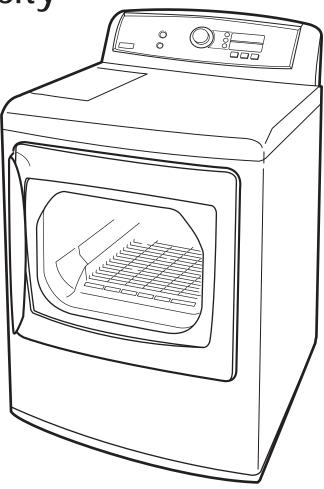
**GE** Appliances

# **Technical Service Guide**

August 2011

GE Profile 7.3 Cu. Ft. Stainless Steel Capacity Steam Dryer

> PTDN800 PTDN805 PTDS850 PTDS855



31-9212



GE Appliances General Electric Company Louisville, Kentucky 40225



#### IMPORTANT SAFETY NOTICE

The information in this service guide is intended for use by individuals possessing adequate backgrounds of electrical, electronic, and mechanical experience. Any attempt to repair a major appliance may result in personal injury and property damage. The manufacturer or seller cannot be responsible for the interpretation of this information, nor can it assume any liability in connection with its use.

#### WARNING

If the information in this manual is not followed exactly, fire or explosion may result causing property damage, personal injury or death. If you smell gas:

- Do not try to light any appliance.
- Do not touch any electrical switch; do not use any phone in the building.
- Immediately call the gas supplier from a neighbor's phone. Follow the gas supplier's instructions.
- If you cannot reach the gas supplier, call the fire department.

#### WARNING

To avoid personal injury, disconnect power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks.

#### **RECONNECT ALL GROUNDING DEVICES**

If grounding wires, screws, straps, clips, nuts, or washers used to complete a path to ground are removed for service, they must be returned to their original position and properly fastened.

#### GE Appliances

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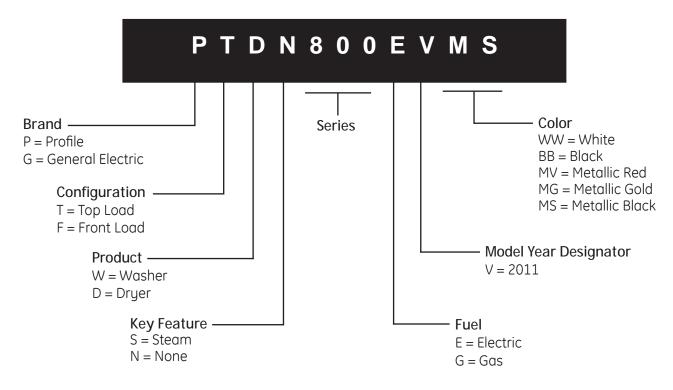
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## Nomenclature

Model Number





The nomenclature tag is located on the front panel inside the door.

Note: The technical sheet is located inside the control panel.

#### Serial Number

The first two characters of the serial number			
identify the r	month and ye	ear of manufacture.	
Example:	5	6S = March, 2011	
		- March, 2011	
F - MAR	2011 - <i>V</i>		
G - APR	2010 - T		
H - MAY	2009 - S	The letter designating	
L-JUN	2008 - R	the year repeats every	
M - JUL	2007 - M	12 years.	
R - AUG	2006 - L		
S - SEP	2005 - H	Example:	
T - OCT	2004 - G	V - 2011	
V - NOV	2003 - F	V - 1999	
Z - DEC	2002 - D	V - 1987	
A - JAN	2001 - A		
B - FEB	2000 - Z		

## Introduction

The GE Profile High-Efficiency Dryer is part of the GE Profile Clothes Care System, utilizing the latest developments in dryer technology.

The Profile Dryer System utilizes strategically placed sensors. This enables the dryer to respond quickly to temperature changes and ensures proper air flow to optimize drying effectiveness.

Other features include:

Steam Refresh/Steam Dewrinkle - Steam Refresh helps reduce wrinkles and odors, and rejuvenates fabrics, while Steam Dewrinkle reduces wrinkles and freshens clean clothes.

Sensor Dry Plus<sup>™</sup> - Innovative moisture-sensing technology helps maintain quality.

Duct sensing - Provides an alert when ducting needs to be cleaned

Antibacterial cycle - Reduces certain types of bacteria by 99.9%.

Specialty cycles - Pre-set cycles are designed to provide superior care for specific items such as jeans, towels, and sheets

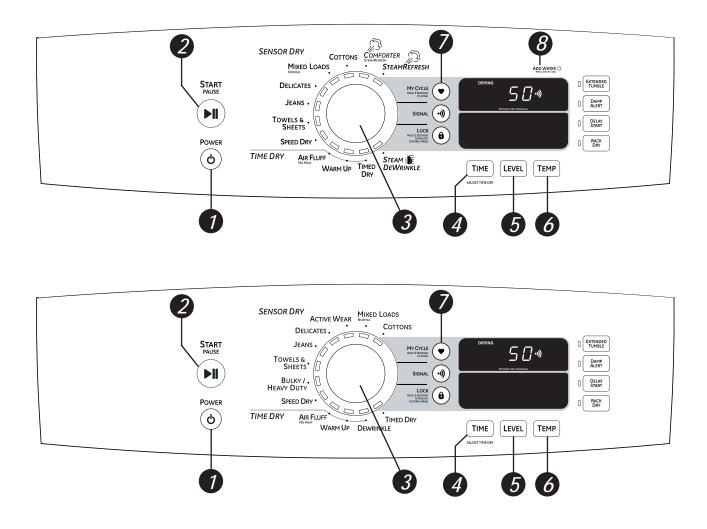
LED electronic controls with cycle countdown display - Designed to simplify cycle selection and provide accurate cycle times

Speed Dry - Quickly dries items and small loads for families on the go.



## **Control Features**

Throughout this manual, features and appearance may vary from your model.



#### Power

Press to "wake up" the display. If the display is active, press to put the dryer in the idle mode.

NOTE: Pressing POWER does not disconnect the appliance from the power supply.



#### START

Press to start a dry cycle. If the dryer is running, press it once and it will pause the dryer. Press it again to restart the dryer cycle.



#### Cycles

The cycle controls the length and tumble speed of the drying process. The chart below will help you match the dry setting with the loads.

*Note:* Steam and Time Dry cycles do not sense the dryness level of the clothing. Adjust the Time and Heat in order to achieve the desired level of dryness left in your clothing at the end of a cycle.

#### Steam Cycles

garments by reducing odor and de-wrinkling at have been stored for extended period. steam cycle to reduce odor. ces wrinkles on garments. Ideal for loads left in
ces wrinkles on garments. Ideal for loads left in
ces wrinkles on garments. Ideal for loads left in
ampness remaining in jeans at the end of the cycle,
s sports or school uniforms. Can also be uch as collars or waistbands.
me casual wear. Fabrics include new technology
linens or throw rugs.
nes.

TIMED DRY Set the desired heating time and temperature manually.



#### Time Dry

Use to set your own dry time. TIME DRY is also recommended for small loads.

#### To use TIME DRY:

- 1. Turn dry cycle dial to TIME DRY.
- 2. Select the drying time by pressing the TIME button. You can increase the time in 10 minute increments up to 1 hr and 40 min. Each time you press the Time button, observe the segment display at the top of the control increase by 10 minutes increments. The upper display shows the actual dry time. The lower display shows the dry time range. E.G. the lower display shows 50 60 the upper display will show :50, if you press the TIME button again the lower display remains at 50 60 and the upper display will change to :60 minutes. The dry time will be 60 minutes.
- **3.** Select temperature by pressing the **TEMP** button.
- 4. Close the door.
- 5. Press the START/PAUSE button.



