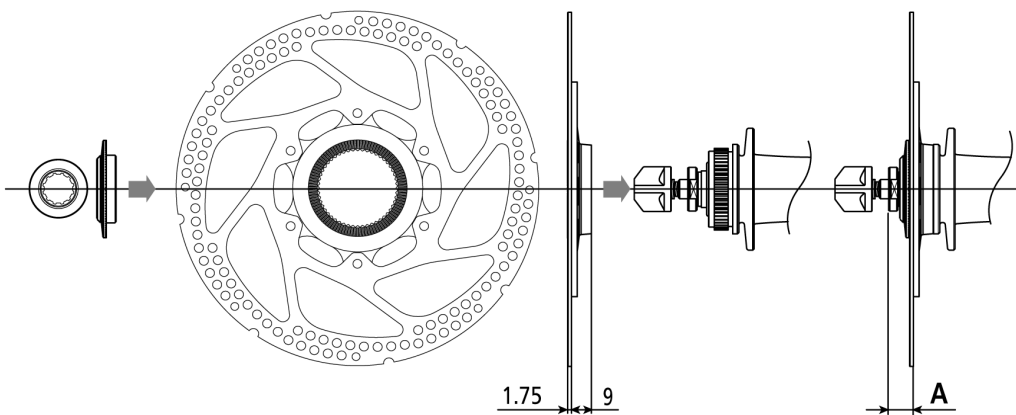
BR-M8100 SPEC.



NOTE

See [C-625](#) for compatibility of banjo bolts and brake calipers.

CENTER LOCK type C-190

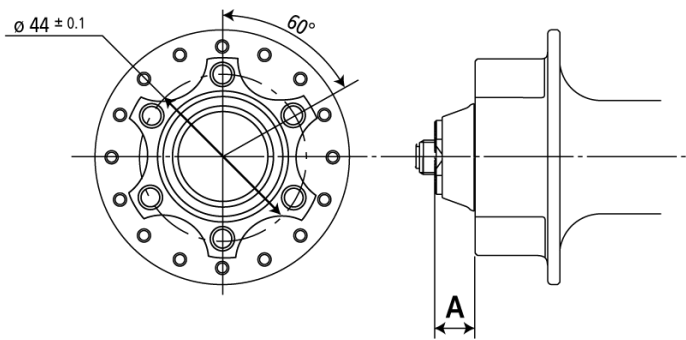


Combination of disc brake rotor and hub dimensions

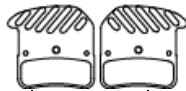
		Axle type	Dimension A (mm)
MTB	Front	QR / 15 mm E-THRU	10.5
		110 x 15 mm E-THRU	10.5
		20 mm thru axle	15.25
	Rear	QR, 10 mm / 12 mm thru axle	15.25
		142 x 12 mm / 148 x 12 mm E-THRU axle	18.75
Road	Front	QR / 100 x 12 mm E-THRU	10.5
	Rear	QR	15.25
		142 x 12 mm E-THRU	18.75

6-bolt type C-191

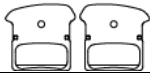
SHIMANO disc brake rotor is able to mount to the hubs with following dimensions. Following required dimensions are the 6 bolt standard.



	Dimension A (mm)
Front	10.5
Rear	15.25

Model No.	Type	B01S	D01S	D03S	D02S	H01A	H03A	H03C
		Resin	Resin	Resin	Metal	Resin	Resin	Metal
Pad Shape Type		B-type: Wide type 	D-type: Narrow type 			H-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	✓	✓	✓	✓	—	—	—
BR-M9100	Hydraulic	—	—	—	—	—	—	—
BR-M9110	Hydraulic	—	—	—	—	—	—	—
BR-M9120	Hydraulic	—	—	—	—	—	—	—
BR-M8100	Hydraulic	—	—	—	—	—	—	—
BR-M8110	Hydraulic	—	—	—	—	—	—	—
BR-M8120	Hydraulic	—	—	Option	Option	—	—	—
BR-M7100	Hydraulic	—	—	—	—	—	—	—
BR-M7110	Hydraulic	—	—	—	—	—	—	—
BR-M7120	Hydraulic	—	—	Standard	Option	—	—	—
BR-M8000	Hydraulic	—	—	—	—	—	—	—
BR-M8020	Hydraulic	—	Option	Option	—	Standard	Standard	Option
BR-M6100	Hydraulic	—	—	—	—	—	—	—
BR-M6120	Hydraulic	—	—	Standard	Option	—	—	—
BR-M6000	Hydraulic	—	—	—	—	—	—	—
BR-M820	Hydraulic	—	—	—	—	Standard	Standard	Standard
BR-MT500	Hydraulic	Standard	—	—	—	—	—	—
BR-MT520	Hydraulic	—	Standard	Standard	Standard	—	—	—
BR-MT400	Hydraulic	Standard	—	—	—	—	—	—
BR-MT410	Hydraulic	Standard	—	—	—	—	—	—
BR-MT420	Hydraulic	—	—	Standard	Standard	—	—	—
BR-MT200	Hydraulic	Standard	—	—	—	—	—	—
BR-M375	Mechanical	Standard	—	—	—	—	—	—
BR-TX805	Mechanical	Standard	—	—	—	—	—	—
BR-R9170	Hydraulic	—	—	—	—	—	—	—
BR-R8070	Hydraulic	—	—	—	—	—	—	—
BR-R7070	Hydraulic	—	—	—	—	—	—	—
BR-4770	Hydraulic	—	—	—	—	—	—	—
BR-R5785	Hydraulic	—	—	—	—	—	—	—
BR-RS405	Hydraulic	—	—	—	—	—	—	—
BR-RS305	Mechanical	—	—	—	—	—	—	—
BR-R317	Mechanical	—	—	—	—	—	—	—
BR-RX810	Hydraulic	—	—	—	—	—	—	—
BR-RX400	Hydraulic	—	—	—	—	—	—	—
BR-UR300	Hydraulic	Standard	—	—	—	—	—	—
BR-S7000	Hydraulic	—	—	—	—	—	—	—

Model No.	Type	N03A	N04C	G02A	G02S	G03A	G03S	G03S	G04S
		Resin	Metal	Resin	Resin	Resin	Resin	Metal	Metal
Pad Shape Type		N-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	—	—	—	✓	—	✓	✓	✓
BR-M9100	Hydraulic	—	—	—	—	—	—	—	—
BR-M9110	Hydraulic	—	—	—	—	—	—	—	—
BR-M9120	Hydraulic	Standard	Standard	—	—	—	—	—	—
BR-M8100	Hydraulic	—	—	—	—	Standard	—	—	Standard
BR-M8110	Hydraulic	—	—	—	—	—	—	—	—
BR-M8120	Hydraulic	Standard	Standard	—	—	—	—	—	—
BR-M7100	Hydraulic	—	—	—	—	—	Standard	—	Standard
BR-M7110	Hydraulic	—	—	—	—	—	—	—	—
BR-M7120	Hydraulic	Standard	Option	—	—	—	—	—	—
BR-M8000	Hydraulic	—	—	—	Standard	Standard	—	—	Option
BR-M8020	Hydraulic	—	—	—	—	—	—	—	—
BR-M6100	Hydraulic	—	—	—	—	—	Standard	—	Option
BR-M6120	Hydraulic	—	—	—	—	—	—	—	—
BR-M6000	Hydraulic	—	—	—	Standard	—	Standard	—	Option
BR-M820	Hydraulic	—	—	—	—	—	—	—	—
BR-MT500	Hydraulic	—	—	—	—	—	—	—	—
BR-MT520	Hydraulic	—	—	—	—	—	—	—	—
BR-MT400	Hydraulic	—	—	—	—	—	—	—	—
BR-MT410	Hydraulic	—	—	—	—	—	—	—	—
BR-MT420	Hydraulic	—	—	—	—	—	—	—	—
BR-MT200	Hydraulic	—	—	—	—	—	—	—	—
BR-M375	Mechanical	—	—	—	—	—	—	—	—
BR-TX805	Mechanical	—	—	—	—	—	—	—	—
BR-R9170	Hydraulic	—	—	—	—	—	—	—	—
BR-R8070	Hydraulic	—	—	—	—	—	—	—	—
BR-R7070	Hydraulic	—	—	—	—	—	—	—	—
BR-4770	Hydraulic	—	—	—	—	—	—	—	—
BR-RS785	Hydraulic	—	—	Option	—	Option	—	Option	—
BR-RS405	Hydraulic	—	—	—	—	—	—	—	—
BR-RS305	Mechanical	—	—	—	—	—	—	—	—
BR-R317	Mechanical	—	—	—	—	—	Standard	—	—
BR-RX810	Hydraulic	—	—	—	—	—	—	—	—
BR-RX400	Hydraulic	—	—	—	—	—	—	—	—
BR-UR300	Hydraulic	—	—	—	—	—	—	—	—
BR-S7000	Hydraulic	—	—	—	—	—	Standard	—	—

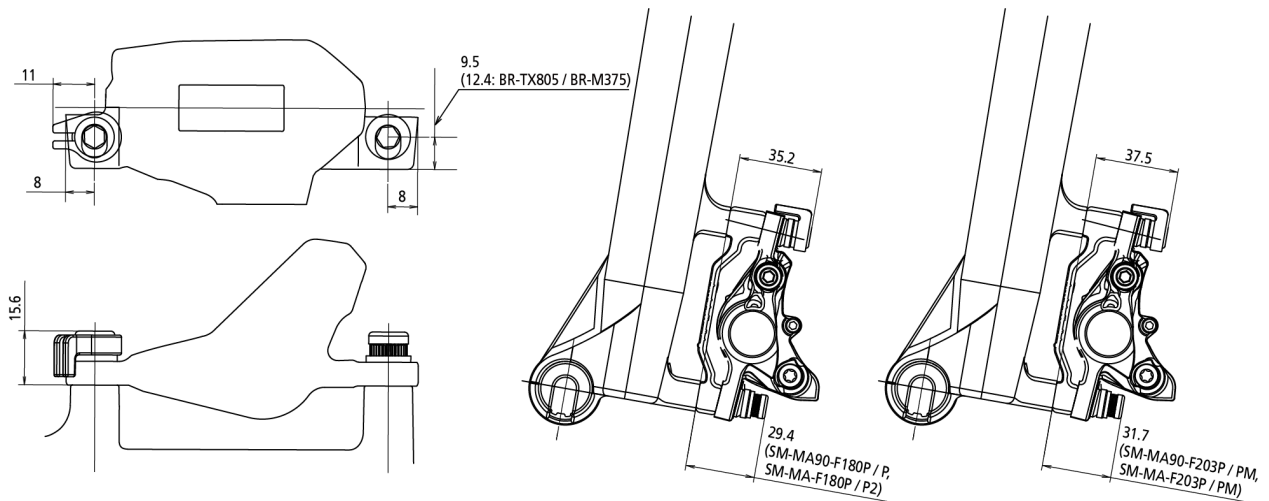
Model No.	Type	G04Ti	J02A	J03A	J04C	K02S	K02Ti	K03S
		Metal	Resin	Resin	Metal	Resin	Resin	Resin
Pad Shape Type		G-type: Narrow type 	F-type: Narrow type 		K-type: Narrow type 			
Characteristics	Modulation	★★★★☆	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Power	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Durability	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Anti-fading	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
	Silence	★★★★☆	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★	★★★★★
Pad Radiator fin		—	✓	✓	✓	—	—	—
High heat insulation		—	✓	✓	—	✓	✓	✓
Pad Back plate	Titanium	✓	—	—	—	—	✓	—
	Aluminum	—	✓	✓	—	—	—	—
	Stainless steel/ Aluminum	—	—	—	✓	—	—	—
	Stainless steel	—	—	—	—	✓	—	✓
BR-M9100	Hydraulic	—	—	—	—	—	—	—
BR-M9110	Hydraulic	—	—	—	—	—	—	—
BR-M9120	Hydraulic	—	—	—	—	—	—	—
BR-M8100	Hydraulic	—	—	Option	Option	—	—	—
BR-M8110	Hydraulic	—	—	—	—	—	—	Standard
BR-M8120	Hydraulic	—	—	—	—	—	—	—
BR-M7100	Hydraulic	—	—	Option	Option	—	—	—
BR-M7110	Hydraulic	—	—	—	—	—	—	Standard
BR-M7120	Hydraulic	—	—	—	—	—	—	—
BR-M8000	Hydraulic	—	Standard	Standard	Option	—	—	—
BR-M8020	Hydraulic	—	—	—	—	—	—	—
BR-M6100	Hydraulic	—	—	Standard	—	—	—	—
BR-M6120	Hydraulic	—	—	—	—	—	—	—
BR-M6000	Hydraulic	—	Standard	Standard	—	—	—	—
BR-M820	Hydraulic	—	—	—	—	—	—	—
BR-MT500	Hydraulic	—	—	—	—	—	—	—
BR-MT520	Hydraulic	—	—	—	—	—	—	—
BR-MT400	Hydraulic	—	—	—	—	—	—	—
BR-MT410	Hydraulic	—	—	—	—	—	—	—
BR-MT420	Hydraulic	—	—	—	—	—	—	—
BR-MT200	Hydraulic	—	—	—	—	—	—	—
BR-M375	Mechanical	—	—	—	—	—	—	—
BR-TX805	Mechanical	—	—	—	—	—	—	—
BR-R9170	Hydraulic	—	—	—	—	—	Standard	—
BR-R8070	Hydraulic	—	—	—	—	Standard	—	Standard
BR-R7070	Hydraulic	—	—	—	—	Standard	—	Standard
BR-4770	Hydraulic	—	—	—	—	—	—	Standard
BR-RS785	Hydraulic	—	Standard	Standard	Standard	—	—	—
BR-RS405	Hydraulic	—	—	—	—	Standard	—	Standard
BR-RS305	Mechanical	—	—	—	—	Standard	—	Standard
BR-R317	Mechanical	—	—	—	—	—	—	—
BR-RX810	Hydraulic	—	—	—	—	—	—	Standard
BR-RX400	Hydraulic	—	—	—	—	—	—	Standard
BR-UR300	Hydraulic	—	—	—	—	—	—	—
BR-S7000	Hydraulic	—	—	—	—	—	—	—

Model No.	Type	K03Ti	K04S	K04Ti	L02A	L03A	L04C
		Resin	Metal	Metal	Resin	Resin	Metal
Pad Shape Type		K-type: Narrow type 			L-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	—	✓	—	—	—	—
BR-M9100	Hydraulic	Standard	—	Standard	—	—	—
BR-M9110	Hydraulic	Standard	—	Standard	—	—	—
BR-M9120	Hydraulic	—	—	—	—	—	—
BR-M8100	Hydraulic	—	—	—	—	—	—
BR-M8110	Hydraulic	—	Standard	—	—	Option	Option
BR-M8120	Hydraulic	—	—	—	—	—	—
BR-M7100	Hydraulic	—	—	—	—	—	—
BR-M7110	Hydraulic	—	Standard	—	—	Option	Option
BR-M7120	Hydraulic	—	—	—	—	—	—
BR-M8000	Hydraulic	—	—	—	—	—	—
BR-M8020	Hydraulic	—	—	—	—	—	—
BR-M6100	Hydraulic	—	—	—	—	—	—
BR-M6120	Hydraulic	—	—	—	—	—	—
BR-M6000	Hydraulic	—	—	—	—	—	—
BR-M820	Hydraulic	—	—	—	—	—	—
BR-MT500	Hydraulic	—	—	—	—	—	—
BR-MT520	Hydraulic	—	—	—	—	—	—
BR-MT400	Hydraulic	—	—	—	—	—	—
BR-MT410	Hydraulic	—	—	—	—	—	—
BR-MT420	Hydraulic	—	—	—	—	—	—
BR-MT200	Hydraulic	—	—	—	—	—	—
BR-M375	Mechanical	—	—	—	—	—	—
BR-TX805	Mechanical	—	—	—	—	—	—
BR-R9170	Hydraulic	Standard	—	Option	Standard	Standard	Option
BR-R8070	Hydraulic	—	Option	—	Standard	Standard	Option
BR-R7070	Hydraulic	—	Option	—	Standard	Standard	Option
BR-4770	Hydraulic	—	Standard	—	—	—	—
BR-RS785	Hydraulic	—	—	—	—	—	—
BR-RS405	Hydraulic	—	—	—	Option	Option	—
BR-RS305	Mechanical	—	—	—	Option	Option	—
BR-R317	Mechanical	—	—	—	—	—	—
BR-RX810	Hydraulic	—	Option	—	—	—	—
BR-RX400	Hydraulic	—	Option	—	—	—	—
BR-UR300	Hydraulic	—	—	—	—	—	—
BR-S7000	Hydraulic	—	—	—	—	—	—

Dimensions of the position of fixing bolt

C-196

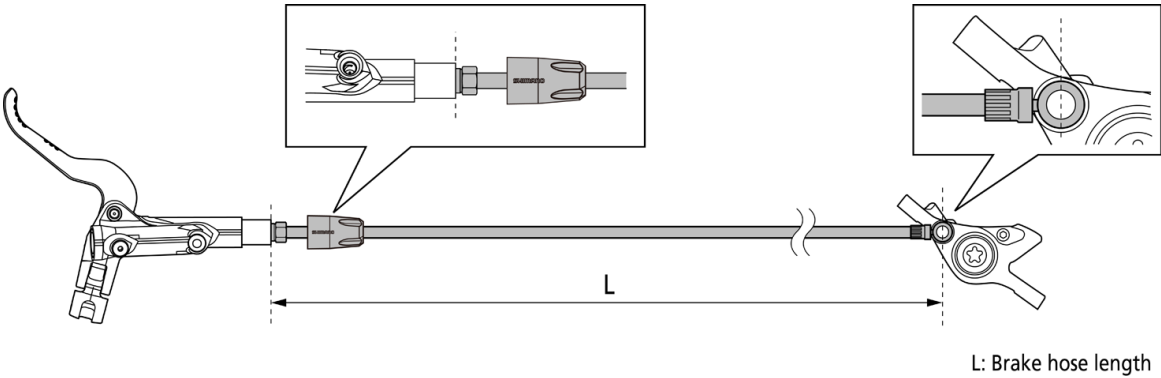
Dimensions of the position of fixing bolt of SHIMANO disc brake caliper is shown below.
Please verify that frame dimension will not cause interference with caliper and brake mount, especially chainstay post mount.



NOTE

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

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

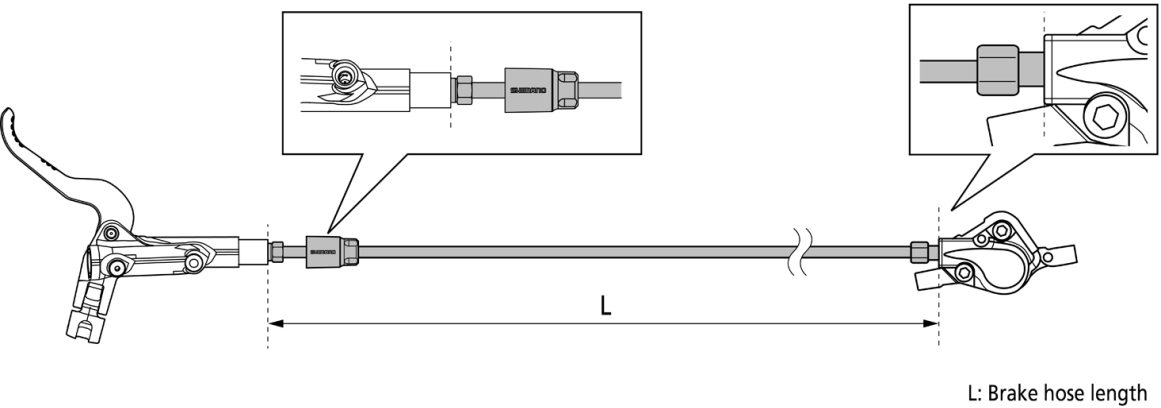


L: Brake hose length



Model No.	Brake Lever	Brake
SM-BH90-SBM SM-BH90-SB SM-BH90-SBS SM-BH90-SBLS	BL-M9120	BR-M9120 (SM-BH90-SBM)
	BL-M8100	BR-M8100 (SM-BH90-SBM)
	BL-T8100	BR-M8120 (SM-BH90-SBM)
	BL-M8000	BR-M8000 (SM-BH90-SBM)
		BR-M8020 (SM-BH90-SBLS)
	BL-M7100	BR-M7100 (SM-BH90-SBM)
		BR-M7120 (SM-BH90-SBM)
	BL-M820-B	BR-M820 (SM-BH90-SBLS)

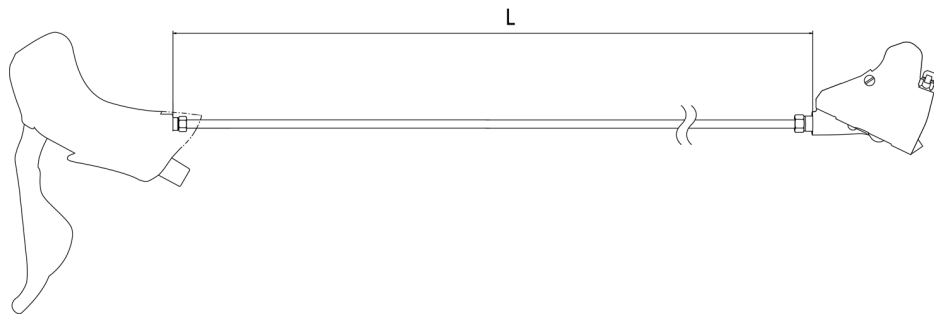
SM-BH90-SS



L: Brake hose length

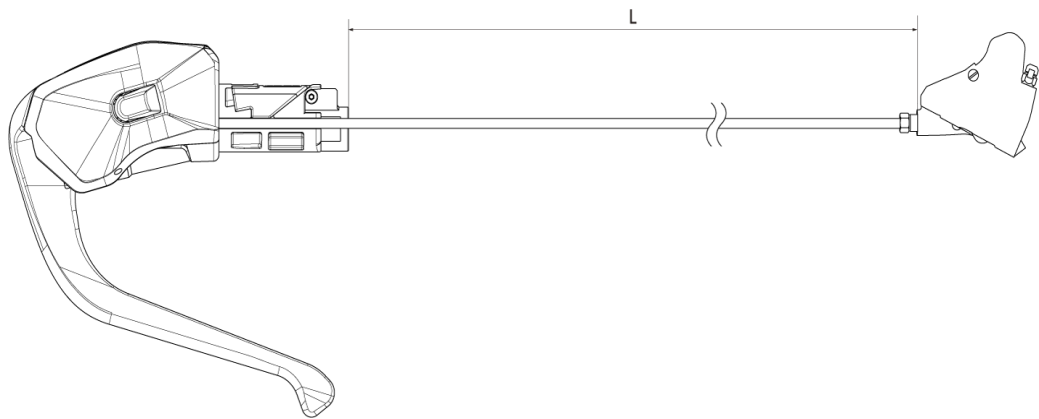
Model No.	Brake Lever	Brake
SM-BH90-SS	BL-M9100	BR-M9100
	BL-M9100	BR-M9110
	BL-M8100	BR-M8110
	BL-M7100	BR-M7110
	BL-M6100	BR-M6100
		BR-M6120
	BL-M4100	BR-MT420
	BL-MT501	BR-MT520
	BL-MT401	BR-MT420
	BL-MT402-3A	BR-MT420

SM-BH90-JK-SSR



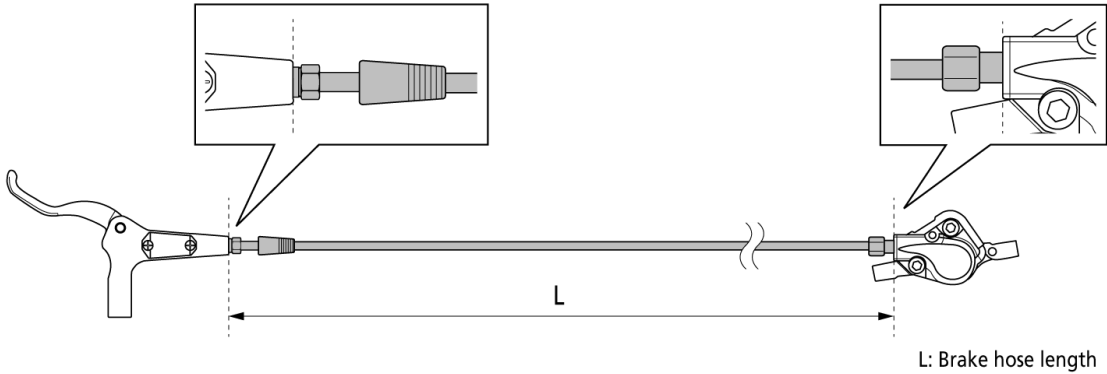
Model No.	Shifting/Brake Lever Single lever	Brake
SM-BH90-JK-SSR	ST-R9120	BR-R9170 BR-R8070 BR-R7070 BR-4770
	ST-R9170	
	ST-R8020	
	ST-R8025	
	ST-R8070	
	ST-R7020	
	ST-R7025	
	ST-4720	
	ST-4725	BR-RX810
	ST-RX810	
	ST-RX815	
	ST-RX810-LA	
	BL-RX810-L	BR-RX400
	ST-RX600	
	ST-RX400	

SM-BH90-JK-SS



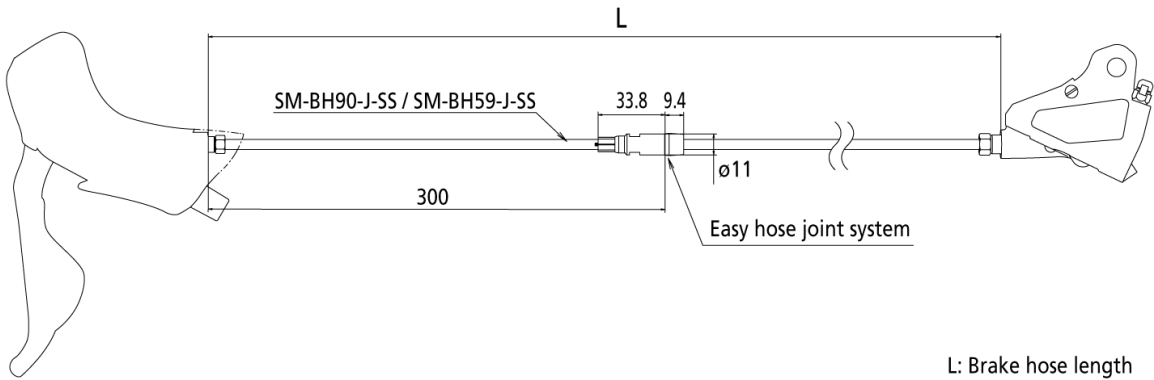
Model No.	Shifting/Brake Lever	Brake
SM-BH90-JK-SS	ST-R9180	BR-R9170

SM-BH59-JK-SS



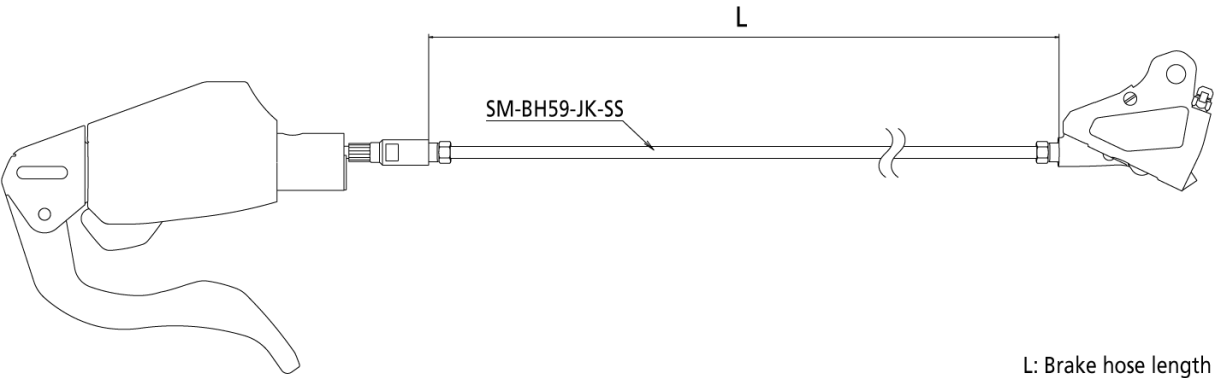
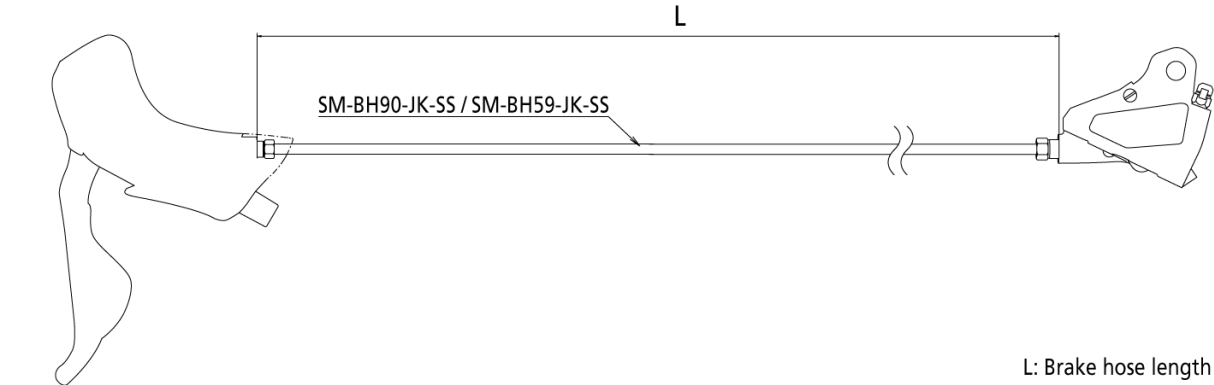
Model No.	Brake Lever Shifting/Brake Lever	Brake
SM-BH59-JK-SS	BL-M4100	BR-MT420
	BL-MT500	BR-MT500
	BL-MT501	BR-MT500
	BL-MT400	BR-MT400
	BL-MT402-3A	BR-MT400
	BL-MT401	BR-MT410
	BL-MT200	BR-MT200
		BR-UR300
	BL-MT201	BR-MT200
		BR-UR300
	BL-T6000	BR-M6000
	ST-EF505	BR-MT200
	BL-RS600	BR-RS405
	BL-S7000	BR-S7000

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



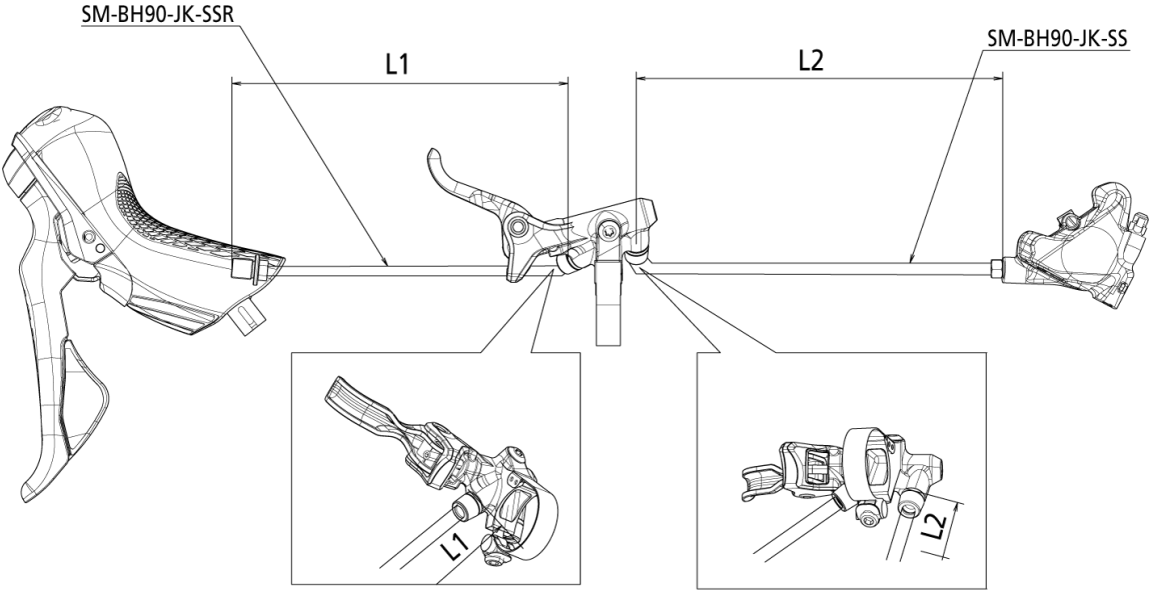
Model No.	Shifting/Brake Lever Single lever	Brake
SM-BH90-J-SS	ST-R8020	BR-R8070 BR-R7070 BR-4770
	ST-R8025	
	ST-R8070	
	ST-R7020	
	ST-R7025	
	ST-4720	
	ST-4725	
	ST-RX810	BR-RX810
	ST-RX815	
	ST-RX810-LA BL-RX810-L	
SM-BH59-J-SS	ST-RX600	BR-RX400
	ST-RX400	
	ST-RS685	BR-RS785
	ST-RS405	BR-RS405

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



Model No.	Shifting/Brake Lever Single lever	Brake
SM-BH90-JK-SS	ST-R9120 ST-R9170 ST-R8020 ST-R8025 ST-R8070 ST-R7020 ST-R7025	BR-R9170 BR-R8070 BR-R7070
	ST-RX810 ST-RX815 ST-RX810-LA BL-RX810-L	BR-RX810
	ST-RX600 ST-RX400	BR-RX400
SM-BH59-JK-SS	ST-RS685 ST-RS405	BR-RS785 BR-RS405

SM-BH90-JK-SSR / SM-BH90-JK-SS



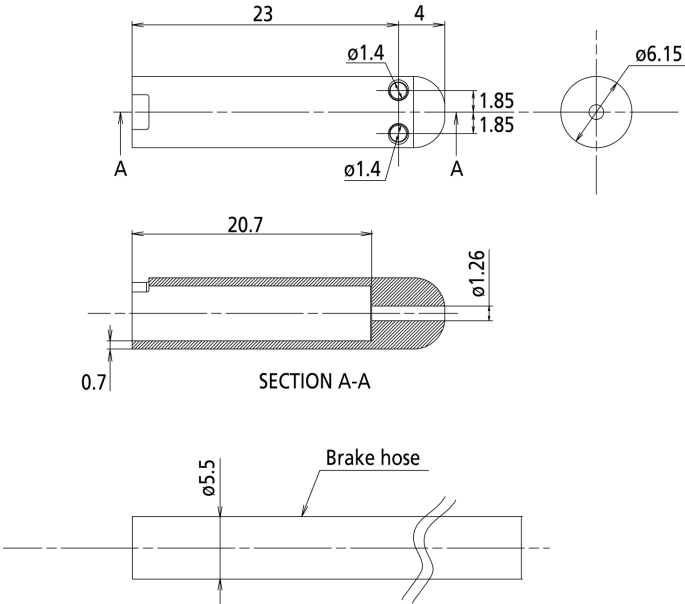
L1: Brake hose length (SM-BH90-JK-SSR)
L2: Brake hose length (SM-BH90-JK-SS)

Model No.	Shifting/Brake Lever Single lever Sub lever	Brake
SM-BH90-JK-SSR (L1) SM-BH90-JK-SS (L2)	ST-RX810 ST-RX815 ST-RX600 ST-RX400	BR-RX810
	ST-RX810-LA BL-RX810-L	
	BL-RX812	

Easy hose joint system (J-kit)

C-198

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

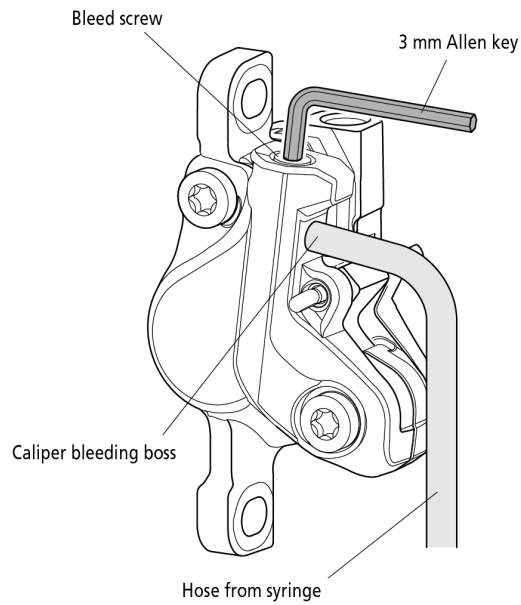


Bleeding method

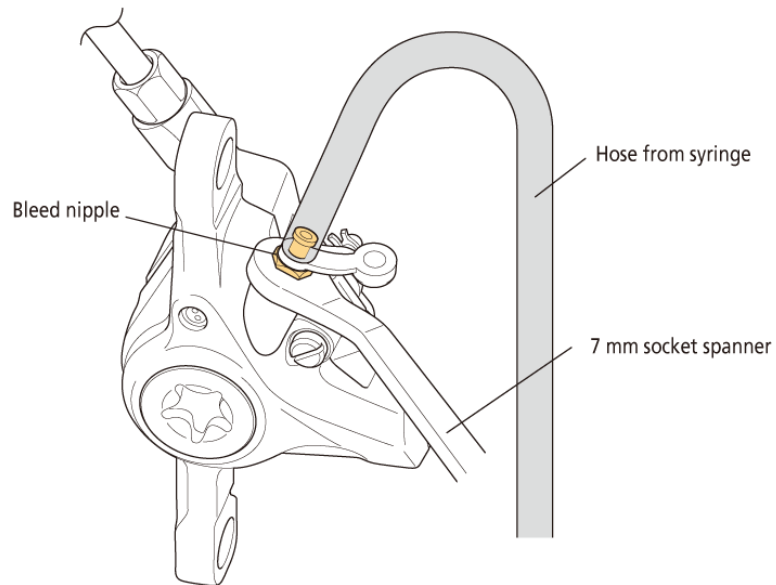
C-199

Please refer to dealer manual for detailed bleeding method.

