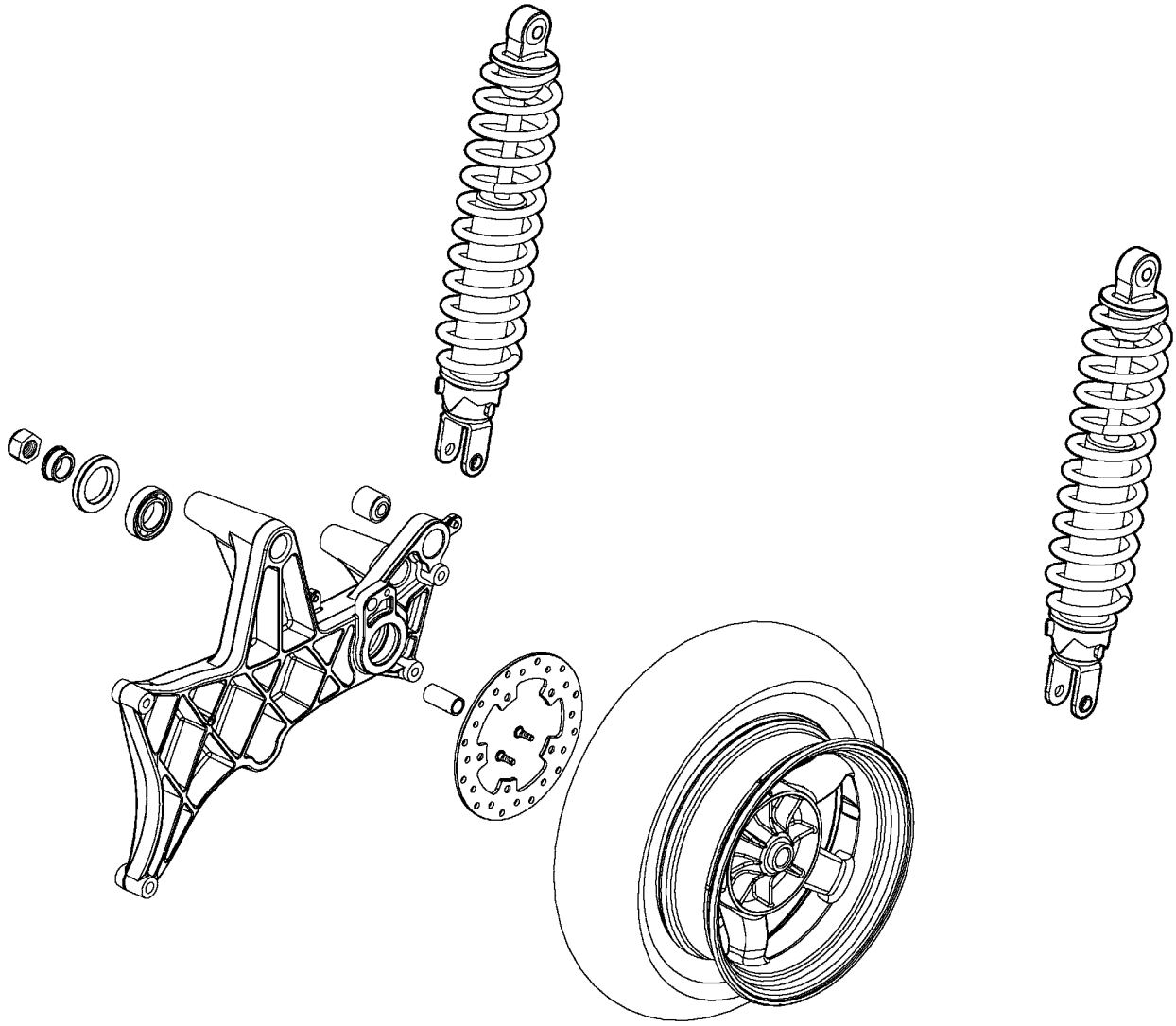
15

REAR FORK/REAR WHEEL/ REAR SHOCK ABSORBER

SCHEMATIC DRAWING



SERVICE INFORMATION

GENERAL INSTRUCTIONS

- A contaminated brake disc or pad reduces stopping power. Discard contaminated parts and clean a contaminated disc with a high quality brake degreasing agent.
- Riding on damaged rims impairs safe operation of the vehicle.
- This section covers of the rear wheel and rear suspension.
- A jack or other support is required to support the vehicle.
- Do not twist or bend the brake hose when servicing.
- Use genuine KYMCO replacement bolts and nuts for all suspension pivots and mounting points.
- Refer to section 16 for brake system information.