#### Dry Level

The sensor continuously monitors the amount of moisture in the load. When the moisture in your clothes reaches your selected dry level, the dryer will stop.

Use for heavy fabrics.	
<b>MORE DRY</b> Use for heavy or mixed type of fabrics.	
<b>DRY</b> Use for normal dryness level suitable for most loads. This is the preferred cycle for energy saving.	
Use for lighter fabric (ideal for ironing).	
For leaving items partially damp.	



#### TEMP

You can change the temperature of your dry cycle.

**ANTI-BACTERIAL** This option may only be used with mixed load, towels and sheets and jeans cycles. This option reduces certain types of bacteria by 99.9%: The anti-bacterial process occurs when high heat is used during a portion of this drying cycle. When the option is selected, dryness level is automatically changed to Very Dry.

#### Do not use this cycle with delicate fabrics.

\*The Anti-Bacterial temperature setting is Certified by NSF International (formerly National Sanitation Foundation) to NSF Protocol P154 Sanitization Performance of Residential Clothes Dryers.



NSF Protocol P154 Sanitization Performance of Residential Clothes Dryers

HIGH	For regular to heavy cottons.	
MEDIUM For synthetics, blends and items labeled permanent press.		
<b>LOW</b> For delicates, synthetics and items labeled <i>Tumble Dry Low</i> .		
EXTRA LOW	For lingerie and special-care fabrics.	



#### My Cycle

Set up your favorite combination of settings and save them here for one touch recall. These custom settings can be set while a cycle is in progress.

#### To store a MY CYCLE combination of settings:

- 1. Select your drying cycle.
- 2. Change TEMP and DRY LEVEL settings to fit your needs.
- 3. Select any drying OPTIONS you want.
- 4. Press and hold the op pad for three seconds to store your selection. A beep will sound and the pad will light up.

#### To recall your stored MY CYCLE combination:

Press the MY CYCLE button before drying a load.

#### To change your stored MY CYCLE combination:

Follow steps 1-4 in "To store a MY CYCLE combination of settings".



#### Add Water

When illuminated this indicates that your steam tank is low and it is time to add water to the tank. Please follow the instructions on page 11.

#### **Cycle Options**

#### Note: Not all features are available on all dryer models.



LOCK

TO UNLOCK CONTROL PANEL

HOLD 3 SECONDS

#### My Cycle

To save a favorite cycle, set the desired settings and hold down the *MY CYCLE* button for 3 seconds. A beep will sound to indicate the cycle has been saved.

To use your custom cycle, press the *MY CYCLE* button before drying a load.

To change the saved cycle, set the desired settings and hold down the *MY CYCLE* button for 3 seconds.

See page 8 for more details.



Press *SIGNAL* to select low or high volume, or to turn the beeper off.

The beeper will continue to sound every 2 minutes (maximum of 4 times).

## **a**

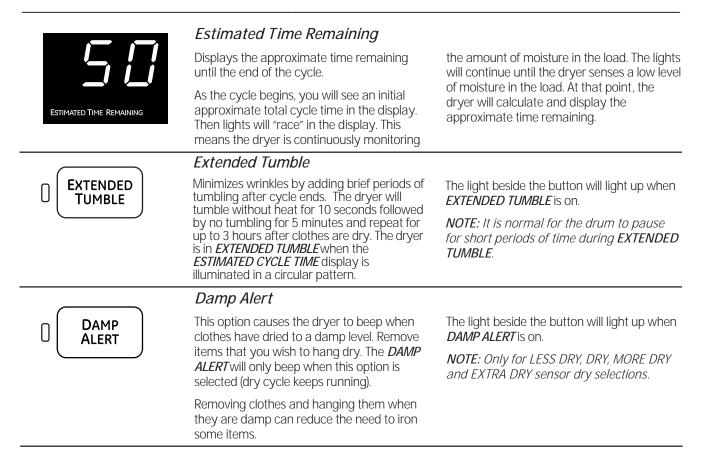
Lock

You can lock the controls to prevent any selections from being made. Or you can lock the controls after you have started a cycle.

Children cannot accidentally start the dryer by touching pads with this option selected.

To lock the dryer, press the *LOCK* button. To unlock the dryer, press and hold the *LOCK* button for 3 seconds.

When the lock function is enabled, the red lock icon will appear in the upper display.





#### Delay Start

Use to delay the start of your dryer.

- 1. Choose your dry cycle and any options.
- Press the *DELAY START* button. You can change the delay time in 1-hour increments (up to 24 hours) each time you press the *DELAY START* button. Stop pressing the button when your desired time is displayed.
- 3. Press the START/PAUSE button to start the countdown.

The countdown time will be shown in the *ESTIMATED TIME REMAINING* display.

#### Rack Dry

Use the *RACK DRY* feature to dry shoes and hats.

*1.* Insert the drying rack (refer to page 11 for the correct placement).

*2.* Place garment in the center of the rack and close the door.

- 3. Press the RACK DRY button.
- 4. Set *TIME*. (refer to page 8 for instructions).
- 5. Press the START PAUSE button.

The light beside the button will light up when *DELAY START* is on.

#### NOTES:

- If the door is opened while the dryer is in DELAY, the countdown time will continue to count down the delay time. If the door is not closed and the countdown time expires, the cycle will not start until the door is closed and the START/PAUSE button is pressed.
- You can delay the start of a dryer cycle up to 24 hours.

The light beside the button will light up when *RACK DRY* is on.

#### NOTES:

- Do not use the drying rack without selecting the RACK DRY cycle.
- Do not change the cycle setting off the timed dry cycle.
- When the RACK DRY feature is selected no other cycle setting can be chosen. An invalid tone will sound if the cycle knob is turned.



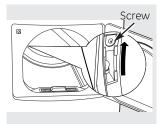
#### **Dryer Features**

#### Note: Not all features are available on all dryer models.



#### Duct Sensing

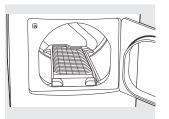
The duct blockage system automatically monitors, detects and alerts you to blockages in the ductwork. Blocked ductwork can degrade dryer performance by reducing airflow from the dryer. If you observe the display window with the message, "CLg" it is time to clean your exhaust ducting in order to increase efficiency and reduce dry times.



#### Changing the Drum Lamp

Before replacing the drum lamp, be sure to unplug the dryer power cord or disconnect the dryer at the household distribution panel by removing the fuse or switching off the circuit breaker. The drum lamp is located at the top left of the door frame.

- **1** Remove the screw holding the drum lamp shield in place.
- 2 Slide the shield up and remove.
- 3 Remove the bulb and replace with a 15-watt, 120-volt candelabra-base bulb.
- 4 Replace the lamp shield and screw.



#### Using the Drying Rack

A handy drying rack may be used for drying delicate items such as washable sweaters.

Hook the rack over the lint filter so the rack extends into the dryer drum.

- NOTE:The drying rack sh
- The drying rack should only be used with the *TIME DRY* cycle. It is also strongly recommended when drying sneakers.
- Do not use this drying rack when there are other clothes in the dryer.





#### Using the Steam Cycles Add Water

Before using a Steam Cycle, the water tank must be filled with water up to the MAX line. If not, the ADD WATER light will blink. Make sure that the water tank is filled with water and the cartridge is completely connected. Turn the dryer off and then restart the Steam Cycle.

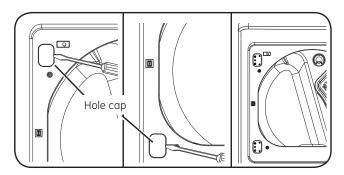
- **1.** Turn the dryer off by pressing the POWER button.
- 2. Open the lid.
- 3. Move the lever to open.
- **4.** Lift out the water tank and open the tank lid.
- 5. Fill the tank to the **MAX** water line with water.
- 6. Place the water tank back into the barrel and move the lever to close.
- **7.** Close the lid, press the POWER button and select the cycles desired.

