



# Supplement Sheet

Date: April 18, 2011

Subject: Service Replacement for the 751-12224 (951-12224) Stator Assembly

Models Affected: Engine Model: 4P90M0 (952Z4P90M0)

**Read and understand these instructions thoroughly before proceeding.**

**PURPOSE:** The mating connector of the supplied replacement stator for the fuel shut-off solenoid lead has been updated from the early production (old) stators, see Figure 1 “STATOR’S MATING SOLENOID CONNECTOR” and Page 3, Figure 8 inset. Therefore, the fuel shut-off solenoid existing on the engine (early or late production version) will dictate when to use the supplied adapter. This supplement sheet defines the two stator assembly replacement and existing fuel shut-off solenoid scenarios and instructions for the adapter supplied with the new stator assembly.

**NOTE:** These materials are prepared for use by trained technicians who are experienced in the service and repair of equipment of the kind described in this publication, and are not intended for use by untrained or inexperienced individuals. Such individuals should seek the assistance of an authorized service technician or dealer.

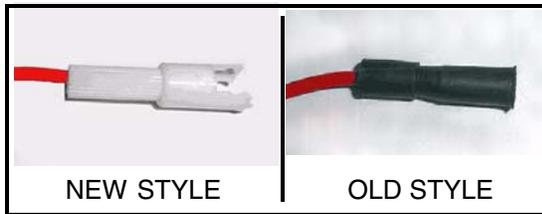
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\* - Not Available Separately

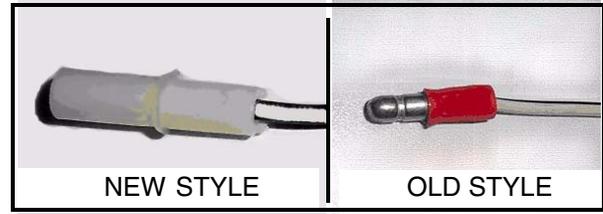
| ITEM NO. | PART NUMBER | QTY | DESCRIPTION            |
|----------|-------------|-----|------------------------|
| 1        | 951-12224   | 1   | STATOR ASSEMBLY        |
| 2        | 951-12477   | 1   | ADAPTER:STATOR         |
| 3        | *           | 1   | THIS INSTRUCTION SHEET |

**OVERVIEW:** There are 2 scenarios that can exist once the new stator is installed...

- A. Installing new stator with early production (old style) fuel shut-off solenoid
- B. Installing new stator with late production (new style) fuel shut-off solenoid



STATOR’S MATING SOLENOID CONNECTOR



FUEL SHUT\_OFF SOLENOID CONNECTOR

FIGURE 1

**SCENARIO “A”:** Install the supplied adapter, 951-12477, between the new stator lead and the existing old fuel shut-off solenoid lead. See Figure 2. Ensure that both adapter connectors have snapped into their mating connectors.



FIGURE 2

**SCENARIO “B”:** The adapter, 951-12477, is not required, refer to Figure 1. Discard the adapter.

**See Page 2 for STATOR ACCESS, REMOVAL and INSTALLATION**

## STATOR ACCESS, REMOVAL and INSTALLATION

### Pre-service Instructions:

1. Place the unit on a flat and level surface.
2. Turn off engine, remove ignition key and allow engine and muffler to cool to room temperature before proceeding.
3. Disconnect the black negative battery cable from the negative battery terminal first then disconnect the red positive cable from the positive battery terminal.

### STATOR ACCESS: (Refer to Figure 3 for Steps 4 through 8)

4. Loosen the two plastic thumb nuts securing the air filter cover. Remove the cover and air filter element.
5. Using a 10mm socket and ratchet, remove the three nuts securing the finger guard and the one nut securing the shroud to the intake manifold. Remove the finger guard.
6. Using a 12mm socket and ratchet, loosen the two shoulder screws above the valve cover.
7. Remove the engine shroud.
8. Remove spark plug wire from the spark plug and ground the spark plug wire to the engine block.