SPECIFICATIONS

Unit: mm (in)

ITEM		STANDARD	SERVICE LIMIT
Minimum tire tread depth		—	2.0 (0.08)
Cold tire pressure	Rider only	250 kPa (2.50 kgf/cm^2, 36 psi)	—
	Rider and passenger		—
Wheel rim runout	Radial	—	2.0 (0.08)
	Axial	—	2.0 (0.08)

TORQUE VALUES

Rear brake disc bolt	42 N•m (4.3 kgf•m, 31 lbf•ft) ALOC bolt: replace with a new one.
Rear axle nut	180 N•m (18 kgf•m, 130 lbf•ft)
Rear shock absorber upper mounting bolt	40 N•m (4 kgf•m, 29 lbf•ft)
Rear shock absorber lower mounting bolt	40 N•m (4 kgf•m, 29 lbf•ft)
Final shaft holder bolt	32 N•m (3.2 kgf•m, 23 lbf•ft)
Right/parking brake caliper mounting bolt	32 N•m (3.2 kgf•m, 23 lbf•ft) ALOC bolt: replace with a new one.

TROUBLESHOOTING

Rear wheel wobbling
- Bent rim
- Faulty tire
- Axle not tightened properly
- Engine mount bolt not tightened properly
- Loose or worn final gear shaft bearing
- Insufficient tire pressure
- Unbalanced tire and wheel

Soft suspension
- Weak rear shock absorber spring
- Oil leakage from damper unit

Rear wheel noise
- Worn rear wheel axle bearings
- Worn rear fork bearings
- Deformed rear fork

Hard suspension
- Bent damper rod
- Worn or damaged engine mount bushings
- High tire pressure

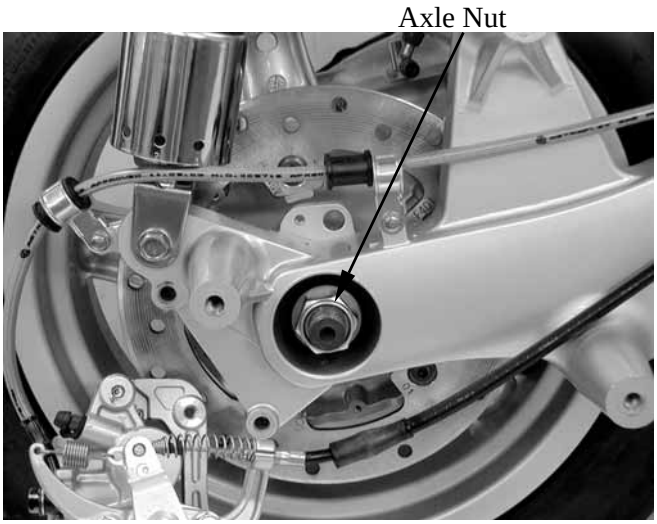
Rear suspension noisy
- Loose mounting fasteners
- Faulty shock absorber
- Weak rear suspension mount bushings

REAR WHEEL/REAR FORK

REMOVAL

Remove the muffler (page 2-15).
Remove the rear/parking brake caliper (page 16-26).

Loosen the rear axle nut.
Support the scooter securely on its main stand.



Remove the bolts and brake hose/cable clamps from the rear fork.
Remove the rear shock absorber lower mount bolt.
Remove the rear axle nut.

Remove the rear fork mount bolts and rear fork.

Remove the inner side collar.

Inner Side Collar

Remove the rear wheel.

Rear Wheel

INSTECTION

Wheel

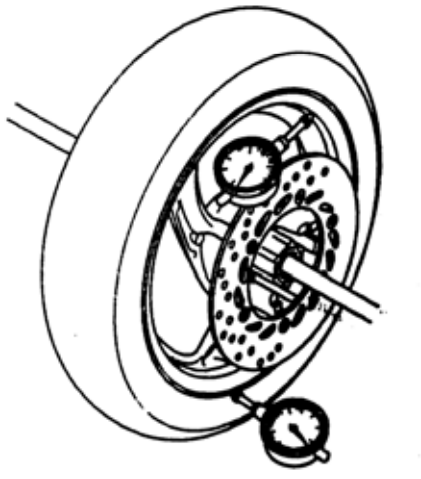
Check the wheel rim runout using dial indicator.