#### NOTES

- Only use water. Do not fill the water tank with foreign substances, rinse agents, or detergents.
- Before moving the dryer, make sure the water tank is empty.
- Do not use distilled water; the water level sensor in the steam generator will not work.
- Be careful while filling the water tank to avoid overflow and spilling.
- Wipe up any spilled water around the water tank and the drawer before starting the dryer.

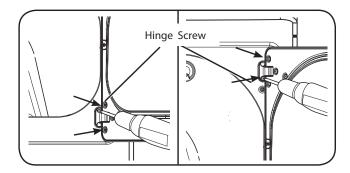
#### To reverse the door swing:

1. Open the door and remove the two plastic hole caps on the catch side by gently prying up with a flat blade screwdriver. Save these for step 6.

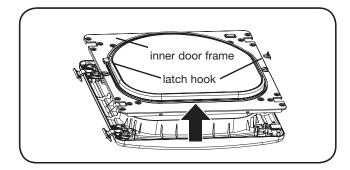


**Caution**: Support the weight of the door when removing the screws in the next step. Failure to properly support the weight of the door could result in property damage, damage to the dryer, or personal injury.

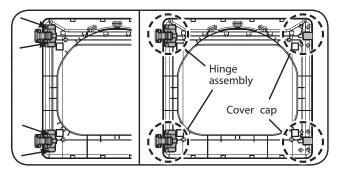
2. While supporting the door, remove the 4 screws, two from each hinge. Set the door aside face down on a protected surface to prevent damage to the door or the work surface.



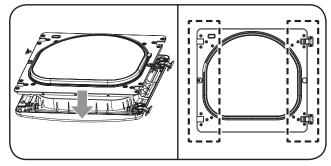
3. With the door on a protected surface, remove the 12 screws on each side of the door and lift off the inner door frame using a flat blade screwdriver. Remove the latch hook and blank and move them to the opposite side.



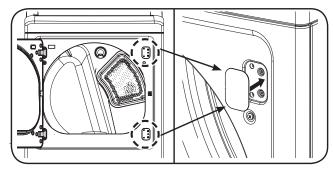
4. Remove the 4 screws securing the hinges to the door frame. Remove the two plastic cover caps. Reinstall the hinges and cover caps on the opposite sides from which they were removed.



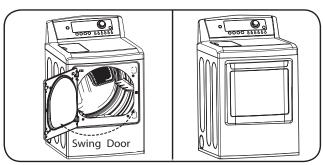
5. With the hinges and cover caps in the new locations, remount the inner door frame onto the outer door frame with the screws removed in step 3.



6. Install the door with the screws from step 2 and replace the plastic hole caps.

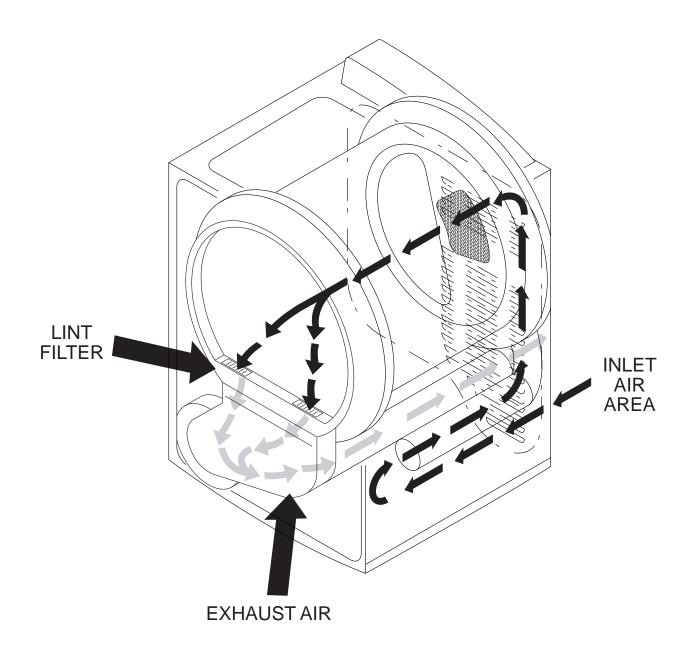


7. Test the swing of the door to make sure the hinges and latch are properly aligned and the door closes and latches correctly.



## Airflow

Gas and Electric Models



## **Component Locator Views**

Gas Model



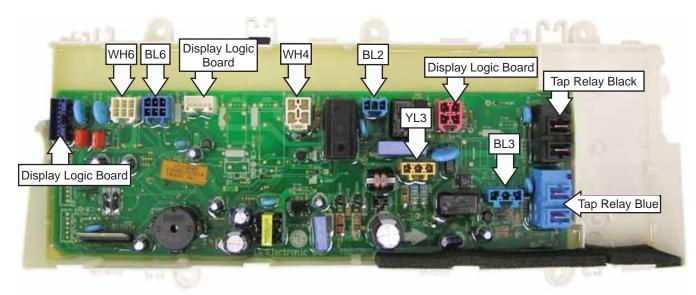
#### Electric Model



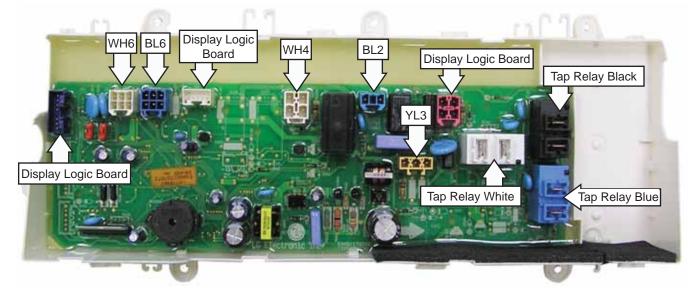


## Main Control Board and Display Assembly Pin Connectors

#### Main Control Board (Gas Model)

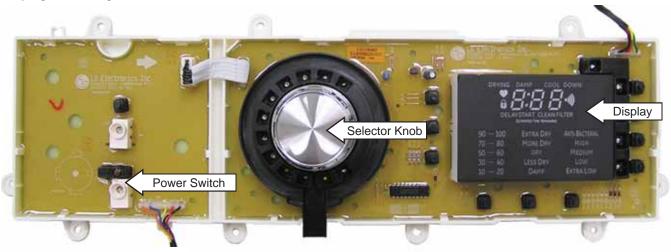


Tap Relay Blue - L1 to Steam Generator Tap Relay Black - L1 to Ignitor BL6 - Steam Generator and Water Pump WH6 - Moisture Sensor and Outlet Thermistor BL2 - N to DC Power Supply WH4 - L1 to Motor thru Belt Switch YL3 - Flame Detector BL3 - Gas Valve Coils



#### Main Control Board (Electric Model)

Tap Relay Blue - L1 to Steam Generator Tap Relay Black - L1 to Outer Heater Tap Relay White - L1 to Inner Heater WH6 - Moisture Sensor and Outlet Thermistor BL2 - N to DC Power Supply WH4 - L1 to Motor thru Belt Switch BL6 - Steam Generator and Water Pump YL3 - Heater Common Display Assembly (Electric and Gas Models)



## Dryer Components

WARNING: Sharp edges may be exposed when servicing the dryer. Use caution to avoid injury. Wear Kevlar gloves or equivalent protection.

#### **Control Panel**

Removal of the control panel provides access to the control system components.

