Dealer's Manual

ROAD | GRAVEL | MTB
E-BIKE | LIFESTYLE | GENERAL

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DURA-ACE
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ULTEGRA
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SHIMANO 105
SHIMANO

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Notice

- This content has been compiled for the higher-end models in each series.
- Although every effort has been made to keep the content as up-to-date as possible, we cannot guarantee that the contents are the most current available.

  For the latest information and other details, refer to the dealer's manual for each product.

ROAD

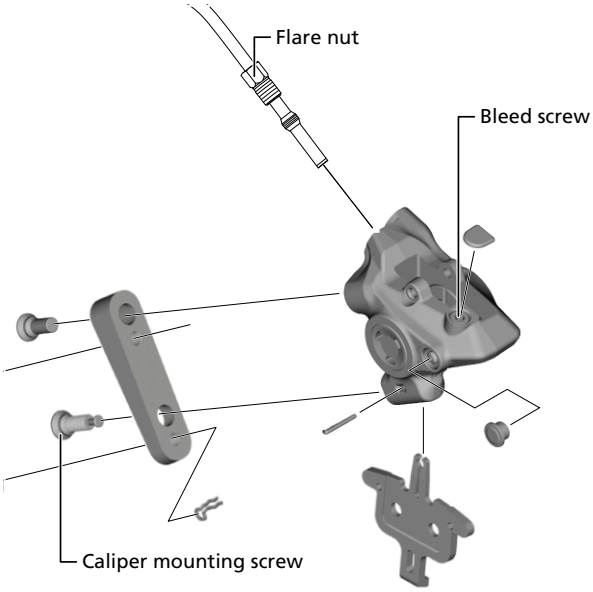
Hydraulic Disc Brake Caliper

BR-R9270, BR-R9170, BR-R8170, BR-R8070, BR-R7170, BR-R7070

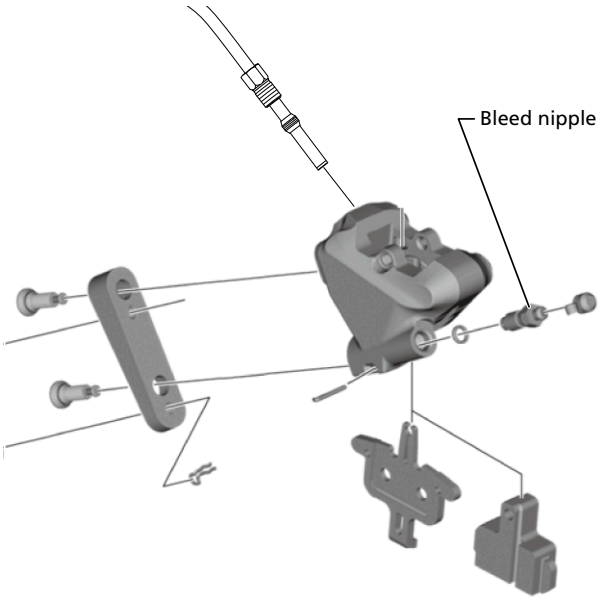
Parts Name	Model	Torque (N·m)	Tools	
Flare nut	BR-R9270, BR-R8170, BR-R7170	5 - 6		8 mm spanner
	BR-R9170, BR-R8070, BR-R7070	5 - 7		
Pad axle	BR-R9270, BR-R9170, BR-R8070, BR-R7070	0.2 - 0.4		Slotted screwdriver 0.8 x 4
	BR-R8170, BR-R7170	2 - 4		3 mm hexagon wrench
Caliper mounting screw	All	6 - 8		4 mm hexagon wrench
Bleed screw	BR-R9270, BR-R8170, BR-R7170	4 - 6		3 mm hexagon wrench
Bleed nipple	BR-R9170, BR-R8070, BR-R7070	4 - 7		7 mm box wrench

Reference image

- Example) BR-R9270



- Example) BR-R9170



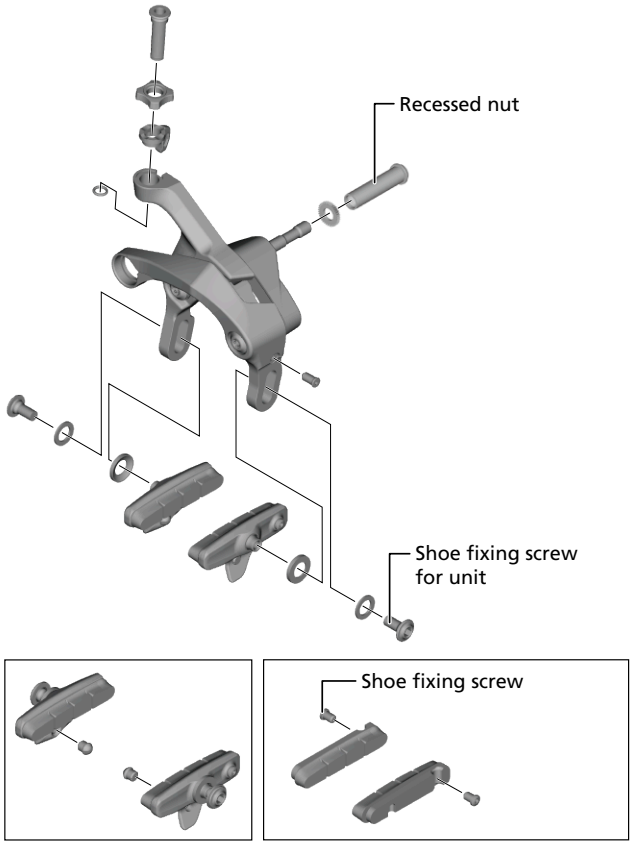
Dual Pivot Caliper Brake

BR-R9200, BR-R9210, BR-R9100, BR-R9110, BR-R8100, BR-R8110, BR-R8000, BR-R8010, BR-R7000, BR-R7010

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	BR-R9210, BR-R9110, BR-R8110, BR-R8010, BR-R7010	5 - 7	4	4 mm hexagon wrench
Recessed nut	BR-R9200, BR-R9100, BR-R8100, BR-R8000, BR-R7000	8 - 10	5	5 mm hexagon wrench
Inner cable fixing screw	All	6 - 8	4	4 mm hexagon wrench
Shoe fixing screw for unit	All	5 - 7	4	4 mm hexagon wrench
Shoe fixing screw	All	1 - 1.5	2	2 mm hexagon wrench

Reference image

- Example) BR-R9200



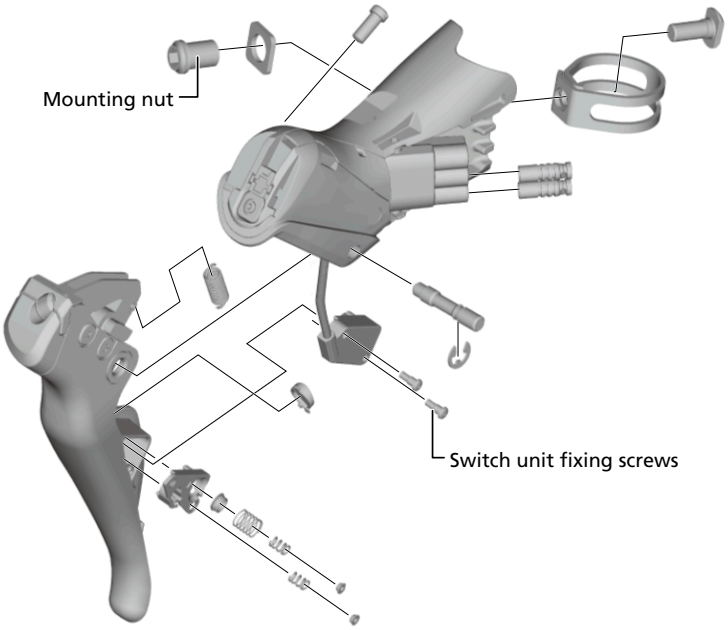
DUAL CONTROL LEVER

ST-R9250, ST-R9150, ST-R9100, ST-R8150, ST-R8050, ST-R8000, ST-R7000

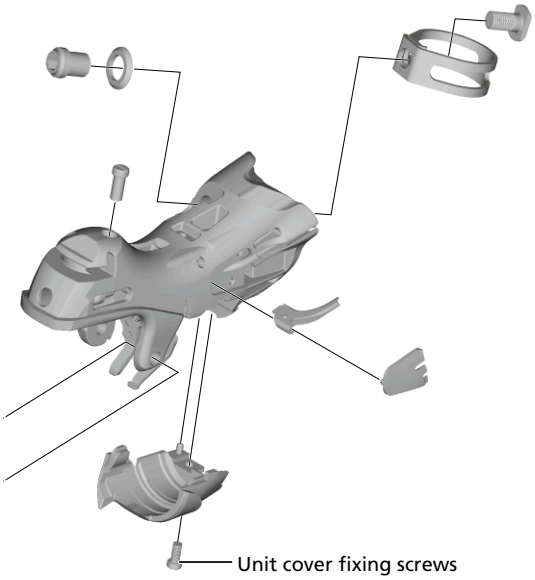
Parts Name	Model	Torque (N·m)	Tools	
Mounting nut	All	6 - 8	5	5 mm hexagon wrench
Switch unit fixing screws	ST-R9150, ST-R8050	0.1	5	Hexalobular [#5]
Name plate fixing screws	ST-R9100, ST-R8000, ST-R7000	0.15 - 0.2	1	Screwdriver[#1]
Unit cover fixing screws	ST-R9100, ST-R8000, ST-R7000	0.2 - 0.25	1	Screwdriver[#1]

Reference image

- Example) ST-R9150



- Example) ST-R9100



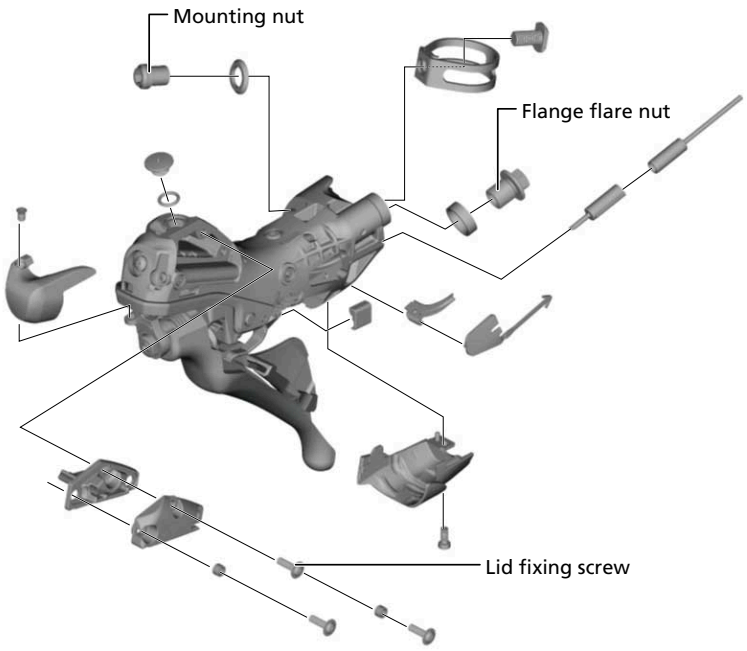
ST-R9270, ST-R9170, ST-R9120, ST-R8170, ST-R8070, ST-R8020, ST-R8025, ST-R7170, ST-R7120, ST-R7020, ST-R7025

Parts Name	Model	Torque (N·m)	Tools	
Mounting nut	All	6 - 8	5	5 mm hexagon wrench
Flange flare nut	All	5 - 6	8	8 mm spanner
Bleed screw	ST-R9270, ST-R8170, ST-R7170, ST-R7120	0.5 - 0.7	2.5	2.5 mm hexagon wrench
	ST-R9170, ST-R9120, ST-R8070, ST-R8020, ST-R8025, ST-R7020, ST-R7025	0.5 - 0.7	2	2 mm hexagon wrench
Battery holder fixing screw	ST-R9270, ST-R8170, ST-R7170	0.4	0.8x4	Slotted screwdriver 0.8 x 4
Name plate fixing screws	ST-R9120, ST-R8020, ST-R8025, ST-R7120, ST-R7020, ST-R7025	0.15 - 0.2	1	Screwdriver[#1]

Parts Name	Model	Torque (N·m)	Tools	
Unit cover fixing screws	ST-R9120, ST-R8020, ST-R8025, ST-R7120, ST-R7020, ST-R7025	0.2 - 0.25	1	Screwdriver[#1]
Lid fixing screw	ST-R9120, ST-R8020, ST-R8025, ST-R7120, ST-R7020, ST-R7025	0.8	8	Hexalobular [#8]

Reference image

- Example) ST-R9120



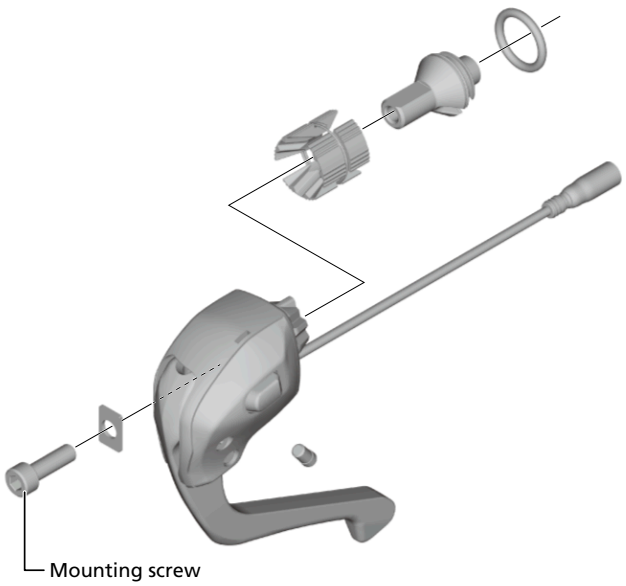
ST-R9180, ST-R9160, ST-R8060

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	ST-R9160, ST-R8060	6 - 8	4	4 mm hexagon wrench
	ST-R9180	1 - 1.3	2	2 mm hexagon wrench
Flare nut	ST-R9180	5 - 6	8	8 mm spanner

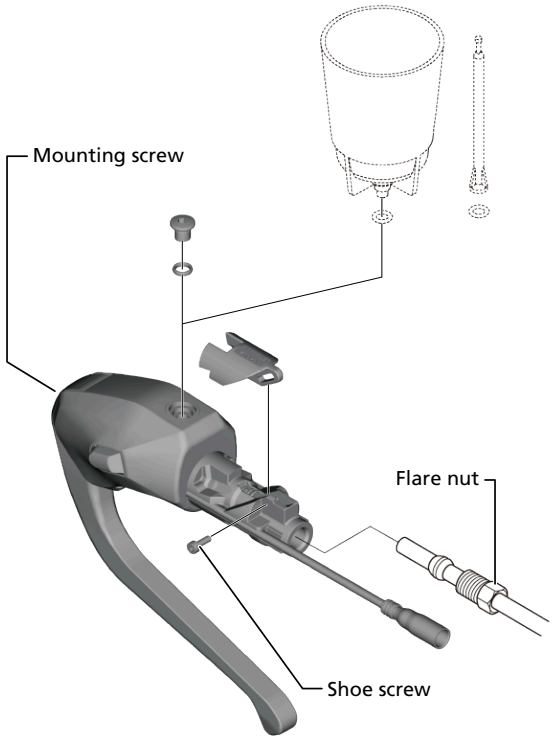
Parts Name	Model	Torque (N·m)	Tools	
Bleed screw	ST-R9180	0.5 - 0.7	2	2 mm hexagon wrench
Shoe screw	ST-R9180	0.3 - 0.5	1.5	1.5 mm hexagon wrench

Reference image

- Example) ST-R9160



- Example) ST-R9180



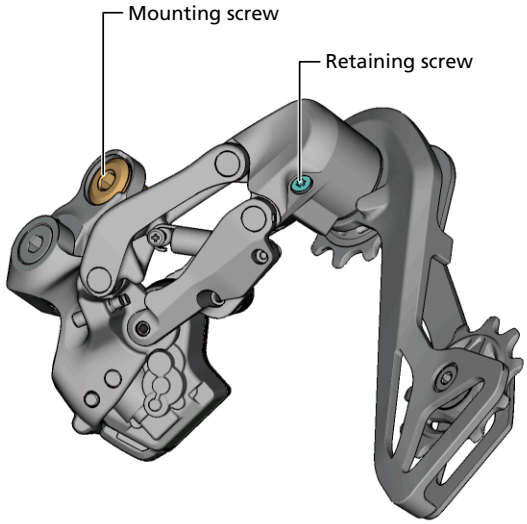
Rear Derailleur

RD-R9250, RD-R9150, RD-R9100, RD-R8150, RD-R8050, RD-R8000, RD-R7150, RD-R7100, RD-R7000

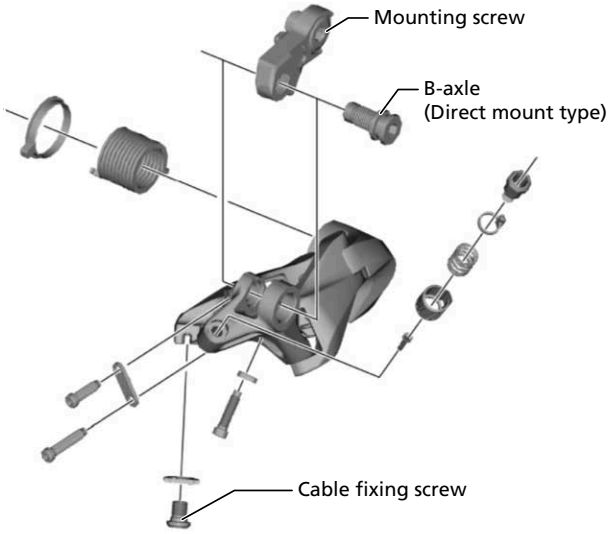
Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench
B-axle (Direct mount type)	All	8 - 10	5	5 mm hexagon wrench
Cable fixing screw	RD-R9100, RD-R8000, RD-R7100, RD-R7000	6 - 7	4	4 mm hexagon wrench
Pulley screw	All	2.5 - 5	3	3 mm hexagon wrench
Retaining screw	RD-R9250, RD-R8150, RD-R7150, RD-R7100	0.9 - 1.2	10	Hexalobular [#10]
	RD-R9150, RD-R8050	1		
Plate stopper pin	RD-R8150, RD-R7150, RD-R7100	1 - 1.1	2	Cross head screwdriver [#2]
	RD-R9150, RD-R9100, RD-R8050, RD-R8000, RD-R7000	1		

Reference image

- Example) RD-R9250



- Example) RD-R9100



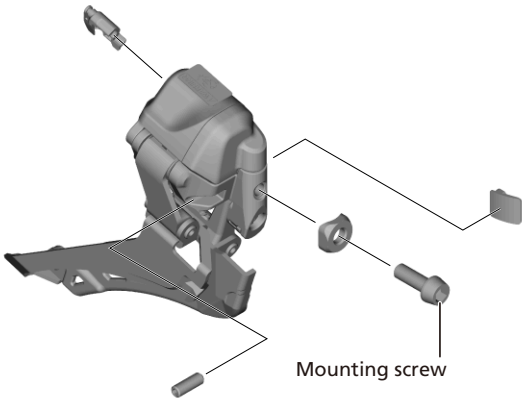
Front Derailleur

FD-R9250, FD-R9150, FD-R9100, FD-R8150, FD-R8050, FD-R8000, FD-R7150, FD-R7100, FD-R7000

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	5 - 7	5	5 mm hexagon wrench
Inner cable fixing screw	FD-R9100, FD-R8000, FD-R7100, FD-R7000	6 - 7	4	4 mm hexagon wrench

Reference image

- Example) FD-R9250



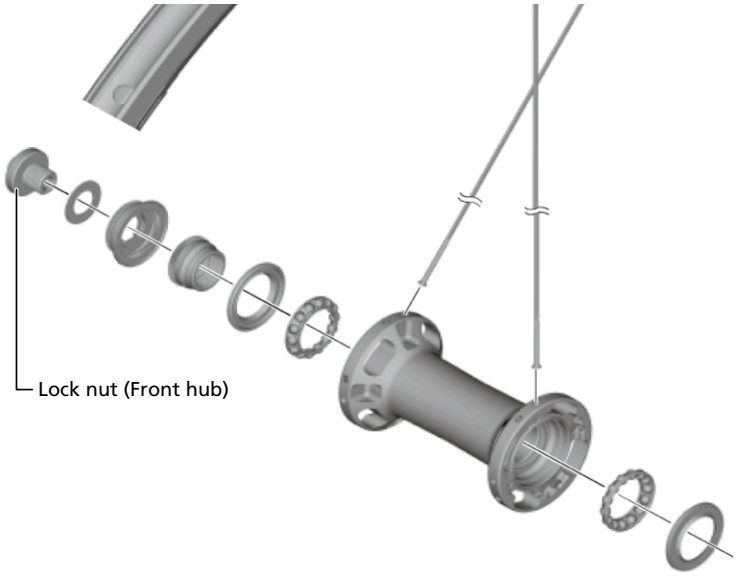
Wheel Set (Rim Brake)

WH-R9200, WH-R9100

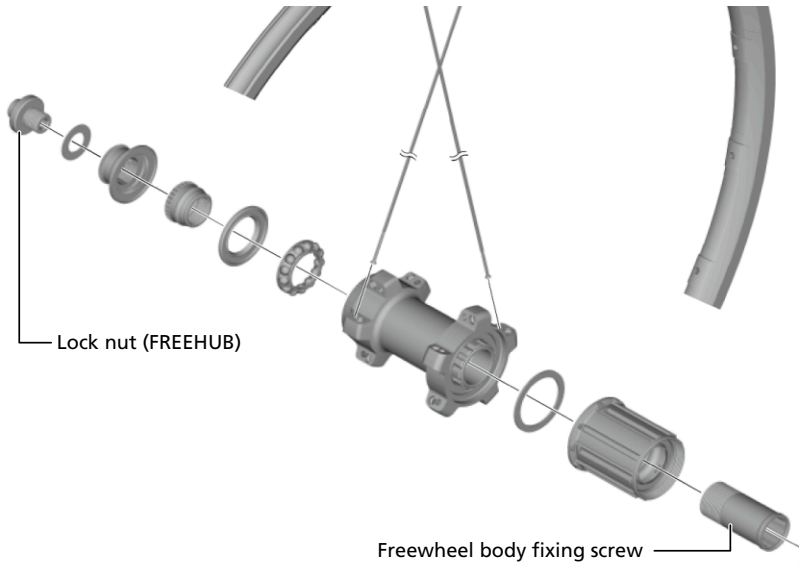
Parts Name	Model	Torque (N·m)	Tools	
Lock nut (Front hub)	WH-R9200	15 - 17	5 + 22	5 mm hexagon wrench + 22 mm hub spanner
	WH-R9100		5 + 5	5 mm hexagon wrench x 2
Lock nut (FREEHUB)	WH-R9200	16 - 20	5 + 17	5 mm hexagon wrench + 17 mm hub spanner
	WH-R9100	15 - 17	5 + 5	5 mm hexagon wrench x 2
Freewheel body fixing screw	WH-R9100	45 - 50	14	14 mm hexagon wrench

Reference image

- Example) WH-R9100-C24-CL-F



- Example) WH-R9100-C24-CL-R



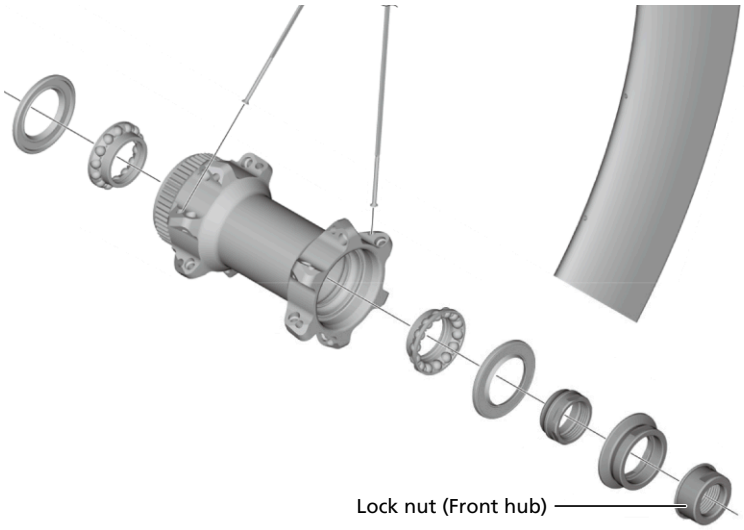
Wheel Set (Disc Brake)

