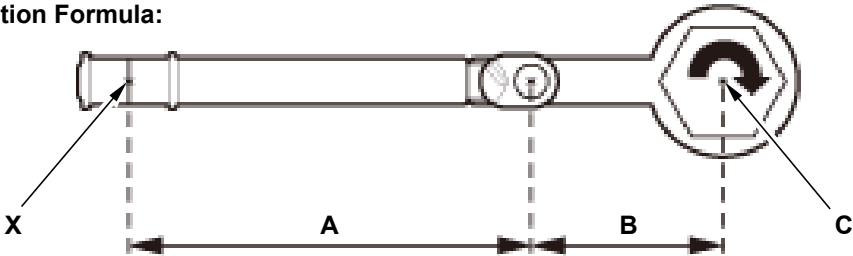


Torque Specifications

NOTE:

- Refer to the appropriate portion of the manual for the precautions and complete procedures.
- Refer to the appropriate portion of the manual for the bolts/nuts not indicated here.
 - *1: Parts to be tightened in a particular order.
 - *2: Follow the appropriate manual procedures closely for torque, sequence, and special steps.
- When using some special tools or crowfoot-type wrenches, the torque value changes due to the added leverage. The actual torque applied will be greater than the torque reading shown.
 - The torque specification given is the actual torque, not the reading on the torque wrench.
 - To compensate for this additional leverage, use the formula below to calculate the torque value reading on the torque wrench.
 - Always use the special tool or crowfoot-type wrench in a straight line with the torque wrench, or you will apply improper torque.

Calculation Formula:



Reading of the torque wrench (X) = $\frac{\text{Torque wrench effective length (A)}}{\text{Torque wrench effective length (A)} + \text{Special tool/ crowfoot-type effective length (B)}}$ × Specified torque (C)

Engine Electrical

Location	Item	Remark	Torque
Starting system	Starter bolt (10 mm)		45 N·m (33 lbf·ft)
	Starter bolt (12 mm)		65 N·m (48 lbf·ft)
	Positive starter cable nut		9.0 N·m (6.6 lbf·ft)

Location	Item	Remark	Torque
Ignition system	Spark plugs		22 N·m (16 lbf·ft)
Charging system	Alternator bolt (8 mm)*1		24 N·m (18 lbf·ft)
	Alternator bolt (10 mm)*1		37 N·m (27 lbf·ft)
	Positive alternator cable nut		12 N·m (9 lbf·ft)
	Drive belt auto-tensioner bolt (8 mm)		24 N·m (18 lbf·ft)
	Drive belt auto-tensioner bolt (10 mm)		55 N·m (41 lbf·ft)
	Drive belt idler pulley bolt		40 N·m (30 lbf·ft)

Engine Mechanical

Location	Item	Remark	Torque
Engine assembly	Side engine mount bolts (12 mm)*2	Use new bolts	55 N·m (41 lbf·ft)
	Side engine mount bolts (14 mm)*2	Use new bolts	100 N·m (74 lbf·ft)
	Side engine mount nut*2	Use new nut	100 N·m (74 lbf·ft)
	Side engine mount bracket bolts*2	Use new bolts	55 N·m (41 lbf·ft)
	Torque rod bolts (12 mm)*2	Use new bolts	95 N·m (70 lbf·ft)
	Torque rod bracket bolts	Use new bolts	90 N·m (66 lbf·ft)
	Transmission mount bolts*2	Use new bolts	75 N·m (55 lbf·ft)
	Transmission mount bracket bolt*2	Use new bolt	55 N·m (41 lbf·ft)
	Transmission mount bracket nuts*2	Use new nuts	55 N·m (41 lbf·ft)
Engine lubrication	Engine oil pressure sensor	Use new O-ring	22 N·m (16 lbf·ft)
	Oil pan drain bolt	Use new washer	40 N·m (30 lbf·ft)
	Oil filter		12 N·m (9 lbf·ft)
Intake manifold and exhaust system	Intake manifold bolts*1		24 N·m (18 lbf·ft)
	Intake manifold nuts*1		24 N·m (18 lbf·ft)
	Exhaust pipe A self-locking nuts (Three way catalytic converter side)	Use new gasket and nuts	54 N·m (40 lbf·ft)
	Exhaust pipe A self-locking nuts (Muffler side)	Use new gasket and nuts	33 N·m (24 lbf·ft)
	Turbocharger self-locking nuts*2	Use new gasket and nuts	45 N·m (33 lbf·ft)
	Turbocharger bolts*2	Use new gasket	45 N·m (33 lbf·ft)