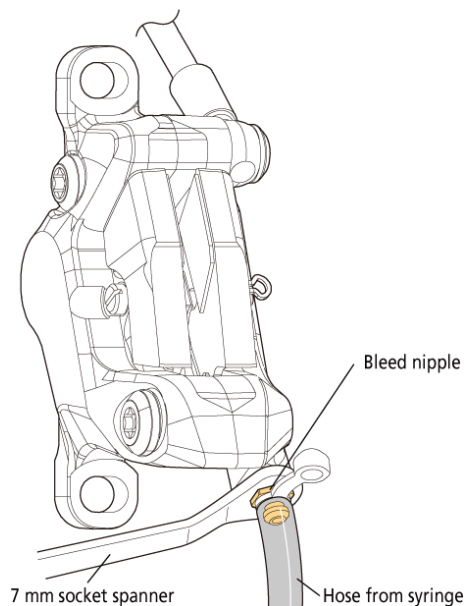
BR-MT500



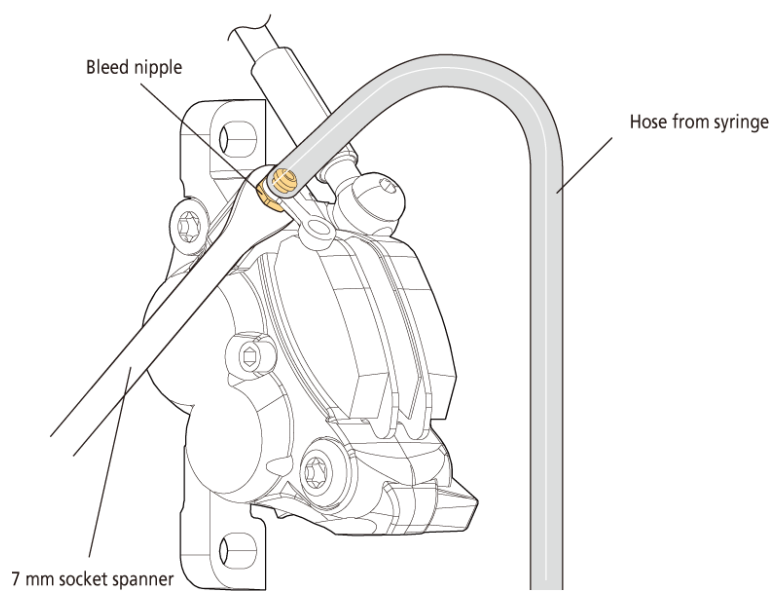
BR-M9100

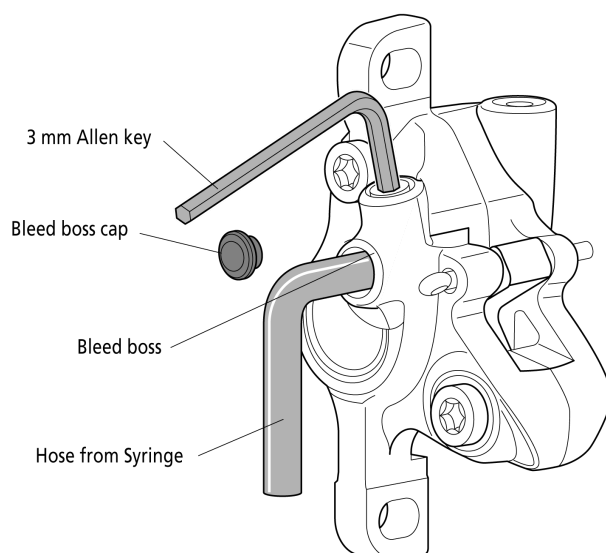


BR-M9120 / BR-M8100 / BR-M8120 / BR-M7100 / BR-M7120

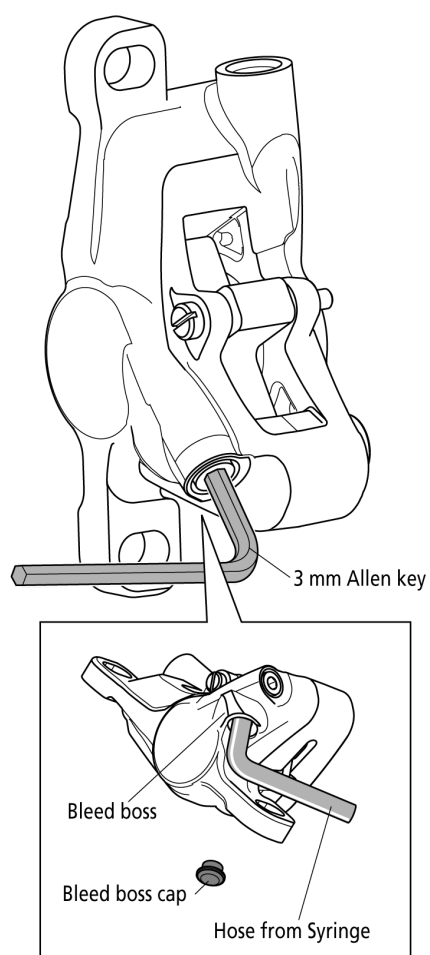


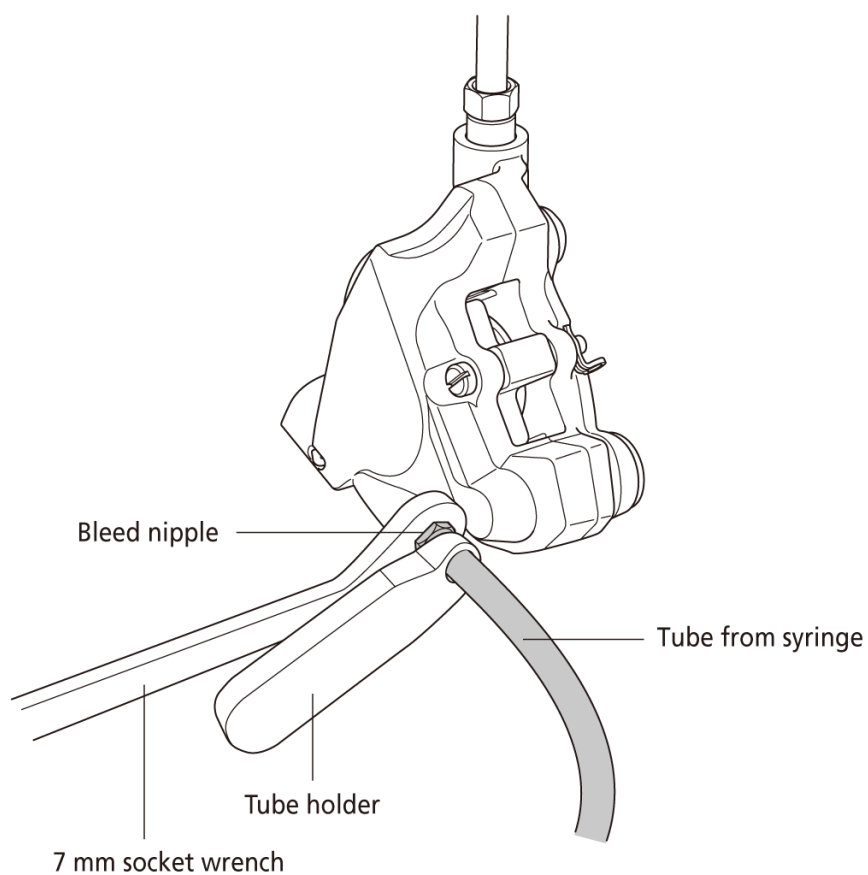
BR-M8020 / BR-M6120 / BR-MT520 / BR-M820





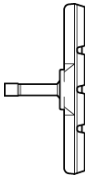
BR-RS785 / BR-M6000 / BR-S7000

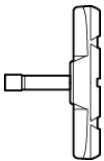
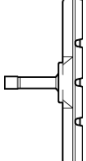
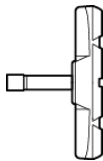


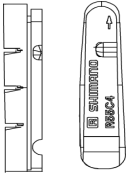
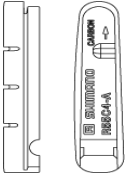
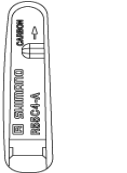
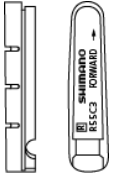
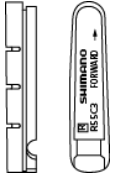


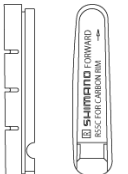
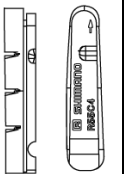
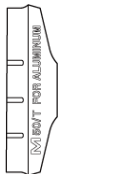
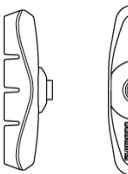
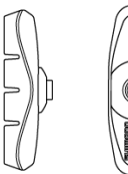
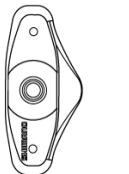
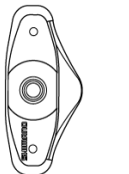
Brake / Shoe line-up

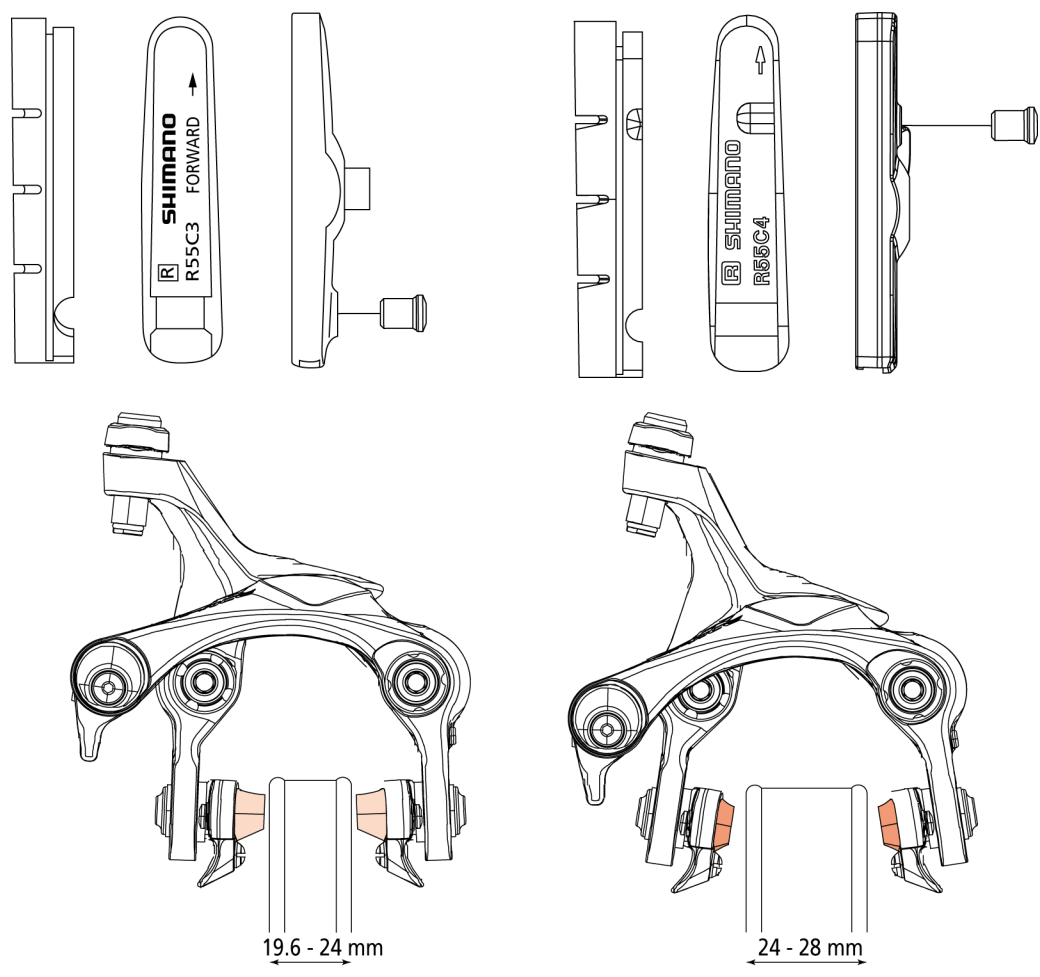
C-201

Model No.		M70R2	M70R2 (Severe Condition Shoe)	M70T3	M70T4	M70CT4 (Severe Condition Shoe)
Brake shoe shape						
Cartridge type		✓	✓	-	-	✓
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-T610	-	-	-	Option	Standard
	BR-T4000	-	-	-	-	-
	BR-MX70	-	-	Option	Option	-
	BR-R353	-	-	-	Option	-

Model No.		M65T3	M65T4	S70C	S70C (Severe Condition Shoe)	S70T	S65T
Brake shoe shape							
Cartridge type		-	-	✓	✓	-	-
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-T610	-	-	Standard	-	Option	-
	BR-T4000	Option	Option	-	-	-	Standard
	BR-MX70	-	-	Standard	-	-	-
	BR-R353	-	-	-	-	Standard	-

Model No.		R55C4	R55C4 FOR CARBON RIM	R55C4-A FOR CARBON RIM	R55C2	R55C3
Brake shoe shape						
Cartridge type		✓	✓	✓	✓	✓
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-R9100	Standard	Option	Option	-	-
	BR-R9110	Standard	Option	Option	-	-
	BR-R8000	Standard	Option	Option	-	-
	BR-R8010	Standard	Option	Option	-	-
	BR-R7000	Standard	Option	Option	-	-
	BR-R7010	Standard	Option	Option	-	-
	BR-4700	-	-	-	-	-
	BR-R3000	-	-	-	-	-
	BR-R2000	-	-	-	-	-
	BR-CX50	-	-	-	-	-
	BR-R561	-	-	-	-	Standard
	BR-R451	-	-	-	-	-

Model No.		R55C+1	R55CT4	M50T	R50T	R50T2	R50T4	R50T5
Brake shoe shape								
Cartridge type		✓	✓	-	-	-	-	-
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-R9100	-	Option	-	-	-	-	-
	BR-R9110	-	Option	-	-	-	-	-
	BR-R8000	-	Option	-	-	-	-	-
	BR-R8010	-	Option	-	-	-	-	-
	BR-R7000	-	Option	-	-	-	-	-
	BR-R7010	-	Option	-	-	-	-	-
	BR-4700	-	-	-	-	-	Option	Standard
	BR-R3000	-	-	-	-	-	Option	Standard
	BR-R2000	-	-	-	-	Standard	Option	Standard
	BR-CX50	-	-	-	-	Standard	-	-
	BR-R561	-	Option	-	-	-	-	-
	BR-R451	-	-	-	-	Standard	-	-

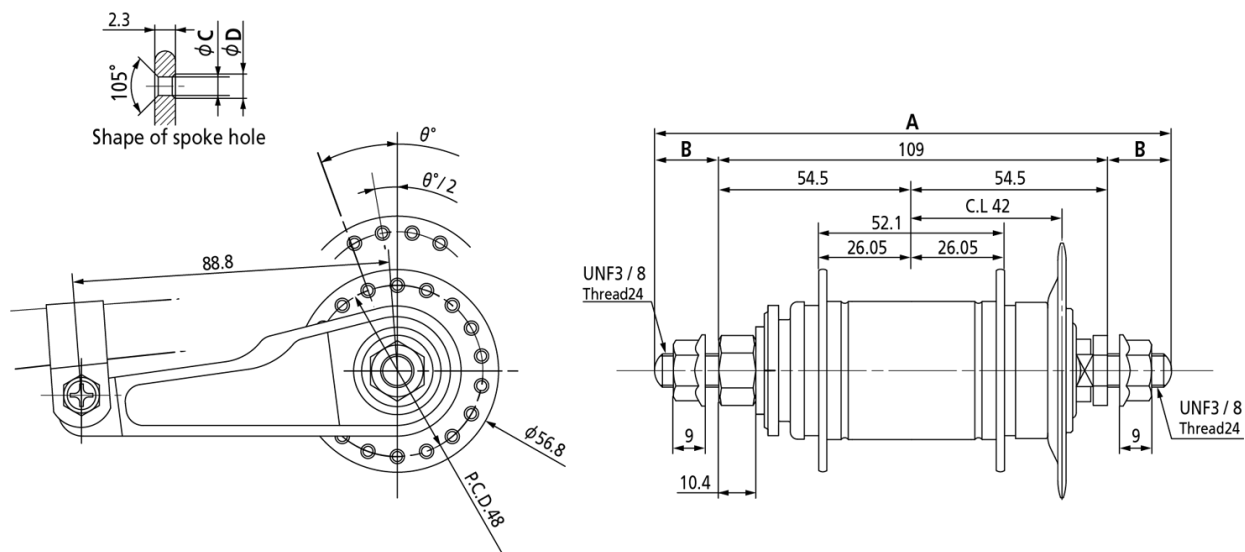


Model No.	Rim width
R55C4 / R55C4 for Carbon rim	19.6 - 24 mm
R55C3 / R55C3 for Carbon rim	
R55C4-A for Carbon rim	24 - 28 mm

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
185	38	36H	20°	2.8	4.0
		20H	36°		
		24H	30°		

Recommended gear ratio C-205

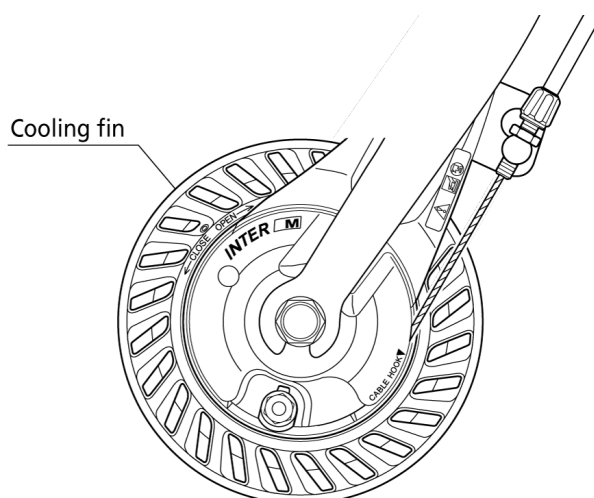
CB-E110

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-C6000-R-DX BR-C6000-R	BR-C6000-F-DX BR-C6000-F	Hyper	150	V-shape	(Front)1.6 (Rear)1.3	(Front)1.7 (Rear)1.4	1.4	1.0
	BR-C3010-R	BR-C3010-F	Normal	140	Flat shape	(Front)1.3 (Rear)1.0	(Front)1.4 (Rear)1.1	1.2	1.0
	BR-C3000-R-DX BR-C3000-R	BR-C3000-F-DX BR-C3000-F		122				1.0	1.0
Except Japan	-	BR-C6060-F	Hyper	138	V-shape	1.6	1.7	1.4	1.0

Performance index rating uses BR-C3000-R / BR-C3000-R-DX 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.

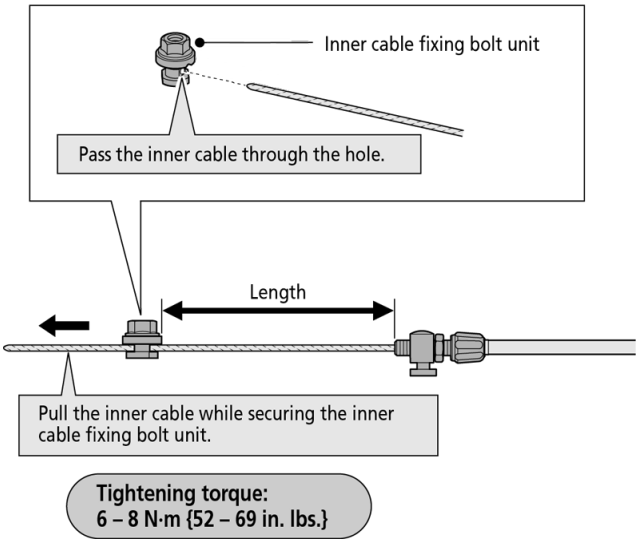
	Usage	Thickness (mm)	Screw size	Resin insert type	
Front	For NUT type of hub	3.5	M9 x 1	-	-
	For QR type of hub	4.0	M10 x 1	-	-
Rear	For INTER-8, INTER-5	7.2	-	✓	BR-C3000-R-DX BR-C3000-R BR-C3010-R BR-C6000-R-DX BR-C6000-R
	For INTER-7, INTER-3	8.2	-	✓	
	For FH-IM70	8.2	-	✓	
	For INTER-8 / For INTER-5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

Installing the brake cable

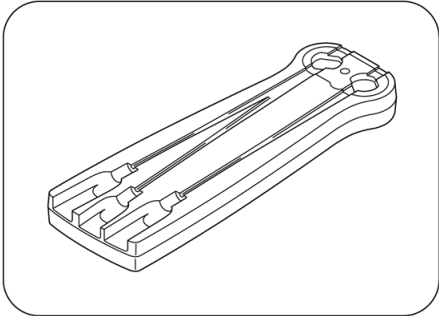
C-213

Inner cable fixing bolt C-214

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



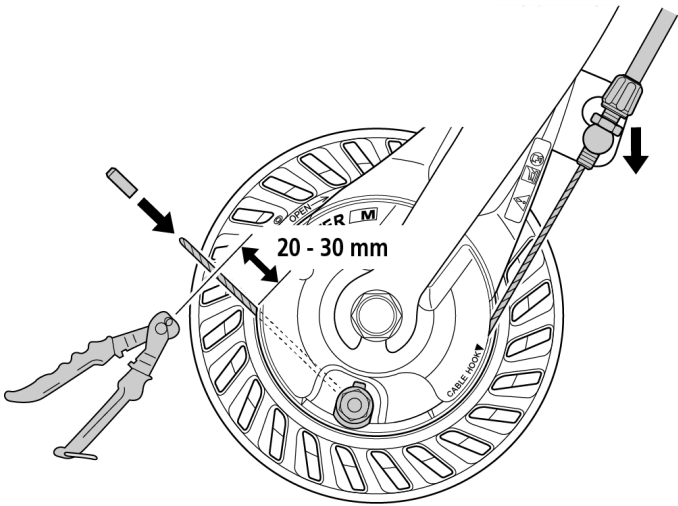
For easy assemble use TL-IM21.



Model No.	Length (mm)
BR-C6060-F / BR-C6000-F-DX / BR-C6000-F / BR-C3010-F / BR-C3000-F-DX / BR-C3000-F	109
BR-C6000-R-DX / BR-C6000-R / BR-C3010-R / BR-C3000-R-DX / 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.

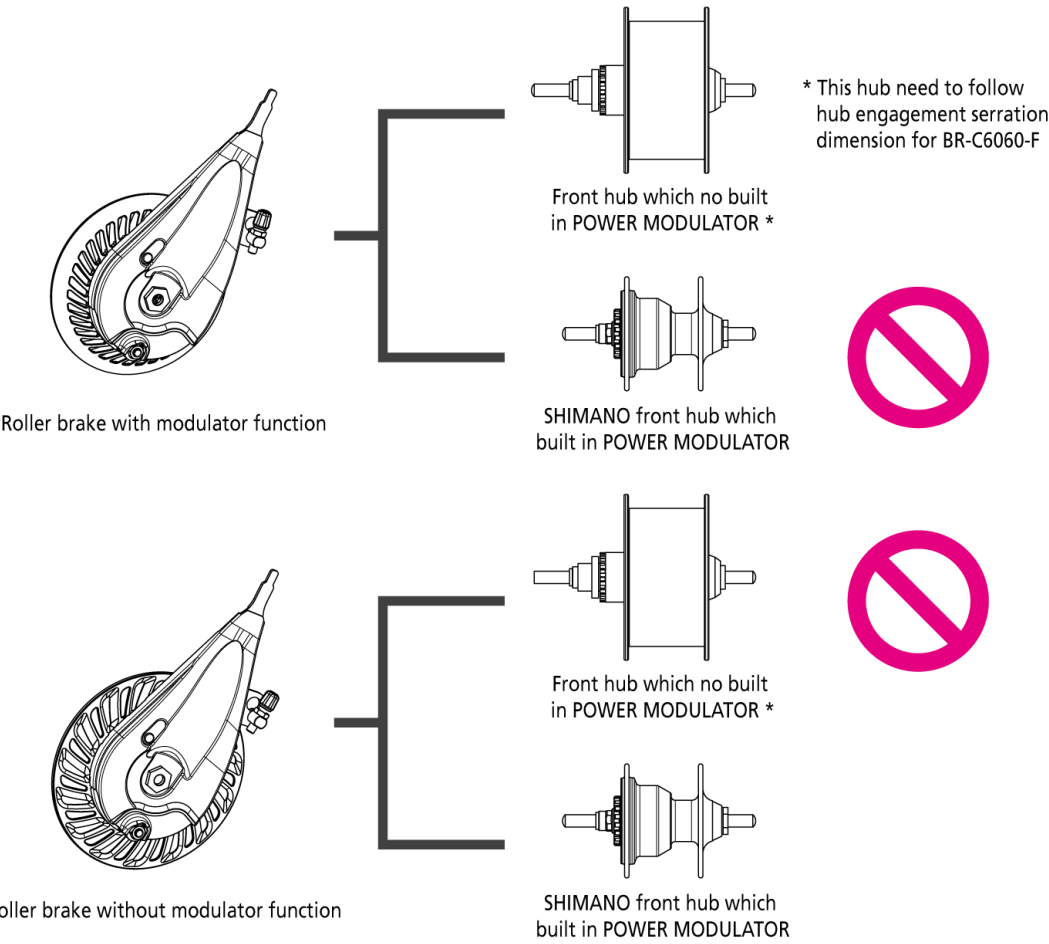
In order to get the best performance from the SHIMANO roller brake, be sure to use SHIMANO brakes cables and brake levers as a set.

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.

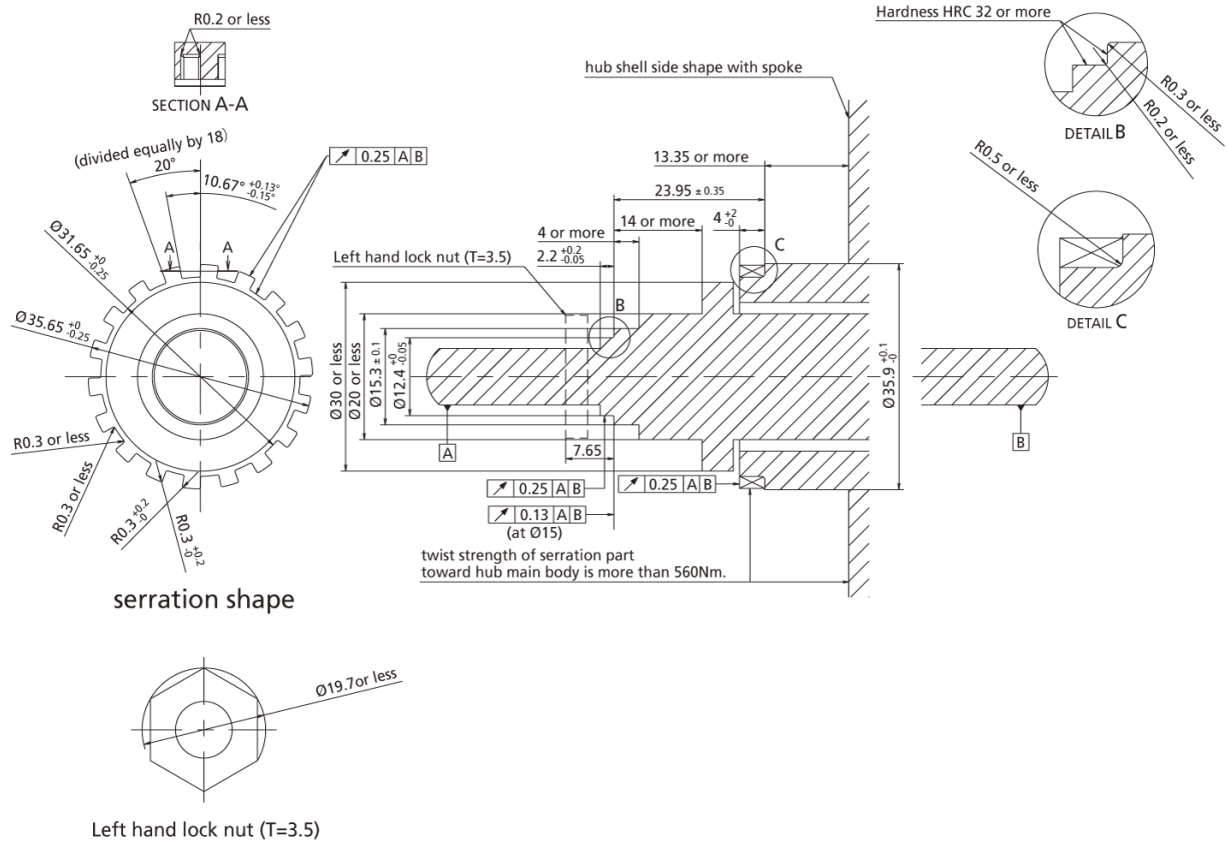
Compatibility between hubs and roller brakes

		Hub		Hub Dynamo				3rd party Hub without modulator
	Model No.	HB-IM70-NT	HB-IM40	DH-C6000-3R (NUT type only) / DH-C6000-2R / DH-C6000-1R (NUT type only)				
	Modulator Level	Hyper	Normal	Hyper		Normal		
Sales Area	Hub type Model No.	NUT	NUT	QR	NUT	QR	NUT	
All	BR-C6000-F-DX BR-C6000-F	✓	Usable	✓	✓	Usable	Usable	-
	BR-C3010-F	-	✓	-	-	✓	✓	-
	BR-C3000-F-DX BR-C3000-F	-	✓	-	-	✓	✓	-
Except Japan	BR-C6060-F	-						✓

✓: Recommended combination



Hub engagement serration dimension for BR-C6060-F



Hub part side dimensions for Hub Roller Brake assembly

- * Please design and check HUB side serration strength by HUB manufacturer.
- * Please contact SHIMANO for more detail information.

Permissible total mass range of BR-C6060 POWER MODULATOR

Tire outer diameter (mm)	Permissible total mass range (kg)
660-712	100-130

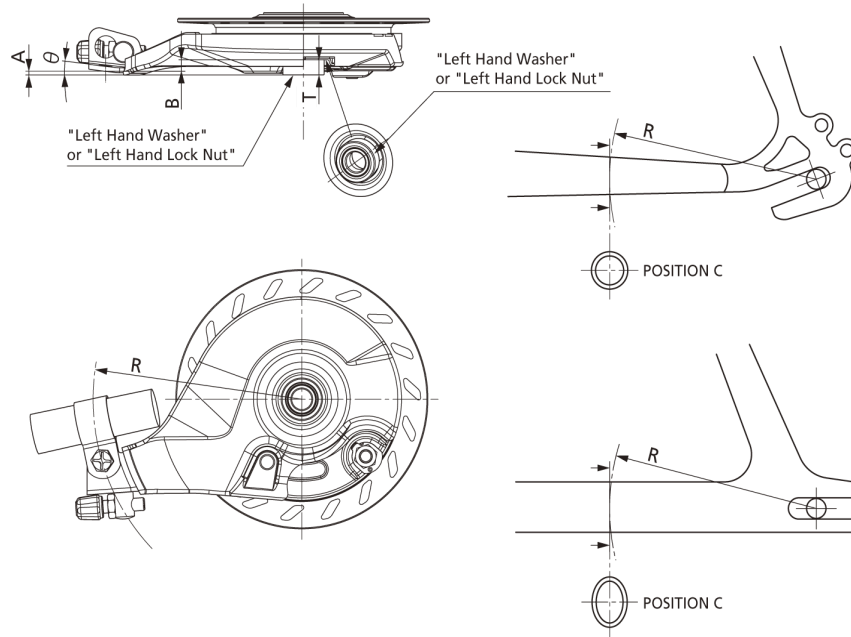
WARNING

If total mass is out of permissible range of POWER MODULATOR, this could result in inadequate or excessive braking power. Please make sure to inform permissible total mass range of consumer by suitable way.

Chainstay dimensions for securing rear brake arm clip

C-218

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.



13

Model No.	T (Thickness: mm)	A (mm)	B (mm)	θ	R (mm)
BR-C3000-R-DX 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			
	9.7	4.65			
BR-C6000-R-DX BR-C6000-R	7.2	2.15	5.05	6.5°	100
	8.2	3.15			
	9.7	4.65			

- Calculating dimension A for products of sizes not listed in T (thickness) •

Dimension A = T-B

Example: T = 9.7 (BR-C3000-R/BR-C3000-R-DX)

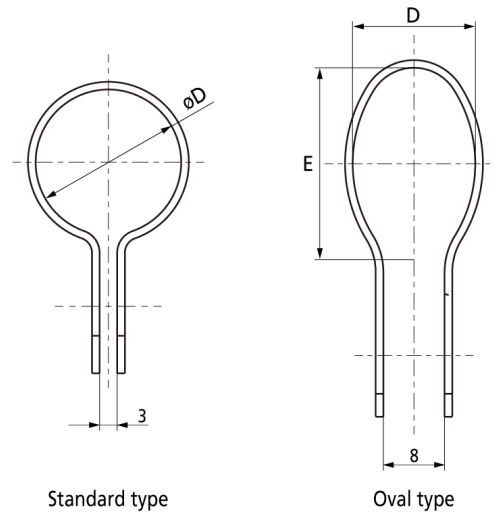
Dimension A = 9.7-5.05 = 4.65 (mm)

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

4

SIZE	D dim.	E dim.	Standard (Zn plating)	Standard (Ni plating)	Coating spec.	Stainless spec.	Black Coating spec.
ø3 / 4 inch	19	-	✓	✓	✓	✓	-
ø5 / 8 inch	16	-	✓	✓	✓	✓	✓
ø11 / 16 inch	17.5	-	✓	✓	✓	✓	✓
ø15 mm	15	-	✓	✓	✓	✓	-
ø19 mm	19	-	✓	-	-	-	-
ø22 mm	22	-	✓	✓	✓	✓	✓
Oval large	19	29.8	✓	-	-	-	-
Oval small	16	25	✓	-	-	-	-
Flat	-	-	✓	-	-	-	-

Please choose proper size Arm Clip and ensure the Arm Clip fits tightly on seat tube.

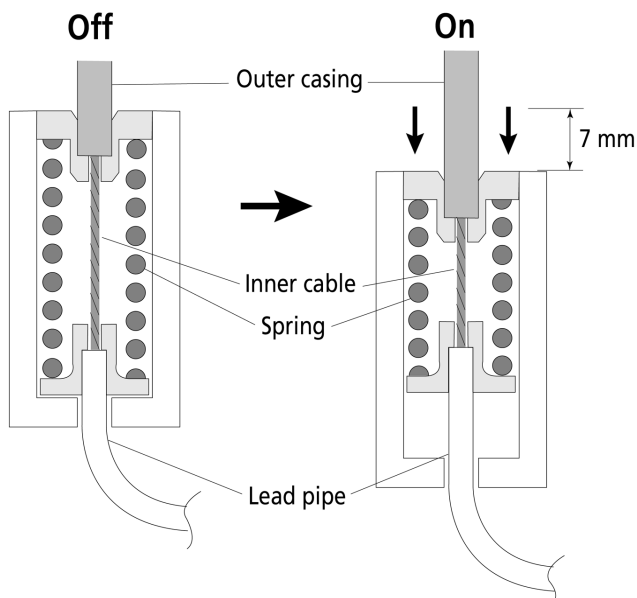


POWER MODULATOR for V-BRAKE

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.

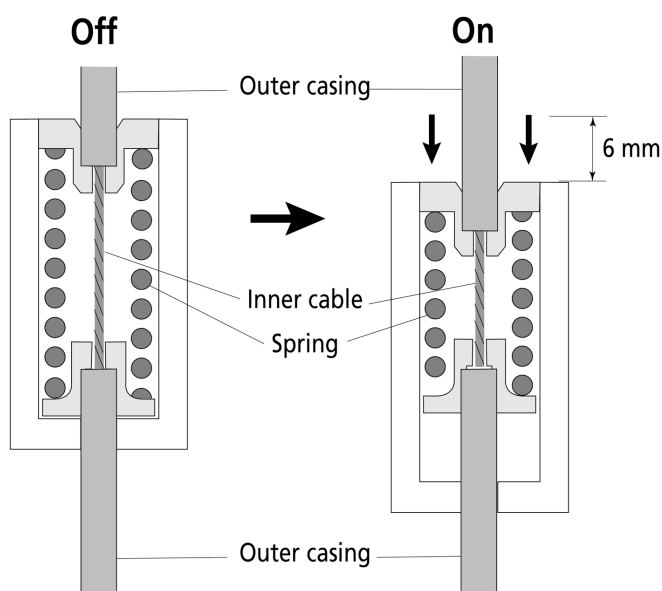


POWER MODULATOR for Mechanical Disc brake

C-221

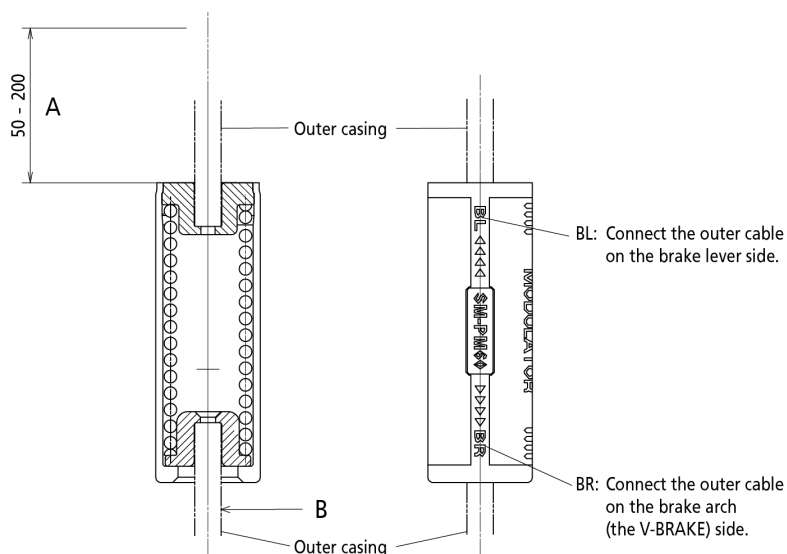
SM-PM50

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



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.