WH-R9270, WH-R9170, WH-R8170

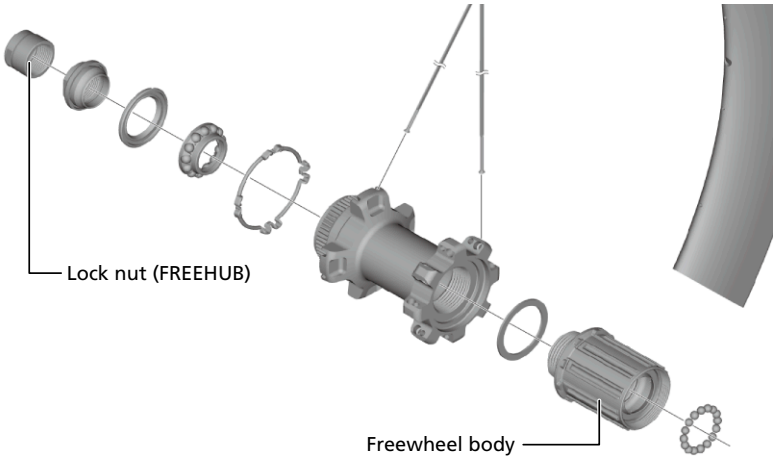
Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	WH-R9270, WH-R8170	40	TL-LR15 + 24 /	TL-LR15 + 24 mm hub spanner / adjustable wrench
	WH-R9170		TL-FC36	TL-FC36
Lock nut (Front hub)	All	18 - 20	17 + 22	17 mm hub spanner + 22 mm hub spanner
Lock nut (FREEHUB)	WH-R9270	16 - 20	17 + 17	17 mm hub spanner x 2
	WH-R9170, WH-R8170	17 - 22		
Freewheel body	WH-R9170, WH-R8170	147 - 200	TL-FH15	TL-FH15

Reference image

- Example) WH-R9170-C60-TU-F12



- Example) WH-R9170-C60-TU-R12



Cassette

CS-R9200-12, CS-R9100, CS-R8100-12, CS-R8000, CS-HG800-11, CS-R7100-12, CS-R7101-12, CS-R7000, CS-HG710-12, CS-HG700-11

Parts Name	Model	Torque (N·m)	Tools	
Lock ring	CS-R9200-12, CS-R8100-12, CS-R7100-12, CS-R7101-12, CS-HG710-12	30 - 50		TL-LR10 / TL-LR15 + adjustable wrench
	CS-R9100, CS-R8000, CS-HG800-11, CS-R7000, CS-HG700-11			TL-LR15 + adjustable wrench

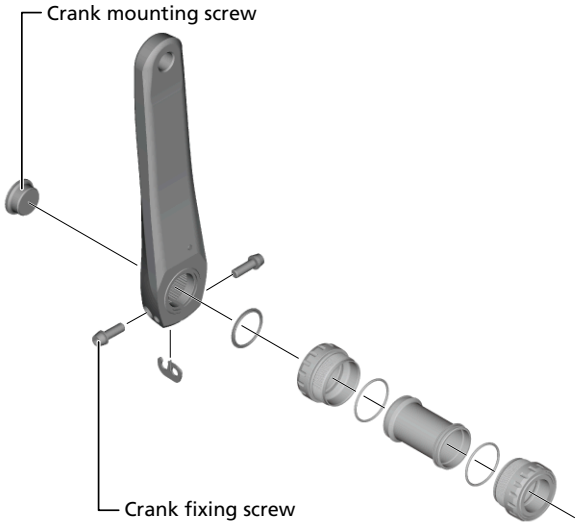
Crankset

FC-R9200, FC-R9100, FC-R8100, FC-R8000, FC-R7100, FC-R7000, FC-RS520

Parts Name	Model	Torque (N·m)	Tools	
Crank mounting screw	All	0.7 - 1.5	TL-FC16 / TL-FC18	TL-FC16 / TL-FC18
Crank fixing screw	All	12 - 14	5	5 mm hexagon wrench
Chainring fixing screws	All	12 - 16	30	Hexalobular [#30]
Chain drop prevention extension screw	FC-R9200 (46-36T), FC-R8100 (46-36T)	0.15	1.5	1.5 mm hexagon wrench

Reference image

- Example) FC-R9200



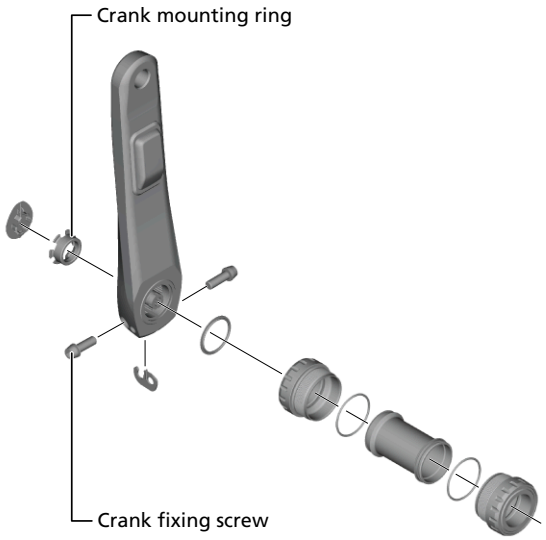
Crankset with Power Meter

FC-R9200-P, FC-R9100-P, FC-R8100-P

Parts Name	Model	Torque (N·m)	Tools	
Crank mounting ring	All	0.7 - 1.5	TL-FC40	TL-FC40
Crank fixing screw	All	12 - 14	5	5 mm hexagon wrench
Chainring fixing screws	All	12 - 16	30	Hexalobular [#30]

Reference image

- Example) FC-R9200-P



Threaded Bottom Bracket

BB-R9100, SM-BBR60

Parts Name	Model	Torque (N·m)	Tools	
Left- and right-hand cups	BB-R9100	35 - 50	TL-FC24 + TL-FC32	TL-FC24 + TL-FC32
			TL-FC24 + TL-FC33	TL-FC24 + TL-FC33
			TL-FC24 + TL-FC36	TL-FC24 + TL-FC36
			TL-FC34	TL-FC34
	SM-BBR60		TL-FC25 + TL-FC32	TL-FC25 + TL-FC32
			TL-FC25 + TL-FC33	TL-FC25 + TL-FC33
			TL-FC25 + TL-FC36	TL-FC25 + TL-FC36
			TL-FC37	TL-FC37

Rotor

SM-RT900, RT-CL900, RT-CL800, SM-RT800, SM-RT70

Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	SM-RT900, SM-RT800, SM-RT70	40	TL-LR15 +	TL-LR15 + adjustable wrench
	RT-CL900, RT-CL800	40 - 50	TL-LR15 + / TL-FC36	TL-LR15 + Adjustable wrench / TL-FC36

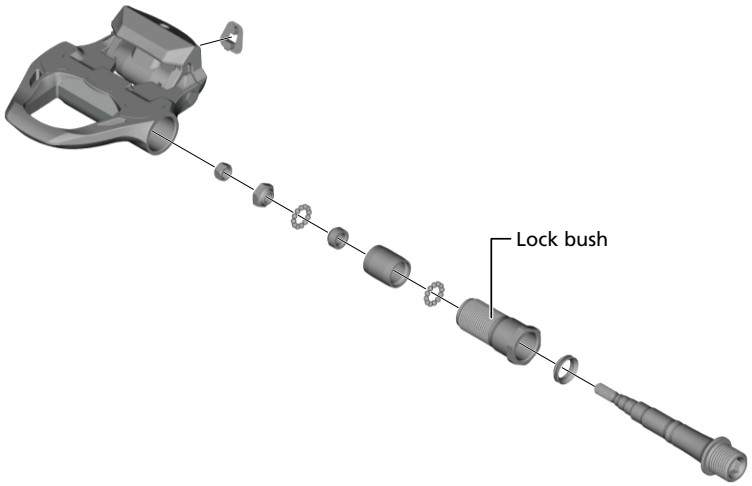
Pedal

PD-R9100, PD-R8000, PD-R7000

Parts Name	Model	Torque (N·m)	Tools	
Pedal axle	All	35 - 55	8	8 mm hexagon wrench
Lock nut	PD-R9100	10 - 15	20	20 mm spanner
	PD-R8000, PD-R7000	5 - 7	7	7 mm spanner
Lock bush	PD-R8000	10 - 12	17	17 mm spanner
	PD-R7000	8 - 10	TL-PD40	TL-PD40

Reference image

- Example) PD-R8000



MTB

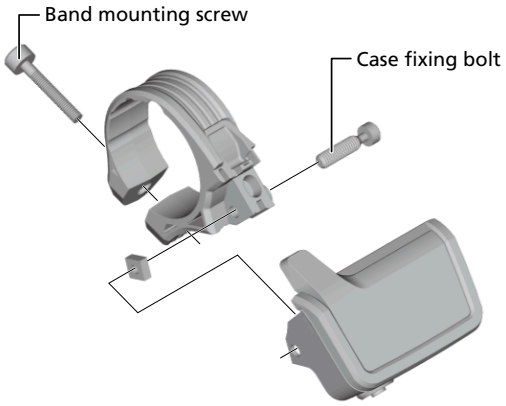
System Information Display

SC-M9051

Parts Name	Model	Torque (N·m)	Tools	
Case fixing bolt	All	0.6	2.5	2.5 mm hexagon wrench
Band mounting screw	All	0.8	3	3 mm hexagon wrench

Reference image

- Example) SC-M9051



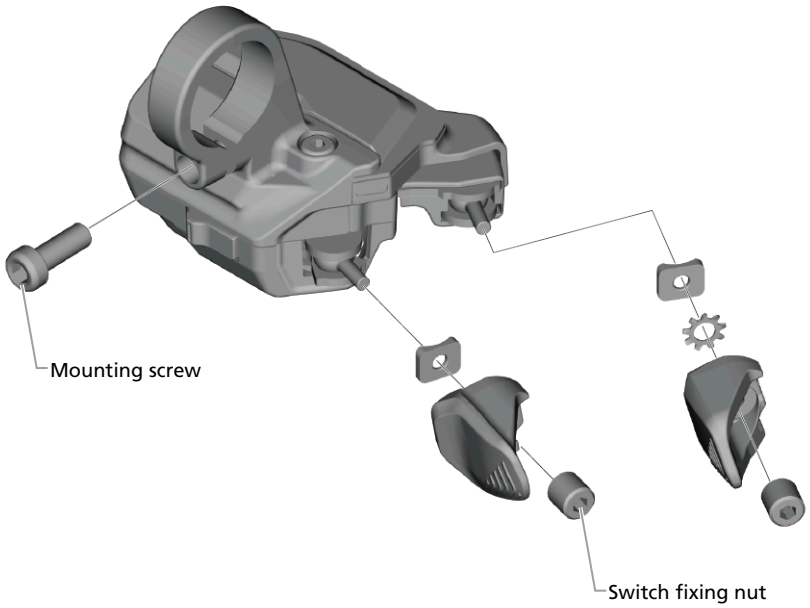
Shift Switch

SW-M9250, SW-M8250, SW-M6250

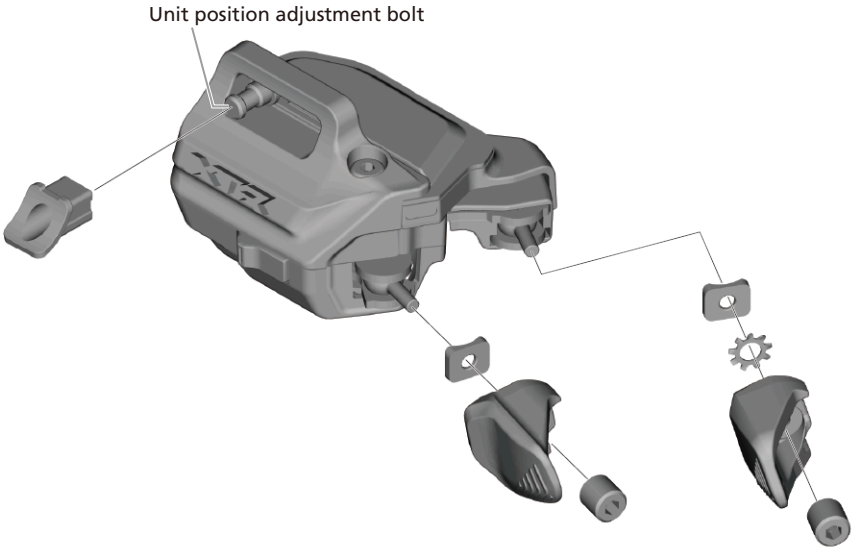
Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	3	4	4 mm hexagon wrench
Unit position adjustment bolt	All	3	3	3 mm hexagon wrench
Switch fixing nut	All	2	3	3 mm hexagon wrench
Battery holder fixing screw	All	0.2	/ 1	Slotted screwdriver / Cross head screwdriver [#1]

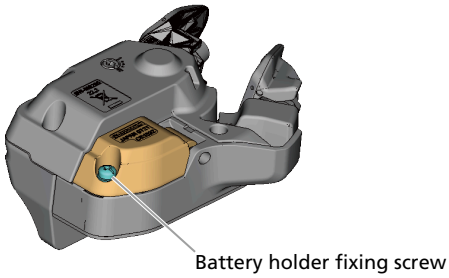
Reference image

- Example) SW-M9250-R



- Example) SW-M9250-IR



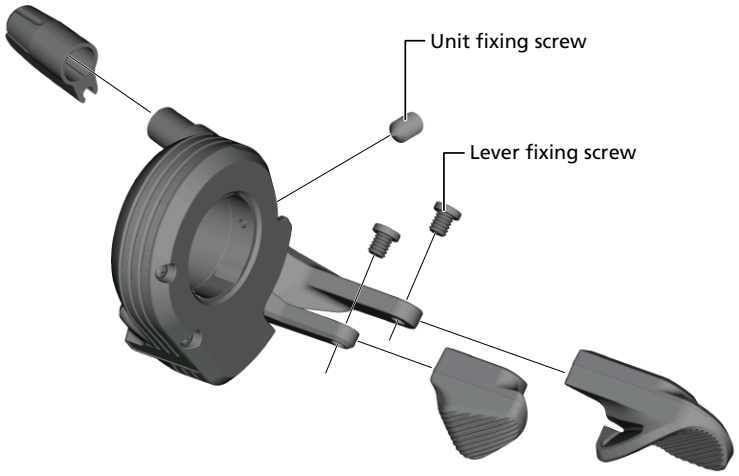


SW-M9050

Parts Name	Model	Torque (N·m)	Tools	
Unit fixing screw	All	0.9	2	2 mm hexagon wrench
Lever fixing screw	All	0.5 - 0.7	2	2 mm hexagon wrench

Reference image

- Example) SW-M9050



Seat Post Lever

SL-MT800

Parts Name	Model	Torque (N·m)	Tools	
Unit position adjustment bolt	All	4	3	3 mm hexagon wrench
Cable fixing screw	All	6 - 7	4	4 mm hexagon wrench

Hydraulic Disc Brake Caliper

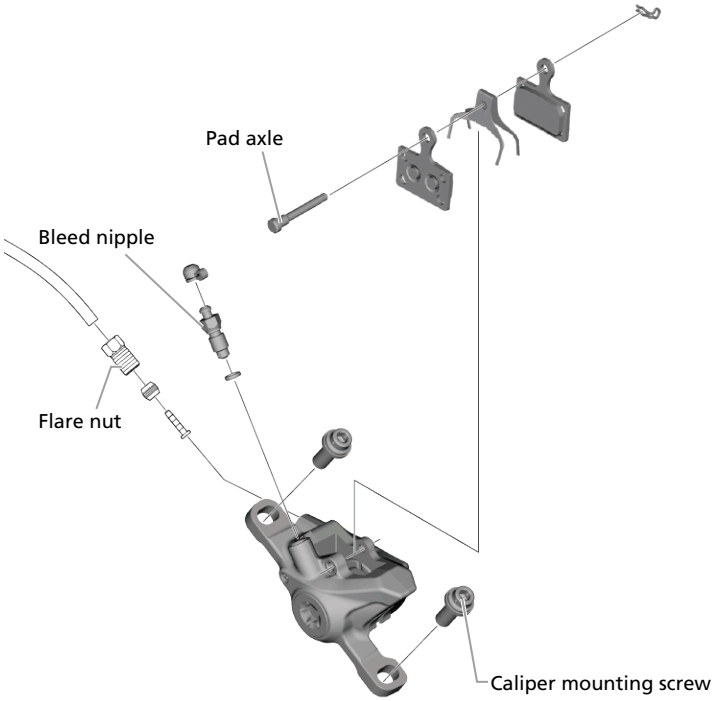
BR-M9200, BR-M9220, BR-M9100, BR-M9110, BR-M9120, BR-M9000, BR-M9020, BR-M8200, BR-M8220, BR-MT805, BR-M8100, BR-M8110, BR-M8120, BR-M8000, BR-M8020, BR-M7100, BR-M7110, BR-M7120, BR-M7000

Parts Name	Model	Torque (N·m)	Tools	
Flare nut	BR-M9200, BR-M9100, BR-M9110, BR-MT805, BR-M8110, BR-M7110	5 - 7	8	8 mm spanner
Banjo screw	BR-M9120, BR-M9000, BR-M9020, BR-M8120, BR-M8000, BR-M7120, BR-M7000	8 - 10	4	4 mm hexagon wrench
	BR-M9220, BR-M8200, BR-M8220, BR-M8100, BR-M8020, BR-M7100	4 - 6	3	3 mm hexagon wrench
Pad axle	BR-M9200, BR-M9100, BR-M9110, BR-M9120	0.2 - 0.4		Slotted screwdriver
	BR-M9220, BR-M8200, BR-M8220, BR-MT805, BR-M8100, BR-M8110, BR-M8120, BR-M7100, BR-M7110, BR-M7120	1 - 1.5	3	3 mm hexagon wrench
	BR-M7000	2 - 4		

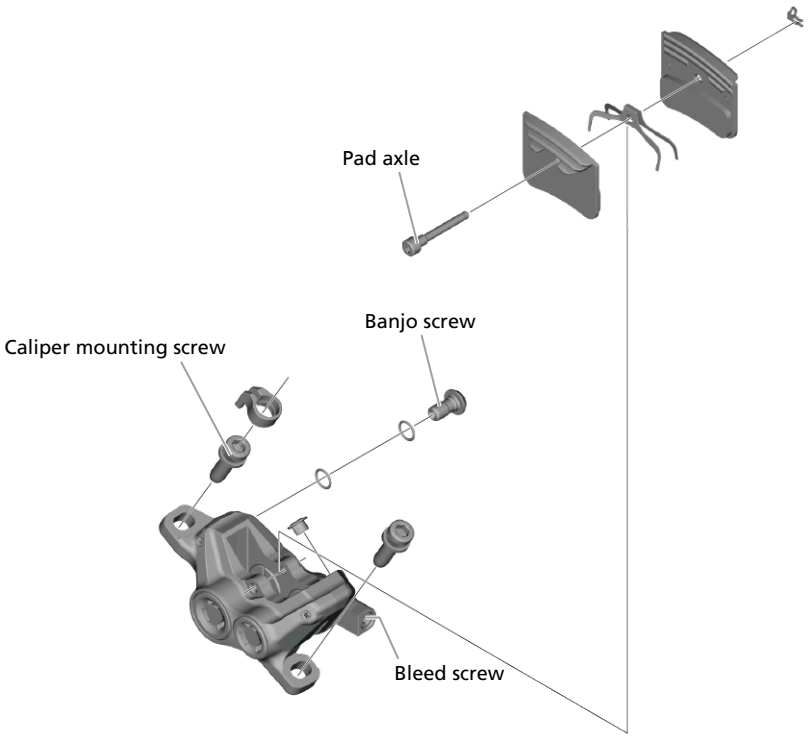
Parts Name	Model	Torque (N·m)	Tools	
Caliper mounting screw	BR-M9200, BR-M9100, BR-M9110, BR-M9120, BR-MT805, BR-M8110, BR-M7110	6 - 8	4	4 mm hexagon wrench
	BR-M9220, BR-M8200, BR-M8220, BR-M8100, BR-M8120, BR-M7100, BR-M7120, BR-M7000		5	5 mm hexagon wrench
	BR-M9000, BR-M9020, BR-M8000, BR-M8020	8 - 10	4	4 mm hexagon wrench
Bleed nipple	BR-M9200, BR-M9100, BR-M9110, BR-M9120, BR-M9000, BR-M9020, BR-M8200, BR-M8100, BR-M8110, BR-M8120, BR-M8000, BR-M8020, BR-M7100, BR-M7110, BR-M7120, BR-M7000	4 - 6	7	7 mm box wrench
Bleed screw	BR-M9220, BR-M8220, BR-MT805	4 - 6	3	3mm hexagon wrench

Reference image

- Example) BR-M9100



- Example) BR-M9220



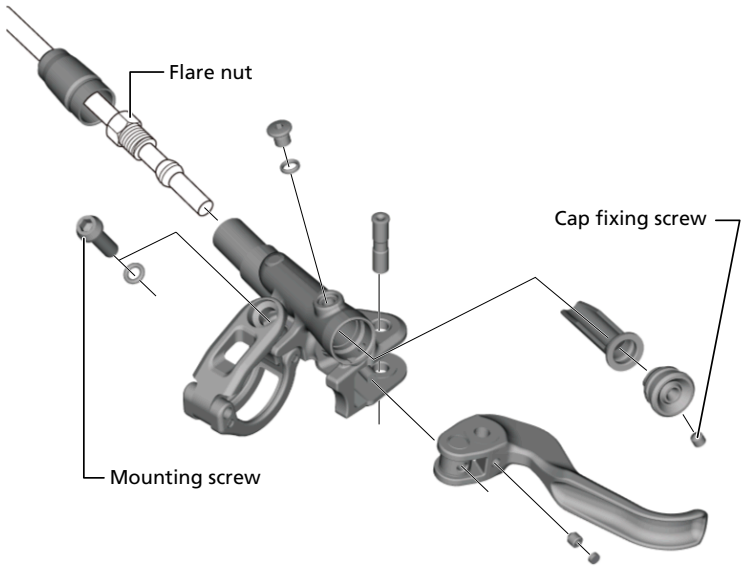
Hydraulic Disc Brake Lever

BL-M9200, BL-M9220, BL-M9100, BL-M9120, BL-M9000, BL-M9020, BL-M8200, BL-M8100, BL-T8100, BL-M8000, BL-M7100, BL-M7000

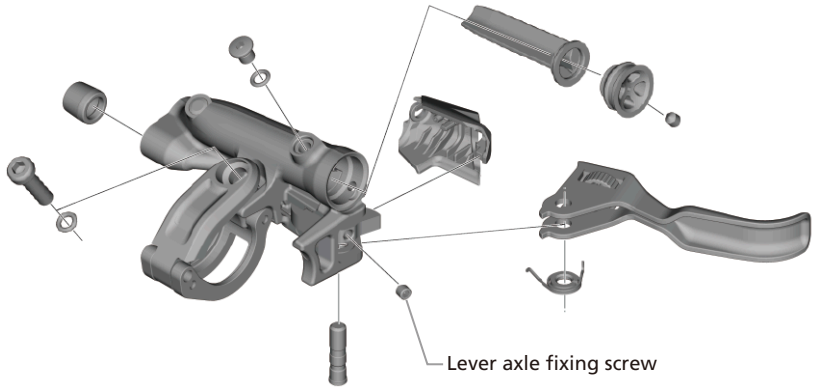
Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	4 - 6	4	4 mm hexagon wrench
Flare nut	All	5 - 7	8	8 mm spanner
Bleed screw	BL-M9200, BL-M9220, BL-M9100, BL-M9120, BL-M8200, BL-M8100, BL-T8100, BL-M7100	0.5 - 1	2.5	2.5 mm hexagon wrench
	BL-M9000, BL-M9020, BL-M8000, BL-M7000	0.5 - 0.7		
Cap fixing screw	BL-M9200, BL-M9220, BL-M9100, BL-M9120, BL-M8200, BL-M8100, BL-T8100, BL-M7100	0.2 - 0.3	2	2 mm hexagon wrench
Lever axle fixing screw	BL-M9200, BL-M9220, BL-M8200	1 - 2	2	2 mm hexagon wrench
Free stroke adjustment screw (During cover installation)	BL-M9220, BL-M8200	0.3 - 0.5	2	2 mm hexagon wrench

