Service Bulletin

GE Appliances

GE Consumer Products
General Electric Company
Louisville, Kentucky 40225

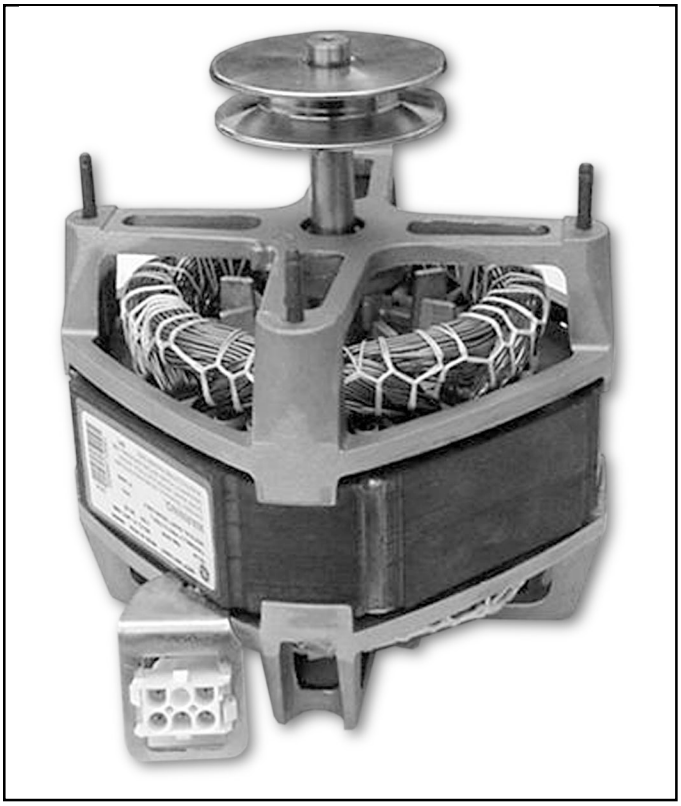
WASHERS **HL 01-03**
NEW ONE-SPEED PSC MOTOR

JUNE 2003

Effective in June 2003, the Form T one-speed motor will be replaced with a PSC (Permanent Split Capacitor) motor in all Louisville built one-speed washers. This new design does not require a clutch. The present clutch motor design has a start winding that heats up very quickly. The clutch design has been responsible for approximately 60% of all service calls related to the motor.

The new 1/2 horsepower PSC motor (WH20X10023) uses a capacitor to provide the required electrical phase shift to the start windings. This shift provides starting torque, efficiency and a slow rate of rise in the start winding to obtain run speed without damage to the motor. The motor requires an inrush current of approximately 13A RMS, considerably less than the 50A required by the present clutch motor. Once target speed is reached, the motor draws approximately 4.5A in agitate and 3.0A in spin. Motor speed is 1640 RPM.

Should replacement be required on a Form T one-speed motor, a kit (WH49X10029) has been developed to replace the clutch motor design with the new PSC motor. The kit contains a WH20X10023 motor, capacitor, capacitor bracket, wire harness, connectors, wire ties and instructions. The kit installation instructions are attached for reference. When ordering an old Form T one-speed motor, the motor will automatically supersede to the new motor and harness kit.



One-Speed PSC Motor

Installation Instructions

WH49X10029 MOTOR & HARNESS KIT 1-SPEED WASHERS WITH CLUTCH MOTORS

Tools Needed:

Motor Harness Kit	RTV Silicone
1/4" Hex Socket	Crimper
5/16" Hex Socket	Wire Stripper
3/8" Hex Socket	Electrical Tape

Kit Contents:

Motor (WH20X10023)
Lower Harness Assembly
Capacitor
Capacitor Bracket
Screw for Capacitor Bracket
7 Closed-end Splice Connectors (5 required)
2 Quick-disconnect Terminals (1 required)
Twist Clip
Ground Screw
Small Wire Tie
Large Wire Tie
Service Sticker

⚠WARNING

DISCONNECT POWER TO THE WASHER BEFORE BEGINNING KIT INSTALLATION

Read these instructions completely and carefully before beginning.

TO PREPARE EXISTING MOTOR HARNESS FOR KIT INSTALLATION:

1. Disconnect power to washer.
2. Remove front panel.
3. Cut all the wires in the wiring harness to the motor at the bottom of the steel suspension rod. Strip 7/16" insulation from the five wires coming from top of cabinet.
4. Unplug remaining harness at motor and discard.

TO INSTALL MOTOR HARNESS KIT:

1. Locate plastic push-in harness retainer on new harness section and insert it fully into existing hole in right front of drip shield (see Figure 1).
2. Plug in motor connector until it is seated, and make sure that the harness forms a loop below the motor connector to prevent water from running down wires and into motor plug.