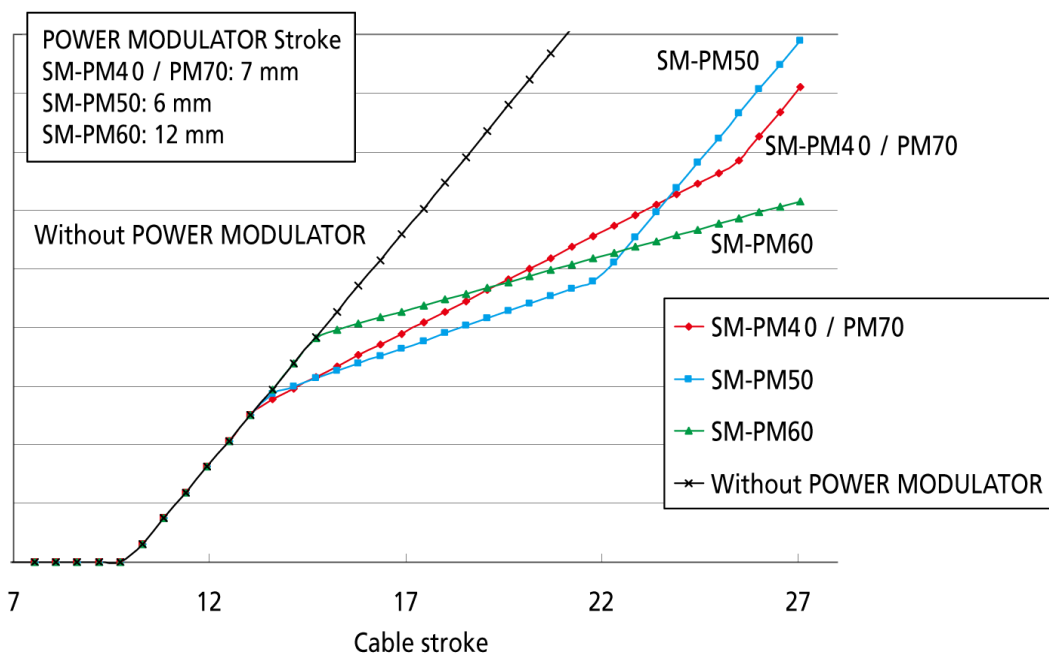


A: Assemble the SM-PM60 in the place 50 to 200 mm away from the brake lever.
B: Give attention to wire the outer casing straight and avoid its touching the frame.

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

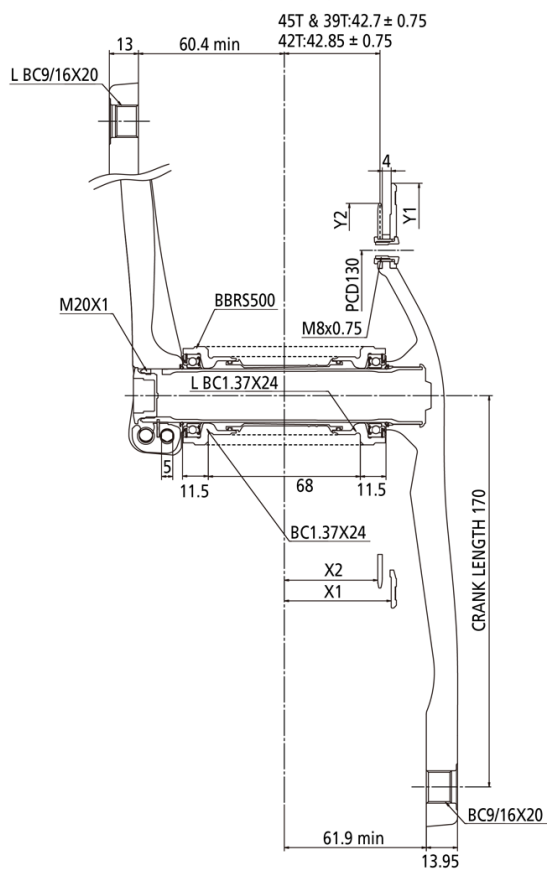
SM-PM60: For URBAN use, compatible with any SHIMANO V-BRAKE

Dimensions

C-225

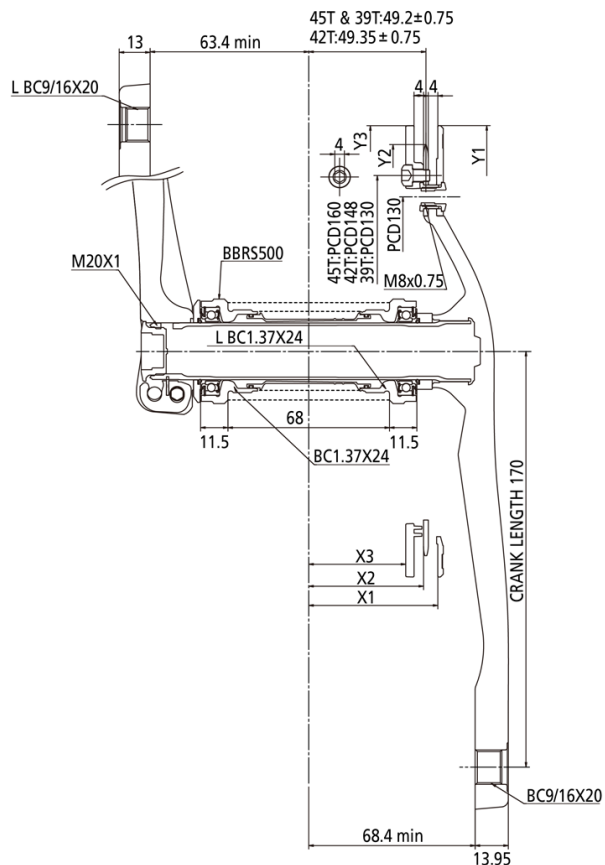
FC-S501

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

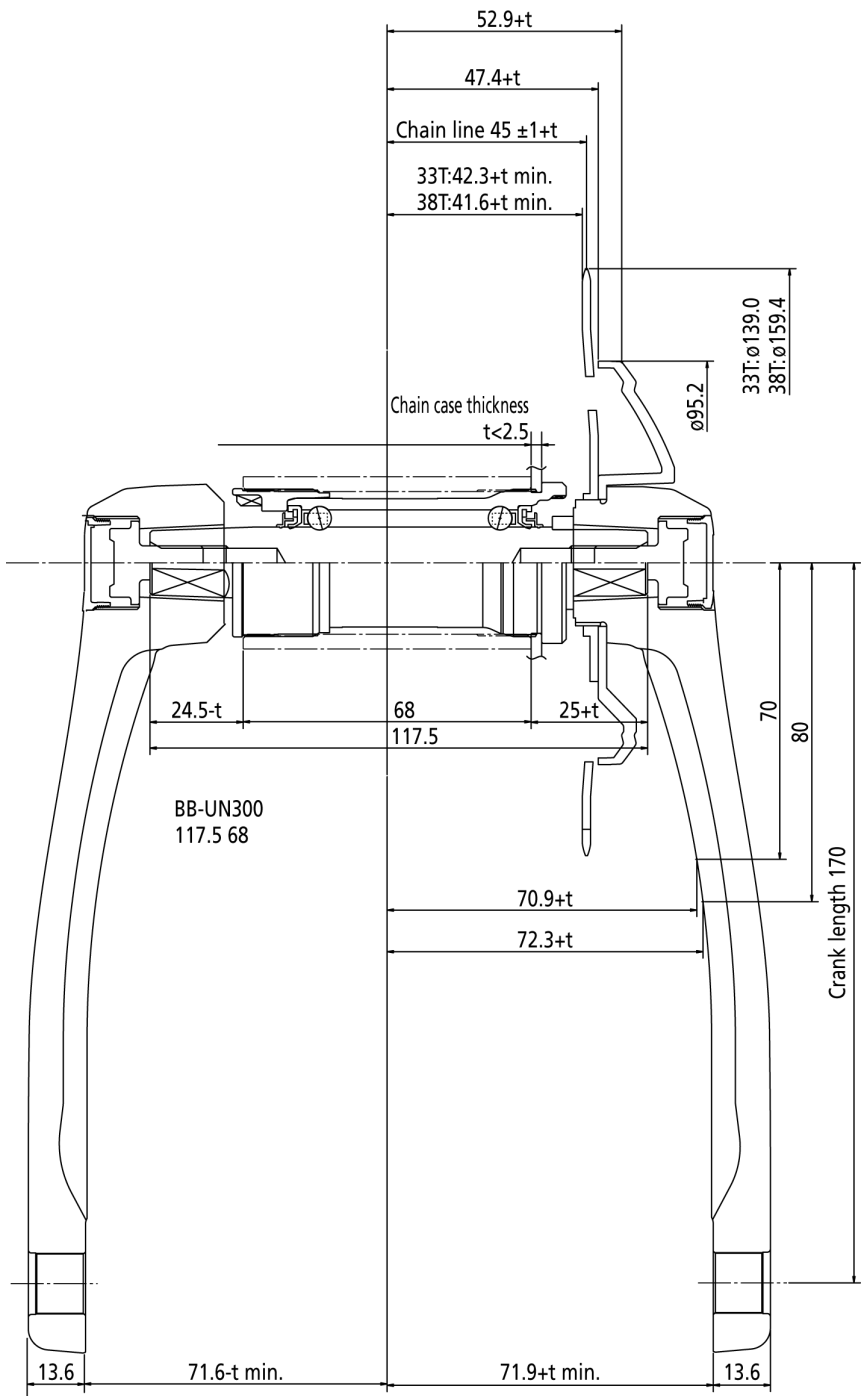


45T SPEC		42T SPEC		39T SPEC	
X1	52.6 min Y1 100.5 max	X1	52.7 min Y1 95.5 max	X1	52.6 min Y1 87.5 max
X2	46.6 min Y2 94.4 max	X2	46.7 min Y2 87.5 max	X2	46.6 min Y2 82.0 max
X3	39.1 min Y3 100.5 max	X3	39.2 min Y3 95.5 max	X3	39.1 min Y3 87.5 max

Chain case dimensions

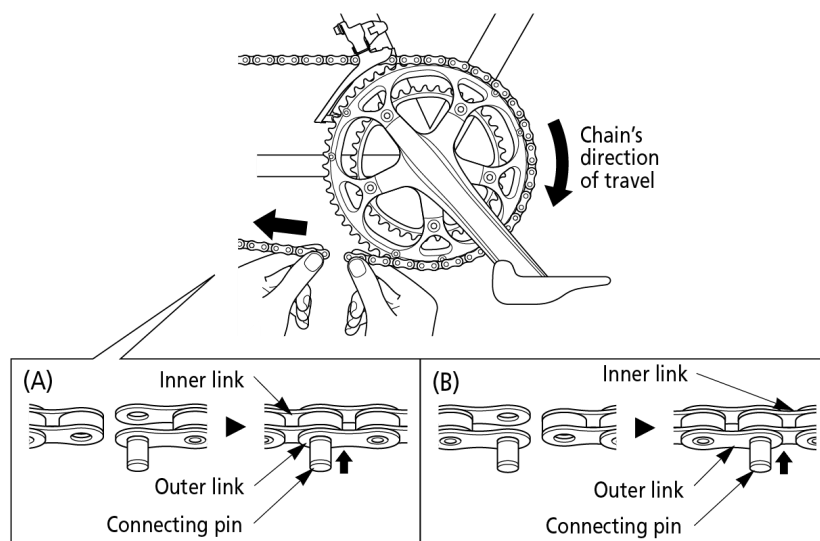
Use the following values as a reference for creating the chain case.

FC-C6000



How to connect chain

C-228



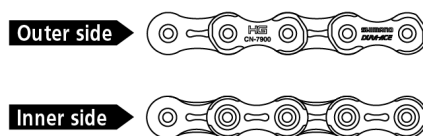
NOTE

- 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).
- There is no connecting pin in CN-M9100 / CN-M8100 / CN-M7100 / [CN-M6100](#).

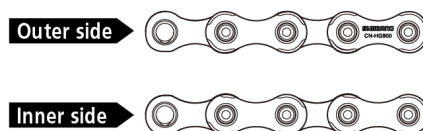
Directional chain C-229

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



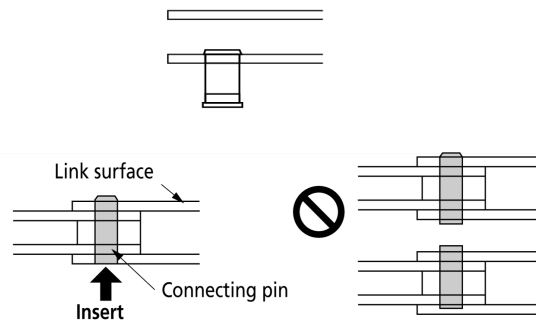
CN-M9100 / CN-M8100 / CN-M7100 / [CN-M6100](#) / CN-E8000-11 / CN-HG901-11 / CN-HG701-11 / CN-HG601-11 / CN-HG95 / CN-HG54



Note on the connecting C-230

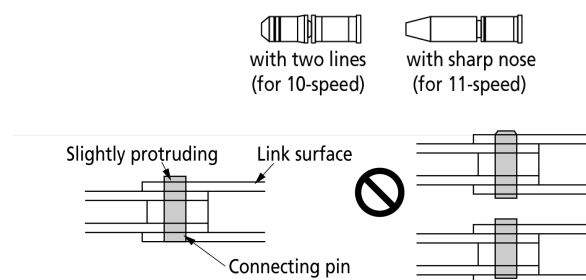
11, 10-speed chain (end pin type)

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.



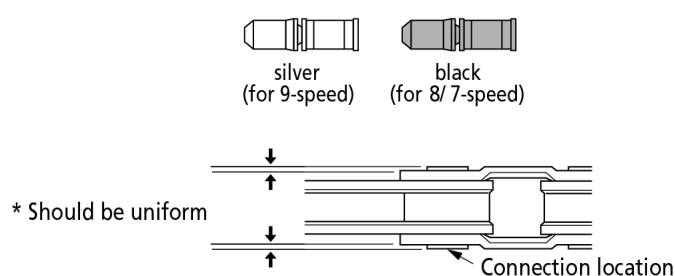
11, 10-speed chain (ampoule pin type)

- 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).

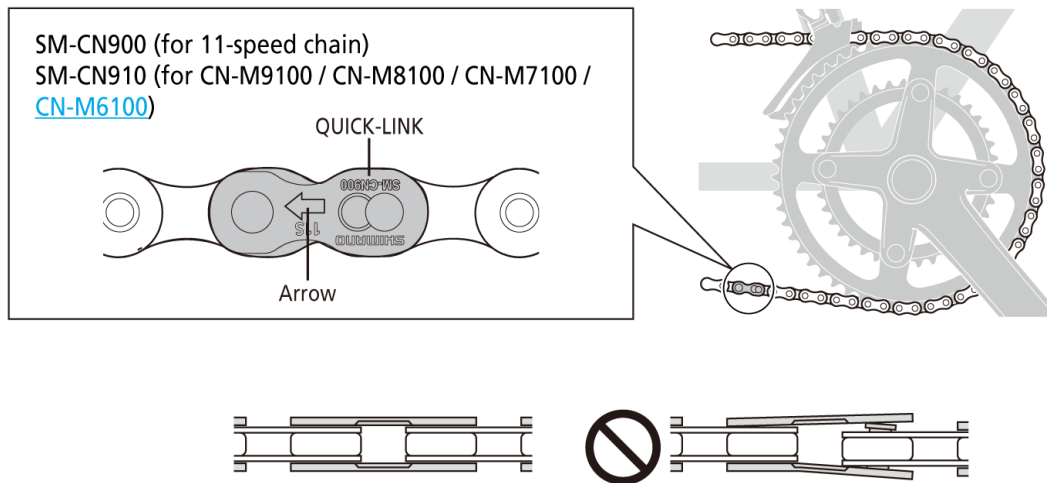


* Should be uniform

Connection location

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 QUICK-LINK, 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.

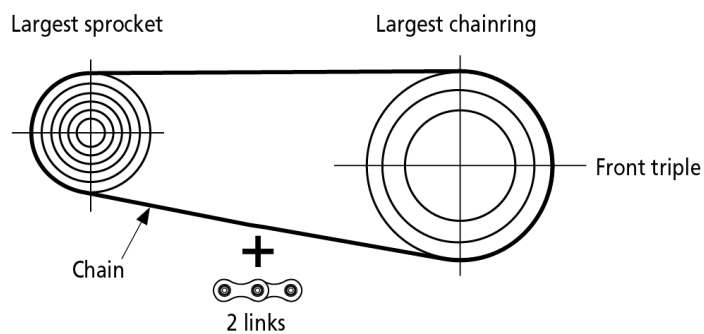


Chain length

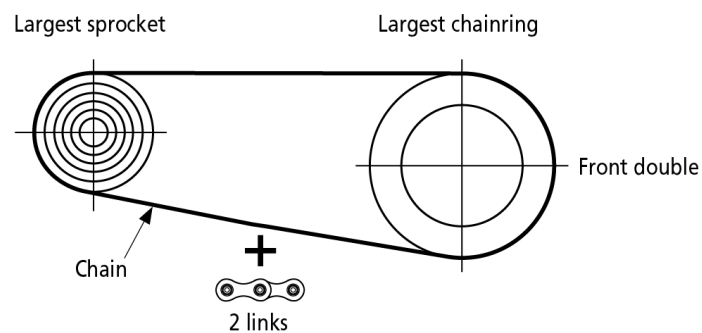
C-231

Chain length [MTB, URBAN (ALFINE, NEXUS)] C-496

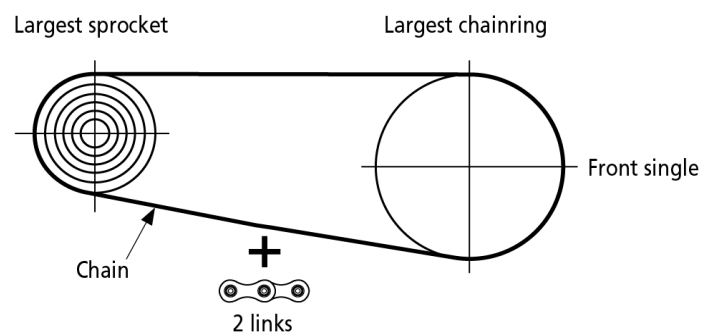
For front triple



For front double

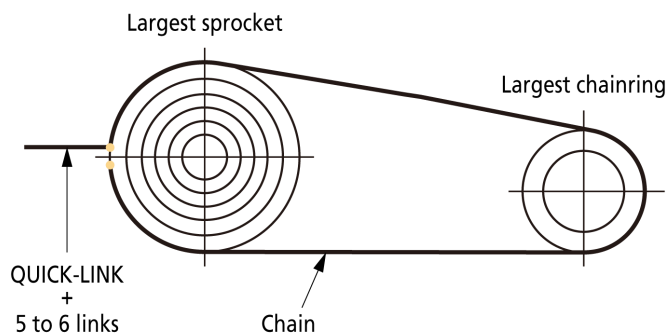


For front single

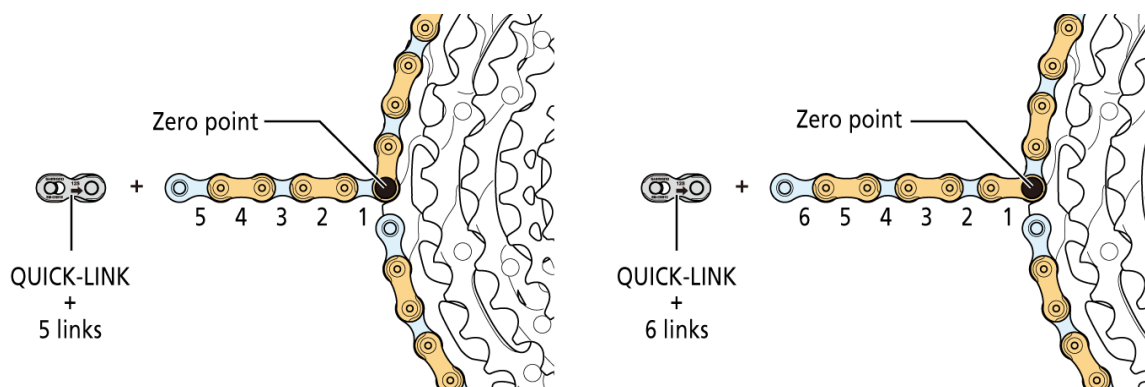


For full suspension bike (front single/double)

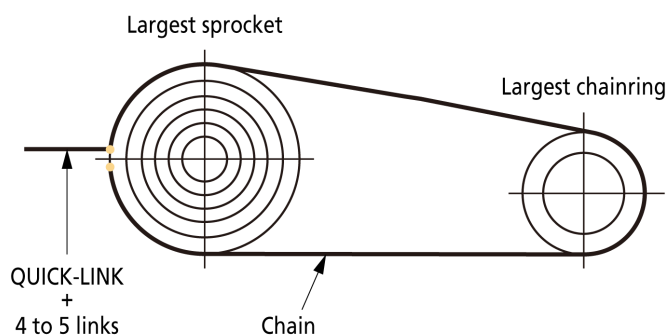
Check the length without any load applied to the suspension.



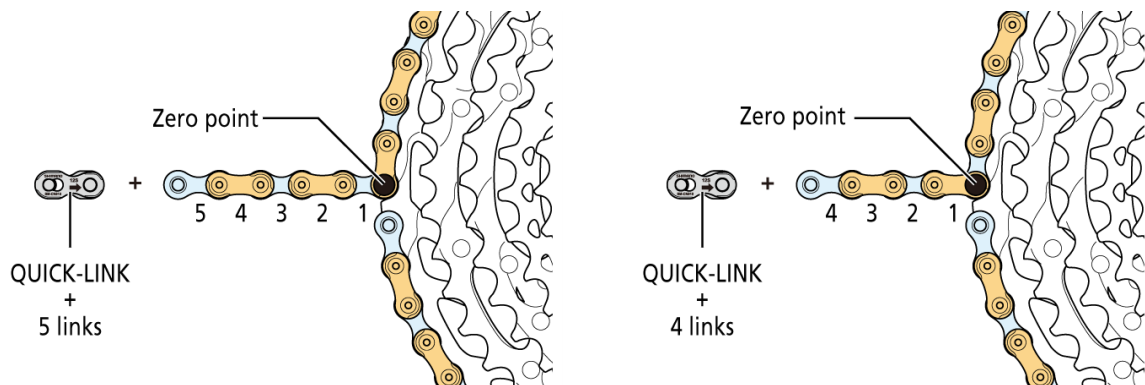
With the zero point set on the largest sprocket as shown in the figure, the proper chain length is equal to the length of the chain with links added according to the bike type.



For hardtail bike (front single/double)



With the zero point set on the largest sprocket as shown in the figure, the proper chain length is equal to the length of the chain with links added according to the bike type.

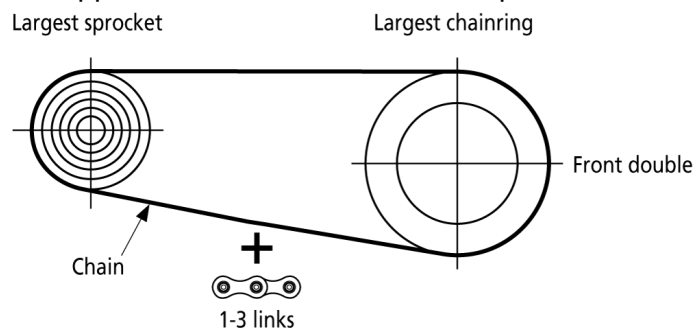


Chain length [ROAD, Gravel/Adventure] C-497

For front double (ROAD)

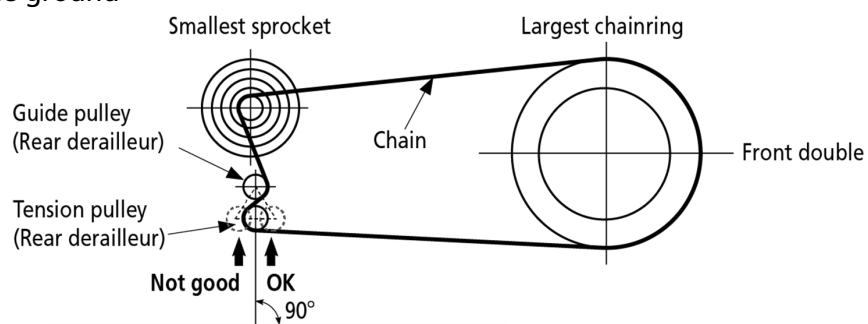
For RD-R9100 / RD-R9150 / RD-R8000 / RD-R8050

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

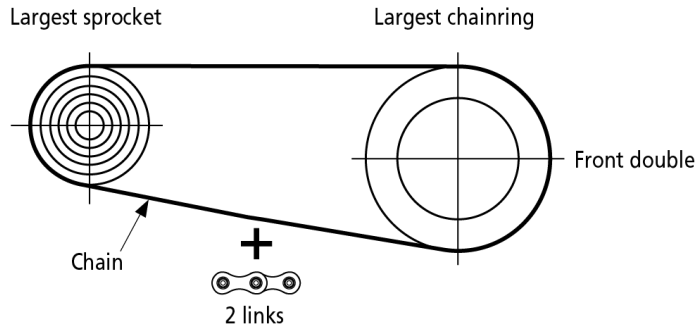


For the models of older generations than RD-R9100 and RD-R8000

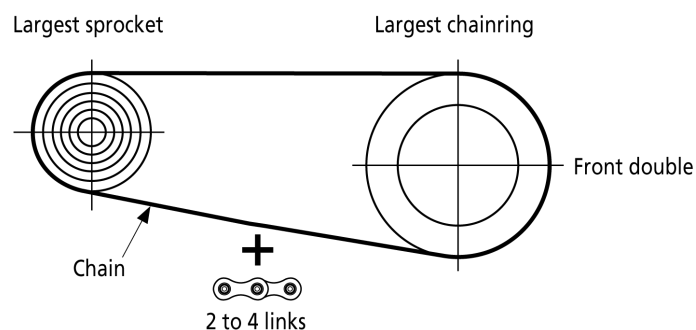
- Assemble with sprocket max. 27T and smaller
Right angle to the ground



- Assemble with sprocket max. 28T or more

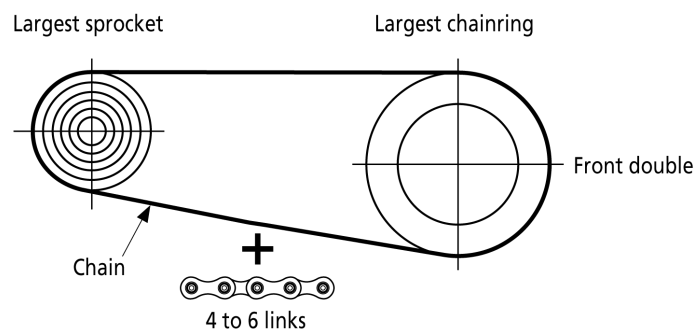


For RD-RX800 / RD-RX805



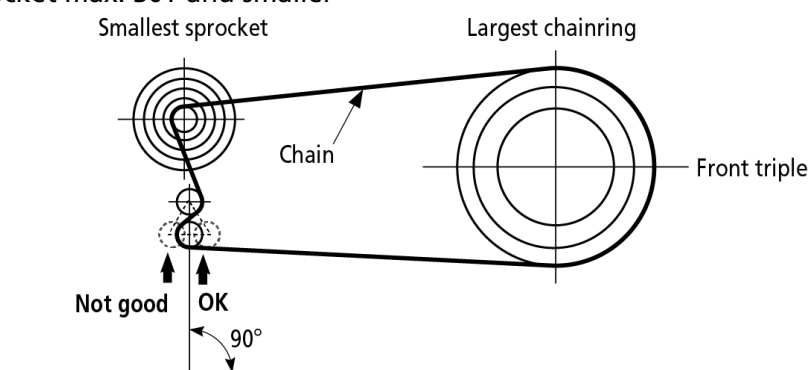
For front single/double (Gravel/Adventure)

For RD-RX810 / RD-RX812 / RD-RX815 / RD-RX817 / RD-RX400

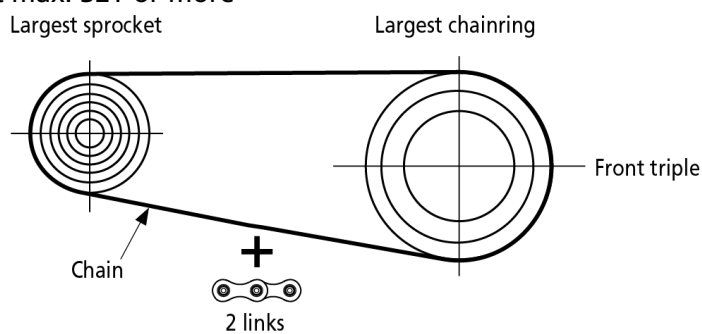


For front triple (ROAD)

- Assemble with sprocket max. 30T and smaller



- Assemble with sprocket max. 32T or more

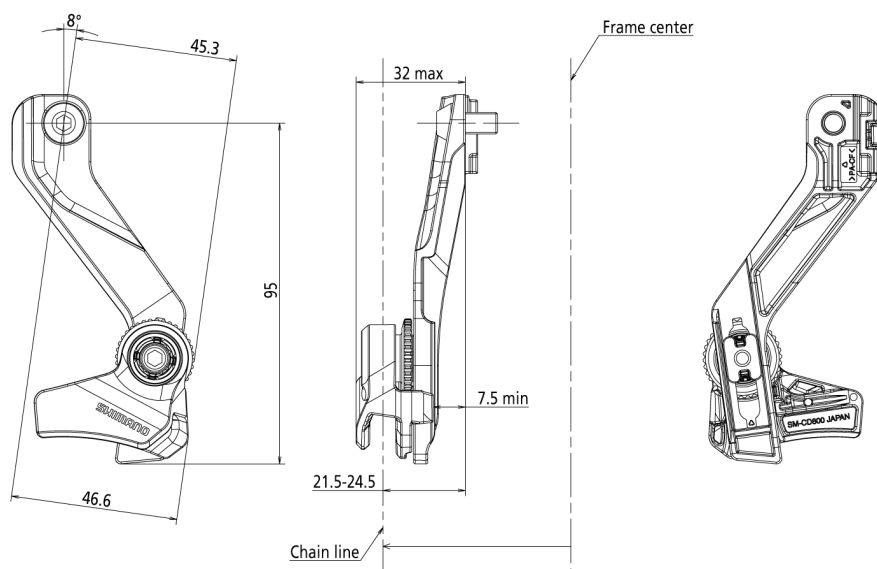


Dimensions

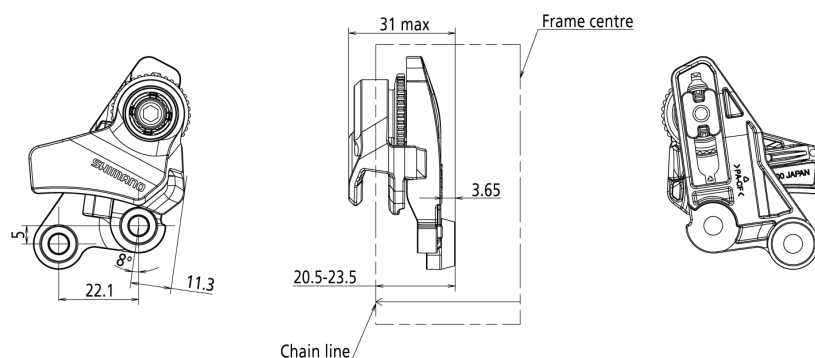
C-237

SM-CD800

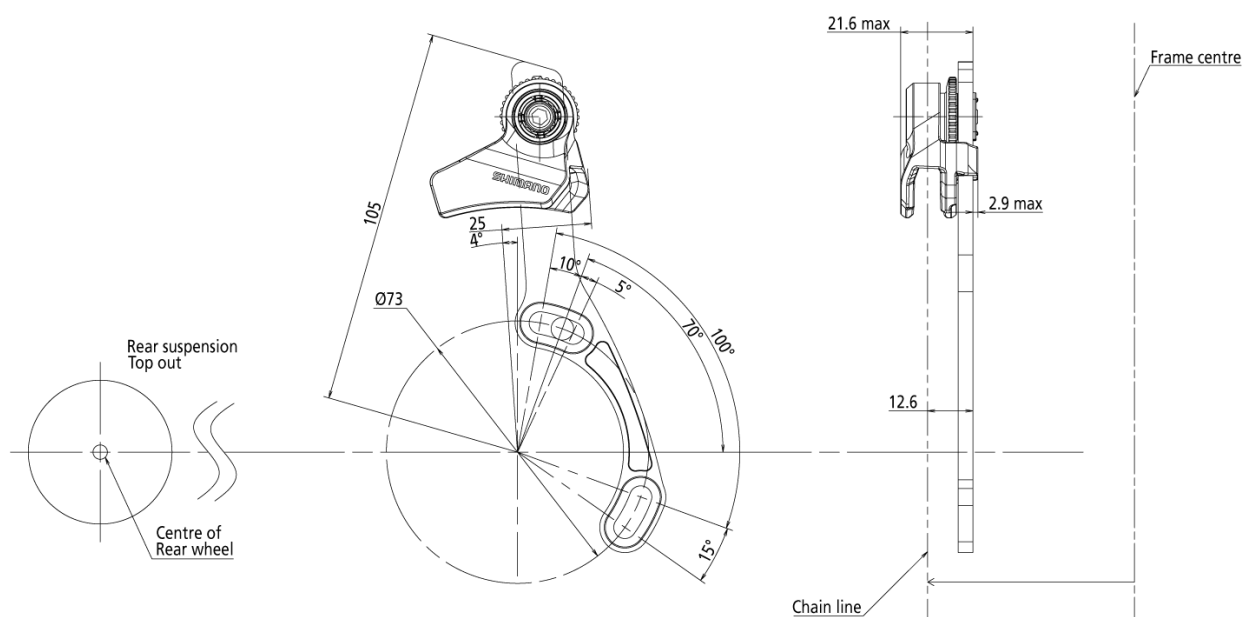
Direct mount type (SM-CD800-D)



E type (SM-CD800-E)

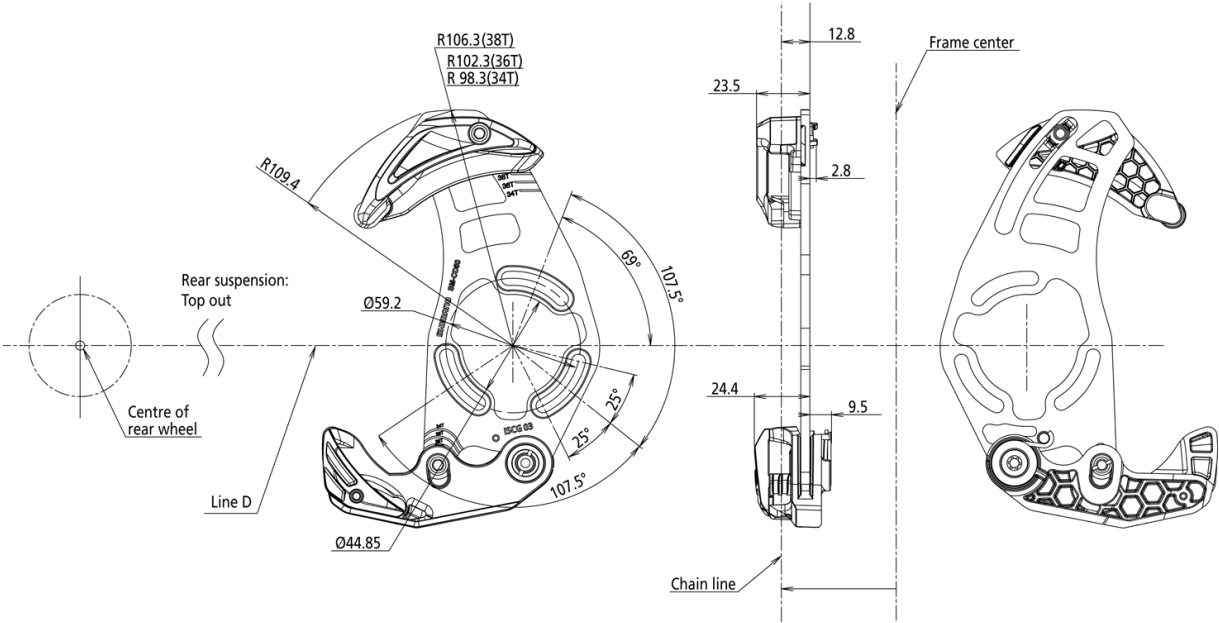


ISCG type (SM-CD800-I)