Reference image

- Example) BL-M9100



- Example) BL-M8200



Shifter

SL-M9100, SL-M9000, SL-M8100, SL-M8130, SL-M8000, SL-M7100, SL-M7000

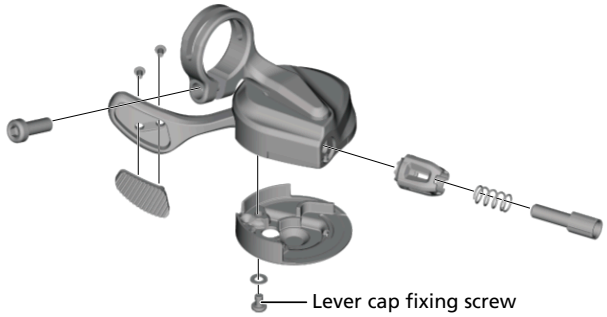
Parts Name	Model	Torque (N·m)	Tools	
Shifter mounting screw	SL-M9100, SL-M9000, SL-M8100, SL-M8130, SL-M8000, SL-M7100	3	4	4 mm hexagon wrench
	SL-M7000	3 - 4		
Unit position adjustment bolt	SL-M9000, SL-M8000 (I-SPEC EV / I-SPEC II)	4	3	3 mm hexagon wrench
	SL-M8100, SL-M8130, SL-M7100 (I-SPEC EV)	3		
	SL-M8000 (I-SPEC B)	2.5	4 / 7	4 mm hexagon wrench / 7 mm spanner
	SL-M7000 (I-SPEC II / I-SPEC B)	2.5 - 3.5		
Integration bolt	SL-M8000 (I-SPEC B)	4	3	3 mm hexagon wrench
	SL-M7000 (I-SPEC B)	4 - 5		
Integration bolt (small)	SL-M8000 (I-SPEC B)	1	2	2 mm hexagon wrench
	SL-M7000 (I-SPEC B)	1 - 1.5		
Lever cap fixing screw	SL-M9100, SL-M8100, SL-M7100 (MONO lever)	0.3	2	Cross head screwdriver [#2]
Unit fixing screw	SL-M9100, SL-M9000, SL-M8000	2.5	4	4 mm hexagon wrench

Parts Name	Model	Torque (N·m)	Tools	
	SL-M9100, SL-M9000, SL-M8000 (I-SPEC EV / I-SPEC II)		3	3 mm hexagon wrench
	SL-M8100, SL-M8130, SL-M7100			
	SL-M7000	2.5 - 3.5	4	4 mm hexagon wrench
Base cover fixing screw (A)	SL-M9100, SL-M8100, SL-M8130	0.15	2	2 mm hexagon wrench
	SL-M9000, SL-M8000, SL-M7100		+1	Cross head screwdriver [#1]
	SL-M7000	0.5 - 0.7	+2	Cross head screwdriver [#2]
	SL-M7000 (I-SPEC II / I-SPEC B)	0.15 - 0.2	+1	Cross head screwdriver [#1]
Base cover fixing screw (B)	SL-M9100, SL-M8100, SL-M8130	0.5	2.5	2.5 mm hexagon wrench
	SL-M7100 (I-SPEC II / I-SPEC B)		+1	Cross head screwdriver [#1]
	SL-M9000, SL-M8000		+2	Cross head screwdriver [#2]
	SL-M8100, SL-M8130 (I-SPEC II / I-SPEC B)	0.15	2	2 mm hexagon wrench
	SL-M7000	0.15 - 0.2	+1	Cross head screwdriver [#1]
Base cover fixing screw (C)	SL-M9000, SL-M8000	0.08	+1	Cross head screwdriver [#1]
	SL-M7000	0.08 - 0.1	+1	Cross head screwdriver [#1]
Lever pad fixing screw	SL-M9100	0.10	+0	Cross head screwdriver [#0]
Indicator fixing screw / Cover fixing screw	SL-M8000	0.15	+1	Cross head screwdriver [#1]
	SL-M7000	0.15 - 0.2		

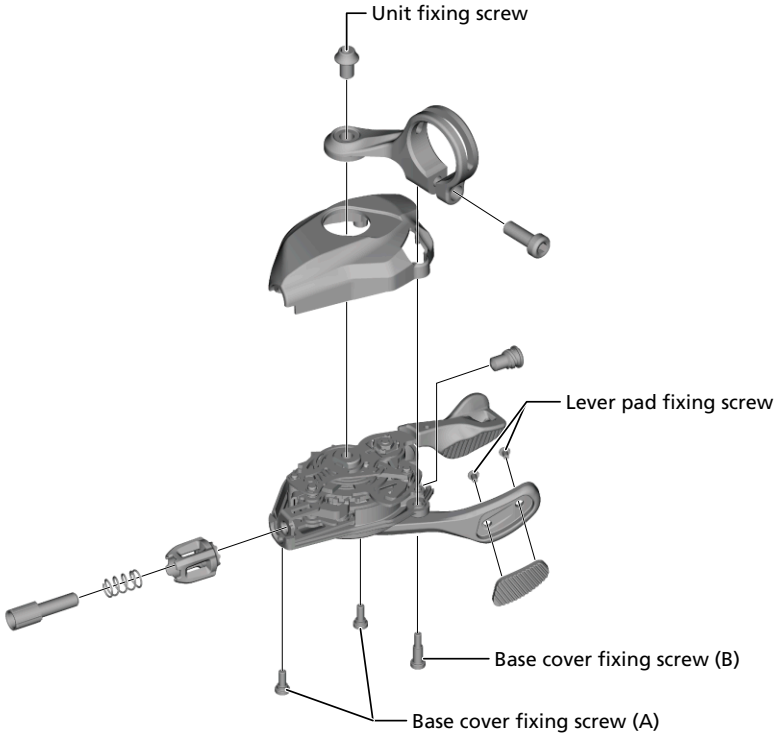
Reference image

- Example) SL-M9100

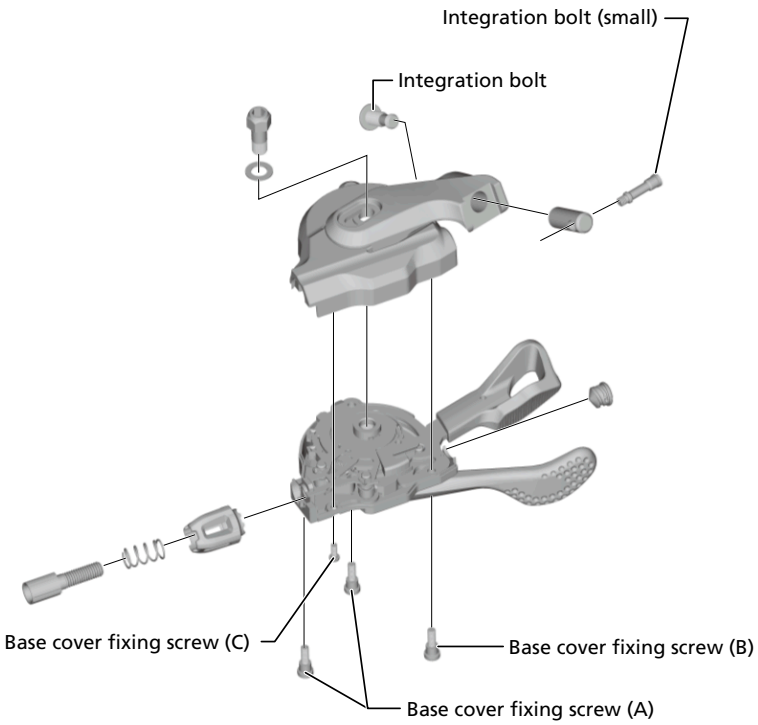
  For Left Hand



  For Right Hand



- Example) SL-M8000-B-I



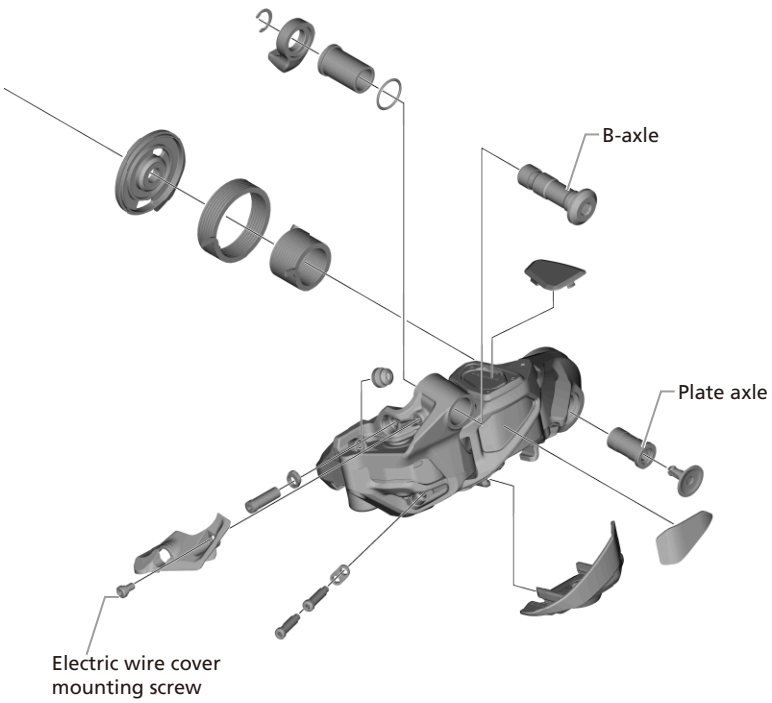
Rear Derailleur

RD-M9250, RD-M8250, RD-M6250

Parts Name	Model	Torque (N·m)	Tools	
B-axle	All	10 - 12	5	5 mm hexagon wrench
Pulley screws	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	All	7.8 - 9.8	5	5 mm hexagon wrench
Plate stopper pin	All	1	#2	Cross head screwdriver [#2]
Electric wire cover mounting screw	All	1	2	2 mm hexagon wrench

Reference image

- Example) RD-M9250



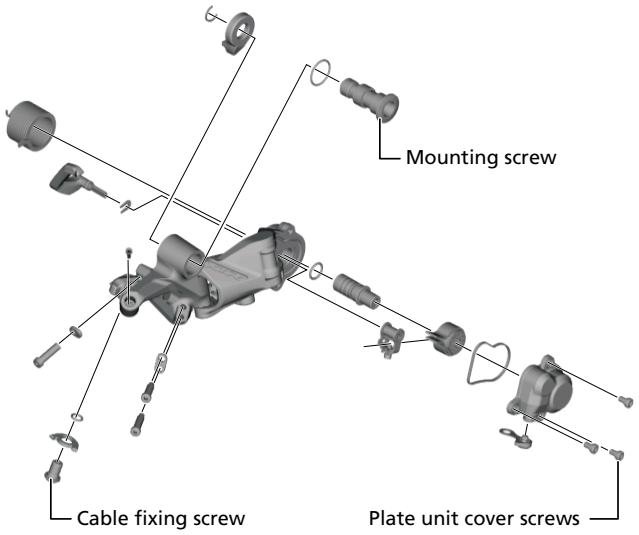
RD-M9100, RD-M9120, RD-M9050, RD-M9000, RD-M8100, RD-M8120, RD-M8130, RD-M8000, RD-M7100, RD-M7120, RD-M7000

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench

Parts Name	Model	Torque (N·m)	Tools	
Cable fixing screw	RD-M9100, RD-M9120, RD-M9000, RD-M8100, RD-M8120, RD-M8130, RD-M8000, RD-M7100, RD-M7120, RD-M7000	6 - 7	4	4 mm hexagon wrench
Pulley screws	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	RD-M9100, RD-M9120, RD-M8100, RD-M8120, RD-M8130, RD-M7100, RD-M7120	7.8 - 9.8	4	4 mm hexagon wrench
	RD-M9050, RD-M9000, RD-M8000, RD-M7000	8 - 10		
Plate unit cover screws	All	1 - 1.5	2	2 mm hexagon wrench
Plate stopper pin	All	1	#2	Cross head screwdriver [#2]

Reference image

- Example) RD-M9100



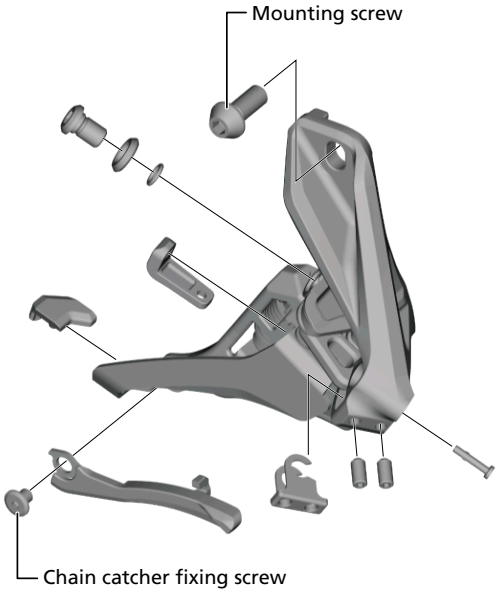
Front Derailleur

FD-M9100, FD-M9050, FD-M9070, FD-M9000, FD-M9020, FD-M9025, FD-M8100, FD-M8000, FD-M8020, FD-M8025, FD-M7100, FD-M7000, FD-M7005, FD-M7020, FD-M7025

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	5 - 7	4	4 mm hexagon wrench
Cable fixing screw	FD-M9100, FD-M9000, FD-M9020, FD-M9025, FD-M8100, FD-M8000, FD-M8020, FD-M8025, FD-M7100, FD-M7000, FD-M7005, FD-M7020, FD-M7025	6 - 7	4	4 mm hexagon wrench
Chain catcher fixing screw	FD-M9100, FD-M9000, FD-M9020, FD-M9025, FD-M8100, FD-M8000, FD-M8020, FD-M8025, FD-M7100, FD-M7000, FD-M7005, FD-M7020, FD-M7025	1 - 2	10	Hexalobular [#10]
Stroke fixing bolt	FD-M9050, FD-M9070	0.5	2	2 mm hexagon wrench
Chain guide bolt and nut	FD-M9050, FD-M9070	0.7	8 + 2.5	Hexalobular [#8] + 2.5 mm hexagon wrench
			8 + TL-FDM905	Hexalobular [#8] + TL-FDM905

Reference image

- Example) FD-M9100



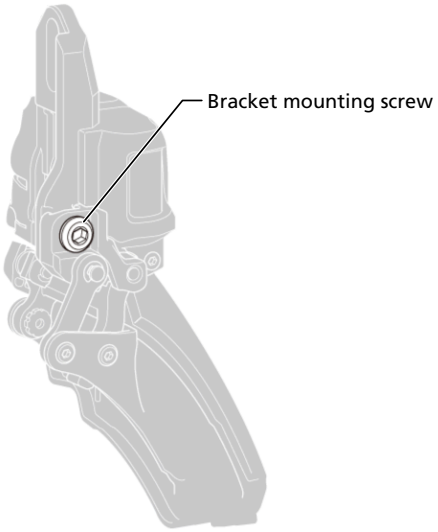
Mount Adapter

SM-FD905

Parts Name	Model	Torque (N·m)	Tools	
Bracket mounting screw	All	5 - 7	4	4 mm hexagon wrench

Reference image

- Example) SM-FD905



Hub set (Disc brake)

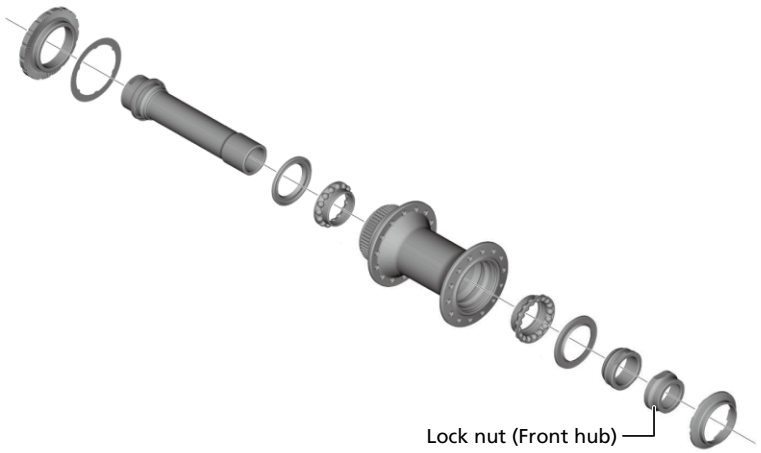
HB-M9110, HB-MT900, FH-M9111, HB-M9010, FH-M9000, FH-M9010, HB-M8110, FH-M8110, FH-M8130, HB-M8000, HB-M8010, FH-M8000, FH-M8010, HB-M7110, FH-M7130, HB-M7000, HB-M7010, FH-M7000, FH-M7010

Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	All	40	TL-FC36 / TL-LR15 +	TL-FC36 / TL-LR15 + Adjustable wrench
Lock nut (Front hub)	HB-M9110, HB-MT900, HB-M9010, HB-M8110, HB-M8010, HB-M7110	21 - 26	22 + 22	22 mm hub spanner x 2
	HB-M8000	15 - 17	5 + TL-HS22	5 mm hexagon wrench + TL-HS22
	HB-M7000	10 - 15	13 + 17	13 mm hub spanner + 17 mm hub spanner
	HB-M7010	21 - 26	22 + 22	22 mm hub spanner x 2
Lock nut (FREEHUB)	FH-M9111, FH-M8110, FH-M8130, FH-M7110, FH-M7130	16 - 21	17 + 18	17 mm hub spanner + 18 mm hub spanner
	FH-M9010	16.7 - 22.1	17 + 20	17 mm hub spanner + 20 mm hub spanner
	FH-M9000		5 + 20	5 mm hexagon wrench + 20 mm hub spanner
	FH-M8000		5 + 17	5 mm hexagon wrench + 17 mm hub spanner
	FH-M8010, FH-M7010, FH-M7000	15 - 20	17 + 17	17 mm hub spanner x 2
Freewheel body	FH-M9000, FH-M9010, FH-M8010, FH-M7010	150	TL-FH15	TL-FH15

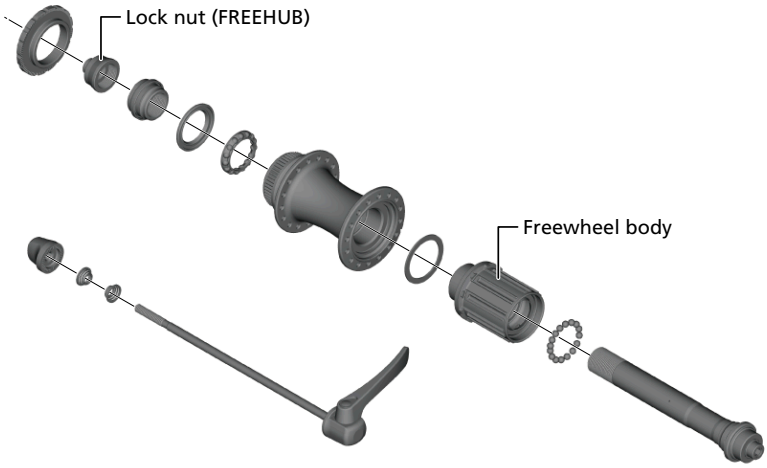
Parts Name	Model	Torque (N·m)	Tools	
Freewheel body fixing screw	FH-M8000	45 - 50	14	14 mm hexagon wrench
	FH-M7000	35 - 50	10	10 mm hexagon wrench (TL-WR37)

Reference image

- Example) HB-M9110

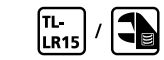


- Example) FH-M9000



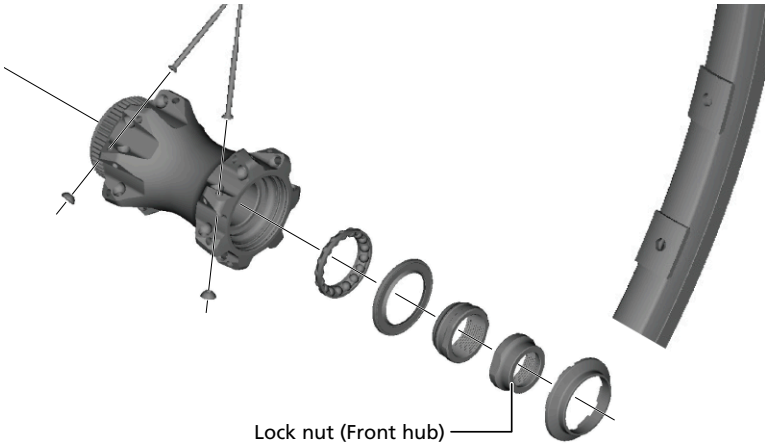
Wheel Set (Disc Brake)

WH-M9000, WH-M9020, WH-M8100, WH-M8120, WH-M8000, WH-M8020

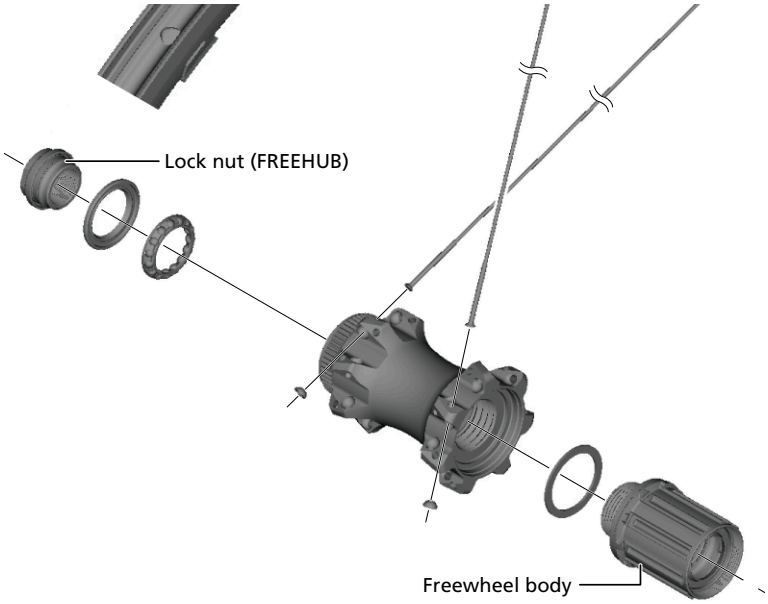
Parts Name	Model	Torque (N·m)	Tools	
Lock ring	WH-M9000, WH-M9020, WH-M8000, WH-M8020	30 - 50	TL-LR15 / 	TL-LR15 + Adjustable wrench
Rotor lock ring	All	40	TL-FC36 / TL-LR15 + 	TL-FC36 / TL-LR15 + Adjustable wrench
Lock nut (Front hub)	WH-M9000 (E-THRU), WH-M9020, WH-M8000 (E-THRU), WH-M8020, WH-M8100, WH-M8120	21 - 26	22 + 22	22 mm hub spanner x 2
	WH-M8000 (QR)	15 - 17	5 + 17	5 mm hexagon wrench + 17 mm Hub spanner
Lock nut (FREEHUB)	WH-M8100, WH-M8120	16 - 21	17 + 18	17 mm hub spanner + 18 mm hub spanner
	WH-M9000 (E-THRU), WH-M9020, WH-M8000 (E-THRU), WH-M8020	17 - 22	17 + 20	17 mm hub spanner + 20 mm Hub spanner
	WH-M9000 (QR), WH-M8000 (QR)	17 - 22	5 + 20	5 mm hexagon wrench + 20 mm Hub spanner
Freewheel body	WH-M9000, WH-M9020, WH-M8000, WH-M8020	150	TL-FH15	TL-FH15

Reference image

- Example) WH-M9000-TL-F15-275



- Example) WH-M9000-TL-R12-275



Cassette

CS-M9200, CS-M9100, CS-M9101, CS-M9000, CS-M9001, CS-M8200, CS-M8100, CS-M8000, CS-M7100, CS-M7000

Parts Name	Model	Torque (N·m)	Tools	
Lock ring	All	30 - 50		TL-LR10 / TL-LR15 + adjustable wrench