Actual urnout is 1/2 the total indicator reading.

Service Limits:

Radial: 2.0mm (0.08 in)

Axial: 2.0mm (0.08 in)



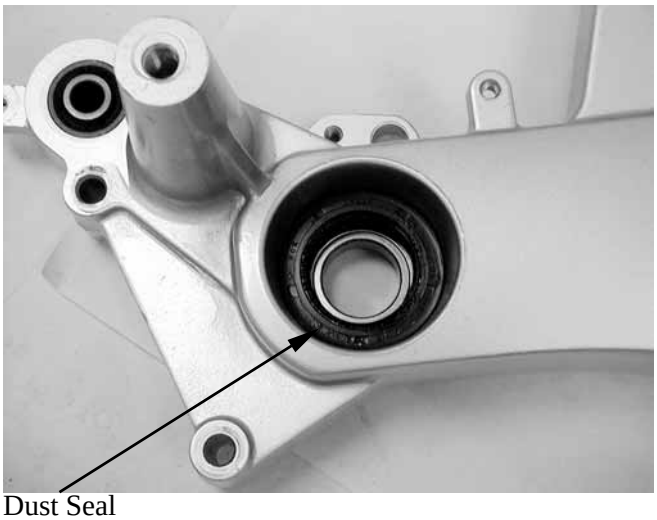
DISASSEMBLY

Wheel
Remove the brake disc bolts and rear brake disc.

REAR FORK BEARING REPLACEMENT

Remove the outer side collar from the rear fork.

Remove the dust seal from the rear fork.

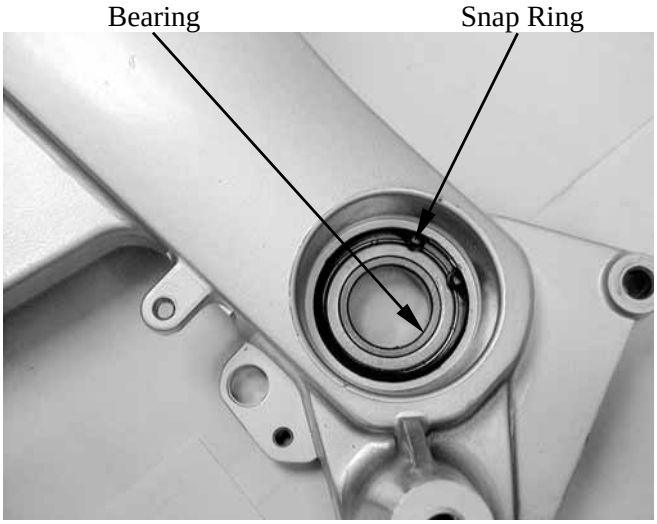


Remove the snap ring.

Turn the inner race of the bearing with your finger.
The bearing should turn smoothly and quietly. Also check that the bearing outer race fits tightly in the rear fork.

Remove and discard the bearing if the race does not turn smoothly and quietly, or if it fits loosely in the rear fork.

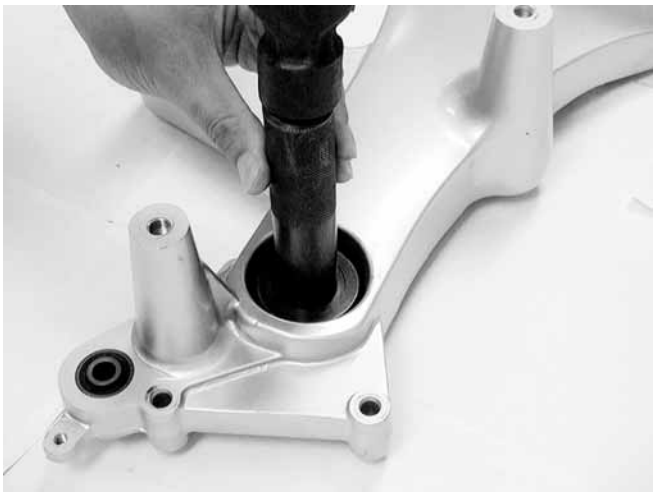
Remove the bearing from the rear fork.