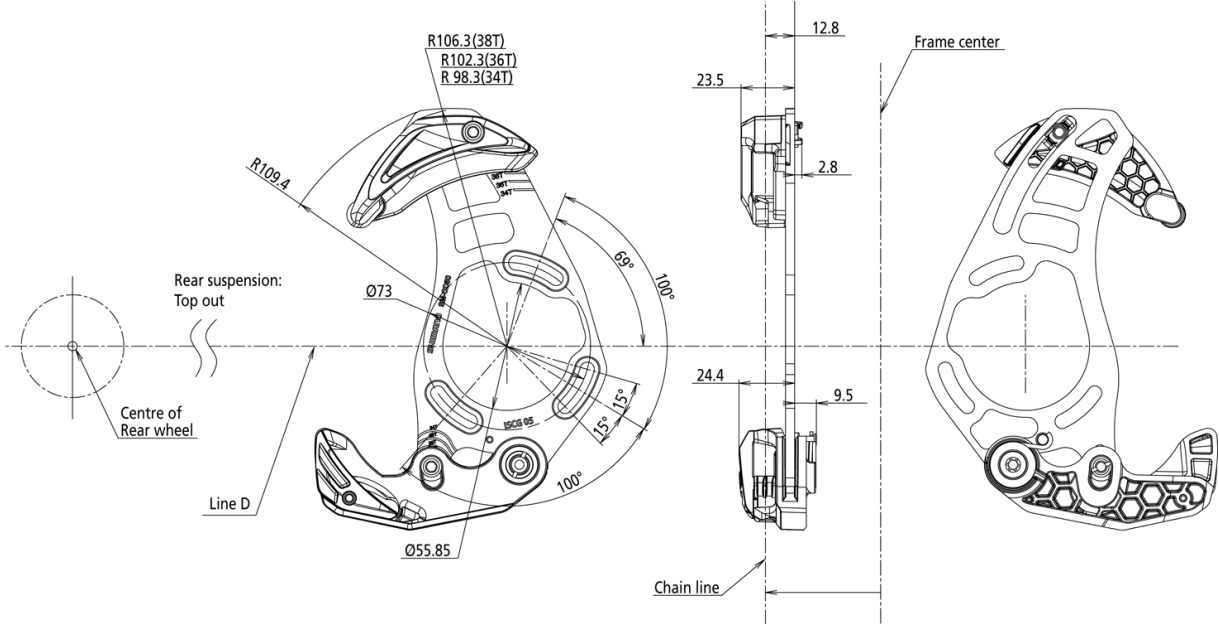


SM-CD50

ISCG03



ISCG05



Compatible crankset **C-238**

SM-CD800

Model no.	Speed	Spec.
FC-M9100-1*	12-speed	30T, 32T, 34T, 36T, 38T
FC-M9120-1*	12-speed	30T, 32T, 34T, 36T, 38T
SM-CRM95*	12-speed	30T, 32T, 34T, 36T, 38T

* Compatible chain: CN-M9100

SM-CD50

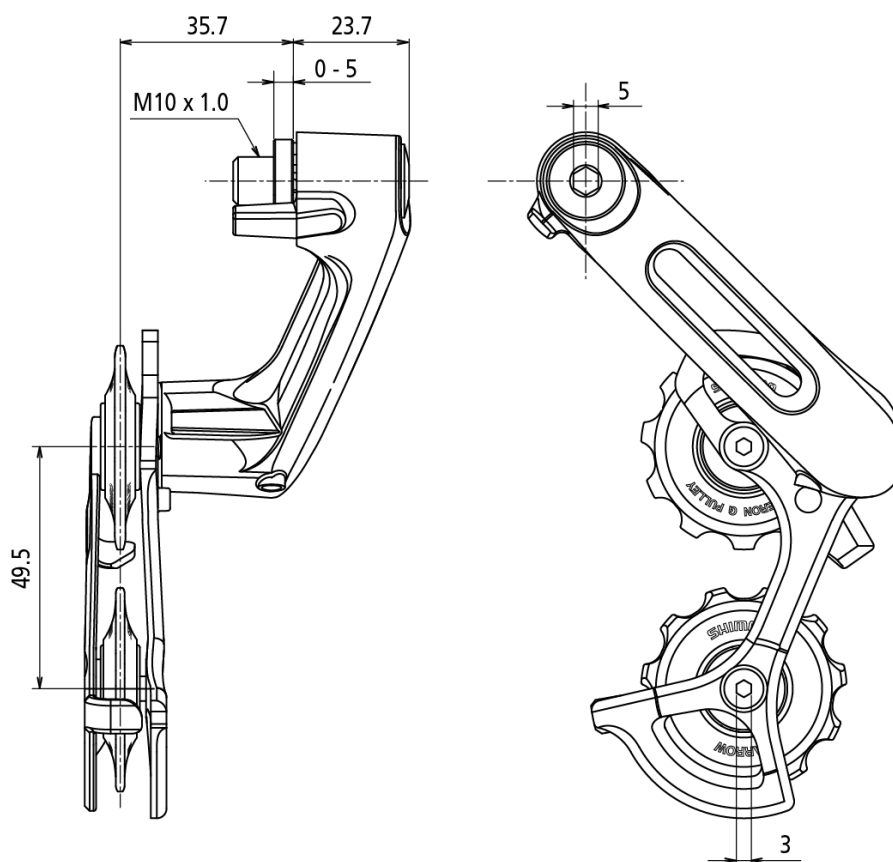
Spec.	Speed	Crankset **
w/ guard	10-speed	FC-M820 / FC-M825
w/o guard (guide only)	10-speed	Crank arm* with SM-CR82 (chainring for single gear)
	11-speed	FC-M7000-1
	12-speed	-

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

CT-S500

C-240

Dimensions C-241

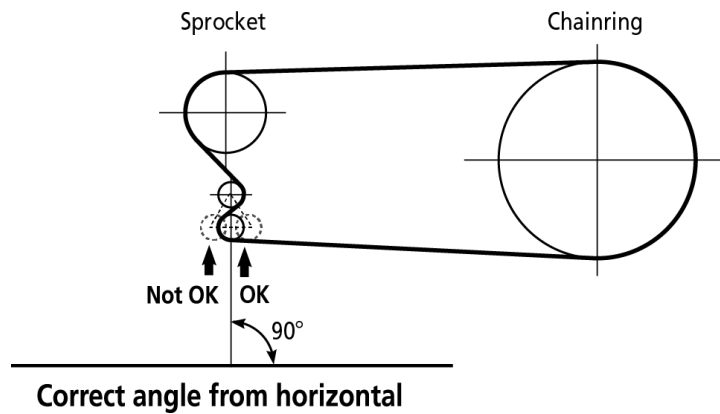


Specifications C-242

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
Rear dropout		Vertical dropout type Without derailleur hanger
Direct attachment		-
Structure		Double pulley
Body	Material	Aluminum
	Finish	Painting

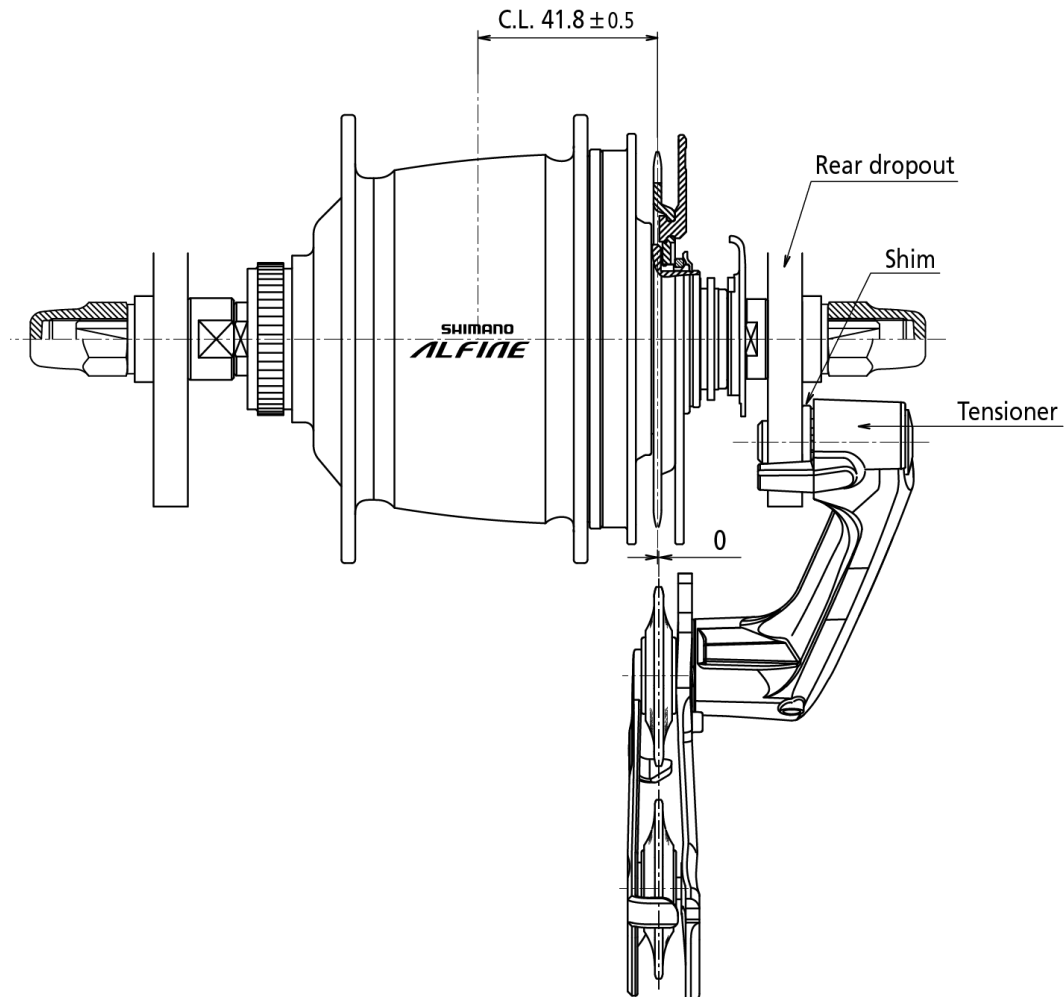
Chain length C-243

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.



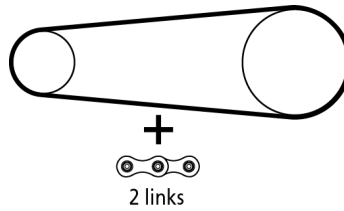
Axial direction adjustment C-244

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



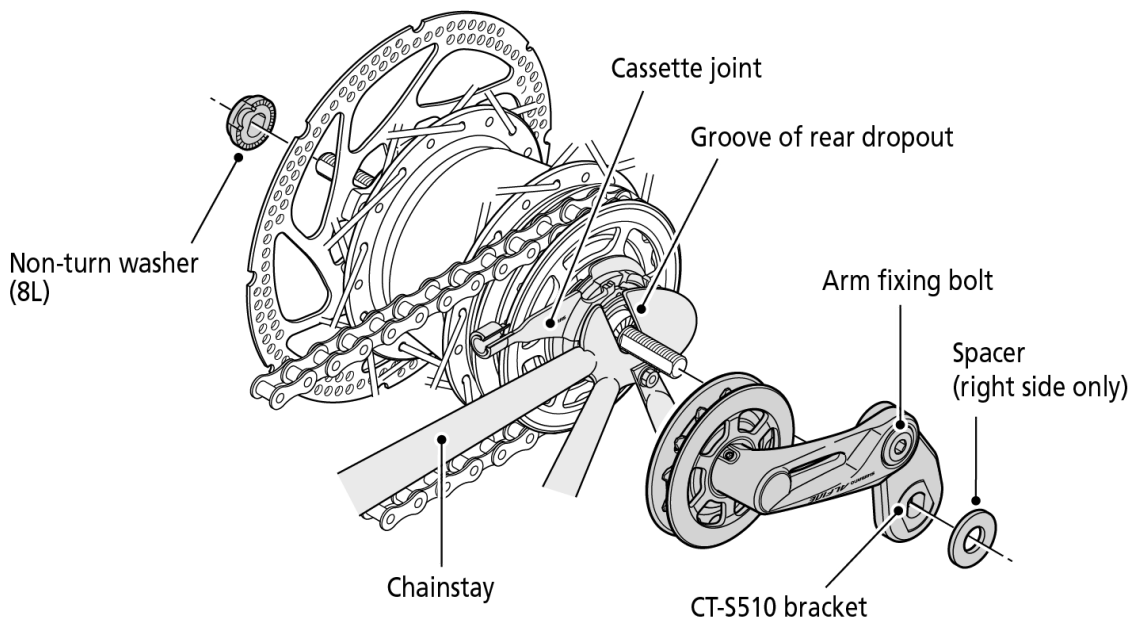
Chain length C-246

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.



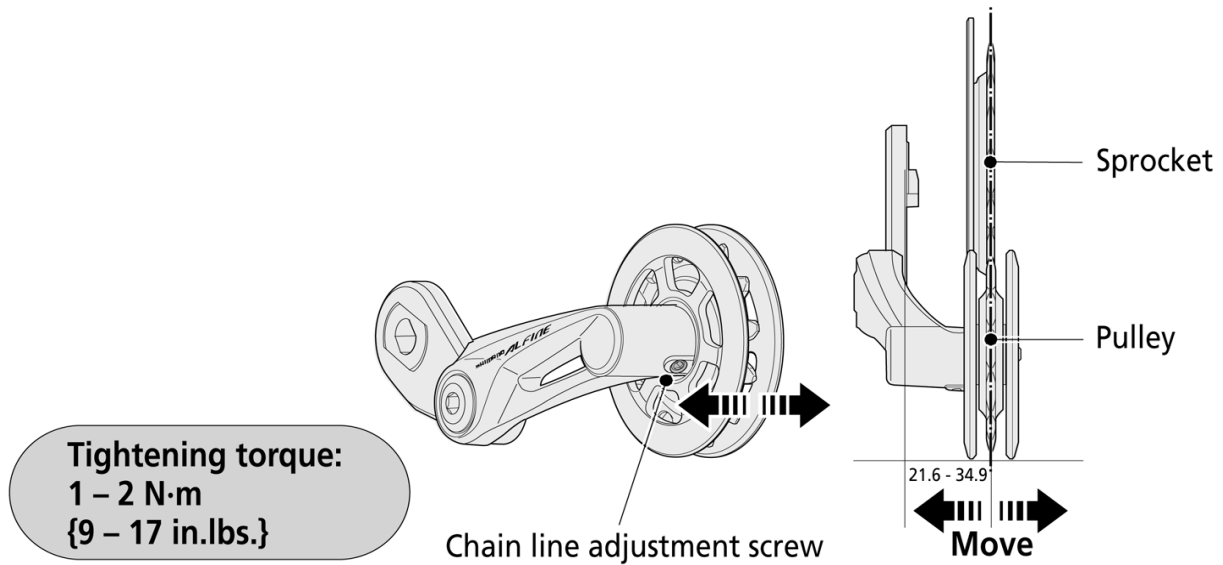
Installation to the frame C-247

1. Mount the chain onto the sprocket, and then set the hub axle into the rear dropouts.
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 rear dropouts. 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.})



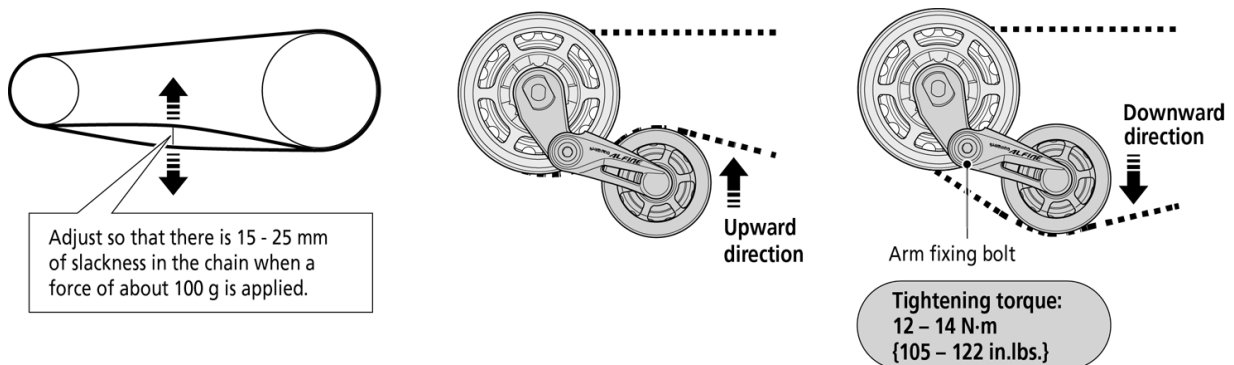
Adjustment of the chain line C-248

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

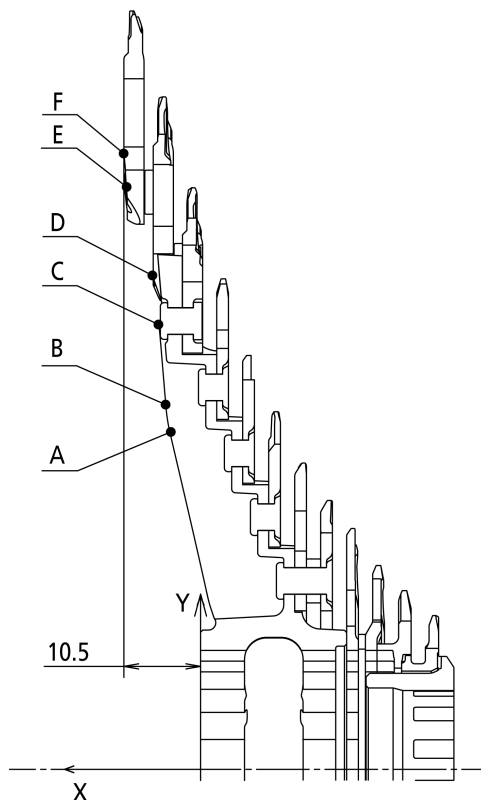
1. Mount the chain onto the pulley, and then turn the arm upward so that there is 15 - 25 mm of slackness in the chain when tension is being vertically applied to the chain. (If tension cannot be applied to the chain in the upward direction, apply the tension in the downward direction instead. If tension 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

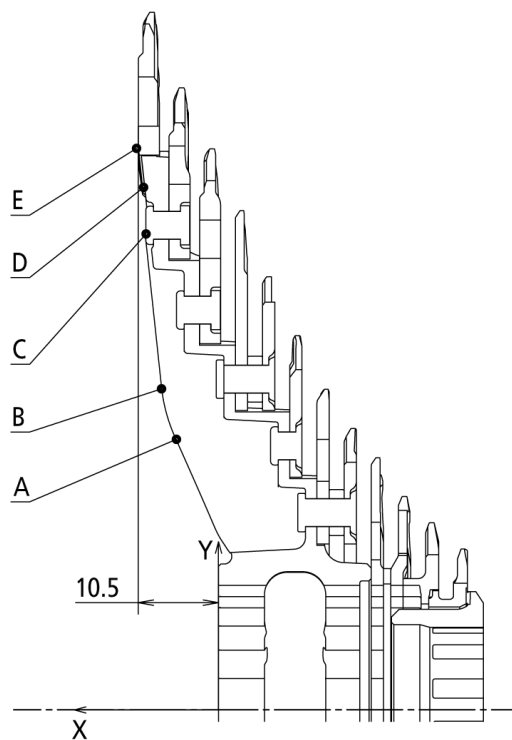
C-251

12-speed C-555

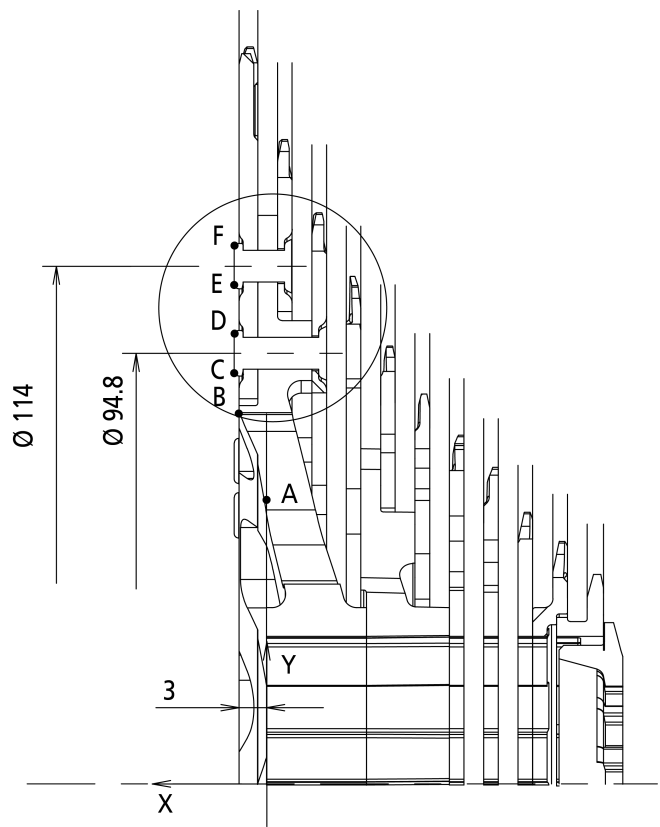
CS-M9100-12 (10-51T) / CS-M8100-12 (10-51T) / CS-M7100-12 (10-51T) / [CS-M6100-12 \(10-51T\)](#)


	CS-M9100		CS-M8100, CS-M7100		CS-M6100	
	X mm	Y mm (ø)	X mm	Y mm (ø)	X mm	Y mm (ø)
A	4.14	91.9	4.10	91.0	4.10	91.0
B	4.74	99.4	4.70	98.5	4.70	98.5
C	5.65	121.2	-	-	-	-
D	6.5	134.5	6.5	127.0	6.5	127.0
E	10.05	158.8	-	-	-	-
F	10.5	167.9	10.5	158.0	10.5	158.0

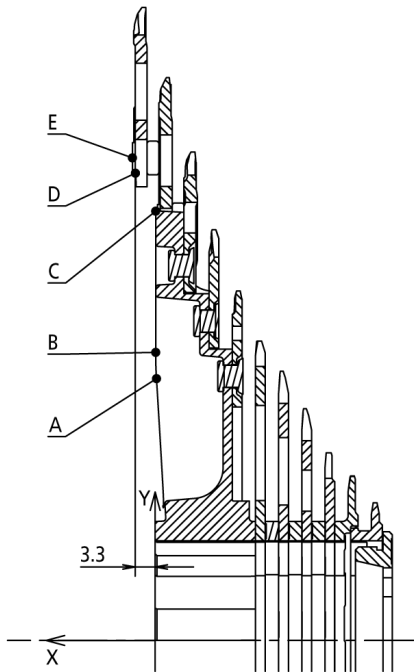
CS-M9100-12 (10-45T) / CS-M8100-12 (10-45T) / CS-M7100-12 (10-45T)



	CS-M9100		CS-M8100, CS-M7100	
	X mm	Y mm (ø)	X mm	Y mm (ø)
A	5.69	72.3	5.08	69.1
B	7.45	84.9	7.72	87.9
C	9.45	124.7	-	-
D	9.96	136.8	-	-
E	10.5	146.8	10.5	135.4



	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

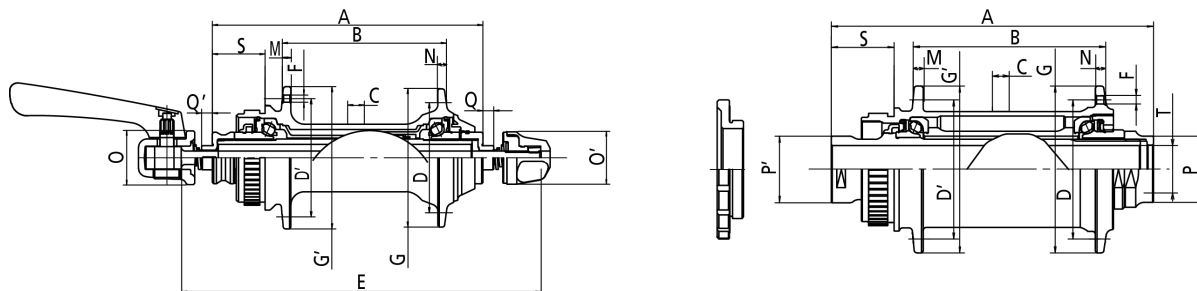


	X mm	Y mm (ø)
A	-0.2	87.8
B	-0.1	94.2
C	-0.1	140.2
D	3.3	157.6
E	3.7	163

Front hub dimension [MTB,Trekking]

C-261

For CENTER LOCK disc brake / Rim brake



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	51.4 / 52.8	3.2 / 3.2	ø20.0	ø19.5	4	4	19.5			
HB-M6000			5.6	44				133							52.8 / 52.8		
HB-M4050			5.5														
HB-M3050			5.3													133	53.8 / 53.8
HB-RM35																	
HB-MT200 (32H, 36H)			5.3	129				52.8 / 52.8									
HB-MT200 (28H)															133		
HB-TX505																70.6 / 70.6	3.6 / 3.2

(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'	S	T
HB-M9110	100	60.2	5.4	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M8110		60.2	5.7	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M8010		60.2	5.4	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M7110		60.2	5.7	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M6010		60.2	5.3	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-MT410		60.2	5.3	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-MT400		60.2	5.3	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M9110-B	110	70.2	5.4	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M8110-B		70.2	5.7	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M8010-B		70.2	5.4	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M7110-B		70.2	5.7	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-M820		61.55	5.8	50	ø2.6	59.6	59.6	3.2 / 3.2	ø24.0	ø24.0	24.25	20
HB-MT410-B		70.2	5.4	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15
HB-MT400-B		70.2	5.3	44	ø2.6	52.8	52.8	3.2 / 3.2	ø21.0	ø21.0	19.5	15

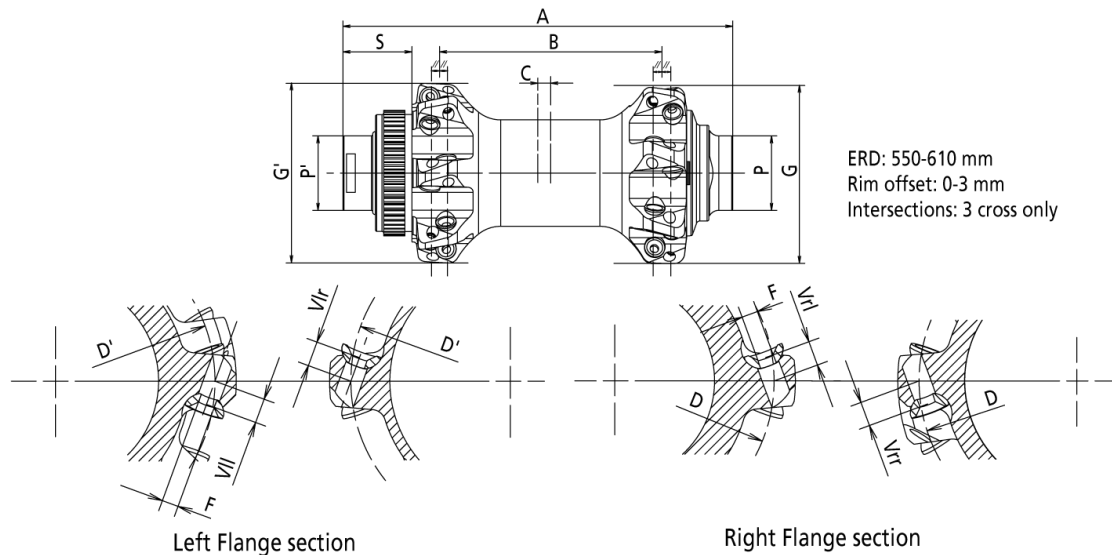
(mm)

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-T610	✓	100	71.6	-	40	133	ø2.6	48.4	3.2 / 3.2	ø20.0	ø19.5	4	4
HB-T3000						133		48.4					
HB-TX500-QR						129 (133)		46					
HB-TX500-NT						-							

(mm)

Disc brake (Thru axle, straight spoke type)



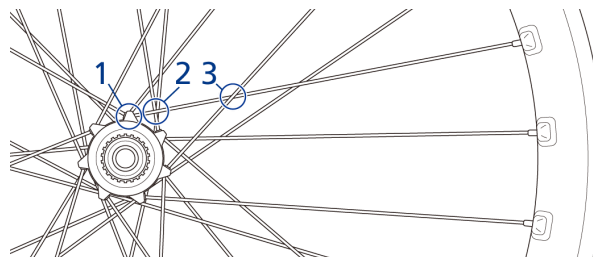
Model No.	A O.L.D.	B Flange distance	C Off set	D / D' P.C.D.	F Spoke hole	G / G' Flange diameter		M / N Flange thickness	P	P'	S	T	Vll	Vlr	Vrl	Vrr
													Left flange			
HB-M9110-B5	110	62.76	3.63	45	ø2.4	ø51	ø51	-	ø21.0	ø21.0	19.5	15	Offset between spoke hole datum (at P.C.D) and spoke washer bottom.*			
HB-M8110-B5		62.76	3.73	45	ø2.4	ø51	ø51	-	ø21.0	ø21.0	19.5	15				

(mm)

* Required to calculate the spoke length.

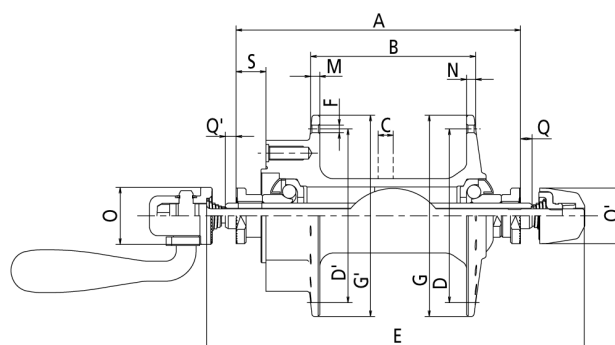
About the three crosses intersections of straight spoke

The three crosses including flange area as follows.



For 6-bolt disc brake

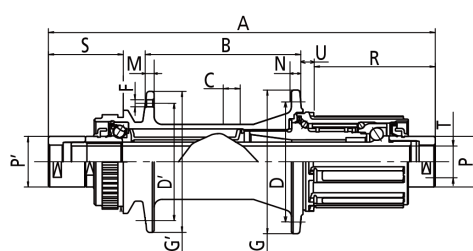
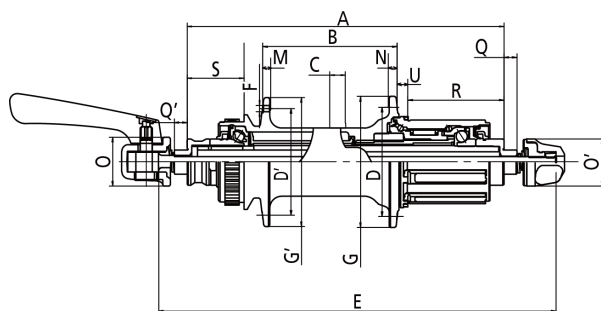
Disc brake (QR type)



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-M756	100	59.4	5.5	61	61	133	ø2.6	70.6 / 70.6	3.2	ø20	ø19.5	4	4	10.5
HB-M525A		59.4	5.5	61	61	133	ø2.6	70.6 / 70.6	3.6 / 3.2	ø20.0	ø20.0	4	4	10.5
HB-M475		59.2	5.5	61	61	133	ø2.6	70.6 / 70.6	3.2	ø20	ø19.5	4	4	10.5
HB-TX506		58.1	5.3	61	61	133	ø2.6	70.6 / 70.6	3.6 / 3.2	ø20.0	ø20.0	4	4	10.5

(mm)

For CENTER LOCK disc brake / Rim brake



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-M8000	135	57.4	6.6	44	168 (173)	ø2.6	ø52.8	3.2 / 3.5	ø20.0	ø19.5	5.5	5.5	40.75	24.3	4.7
FH-M6000				45			ø54								
FH-M4050				45			ø53.8								
FH-M3050				45			ø53.8								
FH-MT500				61			ø69.9						36.2	24.25	10.4
FH-MT401				61			ø69.9						36.2	24.25	10.4
FH-RM35				45			ø54						40.75	24.3	4.7
FH-TX505-8				45			ø53.8						38.1	24.25	5.3
FH-TY505-7				45			ø53.8						38.1	24.25	5.3
FH-MT500-B				61			ø69.9						36.2	24.25	9.8
FH-MT401-B	141	62.2	6.2	61	174 (178)	ø2.6	ø68.8	3.2 / 3.5	ø20.0	ø19.5	5.5	5.5	40.75	24.3	4.7
FH-MT200-B (32H,36H)				60			ø53.8								
FH-MT200-B (28H)				60			ø53.8								
FH-MT200-B (28H)				60			ø54.8								

(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-M820	135	57.4	6.4	45	44	ø54	ø52.8	ø2.6	ø19.0	ø19.0	27.75	12	4.7
FH-M9111	142	55.9	7	49.5	ø2.6	ø70	ø59						10.4
FH-M8110		55.2	6.7	61		ø69.8	ø69.8						10.5
FH-M7110		57.4	6.4	45		ø54	ø52.8						4.7
FH-M6010		55.2	6.7	61		ø69.9	ø69.8						10.4
FH-MT510		55.17	6.72	61		ø69.8	ø69.8						10.4
FH-MT410		63.4	6.65	45		ø54	ø52.8						4.7
FH-MT400		63.1	6.9	47.25		ø70	ø56.25						9.8
FH-M9111-B		62.2	6.6	60		ø69.8	ø68.8						9.9
FH-M8110-B		63.4	6.4	45		ø54	ø52.8						4.7
FH-M7110-B		62.2	6.2	61		ø69.9	ø68.8						9.8
FH-M8010-B	148	61.6	6.6	61	ø2.6	ø69.8	ø68.8	3.2 / 3.5	ø19.0	ø19.0	27.75	12	10.4
FH-MT510-B		63.4	6.65	45		ø54	ø52.8						4.7
FH-MT410-B		63.4	6.65	45		ø54	ø52.8						4.7
FH-MT400-B		63.4	6.65	45		ø54	ø52.8						4.7
FH-M8130-B	157	72.7	6.4	61	58	ø2.6	ø69.8	3.2 / 3.5	ø19.0	ø19.0	27.75	12	9
FH-M7130-B													9

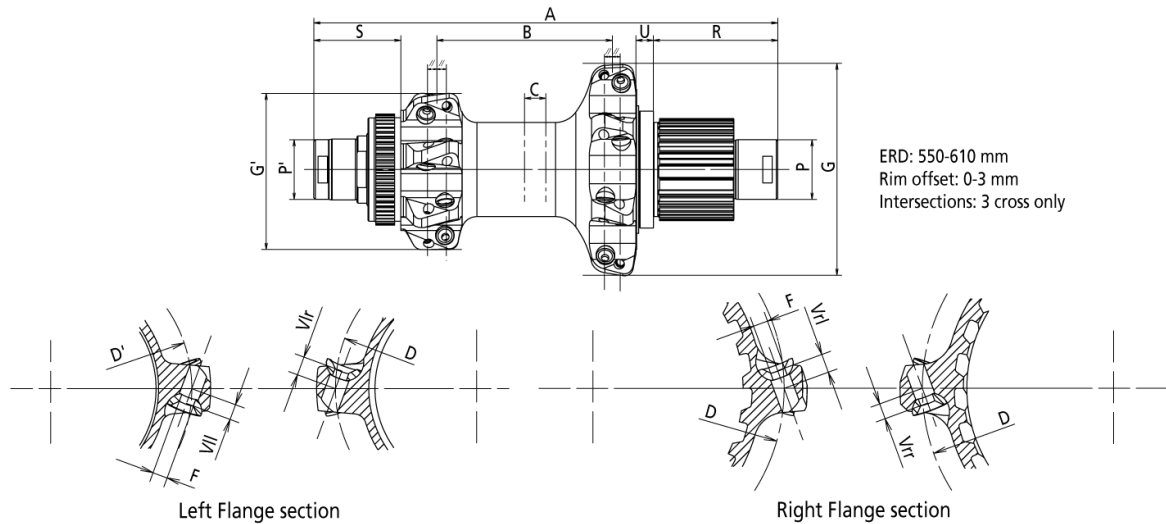
(mm)

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-T610	✓	135	59.2	7.8	45	45	168 (173)	ø2.6	53.8	3.2 / 3.5	ø20.0	ø19.5	5.5	5.5	40.8	4.7
FH-T3000	✓			7.5			166 (170)									
FH-TX500-QR	✓		57.4	6.8			-				-	-				
FH-TX500-NT	-		57.4	4.6			166 (170)				ø20.0	ø19.5			38.1	5.3
FH-TY500-QR	✓		57.4	4.6			-				-	-			38.1	5.3

(mm)

Disc brake (Thru axle, straight spoke 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	VII	Vlr	Vrl	Vrr
																Left flange		Right flange	
																Offset between spoke hole datum (at P.C.D) and spoke washer bottom.*			
FH-M9111-BS	148	56.0	6.8	61	45	ø2.4	ø68.4	ø51	-	ø19.0	ø19.0	39.7	27.75	12	5.5	2.5	3	3	2.5
FH-M8110-BS																			

(mm)

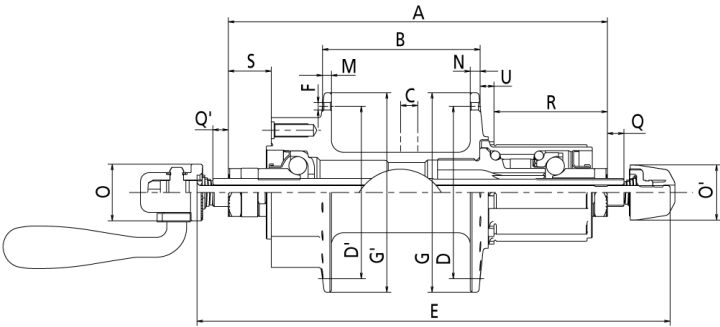
* Required to calculate the spoke length.