Engine Cooling

Location	Item	Remark	Torque
Cooling system	Water passage bolts		45 N·m (33 lbf·ft)
	Water passage nuts		45 N·m (33 lbf·ft)
	Thermostat housing bolts		24 N·m (18 lbf·ft)
	Thermostat housing nut		24 N·m (18 lbf·ft)

Fuel Emissions

Location	Item		Remark	Torque
Fuel and emissions	Accelerator pedal module			13 N·m (10 lbf·ft)
	A/F sensor			45 N·m (33 lbf·ft)
	ECT Sensor 1/2		Use new O-ring	12 N·m (9 lbf·ft)
	Turbocharger cover			22 N·m (16 lbf·ft)
	Fuel tank*2	Fuel tank bolts		24 N·m (18 lbf·ft)
		Support strap bolts		38 N·m (28 lbf·ft)
	Knock sensor			20 N·m (15 lbf·ft)
	Rocker arm oil pressure switch		Use new O-ring	22 N·m (16 lbf·ft)
	Secondary HO2S			45 N·m (33 lbf·ft)
	Throttle body bolts*2		Use new gasket	22 N·m (16 lbf·ft)
	Catalytic converter bracket bolts*2	Catalytic converter side		45 N·m (33 lbf·ft)
		Engine side		45 N·m (33 lbf·ft)
	Catalytic converter upper bolts			45 N·m (33 lbf·ft)
	Catalytic converter upper nuts			45 N·m (33 lbf·ft)

Clutch

Location	Item	Remark	Torque
Clutch	Clutch master cylinder push rod locknut		12 N·m (9 lbf·ft)
	Clutch pedal position switch locknut		9.5 N·m (7.0 lbf·ft)
	Clutch pedal adjusting bolt locknut		9.5 N·m (7.0 lbf·ft)
	Master cylinder nuts		13 N·m (10 lbf·ft)
	Slave cylinder bolts		22 N·m (16 lbf·ft)
	Flywheel bolts*1		123 N·m (91 lbf·ft)
	Pressure plate bolts*1		26 N·m (19 lbf·ft)
	Release fork bolt		29 N·m (21 lbf·ft)

Manual Transmission and M/T Differential

Location	Item	Remark	Torque
Manual transmission	MTF cooler bolts		27 N·m (20 lbf·ft)
	MTF drain plug	Use new sealing washer	44 N·m (32 lbf·ft)
	MTF filler plug	Use liquid gasket on threads	44 N·m (32 lbf·ft)
	Back-up light switch	Use liquid gasket on threads	29 N·m (21 lbf·ft)
	Transmission assembly mounting bolts (transmission side)		65 N·m (48 lbf·ft)
	Transmission assembly mounting bolts (engine side)		64 N·m (47 lbf·ft)
	Change wire bracket bolts*2		27 N·m (20 lbf·ft)

Driveline/Axle

Location	Item	Remark	Torque
Driveline/axle	Driveshaft spindle nut	<ul style="list-style-type: none"> Use oil on the seating surface Use new nut 	328 N·m (242 lbf·ft)
	Intermediate shaft flange bolt		39 N·m (29 lbf·ft)

Steering

Location	Item		Remark	Torque
Steering	Steering wheel bolt		Use new bolt	49 N·m (36 lbf·ft)
	Steering joint bolt			29 N·m (21 lbf·ft)
	Steering column bolts*1			22 N·m (16 lbf·ft)
	Steering column nuts*1			22 N·m (16 lbf·ft)
	Steering gearbox bolts*1	Front	Use new bolts	92 N·m (68 lbf·ft)
	Steering gearbox stiffener bolts*1	Left-front	Use new bolt	92 N·m (68 lbf·ft)
		Left-rear, Right	Use new bolts	44 N·m (32 lbf·ft)
	Tie-rod end ball joint nuts			54—64 N·m (40—47 lbf·ft)
	Tie-rod end locknuts			44 N·m (32 lbf·ft)