Crankset

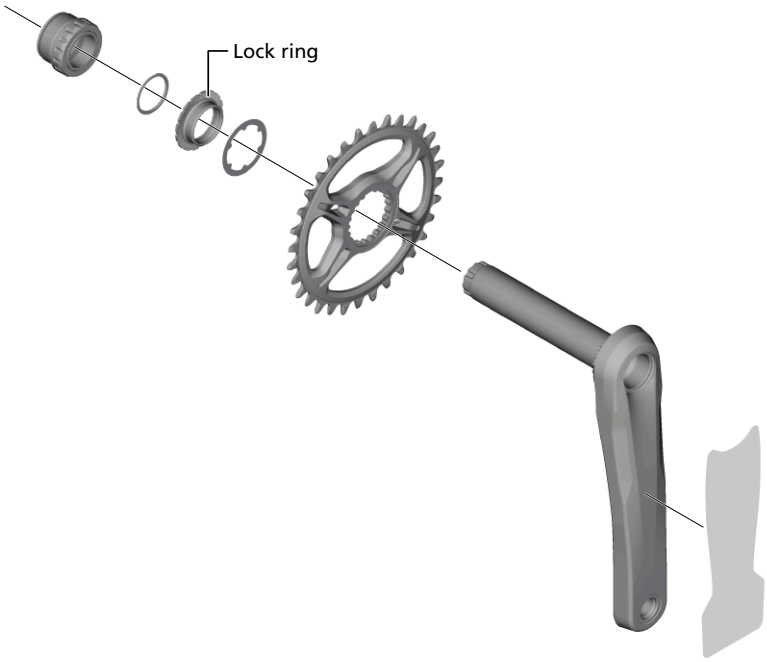
FC-M9200, FC-M9220, FC-M9100, FC-M9120, FC-M9125, FC-M9130, FC-M9000, FC-M9020, FC-M8200, FC-M8100, FC-M8120, FC-M8130, FC-M8000, FC-M7100, FC-M7120, FC-M7130, FC-M7000

Parts Name	Model	Torque (N·m)	Tools	
Crank mounting screw	FC-M9100, FC-M9120, FC-M9125, FC-M9130	45 - 55	8	8 mm hexagon wrench
	FC-M9200, FC-M9220, FC-M9000, FC-M9020,FC-M8200, FC-M8100, FC-M8120, FC-M8130, FC-M8000, FC-M7100, FC-M7120, FC-M7130, FC-M7000	0.7 - 1.5	TL-FC16 / TL-FC18	TL-FC16 / TL-FC18
Crank fixing screw	FC-M9200, FC-M9220, FC-M9000, FC-M9020,FC-M8200, FC-M8100, FC-M8120, FC-M8130, FC-M8000, FC-M7100, FC-M7120, FC-M7130, FC-M7000	12 - 14	5	5 mm hexagon wrench

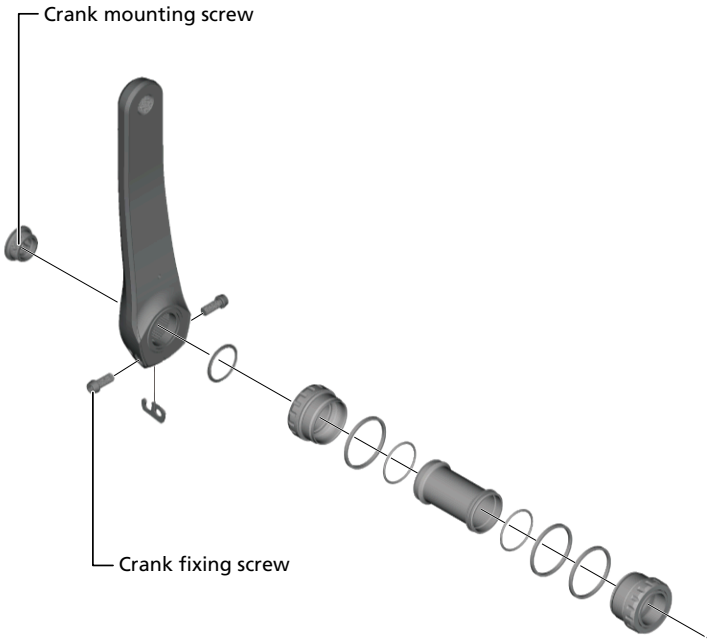
Parts Name	Model	Torque (N·m)	Tools	
Lock ring	FC-M9200, FC-M9220, FC-M9100, FC-M9120, FC-M9125, FC-M9130,FC-M8200, FC-M8100, FC-M8120, FC-M8130	35 - 50	TL-FC41 + TL-FC32	TL-FC41 + TL-FC32
			TL-FC41 + TL-FC36	TL-FC41 + TL-FC36
			TL-FC41 + 32	TL-FC41 + 32 mm spanner
Chainring fixing screws	FC-M9100, FC-M9120, FC-M8100, FC-M8120, FC-M7100, FC-M7120	16 - 17	30	Hexalobular [#30]
	FC-M9000, FC-M9020	8 - 10	27	Hexalobular [#27]
	FC-M8000, FC-M7000 (single gear / double gear)	12 - 14	30	Hexalobular [#30]
Chainring fixing screws (largest chainring / middle chainring)	FC-M8000, FC-M7000 (triple gear)	10 - 12	30	Hexalobular [#30]
Chainring fixing screws (smallest chainring)	FC-M8000, FC-M7000 (double gear / triple gear)	16 - 17	30	Hexalobular [#30]

Reference image

- Example) FC-M9100



- Example) FC-M9000



Threaded Bottom Bracket

BB-MT800, SM-BB93

Parts Name	Model	Torque (N·m)	Tools	
Left- and right-hand cups	BB-MT801, BB-MT800	35 - 50	TL-FC25 + TL-FC32	TL-FC25 + TL-FC32
			TL-FC25 + TL-FC33	TL-FC25 + TL-FC33
			TL-FC25 + TL-FC36	TL-FC25 + TL-FC36
			TL-FC37	TL-FC37
	SM-BB93		TL-FC24 + TL-FC32	TL-FC24 + TL-FC32
			TL-FC24 + TL-FC33	TL-FC24 + TL-FC33
			TL-FC24 + TL-FC36	TL-FC24 + TL-FC36
			TL-FC34	TL-FC34

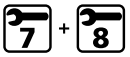
Rotor

RT-MT900, RT-MT800

Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	All	40	TL-LR15 +  / TL-FC36	TL-LR15 + Adjustable wrench / TL-FC36

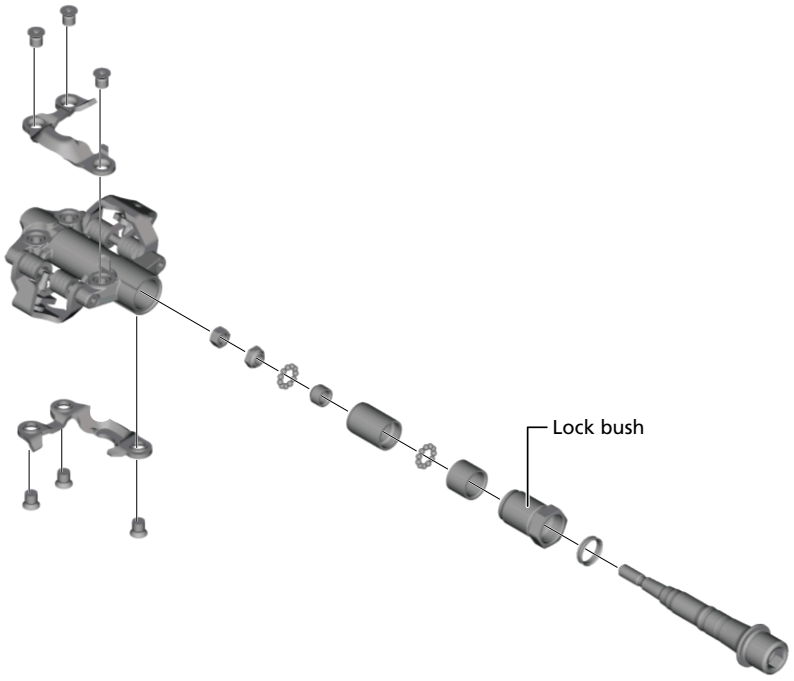
Pedal

PD-M9200, PD-M9220, PD-M9100, PD-M9120, PD-M9000, PD-M9020, PD-M8100, PD-M8120, PD-M8000, PD-M8020

Parts Name	Model	Torque (N·m)	Tools	
Pedal axle	All	35 - 55		8 mm hexagon wrench
Lock nut	PD-M9200, PD-M9100, PD-M9120, PD-M9000, PD-M9020	5 - 7		7 mm spanner + 8 mm spanner
	PD-M8100, PD-M8120, PD-M8000, PD-M8020			7 mm spanner + 10 mm spanner
Lock bush	PD-M9200, PD-M9220, PD-M9100, PD-M9120	9 - 11		15 mm spanner
	PD-M9000, PD-M9020, PD-M8000, PD-M8020	10 - 12		17 mm spanner
	PD-M8100, PD-M8120	9 - 12		
Body cover fixing screw	PD-M9200, PD-M9100, PD-M9120, PD-M8100, PD-M8120	2.7 - 3.5		Hexalobular [#10]
	PD-M9000, PD-M9020, PD-M8000, PD-M8020	2.5 - 3.5		

Reference image

- Example) PD-M9100



E-BIKE

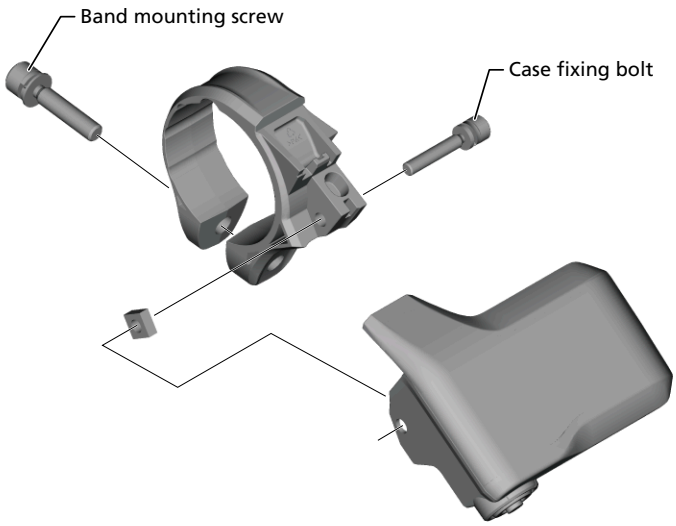
Cycle Computer

SC-EM800, SC-EN600, SC-EN500, SC-E8000, SC-E7000, SC-E5003, SC-E5000

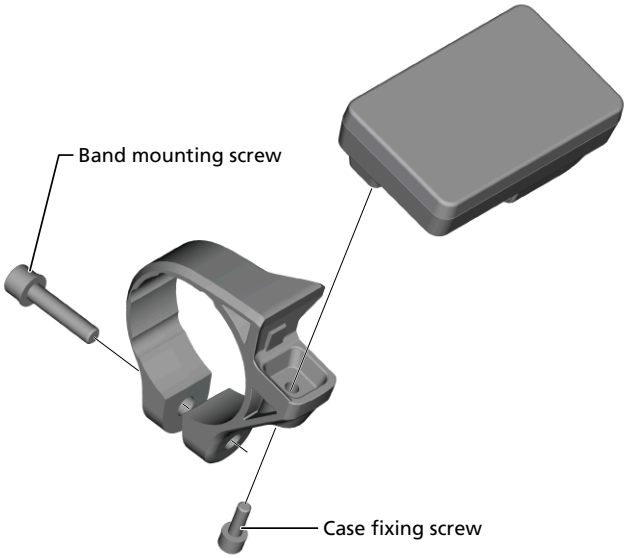
Parts Name	Model	Torque (N·m)	Tools	
Band mounting screw	All	0.8	3	3 mm hexagon wrench
Case fixing bolt	SC-EM800, SC-E8000, SC-E7000	0.6	2.5	2.5 mm hexagon wrench
	SC-EN500, SC-E5003, SC-E5000	0.6	2	2 mm hexagon wrench
Case fixing screw	SC-EN600	0.6	2.5	2.5 mm hexagon wrench

Reference image

- Example) SC-EM800



- Example) SC-EN600

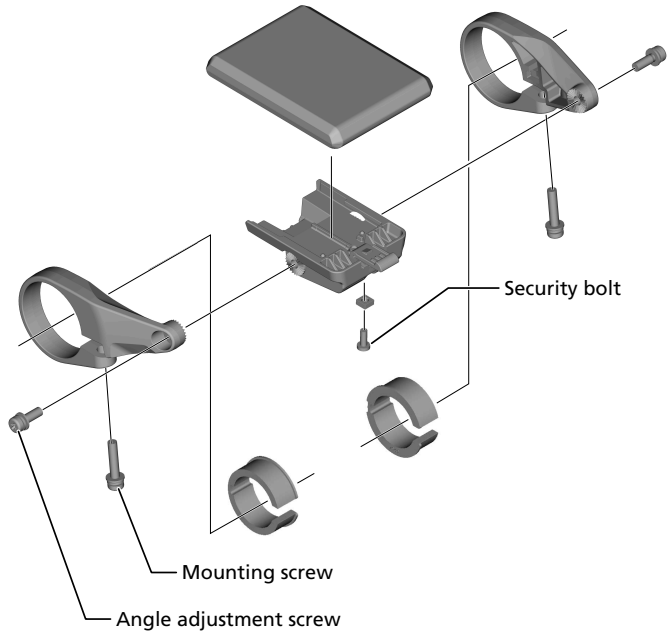


SC-EN610, SC-E6100, SC-E6010

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	0.8 - 1		Cross head screwdriver [#2]
Angle adjustment screw	All	0.5		Cross head screwdriver [#2]
Security bolt	All	0.4 - 0.5		Cross head screwdriver [#2]

Reference image

- Example) SC-EN610



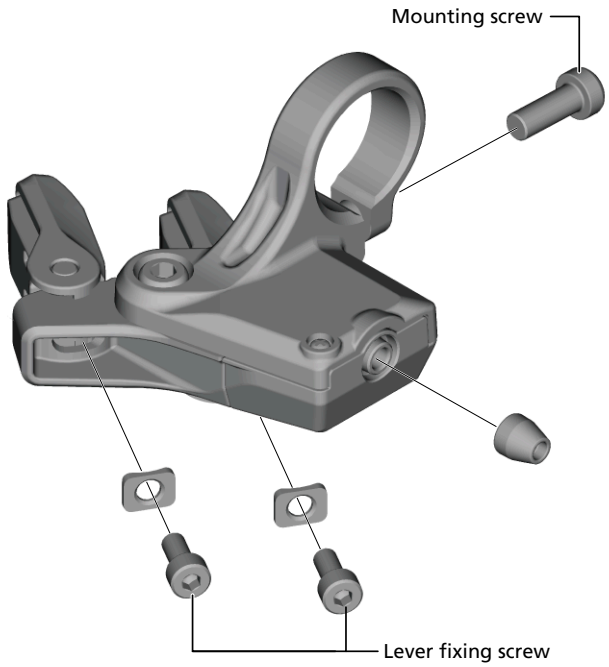
Switch Unit

SW-M8150, SW-E8000-L, SW-EN605-R

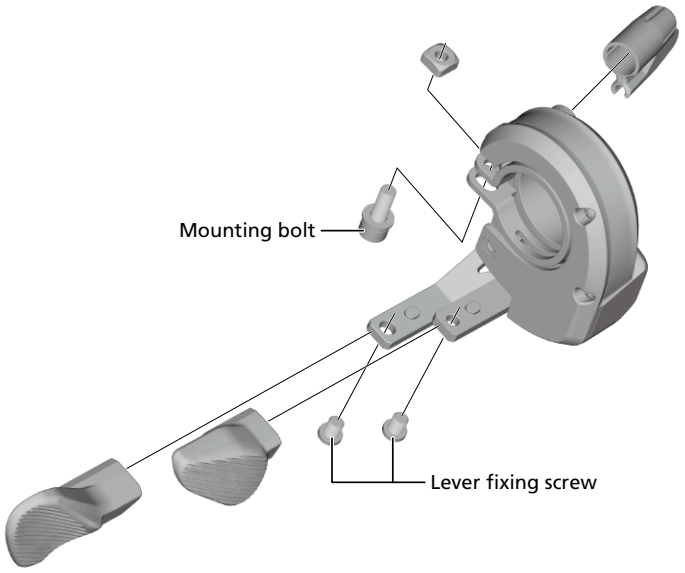
Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	SW-M8150, SW-EN605-R	3	4	4 mm hexagon wrench
Mounting bolt	SW-E8000-L	2 - 2.2	3	3 mm hexagon wrench
Lever fixing screw	SW-M8150	2	3	3 mm hexagon wrench
	SW-E8000-L	0.5 - 0.7	2	2 mm hexagon wrench
Unit position adjustment bolt	SW-M8150	3	3	3 mm hexagon wrench
Battery holder fixing screw	SW-EN605-R	0.2	#1	Cross head screwdriver [#1]

Reference image

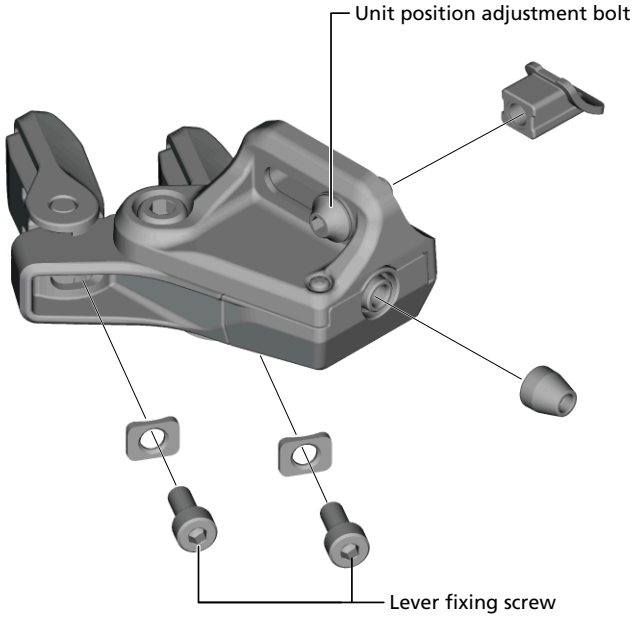
- Example) SW-M8150-R



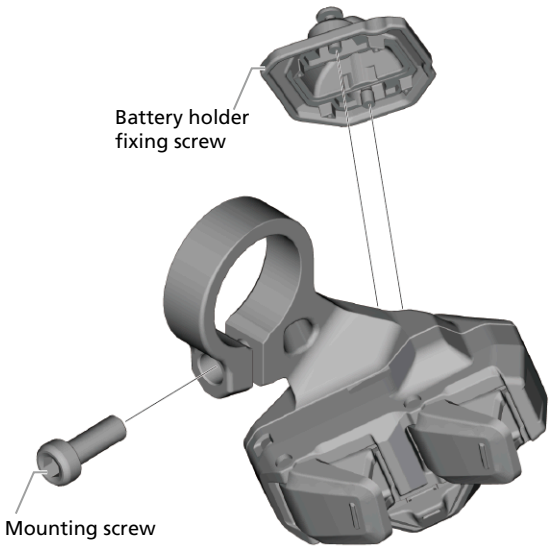
- Example) SW-E8000-L



- Example) SW-M8150-IR



- Example) SW-EN605-R

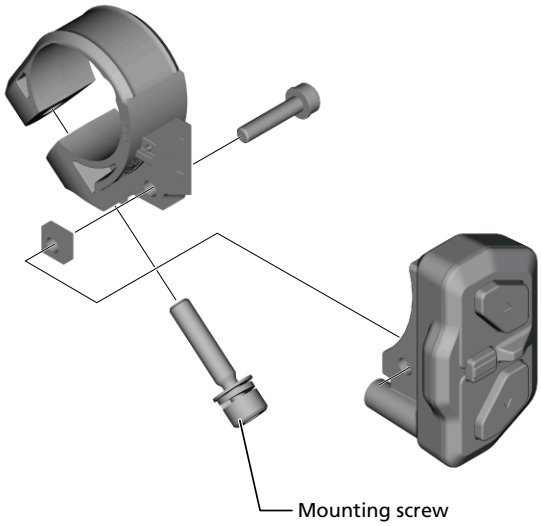


SW-EN600-R, SW-EN600-L, SW-EM800-L, SW-E7000, SW-E6010, SW-E6000

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	SW-EN600-L, SW-EN600-R	0.8	3	3 mm hexagon wrench
	SW-EM800-L	1.5	2.5	2.5 mm hexagon wrench
	SW-E7000, SW-E6010	1.5	3	3 mm hexagon wrench
	SW-E6000	1.5	#2	Cross head screwdriver [#2]

Reference image

- Example) SW-EN600



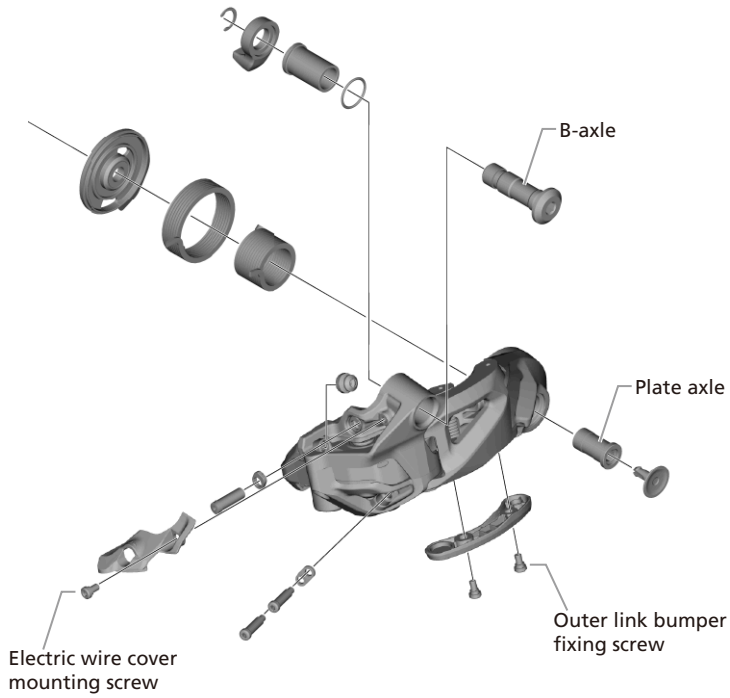
Rear Derailleur

RD-M9260, RD-M8260, RD-M6260

Parts Name	Model	Torque (N·m)	Tools	
B-axle	All	10 - 12	5	5 mm hexagon wrench
Pulley screws	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	All	7.8 - 9.8	5	5 mm hexagon wrench
Plate stopper pin	All	1	#2	Cross head screwdriver [#2]
Electric wire cover mounting screw	All	1	2	2 mm hexagon wrench
Outer link bumper fixing screw	All	1	2	2 mm hexagon wrench

Reference image

- Example) RD-M9260



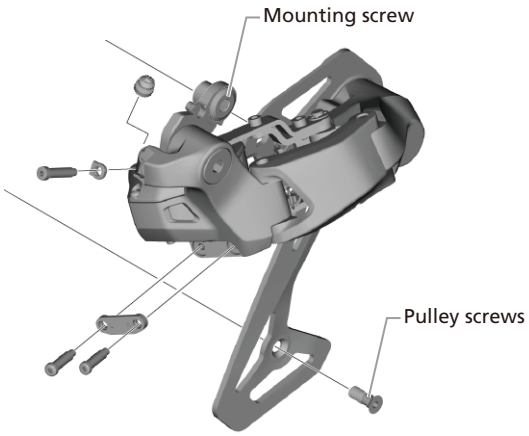
RD-U8050, RD-U6050

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench

Parts Name	Model	Torque (N·m)	Tools	
Pulley screws	All	2.5 - 5	3	3 mm hexagon wrench

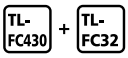
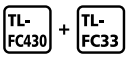
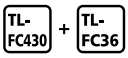
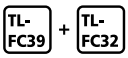
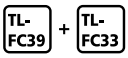
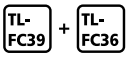
Reference image