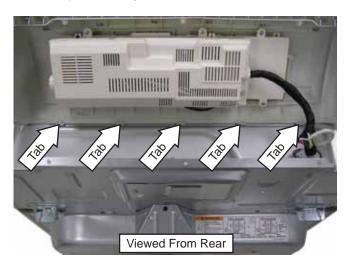
#### To remove the control panel:

1. Remove the 3 Phillips-head screws from the back side that holds the control panel in place.



**Note:** Place a towel or soft cloth over the lid of the dryer to prevent scratches to the surface.

2. Pull the control panel forward to disengage the 5 tabs on bottom and roll it forward so it rests on top of the dryer.



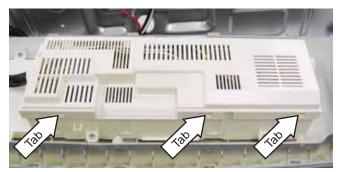
#### **Control Board Assembly**

The control board assembly consists of the main printed circuit board (PCB) and the display PCB. Both are attached to the control panel as one unit. Each PCB is bonded to a plastic frame. The power board and the display logic boards are only available as separate components.

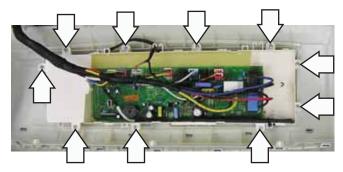
**Caution**: To prevent electrostatic discharge (ESD) from damaging any electronic components, use an ESD wristband or touch a grounded metal surface before servicing.

To remove the control board assembly:

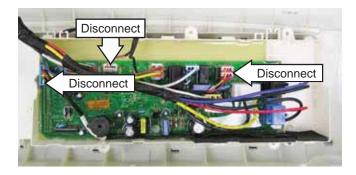
- 1. Remove the control panel. (See Control Panel.)
- 2. Use a flat blade screwdriver to unsnap the 3 tabs on one side to remove the main control board cover.



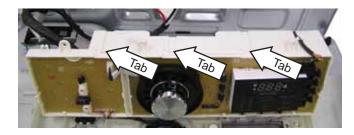
3. Remove the 10 Phillips-head screws from the display bracket.



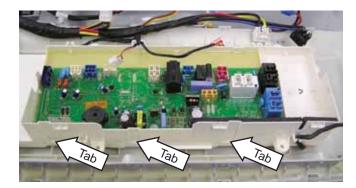
4. Disconnect 3 wiring harnesses from the main control board.



5. Remove the display assembly by releasing the bracket tabs with a flat blade screwdriver.



6. Remove the main control board by releasing the bracket tabs with a flat blade screwdriver.



#### Top Cover

The top cover is held in place by 2 clips in the front of the dryer and 2 hinges in the back.

#### To remove the top cover:

1. Remove the Phillips-head screw that holds the steam inlet hose cover to the back panel.



2. Disengage the steam inlet hose cover hinges by pulling up and out to remove.



- 3. Insert a putty knife between the cabinet and top cover 2 inches from either side.
- 4. Lift the cover as you push in each release clip.



#### Front Panel

#### To remove the front panel:

- 1. Remove the top cover. (See Top Cover.)
- 2. Open the door and remove the 4 Phillips-head screws from the front panel.



3. Remove the 2 Phillips-head screws that hold the front panel to the top plate.

#### Water Pump

The water pump is located under the top panel on the left side of the dryer. The water pump will replenish the water when a steam function is selected and the generator water tank is low. The water pump runs on 9 VDC and has a resistance value of 18.5  $\Omega$ .

**Note:** The water pump will run on a 9-volt battery for testing purposes.

#### To remove the steam pump:

- 1. Remove the top cover. (See Top Cover.)
- 2. Remove the water tank by pulling it out of the housing.



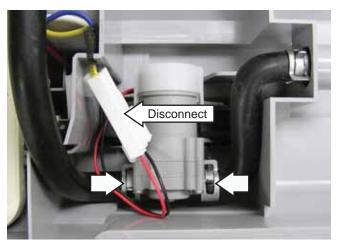
3. Disconnect the 2 hoses and the wiring harness from the water pump.



4. Tilt the front panel slightly forward to disconnect the wiring harness from the door switch.



5. Lift the door off the bottom 3 posts.





#### **Steam Generator Assembly**

**Note**: The steam generator assembly (including the heater, water level sensor, and thermistor) can only be ordered as a complete assembly (part # WE01X10280).

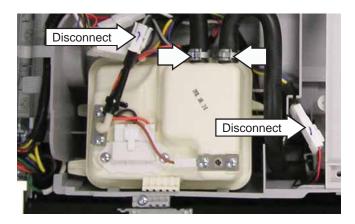
The 120 VAC heater has a resistance of 13.5  $\Omega$ . It draws approximately 8 amps at 1000 watts. Thermal fuses (self-resetting) in the heater will open at 363°F (184°C).

The thermistor has a resistance of 53 k $\Omega$  at room temperature. As the temperature goes up, the resistance goes down. The heater is turned off by software if the temperature is over 266°F (130°C).

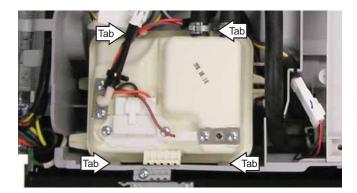
There is a high-level sensor and a low-level sensor in the generator water tank. When the high-level mark is reached, the high-level sensor turns the water pump off. When the low-level mark is reached, the low-level sensor turns the water pump on.

#### To remove the steam generator assembly:

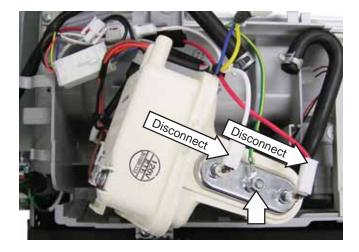
- 1. Remove the top cover. (See Top Cover.)
- 2. Remove the 2 hoses and 2 wiring harness from the heater.



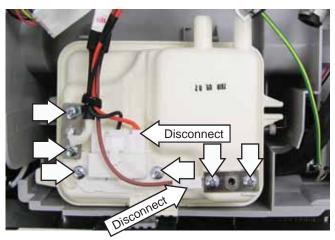
3. Release the 4 plastic tabs (2 on the left side and 2 on the right side).



4. Disconnect the 2 wire connectors and the ground wire by removing the 10-mm nut from the heater.



5. Remove the 6 Phillips-head screws and the 2 wiring connectors.



7. Remove the water sensor with a flat blade screwdriver.



6. Loosen the 10-mm hex nut until it is flush with the end of the stud.



- 8. Push inward on the 10-mm hex nut to relax the rubber gasket.
- 9. Grasp the heater assembly and pull outward.

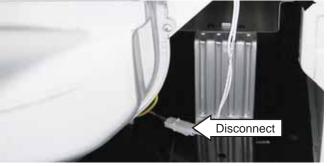
#### Front Drum Support

The front drum support must be removed in order to remove the drum and drive belt.

#### To remove the drum support:

- 1. Remove the front panel. (See Front Panel.)
- 2. Disconnect the wiring harnesses from the drum light and the sensor rods.





3. Remove the 4 Phillips-head screws that hold the front drum support to the sides of the dryer.



4. Remove the drum support by pulling straight out while dislodging the drum rollers.

#### Drive Belt

The drive belt extends from the motor pulley, past the idler pulley, and around the perimeter of the dryer drum.

#### To remove the drive belt:

- 1. Remove the drum support. (See *Front Drum Support*.)
- 2. Reach under the left side of the drum and pull the idler pulley to the left to take tension off of the belt.
- 3. Remove the belt from the motor pulley and idler pulley.
- 4. Pull the belt thru the front of the dryer.

#### To install the drive belt:

- 1. Place the belt in position around the front of the drum.
- 2. Reach under the left side of the drum and place the belt in position around the motor pulley.
- 3. Push the idler pulley to the left and place the belt onto the idler pulley.
- 4. Release the idler pulley and guide the belt into position.