Suspension

Location	Item	Remark	Torque
Front suspension	Wheel nuts		127 N·m (94 lbf·ft)
	Damper fork bolts*1	Use new bolt	64 N·m (47 lbf·ft)
	Housing bracket ball joint castle nut	Use new nut	103—113 N·m (76—83 lbf·ft)
	Housing bracket bolt (to damper fork upper)*1	Use new bolt	122 N·m (90 lbf·ft)
	Housing bracket bolt (to damper fork lower)*1	Use new bolt	59 N·m (44 lbf·ft)
	Housing bracket TORX bolt (to knuckle)*1	Use new bolt	83 N·m (61 lbf·ft)
	Lower arm bolt (front side)	Use new bolt	179 N·m (132 lbf·ft)
	Lower arm bolt (rear side to body)	Use new bolt	105 N·m (77 lbf·ft)
	Lower arm bolt (rear side to subframe)	Use new bolt	98 N·m (72 lbf·ft)
	Stabilizer bar bushing holders flange bolts*1	Use new bolts	80 N·m (59 lbf·ft)
	Stabilizer link flange nut (to damper)	Use new nut	64 N·m (47 lbf·ft)
	Stabilizer link flange nut (to stabilizer bar)	Use new nut	35 N·m (26 lbf·ft)
	Stopper link flange nuts	Use new nuts	90 N·m (66 lbf·ft)
	Damper nuts (to body)	Use new nuts	69 N·m (51 lbf·ft)
	Damper self-locking nut	Use new nut	59 N·m (44 lbf·ft)
Rear suspension	Wheel nuts		127 N·m (94 lbf·ft)
	Upper arm bolt (to subframe)	Use new bolt	76 N·m (56 lbf·ft)
	Upper arm bolt/nut (to knuckle)	Use new bolt/nut	76 N·m (56 lbf·ft)
	Lower arm A bolt/nut (to knuckle)	Use new bolt/nut	80 N·m (59 lbf·ft)
	Lower arm A bolt (to subframe)	Use new bolt	76 N·m (56 lbf·ft)
	Lower arm B bolt (to knuckle)	Use new bolt	69 N·m (51 lbf·ft)
	Lower arm B bolt/nut (to subframe)	Use new bolt/nut	115 N·m (85 lbf·ft)
	Trailing arm bolts/nuts (to knuckle)*1	Use new bolts/nuts	152 N·m (112 lbf·ft)
	Trailing arm bolts (to body)	Use new bolts	157 N·m (116 lbf·ft)
	Stabilizer bar bushing holders flange bolts*1	Use new bolts	37 N·m (27 lbf·ft)
	Stabilizer link flange nut (to stabilizer bar)	Use new nut	74 N·m (55 lbf·ft)
	Stabilizer link (to lower arm B)	Use new bolt	40 N·m (30 lbf·ft)
	Damper bolt (to knuckle)	Use new bolt	91 N·m (67 lbf·ft)
	Damper bolts (to body)	Use new bolts	40 N·m (30 lbf·ft)
	Damper self-locking nut	Use new nut	32 N·m (24 lbf·ft)

Brakes

Location	Item	Remark	Torque
Conventional brake	Front brake caliper bracket bolts		140 N·m (103 lbf·ft)
	Rear brake caliper bracket bolts	Use new bolts	108 N·m (80 lbf·ft)
	Rear brake caliper pin bolts		25 N·m (18 lbf·ft)
	Rear brake hose banjo bolt	Use new washers	35 N·m (26 lbf·ft)
	Master cylinder nuts (to brake booster)		13 N·m (10 lbf·ft)
	Master cylinder brake line		22 N·m (16 lbf·ft)
	Brake booster/brake pedal nuts		12 N·m (9 lbf·ft)
	Brake pedal support member bolts/nuts		22 N·m (16 lbf·ft)
VSA	VSA modulator-control unit brake line (10 mm)		15 N·m (11 lbf·ft)
	VSA modulator-control unit brake line (12 mm)		22 N·m (16 lbf·ft)

Body

Location	Item	Remark	Torque
Frame	Front subframe bolts	Use new bolts	103 N·m (76 lbf·ft)
	Front subframe member extension bolts (12 mm)	Use new bolts	60 N·m (44 lbf·ft)
	Front subframe member extension bolts (14 mm)	Use new bolts	103 N·m (76 lbf·ft)
	Front subframe rear stay bolt (front)	Use new bolt	95 N·m (70 lbf·ft)
	Front subframe rear stay bolt (rear)	Use new bolt	93 N·m (69 lbf·ft)
	Rear subframe bolts	Use new bolts	64 N·m (47 lbf·ft)
	Front brace bolts	Use new bolts	38 N·m (28 lbf·ft)

Heating, Ventilation, and Air Conditioning

Location	Item	Remark	Torque
A/C compressor	A/C compressor bolts		22 N·m (16 lbf·ft)
	A/C compressor center bolt	Use new bolt	22 N·m (16 lbf·ft)
	A/C compressor relief valve	Use new O-ring	13 N·m (10 lbf·ft)
Discharge hose	A/C pressure sensor	Use new O-ring	11 N·m (8 lbf·ft)

Body Electrical

Location	Item	Remark	Torque
Wipers/washers	Windshield wiper arm nut		18 N·m (13 lbf·ft)
	Rear window wiper arm nut		9.4 N·m (6.9 lbf·ft)