GE APPLIANCES
a Haier *company*

Technical Service Guide

September 2019

24 and 27 in. Unitized Laundry Centers

GUD27ESSMWW

GUD27GSSMWW

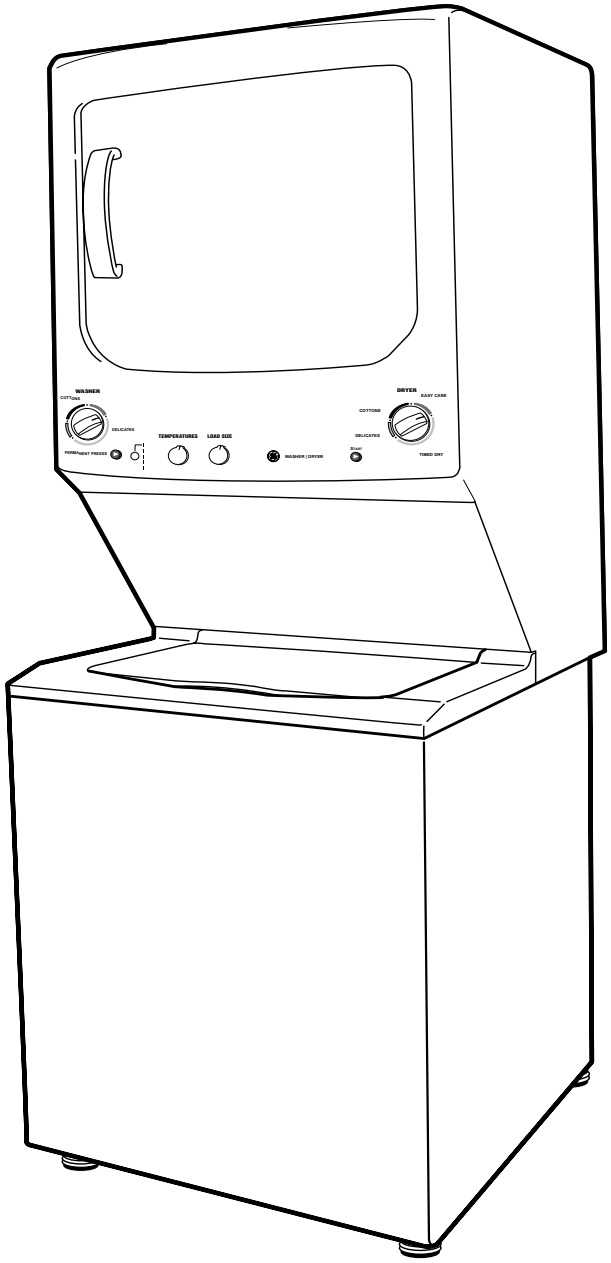
GUV27ESSMWW

GUD24ESSMWW

GUD24GSSMWW

XUD27ESSMWW

XUD27GSSMWW



31-9292
Rev. 2 ~ *11/18/20*

Safety Information

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

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.

Warranty

For Warranty Information:

1. Go to http://products.geappliances.com
2. Search the model number.
3. Click on the Literature tab.
4. Click on Use and Care Manual.
5. Locate the Warranty page.

Table of Contents

(*Continued next page*)

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Safety Requirements

GE Factory Service Employees are required to use safety glasses with side shields, safety gloves and steel toe shoes for all repairs.

Brazing Glasses

Plano Type Safety Glasses

Prescription Safety Glasses

Safety Glasses must be ANSI Z87.1-2003 compliant

Dyneema®Cut Resistant Glove

Cut Resistant Sleeve(s)

Electrically Rated Glove and Dyneema® Cut Resistant Glove Keeper

Steel Toed Work Boot

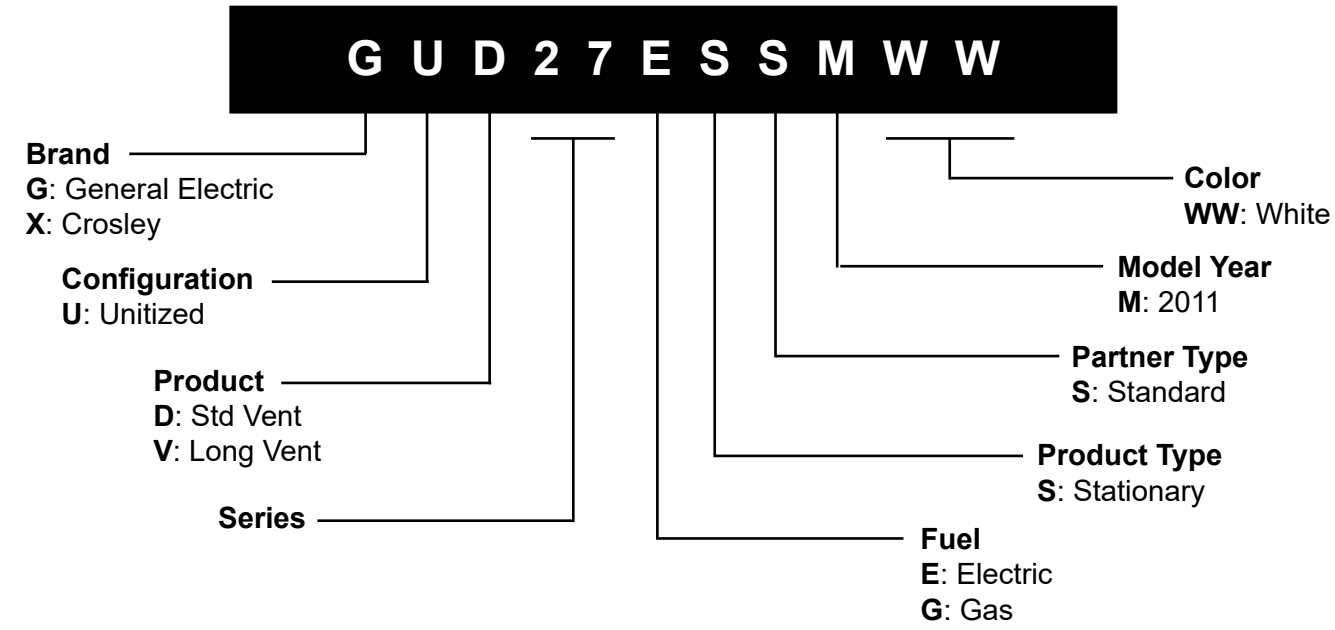
⚠ WARNING

Prior to disassembly of the washer to access components, GE Factory Service technicians are REQUIRED to follow the Lockout / Tagout (LOTO) 6 Step Process:

Step 1 Plan and Prepare	**Step 4** Apply LOTO device and lock
Step 2 Shut down the appliance	**Step 5** Control (discharge) stored energy
Step 3 Isolate the appliance	**Step 6** “Try It” verify that the appliance is locked out

Nomenclature

Model Number



The nomenclature breaks down and explains what the letters and numbers mean in the model number.

Serial Number

The first two characters of the serial number identify the month and year of manufacture. The letter designating the year repeats every 12 years.

Example: LA123456S = June, 2013

A – JAN	2024 – Z
D – FEB	2023 – V
F – MAR	2022 – T
G – APR	2021 – S
H – MAY	2020 – R
L – JUN	2019 – M
M – JUL	2018 – L
R – AUG	2017 – H
S – SEP	2016 – G
T – OCT	2015 – F
V – NOV	2014 – D
Z – DEC	2013 – A

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

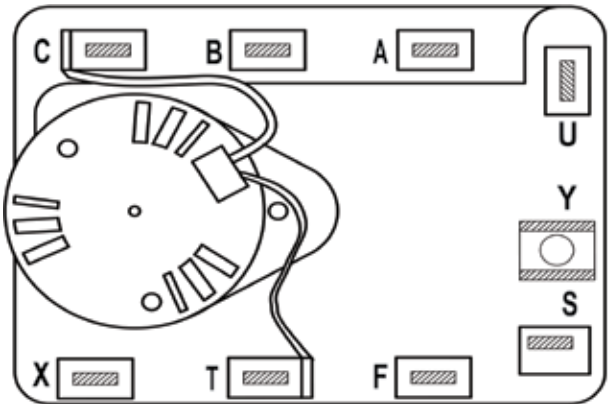
Note: The technical sheet is taped on the inside of the control panel.

Specifications

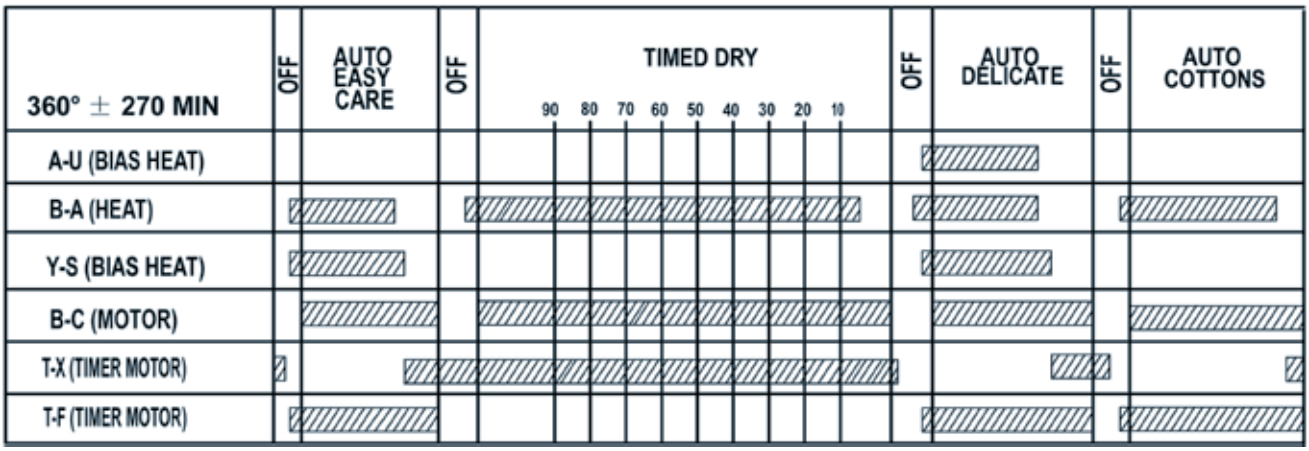
Electric Dryer

Windings & Coils Resistance Values		
Main Drum Motor	Start	2.98 - 3.30 Ω
	Run	3.19 - 3.53 Ω
Blower Motor	-	14.25 - 15.75 Ω
Heater Coils 27"	Inner	23.70 - 26.00 Ω
	Outer	23.70 - 26.00 Ω
Heater Coils 24"	Inner	26.20 - 29.00 Ω
	Outer	26.20 - 29.00 Ω
Timer Motor	-	3384 - 3816 Ω
Inlet & Outlet Biased Thermostats	-	9k Ω

Terminal	Wire Color
C	Pink
U	Brown/Yellow
Y	Yellow
X	Yellow
A	Orange
T	Tan
S	Blue
B	Red
F	Not Used



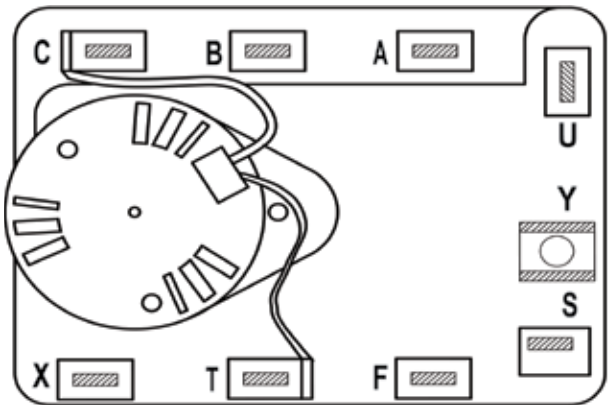
Thermostat	Temperature °F		Temperature °C	
	Open	Close	Open	Close
Drum Outlet	130 +/- 5	120 +/- 6	55 +/- 3	49 +/- 3
Control Outlet	210 +/- 5	180 +/- 6	99 +/- 3	82 +/- 3
Control Inlet (Long Vent Only)	205 +/- 5	175 +/- 6	96 +/- 3	79 +/- 3
Safety	235 +/- 5	205 +/- 6	113 +/- 3	96 +/- 3
Safety (Long Vent Only)	225 +/- 5	195 +/- 6	107 +/- 3	91 +/- 3
High Limit	315 +/- 8	250 +/- 15	157 +/- 6	121 +/- 9



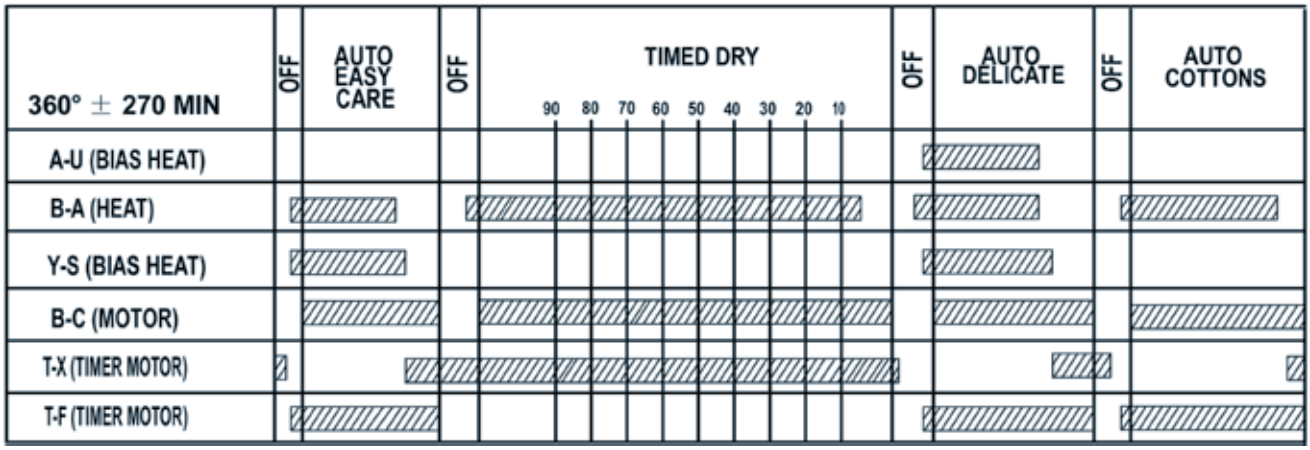
Gas Dryer

Windings & Coils Resistance Values - Gas		
Main Drum Motor	Start	2.98 - 3.30 Ω
	Run	3.19 - 3.53 Ω
Gas Valve	Main	1300 Ω
	Booster	580 Ω
	Safety	1400 Ω
Igniter	-	40 - 400 Ω @75°
Timer Motor	-	3384 - 3816
Inlet & Outlet Biased Thermostats	-	9k

Terminal	Wire Color
C	Pink
U	Brown/Yellow
Y	Yellow
X	Yellow
A	Orange
T	Tan
S	Blue
B	Red
F	Not Used



Thermostat	Temperature °F		Temperature °C	
	Open	Close	Open	Close
Drum Outlet	130 +/- 5	120 +/- 6	55 +/- 3	49 +/- 3
Control Inlet	210 +/- 5	180 +/- 6	99 +/- 3	82 +/- 3
Safety 27" Models	280 +/- 5	240 +/- 12	138 +/- 4	116 +/- 7
Safety 24" Models	300 +/- 5	260 +/- 12	184 +/- 4	127 +/- 7
High Limit	315 +/- 8	250 +/- 15	157 +/- 6	121 +/- 9



Washer

Resistance Table	
Component	**Resistance (Ω)**
Drain Pump - 24" Models	16.4
Drain Pump - 27" Models	10.9
Lid Lock	1000
Mode Shifter	5700
Motor (1/3HP)	4.1
Motor (1/4HP)	4.6
Water Valves (Cold, Fab_Soft)	1374
Water Valves	1515
NOTES: These valves are read from the leads while disconnected from the main board. These values are approximate. **Measure lid lock resistance between pins 2 & 3 and pins 1 & 3 while the lid is closed.**	

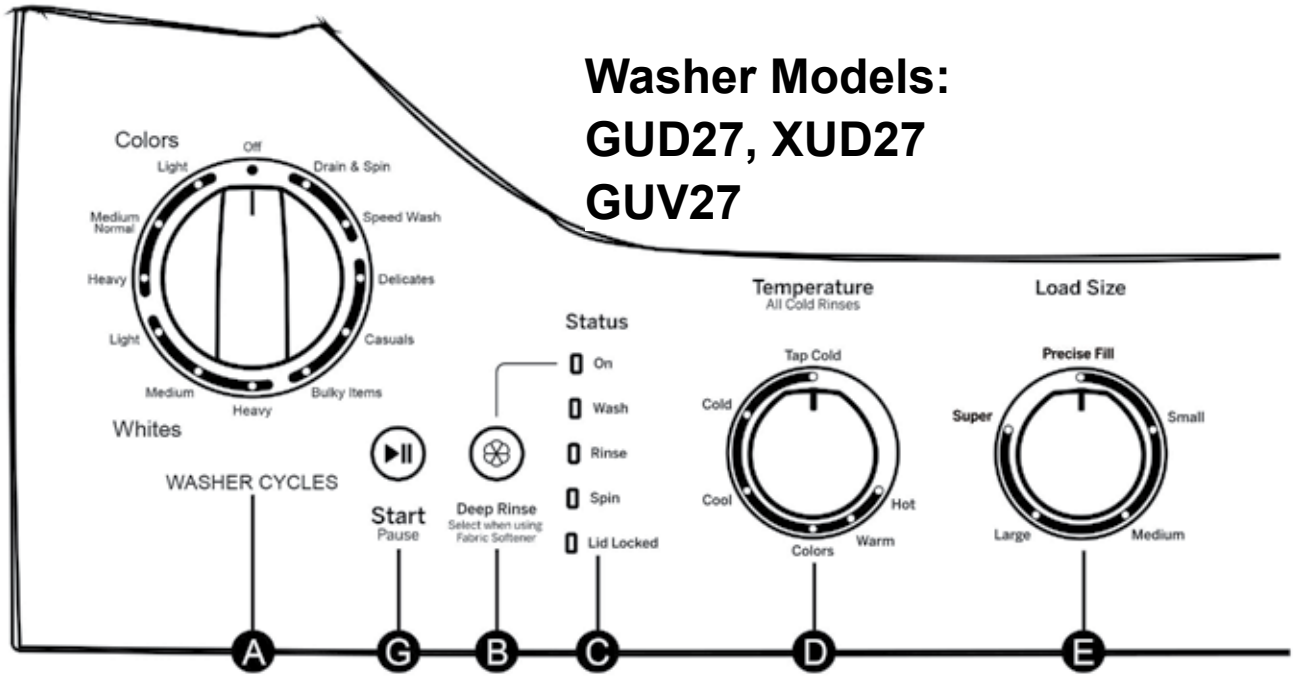
Rotary Switch Resistance Table		
Resitance Valuse are read from the leads while disconnected from the main board. These values are approximate.		
Posistion	**Resistance (k Ω)**	**Voltage DC**
1	0.39	0.38
2	0.86	0.77
3	1.42	1.16
4	2.1	1.54
5	2.92	1.92
6	4.02	2.31
7	5.42	2.68
8	7.42	3.06
9	10.42	3.45
10	15.41	3.83
11	25.41	4.22
12	55.41	4.61
Posistion 1 is to the far left. Turn towards the right to advance posistion.		

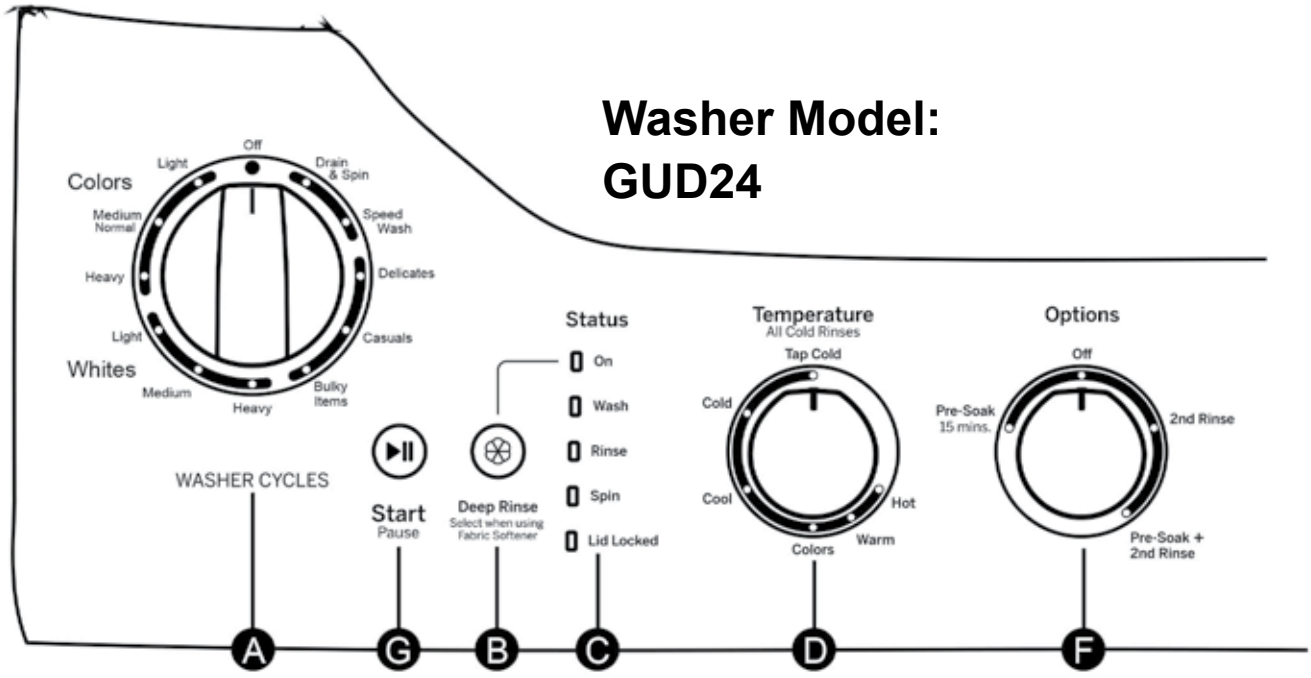
Thermistor Resistance Table		
Temp (C)	**Temp (C)**	**Resistance Ω**
10	50	96369
15	59	78033
20	68	61918
28	82.4	43754
32	90	37286
38	100	28987
44	111	22954
50	122	18223
54	130	15672
66	150	10196
76	169	7265

Tub Water Level Pressure Sensor	
Inches Of Water	**Voltage**
Empty	0.4
1	0.7
2	0.9
3	1.1
4	1.3
5	1.5
6	1.7
7	1.9
8	2.1
9	2.3
10	2.5
11	2.7
12	2.9

J602	
Pin	**Description**
1	Hall Sensor Feedback
2	Isolated Ground
3	+9V Isolated
4	GEA_UI (Communication)
5	Isolated Ground
6	GEA_VDD (+9V Isolated)

Control Features





A **Washer Cycles**

The washer cycle controls the type of washing process. The cycle select knob can be rotated in either direction. Turning the knob after the cycle has started will stop the washer and change the cycle to the new selection.

B **Deep Rinse**

The status lights show the stage the washer is in. When the selector knob is set to a new cycle, the status lights will flash momentarily, showing the stages the cycles will go through.

(*Continued next page*)

C **Status Lights**

The status lights show the stage the washer is in. When the selector knob is set to a new cycle, the status lights will flash momentarily, showing the stages the cycles will go through.