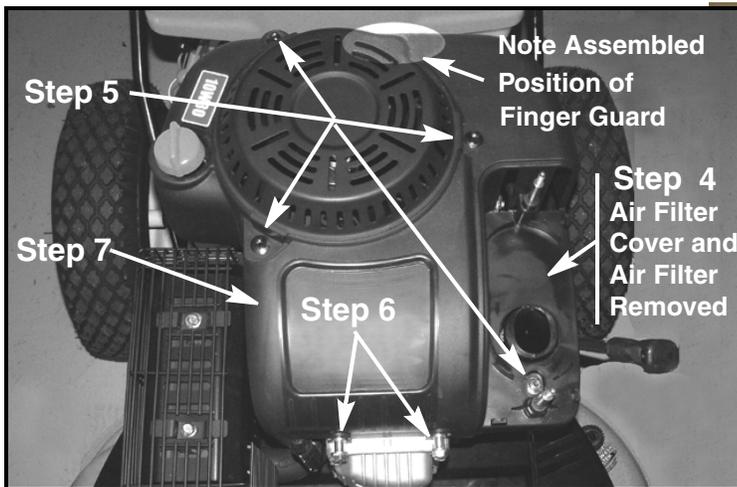


FIGURE 3

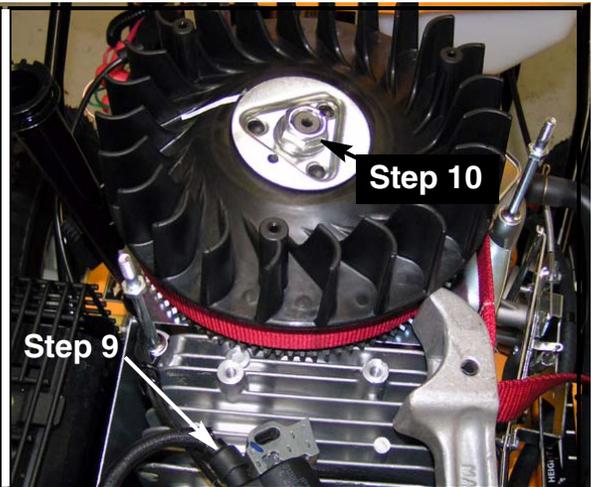


FIGURE 4

9. Using a 10mm socket and ratchet, remove the two screws securing the ignition module. Move the module away from the flywheel. See Figure 4.
10. Using a 23mm socket and ratchet and strap wrench, See Figure 4, remove the nut securing the flywheel to the crankshaft.

**NOTE:** It is not necessary to remove the flywheel fan and metal plate to remove flywheel. However, you must ensure the strap wrench is on the metal flywheel only and not the plastic fan. **OPTIONAL:** Remove the plastic fan and metal plate by lifting fan straight up off of the flywheel.

11. Using the proper 3 point flywheel puller, carefully remove the flywheel. See Figure 5.

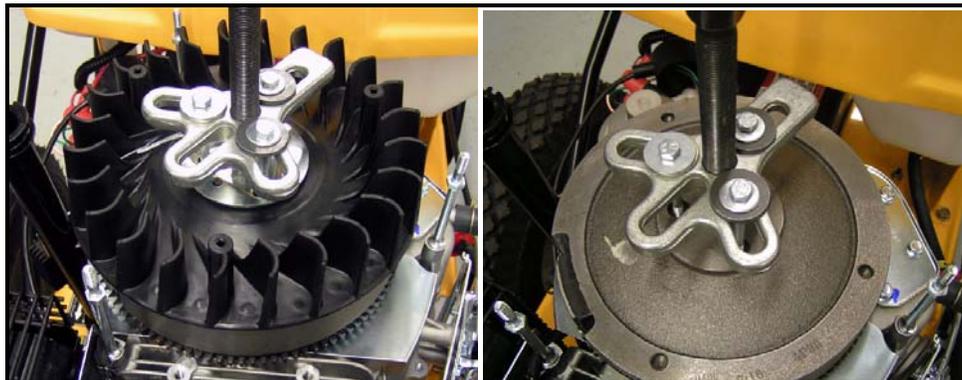
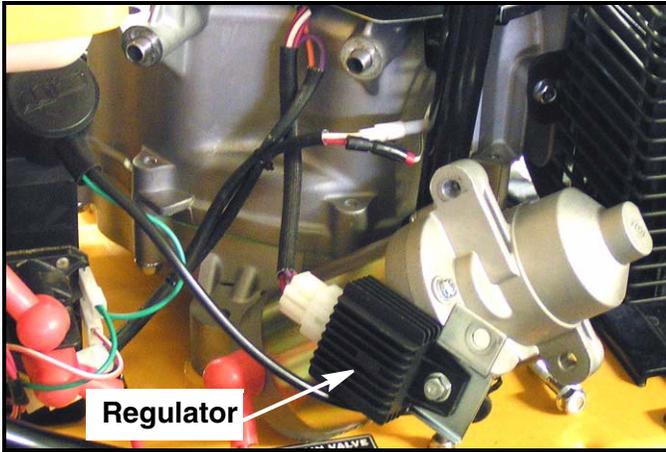