NOTE

For three cross intersections of the straight spoke, refer to [C-261](#)

For 6-bolt disc brake

Disc brake (QR type)

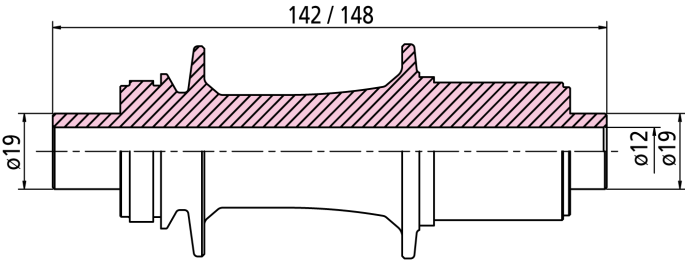




Model No.	A O.L.D.	B Flange distance	C Off set	D / D' P.C.D		E QR	F Spoke hole	G / G' Flange diameter		M / N Flange thickness	O	O'	Q	Q'	R	S	U Low gear contact face to flange
FH-M756	135	57.1	6.8	61	61	168	ø2.6	ø70.6	ø70.6	3.5 / 3.2	ø20	ø19.5	5.5	5.5	40.75	15.25	4.9
FH-M525A		57.1	6.8	61	61	168 (173)	ø2.6	ø70.6	ø70.6	3.2 / 3.2	ø20.0	ø19.5	5.5	5.5	40.75	15.25	4.7
FH-M475		57.1	6.8	61	61	173	ø2.6	ø70.6	ø70.6	3.5 / 3.2	ø20	ø19.5	5.5	5.5	40.75	15.25	4.9
FH-TX506		56	6.13	61	61	166 (170)	ø2.6	ø70.6	ø70.6	3.2 / 3.5	ø20.0	ø19.5	5.5	5.5	40.75	15.25	4.9

(mm)

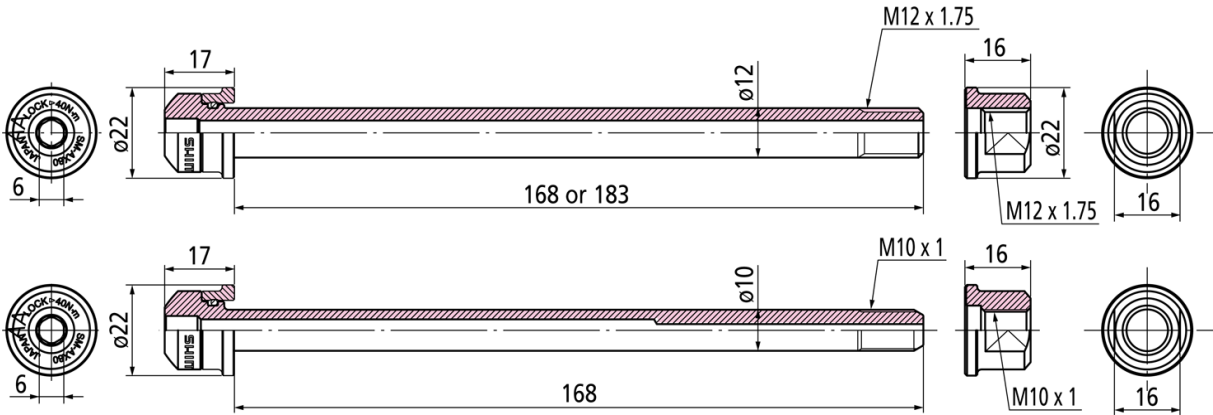
E-THRU hub / Thru axle / E-THRU axle dimensions [MTB, ROAD]



C-262

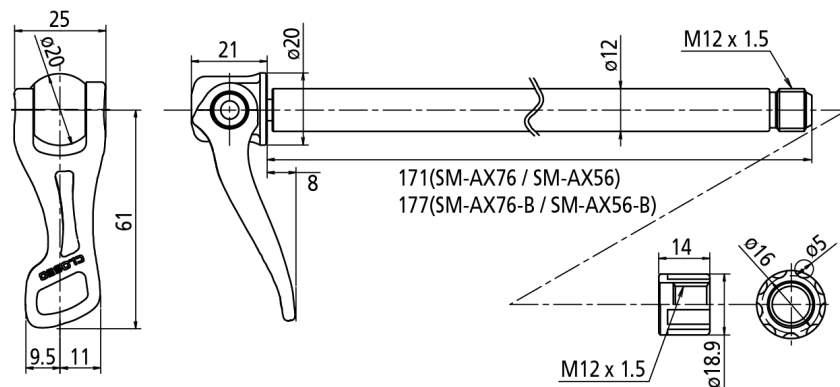
FREEHUB		Wheel	
O.L.D.142mm	O.L.D.148mm	O.L.D.142mm	O.L.D.148mm
FH-M9111 FH-M8110 FH-M8010 FH-M7110 FH-M6010 FH-MT410	FH-M9111-B FH-M8110-B FH-M8010-B FH-M7110-B FH-MT410-B	WH-MT600 WH-MT601	WH-M8100 WH-M8120 WH-MT620 WH-MT600-B WH-MT601-B WH-MT501

SM-AX80



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

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

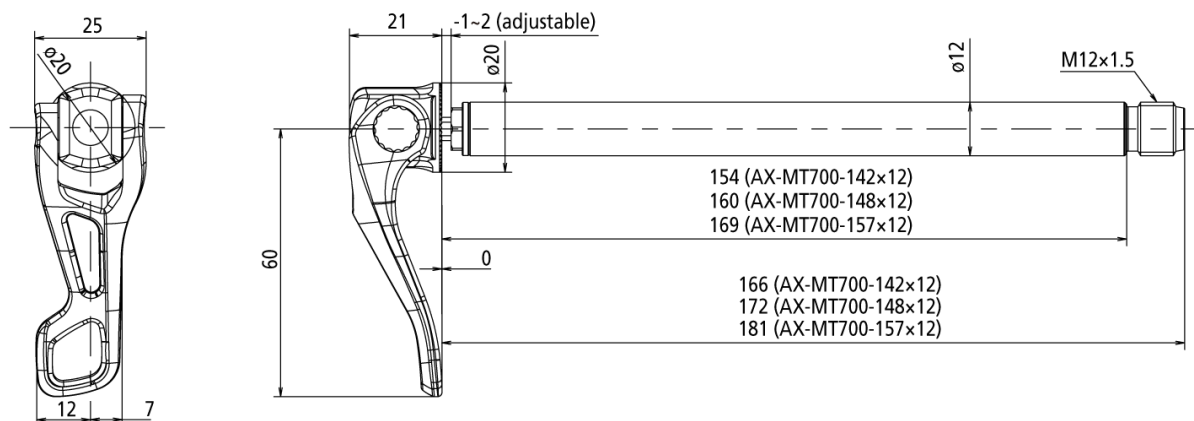


12 mm Rear E-THRU C-265

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

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

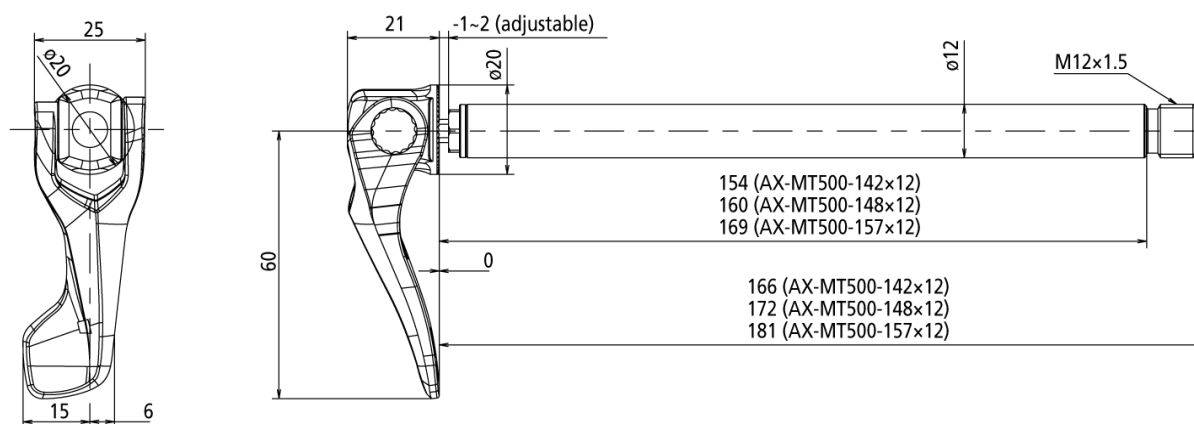
AX-MT700-157x12 (O.L.D. 157mm)



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

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

AX-MT500-157x12 (O.L.D. 157mm)



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



Technical drawing of the 3D-printed part showing three views: front, top, and side. The front view shows a circular base with a central hole (Ø20) and a vertical slot. The top view shows a rectangular base with a central hole (Ø20) and a vertical slot. The side view shows a vertical rod with a central hole (Ø12) and a threaded section (M12x1.5). Dimensions are provided for all views.

Dimensions (mm):

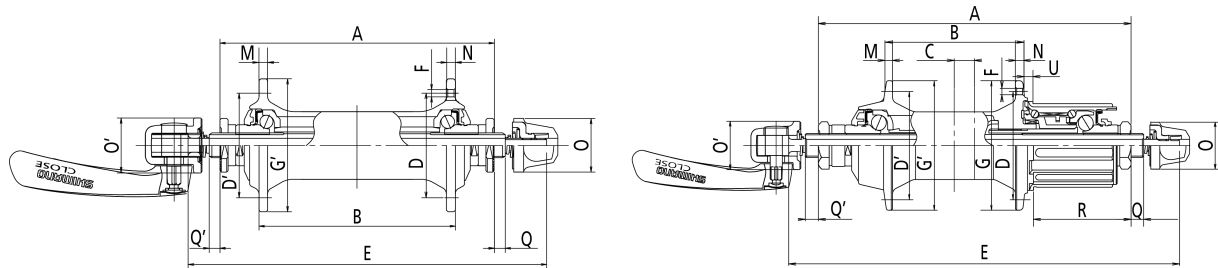
- Front View: 25 (width), 3 (bottom left), 10 (bottom right), 60 (height).
- Top View: 21 (width), 20 (hole diameter), 0 (offset).
- Side View: 108 (rod length), 121 (rod length), 126 (rod length), 0.95 (thread length), 12 (rod diameter), 60 (height).

[illegible]

Front hub / FREEHUB dimensions [ROAD]

C-266

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	✓	100	74.0	-	38	38
FH-9000 (except for 28H)	✓	130	56.9	9.75	45	44
FH-9000 (28H)	✓	130	56.5	9.95	45	44
HB-6800	✓	100	71.6	-	40	40
FH-6800	✓	130	56.9	9.7	45	44
HB-R7000	✓	100	71.6	-	38	38
FH-R7000	✓	130	56.9	9.75	45	44
HB-RS400	✓	100	71.6	-	38	38
FH-RS400	✓	130	56.9	9.75	45	44
HB-RS300	✓	100	71.6	0	38	38
FH-RS300	✓	130	57.9	8.4	45	45
HB-TX500-QR	✓	100	71.6	0	38	38
FH-TX500-8-QR	✓	135	57.4	6.8	45	45
FH-TX500-8-NT	-	135	57.4	6.8	45	45
FH-TY500-QR	✓	130	57.4	7.1	45	45
FH-TY500-NT	-	130	57.4	7.1	45	45

(mm)

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

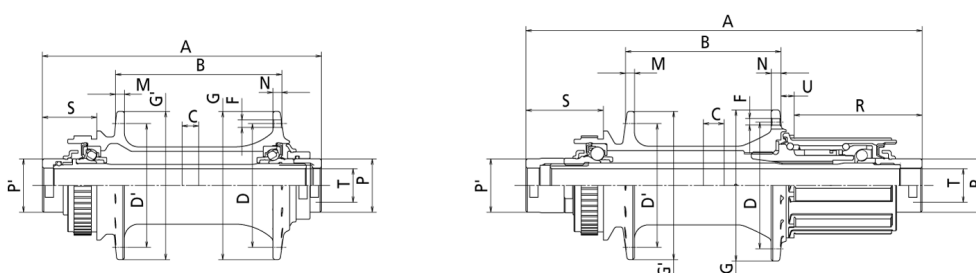
(mm)

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)

* Please refer to [C-262](#) and [C-541](#) for definition of "S" dimension.

For disc brake (E-THRU type)



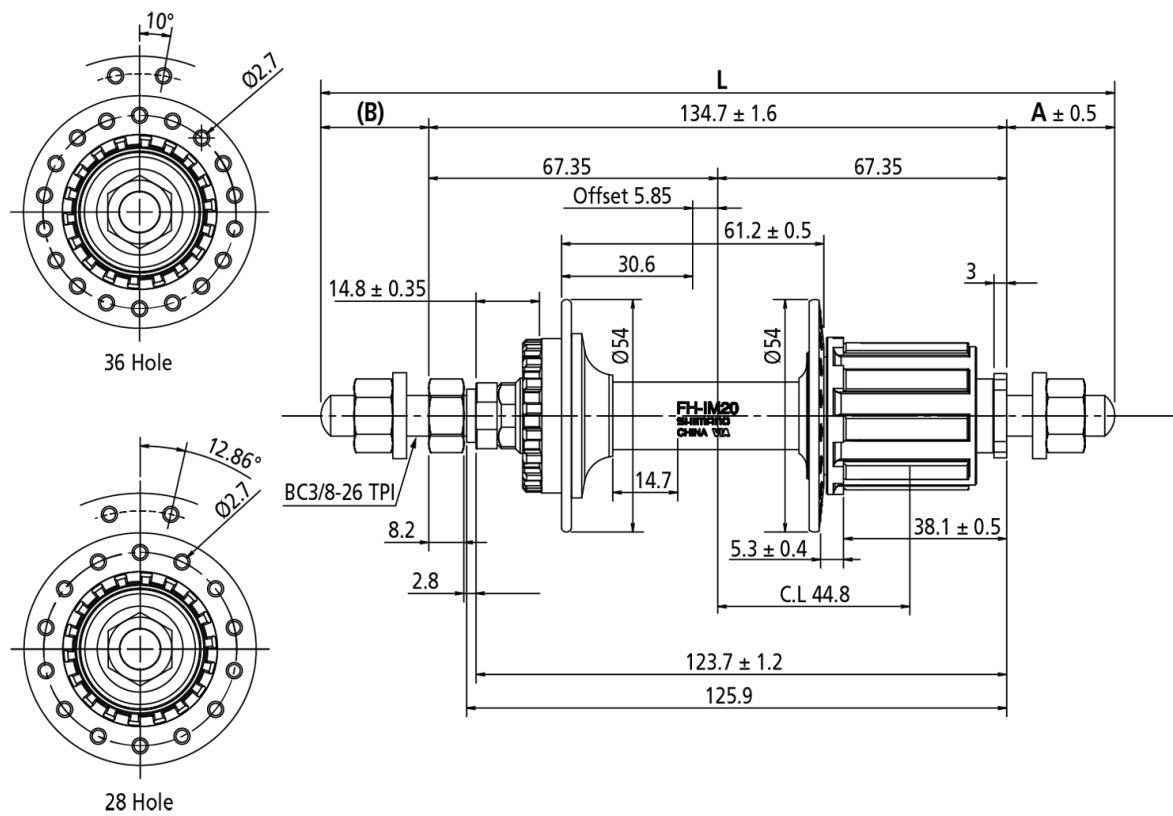
Model No.	A O.L.D.	B Flange distance	C Off set	D P.C.D.1 (FH SIDE)	D' P.C.D.2	F Spoke hole	G / G' Flange diameter	M / N Flange thickness
HB-RS770	100	59.6	6	44	44	ø2.6	52.8 / 52.8	3.2 / 3.2
FH-RS770	142	55.7	7.45	45	44	ø2.6	53.8 / 52.8	3.5 / 3.2
HB-R7070	100	59.6	6.3	44	44	ø2.6	52.8 / 52.8	3.2 / 3.2
FH-R7070	142	55.7	7.45	45	44	ø2.6	53.8 / 52.8	3.2 / 3.5
HB-RS470	100	59.6	6.3	44	44	ø2.6	52.8 / 52.8	3.2 / 3.2
FH-RS470	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	-	-	45.9	27.75	12	4.7
HB-R7070	-	-	ø19	ø19	-	-	-	19.5	12	-
FH-R7070	-	-	ø19	ø19	-	-	45.9	27.75	12	4.7
HB-RS470	-	-	ø19	ø19	-	-	-	19.5	12	-
FH-RS470	-	-	ø19	ø19	-	-	45.9	27.75	12	4.7

Front hub / FREEHUB dimensions [URBAN]

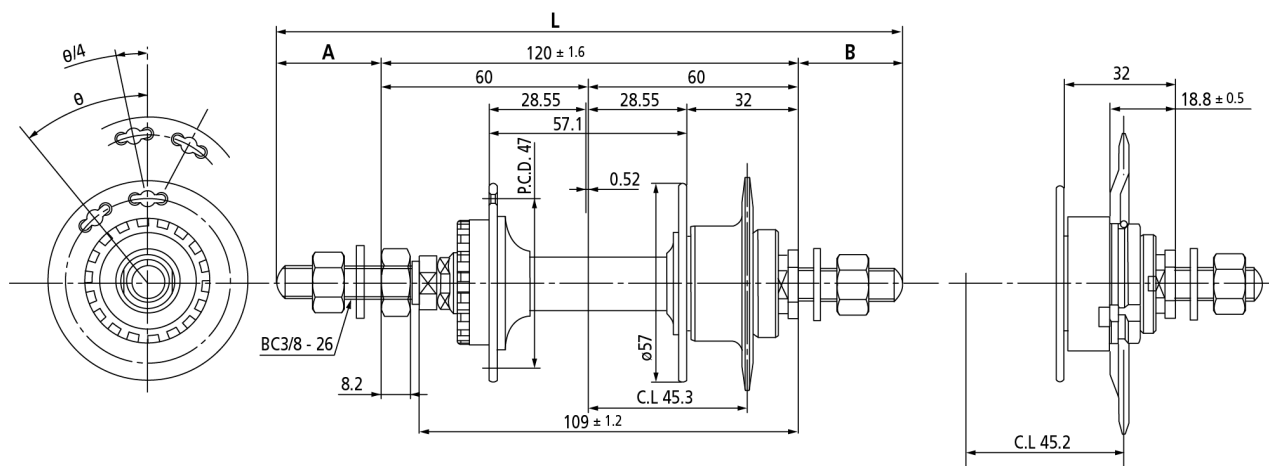
C-267

FH-IM20 (not for EU-market)



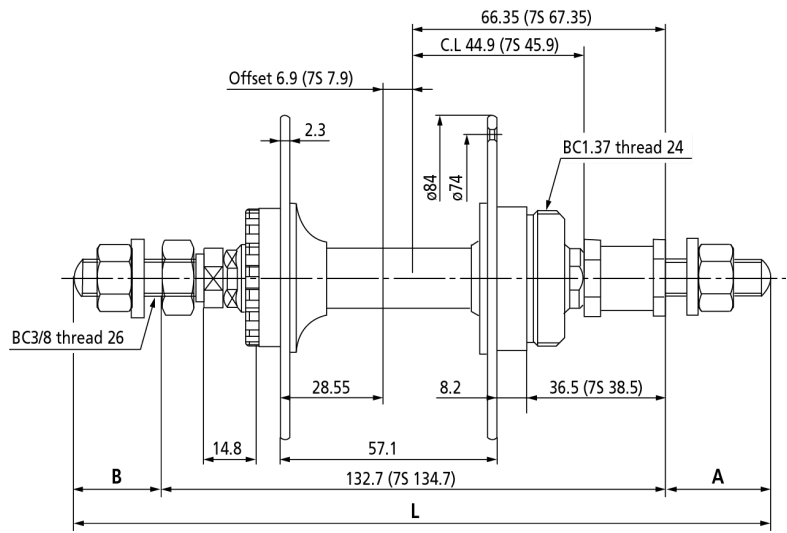
Hole No.	L (mm)	A (mm)	B (mm)
36H, 28H	202	36	31.3
	194	32	27.3

FH-IM37 FH-IM35 (not for EU-market)



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

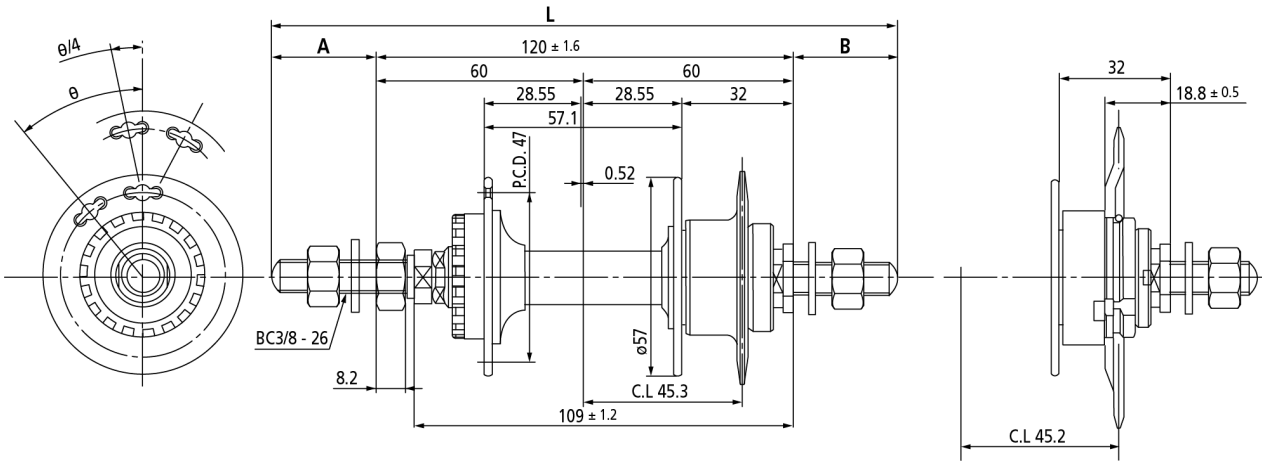
RH-IM11
RH-IM10



8

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	192	32.0	27.3	28H
RH-IM11-6S	192	30.3	29	36H
RH-IM11-6S	185	28.5	23.8	36H
RH-IM11-6S	180	24.5	22.8	36H, 28H
RH-IM10-6S	200	35	35.5	36H, 32H
RH-IM10-6S	200	37	33.5	28H
RH-IM10-6S	200	40	30.5	36H
RH-IM10-6S	180	24.5	22.8	36H
RH-IM11-7S	200	35.0	30.3	36H
RH-IM11-7S	192	31.0	26.3	36H, 28H
RH-IM11-7S	180	23.5	21.8	36H, 28H
RH-IM10-7S	200	35	35	36H, 32H
RH-IM10-7S	180	25	25	36H

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	15mm E-THRU	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-UR708-3D	3.0W	-	-	✓	-	-	✓	-	E2	100	26-28 inch	646 - 716
DH-UR705-3D		-	-	✓	-	-	-	✓				
DH-UR700-3D		-	-	✓	-	✓	-	-				
DH-3D72	3.0W	-	-	✓	-	✓	-	-			26-28 inch	646 - 716
DH-3D32		-	-	✓	✓	✓	-	-			16-28 inch	400 - 716
DH-3D37		-	-	✓	✓	✓	-	-				
DH-3N72		✓	-	-	-	✓	-	-			26-28 inch	646 - 716
DH-C3000-3N		✓	-	-	✓	✓	-	-			16-28 inch	400 - 716
DH-F703-S		✓	-	-	-	✓	-	-				
DH-C3000-2N	2.4W	✓	-	-	✓	✓	-	-		74	16-20 inch	400 - 536
DH-S501	3.0W	-	-	✓	-	✓	-	-		100	20-28 inch	400 - 716
DH-C6000-3R-NT	3.0W	-	(hyper / normal) ✓	-	✓	-	-	-				
DH-C6000-2R	2.4W	-	(hyper / normal) ✓	-	✓	-	-	-				
DH-C6000-1R	1.5W	-	(hyper / normal) ✓	-	-	✓	-	-		100	26-28 inch	646 - 716
DH-C3000-1N		✓	-	-	✓	-	-	-				
DH-T4000-1N	1.5W	✓	-	-	-	✓	-	-			18-28 inch	448 - 716
DH-T4050-1D	1.5W	-	-	✓	-	✓	-	-				

Specification for Japan Market C-270

Model No.	Output 6V- **W	BR Compatibility			Nut	QR	15mm E-THRU	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	✓	—	-	✓	-	-	-	J2-A	93 / 100	24-28 inch	-	
DH-C2100-NC		✓	-	-	✓	-	-	-			20-24 inch	-	
DH-C2100-N-QR		✓	-	-	-	✓	-	-			24-28 inch	-	
DH-C2100-N-QRC		✓	-	-	-	✓	-	-			20-24 inch	-	
DH-2N40-J	2.4W	✓	-	-	✓	-	-	-	J2		100	24-28 inch	-
DH-2N40-JC		✓	-	-	✓	-	-	-				20-24 inch	-
DH-2N40-JW		✓	-	-	✓	-	-	-		24-28 inch		-	
DH-2N40-JWC		✓	-	-	✓	-	-	-		20-24 inch		-	

Note for Sports Models

[DH-3N72](#) / [DH-3D72](#) / [DH-S501](#) / [DH-UR700-3D](#) / [DH-UR705-3D](#) / [DH-UR708-3D](#)

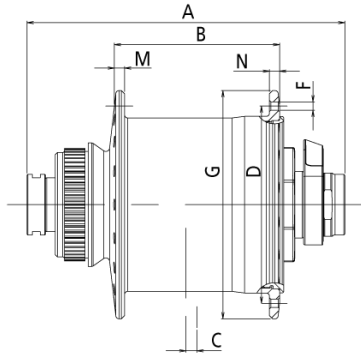
[Reference output voltage (@26-Inch, 30km/h): 35Vrms, 140 Vpp, (26-Inch, 70km/h): 80Vrms, 320Vpp]

- 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.

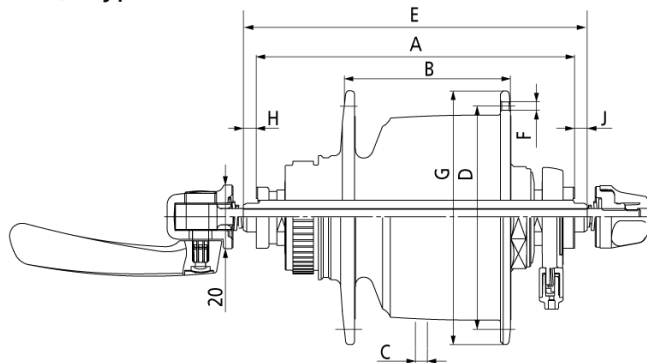
Others

- 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, adopt 3 or 4 cross lacing method instead. Or may risk damaging the spokes and wheels after prolonged braking.

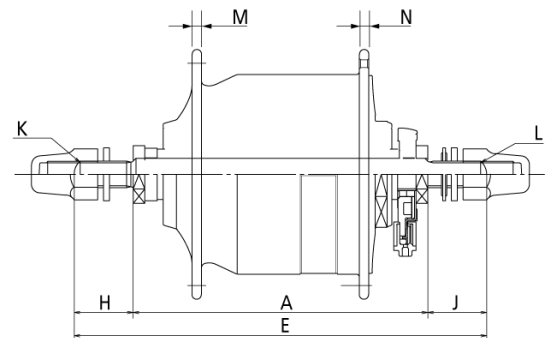
15 / 12 mm E-THRU type



QR type



Nut type

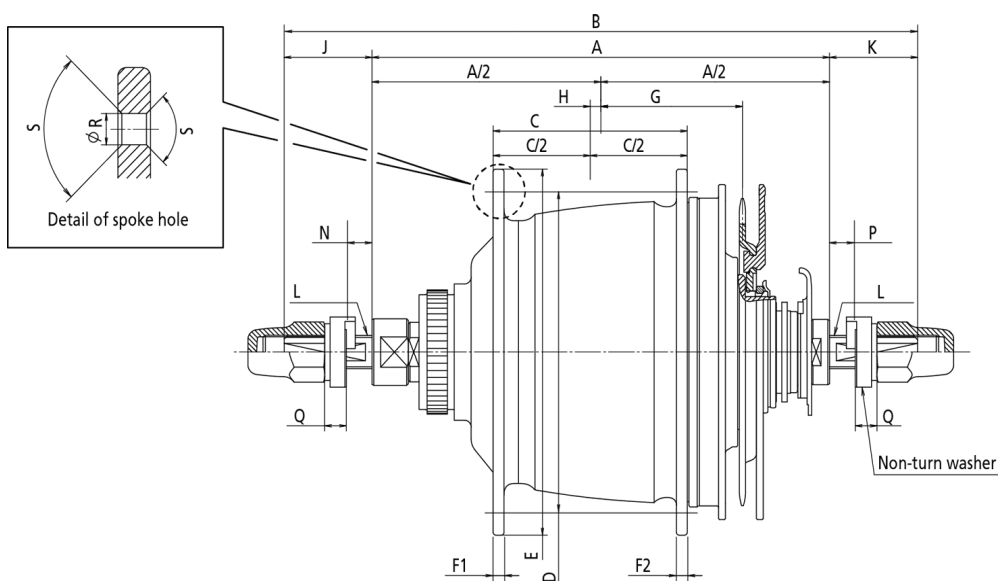


Model No.	Type	CENTER LOCK mount type	Voltage	Output (W)	15mm E-THRU type	12mm E-THRU type	QR type	Nut type	Spoke size
DH-UR708-3D	For disc brake	✓	6V	3.0	✓	-	-	-	#14
DH-UR705-3D				3.0	-	✓	-	-	
DH-UR700-3D				3.0	-	-	✓	-	
DH-5501				3.0	-	-	✓	-	
DH-3D72	3.0	-		-					
DH-3D37-QR	3.0	-		-	✓	-			
DH-3D32-QR	3.0	-		-					
DH-3D32-NT	3.0	-		-	-	✓			
DH-3N72	3.0	-		-	✓	-			
DH-C3000-3N-QR	3.0	-		-	✓	-			
DH-C3000-2N-QR	2.4	-		-	✓	-			
DH-C3000-3N-NT	3.0	-		-	-	✓			
DH-C3000-2N-NT	2.4	-		-	-	✓			
DH-F703-S	3.0	-		-	✓	-			
DH-C6000-1R	1.5	-		-	-	✓			
DH-C6000-2R	2.4	-		-					
DH-C6000-3R-NT	3.0	-		-	-	✓			
DH-C3000-1N	1.5	-		-	-	✓			
DH-T4000-1N	1.5	-		-	✓	-			
DH-T4050-1D	1.5	-		-	✓	-			
DH-C2100-N	0.9	-		-	-	✓	#13 / #14		
DH-C2100-NC	0.9	-		-	-	✓			
DH-C2100-N-QR	0.9	-		-	✓	-			
DH-C2100-N-QRC	0.9	-		✓	-	-			
DH-2N40-J	Regular	-		2.4	-	-	-	✓	#14
DH-2N40-JC									
DH-2N40-JW DH-2N40-JWC									

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-UR708-3D	100	52.0	3.3	62	N.A.	ø2.6	71.7	N.A.	ø21	3.2
DH-UR705-3D		52.0	3.5	62	N.A.		71.7	N.A.	ø19	
DH-UR700-3D		52.0	3.5	62	108		71.7	4	ø9	
DH-S501		52.1	3.8	70	108.0		79.6	4.0	ø9	
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-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-C3000-3N-QR			0.6	74		86.6			20.0	
DH-C3000-2N-QR			1.0				140.0			
DH-C3000-3N-NT										
DH-C3000-2N-NT										
DH-F703-S	74	44.6	0	74	82.0	ø2.6	84.4	4.0	ø9	
DH-C6000-1R	100	58.1	4.7	76	140.0	ø2.6 (Spoke #14) ø2.9 (Spoke #13)	88.6	20.0	M9x1	
DH-C6000-2R										
DH-C6000-3R-NT										
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-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 DH-2N40-JC	93	60.0	0	69	150.0		78.7	28.5	BC5 / 16	
DH-2N40-JW DH-2N40-JWC	100		3.0		140.0			20.0	M9x1	

ALFINE INTER-11, 8 / NEXUS INTER-8, 7, 5E

C-273

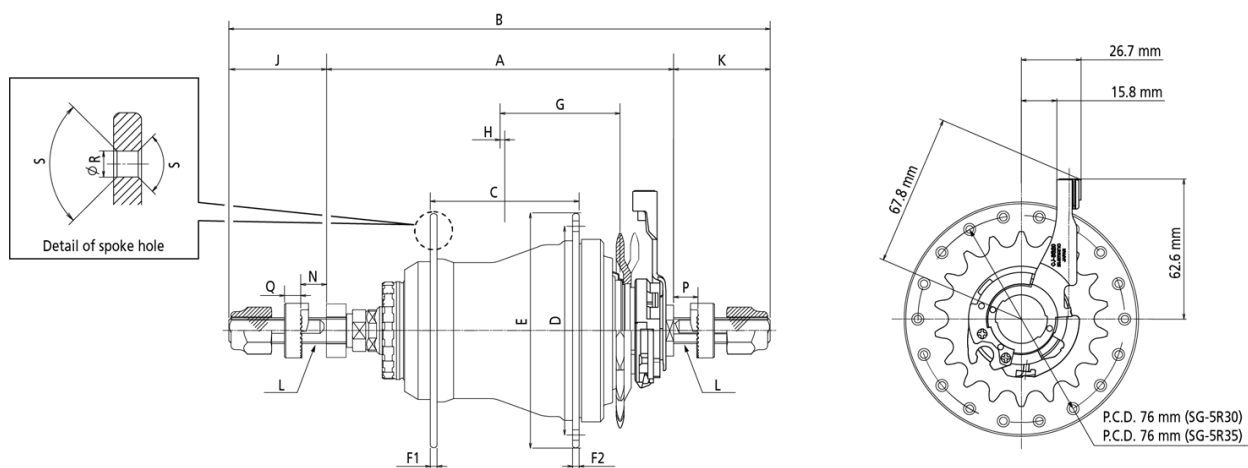


	Series	ALFINE		NEXUS	
	Function name	INTER-11	INTER-8	INTER-8	
	Model No.	SG-S7001-11	SG-S7001-8	SG-C6011-8R SG-C6001-8R SG-C6011-8V SG-C6001-8V	SG-C6001-8C
	Speed	11	8		
	Gear ratio: Total	409%	307%		
	Spoke size	#13 / #14			
A	Over locknut dim. / O.L.D. (mm)	135		132	
B	Axle length (mm)	187		184	
C	Flange distance (mm)	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	47.9
	Chain line (mm): G2 (inward assembly)	41.8		42.7	42.9
H	Offset (mm)	3.1		2.7	2.6
J	Axle length from hub (left)	26			25.7
K	Axle length from hub (right)	26			
L	Axle size	BC3 / 8 TPI 26			
N	Rear dropout mounting width (left, includes stay etc.)	5-9		4-9	
P	Rear dropout mounting width (right, includes stay etc.)	5-9		4-9	
Q	Non-turn washer width	6.4			
R	Spoke hole diameter (mm)	2.9			
S	Spoke hole chamfer	90°			

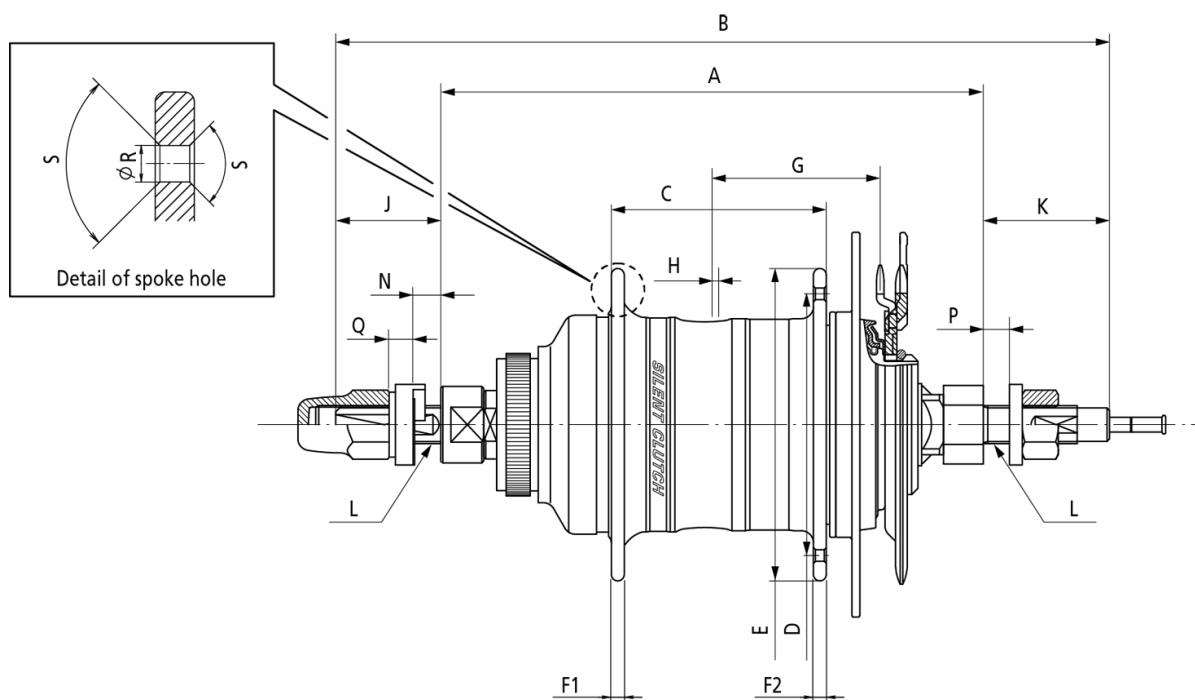
	Series	NEXUS					
	Function name	INTER-8		INTER-7			
	Model No.	SG-C6001-8D	SG-C6001-8CD	SG-C3001-7R	SG-C3001-7C	SG-C3001-7D	
	Speed	8		7			
	Gear ratio: Total	307%		244%			
	Spoke size	#13 / #14					
A	Over locknut dim. / O.L.D. (mm)	135		130		127	135
B	Axle length (mm)	187		182	201	176	187
C	Flange distance (mm)	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)	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		3.2		2.3	3.2
G	Chain line (mm): G1 (outward assembly)	46.8		45.3		46.5	46.8
	Chain line (mm): G2 (inward assembly)	41.8		40.3		41.5	41.8
H	Offset (mm)	3.1	4	3.85		4.6	2.5
J	Axle length from hub (left)	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	Rear dropout mounting width (left, includes stay etc.)	5-9	4-9	15-20		4-9	5-9
P	Rear dropout mounting width (right, includes stay etc.)	5-9	4-9	12-17		4-9	5-9
Q	Non-turn washer width	6.4					
R	Spoke hole diameter (mm)	2.9			2.7		2.9
S	Spoke hole chamfer	90°			105°		90°