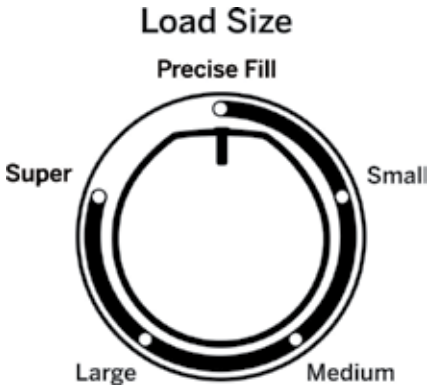
Status Light	Illuminates
On	When the fabric softener option has been selected.
Wash	When the washer is in the wash portion of the cycle.
Rinse	When the washer is in the rinse portion of the cycle.
Spin	When the washer is draining and/or spinning.
Lid Locked	When the washer lid is locked. This feature prevents the lid from being opened while the washer is in the spin cycle or coasting to a stop.

D **Temperature**

Select the water temperature for the washer cycle (all rinses use cold water). Tap Cold uses incoming tap water, which can provide energy savings. For all other temperature selections, a mixture of hot and cold water is used to achieve the ideal temperature for each temperature setting.

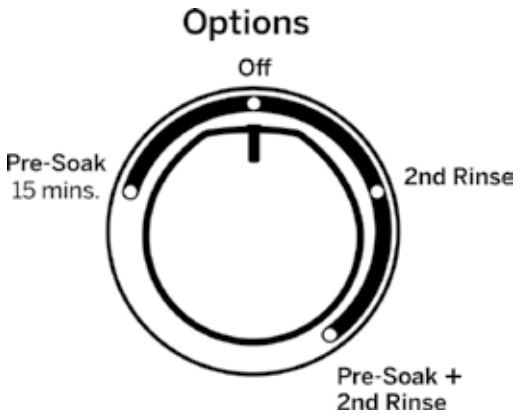
E **Load Size** (on some models)

Offers a selection from small to super or, precise fill which automatically provides the correct amount of water suited to the size and type of load placed in the machine. Precise Fill will automatically measure the load size and add just the right amount of water. The GUD24 laundry center has no water level option. It utilizes precise fill for all load sizes cycles.



F **Options** (on some models)

When Pre-Soak is selected, the cycle will begin with a brief agitation, soaks for approximately 15 minutes, then finishes the rest of the cycle. Select second rinse when extra detergent or bleach is used to better remove additional residues.



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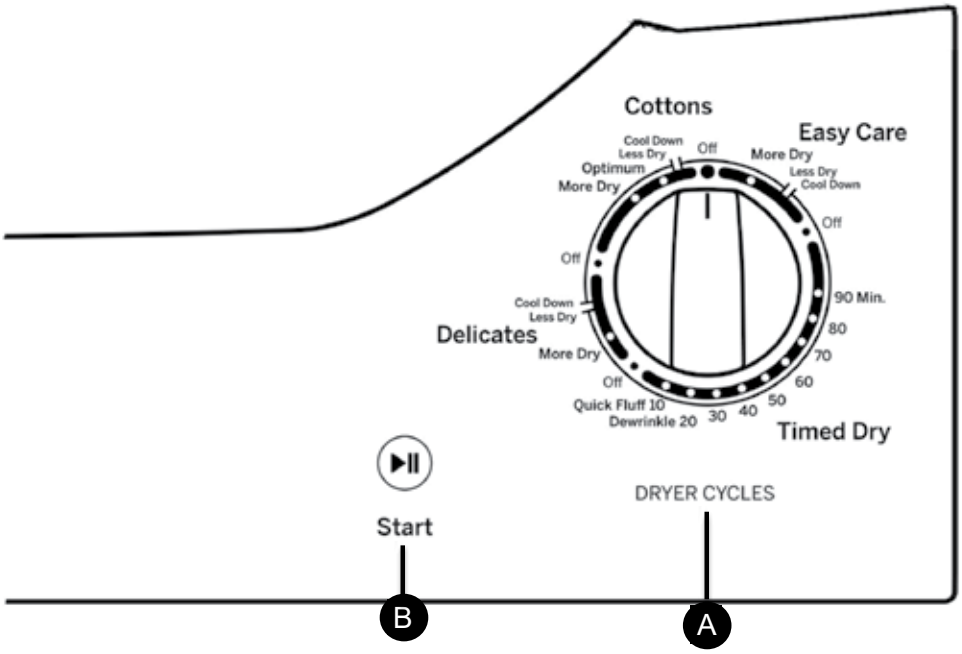
G Pressing the Start button will begin the cycle. If the Start button is pressed again with the lid down, this will pause the cycle. The cycle status lights will flash. To continue the cycle, close the lid and press Start again. Water fill will continue even with the lid open, except when Precise Fill (on some models) is selected as the load size. The lid must be closed to continue filling when Precise Fill is selected.

If the machine is paused more than 24 hours with the lid closed, the cycle will be cancelled, and drain the water. If the machine is paused more than 15 minutes with the lid open, the cycle will be cancelled and the water will drain. To stop the cycle, turn the cycle knob to the off position.



NOTE: This appliance is designed so that the washer and dryer can be operated at the same time.

A **Dryer Cycles**

Cottons (High Heat)	For regular to heavy cottons.
Easy Care (Med Heat)	For synthetics, blends, delicates and items labeled permanent press.
Delicates (Low Heat)	For delicates, synthetics and items labeled tumble dry low.
Quick Fluff (No Heat)	For fluffing items without heat. Use the **Timed Dry** cycle.

Dryer Cycles

Cottons	For cottons and most linens. For most loads, select **Optimum** dry.
Easy Care	For wrinkle-free, permanent press and delicate items, and knits.
Delicates	For delicate items, special-care fabrics and knits.
Timed Dry	Set the Cycle Selector at the desired drying time.
De-wrinkle	For removing wrinkles from items that are clean and dry or that are very lightly damp.
Quick Fluff	For freshening or fluffing up already dry clothing, fabrics, linens and pillows. Use with **Fluff No Heat**. Provides 10 minutes of no heat tumbling.

Automatic cycles determine fabric dryness and provide automatic sensed drying. The timer does not rotate during the cycle until the thermostats sense that the clothes are dry, then the timer rotates automatically to Off.

Select **Less Dry** if you want your clothes slightly damp at the end of the drying cycle.

Select **More Dry** if you want them to feel drier. Timed cycles run for a selected time.

Timed Cycle

Timed Dry	For manual drying. The timer rotates during the entire cycle.

B **Start**

Close the dryer door. Press **Start**. Opening the door during operation will stop the dryer. To restart the dryer, close the door and select **Start** to complete the cycle.

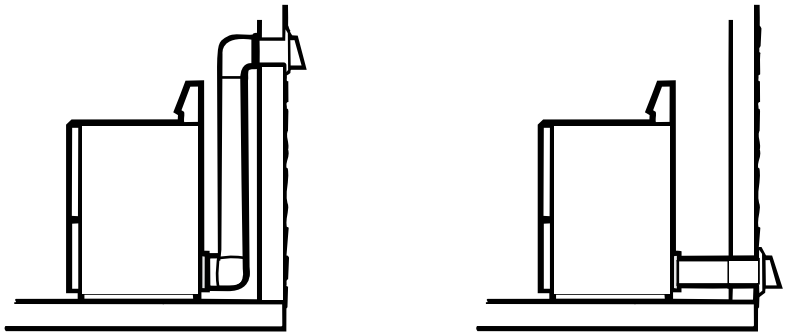
Loading and Using the Dryer

Venting the Dryer

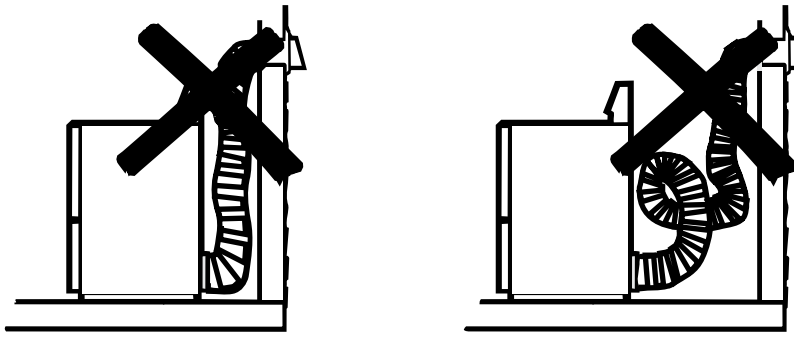
For the best drying performance, the dryer needs to be properly vented. The dryer will use more energy and run longer if it is not vented to the below specifications. Carefully follow the details on Exhausting in the Installation Instructions.

- Use only rigid metal 4 inches in diameter ductwork inside the dryer cabinet. Use only rigid metal or UL approved flexible metal 4 inches in diameter ductwork for exhausting to the outside.
- Do not use plastic or other combustible ductwork.
- Use the shortest length possible.
- Do not crush or collapse.
- Avoid resting the duct on sharp objects.
- Venting must conform to local building codes.

Correct Venting



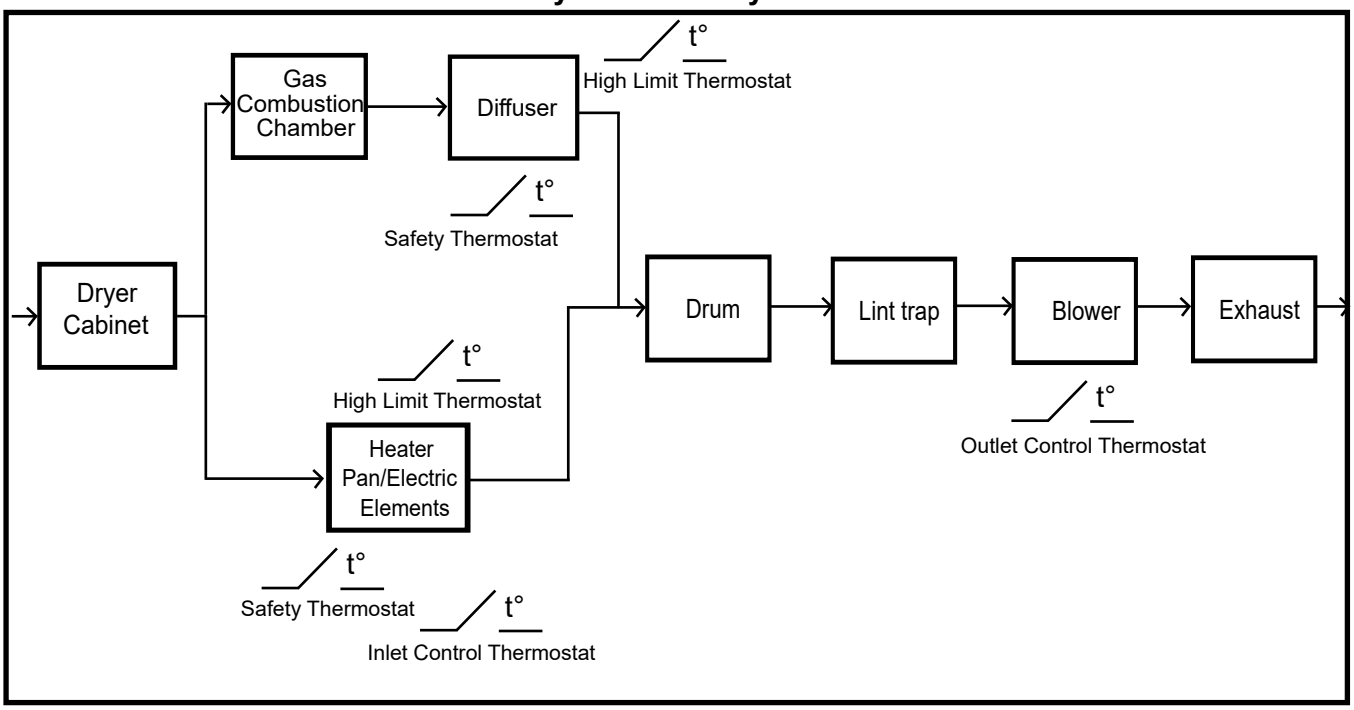
Incorrect Venting



Dryer Operation Overview

Air enters the dryer cabinet, passing through the heating elements (gas combustion chamber for gas models), and into the drum. The hot air heats the wet clothes and gradually removes their moisture in the form of water vapor. The moist air is vented through the dryer exhaust. Overall heating temperature is regulated by means of two temperature thermostats: an inlet control thermostat located near the heating elements and an outlet control thermostat located at the blower. (**NOTE**: Gas models use only an outlet control thermostat for overall temperature regulation.) A safety thermostat, located near the heating elements (diffuser for gas models), cycles the heating elements (burner for gas models), if overheating occurs. Also, the high limit thermostat, located near the heating elements (diffuser for gas models), provides additional safety and interrupts motor and heater operation if temperature rises above safe limits.

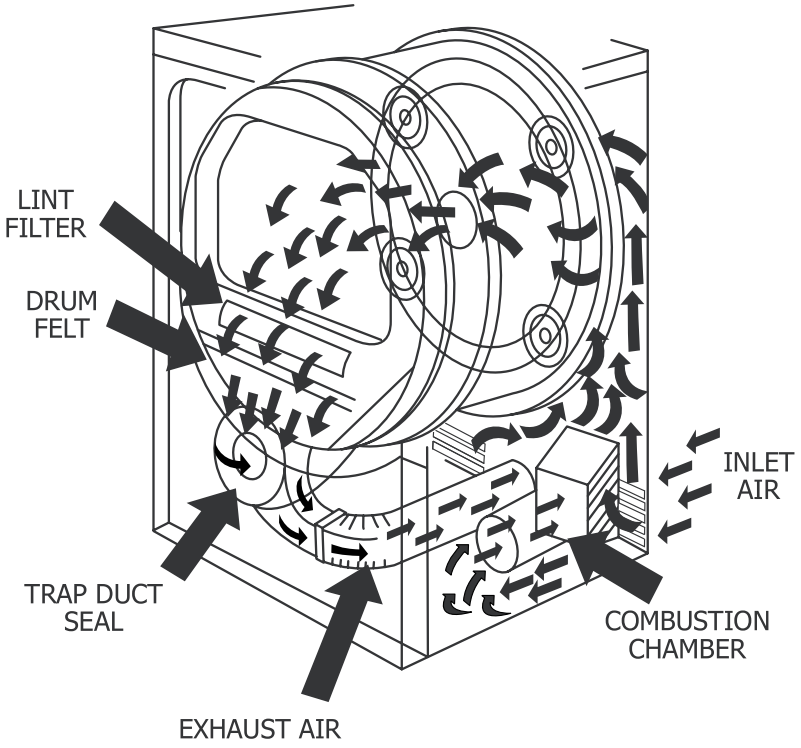
Dryer Air Flow System

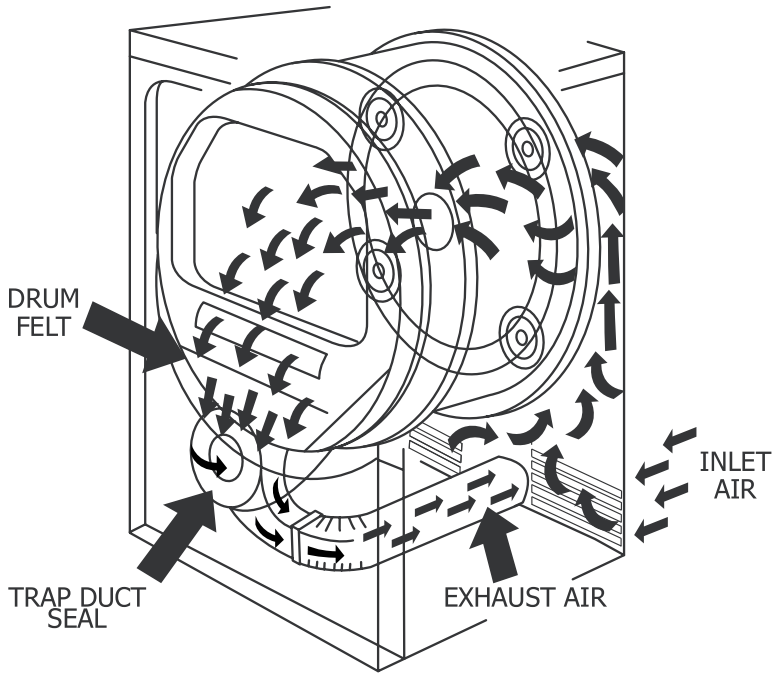


The typical dryer cycle progresses as follows:

1. A cycle is selected and the Start key is pressed.
2. The motor is activated.
3. The heater coils (burner for gas models) are activated. The coils (burner) cycle on and off to achieve the desired temperature throughout the heating portion of the cycle.
4. If an Auto Dry cycle is selected, the heater coils (burner for gas models) are activated. The coils (burner) cycle on and off until the load has achieved the desired dryness level.
5. If timed drying is selected, the heater coils (burner for gas models) are activated and cycle on and off for the selected time at the selected temperature.
6. The heater coils (burner for gas models) discontinue operation after the dryness level or elapsed time has been achieved.
7. The motor continues operating until the clothes temperature drops below specified temperature (Cool Down).

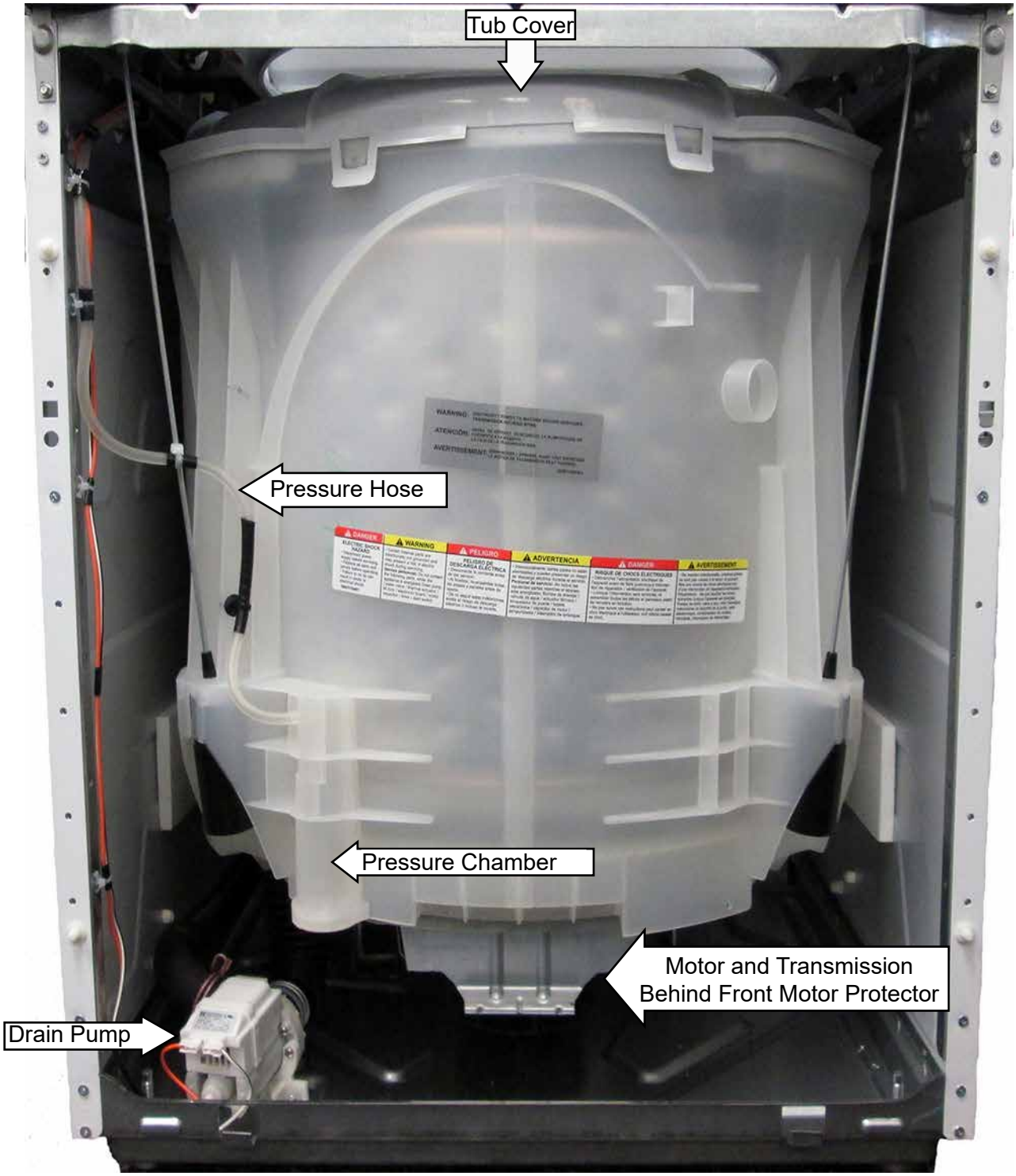
Airflow


LINT
FILTER
DRUM
FELT
INLET
AIR
TRAP DUCT
SEAL
COMBUSTION
CHAMBER
EXHAUST AIR


DRUM
FELT
INLET
AIR
TRAP DUCT
SEAL
EXHAUST AIR

Component Locator Views

Washer Components



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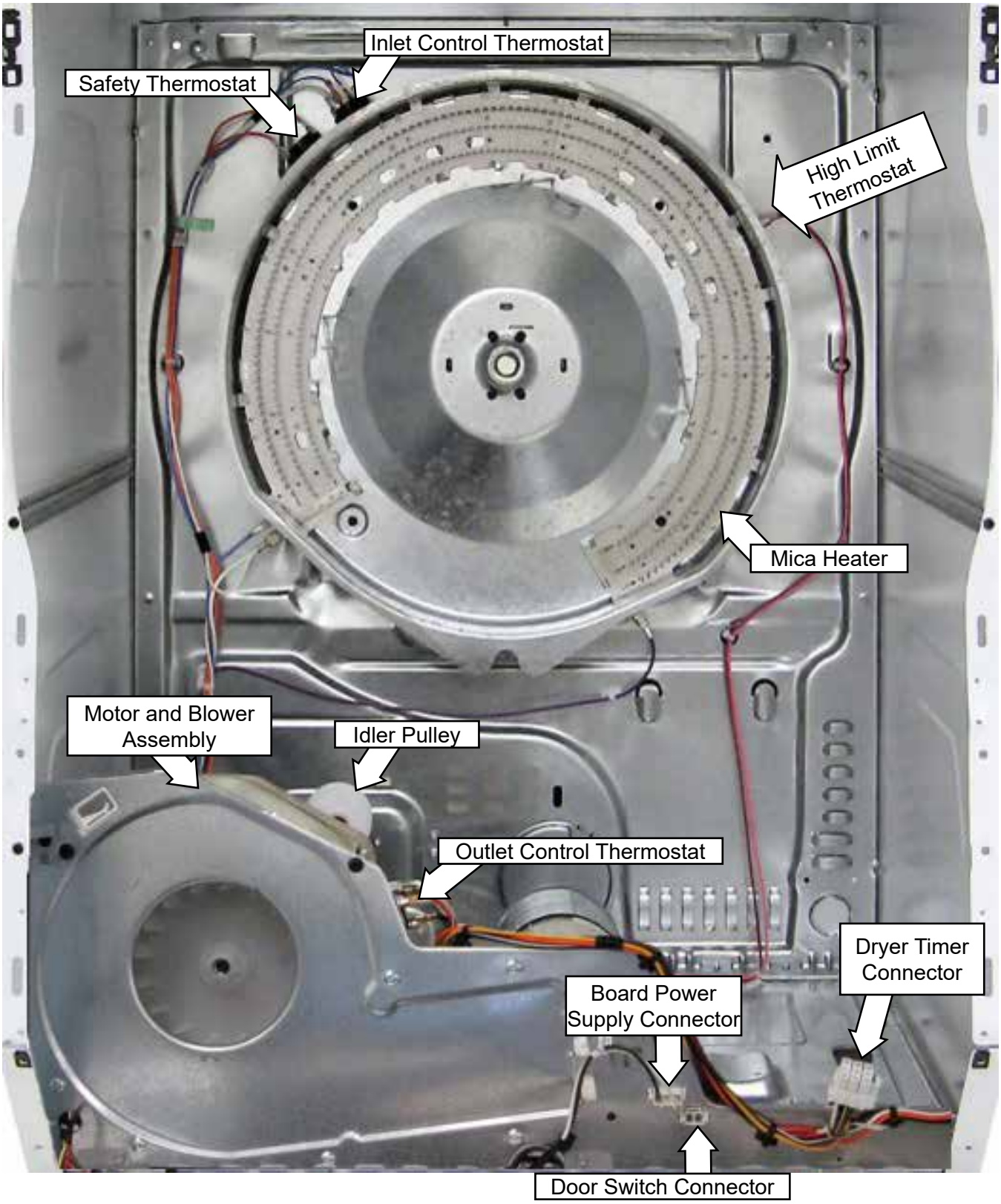
Electric Dryer Components