#### Drum

The dryer drum is made of 304 stainless steel and has three replaceable drum baffles attached to the inside. The drum rotates clockwise at 47 to 50 rpm.

#### To remove the drum:

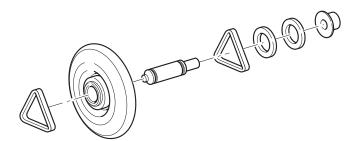
- 1. Remove the drive belt. (See Drive Belt, steps 1-3.)
- 2. Using the belt as a handle, pull the drum forward and guide it out of the dryer cabinet.



#### **Drum Rollers**

The 304 stainless steel drum rotates on 4 drum rollers (2 on the front drum support and 2 on the rear drum support).

Each drum roller comes as a complete assembly.



#### To remove the drum rollers:

- 1. Remove the front drum support (See *Front Drum Support*) to access the front drum rollers.
- 2. Remove the drum (See *Drum*) to access the rear drum rollers.
- 3. Each drum roller is held in place by a plastic triangular clip. Remove the triangular clip with a small flat blade screwdriver and slide the drum roller off the roller shaft.
- 4. To remove the drum roller shaft from the front drum support, remove the 14-mm hex nut that holds the shaft in place.
- 5. To remove the drum roller shaft from the rear drum support:
  - a. Remove the 7 Phillips-head screws from the back of the dryer that hold the rear drum support in place.



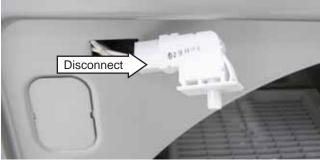
b. Remove the 14-mm hex nut that holds the drum roller shaft in place.

#### Door Switch

The door switch is fastened to the front panel by two locking tabs and is common to most dryer functions.

- When the dryer door is closed, the switch will complete the motor circuit, which allows dryer operation.
- Immediately upon detection of the door opening, the motor shuts off and all heat is disabled.
- Opening the dryer door closes the drum light circuit, which allows the drum light to be energized.
- The door switch circuit can be checked in the service test mode. (See *Service Test Mode*.)
- Remove the door switch by prying out the right side using a flat blade screwdriver. Pull the switch thru the opening and disconnect the wiring harness.





#### Drum Light

The drum light is a screw-type, 15-watt, 125-VAC bulb located in the top of the front panel. When the door is open, the door switch completes the neutral circuit to the drum light.

• Replace only with a bulb of the same size and type.

• To access the bulb, remove the Phillips-head screw in the bulb lens.



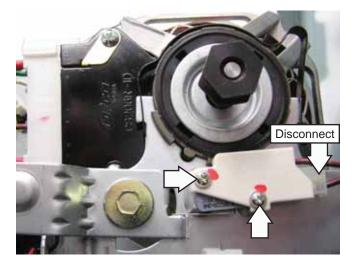
#### Belt Switch

The belt switch is fastened to the motor bracket by 2 Phillips-head screws.

- The belt switch is activated by the idler pulley.
- If the drive belt breaks, the belt switch opens the drive motor circuit, which interrupts most dryer functions (except the drum lamp).

#### To remove the belt switch:

- 1. Remove the drum. (See Drum.)
- 2. Disconnect the wiring from the belt switch.
- 3. Remove the 2 Phillips-head screws that hold the belt switch to the motor bracket.



#### **Blower Wheel**

The blower wheel must be removed to remove the drive motor and the blower housing.

- 1. Remove the drum. (See Drum.)
- 2. Remove the 2 Phillips-head screws that hold the blower guard in place. Remove the blower guard.

**Note**: The blower guard is notched. When installing the blower guard, ensure the notch is located at the bottom of the blower wheel.



Note: In the following step, to prevent the blower wheel from turning while removing the center nut, apply a 7/8-in. wrench to the nut on the end of the drive motor.

3. Remove the 13-mm center nut. (Turn clockwise to remove.) Remove the blower wheel.



#### **Drive Motor**

The drive motor is a single-speed AC, 1/3-hp motor with an automatic reset overload protector.

- The overload protector is an internal component of the motor and cannot be replaced separately.
- The motor contains a centrifugal switch that serves three purposes:
  - 1. Disengages the motor start winding.
  - 2. Engages the motor run winding.
  - 3. Closes the circuit contacts for the heat source.
- The switch is an internal component of the motor and cannot be replaced separately.

The drive motor has an approximate resistance value of:

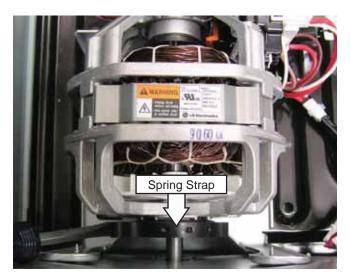
- 3.8  $\Omega$  between the blue and white wires
- 3.2  $\Omega$  between the brown and blue wires
- 7  $\Omega$  between the brown and white wires

To remove the drive motor:

- 1. Remove the blower wheel. (See *Blower Wheel*.)
- 2. Disconnect the motor wiring.



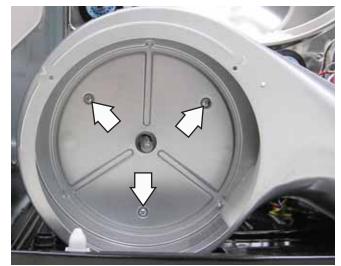
3. With a flat blade screwdriver, compress the open end of the spring strap (1 strap on each end of the drive motor) until it releases. Remove the spring straps.



4. Remove the drive motor from its cradle.

**Note**: The motor bracket is notched. When installing the motor, be sure to align the motor correctly in the bracket.

3. Remove the 3 Phillips-head screws from the center of the blower housing.



4. Remove the Phillips-head screw from the back of the dryer that holds the exhaust duct in place.

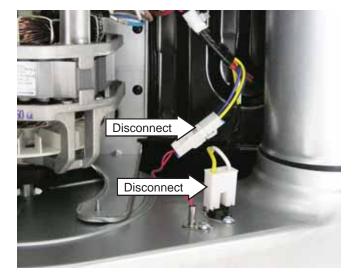


#### **Blower Housing**

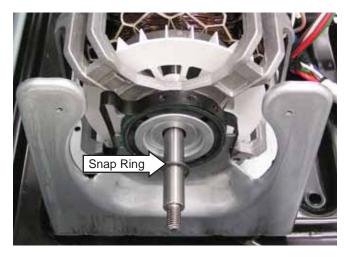
The blower wheel must be removed to access the blower housing.

#### To remove the blower housing:

- 1. Remove the blower wheel. (See Blower Wheel.)
- 2. Disconnect the wiring from the back side of the blower housing.



**Note**: The motor shaft has a snap ring, which prevents the blower wheel from rubbing the back of the blower housing.



5. Remove the blower housing.

#### **Idler Pulley**

#### To remove the idler pulley:

- 1. Remove the drum. (See Drum.)
- 2. Remove the 10-mm nut from the idler pulley bracket.

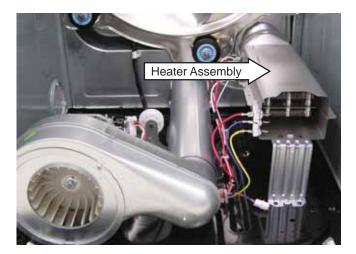


3. Remove the idler pulley by disconnecting the spring.

#### Heater Assembly (Electric Models)

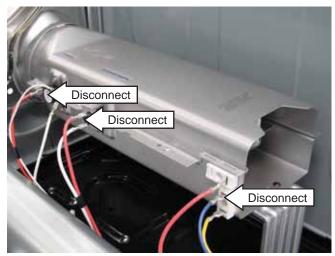
The electric dryer heating elements are fixed at 3000 watts each and cycle on and off independently.