2

	Series	NEXUS		
	Function name	INTER-5E		
	Model No.	SG-C7000-5R SG-C7000-5V SG-C7000-5C	SG-C7000-5D	SG-C7002-5CD
	Speed	5		
	Gear ratio: Total	263%		
	Spoke size	#13 / #14		
A	Over locknut dim. / O.L.D. (mm)	135		
B	Axle length (mm)	187		
C	Flange distance (mm)	58.3	57.3	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)	3.2		
G	Chain line (mm): G1 (outward assembly)	47.2	46.6	
	Chain line (mm): G2 (inward assembly)	42.2	41.6	
H	Offset (mm)	3.2 3.7(-5C spec.)	3.2	4
J	Axle length from hub (left)	26		26.6
K	Axle length from hub (right)	26		25.4
L	Axle size	BC3 / 8 TPI 26		
N	Rear dropout mounting width (left, includes stay etc.)	5-9		
P	Rear dropout mounting width (right, includes stay etc.)	5-9		
Q	Non-turn washer width	6.4		
R	Spoke hole diameter (mm)	2.9		
S	Spoke hole chamfer	90°		

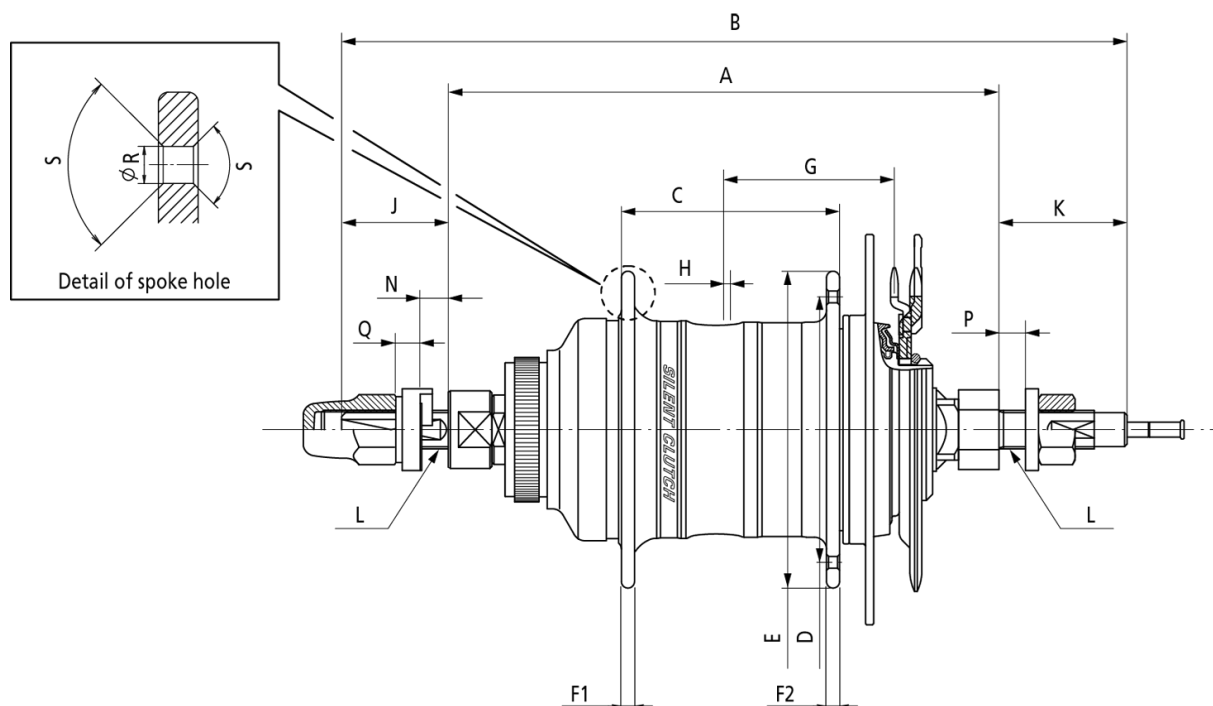


	Series	NEXUS	
	Model No.	SG-5R30	
	Speed	5	
	Gear ratio: Total	206%	
	Sales area	Japan	
	Brake type	Hub roller brake	
	Hub shell material	Steel	
	Spoke size	#13 / #14	
A	Over locknut dim. / O.L. D. (mm)	132	
B	Axle length (mm)	210	
	Push rod length (mm)	-	
C	Flange distance (mm)	54.6	
D	Spoke hole P.C.D. (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)	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	Rear dropout mounting width (left, includes stay etc.)	4 - 20	
P	Rear dropout mounting width (right, includes stay etc.)		
Q	Non-turn washer width	6.4	
R	Spoke hole diameter (mm)	Left: 2.85 Right: 2.8	
S	Spoke hole chamfer	90°	



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		120		127	135	122	
B	Axle length (mm)	170	189	177	183	168	178	175	193	174.0	
	Push rod length (mm)	81.85	90.75	86.85	90.75	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)	Inward assembly		38		41.2		39.7	42	-	
		Outward assembly		44.7		46.2		44.7	47	43.9	
H	Offset (mm)	0.8		2.5		1.2		2.7	1.7	3.6	
J	Axle length from hub (left)	22.5	32.7	22.5	24.5	21	26	21	26.2	26	
K	Axle length from hub (right)	27.4	36.3	27.5	31.4	27	32	26.6	31.4	26	
L	Axle size	BC3 / 8 TPI 26								BC3 / 8 TPI 26	
N	Rear dropout mounting width (left, includes stay etc.)	4.0 - 7.5	8.5 - 17.0	4.0 - 7.5	8.0 - 11.5	4.0 - 7.5	9.0 - 12.5	4.0 - 7.5	6.5 - 10.0	4.0 - 9.0	
P	Rear dropout 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

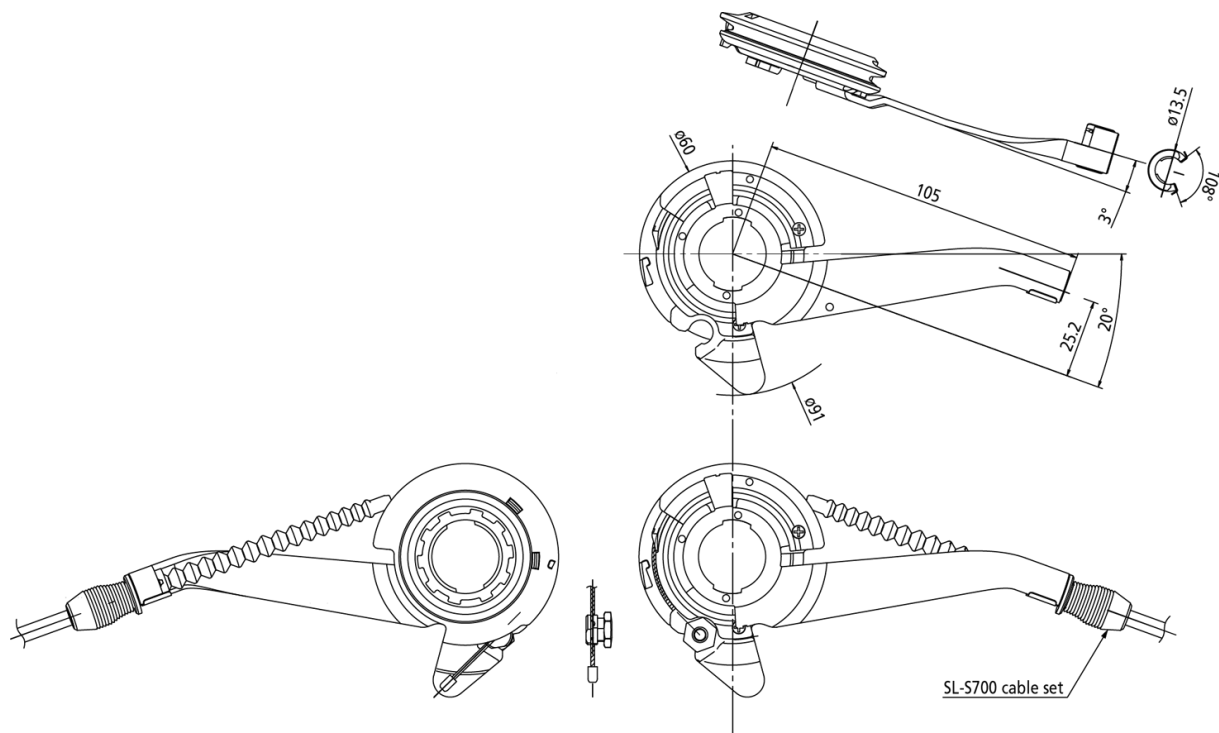


Series		NEXUS			
Model No.		SG-3R42		SG-3R40	
Speed		3		3	
Gear ratio: Total		186%		186%	
Sales area		Japan		Japan	
Brake type		Hub roller brake		Hub roller brake	
Hub shell material		Steel		Steel	
Spoke size		#13 / #14		#13 / #14	
A	Over locknut dim. / O.L.D. (mm)	120	120	120	120
B	Axle length (mm)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

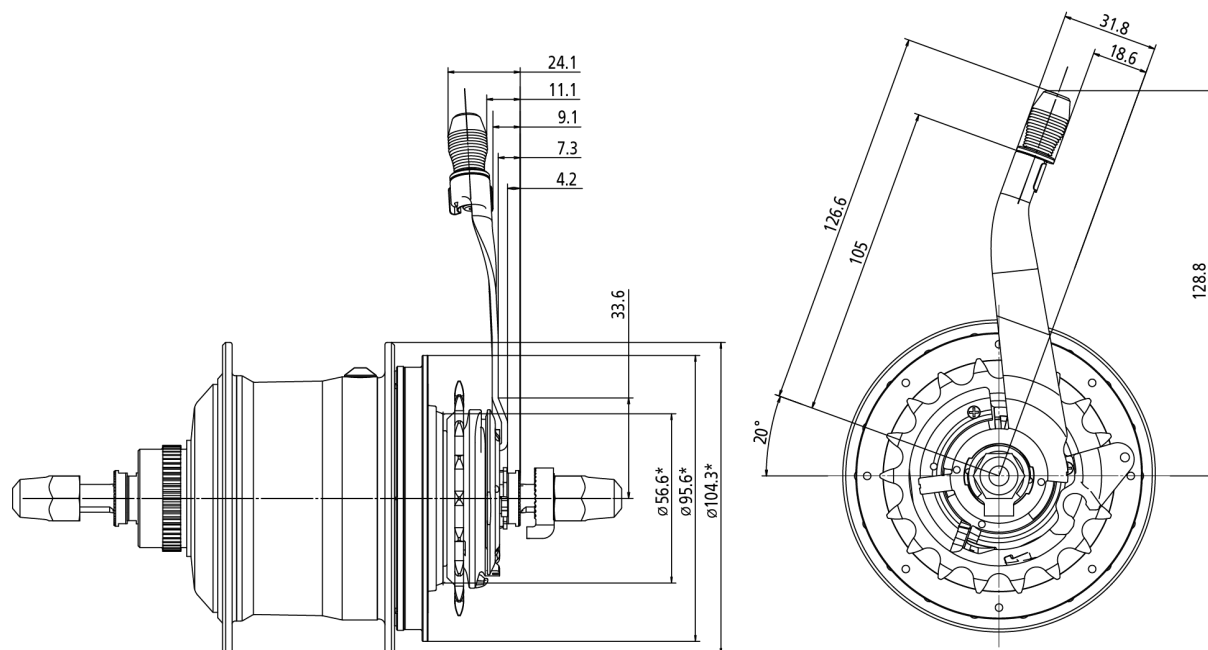
ALFINE INTER-11 C-277

CJ-S700

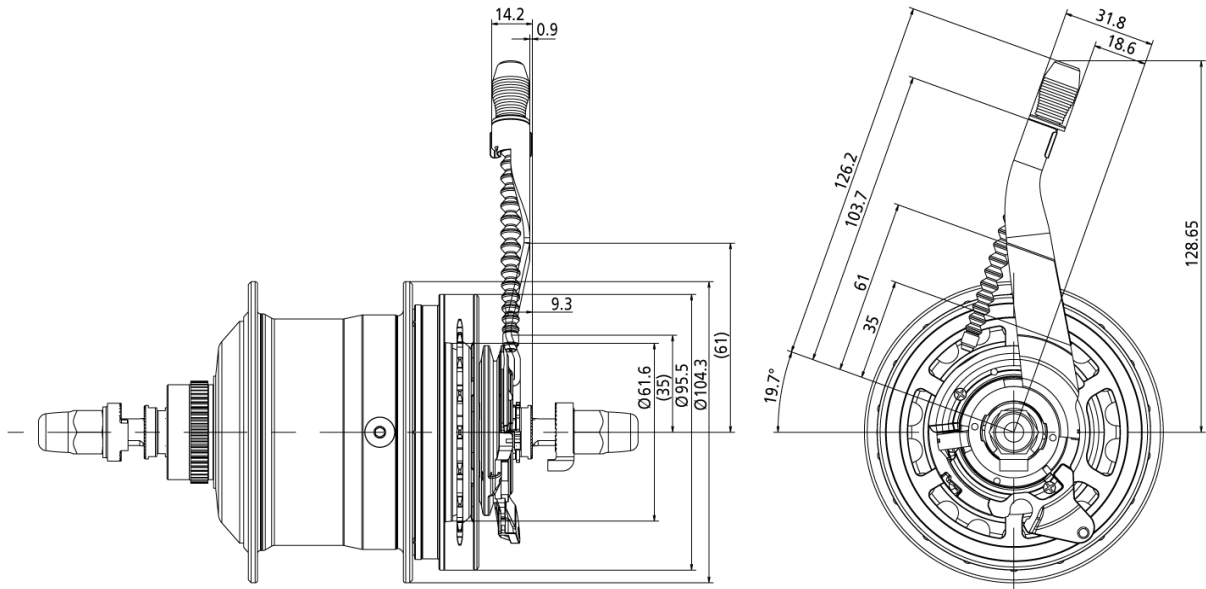
When designing the frame, make sure that there is no interference between the chain case and the hub.



CJ-S700 and SG-S7001-11

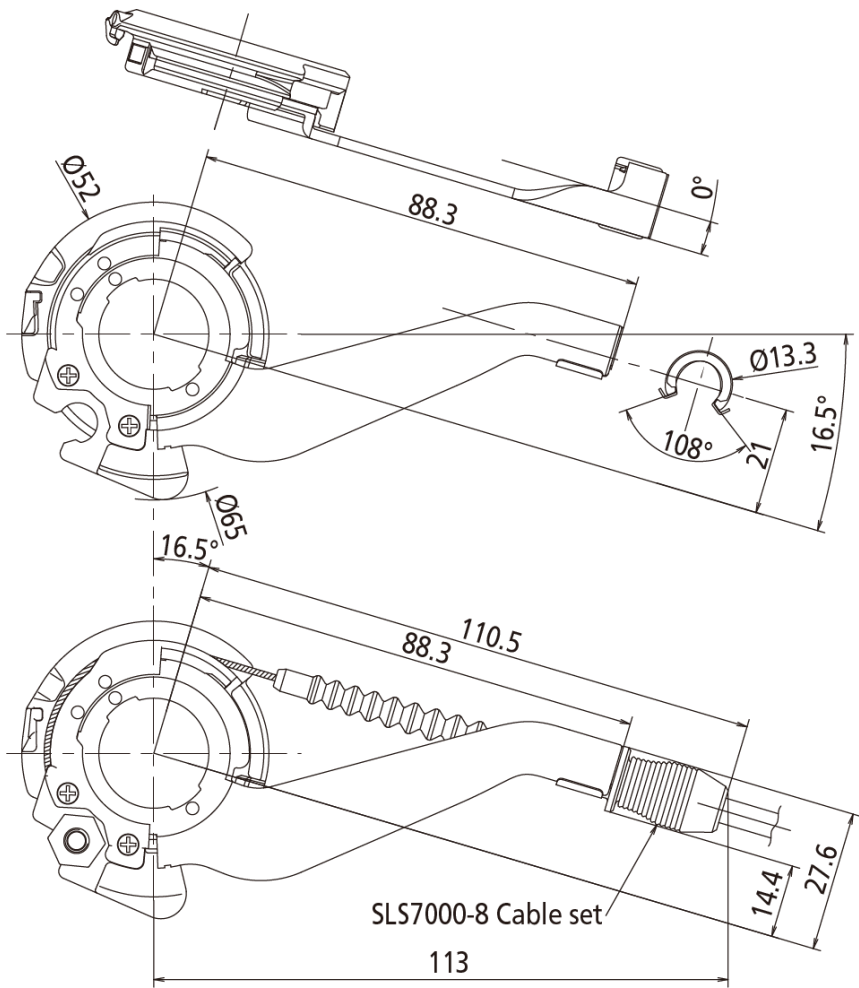


CJ-S700 (Dedicated spec for belt drive system) + SG-S7001-11

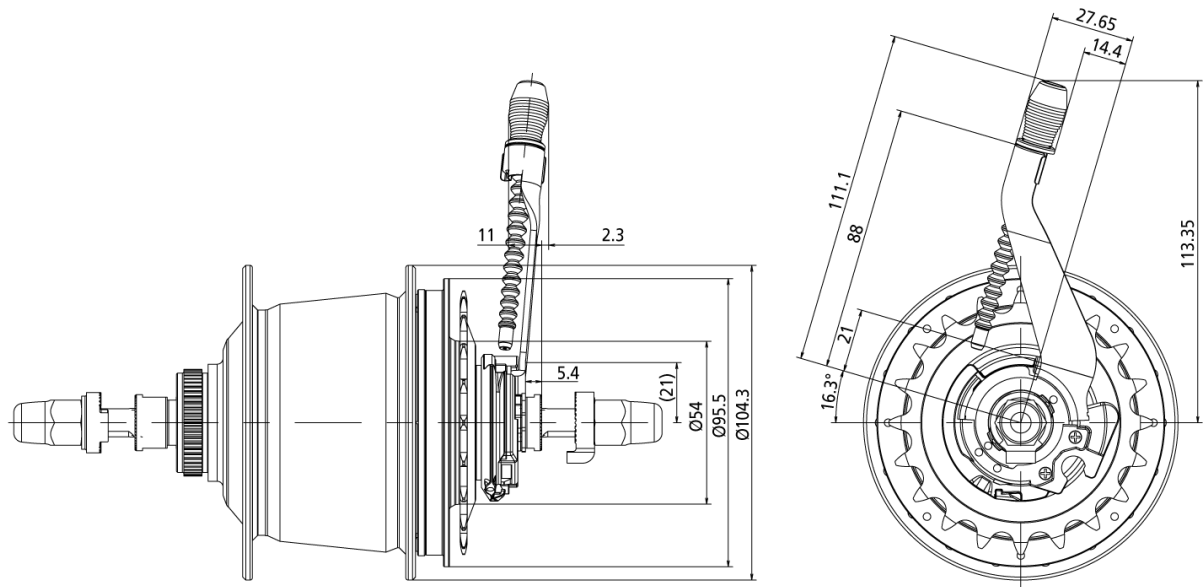


ALFINE INTER-8 C-278

CJ-S7000-8

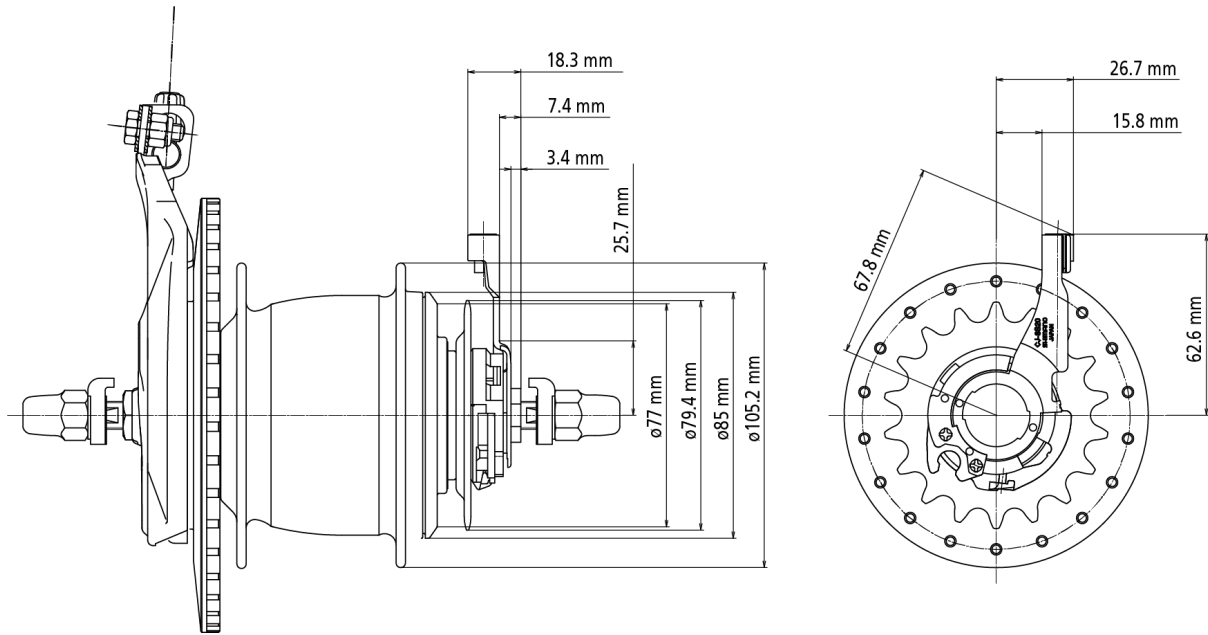


CJ-S7000-8 (Dedicated spec for belt drive system) + SG-S7001-8

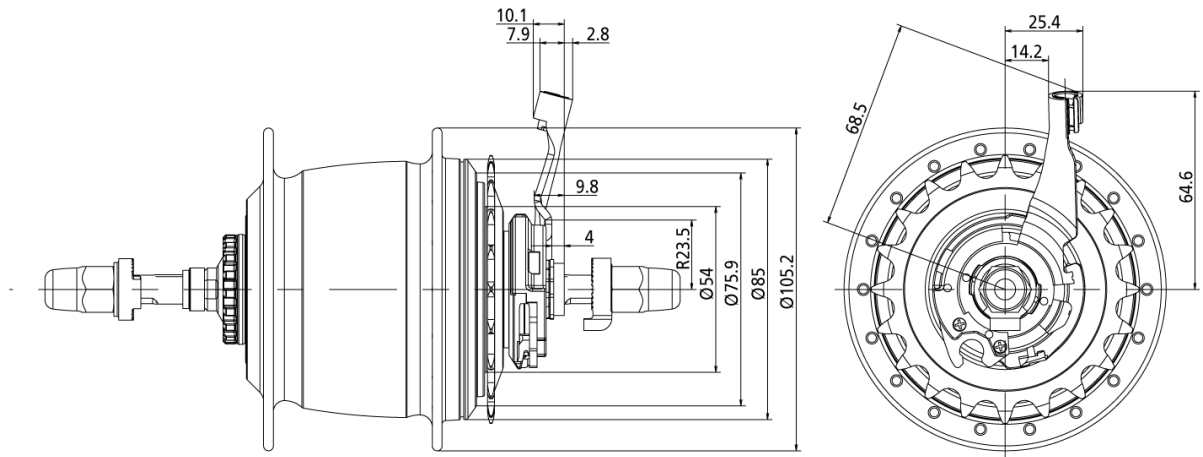


NEXUS INTER-8 C-279

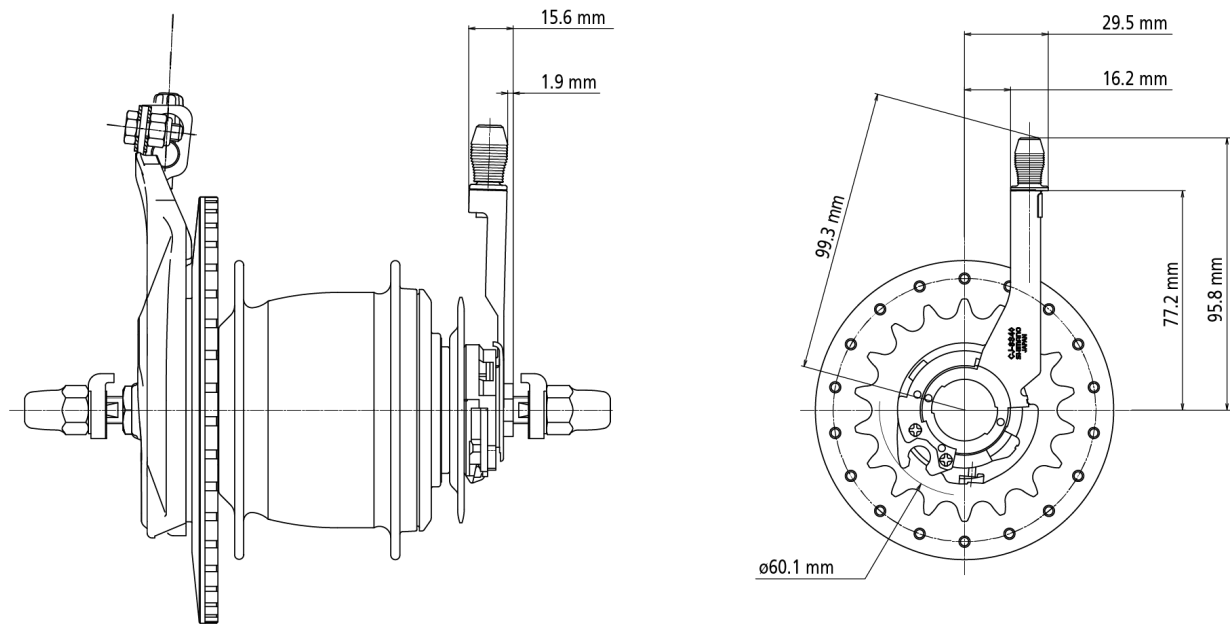
SG-C6001-8R / SG-C6011-8R and CJ-8S20



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

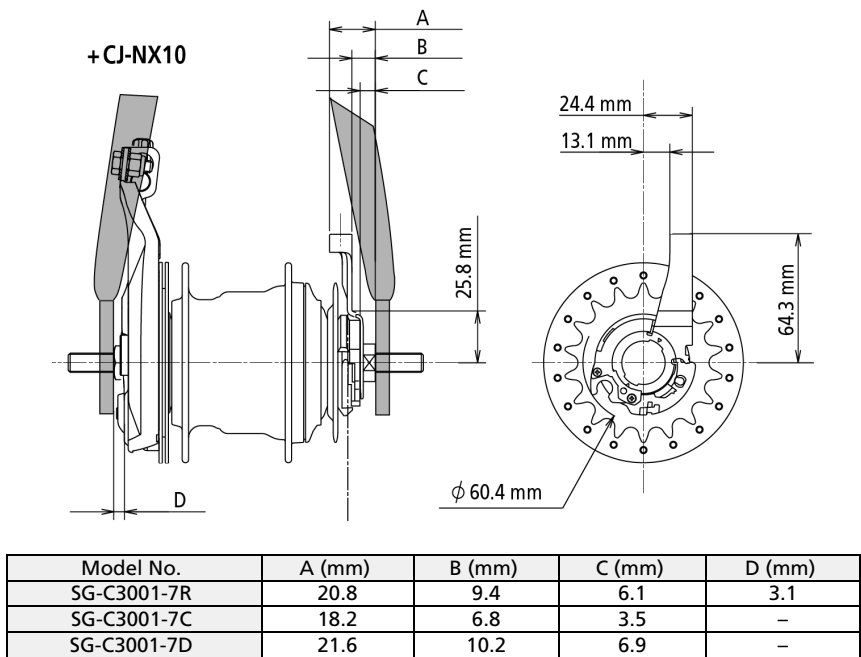


SG-C6001-8R / SG-C6011-8R and CJ-8S40

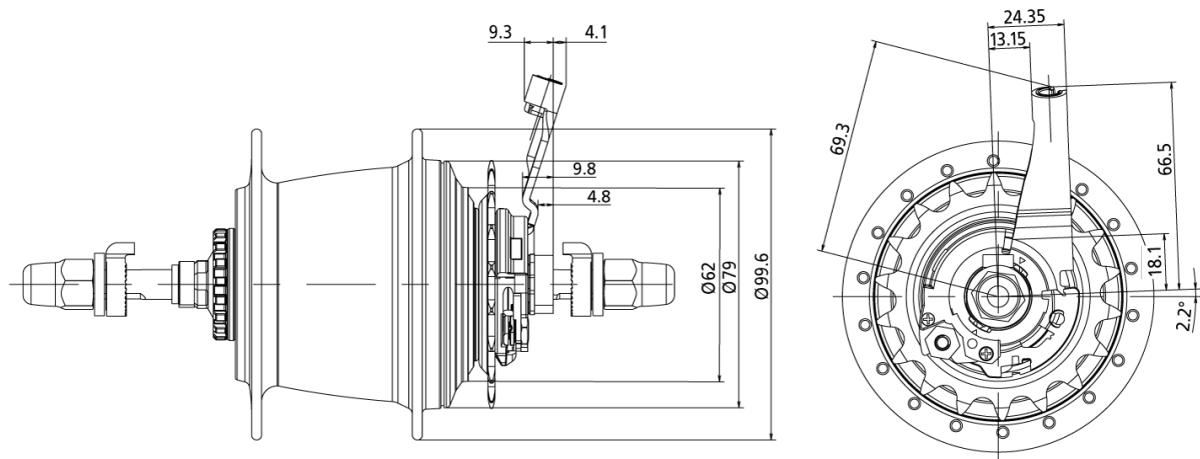


NEXUS INTER-7 C-280

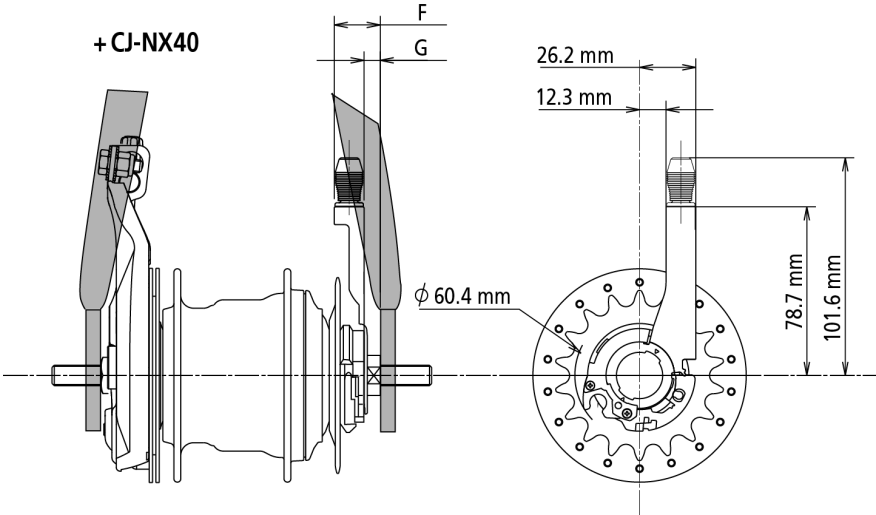
SG-C3001-7R, SG-C3001-7C, SG-C3001-7D



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



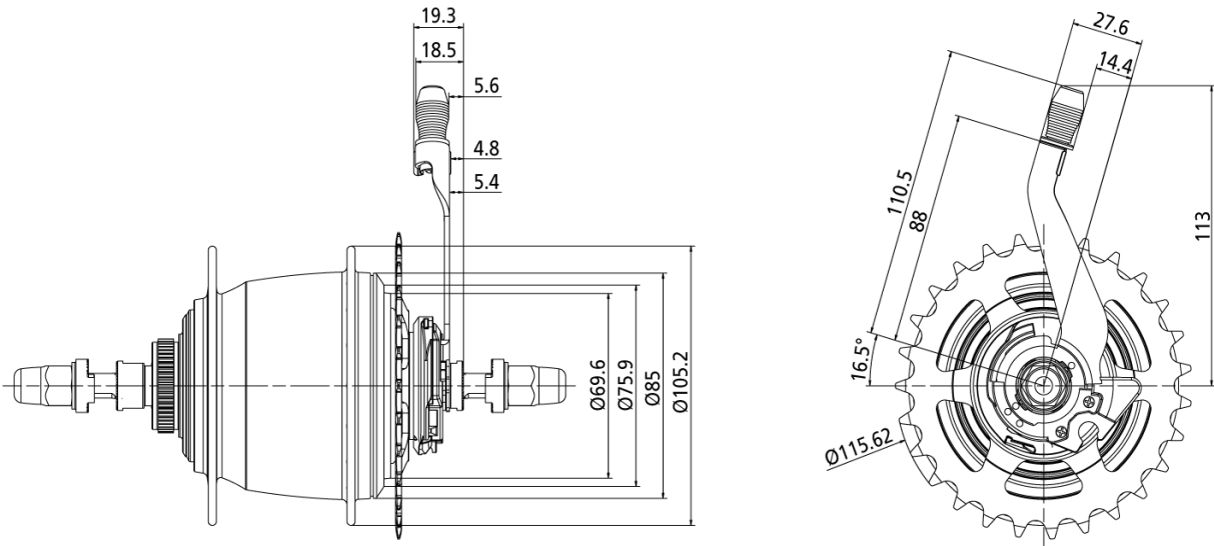
SG-C3001-7R, SG-C3001-7C, SG-C3001-7D



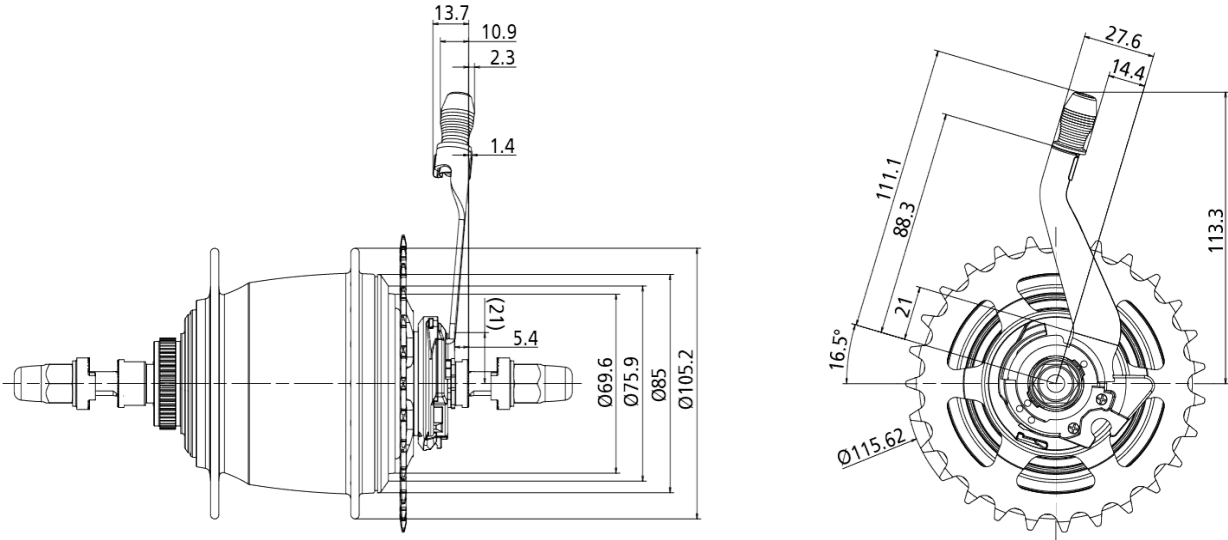
Model No.	F (mm)	G (mm)
SG-C3001-7R	19.1	5.0
SG-C3001-7C	16.5	2.4
SG-C3001-7D	19.9	5.8

NEXUS INTER-5E C-574

SG-C7000-5D and SM-C7000-5

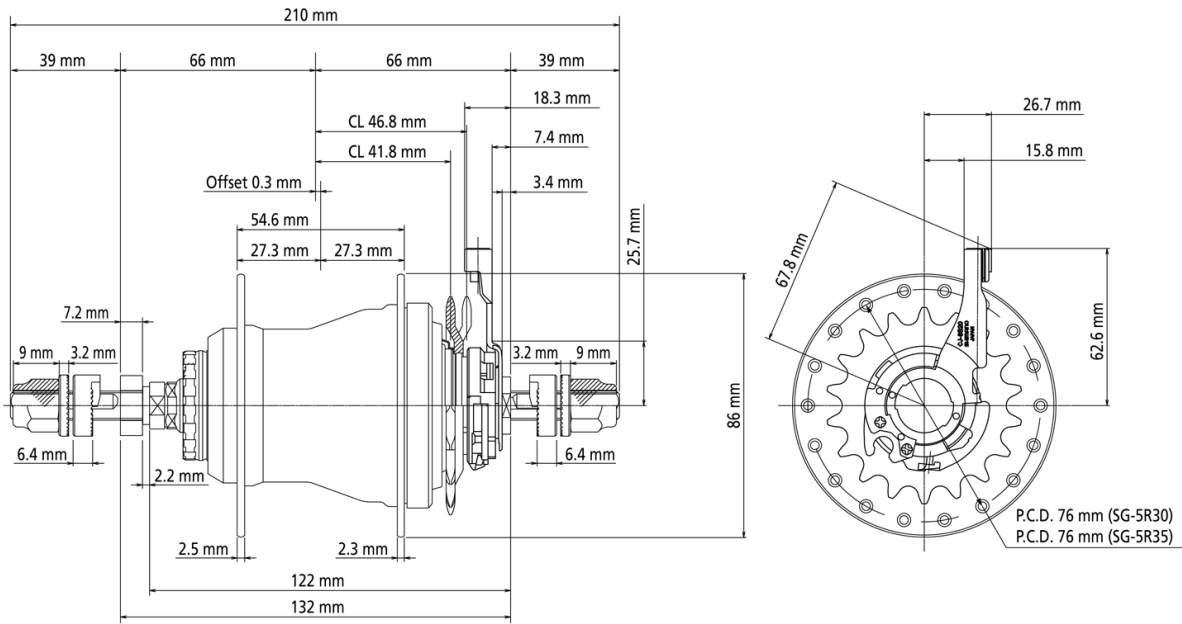


SG-C7000-5D and SM-C7000-5 (Dedicated spec for belt drive system)



NEXUS INTER-5 C-281

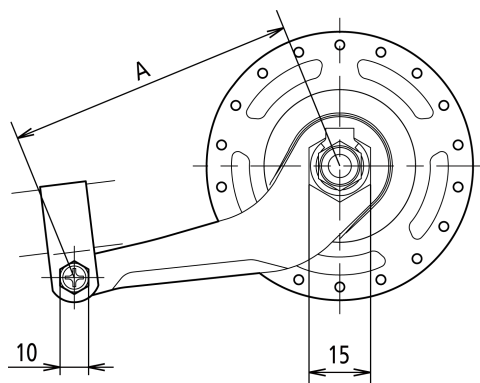
SG-5R30 and CJ-8S20
(Japan market only)



9 Coaster brake arm dimensions

C-632

9



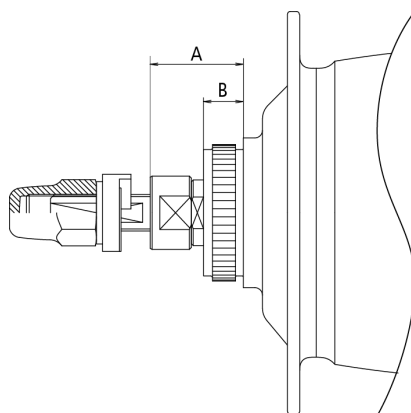
Model No.	A (mm)
SG-C6061-8C	100
SG-C6061-8CD	
SG-C6001-8C	
SG-C6001-8CD	
SG-C3001-7C	
SG-C3001-7C-DX	
SG-C7050-5C	
SG-C7000-5C	
SG-C7002-5CD	
SG-3C41	

Installation of disc brake rotor

C-282

Recommended genuine tool numbers

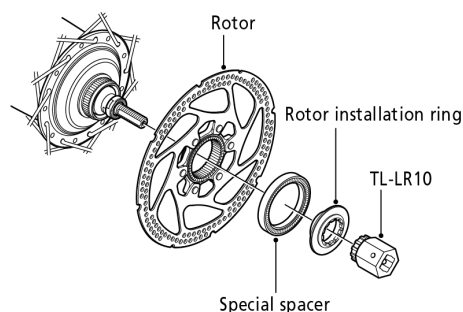
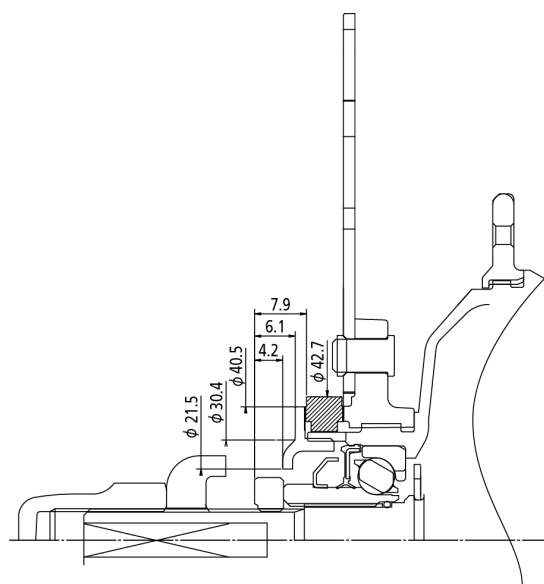
C-283



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 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 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.