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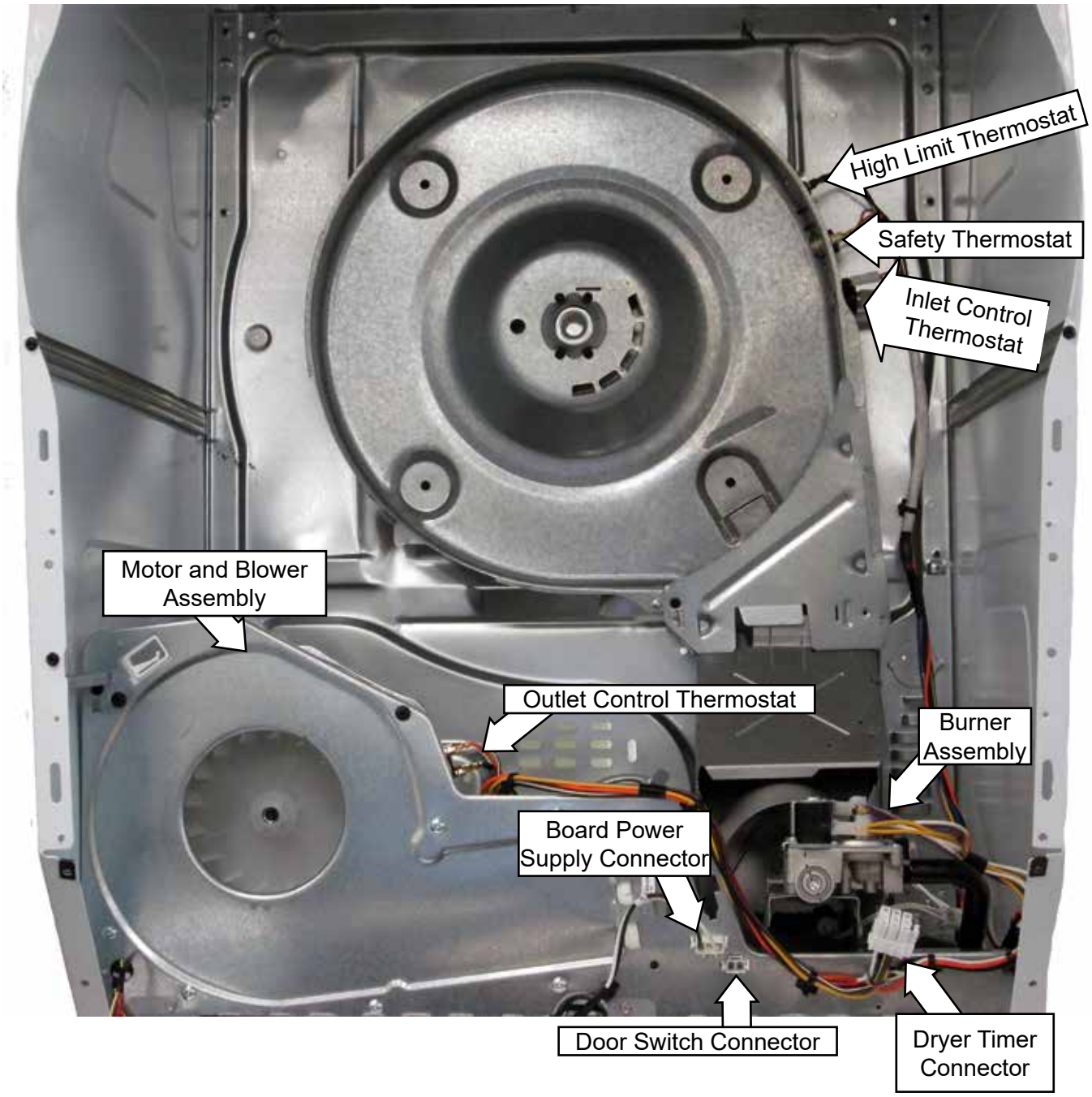
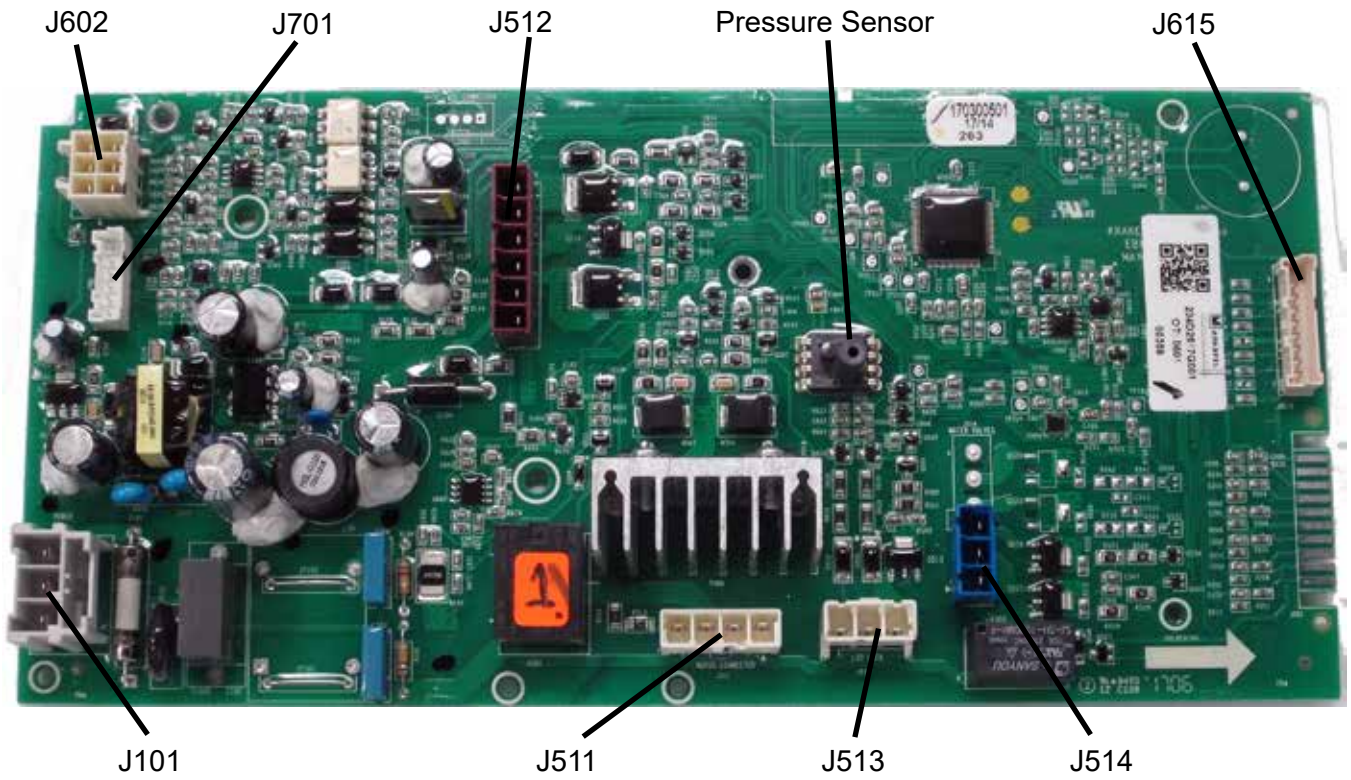
Gas Dryer Components



Washer Main Board Connector Locator View



J101: 120 VAC input

J511: Washer Drive Motor

J512: Mode Shifter and Drain Pump

J513: Lid Switch and Lid Lock

J514: Water Valve

J602: Speed Sensor, RJ45 and User Interface Board

J615: Personality Jumper

J701: Thermistor

Components

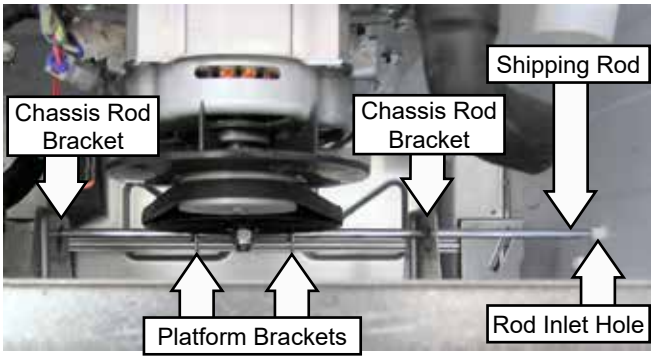
WARNING: Sharp edges may be exposed when servicing the laundry center. Use caution to avoid injury. Wear Kevlar gloves or equivalent protection.

NOTE: Combined Phillips-head/square-drive screws are utilized throughout this appliance. Either Phillips or square-drive screwdrivers can be used to extract or install these screws.

Shipping Rod

The rod is inserted and removed through a hole located on the lower right side of the cabinet and now passes behind the transmission.

The shipping rod passes through the chassis rod brackets and the platform brackets.



Leveling The Washer

To level the washer, tilt the washer forward to lift the rear legs off the floor, then gently set it back down. The rear leveling legs are contained in an assembly and will level the rear of the washer left to right. Then adjust the front leveling legs to level the washer front to back and left to right across the front. Using a 9/16-inch open-end wrench, tighten the lock nut on each front leg firmly against the base.

Service Panel

It is necessary to remove the service panel to access the mini-manual, water pressure sensor, washer control board, and fuses. The service panel is attached to the cabinet with two Phillips-head screws.

Service Panel Removal

1. Remove one screw from the top left and top right corners of the service panel.

2. Lift the service panel and pull it forward to release the panel from the cabinet.

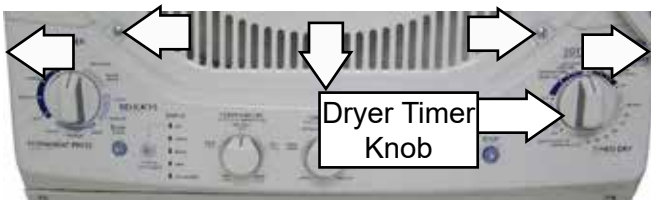
Control Panel

It is necessary to place the control panel in the service position to access the washer controls, dryer start switch, dryer timer, and voltage-dropping resistor (electric models). The control panel is attached to the dryer with six Phillips-head screws (27-in. models) or five Phillips-head screws (24-in. models).

To place the control panel in the service position:

1. Pull the dryer timer knob straight out from the control panel.
2. Open the door.
3. On 27-in. models, remove six Phillips-head screws, two on each side of the control panel and two from the top of the control panel.

4. On 24-in. models, remove five Phillips-head screws, one on each side of the control panel and three on the top of the control panel.

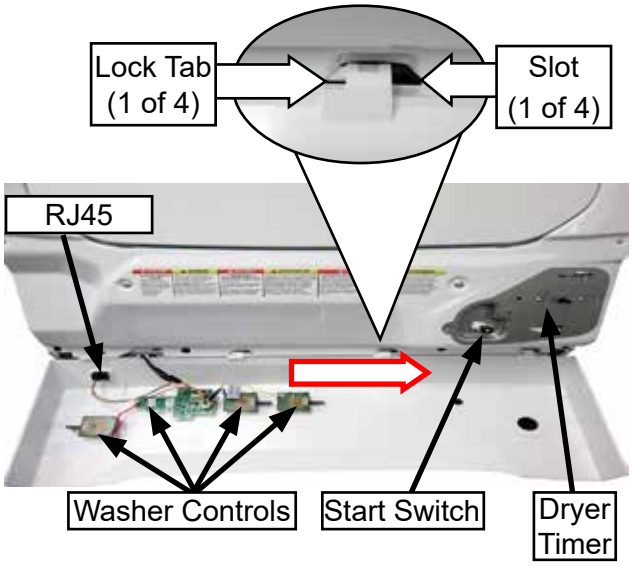


5. Tilt the panel forward.

Service Position

In the service position, four lock tabs located on the bottom of the control panel will be engaged in four slots in the dryer front panel. The control panel can be moved to the right to disengage it from the front panel.

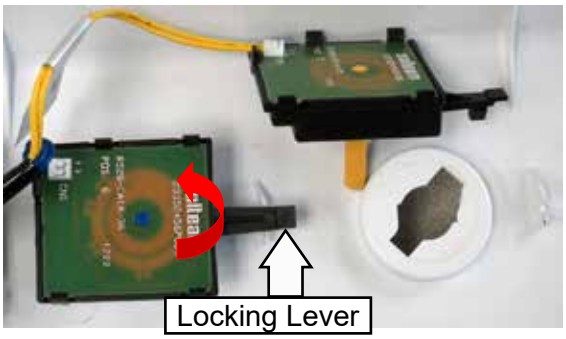
NOTE: The washer controls are installed on the control panel. The dryer timer and start switch remain on the dryer front panel.



Washer Selector Switches

Washer Selector Switches Replacement

1. Remove the service panel. (See **Service Panel** in this section of this service guide.)
2. Pull the control knob straight out from the control panel.
3. Place the control panel in the service position.
4. Place the control panel in the service position. (See **Control Panel** in this section of this service guide.)
5. Lift the locking lever and rotate the selector switch counter-clockwise.



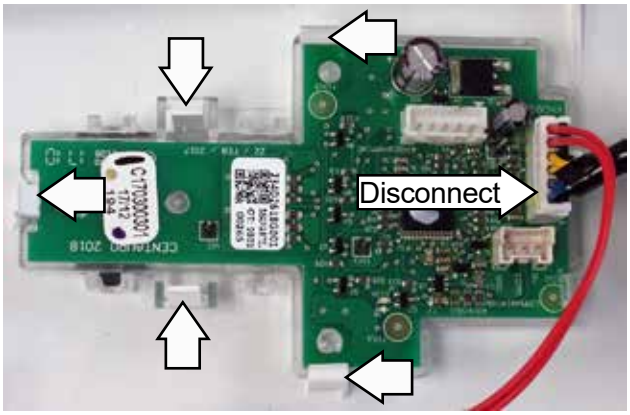
NOTE: If one selector switch is bad, all must be replaced as they all come together as one part.

User Interface Board

The washer buttons and LED assembly contains the start/pause and fabric softener push buttons and the LED status lights.

User Interface Removal

1. Remove the service panel and heat shield. (See **Control Panel** and **Washer Selector Switches,** both in this section of the service guide).
2. Place the control panel in the service position. (See **Control Panel** in this section of this service guide.)
3. Disconnect the wire harness attached to the User Interface board.
4. Carefully release the five lock tabs and pull the assembly from the control panel.

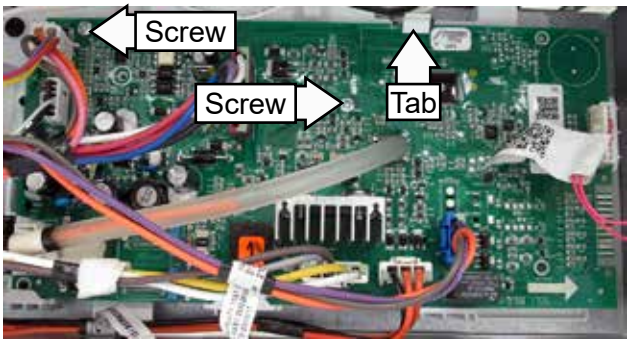


Main Board

The main board is located behind the service panel. It supplies power to all of the washer components. The pressure sensor is also mounted to the main board.

Main Board Removal

1. Remove the service panel (see **Service Panel Removal** in this section of the service guide).
2. Remove the pressure sensor hose from the main board. This is done by grasping the hose where it connects to the board, rotate the tube while at the same time pulling it off of the sensor. **CAUTION**: Do not try to pull the hose straight off as it may break the pressure sensor post off of the board.
3. Disconnect all connecters from the main board.

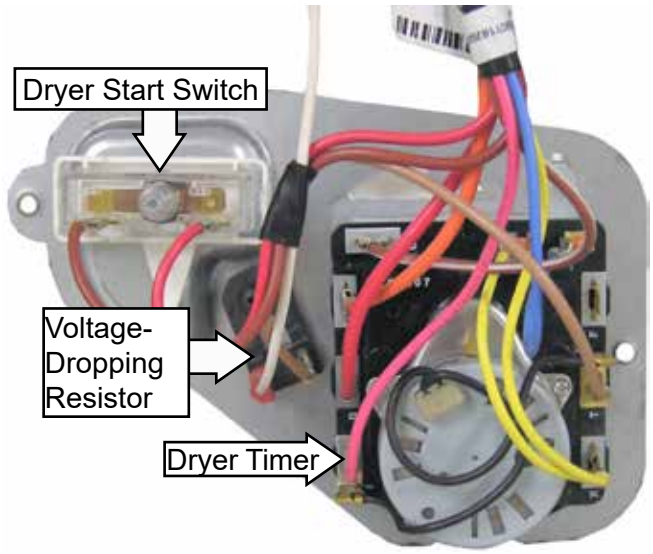


4. Remove Phillips-head screws securing the main board to it housing.
5. Push up on the white tab at the top right of the main board and pull the board out of the board support assembly.

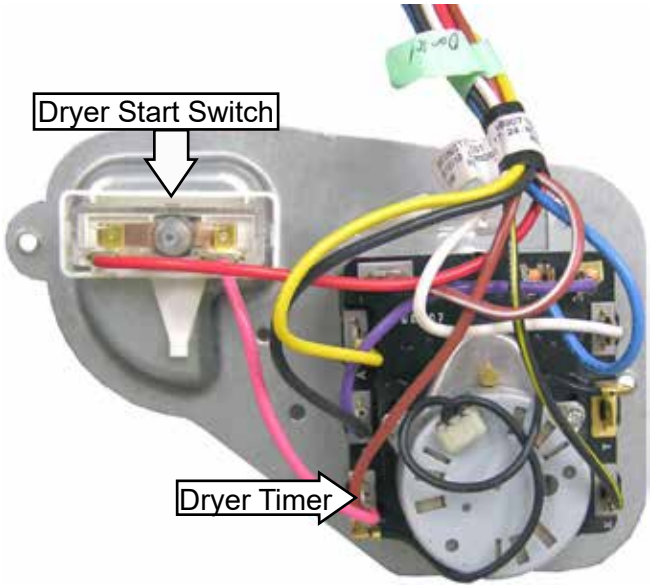
Dryer Timer and Start Switch

The dryer timer, start switch, and timer voltage-dropping resistor (electric models only) are attached to the dryer control bracket.

NOTE: The dryer timer motor has an approximate resistance value of 2.4k ohms.



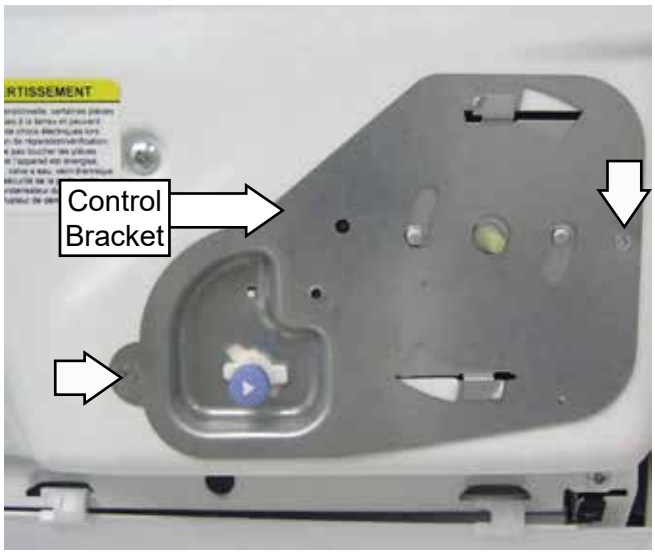
Electric Dryer Control Bracket



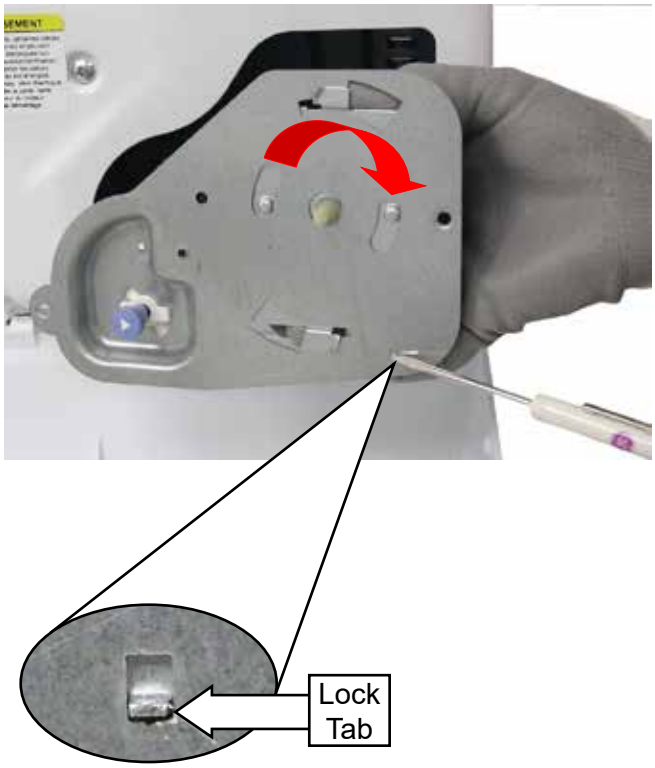
Gas Dryer Control Bracket

Dryer Timer Replacement

1. Place the control panel in the service position. (See **Control Panel** in this section of this service guide.)
2. Remove the two Phillips-head screws from the control bracket, then remove the bracket from the front panel.



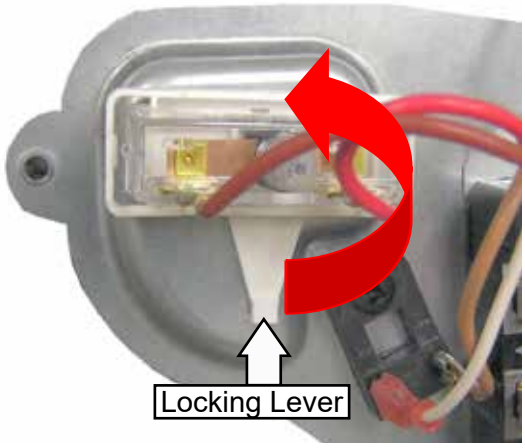
3. Mark and disconnect the wiring from the dryer timer.
4. Using a small flat blade screwdriver, push in on the lock tab while rotating the timer clockwise.



(Continued Next Page)

Dryer Start Switch Replacement

1. Follow steps 1 and 2 above from **Dryer Timer Replacement**.
2. Disconnect the wires from the start switch.
3. Lift the locking lever and rotate the start switch counter-clockwise.

