Training Bulletin

JULY 2010

GE Front Load Washer Tips Models WBVH, WCVH, WHDVH

INTRODUCTION

Front load washers are more efficient, using just 13 gallons of water verses 35 gallons for a typical top load machine. Front load machines use less energy. Front load machines also cause less wear on clothes. However, occasionally, front load washer consumers may comment on longer wash times, increased washer vibration or movement, clothes coming out wet, or that washer paused and consumer had to restart.

Take the time to listen carefully and fully understand the consumer's specific issue before proceeding. Address the appropriate issue today to avoid a return service call.

UNDERSTAND THE CONSUMER'S ISSUE FIRST

1. **Increased Vibration**

   a. **Slow speed spin issue (less than 120 RPM only).**

      i. Adjust out-of-balance load. At very low RPM, significantly out-of-balance loads can cause severe vibration.

      ii. Wash similar fabrics in reasonable amounts to reduce vibration.

   b. **Medium- to high-speed spin issue (greater than 120 RPM only).**

      i. Check for faulty installation and correct any Error Codes.

2. **Clothes Coming Out Soaking Wet**

   a. **Frequently:**

      i. Check for faulty installation and correct any Error Codes.

      ii. Check for air leak in pressure switch hose. An air leak can cause too high of a water fill, failure to pump out all water, or unbalanced loads due to excess water weight. If faulty in T06 test, the water may not stop filling at "Foam" level when **F** is displayed. Run entire T06 test to confirm.

      iii. Check for leaking water valve; Error Code E23.

      iv. Check for drain hose siphoning.

      v. Check for clogged pump filter or drain. Washer will run with up to nearly 50% blockage.

   b. **Occasionally:**

      i. Adjust out-of-balance load. It is best to wash similar fabrics in reasonable amounts for best results.

3. **Clothes Coming Out Wet (not soaking)**

   a. **Clothes may occasionally feel more damp than usual.** The washer spins at 2 different speed ranges based on load and balance. A slower speed spin will cause clothes to retain more moisture.

4. **Long Wash Times**

   a. **If initial machine wash time estimate displayed is too long for the consumer:**

      i. Select **SpeedWash** set on **Normal Soil**

for fastest possible wash cycle. Wash similar fabrics together to reduce the number of rebalances.

b. If actual machine wash time is much longer than the display estimate:

    i. Depending on wash cycle selected, initial wash cycle time estimates vary from 40 minutes for the shortest cycle to nearly 3 hours for the longest cycle. In addition, out-of-balance load rebalancing can add as much as 63 minutes to a given cycle. Adjust an out-of-balance load to minimize rebalances and shorten overall wash cycle time. It is best to wash similar fabrics in reasonable amounts for best results.

    ii. Legs out of adjustment; not **four on the floor**. Each of the 4 legs should be adjusted to carry equal weight to reduce rebalancing.

    iii. Too much/wrong detergent creating excess foam and triggering pressure switch. During **Wash** (the word "Wash" in the display), if the machine determines there is too much foam, it will stop rotating the basket and turn on both the drain pump and the water valve to flush excess suds. The pump may run for an extended period of time until foam level drops below the machineset point. This can add an hour or more to the cycle time.

5. The Washer Paused and the Consumer had to Restart Washer.

a. Frequently:

    i. Check for faulty installation, clogged pump filter or drain, drain siphoning, or too much or wrong detergent.

    ii. Check for air leak in pressure switch hose. An air leak can cause too high of a water fill, failure to pump out all water, or unbalanced loads due to excess water weight. If faulty in T06 test, the water may not stop filling at Foam level when **F** is displayed. Run entire T06 test to confirm.

    iii. Check for leaking water valve: Error Code E23.

b. Occasionally:

    i. Adjust out-of-balance load; wash similar fabrics in reasonable amounts for best results.

