

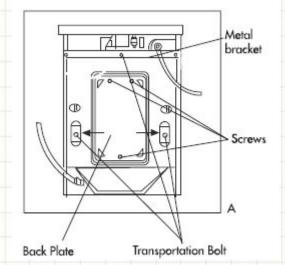
HWD1000 HWD1500 HWD1600 FRONT LOAD WASHER & DRYER COMBO

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# **Installation Guidelines Part 1**

- Do not remove the shipping bolts until the unit is at the installation space
  - Remove the shipping bolts just before the unit is to be moved into the final location

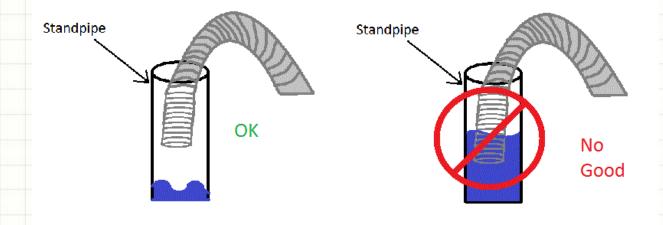


- Make sure the unit is level
  - Level can be verified by pressing on all 4 corners, if any of the corners move additional adjustment is required
  - BE SURE TO LOCK THE LEVELING LEGS



# **Installation Guidelines Part 2**

- Make sure the Hot and cold supply lines are connected properly, unobstructed and fully open
  - Do not reuse old water supply hoses
- Make sure the drain hose is installed into the standpipe properly and secured
  - The drain hose end should not be submerged



# **Maintenance Guidelines**

- Use High Efficiency (HE) detergent only
  - The wrong type of soap can lead to poor wash performance and possibly damage the washer



- Clean the Drain Filter every two weeks
- Inspect the door boot gasket for tears or foreign matter with each new cycle
- Clean the door boot with bleach monthly to prevent mold



#### Clothes do not dry within 120 Minutes

- The washer will wash ~ 12 pounds of clothes at once but the unit only designed to dry 6.6 lbs. of clothes within 2 hours
  - 6.6 Lbs. is approximately 2 full outfits
- This unit uses energy saving vent less condensation drying, different from traditional vented drying
- Condensation drying operates like a cold drink on a hot day where the cold surface of the glass attracts moisture to the outside of the glass.
- The condensation dryer circulates air through the drum, but instead of being vented back out, it is passed through a heat exchanger. This heat exchanger is essentially a cooling surface, attracting moisture. The moisture drips into a drainpipe. After passing through the heat exchanger the air is reheated and blown back into the drum. This process is repeated throughout the dry cycle.

#### Cannot open the door

- This unit uses a safety interlock that locks the door for three minutes after the cycle ends or the stop button is pressed
  - This is done to protect the user from flood damage and excessive heat
- Clothes come out dry but wrinkled
  - The smaller drum size may not allow garments to "fluff", try reducing the number of garments being dried at one time.

- Unit does not seem to fill properly
  - Front load washers are designed to use less water than older style washers,
  - it is normal to see only 1/3 of the drum filled with water
- The unit fills and pumps even during the dry cycle
  - This unit utilizes condensation drying which requires cold water to speed the drying process.
    This is normal

#### Musty Smell

- Inspect the door boot assembly for mold etc.
- Be sure to use HE soap only
- Does not Drain
  - Inspect the drain pump filter for obstructions or debris





- Water remains in the detergent cup after the cycle
  - On occasion, soap may clump or cake blocking the drain hole in the detergent cup, if the water in the cup is clear no service is required.
  - Inspect the detergent dispenser for foreign matter or debris which might block the siphon process
  - Be sure to use only HE soap
- Incorrect water temperature
  - Verify the Hot water line is connected to the red fitting and cold to the blue fitting. (Do not assume)
    - Verify both water supplies are turned on
  - Verify the Hot water temperature is at least 120 F

#### Does not Fill

 Verify both supply lines are connected properly and the taps are turned on (do not assume red is hot and blue is cold, verify)

- Excessive Suds
  - Use HE Soap only and in the correct quantity



- Does not Spin
  - Inspect the drain pump filter for obstructions or debris
- Excessive Vibration
  - Verify the unit is level and all four legs are supporting weight
  - Be sure to Lock the leveling legs
- Some water is drained before the initial wash
  - Units are tested randomly at the factory, water might remain in the drain system after the testing





- UnB (Unbalance error) is displayed
  - Rebalance the load or if necessary remove some items

- Leaks around the door
  - 1. Inspect the door boot for debris or foreign matter, items as small as hair can prevent the door from sealing properly
  - 2. Inspect the door boot for misalignment
  - 3. Verify the door is closing and latching properly