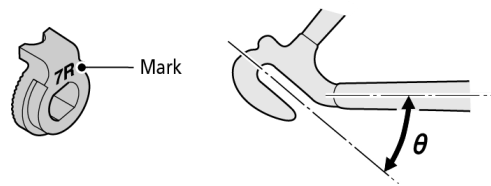
Recommended gear ratio

C-286

Series	Speed	Sprocket ratio	Front		Rear													
			Model No.	Gear	SM-GEAR								CS-S500		CS-C7000			
					14	16	18	19	20	21	22	23	18	20	24	27	30	
ALFINE	11	1.8 - 2.0	FC-S501	45T	-	-	-	-	-	-	-	✓	-	-	-	-	-	
				42T	-	-	-	-	-	✓	✓	✓	-	-	-	-	-	
				39T	-	-	-	-	✓	✓	-	-	-	✓	-	-	-	
	8	2.0 - 2.25	FC-S501	45T	-	-	-	-	✓	✓	✓	-	-	✓	-	-	-	
				42T	-	-	-	✓	✓	✓	-	-	-	✓	-	-	-	
				39T	-	-	✓	✓	-	-	-	✓	-	-	-	-	-	
NEXUS	8	2.0 - 2.2	FC-C6000	38T	-	-	✓	✓	-	-	-	-	-	-	-	-	-	
				33T	-	✓	-	-	-	-	-	-	-	-	-	-	-	
				38T	-	-	✓	✓	-	-	-	-	-	-	-	-	-	
	7	2.0 - 2.2	FC-C6000	33T	-	✓	-	-	-	-	-	-	-	-	-	-	-	
				38T	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	
				33T	-	✓	-	-	-	-	-	-	-	-	-	-	-	
	5E	1.3 - 1.5	SM-CRE61	38T	-	-	-	-	-	-	-	-	-	-	✓	✓	✓	
				33T	-	-	-	-	-	-	-	-	-	-	-	-	-	
	5	1.9 - 2.1	FC-C6000	38T	-	-	✓	✓	✓	-	-	-	-	-	-	-	-	-
				33T	-	✓	-	-	-	-	-	-	-	-	-	-	-	
38T				-	-	✓	✓	-	-	-	-	-	-	-	-	-	-	
3	2.0 - 2.65	FC-C6000	33T	✓	✓	-	-	-	-	-	-	-	-	-	-	-	-	

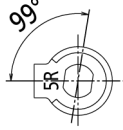
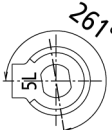
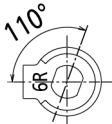
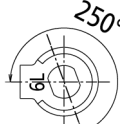
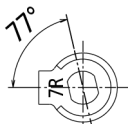
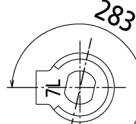
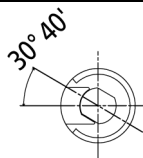
Non-turn washer (for ALFINE INTER-11, 8 / NEXUS INTER-8, 7, 5)

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



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

Shape and color **C-288**

	For right hand side	For leht hand side
5R 5L	 5R: Yellow	 5L: Brown
6R 6L	 6R: Silver	 6L: White
7R 7L	 7R: Black	 7L: Gray
8R 8L	 8R: Dark blue	 8L: Dark green

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

	Reversed type rear dropout	Standard type rear dropout	
5R 5L			
6R 6L			
7R 7L			

	Vertical type rear dropout	
8R 8L		

	Reversed type rear dropout	Standard type rear dropout	
5R 5L			
6R 6L			
7R 7L			

	Vertical type rear dropout	
8R 8L		
8R / 8L (R&L hand swapped assembly)		

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

	Reversed type rear dropout	Standard type rear dropout	
5R 5L			
6R 6L			
7R 7L			

	Vertical type rear dropout	
8R 8L		

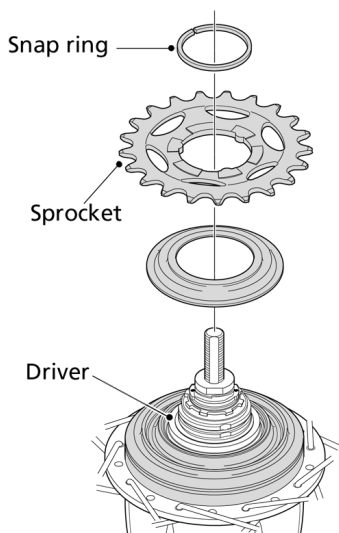
Push-rod length for NEXUS INTER-3

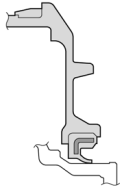
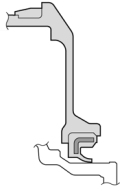
C-290

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	
	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

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 C 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 C-292



A specifications: Right hand dust cap A 	A specifications: Right hand dust cap C 
B specifications: Right hand dust cap A 	B specifications: Right hand dust cap B 

Series	Speeds	Model No.	SM-GEAR															
			Inward assembly								Outward assembly							
			14	16	18	19	20	21	22	23	14	16	18	19	20	21	22	23
ALFINE	11	SG-S7001-11	–	–	–	–	✓	✓	✓	✓	–	–	✓	✓	✓	✓	✓	✓
	8	SG-S7001-8	–	–	✓	✓	✓	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	✓
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	–	–	✓	✓	✓	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	✓
		SG-3R40	–	–	✓	✓	✓	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	✓
	3 (JPN)	SG-3C41	–	–	✓	✓	✓	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	✓
		SG-3R42 SG-3R40	–	–	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	3 (ALL)	SG-3R75-B	–	–	–	✓	✓	✓	✓	✓	–	✓	✓	✓	✓	✓	✓	✓

Series	Speeds	Model No.	CS-S500				CS-C7000					
			Inward assembly		Outward assembly		Inward assembly			Outward assembly		
			18	20	18	20	24	27	30	24	27	30
ALFINE	11	SG-S7001-11	✓	✓	–	–	–	–	–	–	–	–
	8	SG-S7001-8	✓	✓	–	–	–	–	–	–	–	–
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 SG-C7000-5C	–	–	–	–	✓	✓	✓	✓	✓	✓
	5 (JPN)	SG-5R30	–	–	–	–	–	–	–	–	–	–
	3 (ALL)	SG-3D55	✓	✓	–	–	–	–	–	–	–	–
		SG-3R40	–	–	–	–	–	–	–	–	–	–
	3 (JPN)	SG-3C41	–	–	–	–	–	–	–	–	–	–
		SG-3R42 SG-3R40	–	–	–	–	–	–	–	–	–	–
	3 (ALL)	SG-3R75-B	–	–	–	–	–	–	–	–	–	–



Series		ALFINE		NEXUS	
Model No.		SG-S7001-11 SG-S7051-11	SG-S7001-8 SG-S7051-8	SG-C6011-8R SG-C6011-8V SG-C6061-8R SG-C6061-8V SG-C6061-8C SG-C6061-8D SG-C6061-8CD	SG-C6001-8R SG-C6001-8V SG-C6001-8C SG-C6001-8D SG-C6001-8CD
Maximum torque for shifting (Nm) (*see NOTE 1 and 2)	Up Shift (Low ⇒ Top)	5	5	5	5
	Down Shift (Top ⇒ Low)	10	12	12	12
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
	With the above mentioned Maximum 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
	Maximum continuous input at crank (Watt) (*see NOTE 2)	500	500	500	440
Maximum input allowed at 30 Nm to the crank arm by rider plus motor torque		60	60	60	60



Series		NEXUS		
Model No.		SG-C3001-7R SG-C3001-7C SG-C3001-7D	SG-3R75-B	SG-C7000-5D SG-C7000-5R SG-C7000-5V SG-C7050-5D SG-C7050-5R SG-C7050-5V
Maximum torque for shifting (Nm) (*see NOTE 1 and 2)	Up Shift (Low ⇒ Top)	5	40	80
	Down Shift (Top ⇒ Low)	8	7	40
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	90
	With the above mentioned Maximum 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	500
Maximum input allowed at 30 Nm to the crank arm by rider plus motor torque		60	60	90

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

NOTE 1

Input torque at the sprocket assembled on the hub.

NOTE 2

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

NOTE 3

How to calculate :

Maximum input = (Input torque by rider : 30 Nm + Maximum torque of mid-drive motor) / Internal gearing ratio of mid-drive motor / Gear ratio of bicycle

In case of SHIMANO [DU-EP800](#) + SG-C7000 series, with 1.4 (gear ratio of bicycle) :

Maximum torque = $(30+85)/1/1.4 = 82.1 < 90$

To make maximum input below 90 Nm, please adjust Maximum torque of midship 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 intentionally to prevent any damage of the hub gear.

SHIMANO Internal Geared Hubs and E-BIKES with midship motor systems

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

Warranty

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

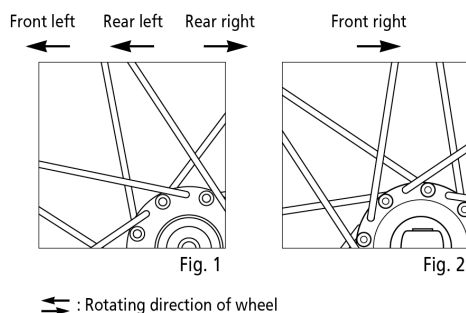
Spoke lacing for hub brake

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-T610	
HB-T3000	
HB-MX70	28H, 32H, 36H
HB-RS400	

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

C-297

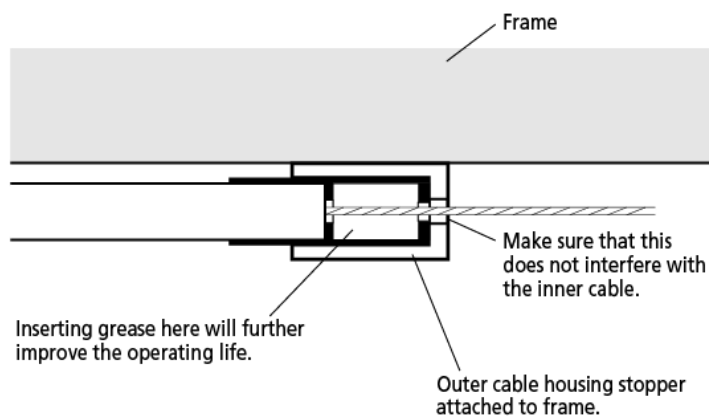
WH CS compatibility chart including the Model No.

		Speed	Cassette Sprocket					
			CS-R9100 CS-R8000 CS-R7000	CS-HG800-11 CS-HG700-11	CS-6700 CS-5700	CS-M771-10 CS-HG500-10	CS-HG50-9 CS-HG400-9	CS-HG50-8
			11-speed		10-speed		9-speed	8-speed
WH / FH	WH-R9100-C60	11	✓	(w / 1.85 mm spacer)	(w / 1.85 mm spacer and 1 mm spacer)	✓ (w / 1.85 mm spacer)	-	-
	WH-R9100-C40							
	WH-R9100-C24							
	WH-R9170 Series							
	WH-RS700-C30					* Not compatible with 11-34T 10 speed		
	WH-RS770-C30							
	WH-RS370							
	WH-RS330							
	WH-RS300							
	WH-RS100							
	WH-RS171							
	WH-RX010							
	FH-9000					✓ (w / 1.85 mm spacer)		
	WH-RS500							
	FH-6800							
	FH-R7000							
	FH-R7070							
	FH-RS400							
	WH-R501 Series	10	-	-	✓ (w / 1 mm spacer)	✓	✓	✓
	WH-RX010							
	HB-RS300	9	-	-	✓ (w / 1 mm spacer)	✓	✓	✓
	FH-RS300		-	-	✓ (w / 1 mm spacer)	✓	✓	✓

Brake cable system

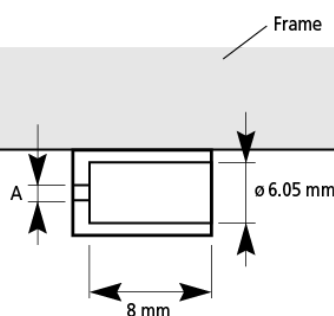
C-304

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 (Outer cap with tongue type)	$\phi 2.5 \leq A \leq \phi 2.7$
Others (Outer cap)	$\phi 2.1 \leq A \leq \phi 2.6$

Shifting cable system

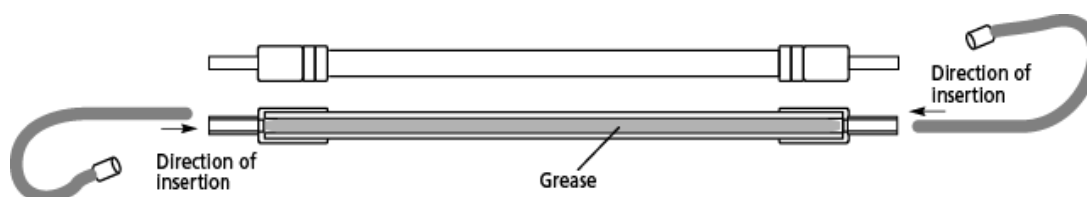
C-307

Cable system assembly (inner cable direction)

C-308

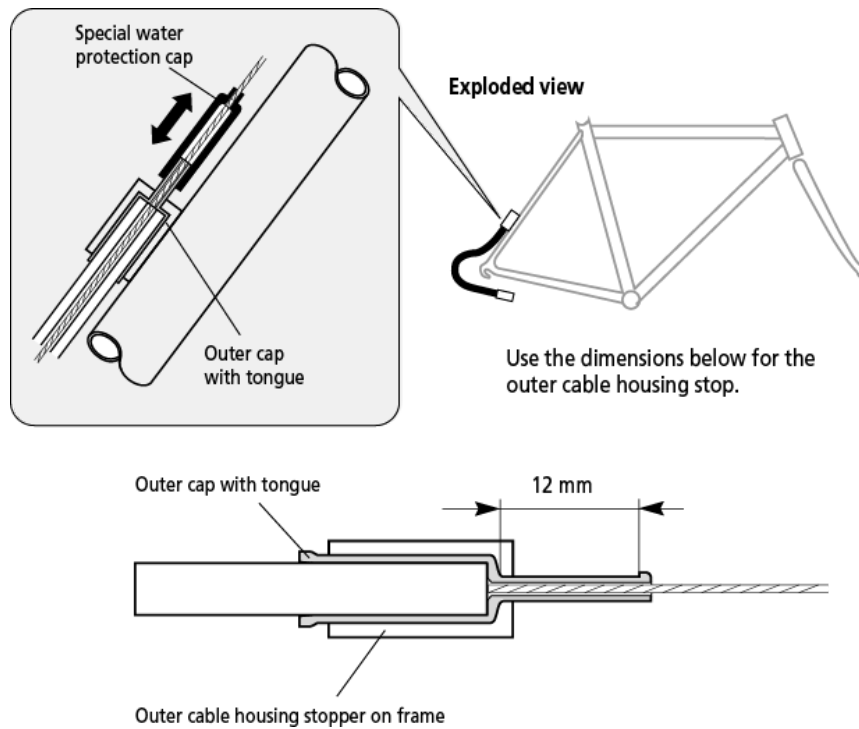
SIS-SP41, OT-RS900

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.



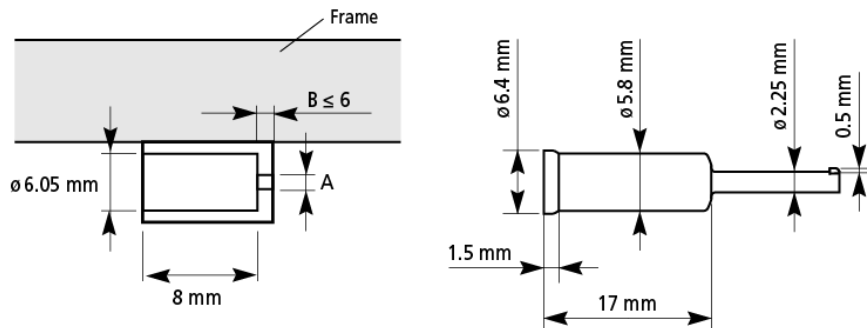
Cable system assembly for top route C-309

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 $\varnothing 6.05$ mm hole.

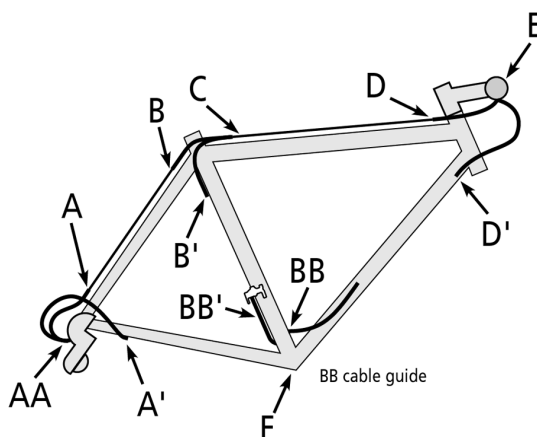
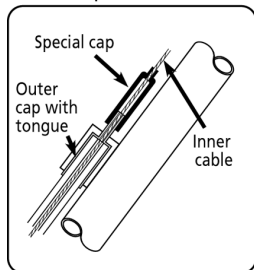


NOTE

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

Sealed Special



2

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 (M9100 series)	OT-SP41	Polymer-coated inner cable	Sealed*	Sealed Special			Sealed*	Sealed Special			Sealed	SM-SP17 (Durable)										
	SAINT (M820 series)		Stainless		Sealed Special				-	Sealed													
	DEORE XT (M8100 series)		OPTISLICK																				
	SLX (M7100 series)																						
	DEORE (M6100 series)																						
	DEORE (M6000 / T6000 series)																						
	DEORE (M5100 series)																						
	DEORE (M5120 series)																						
	DEORE (M4120 series)																						
	ALIVIO (M4000 / T4000 series)		Stainless						SM-SP18														
	ALIVIO (M3100 series)		OPTISLICK (Steel)																				
	ACERA (M3000 series)		Steel																				
	ALTUS (M2000 series)		OPTISLICK (Steel)																				
	ALTUS		Steel	Normal	Normal	Normal	-	Normal		Normal	Normal												
	others																						
	TOURNEY TX	OT-SIS40																					
	TOURNEY																						
	TOURNEY TZ																						

ROAD, Gravel/Adventure ST

Category	Series	Outer casing	Outer casing for rear derailleur	Inner cable Material	Cable cap										BB cable guide			
					AA	A	A'	B	B'	BB'	C	D	D'	E		F		
ROAD	DURA-ACE (R9100 series)	OT-SP41	OT-RS900	Polymer-coated	AL Sealed	Outer cap with long tongue *1		Normal	Outer cap with long tongue *1		Sealed (internal cable rooting frame)		Outer cap with short tongue *2	SM-SP17 (Durable)				
	ULTEGRA (R8000 series)																	
	DURA-ACE (9000 series)	OT-SP41				OPTISLICK	Sealed	Sealed**		Normal					Sealed (internal cable rooting frame)		Normal	Normal
	ULTEGRA (R6800 series, ST-RS685)																	
	105 (R7000 series)	OT-SP41	OT-RS900	OPTISLICK	Sealed	Sealed**		Normal	Normal		Normal							
	105 (5800 series)	OT-SP41		OPTISLICK	Sealed								Sealed**		Normal		Normal	
	105 (5700 series)			SIL-TEC	Sealed	Normal												
	TIAGRA (4700 series, ST-RS405)			OPTISLICK														
	TIAGRA (4600 series)			Stainless														
	SORA (R3000 series)			OPTISLICK														
	CLARIS (R2000 series)			OPTISLICK (Steel)														
	SORA (R3500 series)			Stainless														
	CLARIS (R2400 series)			OT-SIS40				Steel	Normal	Normal		Normal						
	TOURNEY (A070 / A050)																	
Gravel/Adventure	RX810 series	OT-SP41	OT-RS900	Polymer-coated	AL Sealed	Outer cap with long tongue *1		Normal	Outer cap with long tongue *1		Sealed (internal cable rooting frame)		Outer cap with short tongue *2	SM-SP17 (Durable)				
	RX600 series			OPTISLICK	Sealed	Sealed**			Sealed (internal cable rooting frame)									
	RX400 series																	

ROAD SL

Category	Series	Outer casing	Outer casing for rear derailleur	Inner cable Material	Cable cap										BB cable guide
					AA	A	A'	B	B'	BB'	C	D	D'	E	F
ROAD	SL-RS700	OT-SP41		SIL-TEC	Sealed	Sealed**	Normal	-	Normal	Normal	Normal	SM-SP17 (Durable)			
	TIAGRA (4700 series)		Stainless												
	TIAGRA (4600 series)		Stainless												
	SORA (R3000 series)		OPTISLICK												
	CLARIS (R2000 series)		OPTISLICK (Steel)												
	SORA (R3500 series)		Stainless												
	CLARIS (R2400 series)														
	TOURNEY (A070/073/ 050)	OT-SIS40	Steel	Normal	Normal	Normal	Normal	Normal	Normal	SM-SP18					

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.

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.

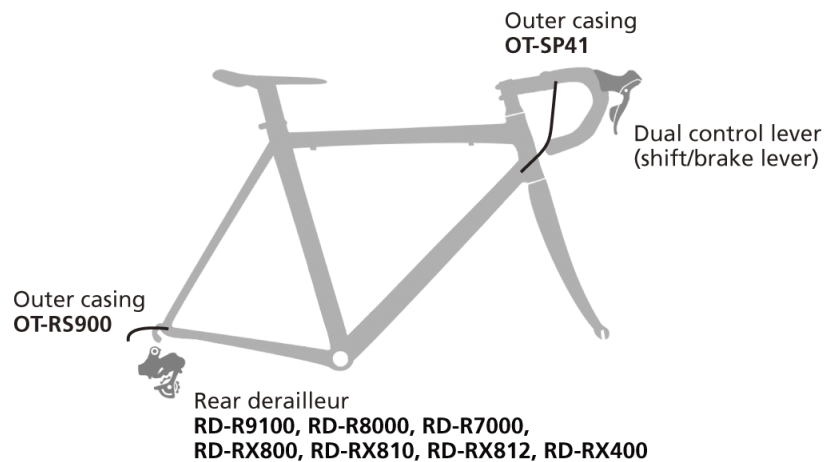
In addition, check to be sure that the outer casing does not touch moving parts such as the tires and crank arms during riding.

- 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

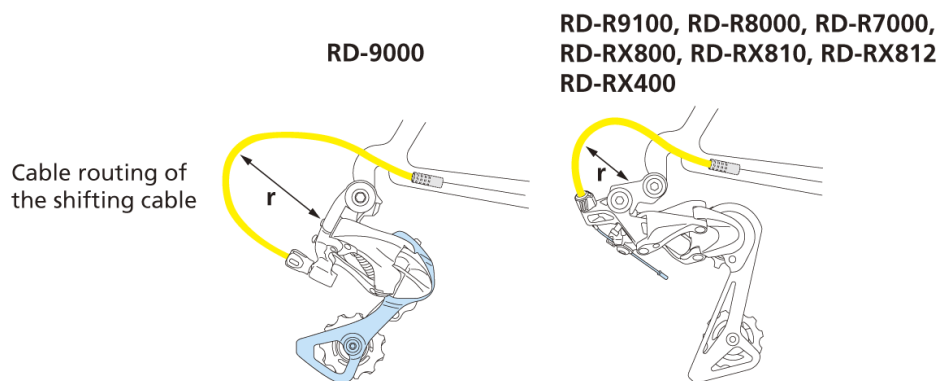
RD-R9100, RD-R8000, RD-R7000, RD-RX800, RD-RX810, RD-RX812, RD-RX400 must be assembled on the bicycle with a special outer casing, OT-RS900.



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 adjustment 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.

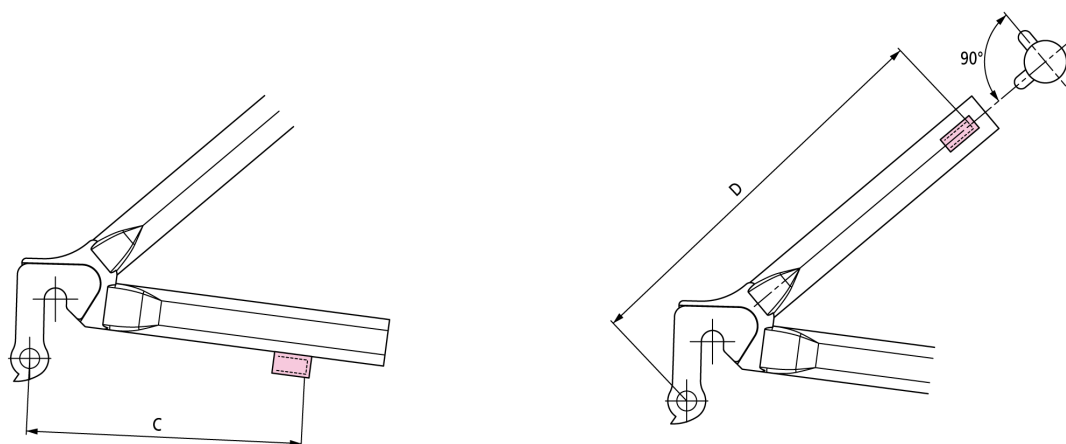
** OT-RS900 should be used only on the rear derailleur side. It should not be used on the shift/brake lever side.



Outer casing length

C-313

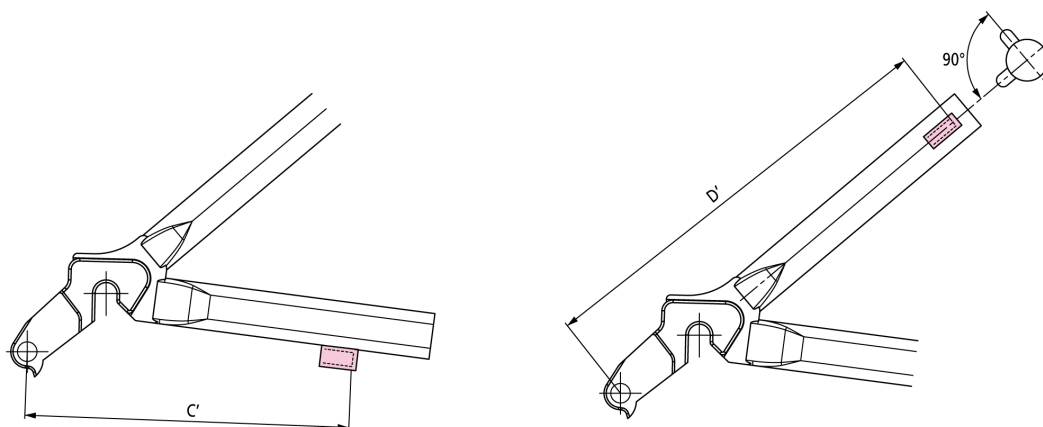
Rear dropout (with derailleur hanger) C-314



	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-M8100	OT-SP41					
	RD-M8120	OT-SP41					
	RD-M7100	OT-SP41					
	RD-M7120	OT-SP41					
	RD-M6100	OT-SP41					
	RD-M5100	OT-SP41					
	RD-M5120	OT-SP41	200	210	220		
	RD-M4120	OT-SP41	180	190	200		
	RD-M3100	OT-SP41					
	RD-M820 (FR mode, DH mode)	OT-SP41	200	210	220		
	RD-M8000	OT-SP41					
	RD-T8000	OT-SP41					
	RD-M7000-10	OT-SP41					
	RD-M6000	OT-SP41					
	RD-T6000	OT-SP41	290	310	330		
	RD-M2000	OT-SP41	180	190	200		
	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-R7000-SS	OT-RS900						
RD-R7000-GS	OT-RS900						
RD-RX800-GS	OT-RS900						
RD-RX810	OT-RS900						
RD-RX812	OT-RS900						
RD-RX400	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-M820 (FR mode)	OT-SP41	210	220	240
	RD-M8000	OT-SP41			
	RD-T8000	OT-SP41			
	RD-M7000-10	OT-SP41			
	RD-M6000	OT-SP41			
	RD-T6000	OT-SP41	290	310	330
	RD-M820 (DH mode)	OT-SP41	220	230	250
	RD-M2000	OT-SP41	200	210	230
	RD-TY500	OT-SP41	190	200	210
	RD-TX55	OT-SP41			
	RD-TY200	OT-SP41	280	300	320
	RD-TY21-B	OT-SP41			
	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-R7000-SS	OT-RS900			
	RD-R7000-GS	OT-RS900			
	RD-RX800-GS	OT-RS900			
	RD-RX810	OT-RS900			
	RD-RX812	OT-RS900			
	RD-RX400	OT-RS900			

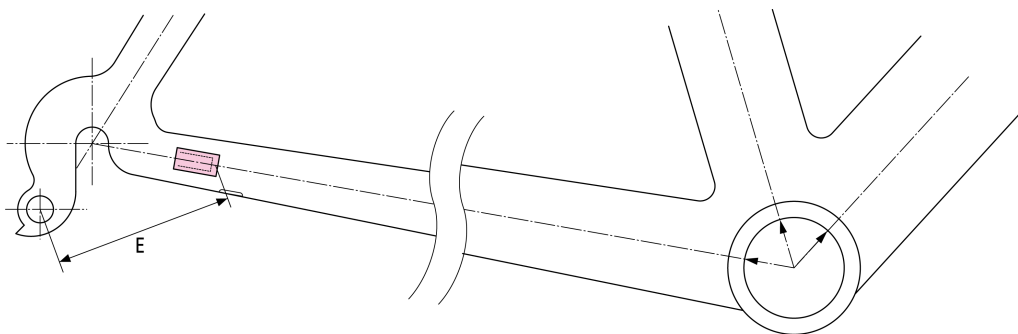
Direct mount rear dropout C-315



	Model No.	Recommended outer casing model	Dimension C'				
			125 mm	135 mm	145 mm	155 mm	165 mm
Outer Casing Length (mm)	RD-M820 (FR mode, DH mode)	OT-SP41	200	210	220	-	-
	RD-M8000	OT-SP41					
	RD-M7000-10	OT-SP41					
	RD-M6000	OT-SP41					
	RD-R9100	OT-RS900	200	220	240		
	RD-R8000-SS	OT-RS900					
	RD-R8000-GS	OT-RS900					
	RD-R7000-SS	OT-RS900					
	RD-R7000-GS	OT-RS900					
	RD-RX800-GS	OT-RS900					
	RD-RX810	OT-RS900					
	RD-RX812	OT-RS900					
	RD-RX400	OT-SP41					

	Model No.	Recommended outer casing model	Dimension D'				
			162 mm	172 mm	177 mm	182 mm	192 mm
Outer Casing Length (mm)	RD-M820 (FR mode)	OT-SP41	210	-	220	-	240
	RD-M8000	OT-SP41					
	RD-M7000-10	OT-SP41					
	RD-M6000	OT-SP41					
	RD-M820 (DH mode)	OT-SP41	220		230		250
	RD-R9100	OT-RS900	200	220	240		
	RD-R8000-SS	OT-RS900					
	RD-R8000-GS	OT-RS900					
	RD-R7000-SS	OT-RS900					
	RD-R7000-GS	OT-RS900					
	RD-RX800-GS	OT-RS900					
	RD-RX810	OT-RS900					
	RD-RX812	OT-RS900					
	RD-RX400	OT-RS900					

Built-in wire routing (For Road, Gravel/Adventure 11-speed) C-316



	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-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 RD-6800	OT-SP41	220	240	260	300	340	390	440
	RD-RX800-GS	OT-RS900	110	130	150	170	200	220	240
	RD-RX810	OT-RS900	110	130	150	170	200	220	240
	RD-RX812	OT-RS900	110	130	150	170	200	220	240

Rear dropout (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-TY200						
	RD-TZ500	180	190	200	175	190	205
	RD-TY500						
	RD-TX55						
	RD-FT35-A	140	160	180	140	160	180

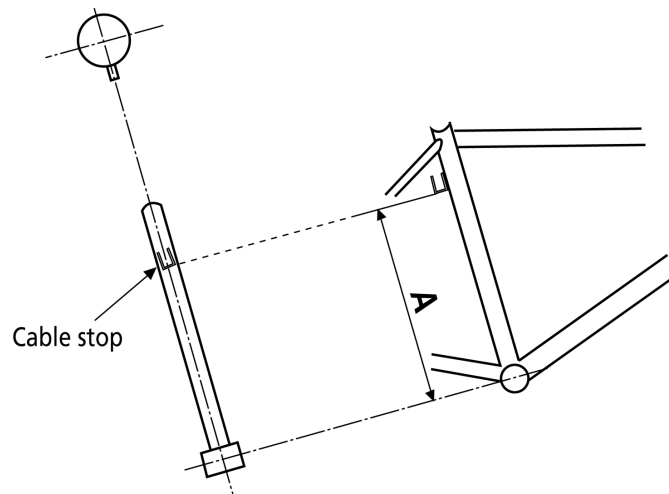
Cable stop position for top routed cable

C-318

The following dimensions are important for maintaining optimum performance.