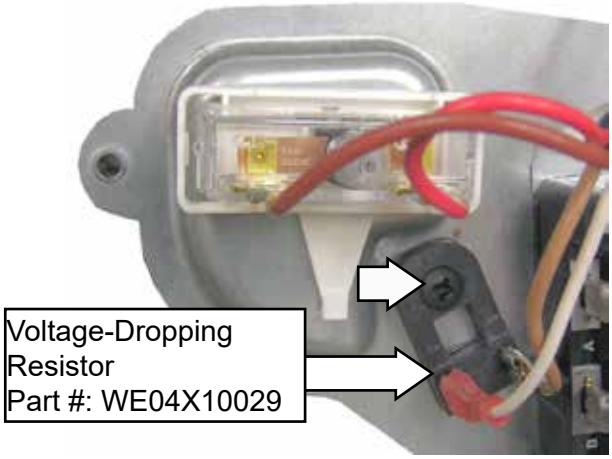


Timer Voltage: Dropping Resistor

The timer voltage-dropping resistor (on electric models) controls the run-time during automatic cycles. This 4500-ohm resistor is in series with the timer motor. When the drum outlet thermostat opens and turns off the heat, the resistor drops the 240 VAC heater circuit to 120 VAC to run the timer motor.

NOTE: If an open timer motor is present, or if the timer fails to advance a properly heating automatic cycle to the cool down position, check for 4,500 ohms' resistance at timer contacts A to T with the timer in the off or cool down position.

The resistor is held in place on the bracket with a single Phillips-head screw and has two wires attached.

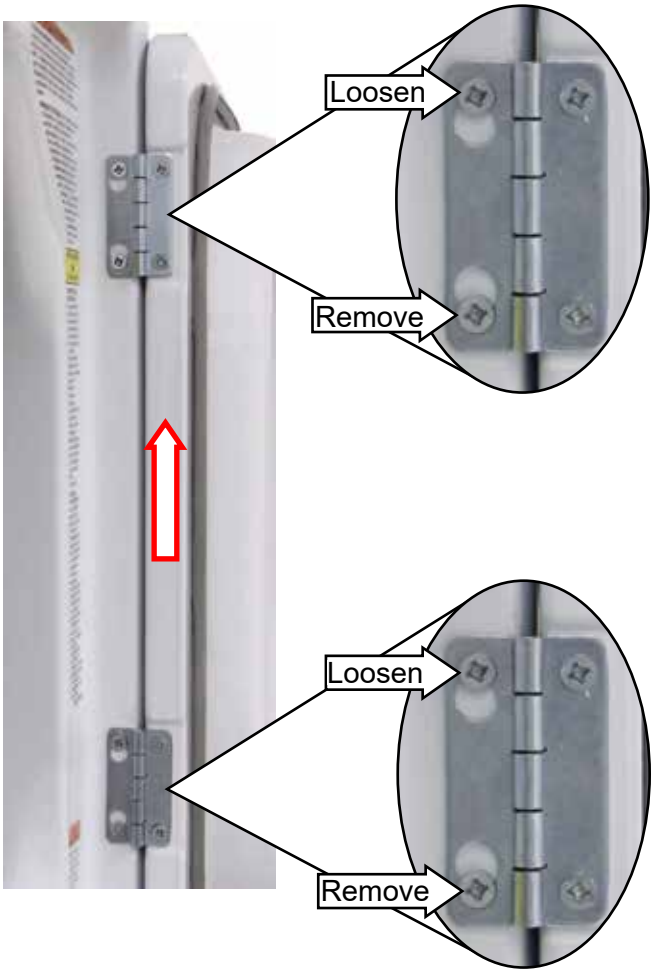


Dryer Front Panel

Front Panel Removal

NOTE: In the following steps, removing the dryer door allows for easier manipulation of the dryer front panel.

1. Remove the bottom screw from each hinge and loosen the top screw, then lift the door off the dryer front panel.
2. Remove the service panel. (See **Service Panel** in this section of this service guide.)



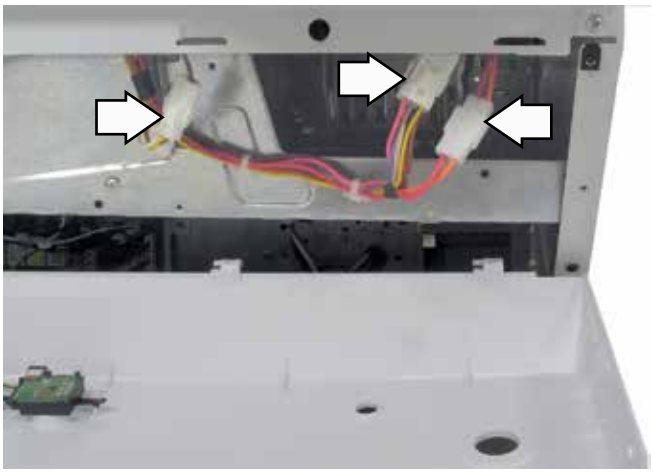
3. Remove the two Phillips-head screws and the heat shield from the cabinet.

NOTE: In the following step, cover the top of the washer with a protective surface.

4. Disengage the control panel from the front panel (see **Control Panel** in the **Components** section of this service guide), then place it on top of the washer.

(Continued Next Page)

5. Unplug the harness connectors located below the right bottom corner of the front panel. (Two harness connectors for electric models, two for gas models.)



6. Remove the four Phillips screws from the front of the panel.

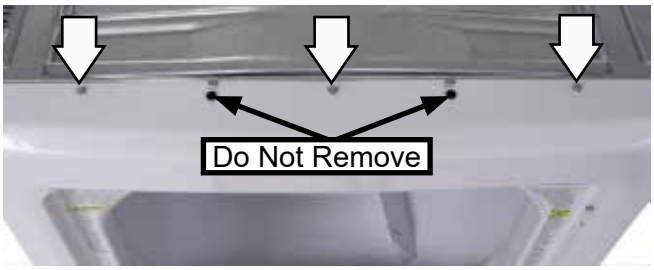
NOTE: In the following step, **DO NOT** remove the two Phillips-head screws from the top of the panel.

7. Remove three 1/4-in. hex-head screws from the top of the panel.

8. Pull out on the bottom of the dryer front panel and lift to release the panel from the cabinet.

Installing the Dryer Front Panel

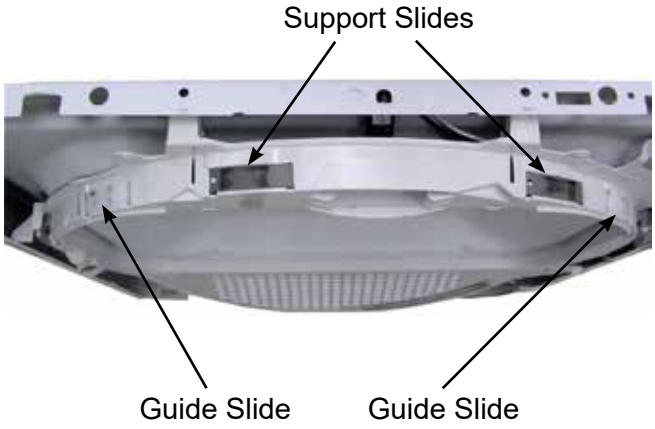
When installing the dryer front panel with the door removed, place the front panel on the top of the cabinet. Reach through the door opening to push up on the dryer drum for placement on top of the drum slide assembly.



Top Bearing and Bearing Slides

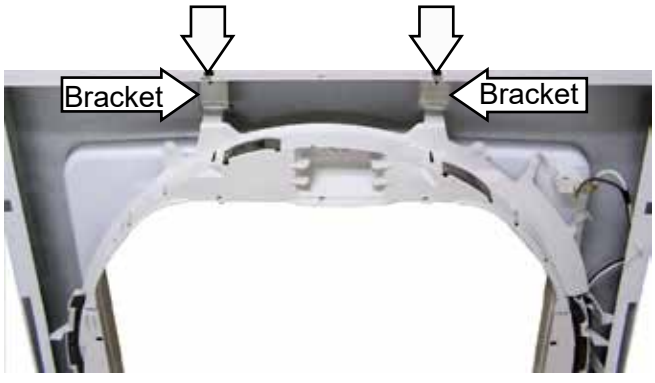
The top bearing assembly is located on the back side of the front panel and utilizes four bearing slides. Two white outer slides are used as guides, and two dark-color center (top) slides are used to support the weight of the drum. When replacing the slides, the dark-colored support slides must be used to replace the top support slides. Guide slides may also be replaced with support slides.

Caution: Do not replace the center (top) support slides with the white guide slides. Damage to the dryer will result.



Top Bearing Assembly Removal

1. Remove the dryer front panel. (See **Dryer Front Panel** in this section of this service guide)
2. Remove the Phillips-head screw that attaches each bracket to the top of the front panel.
3. Grasp the top of the top bearing assembly and pull down and inward to release the assembly from the front panel.



Trap Duct Assembly

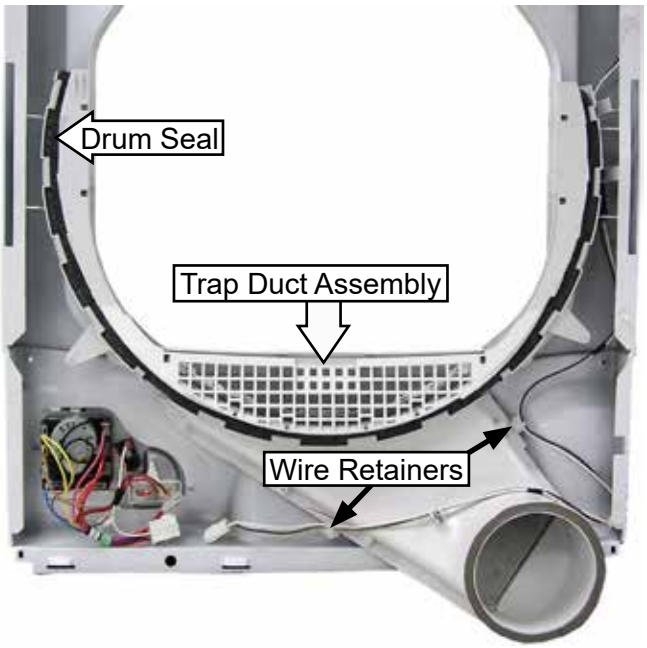
The trap duct assembly houses the trap duct felt and the lint filter on 27-in. models. It is located on the back side of the front panel.

Trap Duct Assembly Removal

1. Remove the dryer front panel. (See **Dryer Front Panel** in this section of this service guide.)
2. Remove the top bearing assembly. (See **Top Bearing and Bearing Slides** in this section of this service guide.)
3. Remove the two Phillips-head screws that attach the air duct to the front panel.
4. Grasp each side of the trap duct assembly, then unsnap and remove the air duct from the front panel.
5. Remove the two door switch wire retainers from the trap duct assembly.

Caution: Upon reassembly, ensure that the door switch wiring is retained and routed properly to avoid contact with the drum.

NOTE: The trap duct felt can be replaced by extracting the seal from the channel located in the trap duct assembly.



Door Switch

The door switch is fastened to the front panel by two locking tabs (one on each side). When the dryer door is closed, the switch will complete the drum motor circuit, allowing dryer operation. When the door is open, the switch will open the drum motor circuit, interrupting dryer operation.

NOTE: Door switch for 27-in. model is shown below. The procedure to remove the door switch on 24-in. models is similar.

Door Switch (front view)

Door Switch (removed)

Dryer Drive Belt

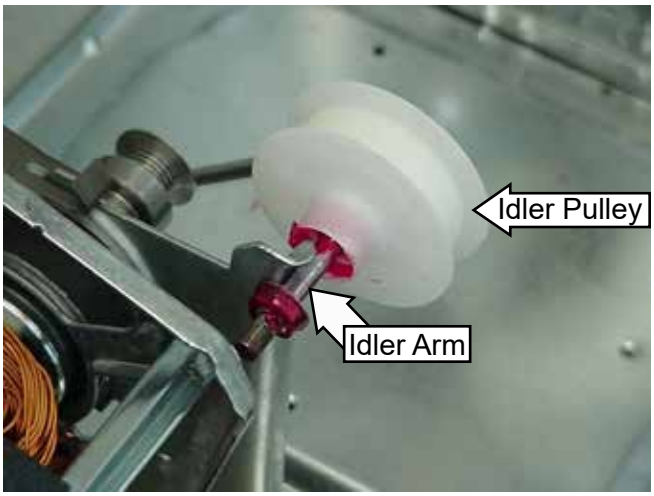
WARNING: Sharp edges may be exposed when servicing the dryer. Use caution to avoid injury and wear Kevlar gloves and sleeves or equivalent protection.

The drive belt is a 4-rib belt and extends from under the motor pulley, over the top of the idler pulley, and around the perimeter of the dryer drum. (See belt diagram **Belt Installed on Pulleys**, in the next column.) Belt tension is maintained by the idler pulley and is driven by a pulley attached to the motor shaft.

Drive Belt Removal

1. Remove the dryer front panel. (See **Dryer Front Panel** in this section of this service guide.)
2. Reach under the right-hand side of the drum, pull the idler pulley down and to the right, and lock the idler arm on the top corner of the motor bracket to release belt tension. (See the photo below. Drum removed for clarity.)

WARNING: The idler arm is under high tension. To prevent injury, do not let the idler arm snap back.



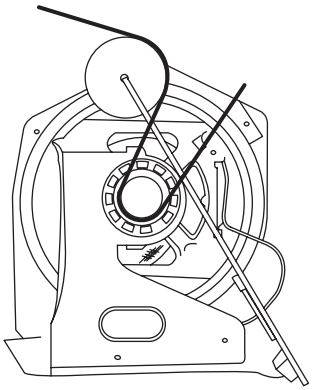
3. Disengage the belt from the motor and idler pulleys and remove through the front of the dryer.

Drive Belt Installation

1. Remove the dryer front panel. (See **Dryer Front Panel** in this section of this service guide.)
2. Reach under the right-hand side of the drum, pull the idler pulley down and to the right, and lock the pulley shaft on the top corner of the motor bracket. (See photo.)
3. Place the belt in position around the perimeter of the drum through the front of the dryer.
4. Place the belt in position around the motor pulley. (See diagram.) Release the idler pulley from the motor bracket and guide onto the belt.

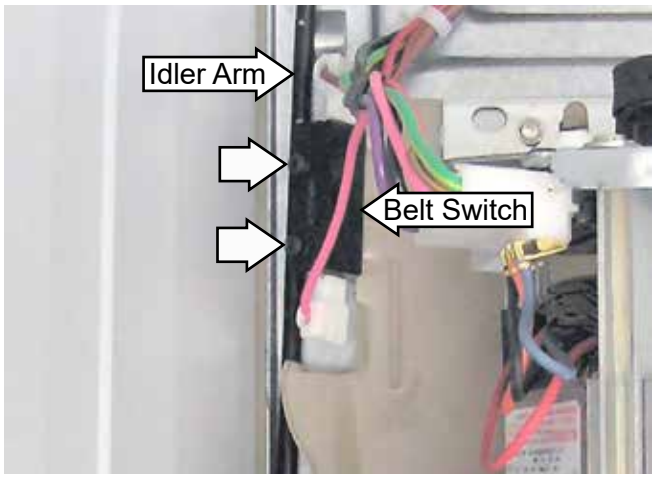
NOTE: Check to make sure the belt is in place and not twisted before installing the front panel. Rotate the drum by hand counter-clockwise several times to ensure proper belt alignment.

Belt Installed on Pulleys



Belt Switch

A belt switch, activated by the idler arm, is fastened to the motor bracket by two screws. Should the drive belt break, the belt switch will open the drive motor circuit, interrupting dryer operation.



Drum

The drum has three replaceable baffles.

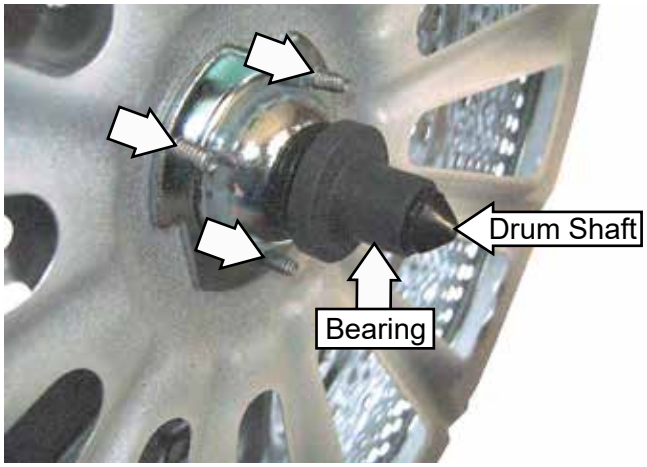
Drum Removal

1. Remove the dryer front panel. (See **Dryer Front Panel** in this section of this service guide.)
2. Remove the drive belt from the motor. (See **Drive Belt** in this section of this service guide.)
3. Pull the drum forward and guide it out of the cabinet.

Drum Shaft and Bearing

The drum shaft is attached to the rear of the drum with three T-20 Torx-head screws. The bearing can be removed by pulling it off the shaft. The drum shaft and bearing fit into the bearing retainer in the center of the heater assembly (electric models) or diffuser assembly (gas models).

To access the drum shaft and bearing, it is necessary to remove the drum. (See **Drum** in this section of this service guide.)



Idler Assembly

The idler assembly maintains proper tension on the belt to minimize belt slippage. The idler assembly consists of an idler pulley that rotates on an idler arm. The pulley is retained on the arm using a cap nut. The idler arm is positioned on the dryer chassis and inserted in a slot in the motor base plate. The assembly is located to the left of the motor.

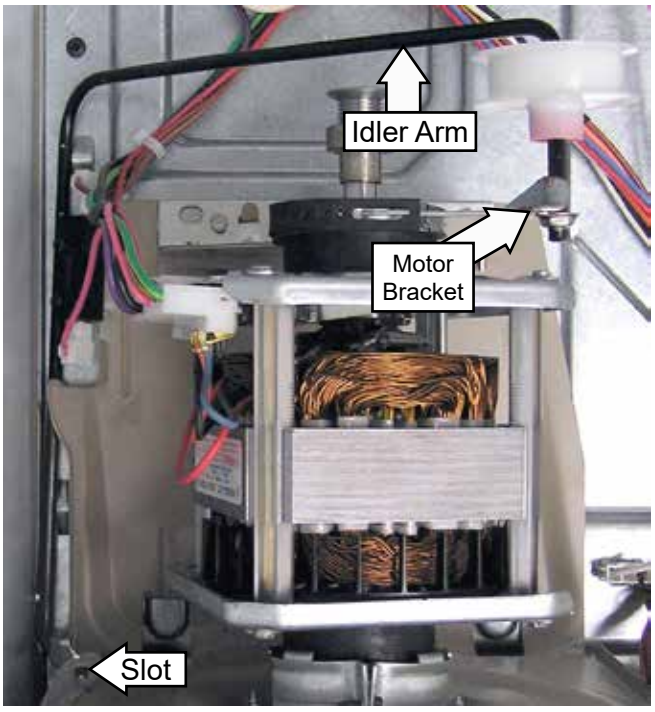
Idler Assembly Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)

WARNING: The idler arm is under high tension. To prevent injury, do not let the idler arm snap back.

2. Release tension on the idler assembly by unlocking the idler arm from the top right corner of the motor bracket.

3. Remove the idler arm from the slot in the motor base plate.



4. Remove the idler assembly from the dryer.

Dryer Drive Motor and Blower Assembly

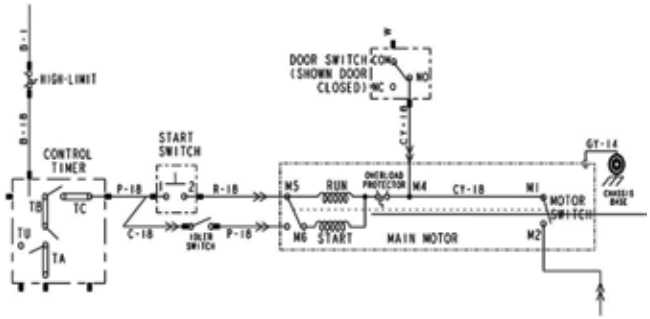
The drive motor is a single-speed, dual-shaft, 1/4-hp, 1725-rpm motor with an automatic reset overload protector. The overload protector is an internal component of the motor and cannot be replaced separately. The motor contains a centrifugal switch that serves three purposes: It disengages the motor start winding (M6), engages the motor run winding (M5), and closes the circuit contacts (M1 to M2) for the heat source.

Diagnosing the Dryer Drive Motor

Motor Resistance Values:

- **Start Winding**: 2.98 - 3.30 ohms
- **Run Winding**: 3.19 - 3.53 ohms

To read the run winding resistance, or to see if the motor overload protector is open, check from terminal 2 on the start switch to the NO terminal on the door switch. The start winding will need to be read at the motor terminals M6 to M4.



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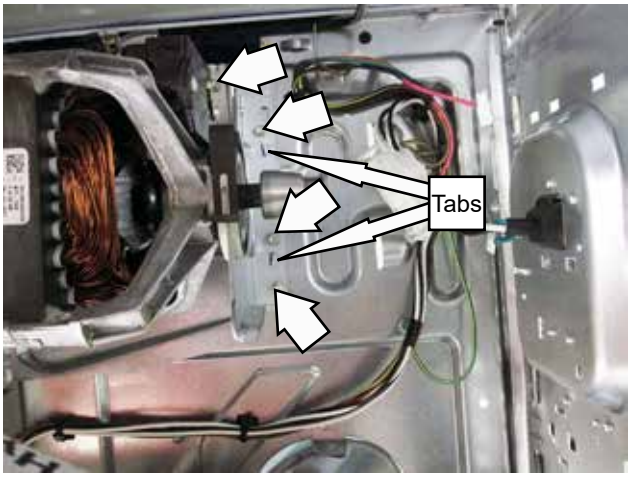
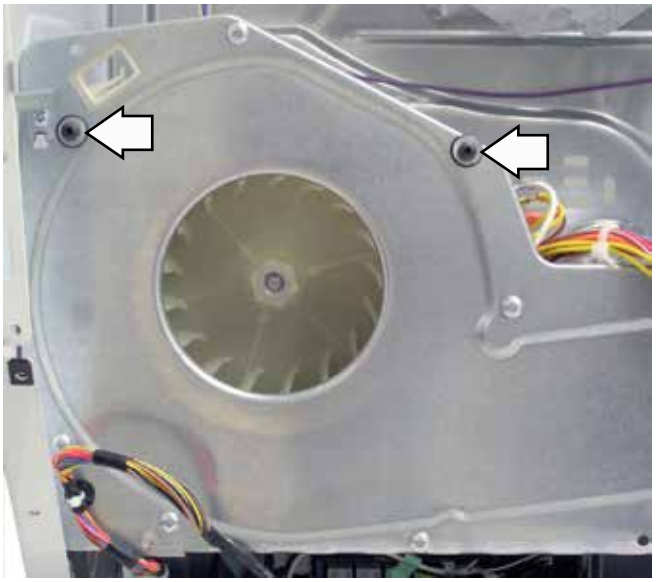
Motor and Blower Assembly Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Remove the Phillips-head screw and the outlet control thermostat from the blower housing.
3. Remove the idler pulley assembly from the motor bracket. (See **Idler Assembly** in this section of this service guide.)
4. Disconnect the motor wire harness.
5. Disconnect the wires attached to the belt switch.
6. Remove the four 1/4 in. hex-head screws that attach the motor bracket and motor support to the dryer chassis.



7. Remove the two Phillips-head screws that hold the top of the motor bracket to the blower housing.



8. Raise the rear of the motor bracket to clear the tab protruding from the bottom of the chassis. Slide the motor bracket back until the bracket tabs clear the slots in the dryer chassis.
9. Raise the rear of the motor bracket to clear the tab protruding from the bottom of the chassis. Slide the motor bracket back until the bracket tabs clear the slots in the dryer chassis.
10. Remove the motor and blower wheel assembly from the dryer chassis.

NOTE: When installing the motor and blower wheel assembly, ensure that the two rear tabs on the motor bracket is inserted into the slots in the motor support, and the two front tabs on the motor bracket are inserted into slots provided in the chassis.

