



Starter Removal and Installation Instructions

The following instructions listed below consist of general information for removing and installing starters. Refer to Original Equipment Manufacturer's service manual for specific information pertaining to your vehicle.

Definition of Terms

- ⚠WARNING:** Describes precautions that should be observed in order to prevent injury or death to the user during installation.
- ⚠CAUTION:** Describes precautions that should be observed in order to prevent damage to the vehicle or its components, which may occur during installation if sufficient care is not taken.
- NOTE:** Provides additional information that facilitates installation work.
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Removal Instructions

1. Disconnect the negative (-) battery cable from the battery.

⚠WARNING: Personal injury or damage to the equipment and its components may occur if this step is not performed.

2. Identify each wire and note the connection locations on the starter.
3. Disconnect and remove the battery cable from the starter.
4. Disconnect and remove all other wires from the starter.
5. Loosen all mounting hardware.
6. While supporting the starter, remove all mounting bolts that secure it to the engine/transmission bell housing, and remove the starter from the vehicle.
7. Inspect the flywheel ring gear or flex plate through the starter opening for tooth damage or warpage. Replace as required.

Installation Instructions

1. Clean the battery posts and terminals of both battery cables and verify the battery is completely charged to a minimum of 12.6 volts.
2. Physically compare the replacement starter to the original starter. Compare the wire connector locations, front housing clocking, adjusting hole locations and drain hole position to the original starter.
3. Install the replacement starter onto the engine or bell housing and tighten the mounting bolts to manufacturer's specifications.
4. Position the previously removed wires to their proper location and orientation on the starter and reconnect all removed hardware.
5. Position the battery cable to its proper location and orientation on the starter and reconnect the hardware.

⚠CAUTION: DO NOT over tighten battery cable retaining nut. See manufacturer's specifications for correct torque.

6. Reconnect the battery cables to the battery.

⚠CAUTION: DO NOT over tighten battery cable. See manufacturer's specifications for correct torque.

7. Check the starter for proper operation.

Product Consolidation

DENSO is the largest manufacturer of starters and alternators in the world. We are constantly updating our product to offer greater output and increased durability, often in a smaller package. DENSO may choose to substitute an updated unit for your application, but only if it offers you equal or better performance than the original unit