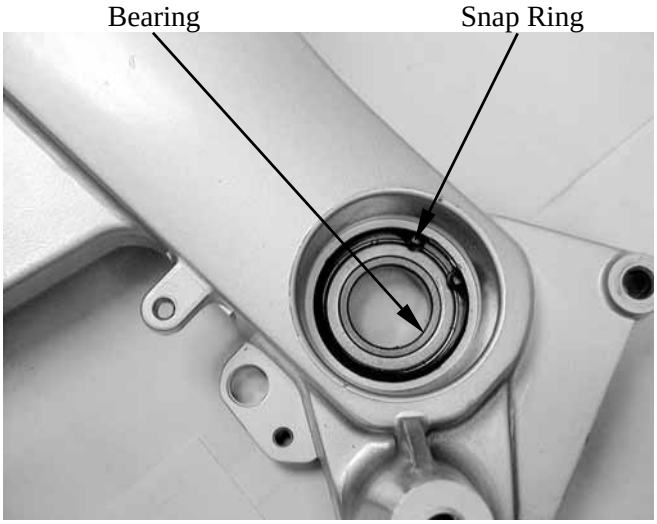
Drive in a new bearing squarely until it is fully seated, using the special tools.

Special tool:

Oil seal & bearing install E014

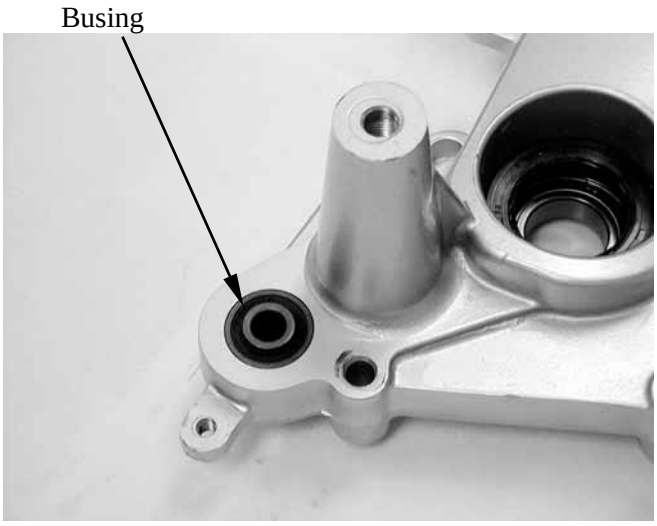


Install the snap ring to the groove of the rear fork securely.



Apply grease to the new dust seal lip and install it to the rear fork.

Check the bushing for wear or damage.



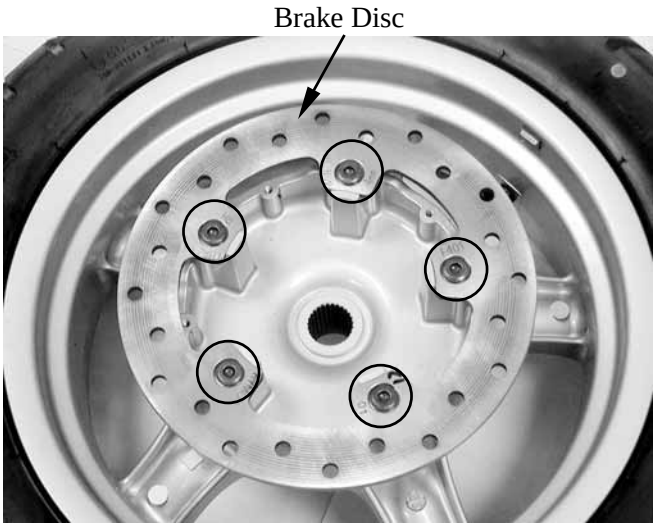
ASSEMBLY

Wheel

Install the brake disc onto the wheel hub.

Install the new brake disc bolts and tighten them to the specified torque.

Torque: 42 N•m (4.3 kgf•m, 31 lbf•ft)



INSTALLATION

Install the rear wheel onto the final gear shaft, aligning the spline.