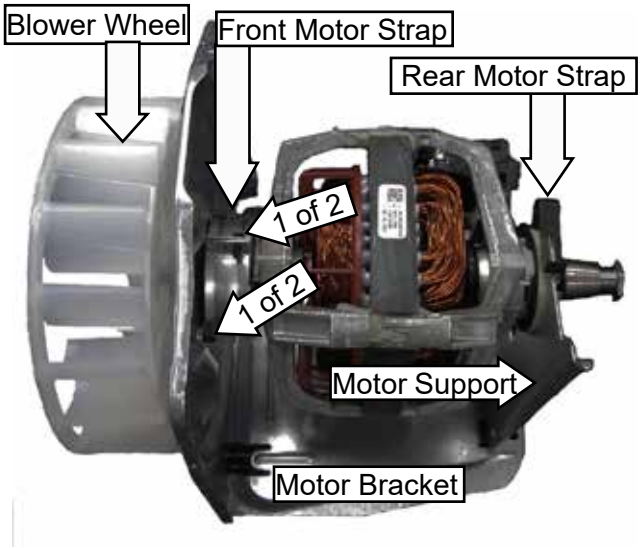
11. Hold the motor shaft from turning using plyers. Then, using a 15/16-in. (24-mm) socket, remove the blower wheel from the motor shaft by turning it counter clockwise.

12. Once the blower wheel is removed, remove the two Phillips-head screws that attach the front motor strap to the motor bracket.
13. Lift and remove the motor and motor support from the motor bracket.

14. Compress and remove the rear motor strap from the motor support.

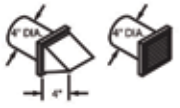
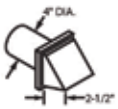
Note the position of the front motor strap. Loosen the two 1/4-in. hex-head screws and remove the front motor strap from the motor.

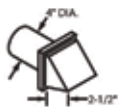
Also, when installing the motor to the motor bracket, install the motor with the motor harness terminals at the 9:30 o'clock position when looking at the machine from the front.

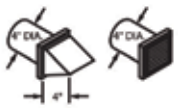


Long Vent and Blower Motor

The long vent and blower motor was designed to be used where straight run venting can reach lengths up to 200 feet. Depending on how many elbows and type of vent hood used, will determine the maximum length the vent run can be. See charts below for both normal venting and long venting models.

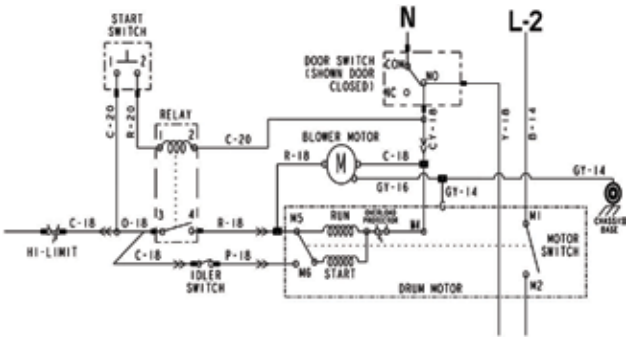
EXHAUST LENGTH 27" NORMAL VENT MODELS	RECOMMENDED MAXIMUM LENGTH	
	Exhaust Hood Types	
	Recommended	Use only for short run installations
		
No. of 90° Elbows	Rigid Metal	Rigid Metal
0	56 Feet	42 Feet
1	48 Feet	34 Feet
2	40 Feet	26 Feet
3	32 Feet	18 Feet

EXHAUST LENGTH 27" LONG VENT MODELS	RECOMMENDED MAXIMUM LENGTH	
	Exhaust Hood Types	
	Recommended	Use only for short run installations
		
No. of 90° Elbows	Rigid Metal	Rigid Metal
0	200 Feet	175 Feet
1	185 Feet	165 Feet
2	175 Feet	155 Feet
3	165 Feet	145 Feet
4	155 Feet	135 Feet
5	145 Feet	125 Feet

EXHAUST LENGTH 24" NORMAL VENT MODELS	RECOMMENDED MAXIMUM LENGTH	
	Exhaust Hood Types	
	Recommended	Use only for short run installations
		
No. of 90° Elbows	Rigid Metal	Rigid Metal
0	43 Feet	36 Feet
1	33 Feet	26 Feet
2	24 Feet	16 Feet

Diagnosing the Long Vent Blower Motor

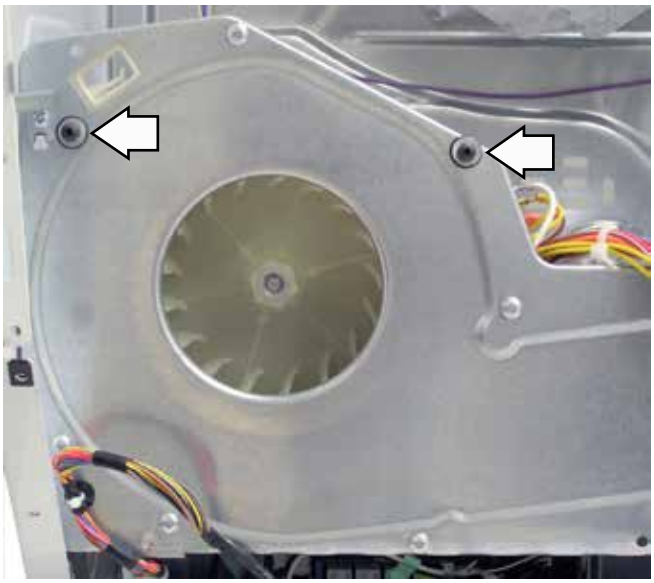
The long vent blower motor is connected parallel to the dryer drive motor. The long vent blower motor has a resistance of approximately 14.25 - 15.75 ohms.



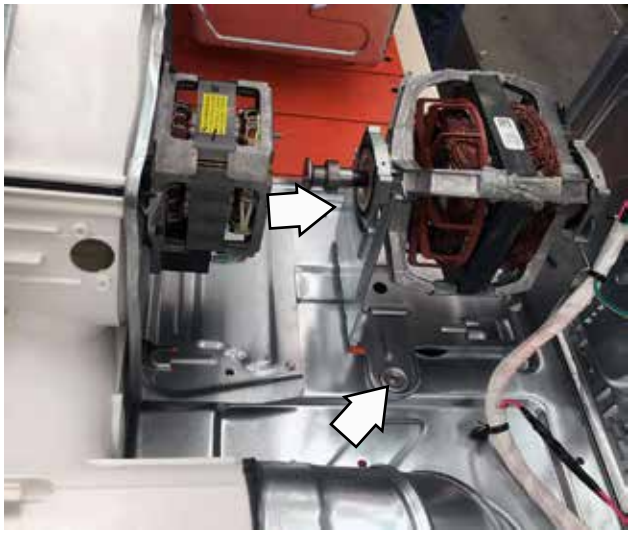
Long Vent Blower Motor Removal

Removing the long vent blower motor is a little different. the drive motor prevents the blower motor from just being pulled out. It will need to be moved slightly.

1. Remove the 2 Phillips-head screws that hold the top of the motor bracket to the blower housing.

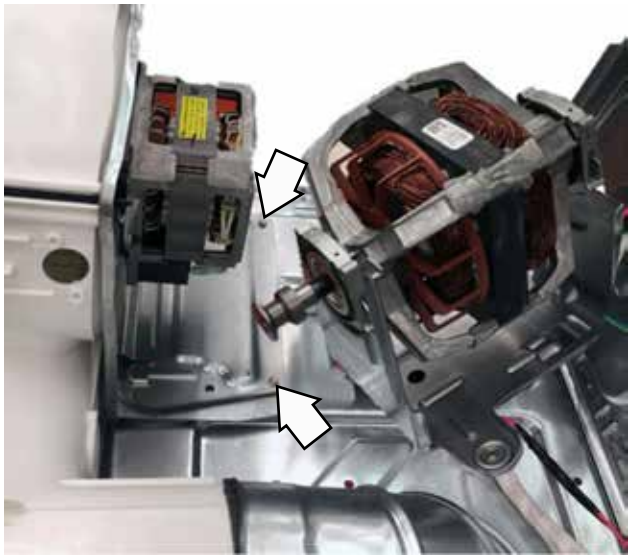


2. Remove two 1/4-inch hex-head screws securing the drive motor to the chassis base.



3. Rotate the drive motor to the right so the shaft will not interfere with the blower motor.

4. Remove two 1/4-inch hex-head screws securing the blower motor to the chassis base.



5. Slide the blower motor and blower wheel out from the blower housing.

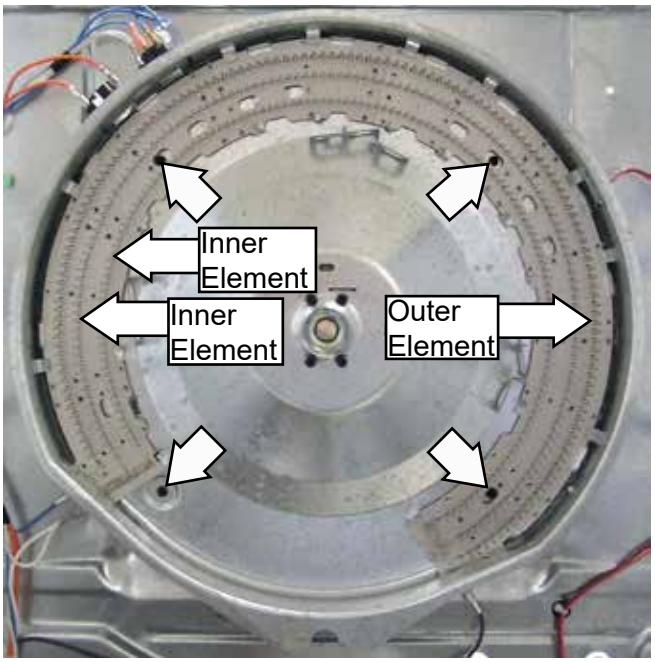
NOTE: When reinstalling the motors, ensure the tabs on the motor brackets are slid into the slots on the chassis base before securing with screws.

Heater Assembly

The heater assembly is located behind the drum. It consists of inner and outer open-wire elements, each formed in a zigzag pattern fastened to a single housing. The inner element consists of two elements wired in parallel with each.

When energized, the outer element draws approximately 9 amps at 240 VAC. The outer element has a resistance value of 23.7 - 26 ohms. When energized, the two inner elements combined draw approximately 9 amps at 240 VAC. The two inner elements have a combined resistance value of 23.7 - 26 ohms.

To access the heater assembly, it is necessary to remove the drum. (See **Drum** in this section of this service guide.) Lead wires can then be removed from the elements, safety thermostat, inlet control thermostat, and high limit thermostat. (See the **Component Locator Views** in this service guide.) The heater assembly is attached to the cabinet with four Phillips-head screws.



Safety Thermostat

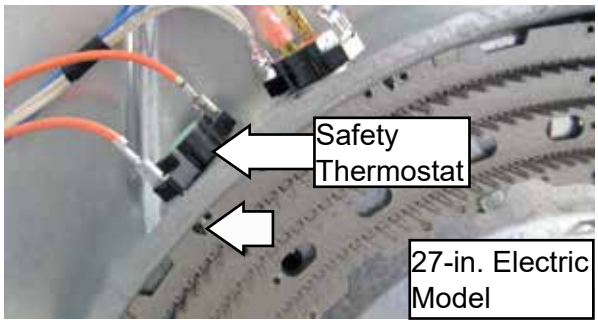
On electric models, the safety thermostat is located on the top left area of the heater housing, to the left of the inlet control thermostat. On gas models, the safety thermostat is located on the right side of the diffuser, below the high limit thermostat. The thermostat monitors incoming air temperature.

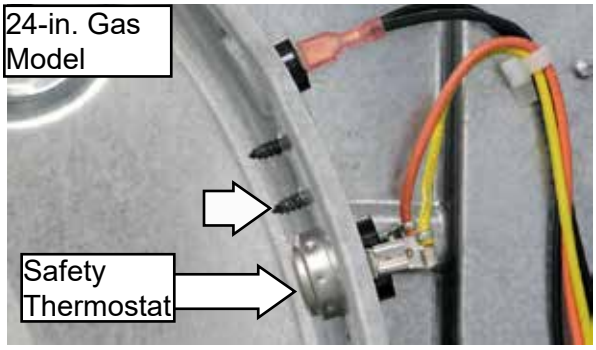
If the thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable power to the heating elements (electric models) or burner assembly (gas models).

On electric dryers, the safety thermostat opens at 235°F and will automatically reset at 205°F (225°F and 195°F for long vent models). On 27-in. gas dryers, the safety thermostat opens at 280°F (300°F for 24-in. models). It will automatically reset at 240°F (260°F for 24-in. models).

Safety Thermostat Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Disconnect the two wires from the safety thermostat.
3. Remove the Phillips-head screw that attaches the safety thermostat to the heater assembly or diffuser.
4. Lift and slide the thermostat from the heater assembly or diffuser.





Inlet Control Thermostat

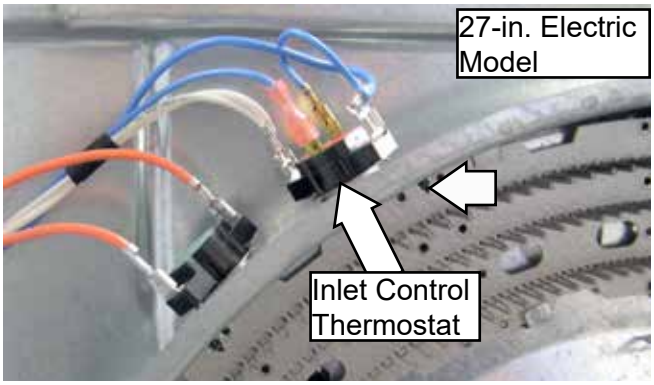
On electric models, the inlet control thermostat is located on the top left area of the heater housing, to the right of the safety thermostat. On gas models, the inlet control thermostat is located on the right side of the diffuser, below the inlet safety thermostat. The thermostat monitors incoming air temperature.

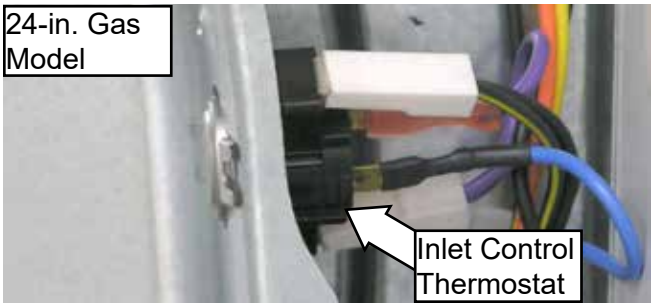
If the thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable power to the heating elements (electric models) or burner assembly (gas models).

The inlet control thermostat opens at 210°F and will automatically reset at 180°F.

Inlet Control Thermostat Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Disconnect the four wires from the inlet control thermostat.
3. Remove the Phillips-head screw that attaches the inlet control thermostat to the heater assembly or diffuser. The inlet control thermostat on gas models utilize two locking tabs instead of a Phillips-head screw.
4. Lift and slide the thermostat from the heater assembly or diffuser.





Outlet Control Thermostat

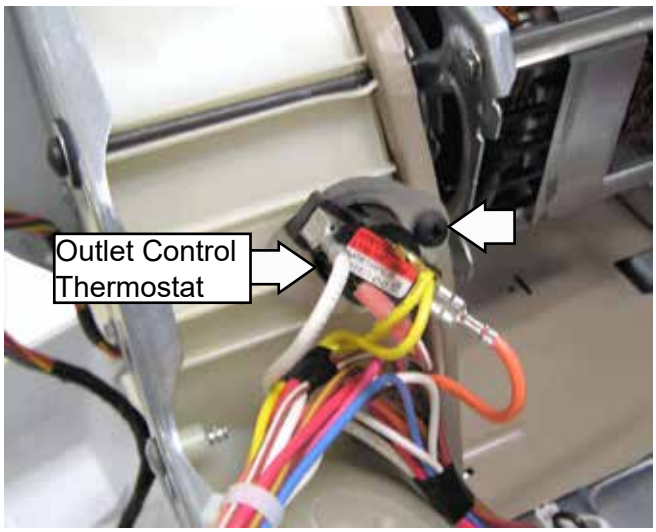
The outlet control thermostat is located on the upper, rear area of the blower housing. The outlet control thermostat monitors the outgoing air temperature.

If the thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable power to the heating elements or burner assembly.

The outlet control thermostat opens at 130°F and will automatically reset at 120°F.

Outlet Control Thermostat Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Disconnect the four wires from the outlet control backup thermostat.
3. Remove the Phillips-head screw that attaches the outlet control thermostat to the blower housing.



27-in. Electric Model Shown

High Limit Thermostat

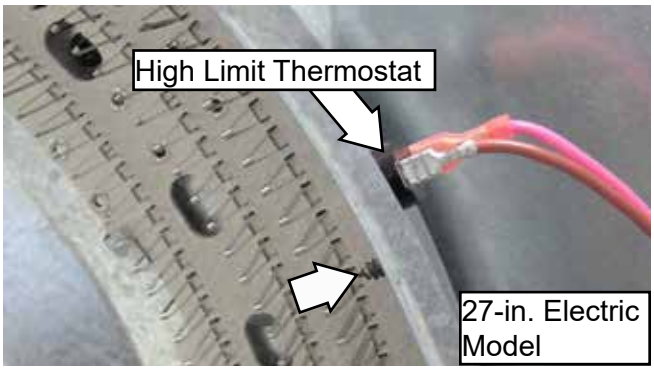
On electric models, the high limit thermostat is located on the top right area of the heater housing. On gas models, the high limit thermostat is located on the upper right side of the diffuser, above the safety thermostat. The high limit thermostat monitors incoming air temperature.

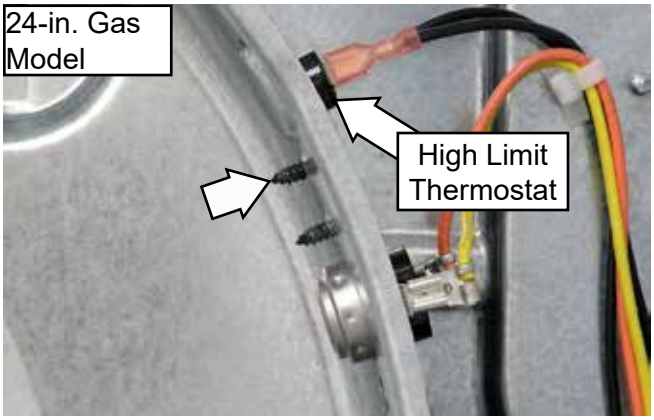
If the thermostat reaches a temperature beyond its maximum temperature rating, it will trip and disable motor operation.

The high limit thermostat opens at 315°F. and will automatically reset at 250°F.

High Limit Thermostat Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Disconnect the two wires from the high limit thermostat.
3. Remove the Phillips-head screw that attaches the high limit thermostat to the heater assembly or diffuser.
4. Slide the thermostat from the heater assembly or diffuser.





Burner Assembly and LP Conversion

The burner assembly consists of the gas valve coils, gas valve, burner, and inlet pipe.

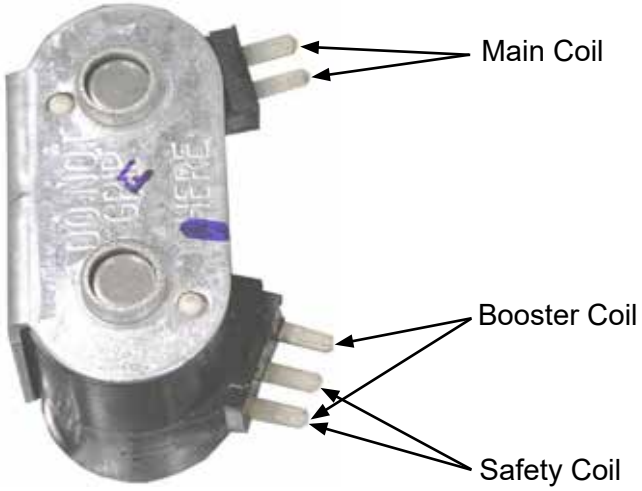
To convert the dryer from natural gas to LP gas, Refer to LP conversion kit (**Part #**: WE25M74 is for 27 inch models; or **Part #**: WE25M73 is for the 24 inch models).

Gas Valve Coils

The burner assembly has a gas valve that utilizes three coils. A double coil (safety and booster coils combined) and a single main coil are located on top of the gas valve in front of the combustion chamber opening. All coils can be replaced separately.

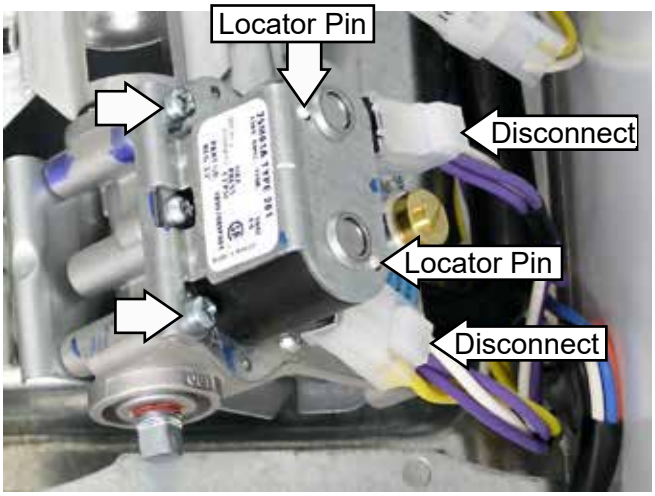
Gas Valve Coil Assembly Resistance Values

- **Safety Coil Terminals**: 1,400 Ω
- **Booster Coil Terminals**: 580 Ω
- **Main Coil Terminals**: 1,300 Ω



Double and Main Coils Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Disconnect the wire harness from both coils.
3. Note the position of the locator pins inserted in the coil bracket.
4. Remove the two Phillips-head screws that attach the coil bracket to the valve body.



5. Lift the bracket vertically. Lift coils to remove.

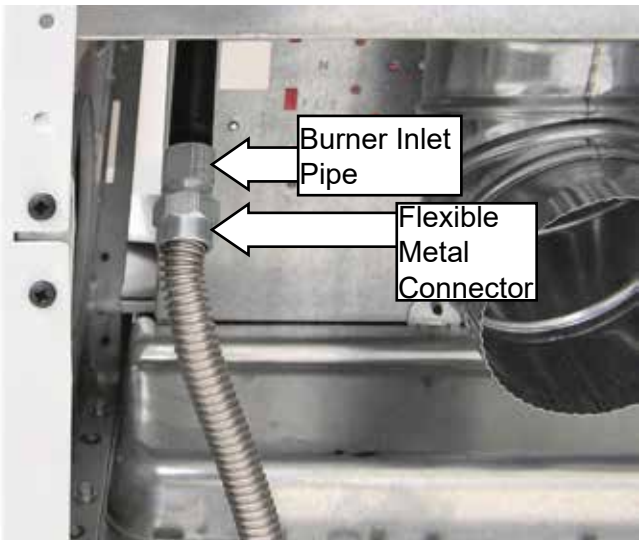
NOTE: Upon reassembly, ensure the locator pins are inserted into the holes provided in the coil bracket.

Gas Valve

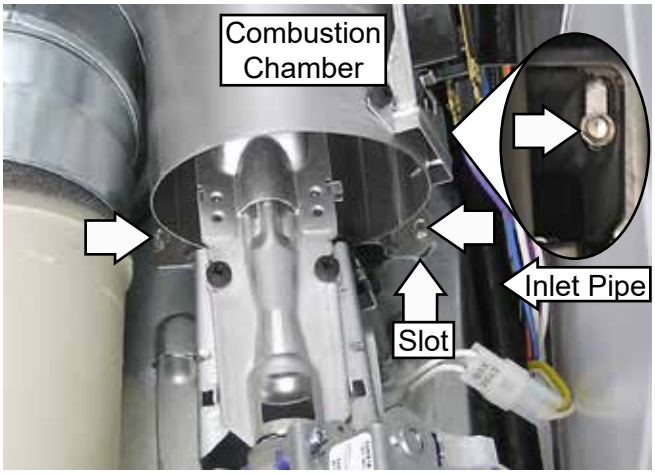
The gas valve is attached to a bracket located in the bottom, right, front corner of the dryer cabinet.