FIGURE 5

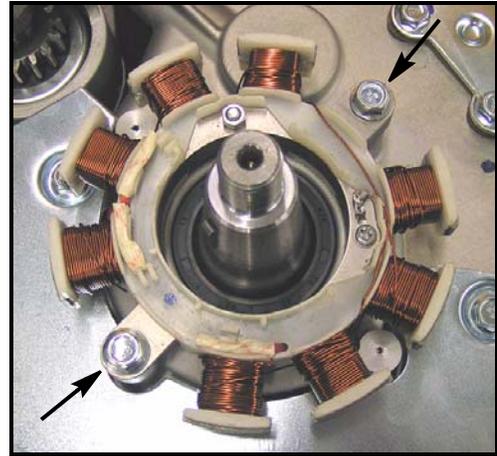
**STATOR REMOVAL:**

12. Using a 12mm socket and ratchet, remove the two screws securing the electric starter and regulator to the engine block. Carefully slide the electric starter off of the guide pins and lay it down on the frame. See Figure 6.

**IMPORTANT - Before removing the old stator, make note, for later reassembly, how the stator harness is routed under the shield then down to the fuel shut-off solenoid lead, ignition module lead, voltage regulator and engine connector. See Figure 8.**



**FIGURE 6**

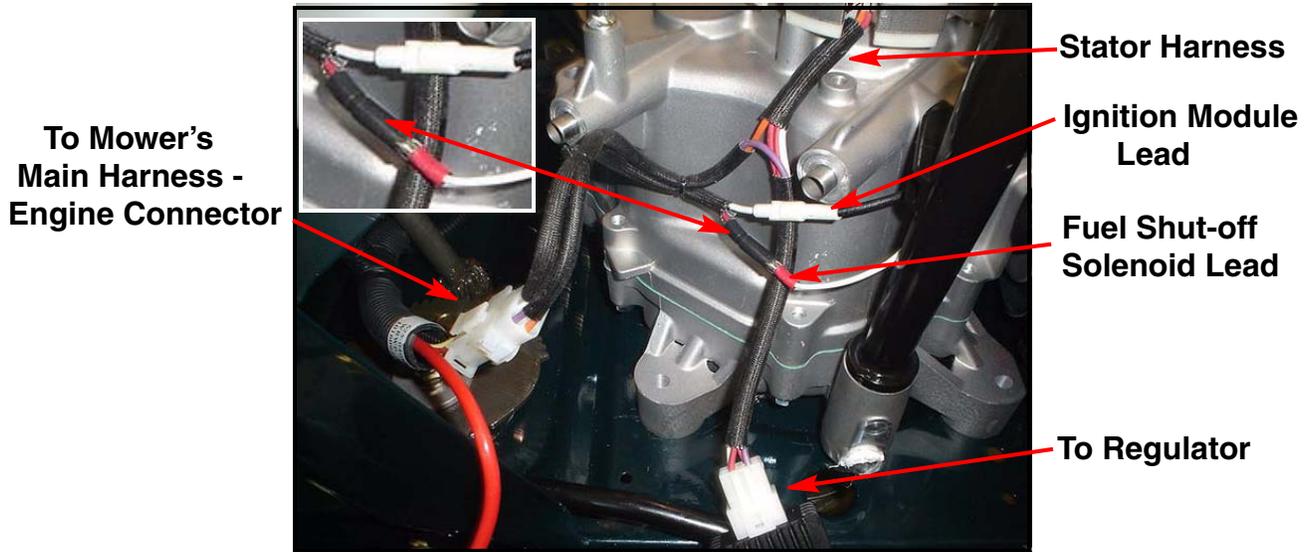


**FIGURE 7**

13. Remove the two screws securing the old stator to the engine block, see Figure 7. Lift up and rotate the stator out of the crankcase bosses allowing access to the shield mounting screws.