- The open end in the back of the housing allows air to be drawn over the heating coils and into the drum.
- There are 2 heating coils, each having an approximate resistance value of 20  $\Omega$ .
- For low-heat settings, 1 coil at a time may be used. For high-heat settings, both coils may be used.



#### To remove the heater assembly:

- 1. Remove the drum. (See Drum.)
- 2. Note the wire locations and disconnect all wiring from the heater assembly.



3. Remove the 2 Phillips-head screws that hold the heater assembly in place.



#### **Inlet Safety Thermostat**

The inlet safety thermostat is located on the left side of the heater housing on electric models and on the lower-left side of the combustion chamber on gas models.

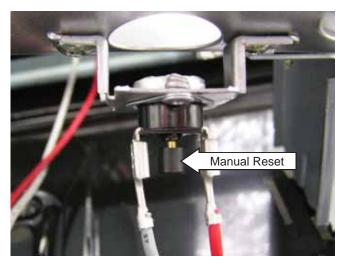
#### **Electric Model Location**



#### **Gas Model Location**



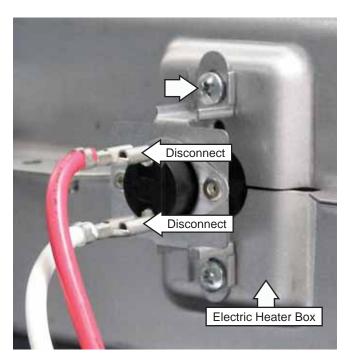
- The inlet safety thermostat monitors incoming air temperature.
- If the thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable all dryer functions except the drum lamp.
- The inlet safety thermostat on the gas model must be reset manually by pressing the manual reset button on the back of the thermostat.



- The inlet safety thermostat on the electric model has a trip temperature of 284°F (140°C).
- The inlet safety thermostat on the gas model has a trip temperature of 230°F (110°C).

#### To remove the inlet safety thermostat:

- 1. Remove the drum. (See Drum.)
- 2. Disconnect the wiring from the inlet safety thermostat.
- 3. Remove the 2 Phillips-head screws that hold the inlet safety thermostat in place.



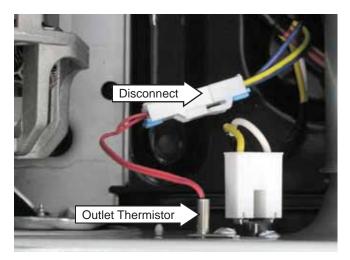
#### **Outlet Thermistor**

The outlet thermistor is located on the back side of the blower housing.

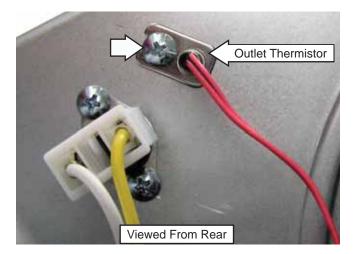
- The outlet thermistor measures outgoing air temperature and responds to temperature changes.
- The outlet thermistor provides temperature change information to the display assembly.
- The display assembly makes heating decisions based on this information.
- At room temperature, the outlet thermistor has a resistance value of 10 k $\Omega$  ±3%.

#### To remove the outlet thermistor:

- 1. Remove the drum. (See Drum.)
- 2. Disconnect the wiring from the outlet thermistor.



3. Remove the Phillips-head screw that holds the outlet thermistor in place.



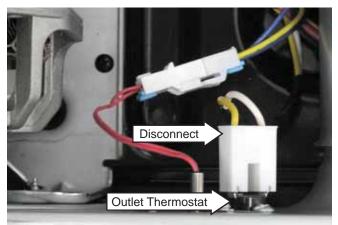
#### **Outlet Thermostat**

The outlet thermostat is located on the back side of the blower housing.

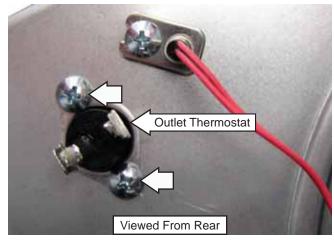
- The outlet thermostat monitors outgoing air temperature.
- If the outlet thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable the heating function only.
- The heating function will be restored when the outlet thermostat cools and resets.
- The outlet thermostat on the electric model has a trip temperature of 189°F (87°C) and a reset temperature of 153°F (67°C).
- The outlet thermostat on the gas model has a trip temperature of 185°F (85°C) and a reset temperature of 149°F (65°C).

#### To remove the outlet thermostat:

- 1. Remove the drum. (See Drum.)
- 2. Disconnect the wiring from the thermostat.



3. Remove the 2 Phillips-head screws that hold the outlet thermostat to the blower housing.



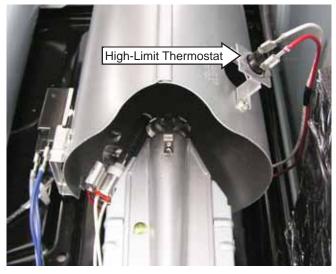
#### High-Limit Thermostat

The high-limit thermostat is located on the rear, left side of the heater housing on the electric model and on the right, upper side of the combustion chamber on the gas model.

#### **Electric Model Location**



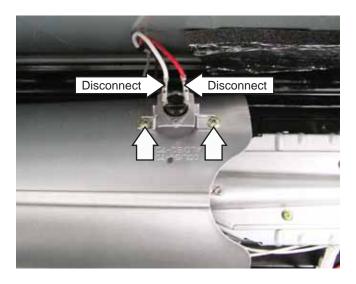
#### Gas Model Location



- The high-limit thermostat monitors incoming air temperature.
- If the high-limit thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable the heating function only.
- Heating functions will be restored when the high-limit thermostat cools and resets.
- The high-limit thermostat on the electric model has a trip temperature of 257°F (125°C) and a reset temperature of 194°F (90°C).
- The high-limit thermostat on the gas model has a trip temperature of 203°F (95°C) and a reset temperature of 158°F (70°C).

#### To remove the high-limit thermostat:

- 1. Remove the drum. (See Drum.)
- 2. Disconnect the lead wires from the high-limit thermostat.
- 3. Remove the 2 Phillips-head screws that hold the high-limit thermostat to the housing.



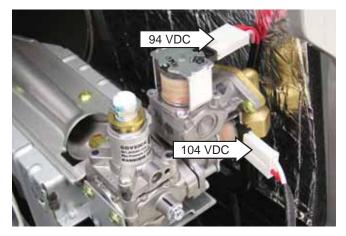
#### Gas Valve (Gas Models)

The gas valve assembly is located in the bottom, right, front corner of the dryer cabinet.

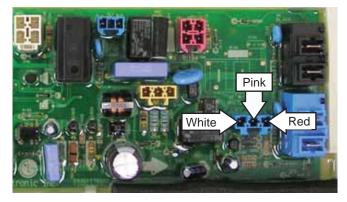


- The gas valve consists of 2 valves operated by 120-VDC solenoid coils.
- The valves are either in an open or closed state, depending on whether the coils are energized by the main control board.
- The resistance value of these coils is approximately 1900 Ω.
- The control board assembly operates the gas valves by supplying voltage.