Gas Valve Removal

1. Shut off the gas supply to the unit.



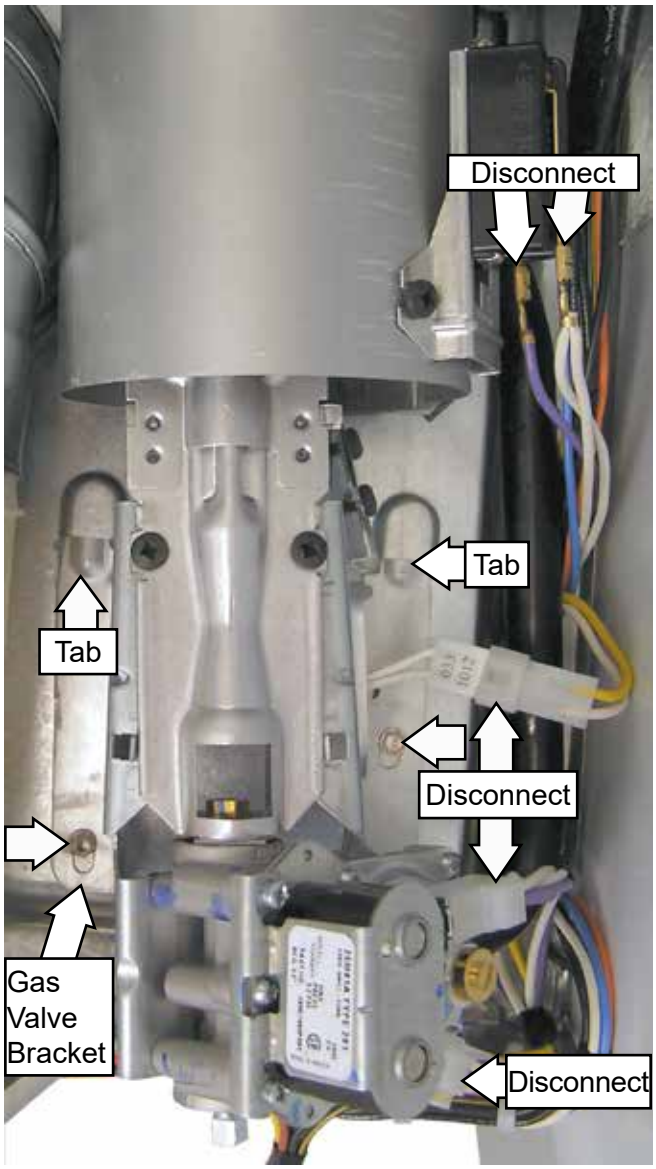
2. Disconnect the flexible metal connector from the burner inlet pipe.
3. Remove the drum. (See **Drum** in this section of this service guide.)
4. Remove the two 1/4-in. hex-head screws that attach the combustion chamber to the dryer floor.
5. Remove the 1/4-in. hex-head screw, located underneath the flame detector, that attaches the gas valve inlet pipe to the dryer chassis.



NOTE: Upon reassembly, ensure the tab at the bottom of the combustion chamber is inserted into the slot located on the dryer chassis.

(Continued Next Page)

6. Disconnect the coil wire harness from each coil.
7. Disconnect the ignitor wire harness and the two wires from the flame detector.
8. Remove the two 1/4-in. hex-head screws that attach the gas valve bracket to the dryer floor.
9. Pull the bracket toward the front of the dryer to disengage tabs from dryer floor.

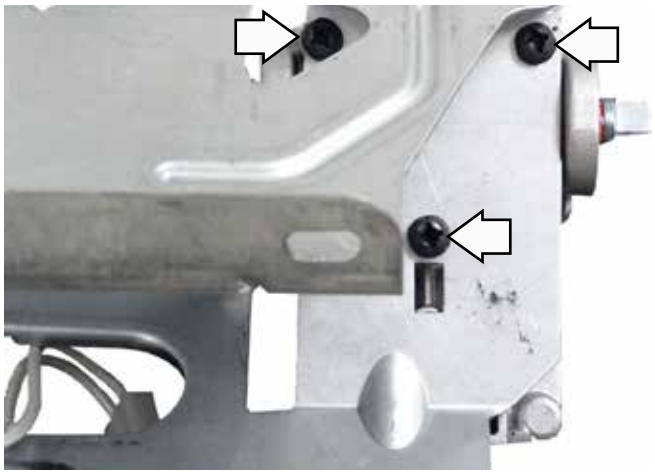


NOTE: Upon assembly, ensure the gas valve bracket is inserted under the two tabs located in the dryer floor.

Caution: The ignitor is very fragile. To prevent breaking the ignitor, care must be taken when removing or installing the gas valve.

10. Lift the front of the combustion chamber, then maneuver the gas valve assembly from the dryer.

11. Remove the coils from the gas valve. (See **Gas Valve Coils** in this section of this service guide.)
12. Turn the bracket over. Remove the three Phillips-head screws that attach the gas valve to the gas valve bracket.

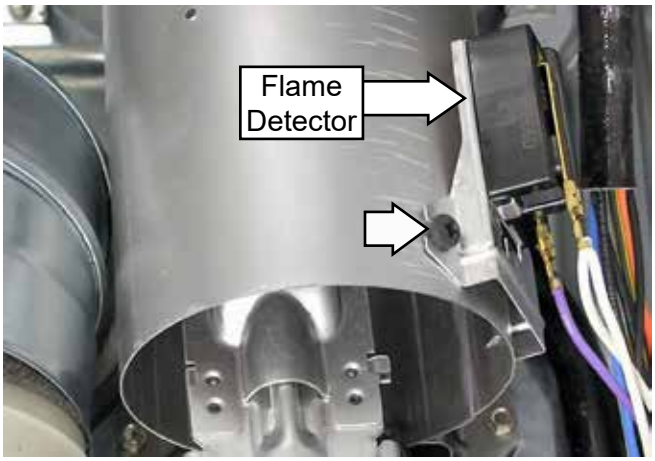


Flame Detector

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

Flame Detector Removal

1. Remove the drum. (See **Drum** in this section of this service guide.)
2. Disconnect the two wires from the flame detector.
3. Remove the Phillips-head screw that holds the flame detector to the combustion chamber.



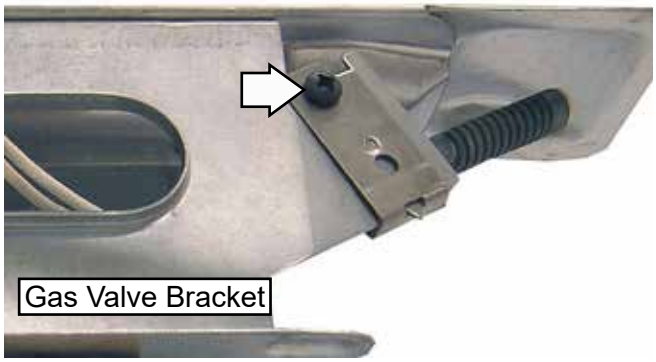
4. Remove the flame detector from the tab at the bottom.

NOTE: Upon reassembly, ensure the tab at the bottom of the flame detector is inserted into the slot located on the combustion chamber.

Ignitor

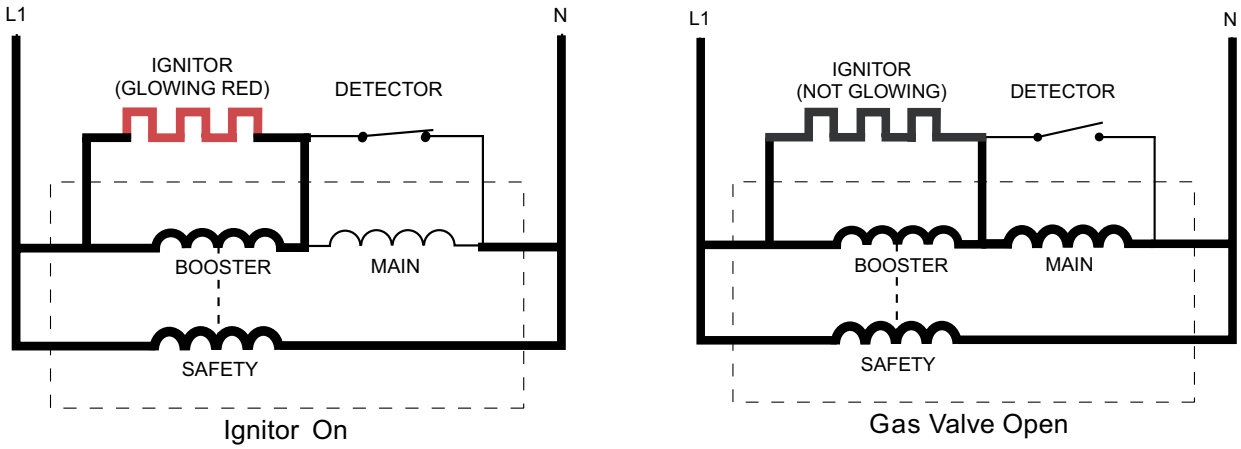
The ignitor is located at the end of the burner assembly in the combustion chamber opening and has a maximum rating of 4 amps. The ignitor has an approximate resistance value of 40 to 400 Ω.

The ignitor is attached to the gas valve bracket with a Phillips-head screw. To access the ignitor, it is necessary to remove the burner assembly. (See **Gas Valve** in this section of this service guide, steps 1 through 10.)



Ignitor Circuit Operation

The glo-bar ignitor circuit is made up of the following components: a gas valve with safety and main valves, ignitor, and a flame detector. The safety valve is actuated by a double coil that comprises a safety coil (resistance approximately 1,400 ohms) and a booster coil (resistance approximately 580 ohms). Both coils are needed to open the safety valve. Once energized, the safety coil alone will hold the valve open. The main valve has a single coil (resistance approximately 1,300 ohms).



The flame detector (less than 1 ohm) is mounted on the combustion chamber. It is in a normally closed (N.C.) position. The flame detector is opened by the radiant heat produced by the glo-bar and once open, the flame detector will be held open by the radiant heat produced by the gas flame.

When the control system calls for heat, the following circuits are energized:

1. L1 power is sent from the timer, through the outlet control and safety thermostats, to the gas valve.
2. Neutral circuit is from the dryer harness through the door switch and motor switch M2 to M1 to the gas valve.

When the glo-bar is heating, the booster and safety coils are both energized and will open the safety valve. The main valve is closed as its coil is bypassed by the N.C. flame detector. When the glo-bar reaches ignition temperature, in approximately 60 seconds or less, the flame detector is heated and opens, placing the main coil in series with the glo-bar. The main valve opens, allowing gas to flow into the combustion chamber and ignite. The main coil, now in series with the glo-bar, causes the glo-bar to cool down. However, the flame detector is held open by the radiant heat from the gas flame. The booster coil is now also in series with the main coil and is essentially inoperative. Should a momentary power failure occur, the gas valve will shut off and an attempt to restart will not occur until the flame detector cools and resets, in approximately 30 seconds.

Washer Components

Single Action Agitator

The single action agitator moves the clothes back and forth through the water while gently pulling clothes from the top of the wash load to the bottom of the basket. The bottom of the agitator continues to move clothes back and forth and circulates them back to the top of the wash load.

Agitator Removal

1. Remove the cap/softener dispenser from the top of the agitator.

2. Use a long socket extension (approximately 17 inches long) to assist with removing the 7/16-inch hex-head bolt securing the agitator to the shaft. The splined coupler is part of the impeller.

Important: The impeller bolt (**Part #**: WH02X24374) should be replaced any time it is removed for service and torqued to 100 in. pounds.

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

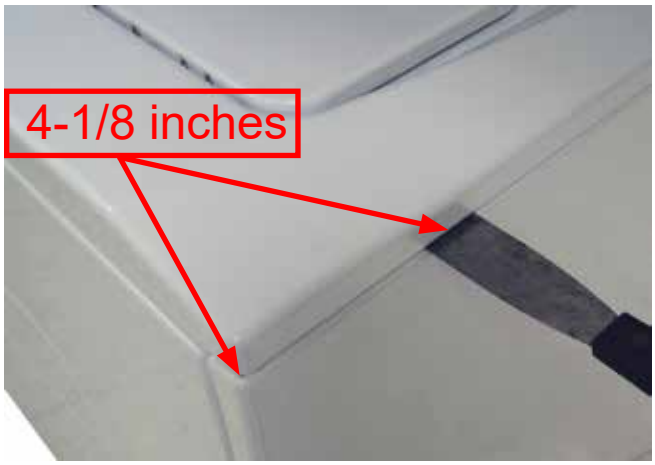
Front Panel

The front panel is attached to the washer cabinet by two bottom hooks and two top lock tabs.

Front Panel Removal

1. Insert a putty knife between the washer top and the front panel 4-1/8 inches from each side.

2. Press in on each lock tab and pull the top of the front panel forward.



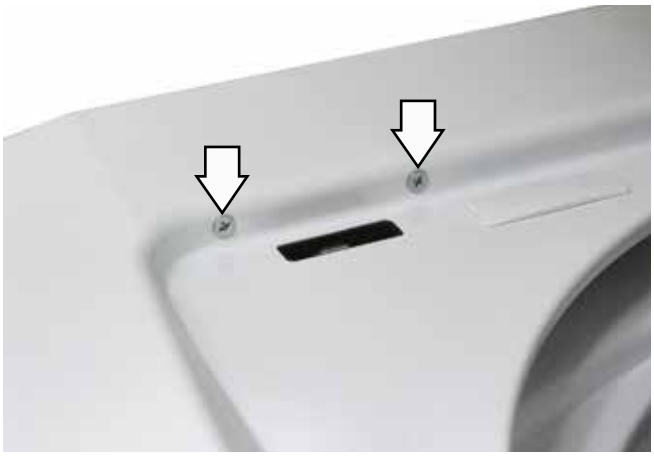
3. Lift the front panel and remove it from the bottom two hooks.

Top Cover Assembly

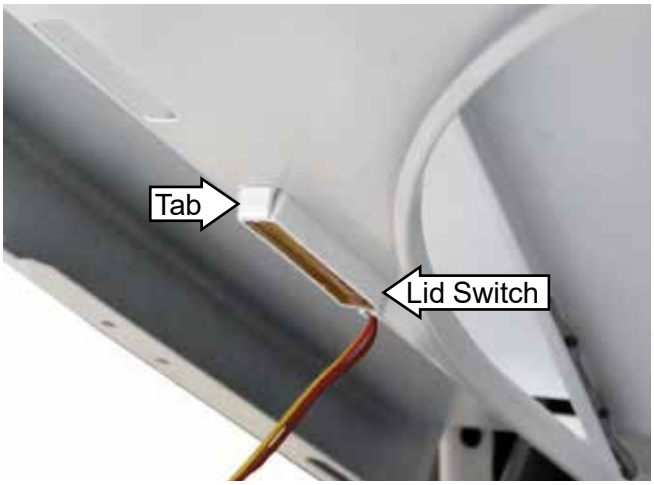
Top Cover Assembly Removal

1. Remove the front panel. (See **Front Panel** in this section of this service guide.)
2. Remove the two 1/4-in. hex-head screws that attach the top cover assembly to the washer

3. Open the lid and remove two Phillips-head screws that secure the lid lock to the top cover. Pull the lid lock assembly from under the top cover, disconnect the lid lock harness from the lid lock assembly and set it aside.



4. Reach under the top cover assembly, and then firmly press in on the front lock tab to release the lid switch. Push it up from the opening in the top cover assembly.



5. Pull the cover assembly from the washer.

Drain Pump

The drain pump receives 120 VAC from control board location J512 pin 2 to pin 3.

The drain pump motor has an approximate resistance value of 10.9 ohms 27-inch models and 16.4 ohms on 24-inch models.

NOTE:

- The pump runs whenever the washer is in the spin function of a cycle.
- The drain pump will operate if an overfill condition has occurred (Overflow protection), and 120 VAC is present at control board location J101 pin 1 to pin 2. The pump will lower the water level to the setting selected on the LOAD SIZE control.

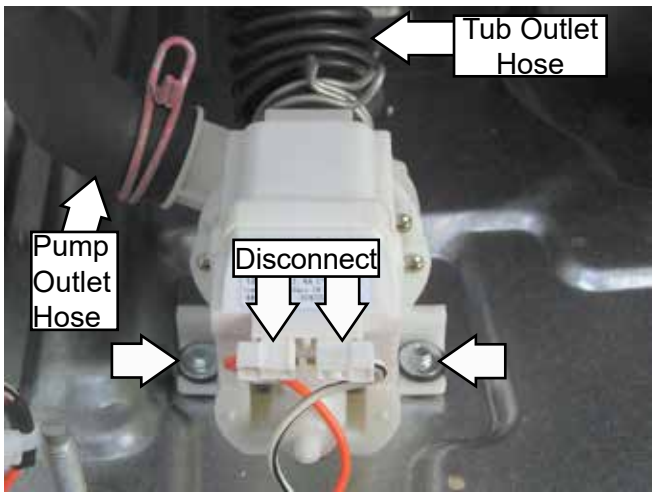
The drain pump is located in the bottom left front of the unit. The outlet hose from the bottom of the tub uses a 5/16-in. hex-head hose clamp at the tub and spring clamps at the input and output of the pump.

Drain Pump Removal

1. Remove the front panel (see **Front Panel** in this section of this service guide).
2. Disconnect the pump wires.

NOTE: Water will remain in hoses even when the tub appears empty. Use care to avoid water spills.

3. Remove the spring clamps and hoses from the pump.
4. Remove two 1/4-in. hex-head screws that attach the drain pump to the washer chassis.

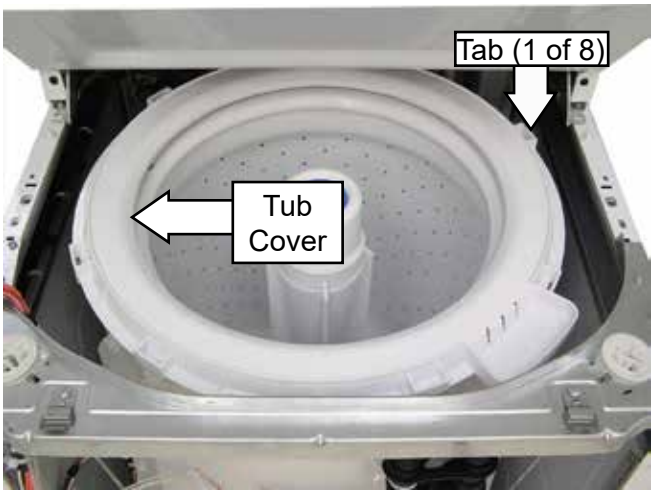


Tub Cover

NOTE: The tub cover can be replaced without removing the tub.

Tub Cover Removal

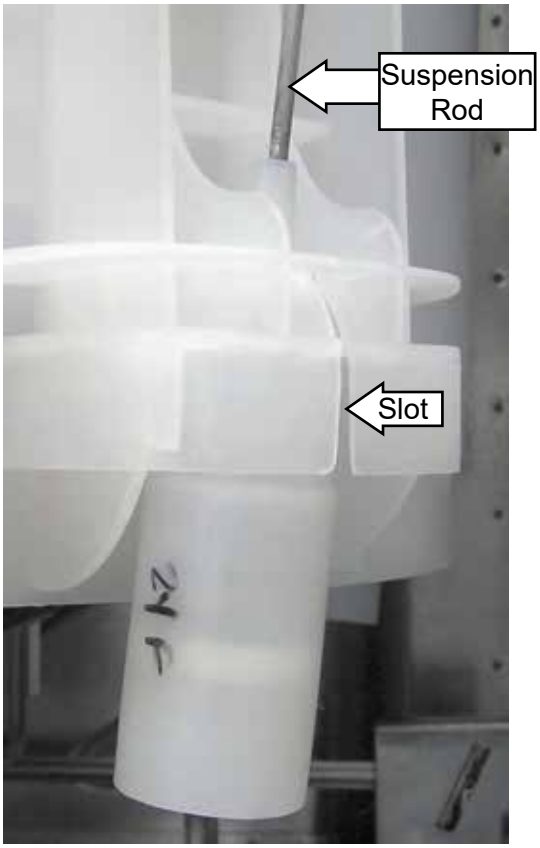
1. Remove the top cover assembly. (See **Top Cover Assembly** in this section.)
2. Unsnap the eight tabs that latch onto the rim of the outer tub.
3. Lift and remove the tub cover.



Suspension Rods

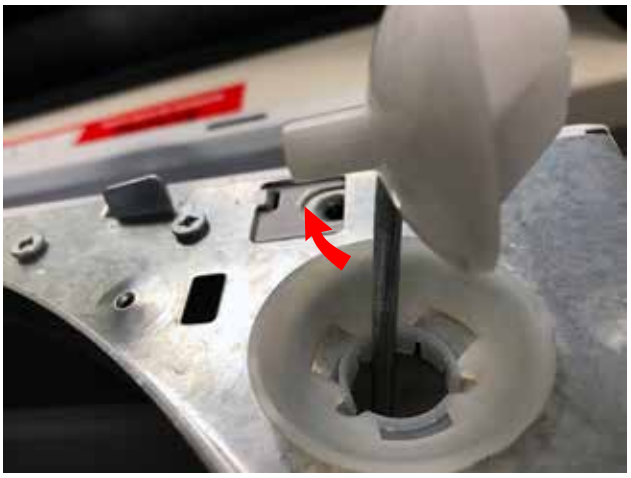
Tub Suspension Rods Removal

1. Remove the top cover assembly. (See **Top Cover Assembly** in this section of the service guide.)
2. Lift up on the tub and pull the suspension rod out of the slot in the tub.



3. Lift the rod through the support cup, tap the rod support ball down, and rotate the rod to align with the open slot in the cup. Lower the suspension rod through the slot.

4. Lift up on the rod while at the same time sliding the rod support ball down on the shaft. Unsnap the shaft of the rod support ball from the metal rod and remove the ball.



5. Slide the rod down through the support cup and remove the rod and spring assembly from the washer tub.

NOTE: Ensure to note the rod assembly location, black to the front.

Drive System

The drive system consists of the belt, pulleys, drive motor, mode shifter, speed/hall sensor and transmission. They all operate together to agitate and/or spin the load in the basket.

Washer Drive Belt

The drive belt has six ribs and can be removed easily. To access the belt, the belt protector needs to be remove first.

Belt Protector Belt Removal

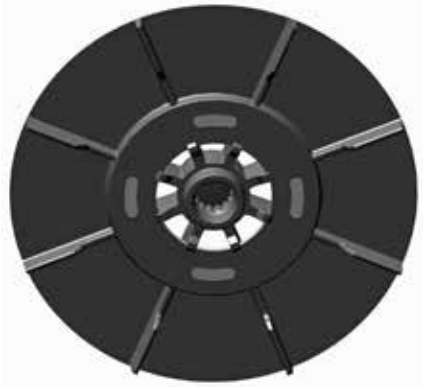
1. Rotate the pulley by hand while walking the belt off of the pulley.

Belt Installation

1. Put the belt on the motor pulley.
2. Stretch the belt around the transmission pulley as far as it will go.
3. Rotate the pulley until the belt is centered on the transmission pulley. Ensure all of the belt ribs are properly located on the drive motor pulley.

Drive/Transmission Pulleys

The drive pulley is mounted to the drive motor. It has fins on the motor side to help keep the motor cool during operation.



