

Torque Tightening Specifications

The following chart provides recommended tightening torques for most bicycle assemblies. Use these guidelines to check all assemblies, even O.E.M. pre-assembled parts. Proper assembly builds a better bicycle.

	PART	NM	IN. LBS.
REAR DERAILLEUR	BRACKET FIXING BOLT	8 - 10 Nm	70 - 86 in. lbs.
	CABLE FIXING BOLT	5 - 7 Nm	44 - 60 in. lbs.
	PULLEY FIXING BOLT	2.94 - 3.92 Nm	37 - 34 in. lbs.
FRONT DERAILLEUR	CLAMP BOLT	5 - 7 Nm	44 - 6 0in. lbs.
	CABLE FIXING BOLT	5 - 7 Nm	44 - 60 in. lbs.
SHIFTING LEVER	CLAMP FIXING BOLT (Screw Driver)	2.45 - 2.94 Nm	22 - 26 in. lbs.
	CLAMP BOLT (Hexagon Wrench)	6 - 8 Nm	52 - 69 in. lbs.
	LEVER FIXING SCREW	2.45 - 2.94 Nm	22 - 26 in. lbs.
RAPIDFIRE	SHIFTING LEVER PARTS FIXING BOLT	2.45 Nm	22 in. lbs.
	CLAMP BOLT (Hexagon Wrench)	5 - 7.84 Nm	44 - 69 in. lbs.
	CABLE HATCH CAP	.3 - .5 Nm	3 - 4 in. lbs
DUAL CONTROL LEVER	CLAMP BOLT (Hexagon Wrench)	6 - 8 Nm	53 - 69 in. lbs.
	STOPPER SCREW (Screw Driver)	1.47 - 1.96 Nm	13 - 18 in. lbs.
	FIXING BOLT	3.92 - 4.9 Nm	35 - 43 in. lbs.
BRAKE LEVER	CLAMP BOLT (Screw Driver)	2.45 - 2.94 Nm	22 - 26 in. lbs.
	CLAMP BOLT (Hexagon Wrench)	5.88 - 7.84 Nm	53 - 69 in. lbs.
	EXTENSION LEVER CLAMP BOLT	1.47 - 2.45 Nm	14 - 21 in. lbs.
HUB	CLOSING OF QR LEVER	8.82 - 11.76 Nm	79 - 104 in. lbs.
	LEFT-LOCK NUT FOR QR TYPE AXLE	9.8 - 24.5 Nm	87 - 217 in. lbs.
HB-M976	LOCK NUT	30-35 Nm	261 - 305 in. lbs.
FH-M975/FH-M970	LEFT SIDE LOCK NUT	15 - 20 Nm	132 - 172 in. lbs.
	FIXING BOLT 14MM ALLEN KEY	45 - 50 Nm	392 - 434 in. lbs.
FREEHUB	FREEWHEEL BODY FIXING BOLT	35 - 50 Nm	305 - 434 in. lbs.
	FREEWHEEL BODY FIXING RACE	34.3 - 44.1 Nm	305 - 391 in. lbs.
	HG LOCK RING	30 - 50 Nm	261 - 434 in. lbs.
FRONT CHAIN WHEEL	CRANK ARM FIXING BOLT	35 - 50 Nm	305 - 435 in. lbs.
	CHAINRING FIXING BOLT	7.84 - 10.78 Nm	70 - 95 in. lbs.
	CRANK ARM FIXING BOLT	35 - 50 Nm	305 - 435 in. lbs.
	(For Hollowtech® Crank and Bottom Bracket)		
	FC-M960 LEFT-HAND FIXING CAP	0.7 - 1.5 Nm	6 - 13 in. lbs
FC-M960 CRANKARM FIXING BOLTS		12 - 15 Nm	105 - 132 in. lbs
FC-M970 FRONT CHAIN WHEEL	CRANK ARM FIXING BOLT 8MM ALLEN KEY	45-55 Nm	392 - 479 in. lbs.
ADJUSTMENT NUT	ADJUSTMENT NUT	1 - 1.5 Nm	8.7 - 13 in. lbs.
FIXING BOLT	ADJUSTMENT NUT FIXING BOLT	1 - 1.2 Nm	8.7 - 10.4 in. lbs.
SEALED CARTRIDGE	BODY/LEFT-HAND ADAPTER	50 - 70 Nm	435 - 608 in. lbs.
BOTTOM BRACKET	BB-M960 ADAPTER CUPS L/R	35 - 50 Nm	305 - 435 in. lbs.
BOTTOM BRACKET	RIGHT HAND CAP	68.6 - 78.4 Nm	609 - 695 in. lbs.
	LOCK RING	68.6 - 78.4 Nm	609 - 695 in. lbs.
SPD PEDAL / SPD-SL	PEDAL AXLE	35 Nm	304 in. lbs. or more
SPED SHOE / SPD-SL	CLEAT FIXING BOLT	5 - 8 Nm	43 - 52 in. lbs.
	SH-M210 SPIKE	3.92 Nm	34 in. lbs.
CANTILEVER BRAKE	FRAME HOLDING BOLT	8 - 10 Nm	69 - 87 in. lbs.
	CABLE FIXING NUT	6 - 8 Nm	52 - 69 in. lbs.
	SHOE FIXING BOLT	5 - 7 Nm	43 - 61 in. lbs.
	CARTRIDGE BRAKE SHOE SET SCREW FIXING BOLT	1 - 1.5 Nm	9 - 13 in. lbs.
	CARRIER FIXING NUT	3.92 - 4.9 Nm	35 - 43 in. lbs.
SIDE PULL BRAKE ARCH	SHOE FIXING BOLT	6 - 8 Nm	52 - 69 in. lbs.
	CABLE FIXING BOLT	6 - 8 Nm	52 - 69 in. lbs.
	ARCH FIXING BOLT	7.84 - 9.8 Nm	70 - 86 in. lbs.
SEAT POST	FIXING BOLT	20 - 30 Nm	174 - 260 in. lbs.
HANDLE SYSTEM	HANDLEBAR FIXING BOLT	19.6 - 29.4	174 - 260 in. lbs.
	EXPANDER BOLT	19.6 - 29.4 Nm	174 - 260 in. lbs.
DISC BRAKES	FH/HB-M965 ROTOR LOCK RING	40 Nm	350 in. lbs.
	ROTOR FIXING BOLTS	2 - 4 Nm	18 - 35 in. lbs.
	CALIPER/ADAPTER FIXING BOLTS	6 - 8 Nm	53 - 69 in. lbs.
	HYDRAULIC HOSE FIXING BOLT	5 - 7 Nm	44 - 60 in. lbs.
	BLEED NIPPLE	4 - 6 Nm	35 - 53 in. lbs.
	RESERVOIR CAP	0.3 - 0.5 Nm	2.7 - 4.4 in. lbs.
	LVR CLAMP BOLT	6 - 8 Nm	53 - 69 in. lbs.