- DC Voltage Test at Coils:
  - Upper gas valve coil: 94 VDC  $\pm$  10%
  - Lower gas valve coil: 104 VDC  $\pm$  10%

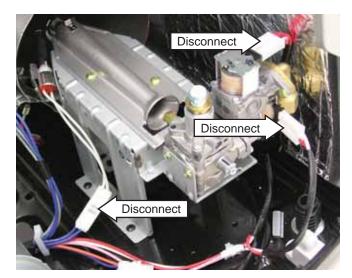


- Gas Valves DC Output Test at Control:
  - Pink to Red: 94 VDC ± 10%
  - White to Red:  $104 \text{ VDC} \pm 10\%$

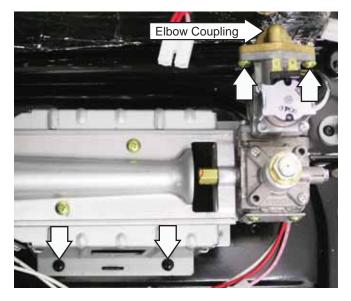


To remove the gas valve:

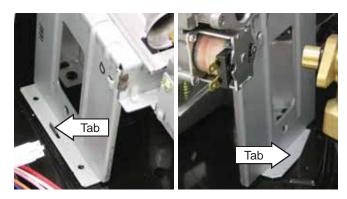
- 1. Remove the drum. (See Drum.)
- 2. Disconnect all wiring from the gas valve and the ignitor.



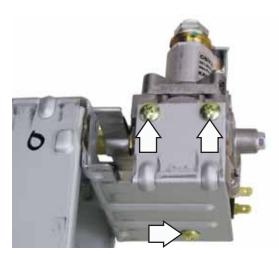
- 3. Remove the 2 Phillips-head screws that hold the gas valve to the elbow coupling.
- 4. Remove the 2 Phillips-head screws that hold the gas valve assembly to the dryer base.



- 5. Disengage the gas valve assembly from the left tab by pulling up.
- 6. Slide the gas valve assembly left to disengage the right tab.



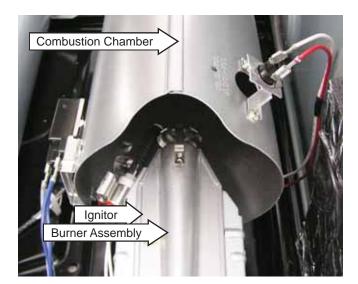
7. Remove the 3 Phillips-head screws that secure the gas valve to the mounting assembly.



#### Ignitor and Flame Detector

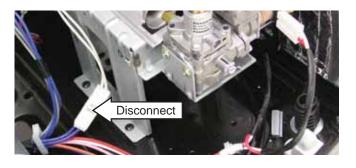
When the main control board calls for heat, 120 VAC is supplied to the ignitor. The flame detector, which is in series with the ignitor, is closed. When the ignitor reaches a high enough temperature, the flame detector opens. The display assembly senses the opening of the flame detector and energizes the gas valve.

The ignitor is located at the end of the gas valve assembly in the combustion chamber opening. Resistance across the ignitor is approximately 148  $\Omega$ .



#### To remove the ignitor:

- 1. Remove the drum. (See Drum.)
- 2. Disconnect the ignitor wiring harness.



**Note**: In the following step, utilize the cutout on the edge of the combustion chamber to access the screw.

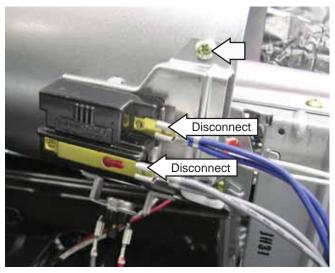
3. Using a short Phillips screwdriver, remove the screw that holds the ignitor to the gas valve assembly.



The flame detector is attached to the left side of the combustion chamber.

#### To remove the flame detector:

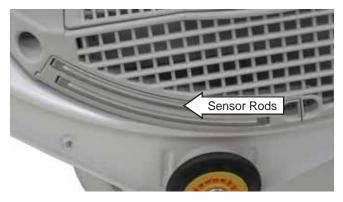
- 1. Remove the drum. (See Drum.)
- 2. Disconnect the wiring from the flame detector.
- 3. Remove the single Phillips-head screw from the flame detector bracket.



#### **Moisture Sensor**

The moisture-sensing circuit consists of 2 sensor rods mounted in the drum front beneath the lint filter opening.

- The sensor rods are connected to the display assembly. The rods are spaced about 1/2 inch apart, which creates an open circuit to the main control board.
- The display assembly utilizes a low-voltage capacitor that charges to approximately 5 VDC when the circuit is open and discharges to less than 1 VDC when the circuit is shorted.
- When wet clothes tumble across the two rods, the clothes create a very low resistance between the rods, which discharges the capacitor.
- As the clothes dry, their resistance value increases, and the charge across the capacitor builds to approximately 5 VDC.



Note: Proper leveling of the dryer is vital for accurate sensor drying. Excessive rearward adjustment will cause clothes to tumble toward the rear of the drum, preventing contact with the sensor rods, and thus producing a false dryness reading.

#### **Duct Condition Test**

The duct or vent condition of the dryer is constantly monitored by the main board. If the main board detects vent blockage, **CLg** is displayed. The dryer will continue to operate. The **CLg** display may appear intermittently as the vent condition continues to deteriorate.

To initiate a duct condition test while in the idle state with no load in the dryer drum:

- 1. Press *DAMP ALERT* and *TEMP* buttons simultaneously and hold, then press *POWER* pad. The dryer will now show **InS** in the number display to indicate that it is in duct condition testing mode.
- 2. Press the *START/PAUSE* button. The dryer will run approximately 2 minutes to test for blockages or restrictions to the air flow in the ductwork.

**IMPORTANT:** Do NOT interrupt the test cycle.

When the dryer has completed the testing process, it will display:

- 1. PaS if the duct system is clear or.....
- 2. CLg if the system is blocked.

#### Service Test Mode

The dryer control has a service test mode that can be utilized by the service technician to test critical components and to access error codes. This service test mode will help the service technician to quickly identify failed or improperly operating dryer components.

	To enter the service test mode:	To exit the service test mode:
With the power connected and in the idle state (all LCD and LED indicators off):		Press the <i>POWER</i> button while the menu screen is showing or while a test is running.
1.	Press and hold the <i>LEVEL</i> and the <i>TEMP</i> buttons, then press the <i>POWER</i> button.	Note: If no key is pressed for 15 minutes, the control will automatically exit the service test mode and
2.	If the control does not enter the <i>t01</i> test mode, the step 1 sequence was not executed correctly.	enter the idle state. Disconnecting the power will also terminate the service test mode.
3.	Press the <i>POWER</i> button to clear the display, then repeat step 1.	
4.	Press the <i>START/PAUSE</i> button to enter the test displayed.	
5.	Rotate the knob to end a test and navigate to another test.	

Test Mode	Test	Description
All Models		
t01	Software Test	Product type and program version are alternately displayed when <i>START</i> is pressed. Steam Models: HES or H9S. Non-Steam Models: HEd or H9d. Program Versions indicated: ELS, U00, d00.
t02	Error Codes	Product error codes will be displayed when <i>START</i> is pressed. To clear error codes, press <i>START</i> twice while code is displayed. <b>E00</b> - No error codes. tE - Outlet thermistor error (open or short). <b>PS</b> - High voltage. <b>EE</b> - Eprom error. <b>E5</b> - Steam Pump error. tE4 - Steam generator thermistor error. dE - Motor error.
t03	User Interface Test	Pressing <i>START</i> powers all the LEDs on the control. Pressing each button or pad produces a beep and changes the display each time a different button is pressed. Display will change from 111 to 222 then 333 and so on. Note: Press <i>START</i> twice to go to menu display for this test.
t04	Motor Test	Pressing <i>START</i> displays 00 and starts the motor.
t05	Door Switch Test	Pressing <i>START</i> enters the door switch test and displays <b>dE</b> when the door is open, <b>00</b> when the door is closed.
t06	Moisture Sensor Test	Pressing <i>START</i> displays an index between 30~255. Moisten a finger and rub across the sensor rods. The index number should drop, indicating the sensor system is operating.
Gas Models On	ly	
t07	Outlet Thermistor Test	Pressing <i>START</i> displays the outlet thermistor index between <b>00-137</b> , starts the motor, and displays <b>tE</b> if the thermistor is shorted, open, or disconnected.
t08	Gas Ignition and Thermistor Test	Pressing <i>START</i> displays an index between 00~137. The motor runs, and the gas burner is energized. The displayed index increases as the outlet thermistor temperature increases.
t09	Steam Thermistor Test	Pressing <i>START</i> displays an index between 00~137. The steam generator heater is energized. The displayed index increases as the steam generator thermistor temperature increases.
t10	Steam Pump Test	Pressing <i>START</i> displays an index between 00~137. The pump motor starts, and the heater is energized. Note: Limit the pump run time or water will overflow into dryer drum.
Electric Models	Only	
t07	Heater 1 and Outlet Thermistor Test	Pressing <i>START</i> displays an index between 00~137. Motor runs, and the heater is energized. The displayed index increases as the outlet thermistor temperature increases.
t08	Heater 1, 2, and Outlet Thermistor Test	Pressing <i>START</i> displays an index between 00~137. The motor runs, and the heater is energized. The displayed index increases as the outlet thermistor temperature increases.
t09	Steam Thermistor Test	Pressing <i>START</i> displays an index between 00~137. The steam generator heater is energized. The displayed index increases as the steam generator thermistor temperature increases.
t10	Steam Pump Test	Pressing <i>START</i> displays an index between 00~137. The motor runs, and the heater is energized. The displayed index increases as the outlet thermistor temperature increases.