- Example) RD-U8050



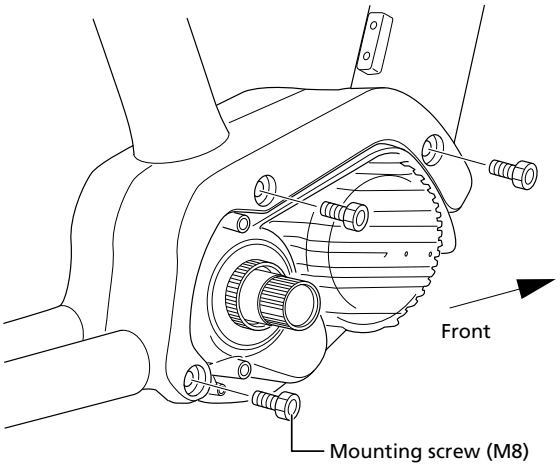
Drive Unit

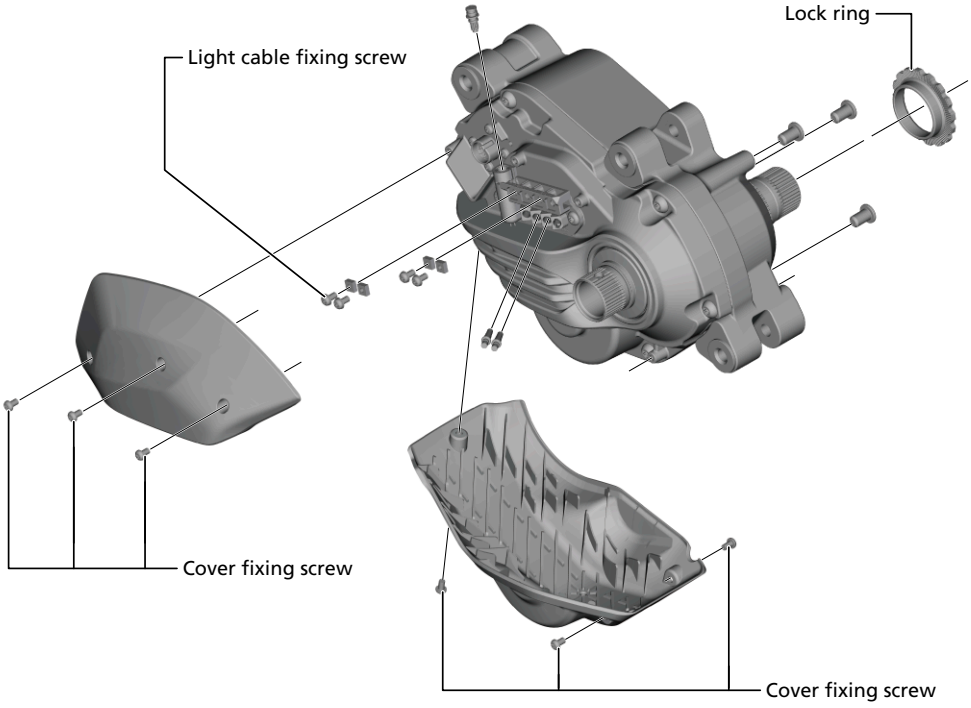
DU-EP801, DU-EP800, DU-EP600, DU-EP500, DU-E8000, DU-E8080, DU-E7000, DU-E6100, DU-E6180, DU-E5100, DU-E5000, DU-E5080

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw (M8)	DU-EP801, DU-EP600, DU-EP500	11.2 - 12.5 (Reference)	Depending on bicycle frame specification. Contact the bicycle manufacturer.	
	DU-EP800, DU-E8000, DU-E8080, DU-E7000, DU-E6100, DU-E6180, DU-E5100, DU-E5000, DU-E5080	10 - 12.5 (Reference)		
Cover fixing screw	All	0.6		Cross head screwdriver [#2]
Lock ring (for Chainring)	DU-EP801, DU-EP600, DU-EP500	35 - 45		TL-FC430 + TL-FC32
				TL-FC430 + TL-FC33
				TL-FC430 + TL-FC36
	DU-EP800, DU-E8000, DU-E7000, DU-E6100, DU-E6180, DU-E5100, DU-E5000, DU-E5080			TL-FC39 + TL-FC32
				TL-FC39 + TL-FC33
				TL-FC39 + TL-FC36
Light cable mounting screw	All	0.6		Cross head screwdriver [#2]

Reference image

- Example) DU-EP801





Chain Device

CD-EM800, SM-CDE80, SM-CDE70, SM-DUE61-FB

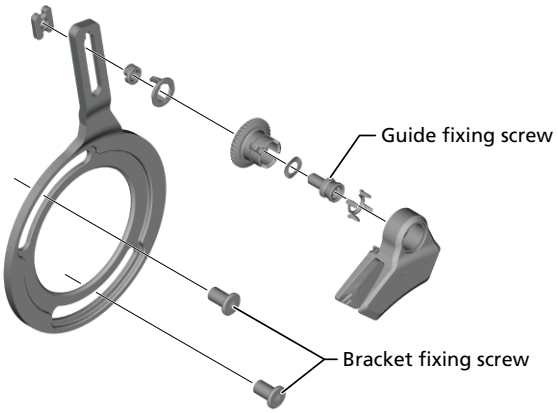
Parts Name	Model	Torque (N·m)	Tools	
Bracket fixing screw * 1	CD-EM800	3 - 4	3	3 mm hexagon wrench
Back plate fixing screw * 2	SM-CDE80, SM-CDE70	3 - 4	3	3 mm hexagon wrench
Guide fixing screw	CD-EM800	2 - 3	4	4 mm hexagon wrench
	SM-CDE80, SM-CDE70	4	3 / 4	3 mm hexagon wrench / 4 mm hexagon wrench
Chain case stay fixing screw	SM-DUE61-FB	1.2	2	2 mm hexagon wrench

* 1 Also for chain case stay (DU-EP801, DU-EP600)

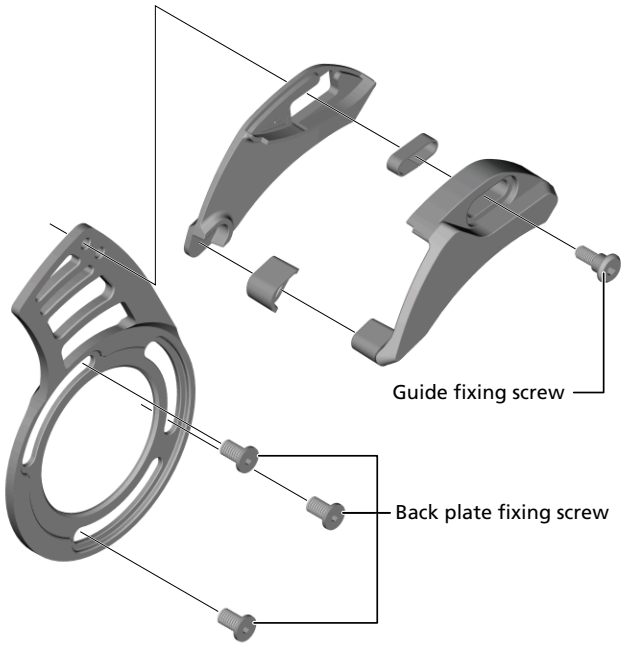
* 2 For DU-E6100, DU-E6180 only

Reference image

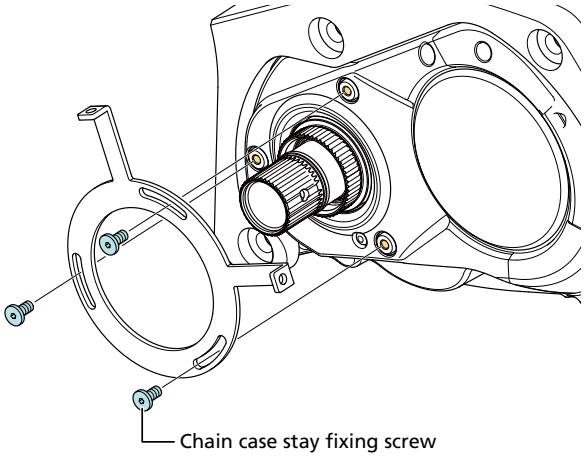
- Example) CD-EM800



- Example) SM-CDE80



- Example) SM-DUE61-FB



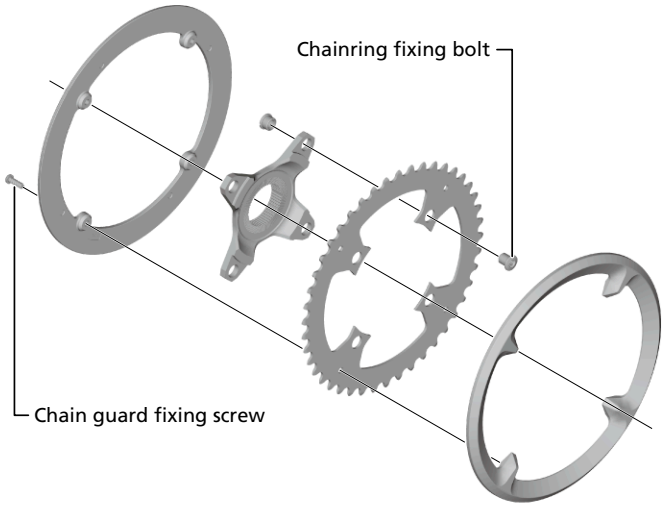
Chainring

CR-EM800, CR-ET600, SM-CRE80-12-B, SM-CRE80-12-SB, SM-CRE80-B, SM-CRE80-R, SM-CRE80, SM-CRE70-12-B, SM-CRE70-12, SM-CRE70-B, SM-CRE70, SM-CRE61, SM-CRE50

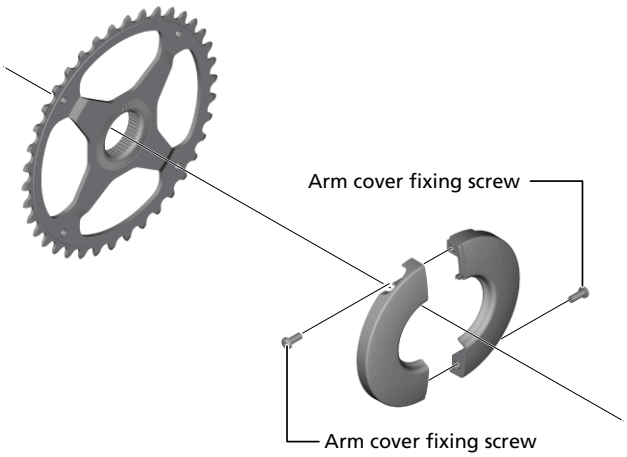
Parts Name	Model	Torque (N·m)	Tools	
Chainring fixing bolt	CR-EM800, SM-CRE80-12-B, SM-CRE80-12-SB, SM-CRE80-B, SM-CRE80-R, SM-CRE80, SM-CRE70-12-B, SM-CRE70-12, SM-CRE70-B, SM-CRE70	12 - 14	TL-FC22 + 5 / 10	TL-FC22 + 5 mm hexagon wrench / Hexalobular [#10]
Chain guard fixing screw	CR-ET600, SM-CRE80, SM-CRE70-12, SM-CRE70, SM-CRE61, SM-CRE50	0.7	2	Cross head screwdriver [#2]
Arm cover fixing screw	SM-CRE61, SM-CRE50	0.8	2	Cross head screwdriver [#2]

Reference image

- Example) SM-CRE80



- Example) SM-CRE50



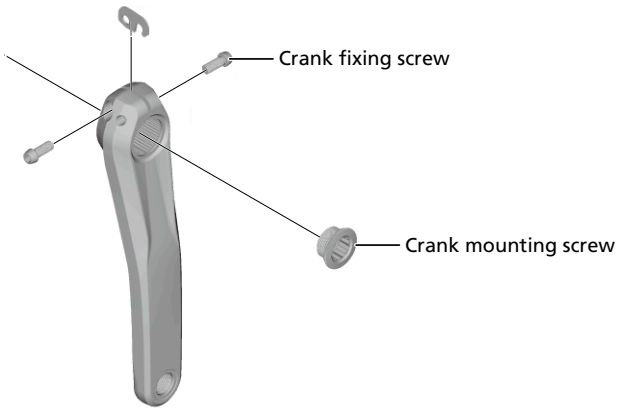
Crank Arm

FC-EM900, FC-EM600, FC-EN500, FC-M8150, FC-M8050, FC-E8050, FC-E8000, FC-E6100, FC-E6010, FC-E5000, FC-E5010

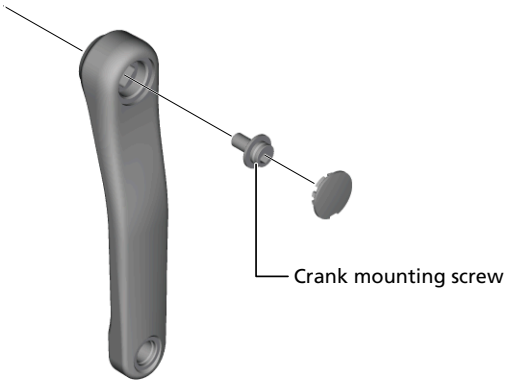
Parts Name	Model	Torque (N·m)	Tools	
Crank mounting screw	FC-EM900, FC-EM600, FC-EN500, FC-M8150, FC-M8050, FC-E8050, FC-E8000, FC-E6100, FC-E6010	0.7 - 1.5	TL-FC16 / TL-FC18	TL-FC16 / TL-FC18
	FC-E5000, FC-E5010	35	8	8 mm hexagon wrench
Crank fixing screw	FC-EM900, FC-EM600, FC-EN500, FC-M8150, FC-M8050, FC-E8050, FC-E8000, FC-E6100, FC-E6010	12 - 14	5	5 mm hexagon wrench

Reference image

- Example) FC-E8050



- Example) FC-E5000



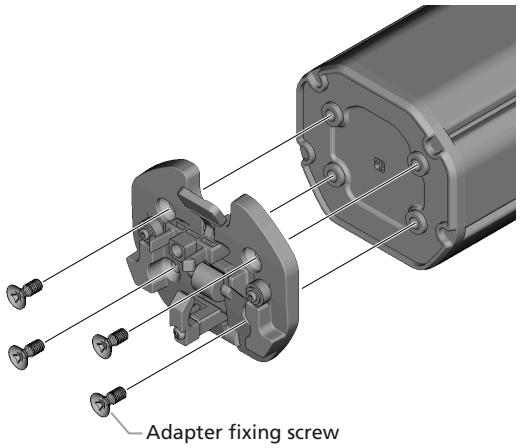
Battery

BT-EN817-B

Parts Name	Model	Torque (N·m)	Tools	
Adapter fixing screw	BT-EN817-B	0.9 - 1.1	PZ1	Pozidriv screwdriver [#1]

Reference image

- Example) BT-EN817-B

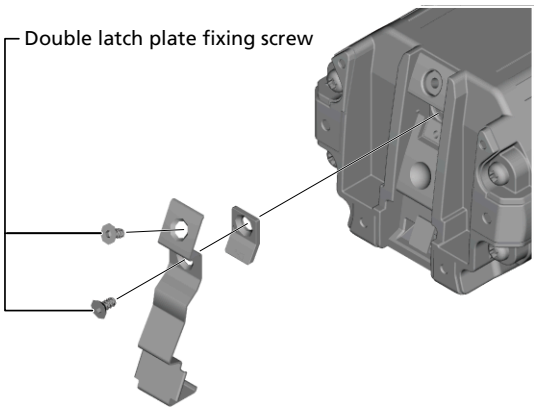


BT-EN805, BT-EN805-L, BT-EN805-A, BT-EN806, BT-EN806-A, BT-E8035, BT-E8035-L, BT-E8035-A, BT-E8036, BT-E8036-A

Parts Name	Model	Torque (N·m)	Tools	
Double latch plate fixing screw	All	0.6	2	2 mm hexagon wrench

Reference image

- Example) BT-EN806



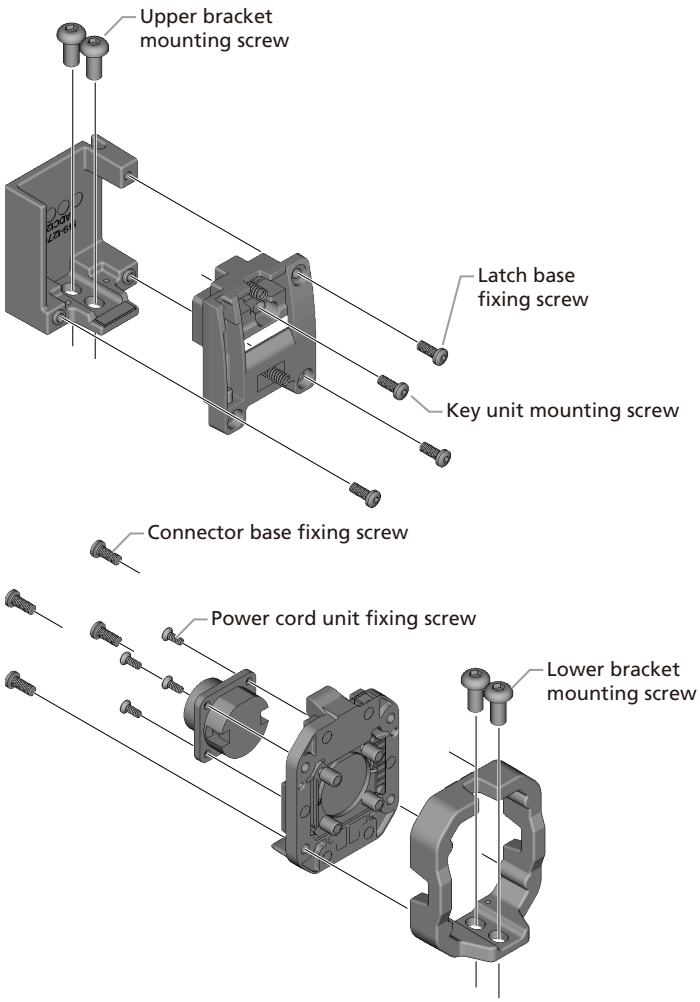
Battery Mount

BM-EN810-A

Parts Name	Model	Torque (N·m)	Tools	
Lower bracket mounting screw	BM-EN810-A	3.2 - 3.8	5	5 mm hexagon wrench
Upper bracket mounting screw	BM-EN810-A	3.2 - 3.8	5	5 mm hexagon wrench
Latch base fixing screw	BM-EN810-A	1.8 - 2.2	3	3 mm hexagon wrench
Key unit mounting screw	BM-EN810-A	1.8 - 2.2	3	3 mm hexagon wrench
Connector base fixing screw	BM-EN810-A	1.8 - 2.2	3	3 mm hexagon wrench
Power cord unit fixing screw	BM-EN810-A	0.35 - 0.45	10	Hexalobular [#10]

Reference image

- Example) BM-EN810-A

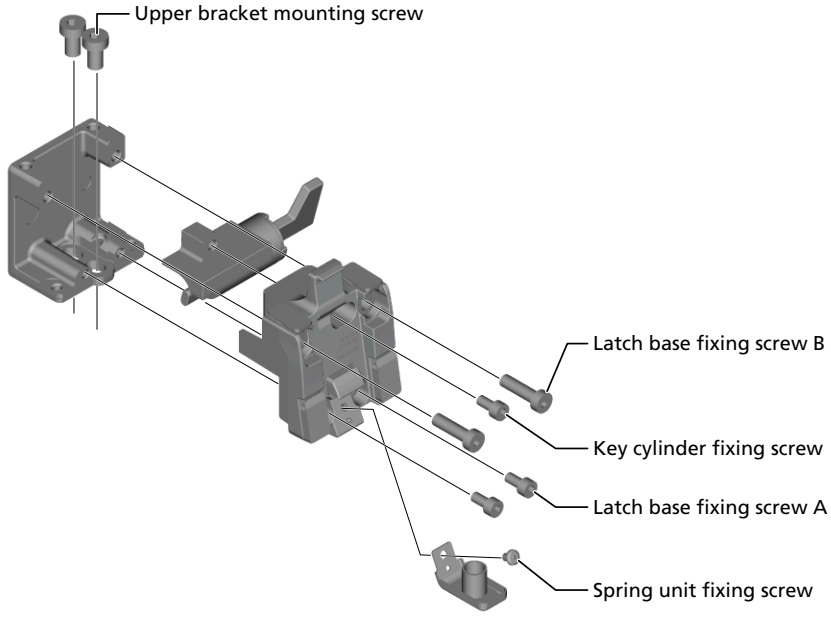


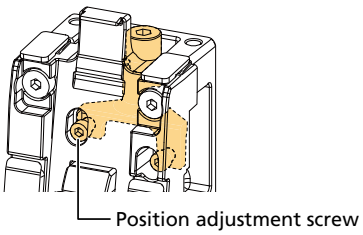
BM-EN800, BM-EN801, BM-E8030, BM-E8031, BM-E8020

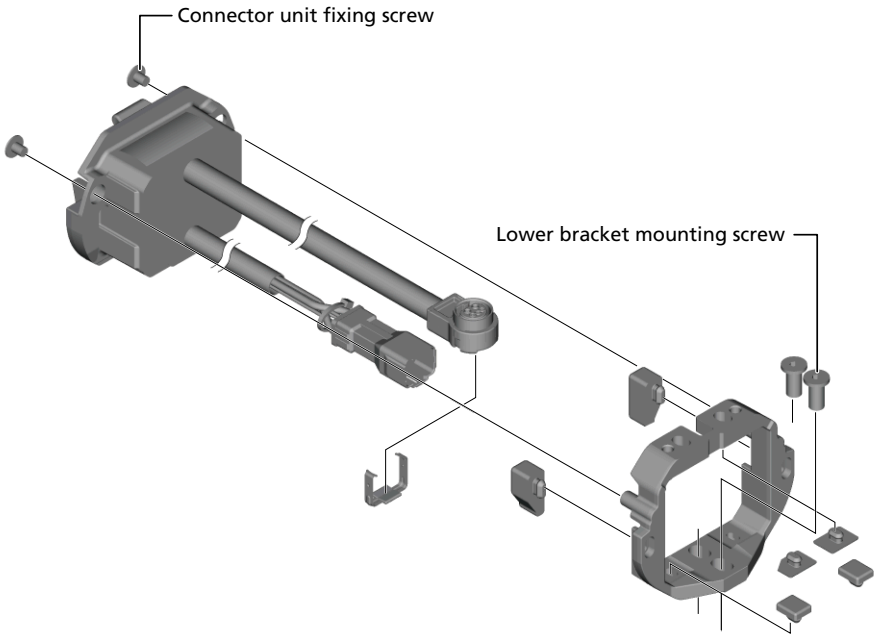
Parts Name	Model	Torque (N·m)	Tools	
Upper bracket mounting screw	BM-EN800, BM-EN801, BM-E8030, BM-E8031	6	4	4 mm hexagon wrench
Position adjustment screw	BM-EN801, BM-E8031	0.8	2.5	2.5 mm hexagon wrench
Latch base fixing screw A	BM-EN800, BM-EN801, BM-E8030, BM-E8031	1	3	3 mm hexagon wrench
Latch base fixing screw B	BM-EN800, BM-EN801, BM-E8030, BM-E8031	2	3	3 mm hexagon wrench
Key cylinder fixing screw	BM-EN800, BM-E8030	1	3	3 mm hexagon wrench
Spring unit fixing screw	BM-EN800, BM-EN801, BM-E8030, BM-E8031	0.5	1.5	1.5 mm hexagon wrench
Lower bracket mounting screw	BM-EN800, BM-EN801, BM-E8030, BM-E8031	4.5	3	3 mm hexagon wrench
Connector unit fixing screw	BM-EN800, BM-EN801, BM-E8030, BM-E8031	1	3	3 mm hexagon wrench
Upper case fixing screw	BM-E8020	0.6	#2	Cross head screwdriver [#2]
Lower case mounting screw	BM-E8020	10	5	5 mm hexagon wrench
Key unit mounting screw	BM-E8020	10	5	5 mm hexagon wrench
Key unit cover fixing screw	BM-E8020	0.6	#2	Cross head screwdriver [#2]
Key cylinder fixing screw	BM-E8020	0.6	2	2 mm hexagon wrench