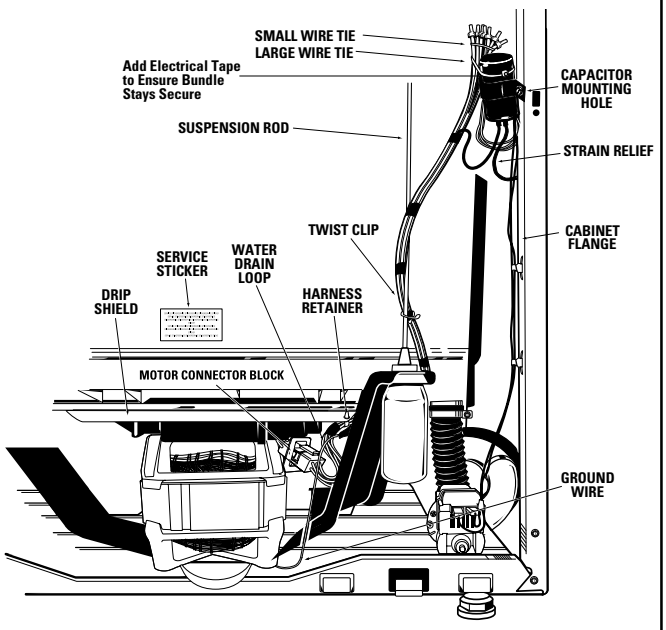


Figure 1

3. Attach ground wire to hole in platform corner (see Figure 1 for location) using screw provided.
4. Check to see if the capacitor fits securely within the bracket, if the capacitor does not, wrap the capacitor with black electrical tape until it fits securely. Then, attach capacitor to cabinet flange using capacitor bracket and screw provided (see Figure 1).
5. ROUTE WIRES BEHIND FRONT PLATFORM LEG. Dress wires upward between tub and suspension rod toward capacitor (see Figure 1).

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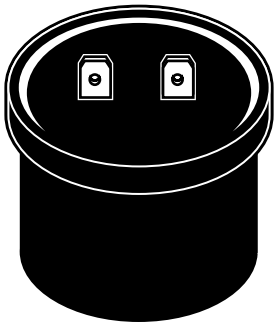
(N.D. 658-02) 5/1/03

6. EXCEPT FOR RED WIRE, match wires in harness color to color. Install closed-end splice connectors and firmly crimp all four (crimp with standard crimping tool). Use RTV silicon to seal the wires into the closed-end splice connectors.
7. Connect the red wire in the provided lower harness assembly to one of the two terminals on the capacitor (see Figure 2).
8. Pull the remaining red wire coming from the top of the cabinet below the capacitor 4", cut and strip 7/16" of insulation from the wire.
9. Crimp on the female quick-disconnect terminal, provided in the kit, to the end of the red wire (crimp with standard crimping tool).
10. Connect the red wire to the remaining terminal on the capacitor (see Figure 2) .



Capacitor **Figure 2**

11. Using small wire tie, secure all the wires (except red wires) together just below connectors (see Figure 3).
12. Pull the two red wires below the capacitor to give them strain relief. Position the wire bundle directly behind the capacitor with the wire connectors extending 2-1/2" above the capacitor top. Secure the wire bundle to the capacitor with large tie (see Figure 3).
13. In addition to wire tie, use black electrical tape to make certain wire bundle is securely attached to top of capacitor (see Figure 3).

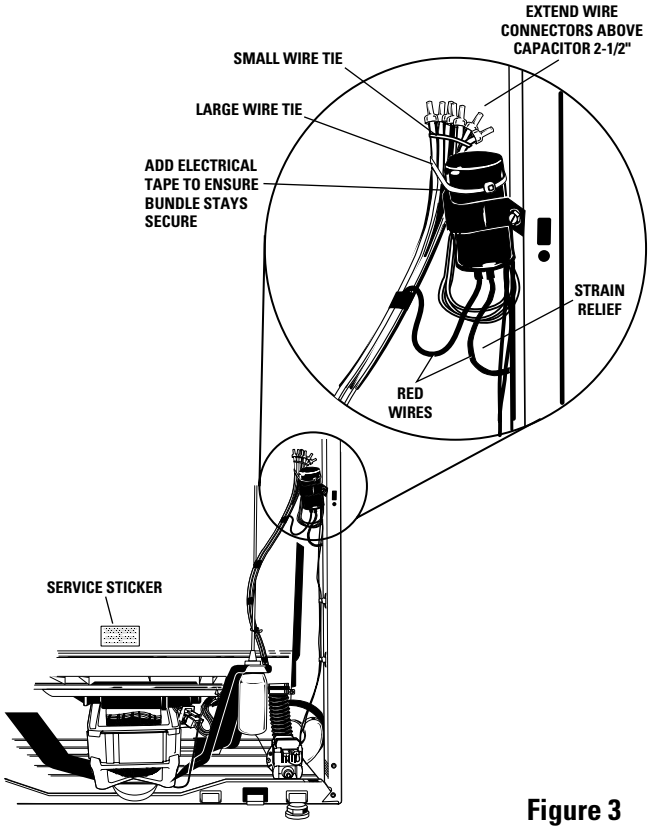


Figure 3

14. Use plastic twist clip to secure new harness to suspension rod. Bend both right and left corners of the galvanized drip shield downward about 1-1/2" (see Figure 4). This will ensure proper water drainage away from the motor and motor plug (if not factory formed).

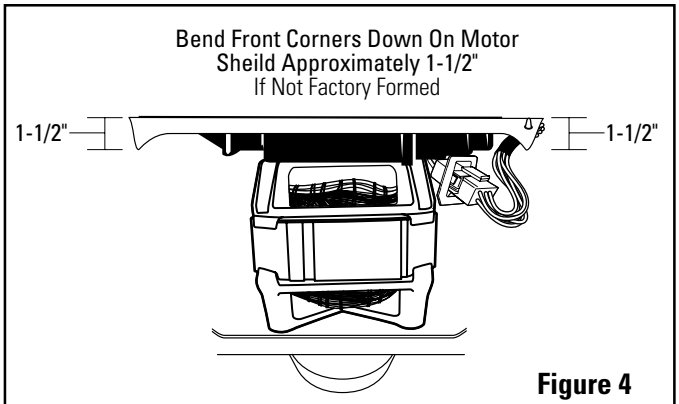


Figure 4

15. Recheck all steps.
16. Apply service sticker to the tub above the motor (see Figure 3).
17. Reinstall front panel.
18. Reconnect power to washer and check for proper operation.