MAKE THE FOLLOWING CHECKS TO DETERMINE IF THE MACHINE IS OPERATING PROPERLY

1. Perform T02 test to check for any stored Error Codes. To run T02, remove power to washer for 30 seconds. Reapply power, press **Signal** button, press **Delay Start** button, press **Signal** button again, and press **Delay Start** button again. When T01 comes up on the display (possibly up to 3-minute delay before T01 is displayed), rotate the **Cycle Select** knob until T02 is displayed, then press **Start** button. The first Error Code, if any, will be displayed at this time. If no Error Codes, display will show **E00**. Rotate the **Cycle Select** knob clockwise up to 10 clicks to view any additional Error Codes. Refer to Pub. 31-9135 Service Guide for Error Code information. Repair and adjust as appropriate. After repair and adjust, reenter test mode and press and hold the **Start** button for 3 seconds to clear Error Codes.

2. Ensure the consumer's floor is sturdy. If flooring is weak, sags noticeably, or squeaks under load, then any washer vibrations will be exaggerated. The consumer may need to secure a 3/4-Inch-thick plywood panel to the floor under the washer to help correct severe floor movement. Note however, less than 7% of installs need the flooring strengthened. Front load washer movement of up to 1/4 Inch is normal during operation on the sturdiest of floors. **Advise minimum clearance of 1/2 inch to walls (including hoses) to guarantee no contact.** Ensure hoses are properly dressed, so that they are secure and do not vibrate.

3. Confirm consumer is using correct amount of *HE* detergent. Refer to *HE* detergent package label for correct detergent amounts for partial and full loads. Less *HE* detergent is required for soft/softened water and/or partial loads. Confirm clothes loads of similar fabrics and reasonable size. **A reasonable load size is up to one full laundry basket (about 16 lbs of dry clothes).** Some loads cause more vibration (rugs, towels, jeans, etc.) than others. For example, washing only a few towels alone can cause an unbalanced load because they soak up water and concentrate weight in only one part of the basket.

   Note: The following diagnosis steps apply to all units (both pedestal and nonpedestal installations).

4. **Four on the floor** - ensure the unit is level and all four leveling legs are properly adjusted and securely on the floor. The objective is for each of the four legs to carry equal weight; four on the floor. **As little as 1/4 or 1/2 turn on a single leveling leg can be significant.** A helpful quick check is to place your left hand on the top left front corner and your right hand on the top right rear corner. Then, push the washer in the direction of your hands and note force required to remove the weight from the front leg. Now reverse hands, i.e., right in top right front corner and left in top left rear corner, and note the force required to remove weight from the front leg. The two forces should be equal.

5. With basket empty of clothes and water, run the T11 test and check for acceptable vibration or movement. To run T11, remove power to unit for 30 seconds. Reapply power, press **Signal** button, and press **Delay Start** button, press **Signal** button again, press **Delay Start** button again. When **T01** is displayed, rotate the **Cycle Select** knob until **T11** is displayed, then press the **Start** button. Note the test does not rebalance the load. Press **Power** to quickly end the test for an extreme out-of-balance condition. Once the unit reaches 400 rpm, press the **Start** button again, washer will then ramp up to high-speed spin.

Note: Up to 1/4-inch movement is normal operation. If okay, proceed to step B. If not okay, adjust legs and/or check for a machine structural or mechanical fault (see next Section).

6. Place 1 or 2 **dry**, tightly rolled up, bath towels in basket and tape in place to a baffle inside against the basket, centered front to back *(see picture)*. The weight of the towel(s) should be about 1-1.5 lbs; do **not** exceed 2 lbs. This test simulates an out of balance load to make checks and adjustments minimizing vibration and movement.