4. Use HE soap only

- Leaks around the soap dispenser
  - 1. Verify the dispenser drawer is closed all the way
  - 2. Verify the trays are not being overfilled
  - 3. Verify the unit is level
  - 4. Use HE soap only
- Leaks around the Rear
  - 1. Inspect the water lines are connected properly (no crossed threads or missing washers)

2. Verify the drain hose is secured properly and inserted properly into the standpipe

## **Component Test Information**

| Component                   | Nominal DC resistance | Possible Related Error code or<br>Symptom |
|-----------------------------|-----------------------|---|
| Hot water Valve             | 1.05 K ohms           | Err5                                      |
| Heater Assembly             | 11 Ohms               | Err9, Err13                               |
| Pre wash valve              | 1.05K ohms            | Err5                                      |
| Main Wash Valve             | 1.06 K ohms           | Err5                                      |
| Dryer Fan Motor             | 9 ohms                | Err9, Err13                               |
| Dryer Heating element       | 11 Ohms               | Err9, Err13                               |
| Water Level Pressure sensor | 15 ohms               | Err5                                      |
|                             |                       |   |

# HWD1000 Error Code Chart Part 1

| Note            | This chart assumes all operation issues have already been attempted   |                      |  |
|-----------------|---|----------------------|--|
| Error<br>Number | Repair Scenario   | Parts Recommendation |  |
| Err1            | Verify the door latch data is being fed back to the Main PCB  | Door latch assembly  |  |
| Err2            | Access test mode and verify the drain pump drive signal is working. Inspect the drain pump for restrictions   | Drain Pump Assembly  |  |
| Err5            | Check the electrical connections to the water valves  | Water Valve          |  |
| Err7            | Check the electrical connections at the drive motor, motor control PCB and Main PCB   | Motor Control PCB    |  |
| Err8            | Inspect the pressure tube from the tub to the pressure sensor looking for kinks or leaks. Inspect the electrical connections from pressure sensor to the Main PCB | Pressure sensor      |  |
| Err9            | Check the electrical connections at the dryer heater and the dryer motor including the fuse and thermal cutout  | Dryer Motor          |  |
| Err 11          | Inspect the pressure tube from the tub to the pressure sensor looking for kinks or leaks. Inspect the electrical connections from pressure sensor to the Main PCB | Pressure sensor      |  |
| Err 12          | Inspect the wiring from main PCB to the drain pump. Inspect the drain pump for restrictions   | Drain Pump Assembly  |  |

# HWD1000 Error Code Chart Part 2

| Note            | This chart assumes all operation issues have already been attempted   |                      |  |
|-----------------|---|----------------------|--|
| Error<br>Number | Repair Scenario   | Parts Recommendation |  |
| Err 13          | Inspect the pressure tube from the tub to the pressure sensor looking for kinks or leaks. Inspect the electrical connections from pressure sensor to the Main PCB | Pressure sensor      |  |
| E22             | Check the electrical connections at the Main PCB  | Main PCB             |  |
| Err 31          | Verify the connections and operation of the Main Drum Motor   | Main PCB             |  |
| EC 3            | Check the electrical connections from the Main PCB to the drive motor   | Motor Control PCB    |  |
| EC 4            | Verify the continuity of the dryer heater, dryer fuse and thermal cutout.<br>Open the dryer housing and verify there is NOT a lint buildup.                       | Dryer Heater         |  |
| EC5             | Verify the connections and operation of the dryer temp thermistor   | Dryer Thermistor     |  |
| U02             | Verify the connections and operation of the door latch  | Door Latch           |  |
| U03             | Check the drum for an unbalance condition   | N/A                  |  |
| U04             | Verify the connections and operation of the door latch  | Door Latch           |  |
|                 |   | 10                   |  |

#### HWD15/1600 Error Code Chart Part 1

| Note         | This chart assumes all operation issues have already been attempted                                      |                      |
|--------------|--|----------------------|
| Error Number | Possible solution  | Parts Recommendation |
| Err1         | Inspect the door latch and the wiring connecting the door latch to the<br>Man PCB                        | Door Latch           |
| Err2         | Inspect the wiring from the Main PCB to the drain pump, Inspect the drain pump for restrictions or clogs | Drain Pump           |
| Err5         | Inspect the electrical connections from the Main PCB to the water valves                                 | Water Valve          |
| Err7         | Inspect the electrical connections from the Main PCB to the motor control PCB,                           | Motor Control PCB    |

