



TECH TIPS

Starter Installation Guide

1. Before changing the starter in the vehicle perform the necessary diagnostic tests to ensure that the starter is truly faulty. For example:
 - LISTEN to your customer, when does the problem occur (always, sometimes, after the vehicle is hot, when its cold etc.).
 - Check for vehicle specific Dixie Tech Tips.
 - Make sure that the battery is fully charged (has a specific gravity of 1.260 or more).
 - Check all wires and cables in the starting circuit to make sure that they in good condition (no corrosion, fraying or otherwise damaged). A voltage drop test is highly recommended.
 - Make sure all connections are clean and tight.
2. Before disconnecting the battery follow the manufacturers recommended procedures to ensure that the system memory is not compromised. Some vehicles will require that the on-board computer be re-calibrated if power is lost and some vehicles have specific window positions when disconnecting power, and if done incorrectly will cause damage or take additional time to correct. Disconnect the negative battery cable first to prevent short circuits to ground
3. Remove the wired and cables from the starter, marking them as necessary to ensure that they are replaced in the proper positions.
4. Remove the mounting bolts that hold the starter in place, note the location of any bolts that are differing in length.
5. Remove any heat shields from the old unit and install them on the new one (when applicable). Do the same with any locating pins, alignment sleeves or brackets.
6. Clean the mounting surface of the engine or transmission, making certain it is free of any oil, corrosion or other foreign matter. Failure to do this can cause misalignment of the starter or a bad electrical connection.
7. Place the starter on to the opening, making sure that its is aligned correctly with the engine (or transmission on some models). Thread the mounting bolts by hand while holding the starter in the proper position. Tighten the mounting bolts to the vehicle manufacturer's specifications. **Note** some vehicles with slotted mounting holes require that the starter be cranked first and then the bolts tightened! In addition some starters may require the use of shims for proper operation and to avoid premature starter failure and/or flywheel/ring gear damage. Check for vehicle specific Dixie Tech Tips.
8. Reconnect the starter wiring, making sure to route the wires where they were originally located.
9. Reconnect the negative (ground) cable to the battery.
10. Start the vehicle several times, checking for proper starter operation. Tip, also allow the vehicle to run so that the system can also be checked when hot.