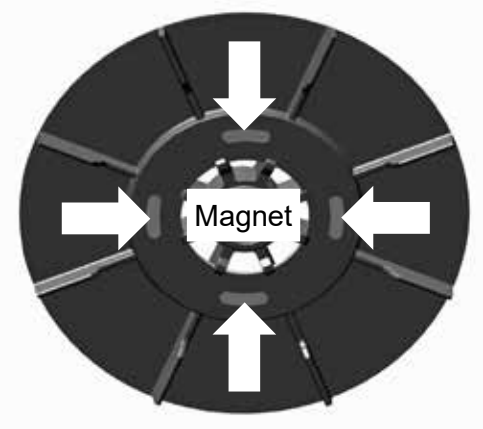
The transmission pulley doubles as a gear for the mode shifter to lock into during agitation.

Pulley Removal

1. Remove the two 9/16 nuts (one for each pulley), securing them to the motor and transmission shafts.
2. Slide the pulleys off the motor and transmission shafts. Torque the new pulley nut to 110 inch pounds when reinstalling.

Speed/Hall Sensor

The speed/hall sensor is mounted to the drive motor and sends a pulse signal back to the control board. This is done when the magnet that is mounted in the drive motor pulley passes over the sensor.



If the control does not read any signal from the sensor from the movement of the motor, the washer cycle will stop.

Speed/Hall Sensor Diagnosing

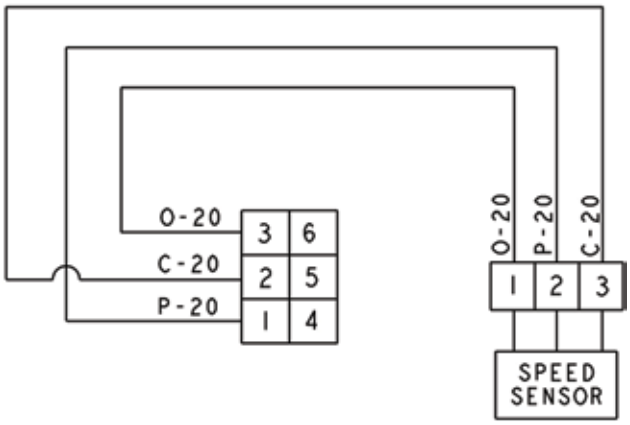
The speed/hall sensor can be diagnosed two different ways.

- **Enter the Service Mode and Run the Spin Test**

  If the speed/hall sensor is bad or disconnected, the basket will start to spin normally, at first. After 5 seconds, motor power will be stopped and a locked rotor fault will be set. If the washer continues to spin for at least 15 seconds, the speed/hall sensor is good.

- **Test the Voltage**

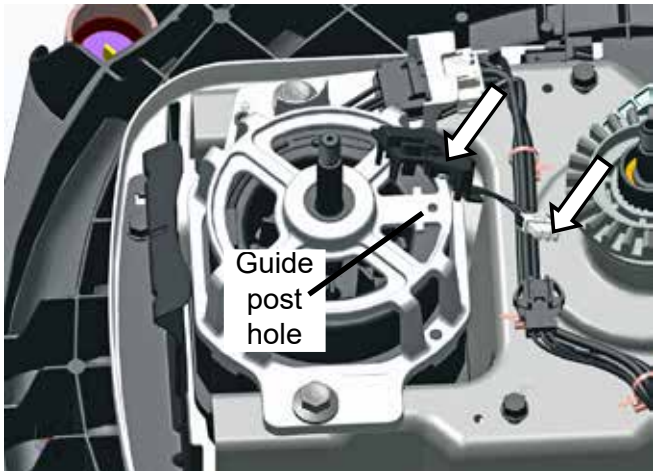
  From connector pins 3 to 5 on the J602 should read approximately 9 VDC.



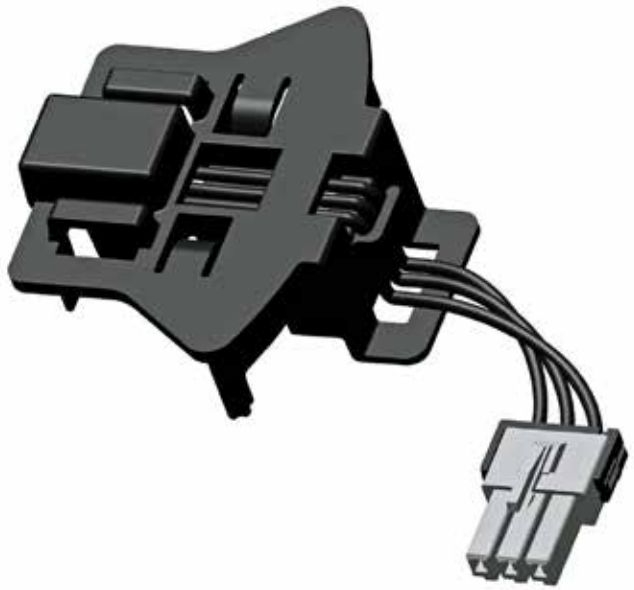
Pin 1 to pin 5 should read approximately 4.5 VDC while rotating the basket by hand.

Speed/Hall Sensor Removal

Disconnect the speed/hall sensor from the drive motor and disconnect from the main harness.



There is a locating post on the bottom of the sensor that is pushed into an existing hole in the motor housing, when reinstalling.



Washer Drive Motor

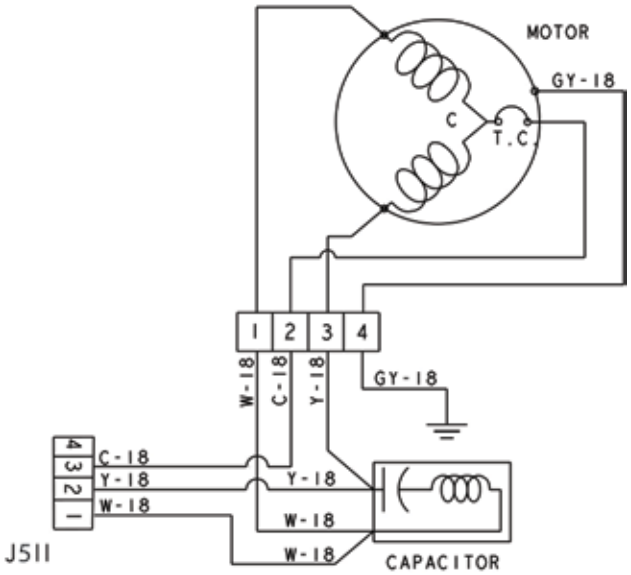
The drive motor is a 1/3 or 1/4 horsepower motor. They are model specific and have a specific drive belt. This allows the machine to spin up to 800 RPM on the 27-inch models and up to 830 RPM on the 24-inch models.

Washer Drive Motors Diagnosing

The motor requires 120 VAC.

Resistance values from board connector J511 are:

- **Check motor resistance from brown - white** and **brown - yellow**. Should read approximately 4.6 ohms for the 1/4 horse motor and 4.1 ohms for the 1/3 horsepower motor.



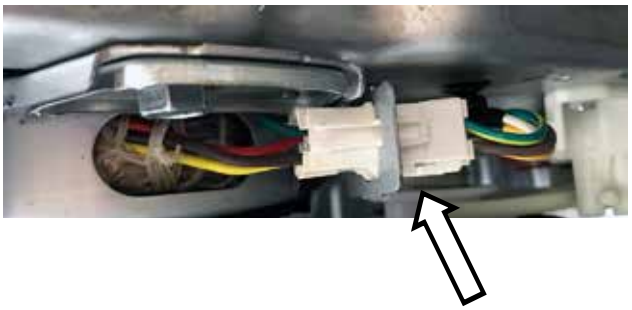
Motor Removal

NOTE: The washer motor can be replaced (with a little difficulty) without removing the washer tub if the installation requires it.

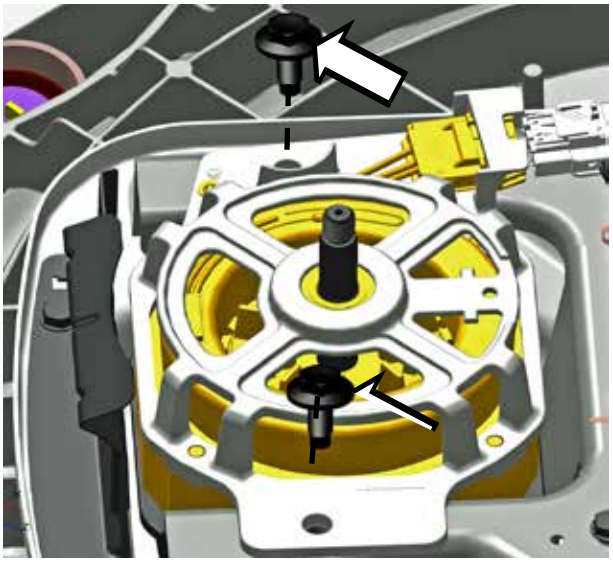
1. Remove the front panel. (See **Front Panel** in the **Washer Components** section of this service guide.)

2. Unclip the hall sensor from the motor.

3. Unclip the main harness from the motor connector by pushing up on the connector clip. The motor side of the harness is secured in place.



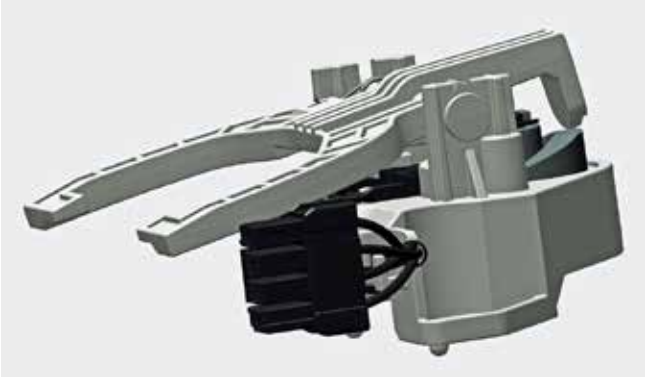
4. Remove the two 1/2-in. hex-head bolts that secures the motor to the platform. When reinstalling the bolts, torque to 170 inch pounds.



Important: If removing the motor with the washer leaning back, be sure to support the weight of the motor, as it will drop away from the platform once the second bolt is removed.

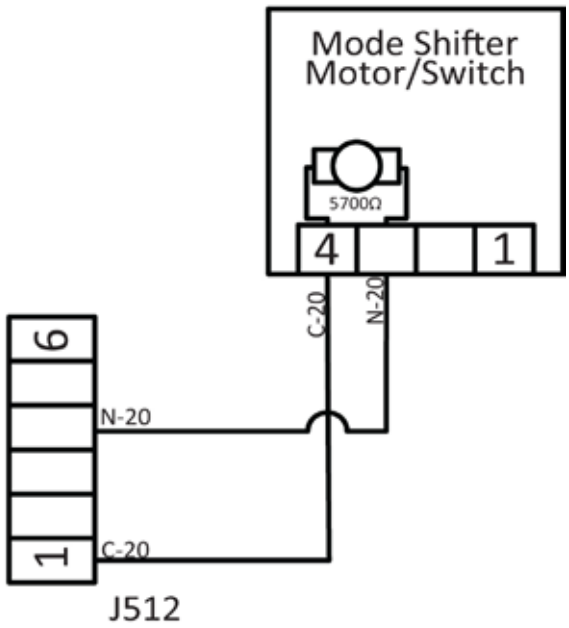
Mode Shifter

The mode shifter consists of a motor that operates by receiving 120 VAC from the control board, a micro switch, and a spring and clutch. It engages or disengages the clutch with the transmission pulley, depending on whether the cycle is in spin or agitate.



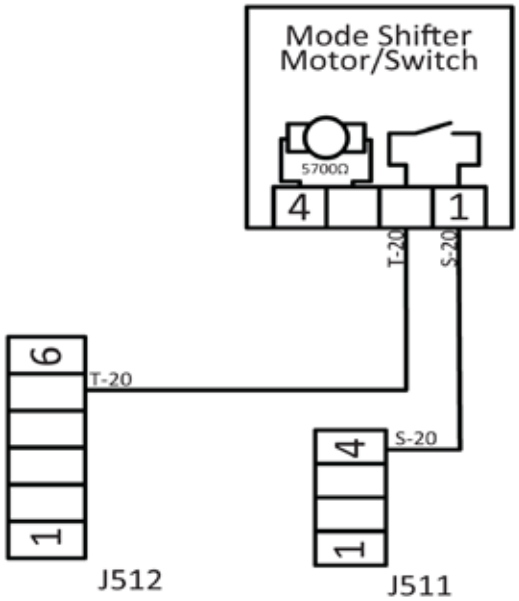
Diagnosing the Mode Shifter Motor

From the J512 connector on the control board, the **brown** wire pin 1 to the **blue** wire pin 4 should read approximately 5700 ohms. The 120 VAC can be applied to the motor two **black** wires on the mode shifter to manually check mode shifter operation.



Diagnosing the Mode Shifter Switch

The Mode Shifter Switch's home position is closed, ready for a spin cycle. When agitating, the switch should be open. From the J512 connector on the control board, the **tan** wire pin 5 to the J511 connector pin 4 (**gray** wire).



Mode Shifter Removal

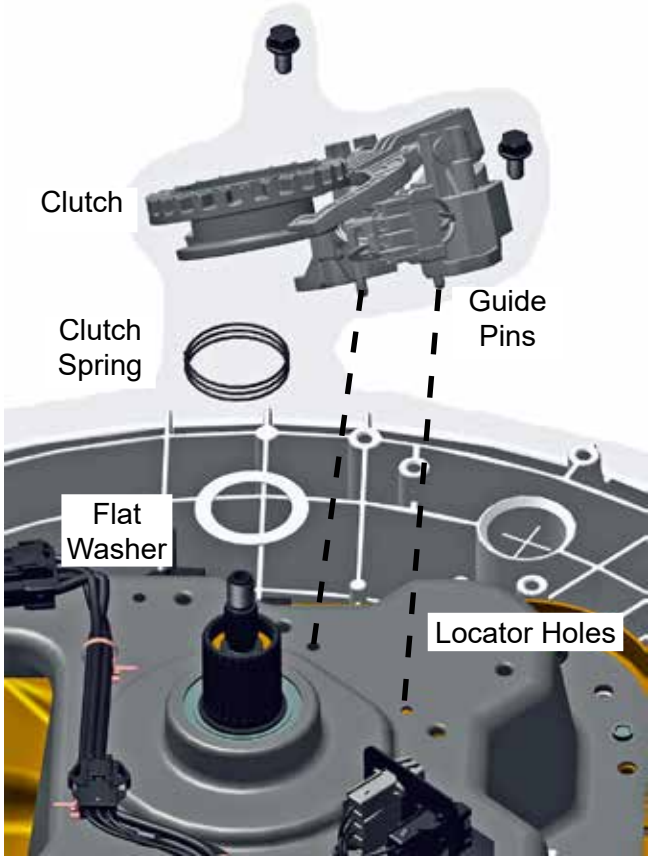
The belt protector, belt and transmission pulley need to be removed to access the mode shifter.

1. Disconnect the mode shifter motor harness connector.

2. Remove two 3/8-in. hex-head bolts securing the mode shifter to the platform. The mode shifter, clutch, clutch spring and flat washer will pull away from the platform.

Mode Shifter Reinstallation

1. Install the flat washer onto the lower transmission shaft.
2. Install the clutch spring.
3. Slide the clutch into the clutch level of the mode shifter and slide the clutch onto the shaft. There are guide pins on the bottom of the mode shifter that go into locator holes on the platform.
4. Install the two 3/8-in. hex-head bolts and torque to 60 inch pounds.



Platform/Transmission Assembly

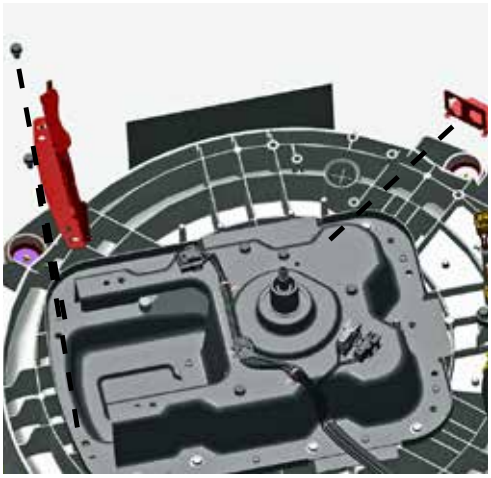
The platform assembly not only houses the transmission, but is used to mount the drive motor and mode shifter. The transmission has planetary gears inside to assist with the agitation and spin cycles of the washer. It is one complete part with the exception of the two harness mounting brackets (some models have one harness mounting bracket) and a motor splash guard.

Platform/Transmission Removal

1. Remove the agitator. (See **Agitator Removal** in the **Washer Components** section of this service guide.)
2. Remove the hub nut and Belleville washer. (See **Spin Basket Removal** under **Spin Basket** in this section of the service guide.)
3. Remove outer tub. (See **Outer Tub Removal** in this section of the service guide.)

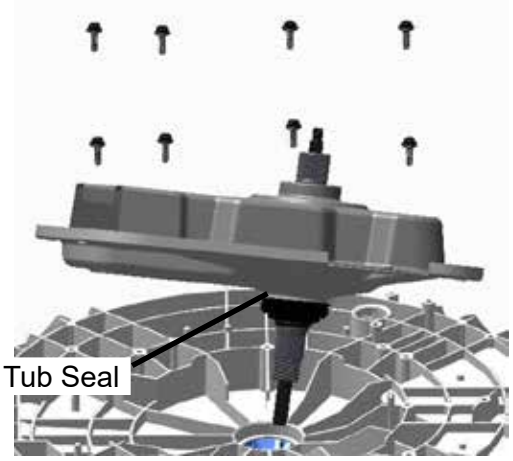
After all other components have been removed from the platform assembly:

4. Cut the wire ties that support the main harness to the platform assembly.
5. Remove the 3/8-in. hex-head bolts securing the motor shield and the harness brackets to the platform.



6. Remove the eight 3/8-in. hex-head bolts securing the platform to the bottom of the tub.
7. Pry the platform assembly away from the tub.

The tub seal is pressed onto the shaft. Prying against the tub bottom to remove the platform assembly may be necessary.



Platform/Transmission Assembly Reinstallation

1. Slide the shaft of the transmission into the opening on the bottom of the tub.
2. Line the guide post with the opening in the platform.
3. Press down on the platform to get the seal in position.
4. Tighten the eight hex-head bolts in a crisscross pattern (about 1/4 of the way in at a time) so that the tub seal is pulled into the tub evenly.
5. Once all of the bolts are in, torque to 65 inch pounds.
6. Reinstall the basket assembly.
7. Reinstall the Belleville washer and hub nut. The hub nut has reverse threads, and needs to be turned counter-clockwise to tighten. Torque to 100 foot pounds.

Washer Harnesses

There are four separate harnesses for the washer. There is the main harness. The main harness runs down the rear left side of the tub. As shown here, the main harness is not held in place with screws on the tub. Push-type wire ties are used.

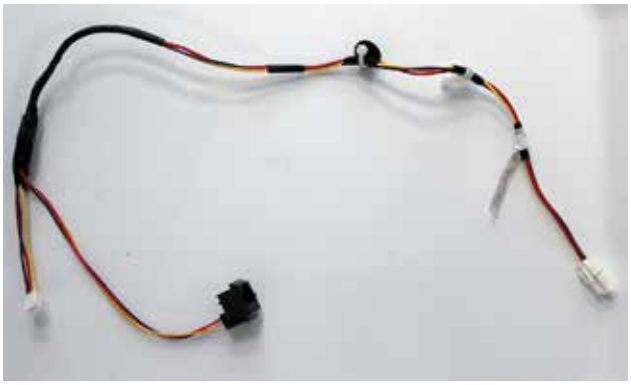
Other than push-type harness wire ties, there is an edge clip wire tie used on the bottom.

Towards the top of the harness, there is a reusable wire tie mounted to the rear left side of the cabinet.

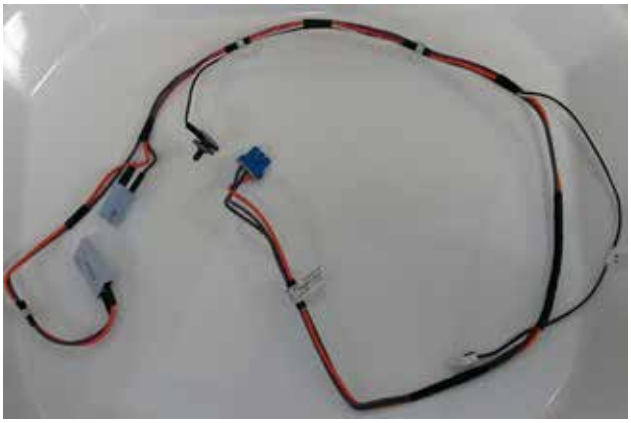
Just squeeze the head of the wire tie to release the harness from it. There is also one of these wire ties securing the lid lock harness to the top cover.

- Lid lock/switch harness

- RJ45/ user interface power harness



- Water valve thermistor harness



Lid Switch

The lid switch is inserted in an opening in the cover assembly, located at the left front corner of the lid recess. The switch is held to the underside of the cover by a lock tab.

The lid switch is a safety feature that prevents the washer from agitating or spinning when the lid is open. The switch is closed by a magnet that is attached to the lid. When the lid is shut, the magnet will cause the switch to close the circuit, allowing normal functions to occur. When the lid is opened, the cycle light will flash and the switch will open the circuit, preventing agitating or spinning.

If the lid switch:

- Is closed, control board J513 pin 3 to pin 3 at the lid lock connector will measure 0 ohms.
- Is open, agitation and spin will not occur, but the washer will fill with water and pause. If an overfill condition exists, the drain pump will operate.
- Is open, the automatic temperature control (ATC) is disabled.
- Opens during agitation, the control will keep the mode shifter energized. When the lid switch closes while still in agitation, the washer will resume agitation.

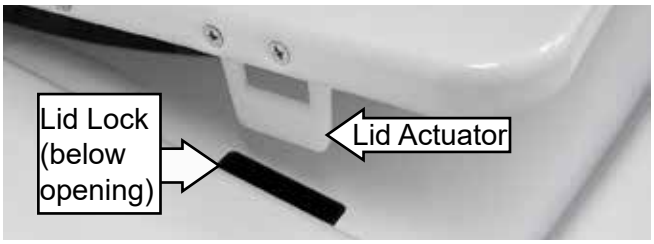
To access the lid switch, it is necessary to open the lid and reach under the cover assembly. To release it from the cover requires pressing the lid switch lock tab in firmly and gently pushing the switch up. The switch can then be pushed through the opening. (See **Top Cover Assembly** in the **Washer Components** section of this service guide.)

Lid Lock

When the lid is closed, the lid lock engages the lid actuator and prevents opening the lid during the spin cycle and while the basket is spinning.

The lock will be released approximately 5 seconds after the basket stops spinning.

NOTE: If there is a power outage the lid lock can take 3 minutes to release.