Reference image

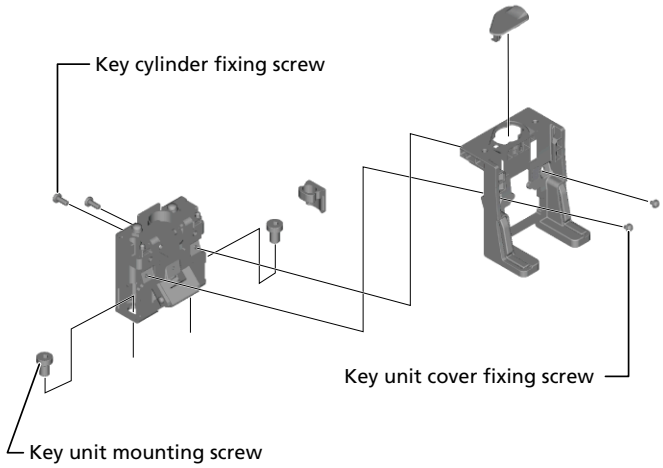
- Example) BM-EN800

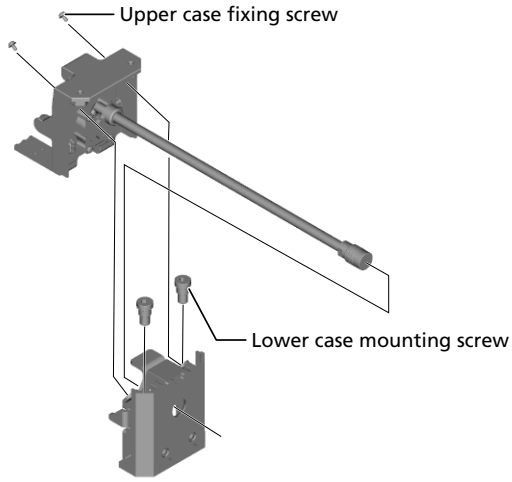






- Example) BT-E8020



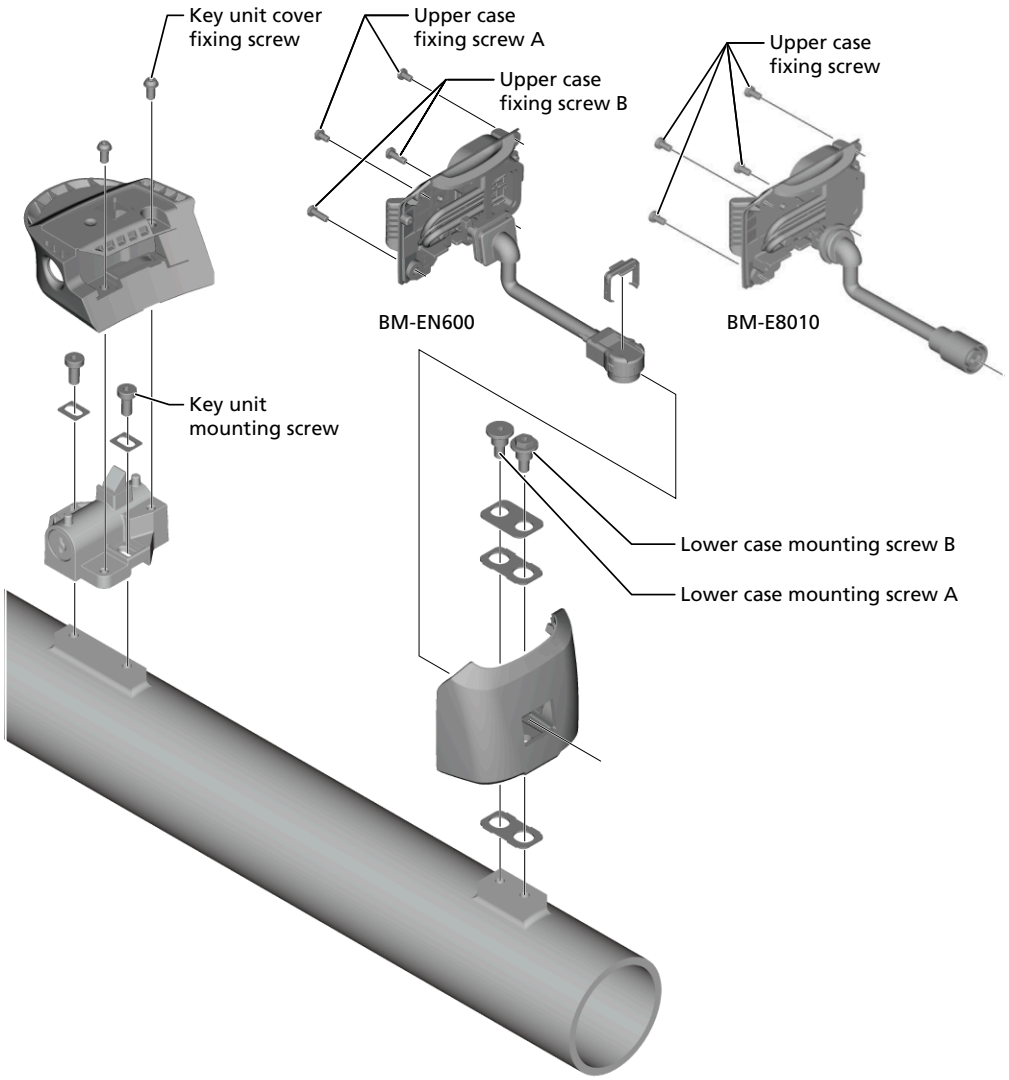


BM-EN600, BM-E8016, BM-E8010

Parts Name	Model	Torque (N·m)	Tools	
Lower case mounting screw A	All	3	3	3 mm hexagon wrench
Lower case mounting screw B	All	3	8	8 mm spanner
Key unit mounting screw	All	3	3	3 mm hexagon wrench
Key unit cover fixing screw	All	0.6	2.5	2.5 mm hexagon wrench
Upper case fixing screw A	BM-EN600, BM-E8016	0.6	2.5	2.5 mm hexagon wrench
Upper case fixing screw B	BM-EN600, BM-E8016	0.6	2.5	2.5 mm hexagon wrench
Upper case fixing screw	BM-E8010	0.6	2.5	2.5 mm hexagon wrench

Reference image

- Example) BM-EN600, BM-E8010

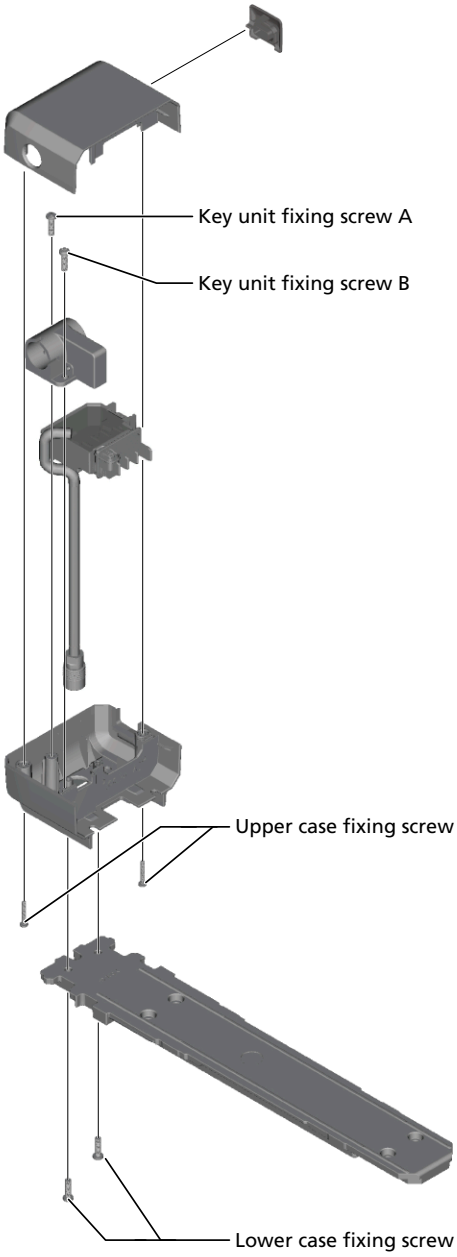


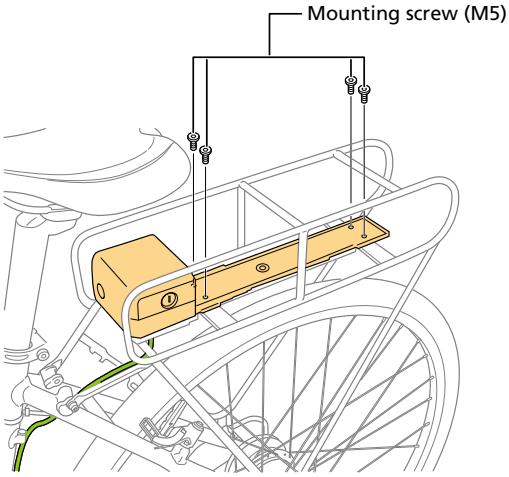
BM-EN400

Parts Name	Model	Torque (N·m)	Tools	
Key unit fixing screw A	BM-EN400	1.6 - 1.8	6.5	Slotted screwdriver (6.5 mm)
Key unit fixing screw B	BM-EN400	1.6 - 1.8	2	Cross head screwdriver [#2]
Upper case fixing screw	BM-EN400	1.1 - 1.3	10	Hexalobular [#10]
Lower case fixing screw	BM-EN400	1.6 - 1.8	2	Cross head screwdriver [#2]
Mounting screw (M5)	BM-EN400	-	Depending on bicycle frame specification. Contact the bicycle manufacturer.	

Reference image

- Example) BM-E6000





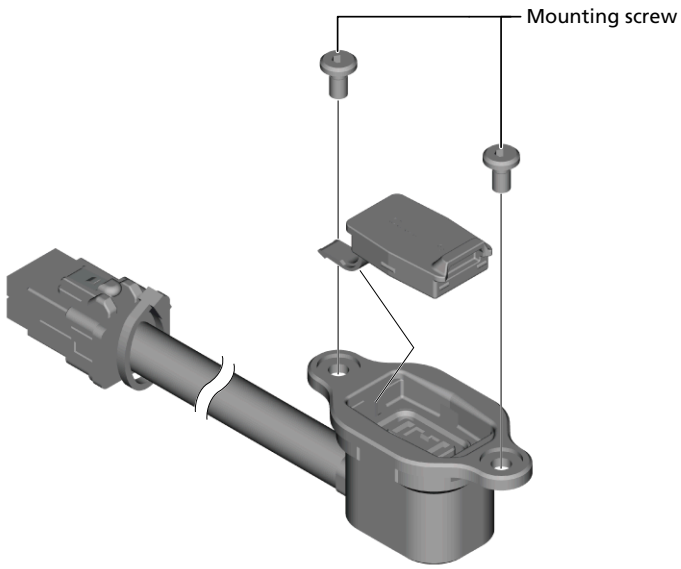
Satellite Charging Port

EW-CP110, EW-CP111, EW-CP100

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	EW-CP100	0.6	2	2 mm hexagon wrench
	EW-CP110, EW-CP111	0.25 - 0.34	#1	Cross head screwdriver [#1]

Reference image

- Example) EW-CP100



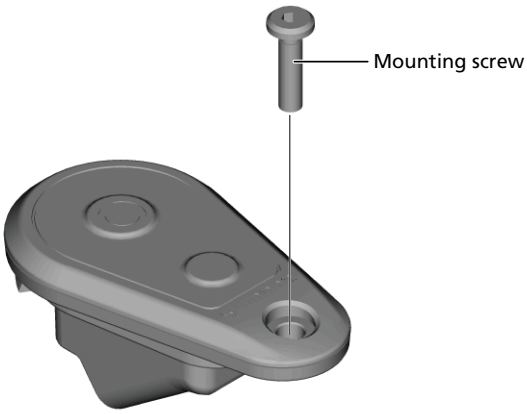
Satellite System ON/OFF Switch

EW-SW100, EW-SW300, EW-SW310

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	0.6	2	2 mm hexagon wrench

Reference image

- Example) EW-SW310



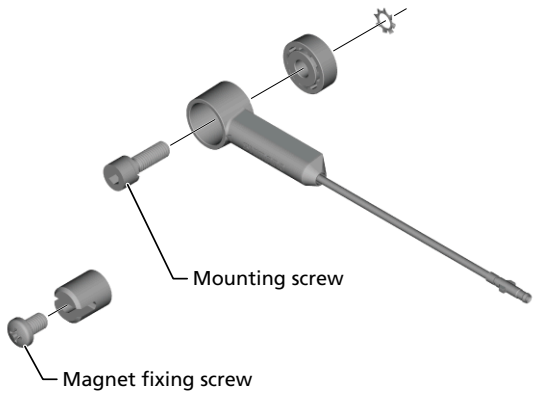
Speed Sensor

EW-SS300, EW-SS301, EW-SS302, SM-DUE10, SM-DUE11

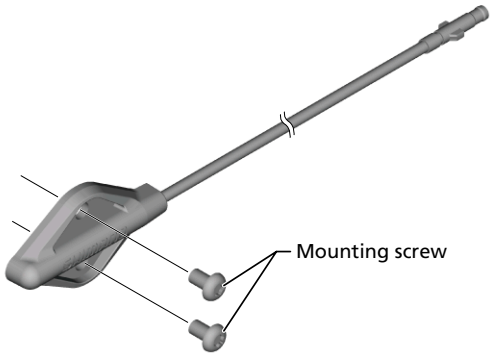
Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	EW-SS300, SM-DUE10	1.5 - 2	4 / 25	4 mm hexagon wrench / hexalobular [#25]
	EW-SS301, SM-DUE11	0.6	10	Hexalobular [#10]
	EW-SS302	0.8 - 1.3	10	Hexalobular [#10]
Magnet fixing screw	EW-SS300, SM-DUE10	1.5 - 2	2	Cross head screwdriver [#2]

Reference image

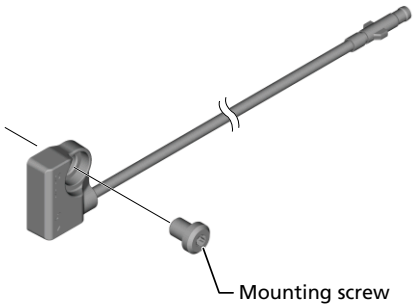
- Example) EW-SS300



- Example) EW-SS301



- Example) EW-SS302



LIFESTYLE

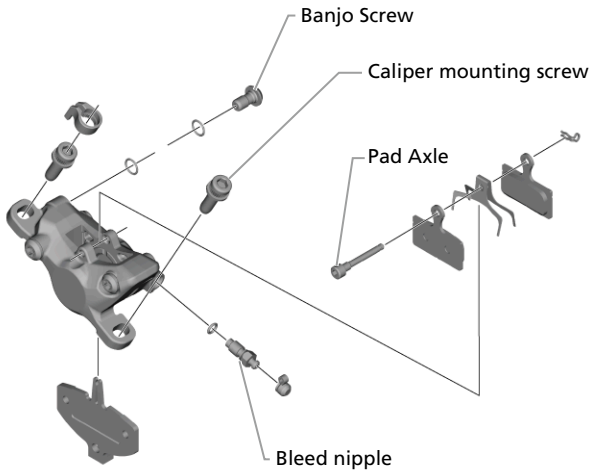
Hydraulic Disc Brake Caliper

BR-U8000, BR-U8010, BR-U8020, BR-U6030

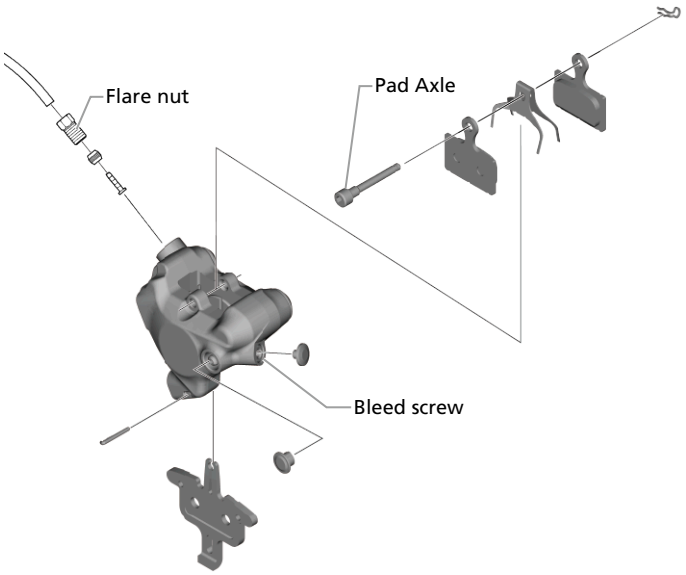
Parts Name	Model	Torque (N·m)	Tools	
Flare nut	BR-U8010, BR-U6030	5 - 6	8	8 mm spanner
Banjo screw	BR-U8000, BR-U8020	4 - 6	3	3 mm hexagon wrench
Pad axle	BR-U8000, BR-U8020	1 - 1.5	3	3 mm hexagon wrench
Caliper mounting screw	BR-U8000, BR-U8020	6 - 8	5	5 mm hexagon wrench
	BR-U8010, BR-U6030	6 - 8	4	4 mm hexagon wrench
Bleed nipple	BR-U8000, BR-U8020	4 - 6	7	7 mm box wrench
Bleed screw	BR-U8010, BR-U6030	4 - 6	3	3 mm hexagon wrench

Reference image

- Example) BR-U8000



- Example) BR-U8010



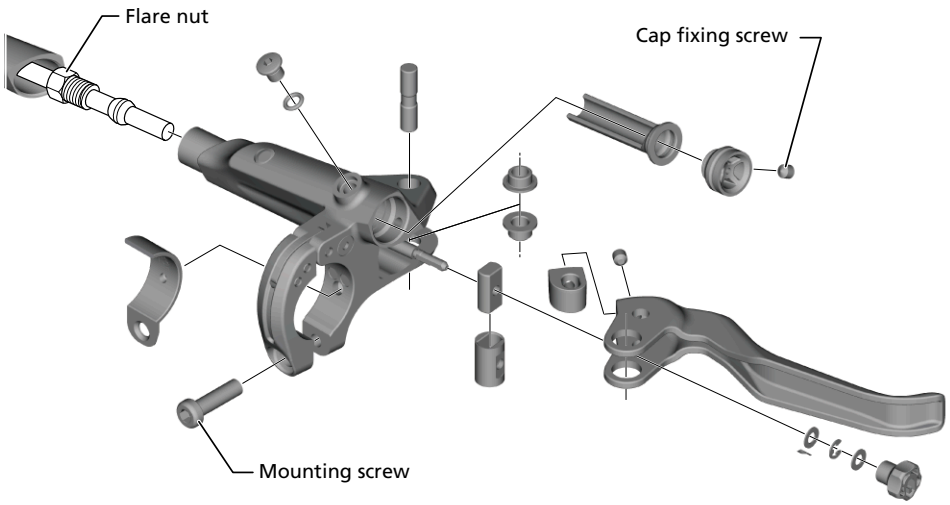
Hydraulic Disc Brake Lever

BL-U8000

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	BL-U8000	4 - 6	4	4 mm hexagon wrench
Flare nut	BL-U8000	5 - 7	8	8 mm spanner
Bleed screw	BL-U8000	0.5 - 1	2.5	2.5 mm hexagon wrench
Cap fixing screw	BL-U8000	0.2 - 0.3	2	2 mm hexagon wrench

Reference image

- Example) BL-U8000



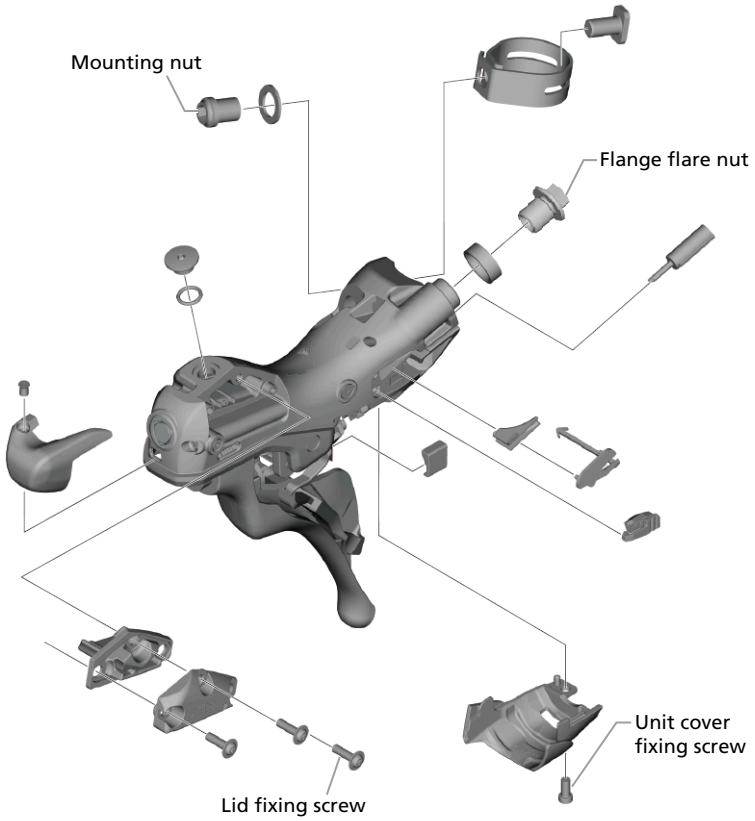
DUAL CONTROL LEVER

ST-U6030, BL-U6030

Parts Name	Model	Torque (N·m)	Tools	
Mounting nut	ST-U6030, BL-U6030	6 - 8	5	5 mm hexagon wrench
Flange flare nut	ST-U6030, BL-U6030	5 - 6	8	8 mm spanner
Bleed screw	ST-U6030, BL-U6030	0.5 - 0.7	2.5	2.5 mm hexagon wrench
Name plate fixing screw	ST-U6030, BL-U6030	0.1	1	Cross head screwdriver [#1]
Unit cover fixing screw	ST-U6030, BL-U6030	0.2 - 0.25	1	Cross head screwdriver [#1]
Lid fixing screw	ST-U6030, BL-U6030	0.8	8	Hexalobular [#8]

Reference image

- Example) ST-U6030



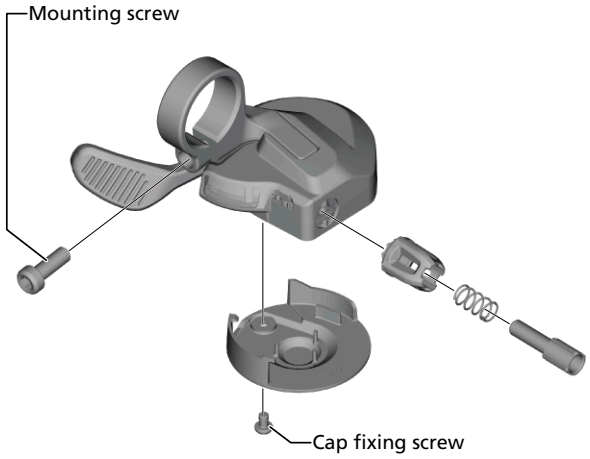
Shifter

SL-U8000-IL, SL-U8000-11IR, SL-U8000-L, SL-U8000, SL-U6050, SL-U6000

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	SL-U8000	3	4	4 mm hexagon wrench
	SL-U8000-IL, SL-U8000-11IR	4 - 6		
	SL-U6050, SL-U6000	5	5	5 mm hexagon wrench
Cap fixing screw	SL-U8000-L, SL-U8000-IL	0.3	2	Cross head screwdriver [#2]
Cover fixing screw	SL-U8000	1.5	2.5	2.5 mm hexagon wrench

Reference image

- Example) SL-U8000



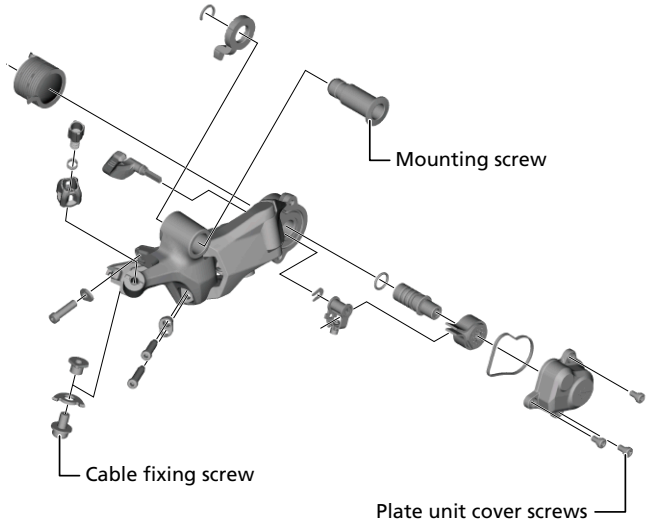
Rear Derailleur

RD-U8020, RD-U8000, RD-U6070, RD-U6020, RD-U6000

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench
Cable fixing screw	RD-U8000, RD-U8020	6 - 7	4	4 mm hexagon wrench
	RD-U6000, RD-U6020		5	5 mm hexagon wrench
Pulley screws	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	RD-U8020, RD-U8000, RD-U6020, RD-U6000	7.8 - 9.8	4	4 mm hexagon wrench
Plate unit cover screws	RD-U8020, RD-U8000, RD-U6020, RD-U6000	1 - 1.5	2	2 mm hexagon wrench
Plate stopper pin	RD-U8020, RD-U8000, RD-U6020, RD-U6000	1	#2	Cross head screwdriver [#2]