Ensure rear legs are level and rear jam nuts are wrench tight against washer or pedestal bottom *(see picture below)*. Next, run T11 and adjust front legs for minimum vibration or movement at ~ 400 RPM. Secure the front jam nuts wrench-tight and run T11 again to confirm legs are set properly for minimum vibration or movement while washer is spinning at 400 RPM. Press on the washer top left front corner toward the top right rear corner with your hands and note if there is any increased vibration. Then, press on top right front corner toward the top left rear corner with your hands and note if there is any increased vibration. If pressing either corner **decreases/lessens** vibration or movement, the legs are still out of adjustment and must be corrected. If pressing either corner **increases/worsens** vibration or movement, the legs are properly set.
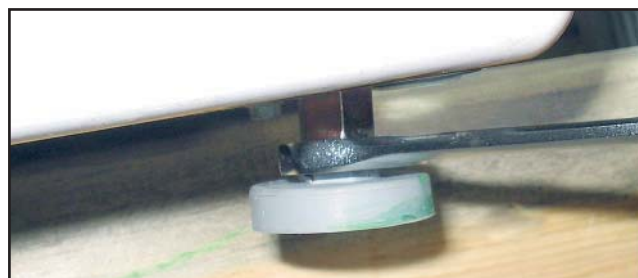
Note: Proceed with Steps 7-8 **only** if Front load washer vibration and movement cannot be adjusted to acceptable levels.

7. Inspect all four feet for good condition. If any of the rubber feet are damaged as in the pictures below, it can cause front load washer vibration.
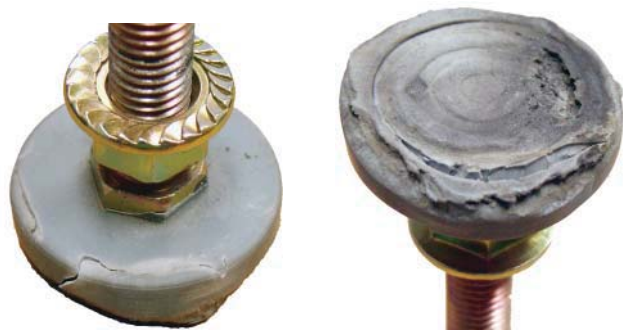
8. If installed on a pedestal, confirm all four washer-to-pedestal bolts are wrench-tight.

MECHANICAL / STRUCTURAL / ERROR CODE CHECKS:

Proceed with these checks if front load washer vibration cannot be adjusted to acceptable levels in the prior Steps.

1. Inspect for correct basket depth by placing a pen or pencil as shown in diagram below with the point touching the basket rim. Manually rotate the basket a full turn so that the pen/pencil is pushed forward to the maximum extent. Now, holding the pen/pencil in place, manually rotate the basket slowly while looking for the maximum gap between the basket rim and the point pen/pencil. Maximum allowable gap is 1/4 inch or less.

2. Check for Washer not bolted to Pedestal or Pedestal rubber pads left on in error. If found, advise consumer to correct installation fault.

3. Check that all 4 dampers and both suspension springs are present, undamaged, and properly installed. There should be no rust on the steel part of damper that enters the black plastic part of damper. Replace damper if defect is found.

4. Check that all counterweight bolts are in place securing the three counterweights. A loose weight will cause excessive noise during spin.

5. Enter Test Mode and check for any Error Codes and confirm no Error Codes. If Error Codes are found, diagnose and repair per the Service Guide GE Pub. 31-9135, then retest until no relevant Error Codes are found.

ADDITIONAL TIPS: WHY DOES THE WASHER MOVE?

1. Both the front load washer and pedestal are made to move. They absorb the energy from spinning to reduce vibration. If they were rigid, and did not move, they would hammer the floor as the basket spins.

2. Top load washers vibrate side-to-side and front-to-back. Front load washers vibrate up and down. While accelerating into spin, the legs on one side push harder on the floor and the other side push less. This force can be very large. A load of clothes and the machine together could weigh 400 to 500 pounds (268 lbs for machine plus 150 lbs of wet clothes).

3. Front load washers are more efficient using just 13 gallons of water verses 35 gallons for a top load machine. Front load machines have shorter dry times and use less energy. Front load machines cause less wear on clothes. However, Front load washers vibrate more in spin. Front load washers can spin at more than 1000 RPM verses just 500-600 RPM for top load washers.

4. Below 120 RPM, the front load washer cannot calculate or adjust to out-of-balance load conditions. The solution to a slow speed vibration issue is to adjust or change the load. It is best to wash similar fabrics in reasonable amounts for best results.

5. The front load washer must be level for the dispenser to work properly.

6. Each of the four front load washer legs must carry approximately equal weight to minimize movement and vibration. **Four on the floor!**