Rear Wheel

Install the inner side collar.
Apply grease to the final gear shaft.


Inner Side Collar

Install the rear fork and tighten the bolts to the specified torque.

Torque: 32 N•m (3.2 kgf•m, 23 lbf•ft)

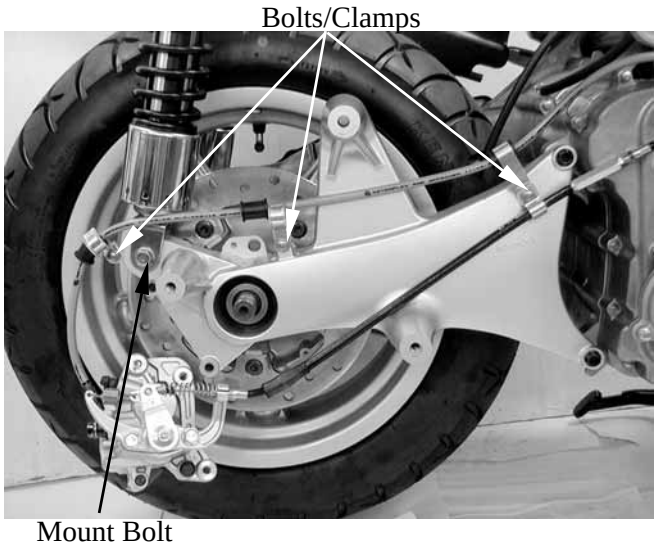
Mount Bolts


Rear Fork

Install and tighten the rear axle nut to temporarily.
Install and tighten the rear shock absorber lower mount bolt to the specified torque.

Torque: 40 N•m (4.0 kgf•m, 29 lbf•ft)

Install the brake hose/cable clamps to the rear fork and tighten the bolts securely.

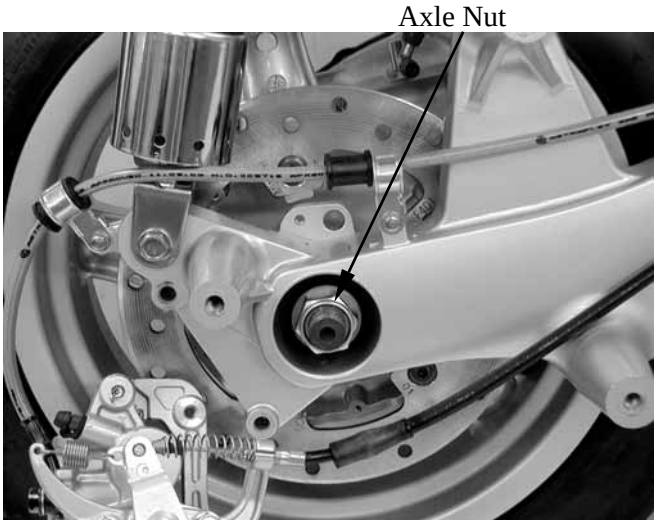


Release the main stand and support the scooter securely on its side stand.

Tighten the rear axle nut to the specified torque.

Torque: 180 N•m (18 kgf•m, 130 lbf•ft)

Install the rear/parking brake caliper (page 16-30).
Install the muffler (page 2-16).



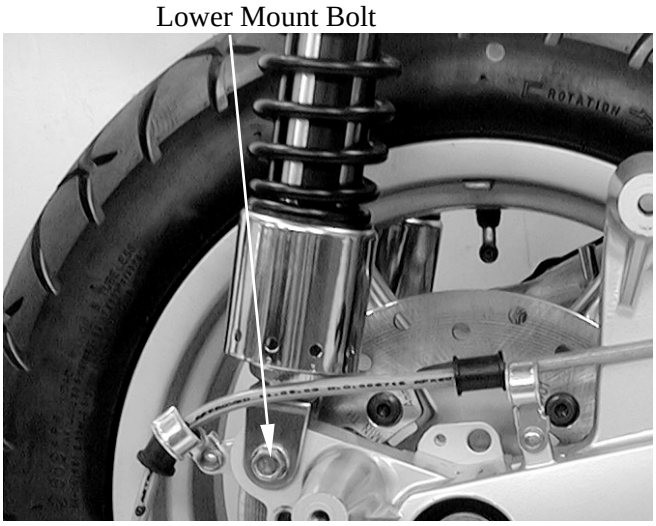
REAR SHOCK ABSORBER

REMOVAL

Remove he luggage box (page 2-3).