A=300-350mm

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

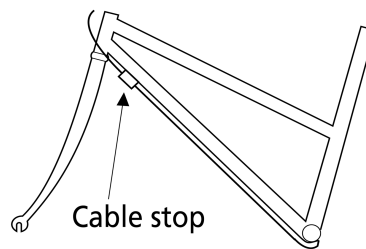


Cable routing on down tube

C-319

Shifting performance is dependant on cable routing and the type of cable guide used.

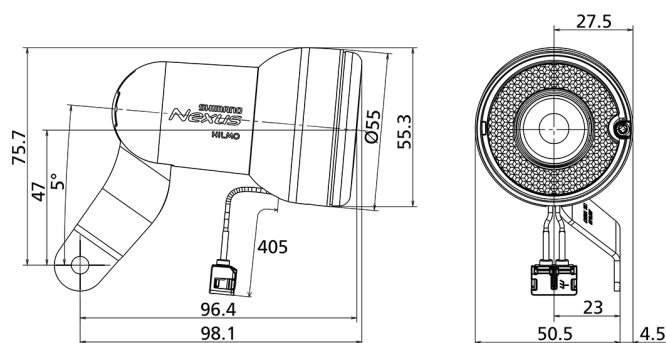
Please check the cable action and efficiency before finalizing specifications.



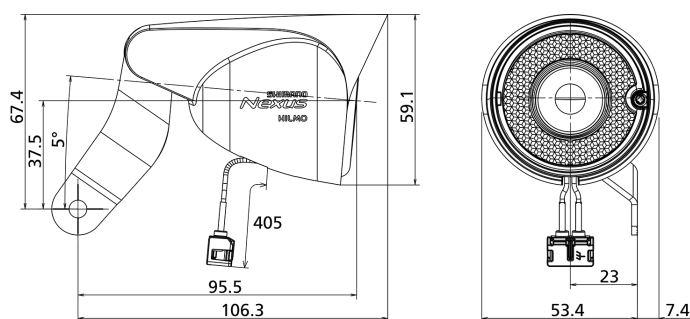
Front light Specification for Japan Market

C-329

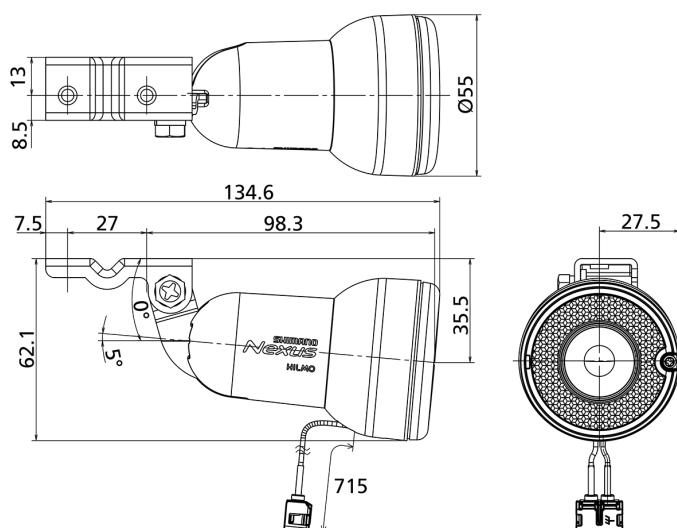
LP-C2200-S



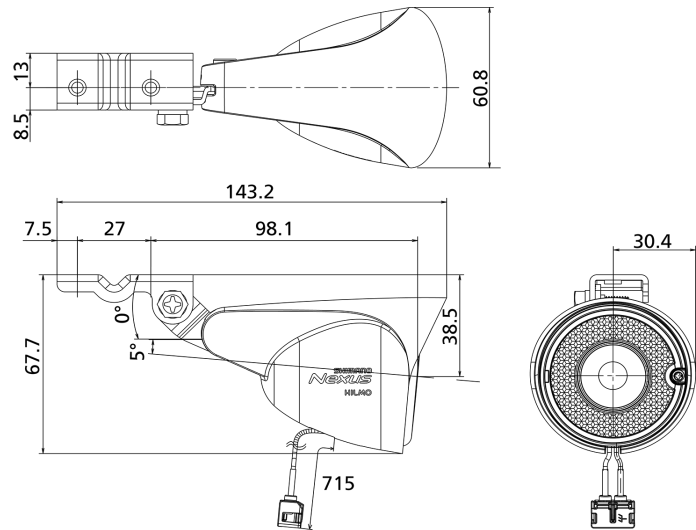
LP-C2201-S



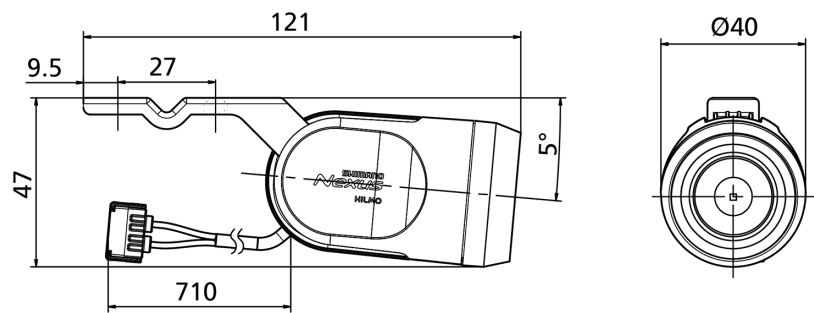
LP-C2200-B



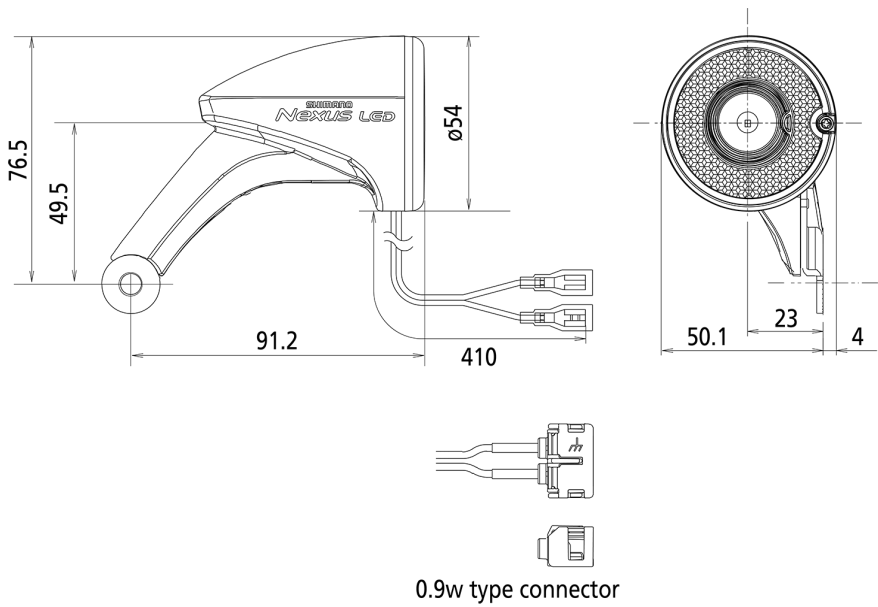
LP-C2201-B



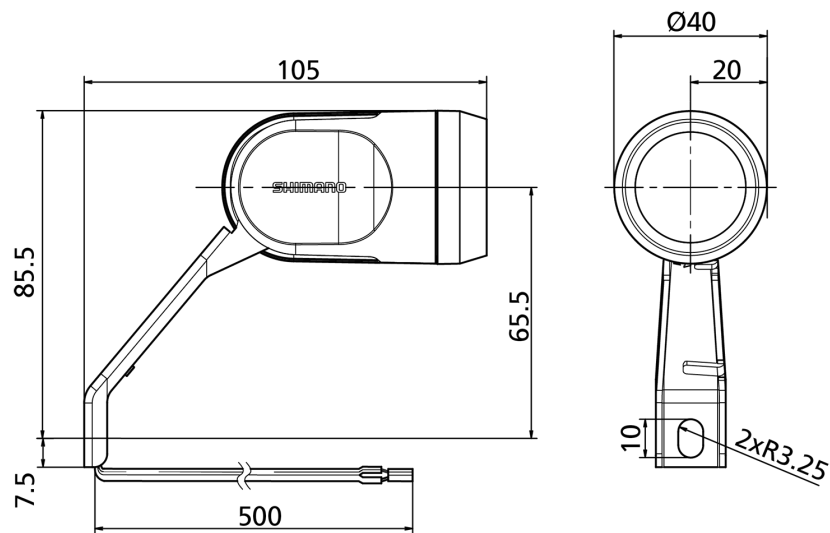
LP-C2207-B



LP-X101H

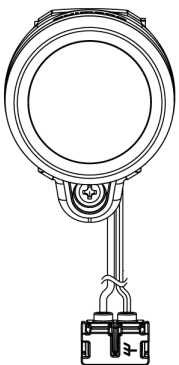
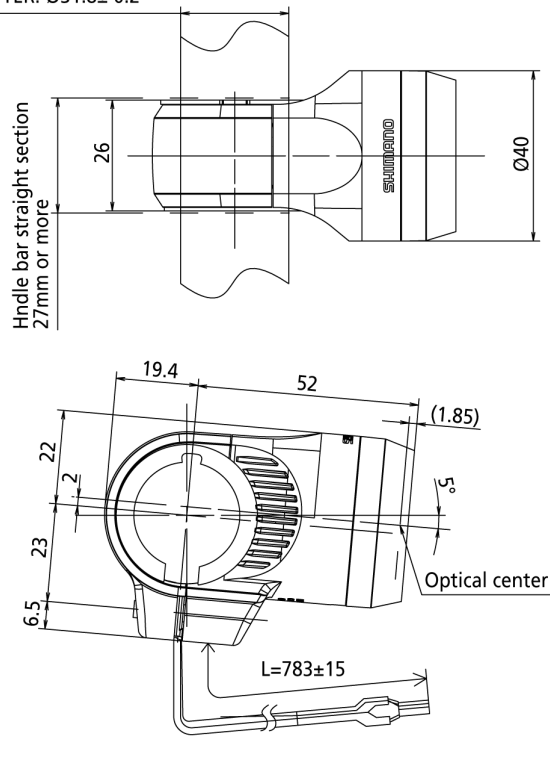


LP-C2207-C



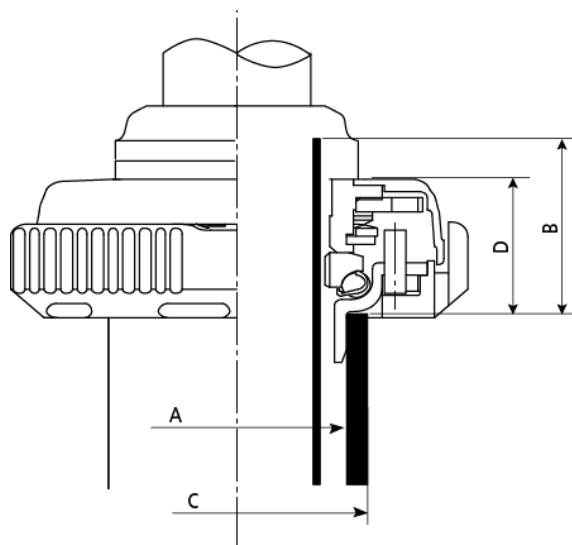
LP-C2250-H

Spec of ADAPTER : Recommended Handle bar
 $\varnothing 22.2$ ADAPTER: $\varnothing 22.2 \pm 0.2$
 $\varnothing 25.4$ ADAPTER: $\varnothing 25.4 \pm 0.2$
 $\varnothing 31.8$ ADAPTER: $\varnothing 31.8 \pm 0.2$



Headset dimensions

C-333

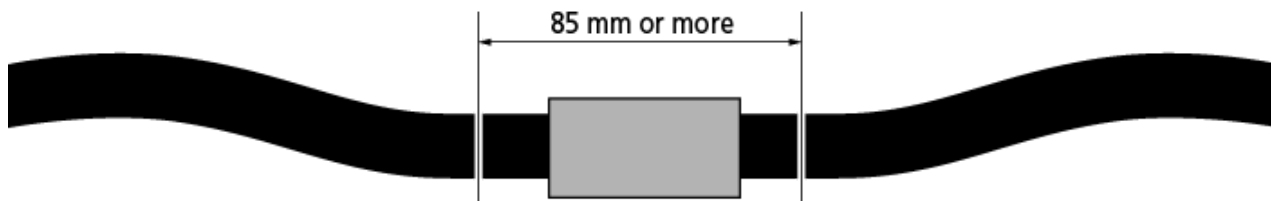


Model No.	HP-NX10
A (mm)	ø29.85 - 30.0 or ø30.01 - 30.2
B (mm)	30.5 - 31.5
Front fork stem thread size	BC 1 inch X 24T.P.I
C (mm)	ø38 (max.)
D (mm)	21.7
Head tube material	Steel

Required straight section of handlebar

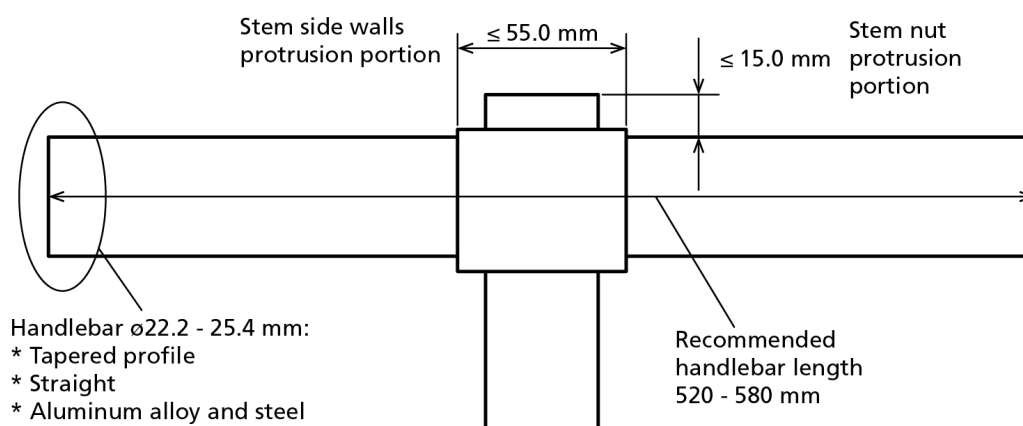
C-335

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



Recommended handlebar and stem dimension

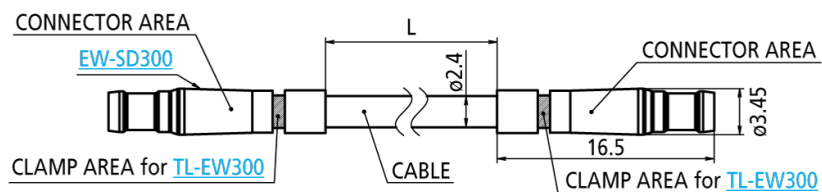
C-336



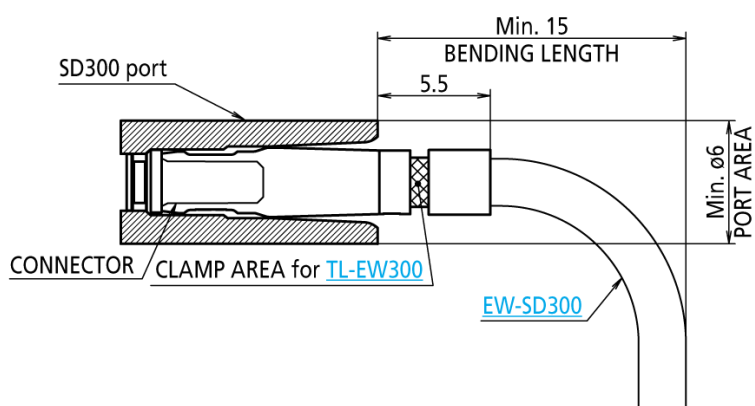
8 Electric wire (EW-SD300)

C-630

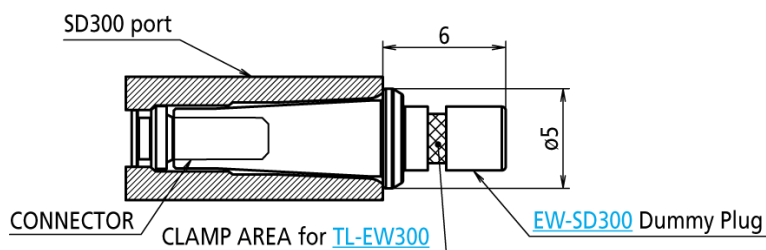
EW-SD300 dimension



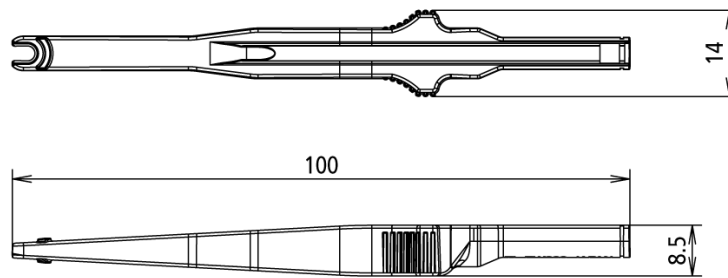
Drawing after engaged to SD300 port



Dimension of DUMMY PLUG for EW-SD300

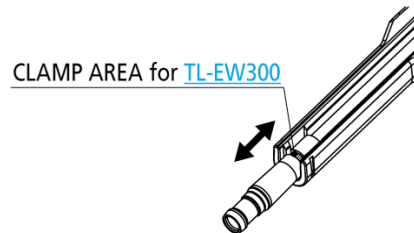


Dimension



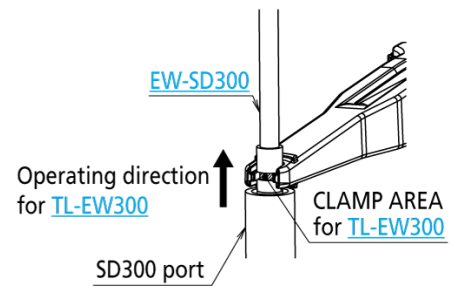
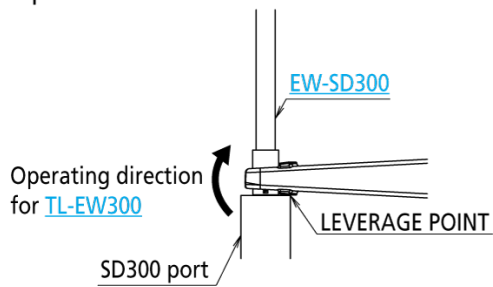
Operating information

Cylindrical shape side



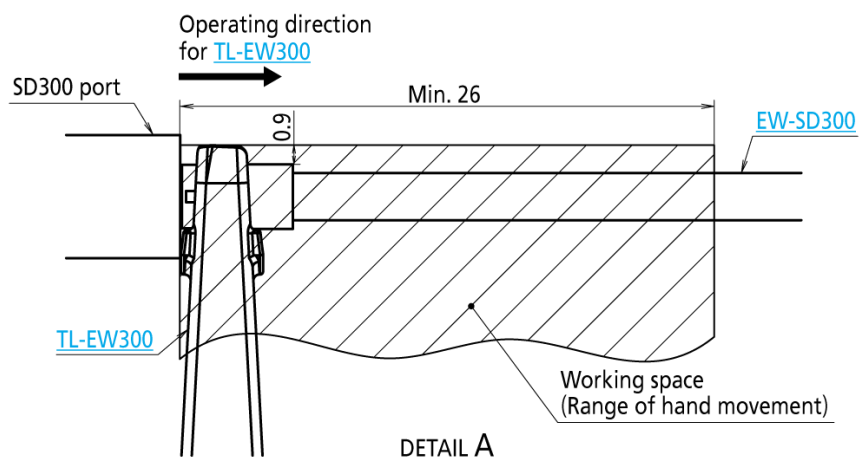
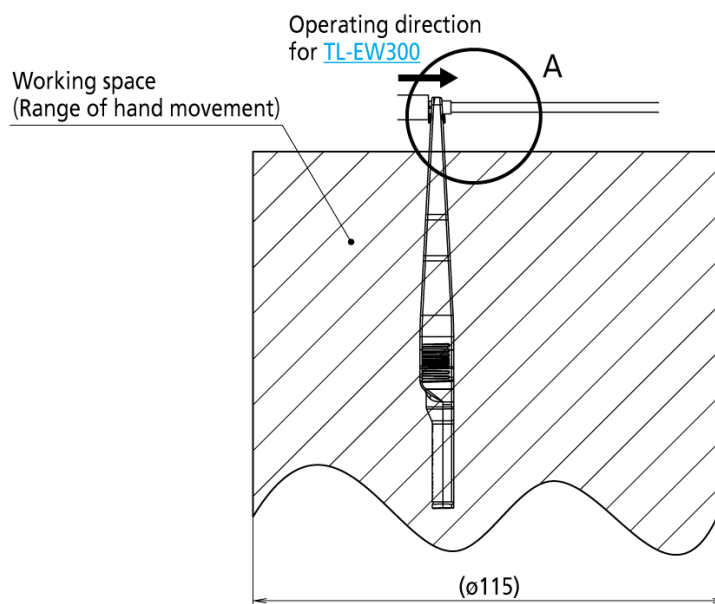
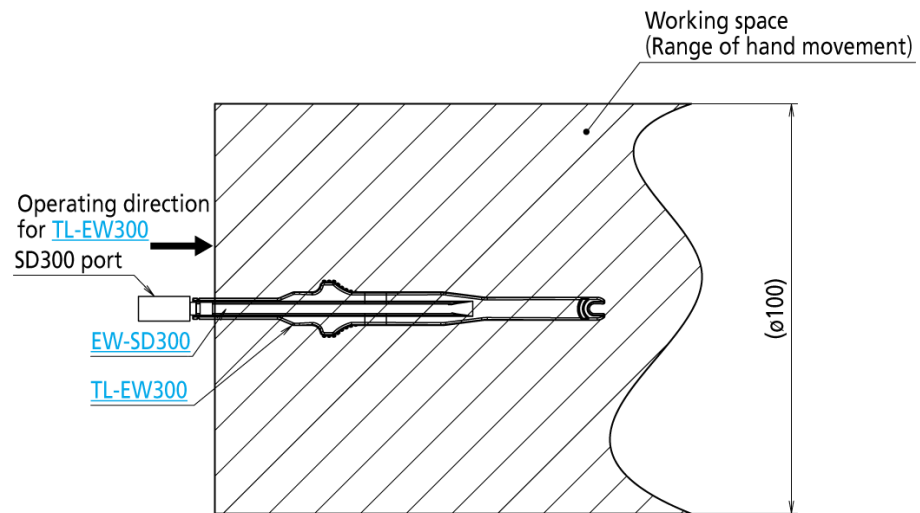
* Can be inserted / removed with cylindrical shape side.

Fork shape side



* Can be inserted / removed with fork shape side.

Necessary area for TL-EW300 operation

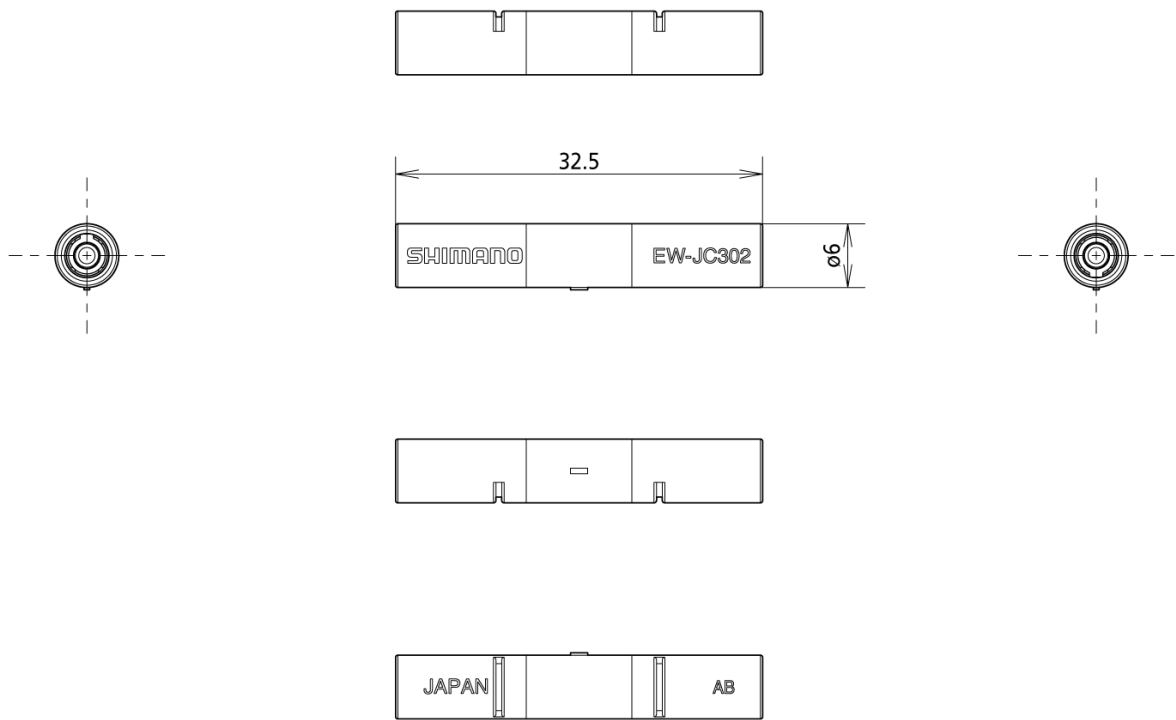




13



EW-JC302



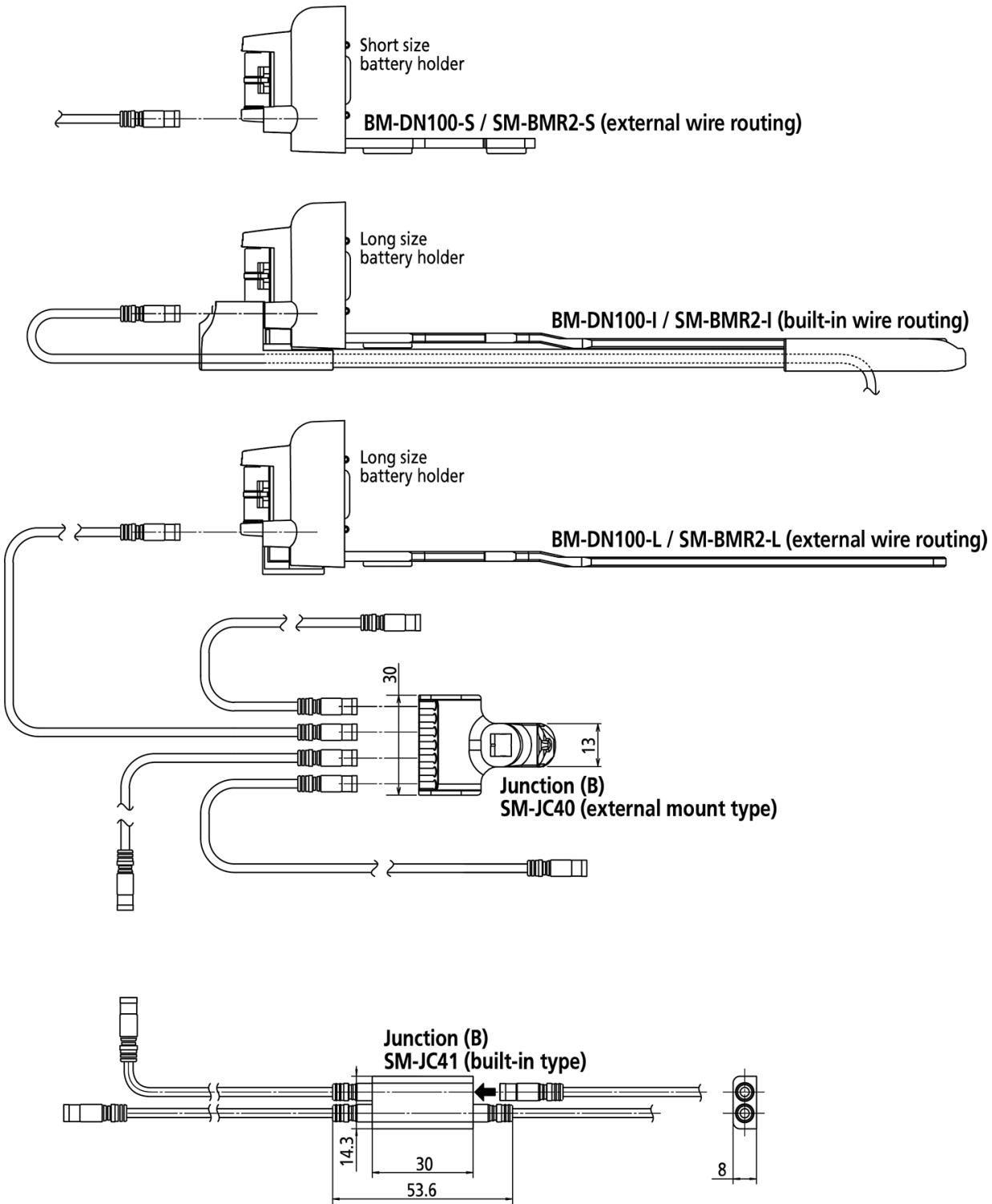
EW-SD50 / EW-SD300 conversion adapter

C-619

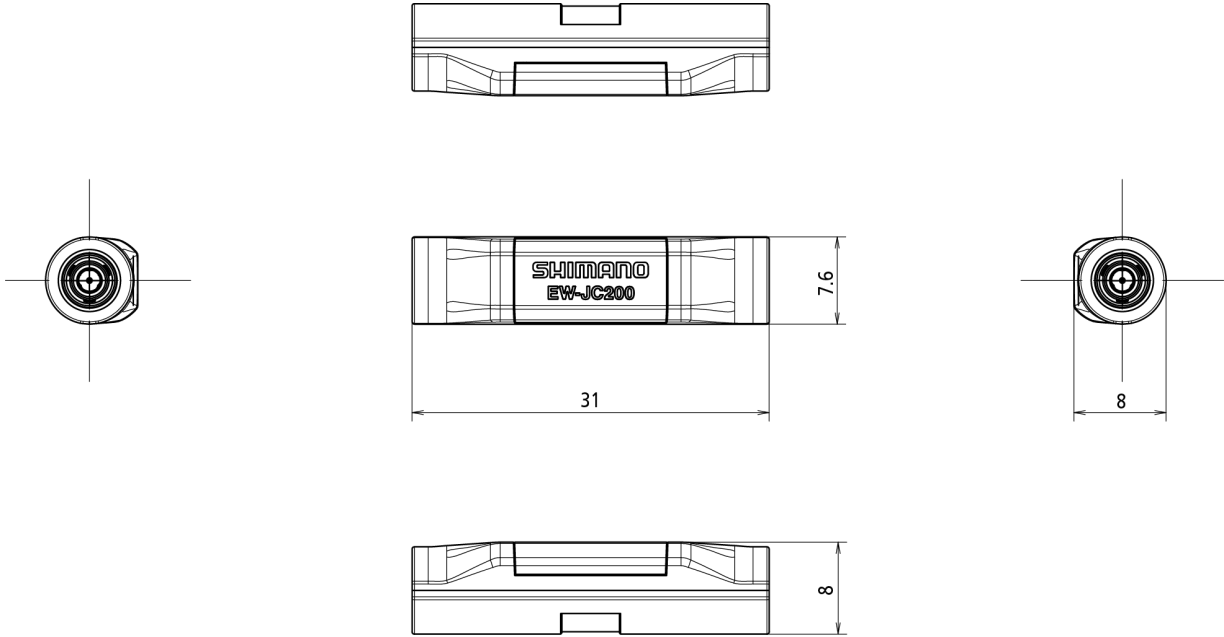
EW-AD305

TBD (will release on Mar./B, 2020)

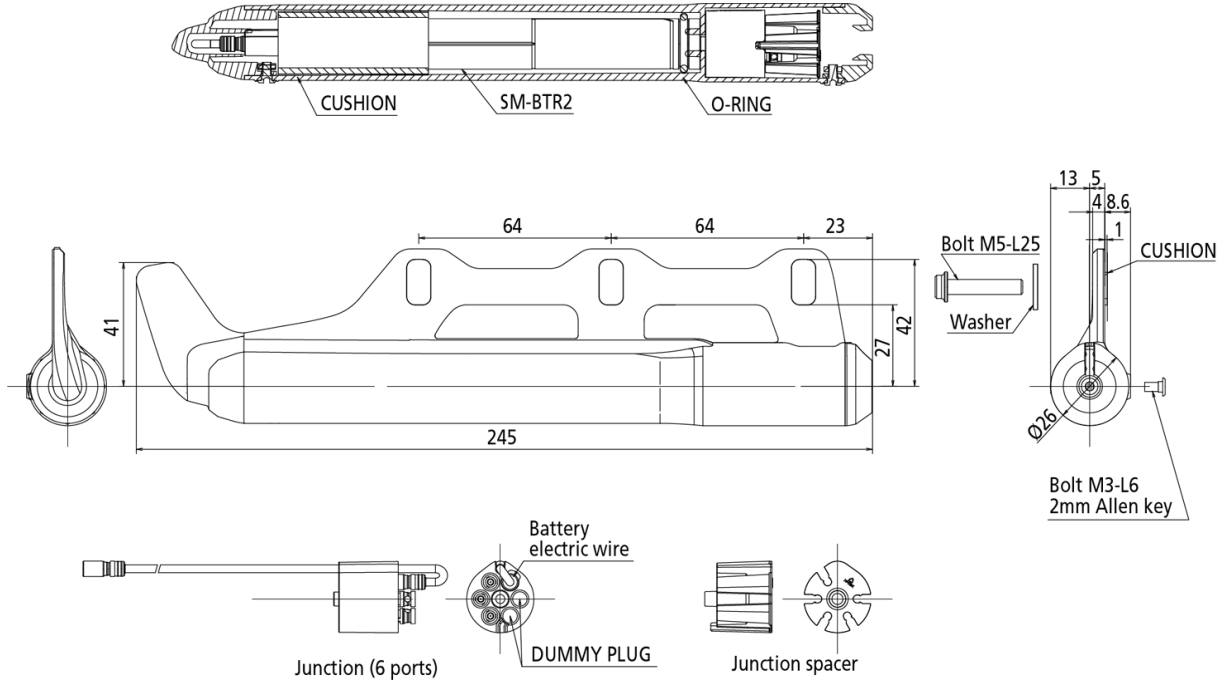
EW-SD50 compatible type C-620



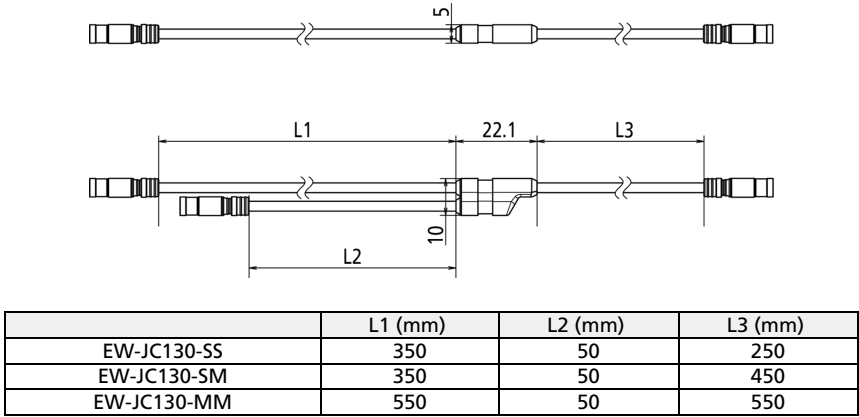
EW-JC200



SM-BTC1



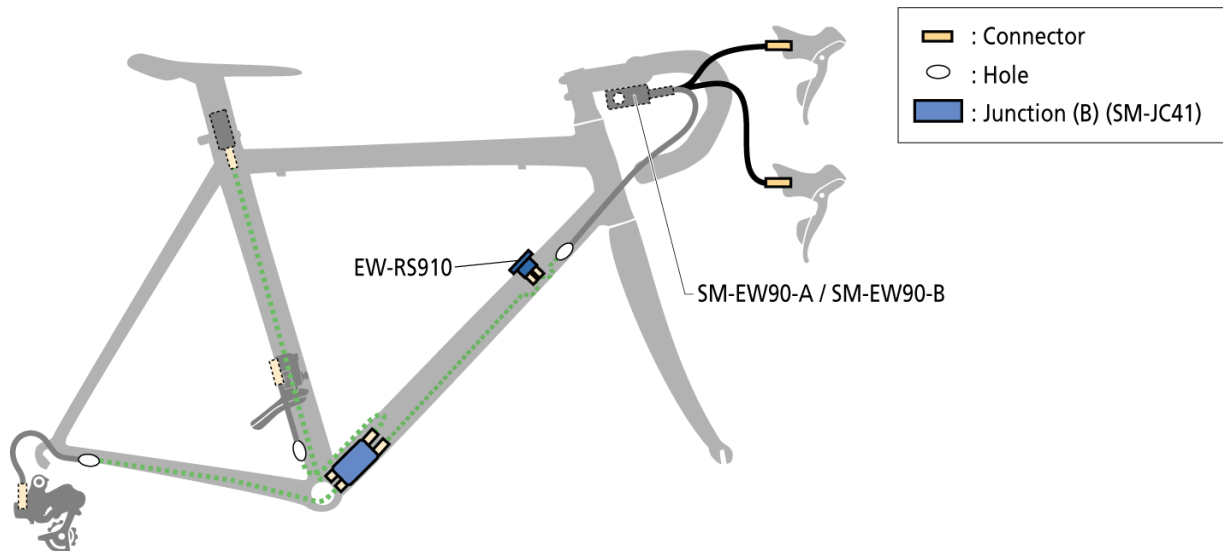
EW-JC130



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

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.

