



## STARTER REMOVAL & INSTALLATION

The following general information has been assembled as a guide for starter removal and installation. Refer to the appropriate Original Equipment Manufacturer's service manual for specific information pertaining to starter removal and installation procedures and safety precautions for your vehicle.

### Removal information

1. Disconnect the negative battery cable from the vehicle.  
CAUTION: Personal injury or damage to the vehicle or its components may occur if this step is not performed.
2. Identify each wire connection and note the location of each on the starter.
3. Disconnect the battery positive cable from the starter motor or the starter solenoid if the solenoid is attached to the starter motor.
4. Disconnect the starter's control circuit wiring from the starter solenoid if the solenoid is attached to the starter motor.
5. Loosen the starter mounting bolts. Do not remove the bolts at this time.
6. Support the starter and remove the bolts holding the starter in place. Set the bolts and starter aside. Be sure to note fastener size and location when removing from the starter.
7. Inspect all the flywheel/flex plate teeth. Perform the inspection through the starter mounting port if an inspection plate is not available.

### Installation information

1. Physically compare the replacement starter to the original. Compare the case, nosecone and mounting offsets, mounting hole locations, drain tube location, wire connector locations and nose cone clocking with the original starter.
2. Support the starter and fasten it into position. Torque the bolts to the vehicle manufacturer's specification.
3. Re-connect the starter's control circuit wiring to the starter solenoid if the solenoid is attached to the starter motor. Be sure there is no interference between the wire harness and other components. Torque all threaded fasteners to the vehicle manufacturer's specification.
4. Re-connect the battery positive cable to the starter motor or the starter solenoid if the solenoid is attached to the starter motor. Torque all threaded fasteners to the vehicle manufacturer's specification.
5. Re-inspect that all components are correctly installed, all threaded fasteners properly torqued and there is no interference between components.
6. Re-connect the battery negative cable. Torque all threaded fasteners to the vehicle manufacturer's specification.
7. Check the starter for proper operation.