## HWD15/1600 Error Code Chart Part 2

| Note      | This chart assumes all operation issues have already been attempted  |                      |
|-----------|--|----------------------|
| Error Num | ber Possible solution  | Parts Recommendation |
| Err8      | Inspect the water line from the drum to the pressure sensor look for restrictions or loose connections, Inspect the electrical connections from the pressure sensor to the Main PCB            | Pressure Sensor      |
| Err9      | Verify the continuity of the dryer heater, dryer fuse and thermal cutout.<br>Open the dryer housing and verify there is NOT a lint buildup.  | Dryer Heater         |
| Er 10     | Inspect the pressure tube from the tub to the pressure sensor looking<br>for kinks or leaks. Inspect the electrical connections from pressure<br>sensor to the Main PCB                        | Pressure sensor      |
| Err 12    | Inspect the wiring from the Main PCB to the drain pump, Inspect the drain pump for restrictions or clogs   | Pressure Sensor      |
| Err 13    | Unplug the unit and plug it back in to reset the CPU. Verify the continuity of the dryer heater, dryer fuse and thermal cutout. Open the dryer housing and verify there is NOT a lint buildup. | Main PCB             |
| UnB       | Rebalance the load and verify the unit is not being overloaded   | N/A                  |

# HWD15/1600 Self Check Mode

Press the and hold the extra rinse button and then spin the mode selector knob . Keep pressing the extra rinse button the screen will display "tEst.

Use the Start/Pause Button to advance through the test functions, If an error is encountered the unit will NOT advance to the next test.

To exit the Self test Mode unplug the unit

| Number   | Item              | Confirmation message | Error message |
|----------|-------------------|----------------------|---------------|
| Test 1   | Dryer Temp sensor | 88:88                |               |
| Test 2   | Door Lock         | 77:77                | ERR1          |
| Test 3   | Water Valve Test  | 66:66                | ERR5          |
| Test 4   | Drum Motor Test   | 55:55                |               |
| Test 5   | Dryer Heater Test | 33:33                |               |
| Test 6   | Drain Pump Test   | 11:11                |               |
| Test End |                   | End                  |               |
|          |                   |                      |               |

# Poor Drying Performance troubleshooting

- Drying more than 6.6 Lbs. of clothing will greatly extend drying time
- Defeat the door latch switch and verify there is air movement into the door boot gasket during drying operation
- Open the dryer housing plenum and inspect the squirrel cage motor as well as the heating element
  - Dust paper or similar items can block the air movement



# **HWD1000 Service Parts List**

| Part Number | Description                                  | Truck Stock |
|-------------|--|-------------|
| WD-4550-05  | Fan Drive Motor                              | Υ           |
| WD-5470-14  | Drain Pump                                   | Υ           |
| WD-7800-11  | Hot water Valve                              |             |
| WD-7800-96K | Main Water Valve                             |             |
| WD-0140-01  | Door Latch Assembly                          |             |
| WD-7350-08  | Thermostat ( this includes the fusible link) | Υ           |
| WD-3500-01  | Pressure Switch                              | Υ           |
| WD-3100-72  | Door Boot                                    | Υ           |
| WD-5800-33  | Door Boot Spring                             |             |
| WD-2500-05  | Heater Assembly                              |             |
| WD-6250-08  | Thermistor                                   | Υ           |

## **HWD1500 Service Parts List**

| Part Number | Description                                  | Truck Stock |
|-------------|--|-------------|
| WD-4550-88  | Fan Drive Motor                              | Υ           |
| WD-5470-22  | Drain Pump                                   | Υ           |
| WD-7800-11  | Hot water Valve                              |             |
| WD-7800-96  | Main Water Valve                             |             |
| WD-6955-01  | Door Latch Assembly                          |             |
| WD-7350-08  | Thermostat ( this includes the fusible link) | Y           |
| WD-1650-33  | Pressure Switch                              | Υ           |
| WD-5210-11  | Motor Control PCB                            |             |
| WD-3100-100 | Door Boot                                    | Υ           |
| WD-5800-33  | Door Boot Spring                             |             |
| WD-2500-05  | Heater Assembly                              |             |
| WD-6250-08  | Thermistor                                   | Υ           |

# **HWD1600 Service Parts List**

| Part Number | Description                                  | Truck Stock |
|-------------|--|-------------|
| WD-4550-88  | Fan Drive Motor                              | Υ           |
| WD-5470-22  | Drain Pump                                   | Υ           |
| WD-7800-11  | Hot water Valve                              |             |
| WD-7800-96  | Main Water Valve                             |             |
| WD-6955-01  | Door Latch Assembly                          |             |
| WD-7350-08  | Thermostat ( this includes the fusible link) | Υ           |
| WD-1650-33  | Pressure Switch                              | Υ           |
| WD-5210-11  | Motor Control PCB                            |             |
| WD-3100-100 | Door Boot                                    | Υ           |
| WD-5800-33  | Door Boot Spring                             |             |
| WD-2500-05  | Heater Assembly                              |             |
| WD-6250-08  | Thermistor                                   | Υ           |
|             |  |             |