Reference image

- Example) RD-U8000



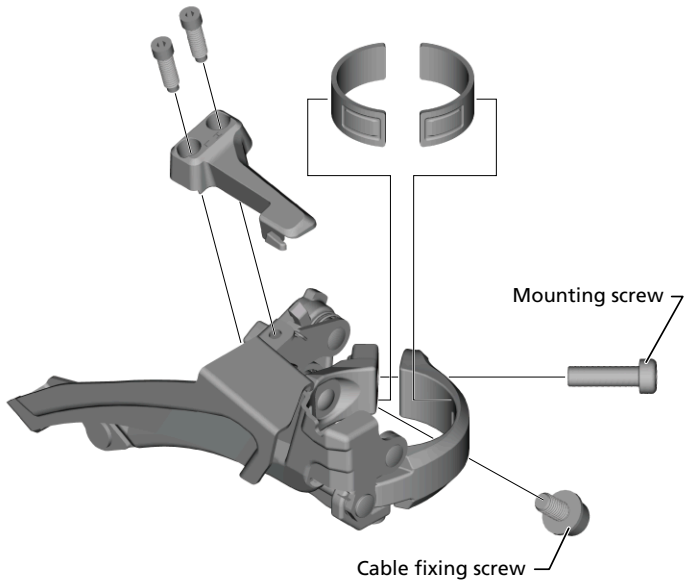
Front Derailleur

FD-U8010, FD-U6030, FD-U6010, FD-U6000

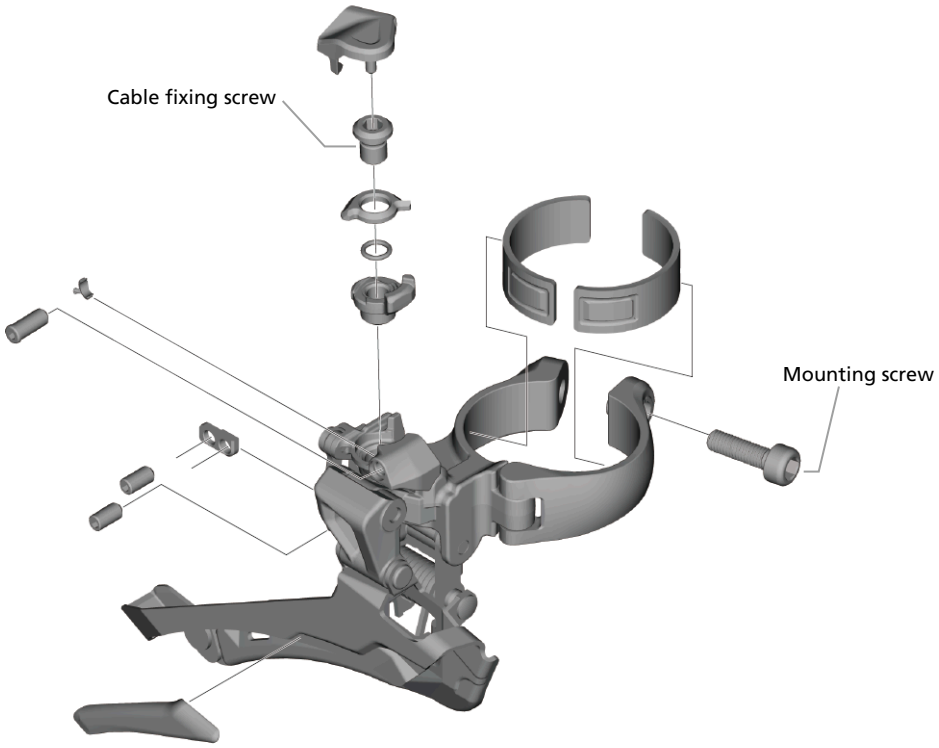
Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	FD-U8010	5 - 7	4	4 mm hexagon wrench
	FD-U6030, FD-U6010, FD-U6000		5	5 mm hexagon wrench
Cable fixing screw	FD-U6030	6 - 7	4	4 mm hexagon wrench
	FD-U8010	5 - 7		
	FD-U6000, FD-U6010		5	5 mm hexagon wrench

Reference image

- Example) FD-U8010



- Example) FD-U6030



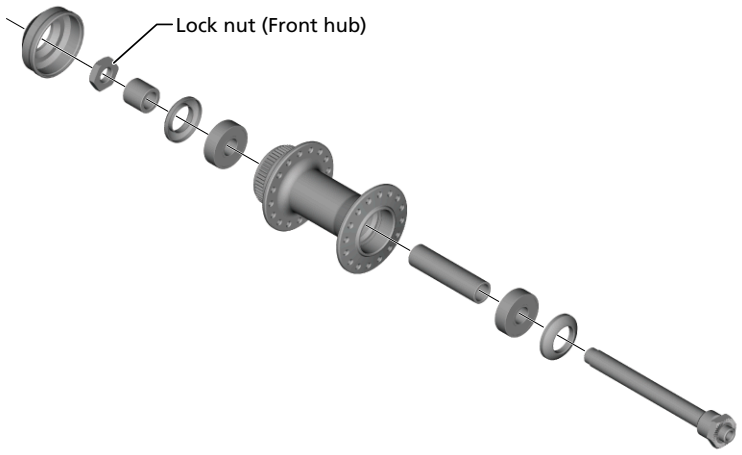
Hub set (Disc brake)

FH-TC600, FH-QC500, FH-TC500, FH-QC400, HB-QC400

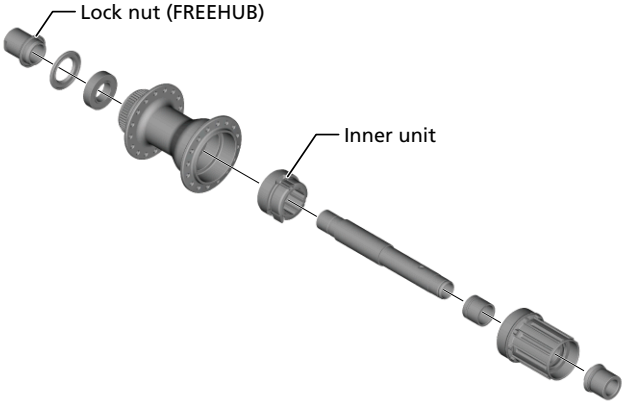
Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	ALL	40	TL-FC36 / TL-LR15 +	TL-FC36 / TL-LR15 + Adjustable wrench
Lock nut (Front hub)	HB-QC400	6 - 8	TL-HS37	TL-HS37
Lock nut (FREEHUB)	FH-TC600, FH-QC500, FH-TC500	3 - 5	17	17 mm hub spanner
Inner unit	FH-QC500, FH-TC500	180 - 200	19	19 mm hexagon wrench
Freewheel body	FH-QC400	147 - 200	12	12 mm hexagon wrench

Reference image

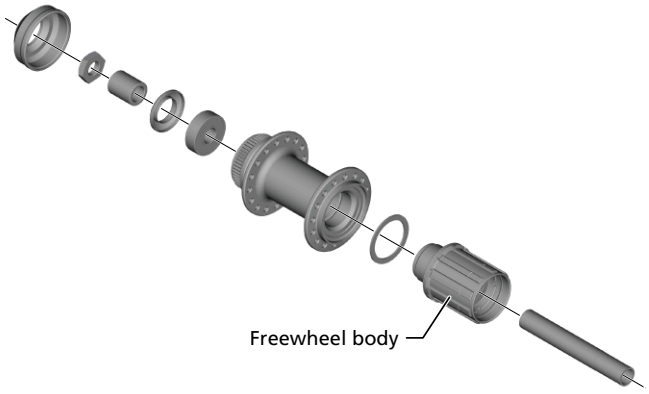
- Example) HB-QC400



- Example) FH-TC500



- Example) FH-QC400



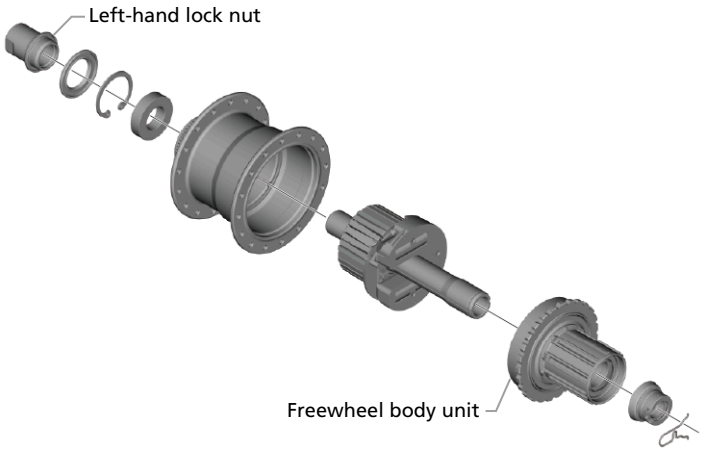
AUTO SHIFT Dynamo FREEHUB

FH-U6060

Parts Name	Model	Torque (N·m)	Tools	
Left-hand lock nut	FH-U6060	6 - 10	17	17 mm hub spanner
Freewheel body unit	FH-U6060	180 - 200	TL-FH18	TL-FH18

Reference image

- Example) FH-U6060



Cassette

CS-LG700-11, CS-LG400-11, CS-LG400-10, CS-LG300-10

Parts Name	Model	Torque (N·m)	Tools	
Lock ring	All	30 - 50	TL-LR10 / TL-LR15 +	TL-LR10 / TL-LR15 + adjustable wrench

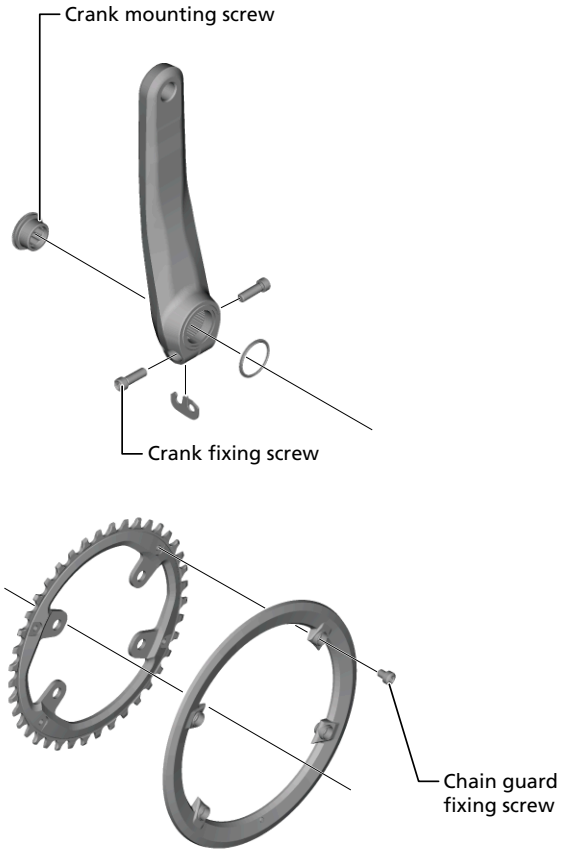
Crankset

FC-U8000-1, FC-U8000-2, FC-U6040-1, FC-U6040-2, FC-U6030-1, FC-U6030-2, FC-U6010-2, FC-U6000-1, FC-U6000-2, FC-U6000-2B

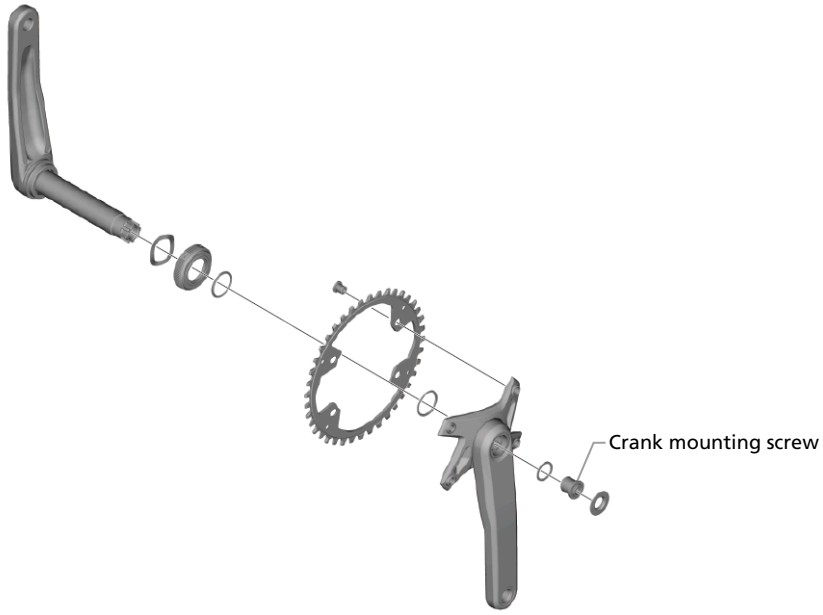
Parts Name	Model	Torque (N·m)	Tools	
Crank mounting screw	FC-U6000-1, FC-U6000-2, FC-U6000-2B	35 - 50	8	8 mm hexagon wrench
	FC-U8000-1, FC-U8000-2, FC-U6040-1, FC-U6040-2, FC-U6030-1, FC-U6030-2, FC-U6010-2	0.7 - 1.5	TL-FC16 / TL-FC18	TL-FC16 / TL-FC18
Crank fixing screw	FC-U8000-1, FC-U8000-2, FC-U6040-1, FC-U6040-2, FC-U6030-1, FC-U6030-2, FC-U6010-2	12 - 14	5	5 mm hexagon wrench
Chainring fixing screw	FC-U8000-1, FC-U8000-2, FC-U6040-2, FC-U6030-2, FC-U6010-2, FC-U6000-2, FC-U6000-2B	16 - 17	5	5 mm hexagon wrench
	FC-U6040-1, FC-U6030-1, FC-U6000-1	12 - 14	5	5 mm hexagon wrench
Chain guard fixing screw	FC-U8000-2, FC-U6010-2, FC-U6000-1, FC-U6000-2, FC-U6000-2B	1.5 - 2	2	Cross head screwdriver [#2]
	FC-U8000-1	1.5 - 2	4	4 mm hexagon wrench

Reference image

- Example) FC-U8000-1



- Example) FC-U6000-1



Threaded Bottom Bracket

BB-MT801

Parts Name	Model	Torque (N·m)	Tools	
Left- and right-hand cups	BB-MT801	35 - 50	TL-FC25 + TL-FC32	TL-FC25 + TL-FC32
			TL-FC25 + TL-FC36	TL-FC25 + TL-FC36
			TL-FC37	TL-FC37

Rotor

RT-MT800

Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	RT-MT800	40	TL-LR15 +  / TL-FC36	TL-LR15 + Adjustable wrench / TL-FC36

GRAVEL

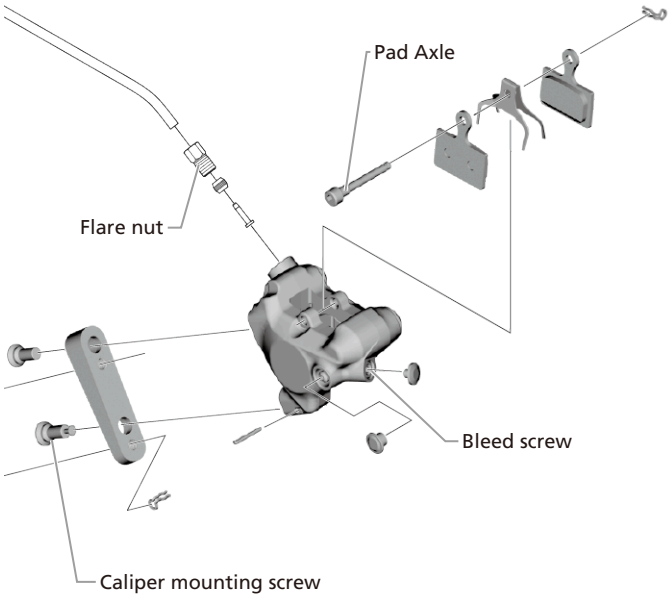
Hydraulic Disc Brake Caliper

BR-RX820, BR-RX810, BR-RX410, BR-RX400

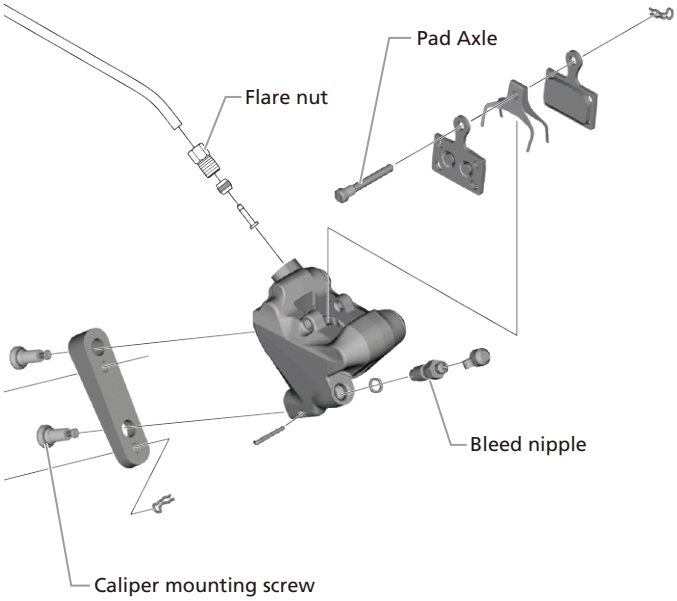
Parts Name	Model	Torque (N·m)	Tools	
Flare nut	All	5 - 7	8	8 mm spanner
Pad axle	BR-RX820, BR-RX410	1 - 1.5	3	3 mm hexagon wrench
	BR-RX810, BR-RX400	0.2 - 0.4	0.8×4	Slotted screwdriver
Caliper mounting screw	All	6 - 8	4	4 mm hexagon wrench
Bleed nipple	BR-RX810, BR-RX400	4 - 6	7	7 mm box wrench
Bleed screw	BR-RX820, BR-RX410	4 - 6	3	3 mm hexagon wrench

Reference image

- Example) BR-RX820



- Example) BR-RX810



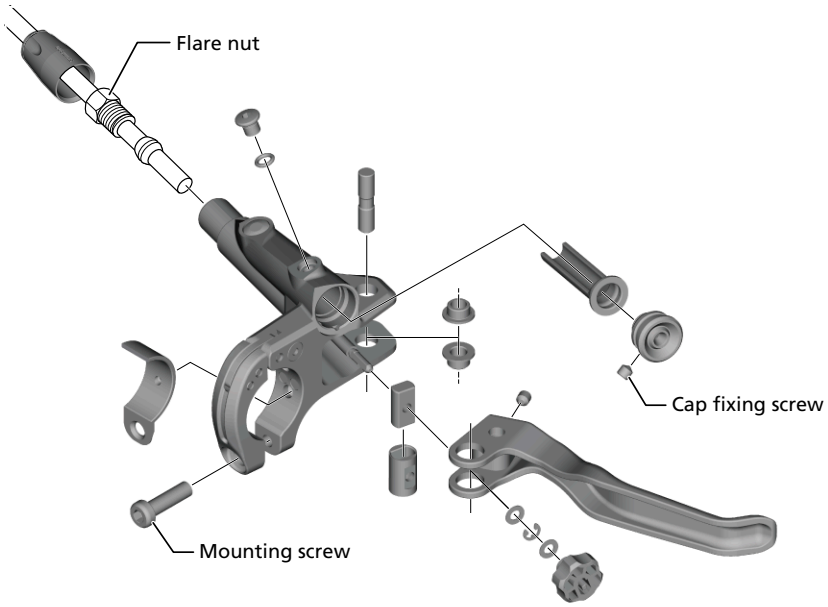
Hydraulic Disc Brake Lever

BL-T8100-LE

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	BL-T8100-LE	4 - 6	4	4 mm hexagon wrench
Flare nut	BL-T8100-LE	5 - 7	8	8 mm spanner
Bleed screw	BL-T8100-LE	0.5 - 1	2.5	2.5 mm hexagon wrench
Cap fixing screw	BL-T8100-LE	0.2 - 0.3	2	2 mm hexagon wrench

Reference image

- Example) BL-T8100-LE



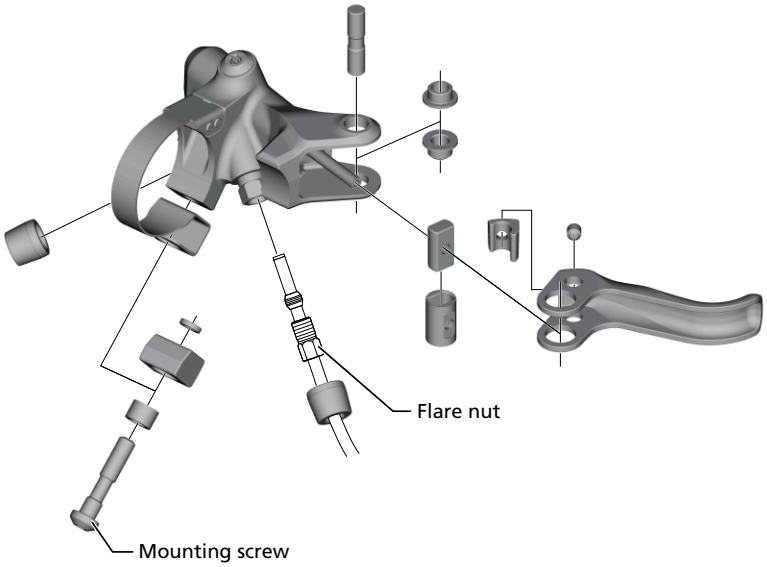
Sub Brake Lever

BL-RX812

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	BL-RX812	2 - 4	3	3 mm hexagon wrench
Flare nut	BL-RX812	5 - 7	8	8 mm spanner

Reference image

- Example) BL-RX812



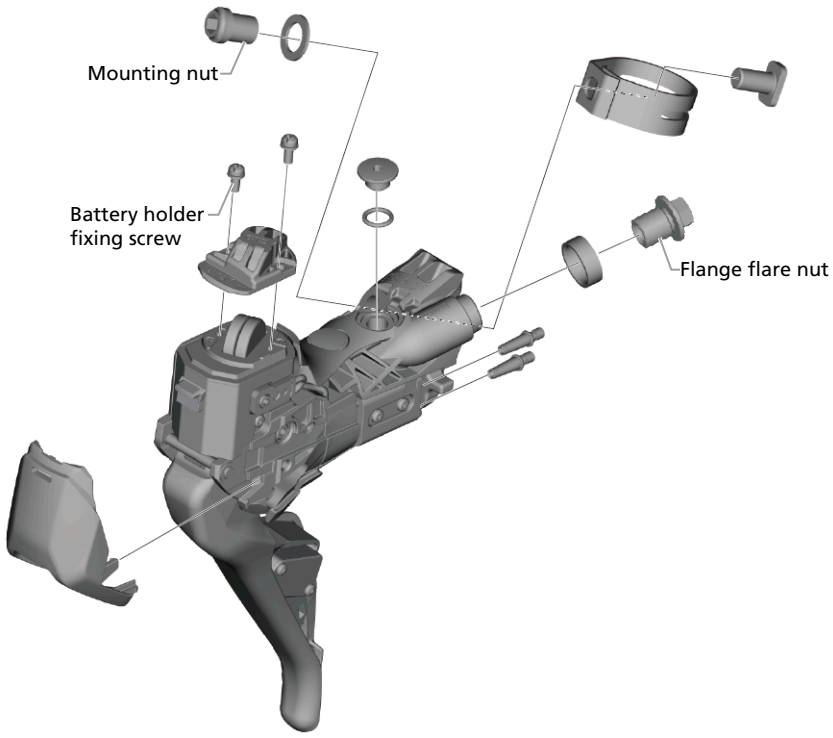
DUAL CONTROL LEVER

ST-RX825, BL-RX825

Parts Name	Model	Torque (N·m)	Tools	
Mounting nut	All	6 - 8	5	5 mm hexagon wrench
Flange flare nut	All	5 - 6	8	8 mm spanner
Bleed screw	All	0.5 - 0.7	2	2 mm hexagon wrench
Battery holder fixing screw	ST-RX825	0.16 - 0.24	0.8x4	Slotted screwdriver 0.8 x 4