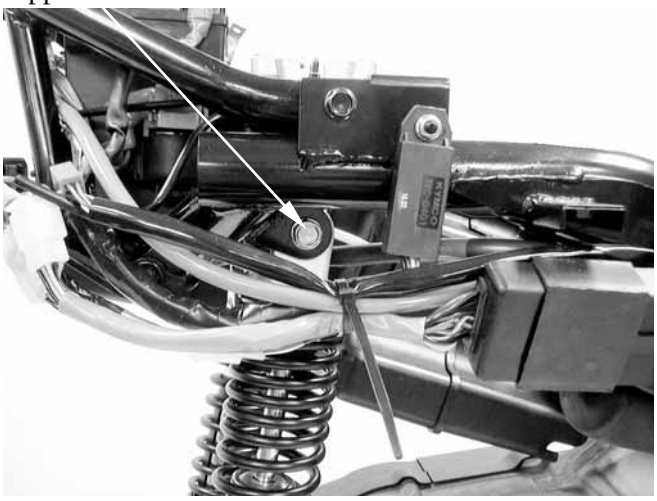
Support the scooter securely on its center stand.
Support the engine securely with a hoist or equivalent.

Remove the rear shock absorber lower mount bolt.

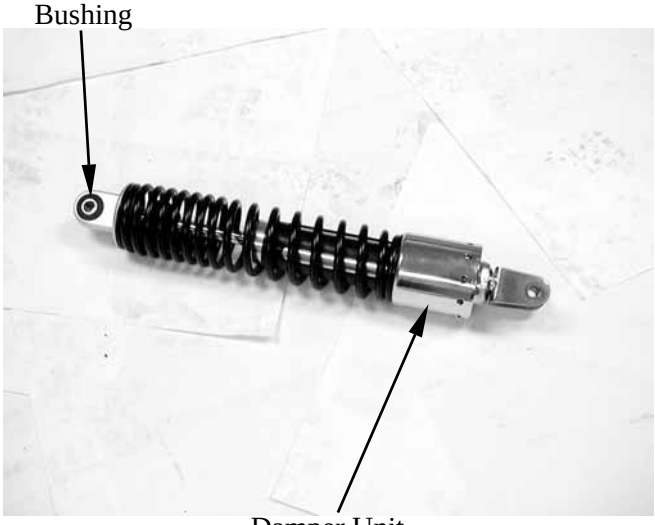


Remove the rear shock absorber upper mount bolt and shock absorber.

Upper Mount Bolt



Bushing



Damper Unit

INSTECTION

Check the damper unit for leakage or other damage.

Check the upper joint bushing for wear or damage.

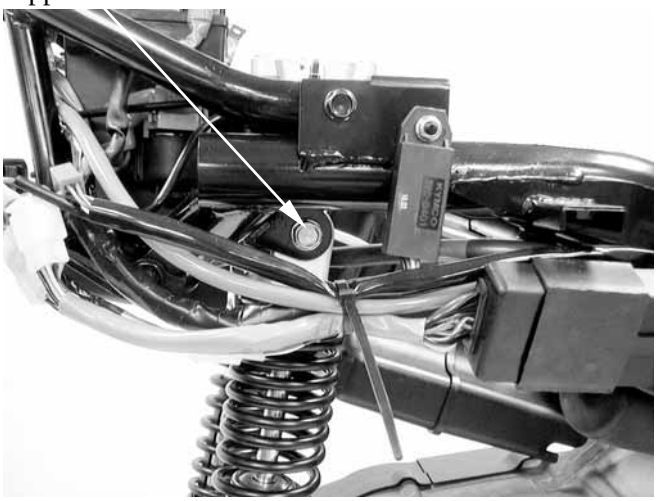
Replace the shock absorber assembly if necessary.

INSTALLATION

Install the rear shock absorber tighten the upper mount bolt to the specified torque.

Torque: 40 N•m (4 kgf•m, 29 lbf•ft)

Upper Mount Bolt



Install and tighten the lower mount bolt to the specified torque.

Torque: 40 N•m (4 kgf•m, 29 lbf•ft)

Lower Mount Bolt