### Component Check Points

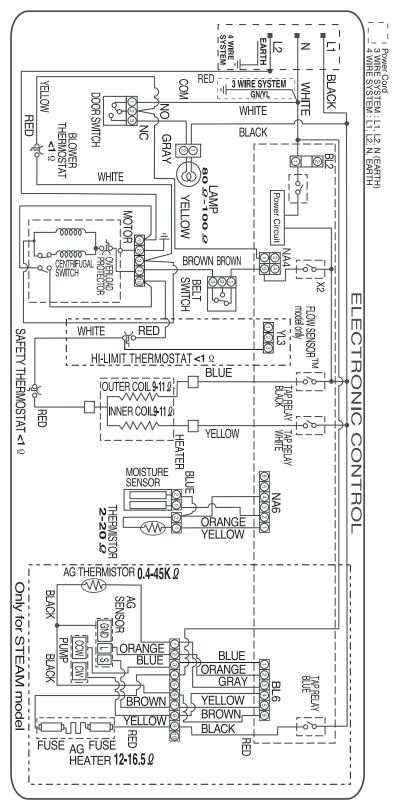
Check Point	Measurement condition	Measurement
Motor Test	Turn the dryer power off, and then measure the resistance.	$=>BL2-① & WH4-③ \\ : 2~4 \Omega \\ =>BL2-① & WH4-① \\ : 0 \Omega \\ =>WH4-③ & :0 \Omega \\ =>WH4-③ & WH4-① \\ : 2~4 \Omega \\ : 2~4 \Omega \\ =>WH4-③ & WH4-① \\ : 2~4 \Omega \\ =>WH4-③ & WH4-\square \\ : 2~4 \Omega \\ =>WH4-(1) \\ : 2~4 \Omega \\ =>WH4-(1)$
120-VAC Electrical Supply	Turn dryer power on, and then link the connector to the controller.	ВК tab BL2 =>BK-@ & BL2-① :120V
Thermistor Test	After turning power off, measure the resistance.	Take the 6 pin Connector from the Controller.       =>NA6-6 & Ground screw         6       3         5       2         4       1         4       1
Moisture Sensor	After turning power off, measure the resistance.	Take 6pin Connector from the Controller.
Door Switch Test	After turning power off, measure the resistance.	BL2 $\mathbb{W}H4$ =>BL2-① & WH4-① : <1 $\Omega$ and $\infty \Omega$
Heating Element Test	After turning power off, measure the resistance.	YL3       =>YL3-③ & YL(Black)         : 18~22 Ω         =>YL3-③ & BL(White)         : 18~22 Ω         : 18~22 Ω         : 18~422 Ω         : 36~44 Ω
Gas Valve Test	Turn dryer power off.	BL3       TL3       =>BL3-(1) & BL3-(2) $1 \ge 3$

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#### Electric Model

WARNING: Disconnect electrical power before servicing.

**Caution**: Label all wires prior to disconnection. Wiring errors can cause improper and dangerous operation. Verify operation after servicing.

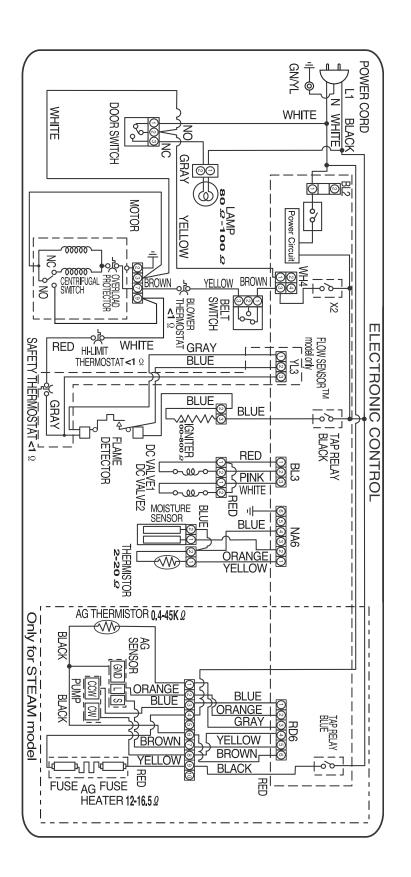


(Continued Next Page)

#### Gas Model

WARNING: Disconnect electrical power before servicing.

**Caution**: Label all wires prior to disconnection. Wiring errors can cause improper and dangerous operation. Verify operation after servicing.



## Warranty



All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, on-line, visit us at GEAppliances.com, or call 800.GE.CARES (800.432.2737).

Please have serial number and model number available when calling for service.

Staple your receipt here. Proof of the original purchase date is needed to obtain service under the warranty.

For The Period Of:	We Will Replace:
<b>One Year</b> From the date of the original purchase	<i>Any part</i> of the dryer which fails due to a defect in materials or workmanship. During this <i>limited one-year warranty,</i> GE will also provide, <i>free of charge,</i> all labor and related service costs to replace the defective part.
<i>Second Year</i> From the date of the original purchase	<i>Any part</i> of the dryer which fails due to a defect in materials or workmanship. During this <i>additional one-year limited warranty</i> , you will be responsible for any labor or related service costs.
<i>Third through Fifth Year</i> From the date of the original purchase	<i>Dryer Drum and Main Electronic Control Panel</i> , if either of these parts should fail due to a defect in materials or workmanship. During this <i>additional three-year limited warranty</i> , you will be responsible for any labor or related service costs.

#### What Is Not Covered (in the United States):

- Service trips to your home to teach you how to use the product.
- Improper installation.
- Failure of the product if it is abused, misused or used for other than the intended purpose or used commercially.
- Replacement of house fuses or resetting of circuit breakers.
- Damage to the product caused by accident, fire, floods or acts of God.
- Incidental or consequential damage caused by possible defects with this appliance.
- Damage caused after delivery.

EXCLUSION OF IMPLIED WARRANTIES—Your sole and exclusive remedy is product repair as provided in this Limited Warranty. Any implied warranties, including the implied warranties of merchantability or fitness for a particular purpose, are limited to one year or the shortest period allowed by law.

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. If the product is located in an area where service by a GE Authorized Servicer is not available, you may be responsible for a trip charge or you may be required to bring the product to an Authorized GE Service location for service. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your state's Attorney General.

#### Warrantor: General Electric Company. Louisville, KY 40225