14. Using a 10mm socket and ratchet, remove the shield mounting screws. Remove the shield.

15. Carefully, disconnect the stator harness from the fuel shut-off solenoid lead, ignition module lead, voltage regulator and engine connector. See Figure 8. Discard the old stator.

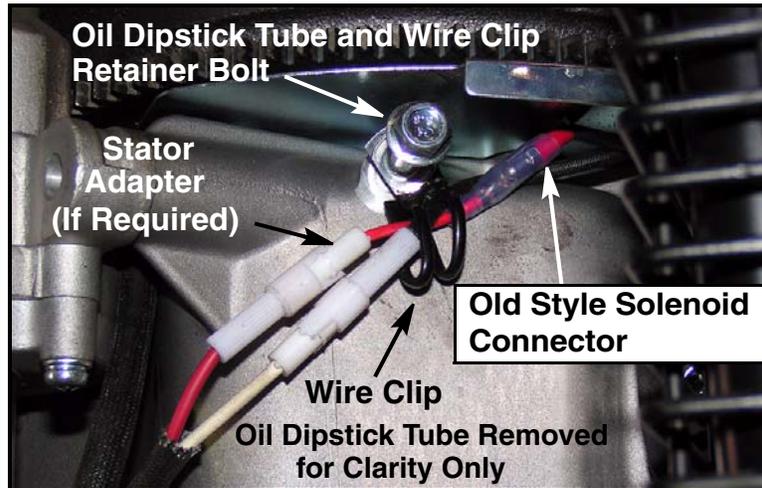


**FIGURE 8**

**See Page 4 for STATOR INSTALLATION**

## STATOR INSTALLATION:

16. Route the new stator harness as shown in Figure 8. Connect the stator harness to the regulator, to the engine connector and ignition module lead.
17. Depending on whether you have Scenario “A” or “B” (see OVERVIEW and SCENARIO “A” and “B” on page 1), connect the stator’s fuel shut-off solenoid lead to the fuel shut-off lead coming from the fuel shut-off solenoid. See Figure 9.
18. Install the stator shield with the screws removed in Step 14. **Torque screws to 9 - 12 Nm (80 - 106 In-Lbs).**
19. Secure the new stator with the hardware removed in Step 13. **Torque screws to 9 - 12 Nm (80 - 106 In-Lbs).**



It is not necessary to remove the oil dipstick tube to properly route and retain the leads in the wire clip. If the oil dipstick tube is removed, it will be very difficult to re-insert the tube into the sump port without possibly destroying the tube’s lower o-ring, P/N 951-12363.

**FIGURE 9**

## FINAL REASSEMBLY:

20. Re-install the electric starter motor and regulator with the hardware removed in Step 12. **Torque screws to 22 - 25 Nm (195 - 221 In-Lbs).**
21. Re-install the flywheel with fan and metal plate onto the crankshaft. Ensure the key is properly installed and key is aligned in the flywheel. Using the strap wrench, 23mm socket and suitable torque wrench, **torque the flywheel nut to 100 - 115 Nm (74 - 85 Ft-Lbs).**
22. Re-install the ignition module. **Set the air gap between the module poles and flywheel to 0.40 - 0.60mm (0.016 - 0.024 In.). When air gap is properly set, torque screws to 9 - 12 Nm (80 - 106 In-Lbs).**
23. Reconnect the spark plug wire to the spark plug.
24. Re-install the shroud and finger guard. **Torque all four shroud nuts to 7 - 9 Nm (62 - 80 In-Lbs).** Re-install the air filter element and air filter cover.
25. Reconnect the red positive lead to the positive terminal of the battery. Then, connect the black negative lead to the negative terminal of the battery.

This completes the installation of the new stator assembly.