Reference image

- Example) ST-RX825



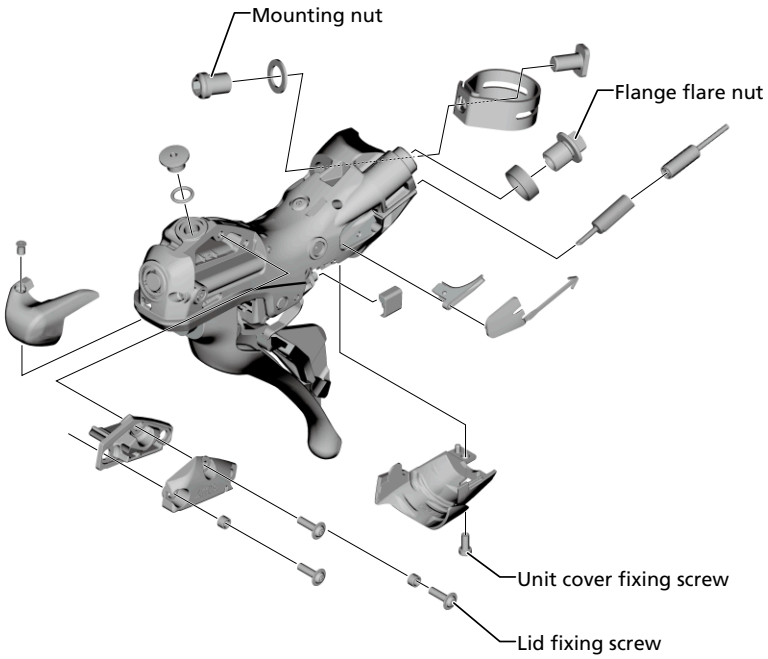
ST-RX820, ST-RX820-LA, ST-RX810, ST-RX810-LA, ST-RX610, ST-RX600, ST-RX400, BL-RX820, BL-RX810, BL-RX812, BL-RX610, BL-RX600

Parts Name	Model	Torque (N·m)	Tools	
Mounting nut	All	6 - 8	5	5 mm hexagon wrench
Flange flare nut	All	5 - 6	8	8 mm spanner

Parts Name	Model	Torque (N·m)	Tools	
Bleed screw	All	0.5 - 0.7	2	2 mm hexagon wrench
Name plate fixing screw	All	0.15 - 0.2	PH1	Cross head screwdriver [#1]
Unit cover fixing screw	All	0.2 - 0.25	PH1	Cross head screwdriver [#1]
Lid fixing screw	All	0.8	T8	Hexalobular [#8]

Reference image

- Example) ST-RX820

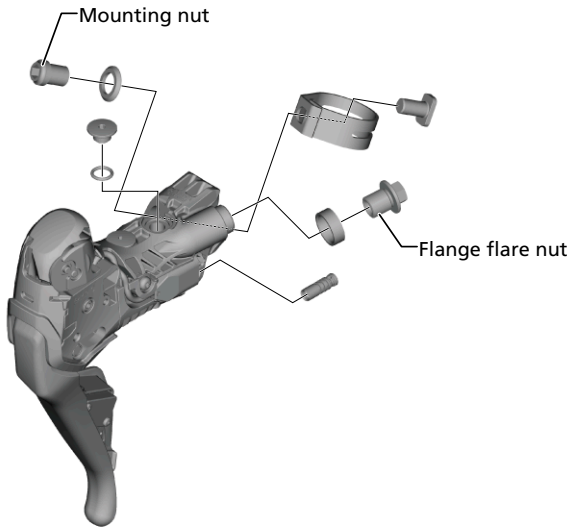


ST-RX815

Parts Name	Model	Torque (N·m)	Tools	
Mounting nut	ST-RX815	6 - 8	5	5 mm hexagon wrench
Bleed screw	ST-RX815	0.5 - 0.7	2.5	2.5 mm hexagon wrench
Flange flare nut	ST-RX815	5 - 6	8	8 mm spanner

Reference image

- Example) ST-RX815



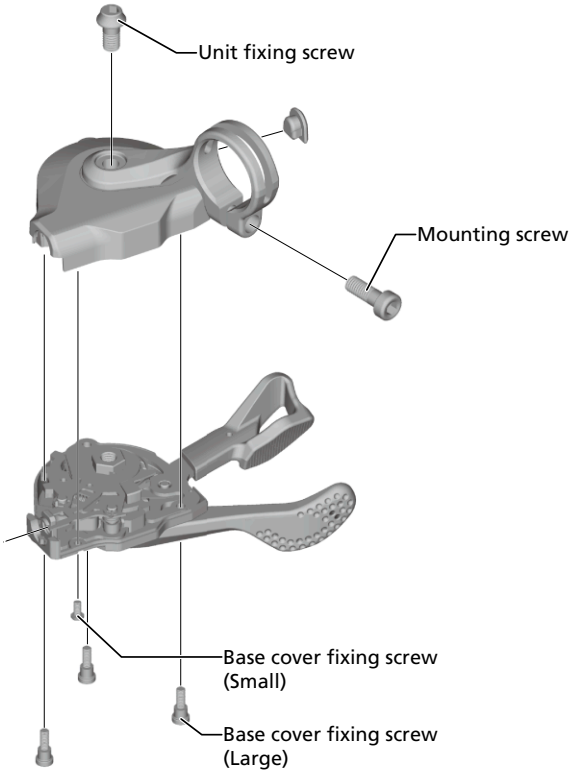
Shifter

SL-RS700

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	SL-RS700	3	4	4 mm hexagon wrench
Unit fixing screw	SL-RS700	2.5	4	4 mm hexagon wrench
Base cover fixing screw (Large)	SL-RS700	0.15	1	Cross head screwdriver [#1]
Base cover fixing screw (Small)	SL-RS700	0.08	1	Cross head screwdriver [#1]

Reference image

- Example) SL-RS700



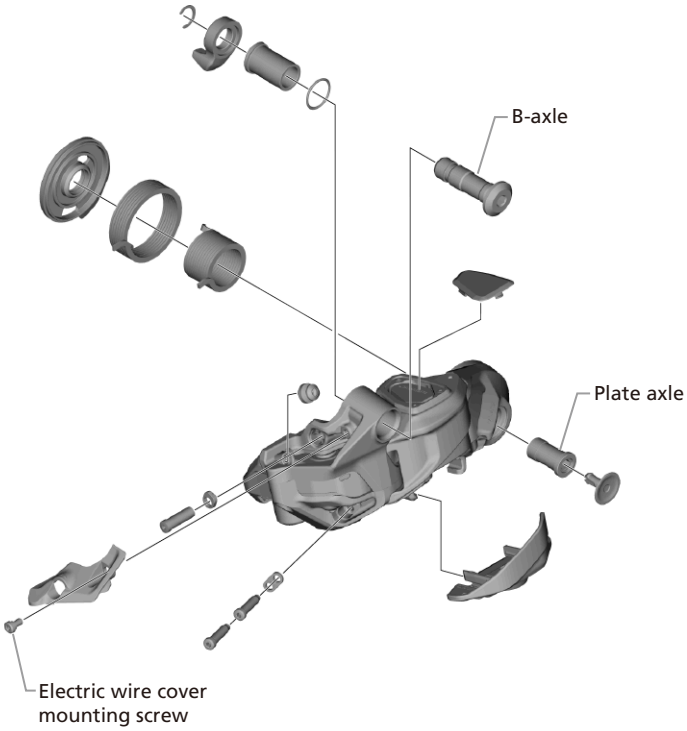
Rear Derailleur

RD-RX827

Parts Name	Model	Torque (N·m)	Tools	
B-axle	RD-RX827	10 - 12	5	5 mm hexagon wrench
Pulley screws	RD-RX827	2.5 - 5	3	3 mm hexagon wrench
Plate axle	RD-RX827	7.8 - 9.8	5	5 mm hexagon wrench
Plate stopper pin	RD-RX827	1	#2	Cross head screwdriver [#2]
Electric wire cover mounting screw	RD-RX827	1	2	2 mm hexagon wrench

Reference image

- Example) RD-RX827



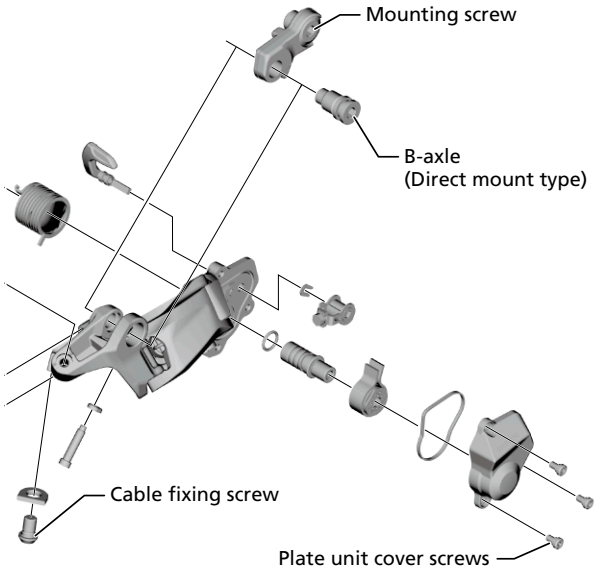
RD-RX825, RD-RX822, RD-RX820

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench

Parts Name	Model	Torque (N·m)	Tools	
B-axle (Direct mount type)	RD-RX825, RD-RX820	8 - 10	5	5 mm hexagon wrench
Cable fixing screw	RD-RX822, RD-RX820	6 - 7	4	4 mm hexagon wrench
Pulley screw	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	All	8 - 10	4	4 mm hexagon wrench
Plate unit cover screws	All	1 - 1.5	2	2 mm hexagon wrench
Plate stopper pin	All	1	#2	Cross head screwdriver [#2]

Reference image

- Example) RD-RX820



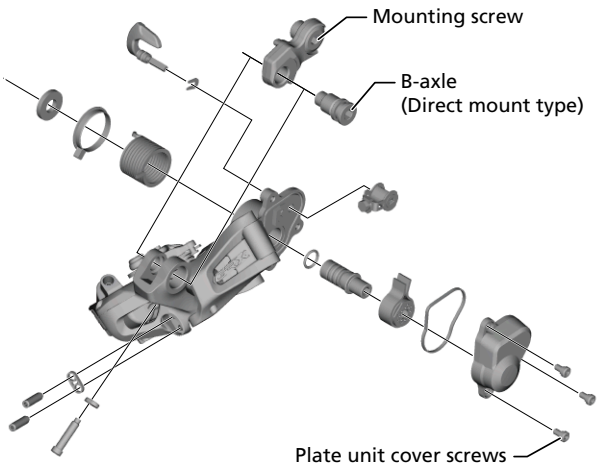
RD-RX817, RD-RX815

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench
B-axle (Direct mount type)	All	8 - 10	5	5 mm hexagon wrench
Pulley screw	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	All	8 - 10	4	4 mm hexagon wrench
Plate unit cover screws	All	1 - 1.5	2	2 mm hexagon wrench

Parts Name	Model	Torque (N·m)	Tools	
Plate stopper pin	All	1	2	Cross head screwdriver [#2]

Reference image

- Example) RD-RX815

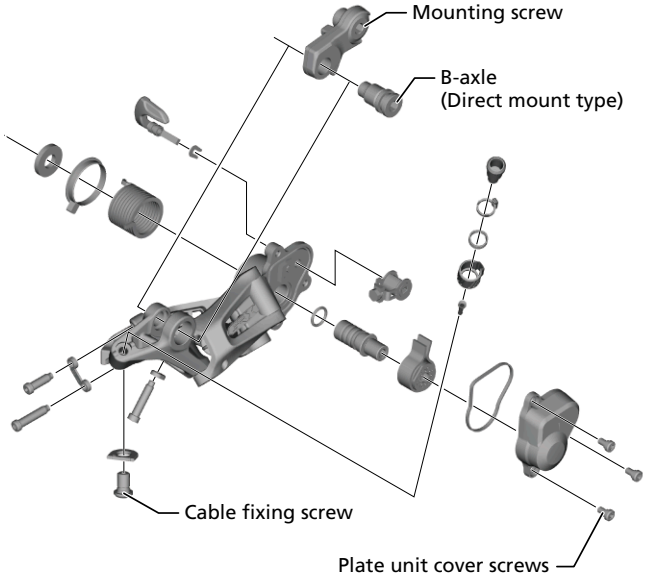


RD-RX812, RD-RX810, RD-RX400

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	8 - 10	5	5 mm hexagon wrench
B-axle (Direct mount type)	All	8 - 10	5	5 mm hexagon wrench
Cable fixing screw	All	6 - 7	4	4 mm hexagon wrench
Pulley screw	All	2.5 - 5	3	3 mm hexagon wrench
Plate axle	All	8 - 10	4	4 mm hexagon wrench
Plate unit cover screws	All	1 - 1.5	2	2 mm hexagon wrench
Plate stopper pin	All	1	2	Cross head screwdriver [#2]

Reference image

- Example) RD-RX810



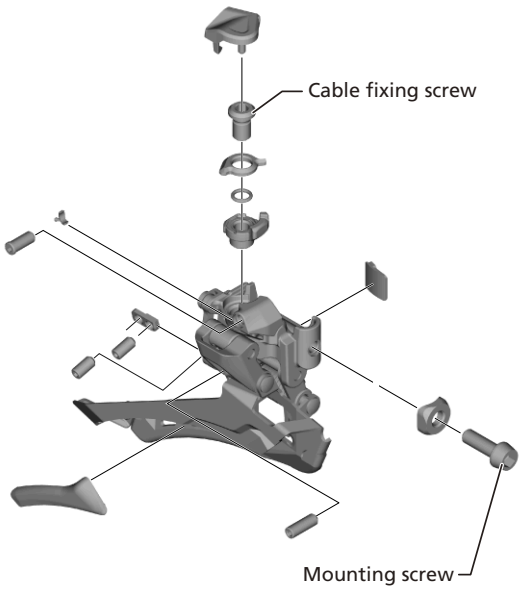
Front Derailleur

FD-RX820

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	FD-RX820	5 - 7	5	5 mm hexagon wrench
Cable fixing screw	FD-RX820	6 - 7	4	4 mm hexagon wrench

Reference image

- Example) FD-RX820

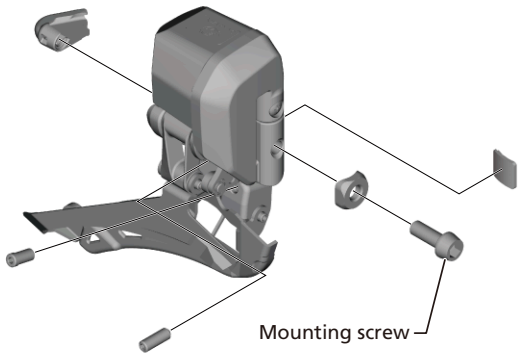


FD-RX825, FD-RX815

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	5 - 7	5	5 mm hexagon wrench

Reference image

- Example) FD-RX815

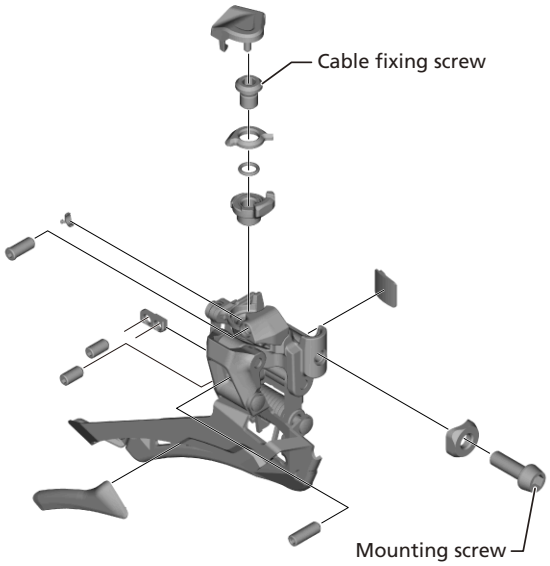


FD-RX810, FD-RX400

Parts Name	Model	Torque (N·m)	Tools	
Mounting screw	All	5 - 7	5	5 mm hexagon wrench
Cable fixing screw	All	6 - 7	4	4 mm hexagon wrench

Reference image

- Example) FD-RX810



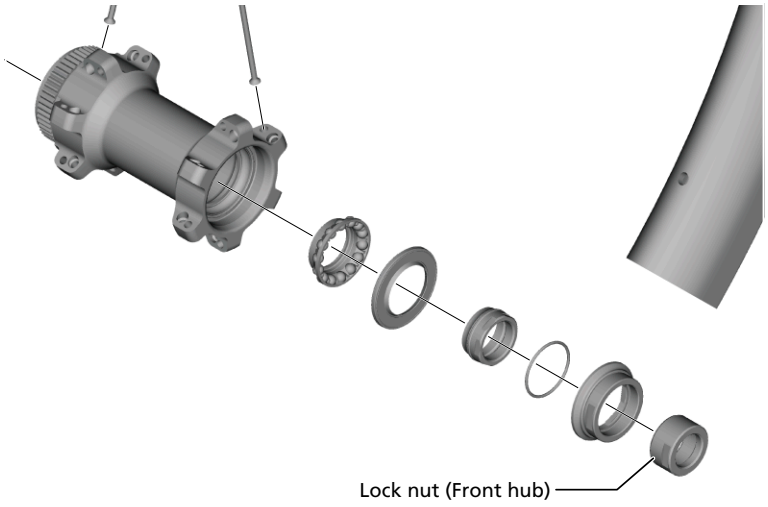
Wheel Set

WH-RX880, WH-RX870, WH-RX570

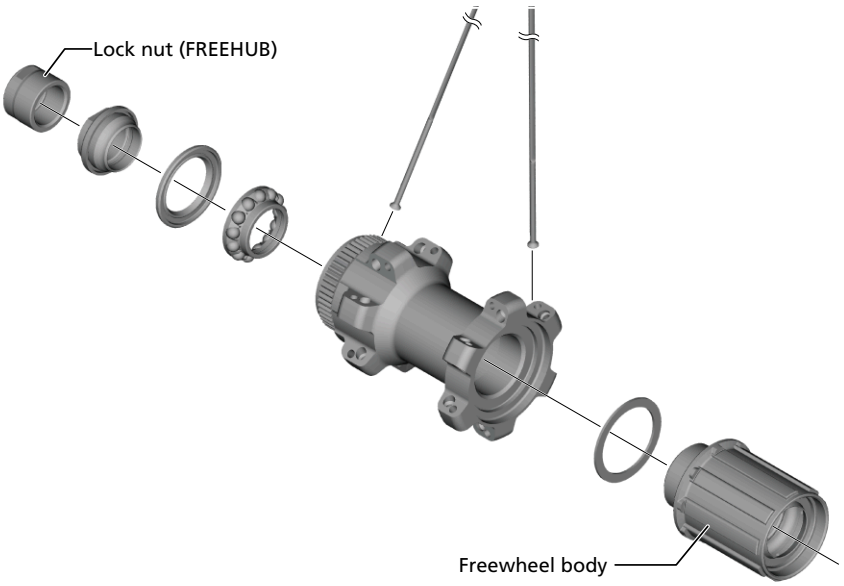
Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	All	40	TL-LR15 + 24 /	TL-LR15 + 24 mm hub spanner / adjustable wrench
Lock nut (Front hub)	All	18 - 20	17 + 22	17 mm hub spanner + 22 mm hub spanner
Lock nut (FREEHUB)	All	16 - 20	17 + 17	17 mm hub spanner x 2
Freewheel body unit	WH-RX870, WH-RX570	147 - 200	TL-FH15	TL-FH15

Reference image

- Example) WH-RX870-TL-F12



- Example) WH-RX870-TL-R12

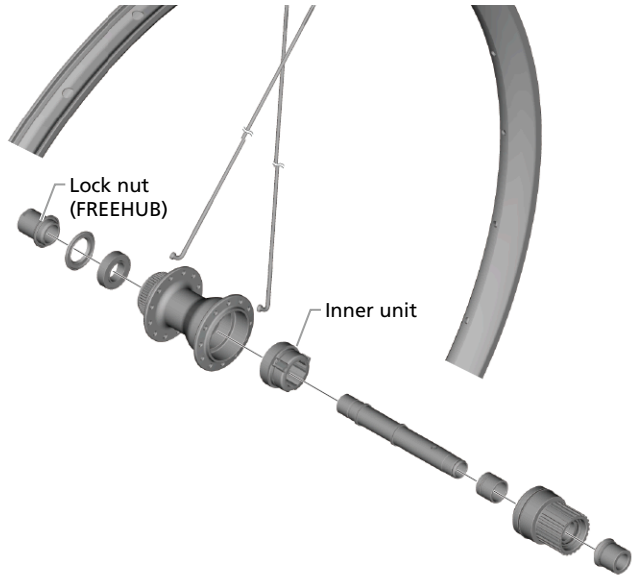


WH-RX180

Parts Name	Model	Torque (N·m)	Tools	
Rotor lock ring	WH-RX180	40	TL-FC36	TL-FC36
Inner unit	WH-RX180	180 - 200	19	19 mm hexagon wrench
Lock nut (FREEHUB)	WH-RX180	3 - 5	17	17 mm hub spanner

Reference image

- Example) WH-RX180



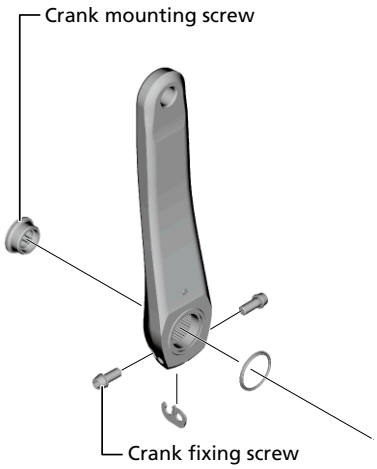
Crankset

FC-RX820, FC-RX810, FC-RX610, FC-RX600

Parts Name	Model	Torque (N·m)	Tools	
Crank mounting screw	All	0.7 - 1.5	TL-FC16 / TL-FC18	TL-FC16 / TL-FC18
Crank fixing screw	All	12 - 14	5	5 mm hexagon wrench
Chainring fixing screw	FC-RX820, FC-RX810	12 - 16	30	Hexalobular [#30]
	FC-RX610, FC-RX600	16 - 17	5	5 mm hexagon wrench

Reference image

- Example) FC-RX820



Threaded Bottom Bracket

BB-RS501, BB-RS500, SM-BBR60

Parts Name	Model	Torque (N·m)	Tools	
Left- and right-hand cups	BB-RS501, BB-RS500	35 - 50	TL-FC32	TL-FC32
			TL-FC33	TL-FC33
			TL-FC36	TL-FC36
	SM-BBR60		TL-FC25 + TL-FC32	TL-FC25 + TL-FC32
			TL-FC25 + TL-FC33	TL-FC25 + TL-FC33
			TL-FC25 + TL-FC36	TL-FC25 + TL-FC36
			TL-FC37	TL-FC37

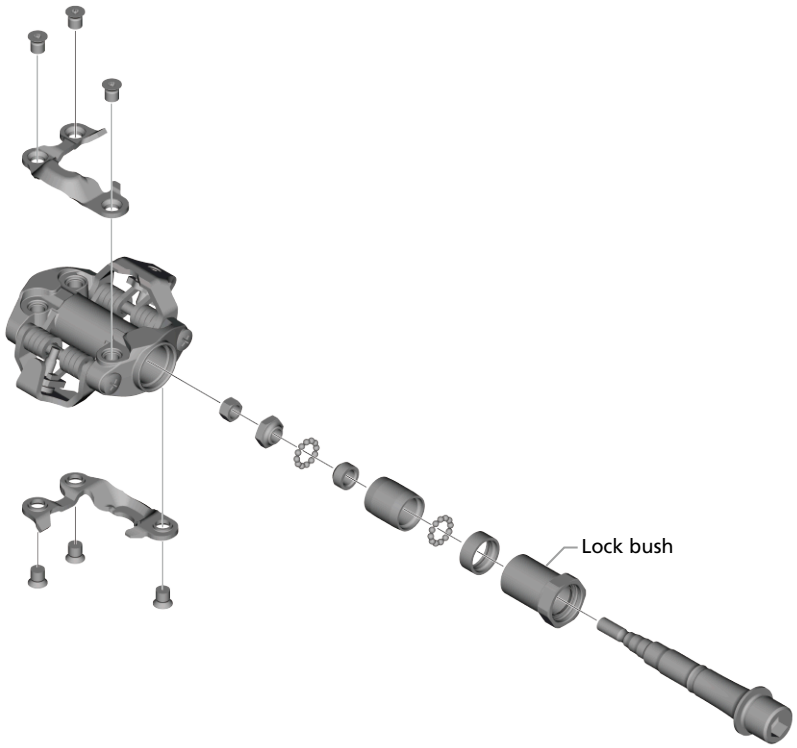
Pedal

PD-M8100-UG

Parts Name	Model	Torque (N·m)	Tools	
Pedal axle	PD-M8100-UG	35 - 55	8	8 mm hexagon wrench
Lock nut	PD-M8100-UG	5 - 7	7 + 10	7 mm spanner + 10 mm spanner
Lock bush	PD-M8100-UG	10 - 12	17	17 mm spanner
Body cover fixing screw	PD-M8100-UG	2.7 - 3.5	10	Hexalobular [#10]

Reference image

- Example) PD-M8100-UG



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