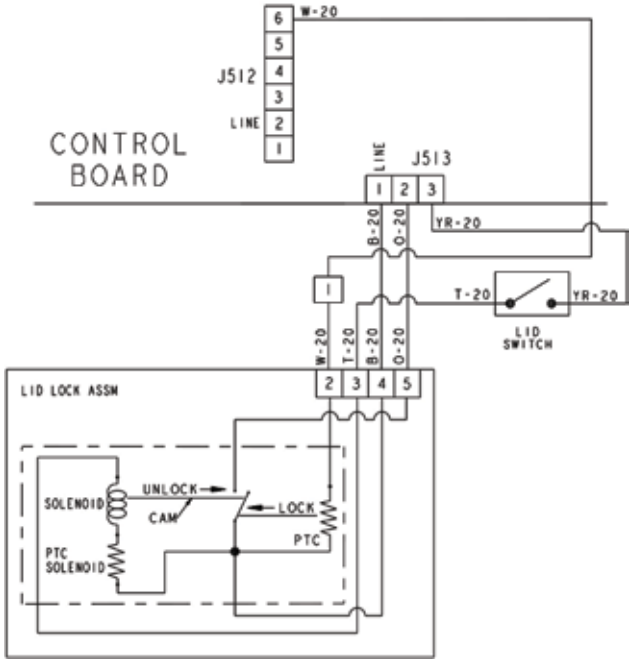
The lid lock is attached to the top cover assembly with two Phillips-head screws. (See **Top Cover Assembly** in the **Washer Components** section of this service guide.) The lid must be open to access the screws. The top cover assembly must be raised approximately 4 inches to remove the lid lock.

The lid lock is connected to the washer with a wire harness.

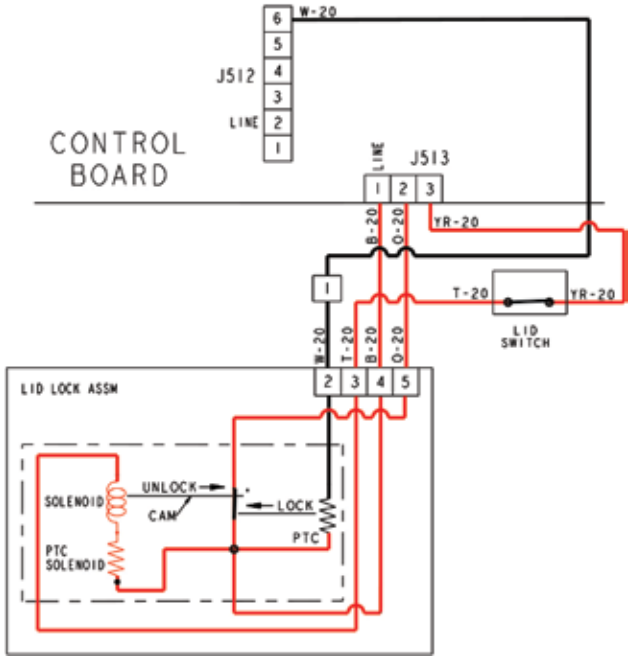
Lid Lock Diagnostic Overview

Any time the lid is in the down position, the lid actuator presses down on lid lock mechanism.

When the washer goes into the spin or rinse portion of a cycle, a lock routine will occur.



The control will send 120 VAC from J513 pin 1 to the lid lock heating the lock PTC. The lock PTC will remain energized while the lid is locked. This will close the bimetal switch completing the circuit.



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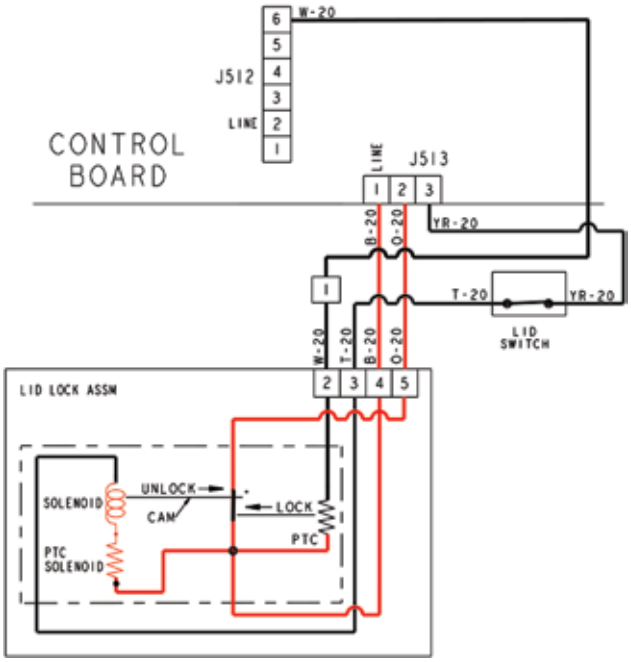
The board then pulses neutral from J513 pin 3 through the lid switch activating the lock solenoid locking the lid. This pulse happens in milliseconds. A volt ohm meter may not see this action.



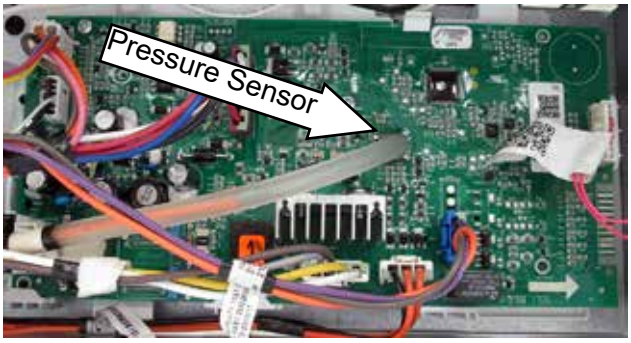
The lid will remain locked until the end of the spin cycle and the control board has received 0 RPM feedback from the motor Hall Sensor. The control will again pulse neutral from the main board unlocking the lid.

If the lock fails to lock of the first try, the control will make 5 attempts to lock or unlock the lid. (An audible click will be heard each time.) If after 5 attempts the lid lock routine fails to lock or unlock the lid, the control will pause for 4.25 minutes and attempt the lock routine again. If the lid will not lock, the control will enter a fault mode and go idle. Fault code 23 will be set.

Pressure Sensor

The pressure sensors purpose is to sense the level of water in the tub when a cycle is being run, or if the washer is sitting idle.

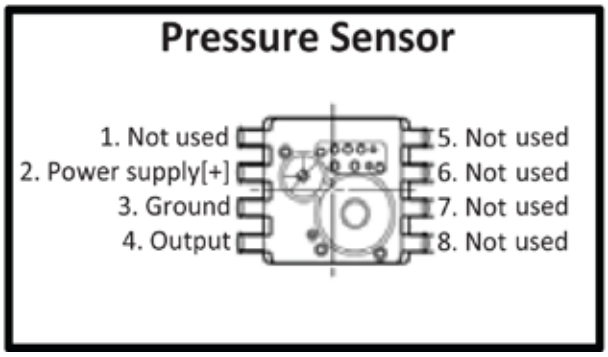
The pressure sensor cannot be replaced by itself if it malfunctions or is damaged. The complete control board will need to be replaced, as the sensor is mounted directly to it.



Diagnosing The Pressure Sensor

The pressure sensor can be tested by either using Test 10 in the Service Mode, or by checking the output DC voltage of the pressure sensor at the control board.

To measure the output DC voltage, connect the meter probes between pin 3 and pin 4. Accidentally shorting between pin 2 and pin 3 will cause the board to shut down, but it will not be damaged.

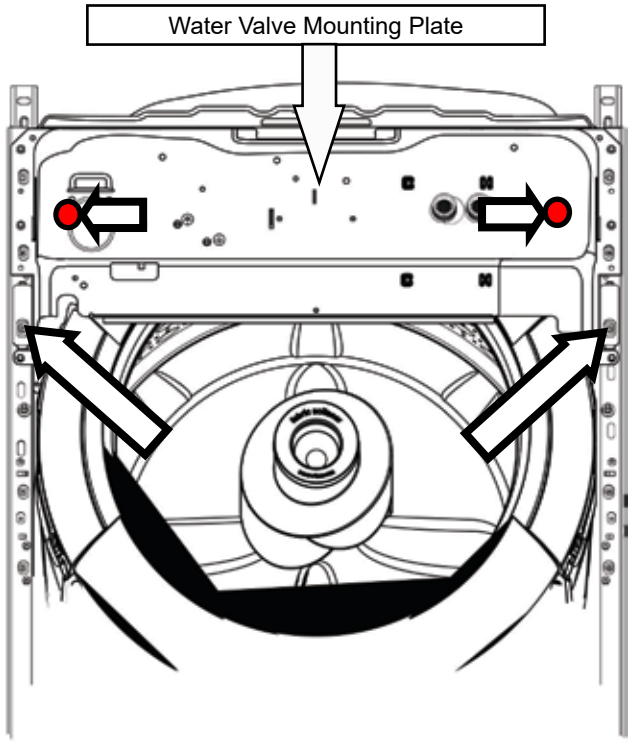


Depending on how much water is in the basket will determine what output DC voltage will be read according to the chart.

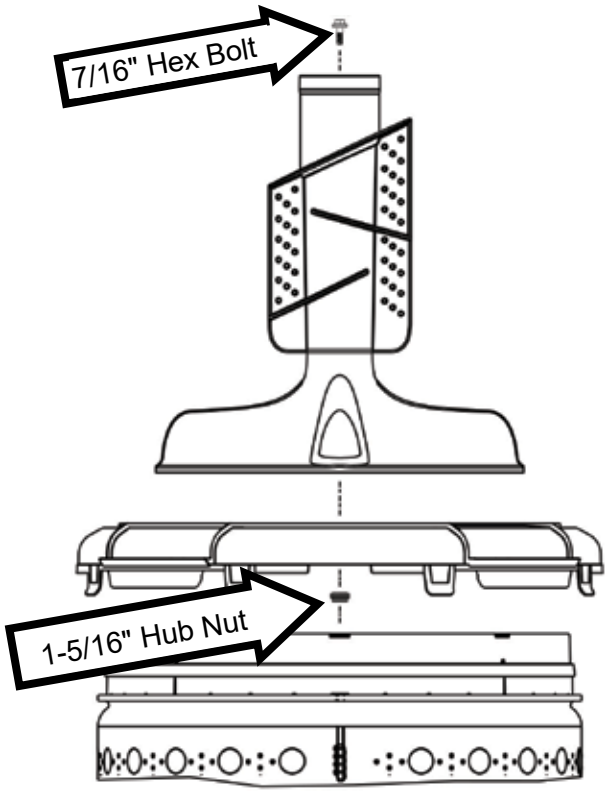
Spin Basket

Spin Basket Removal

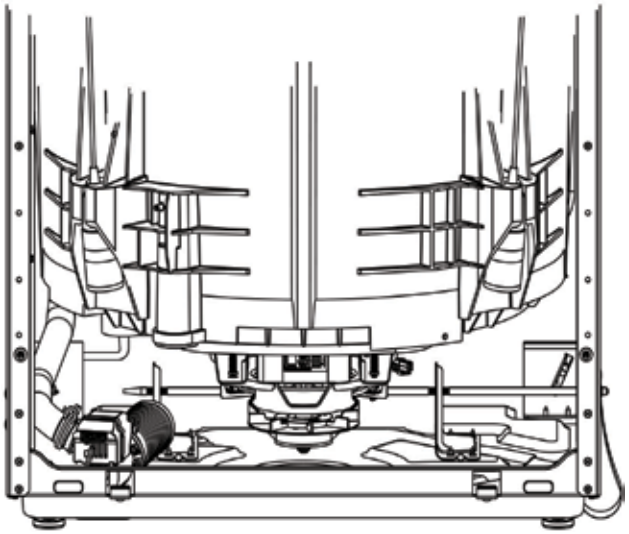
1. Drain all water from the tub by using the drain and spin cycle.
2. Remove the front panel and top cover/lid assembly.
3. Disengage the main board housing assembly from the water valve mounting plate.
4. On the 27-inch models, disengage the water valve mounting plate from the cabinet by removing two 1/4-inch hex-head screws. The rear of the plate has no screws. It has tabs. The location of the plate mounting screws will be different on the 24-inch model. (Approximate location indicated by two circles in picture below.) The water hoses do not need to be disconnected from the water valve to disengage the water valve mounting plate.



5. Remove the tub cover by lifting the tabs on the tub cover and pull off.
6. Remove the 7/16 hex-head bolt attaching the agitator to the spline shaft of the transmission. Lift agitator straight up and off of the shaft.
7. Remove the left hand thread 1-5/16-inch hub nut. If an impact gun is used, ensure to use the torque limiter (**Part #**: WX05X10028).



8. Disconnect the drain hose from the tub.
9. Remove the front rod and spring assembly (one at a time) by lifting the tub assembly, taking the weight off of the suspension spring at the lower portion of the rod. Pull the spring assembly out from the tub leg and repeat the same for the rear. **NOTE:** The rod and spring assemblies are color coded according to spring color and should not be switched.



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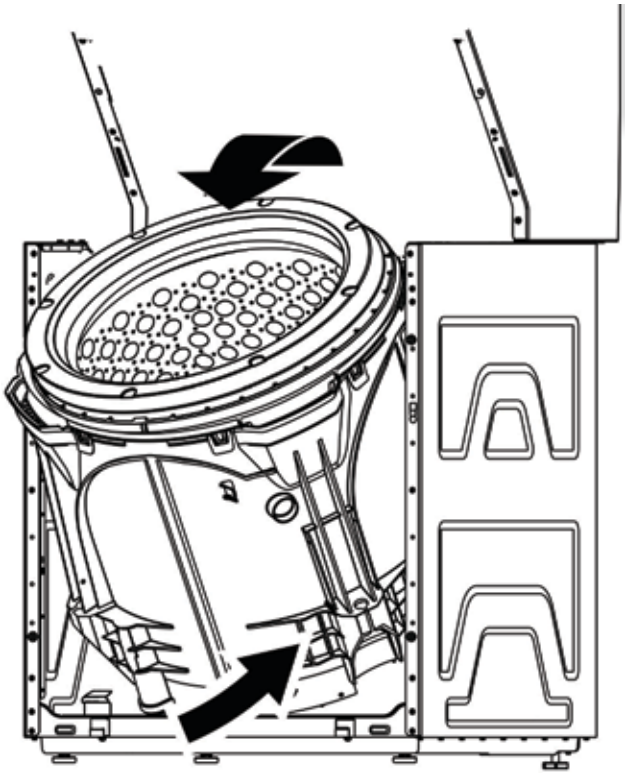
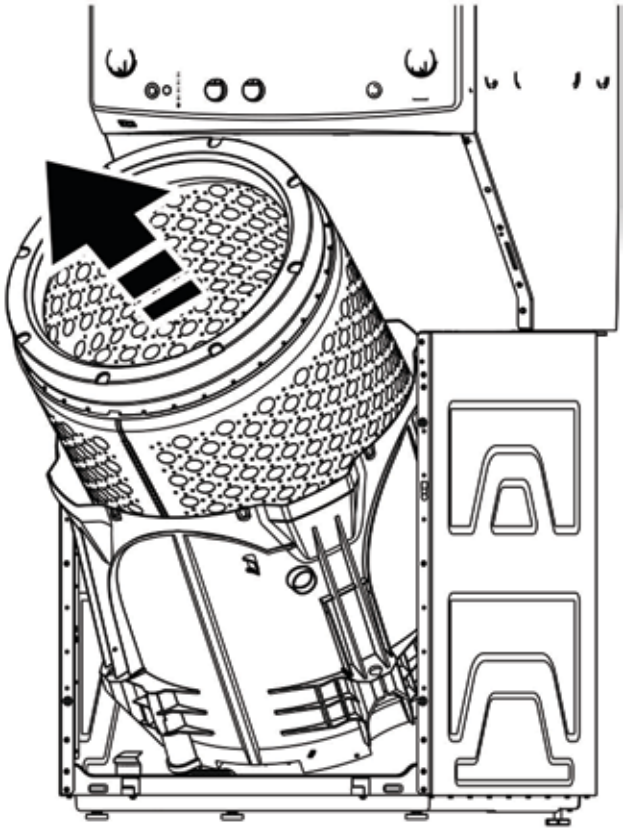
10. Lean the tub forward. Then lift and push the bottom of the tub assembly toward the rear of the washer cabinet to be able to pull the top of the tub out from under the top front support bracket.



11. Pull basket out of tub by lifting out as shown.



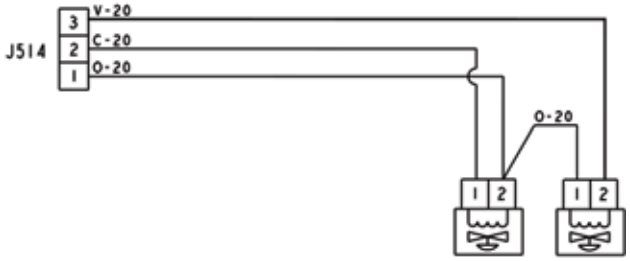
12. Reverse procedure for reassembly.

Outer Tub Removal

1. Remove the front panel, top cover assembly, water valve mounting bracket, rod and spring assemblies, agitator and basket assembly. (See those sections.)
2. Once the tub is removed from the cabinet, turn the tub upside down. Ensure to wipe up any excess residual water that may have been left in the tub.
3. Remove the pulleys, drive motor, mode shifter, main harness, and platform from the tub bottom from the tub.

Water Valve

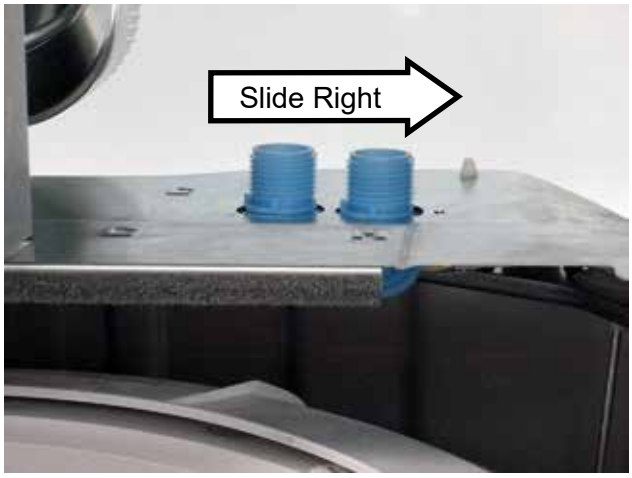
Each water valve coil has an approximate resistance value of 1.1k ohm. This can be measured from the main board J514 connecter pins 1 to 2 and 1 to 3.



Water Valve Removal

1. Turn off the water supply to the appliance.
1. Remove the service panel.
2. Remove the fill hoses from the water valve.
3. Although the top cover assembly does not need to be removed, it has been removed here for better viewing. (See **Top Cover Assembly** in the **Washer Components** section of this service guide.)
4. Remove one 1/4-inch hex-head screw securing the water valve to the bracket.

5. Slide the water valve to the right to drop through the opening.



6. Disconnect harness connecters and the fill funnel hose from the water valve.

Automatic Temperature Control (ATC)

The Automatic Temperature Control (ATC) is a feature that utilizes a thermistor to regulate the water fill temperature.

The thermistor has a negative temperature coefficient (as temperature increases, resistance decreases).

Thermistor Resistance Table		
Temp (°C)	**Temp (°F)**	**Resistance (Ω)**
10	50	96,369
15	59	78,033
20	68	61,918
28	82.4	43,754
32	90	37,286
38	100	28,987
44	111	22,954
50	122	18,223
54	130	15,672
66	150	10,196
76	169	7,265

The thermistor is located in the outlet of the fill funnel and will measure 50K Ω at room temperature (77°F / 25°C).

If the thermistor reads outside the expected range (10k to 120k Ω), the main control will default to the following pre-programmed fill temperature settings between 60°F and 135°F:

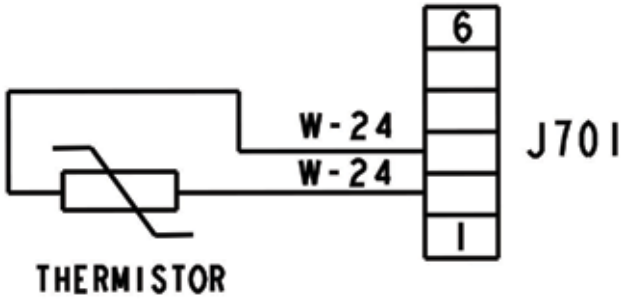
- **Tap Cold**: Cold water valve only
- **Cold**: Cold water valve only
- **Cool**: Hot and cold water valves
- **Warm**: Hot and cold water valves
- **Hot**: Hot water valve only

When both valves are energized, the internal orifices in the valves meter the flow to a 60% cold and 40% hot ratio.

With the lid open, ATC is deactivated.

Extreme water temperatures at low pressure can cause the ATC to use its maximum number of activations and revert to a preset fill routine. The main control will not allow the water valve to cycle more than 25 times per fill.

Resistance can be measured at the J701 main board connecter. Make sure to unplug the connector to isolate the thermistor before taking resistance readings. To determine the temperature of the incoming water, the main control measures the difference between the voltage sent and the voltage returned from the thermistor. The main board then makes temperature adjustments accordingly.



The main control should fill the tub with water within +/- 10°F to 15°F of set temperature by opening or closing the hot and cold water valves.

ATC Temperature Chart	
Temperature Setting	Water Temperature
Tap Cold	Cold Tap Water
Cold	60°F (+/- 10°F)
Cool	70°F (+/- 10°F)
Warm	80°F (+/- 10°F)
Hot	110°F (+/- 15°F)

(Continued Next Page)

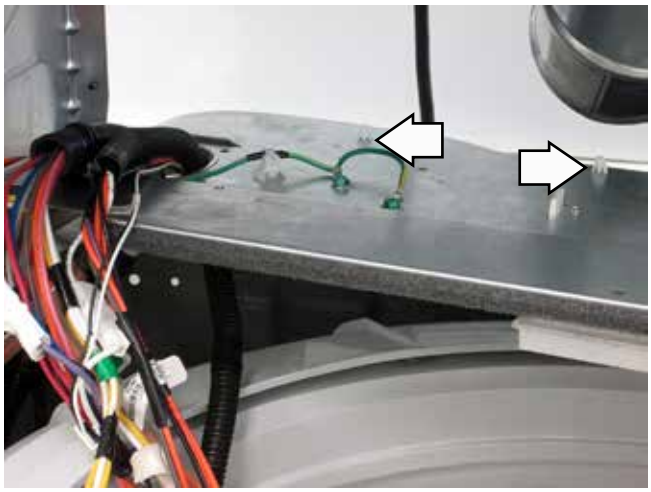
ATC Thermistor Removal

NOTE: The ATC thermistor harness comes with the water valve harness and are replaced together.

1. Remove electrical power from the machine.
2. Remove the service panel.
3. Disconnect the water valve connecter J514 and thermistor connecter J701 from the main board.
4. Remove main board enclosure by removing three 1/4-inch hex-head screws securing the enclosure to the washer.
5. Pull the enclosure and lay it forward. This will give access to the wire ties securing the thermistor harness to the water valve mounting bracket.

NOTE: The water inlet/fill funnel is attached to the water valve mounting bracket with two 1/4-inch hex-head screws.

6. With the Board housing pulled forward, squeeze and push the two wire ties securing the thermistor harness to the valve mounting bracket.



7. From inside the tub, remove the two 1/4-in. hex-head screws that attach the funnel to the washer.

8. Pull and unsnap the thermistor from the top of the fill funnel.

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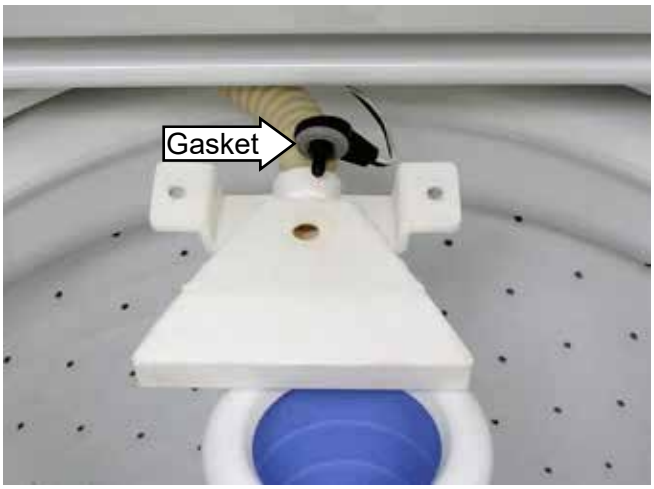
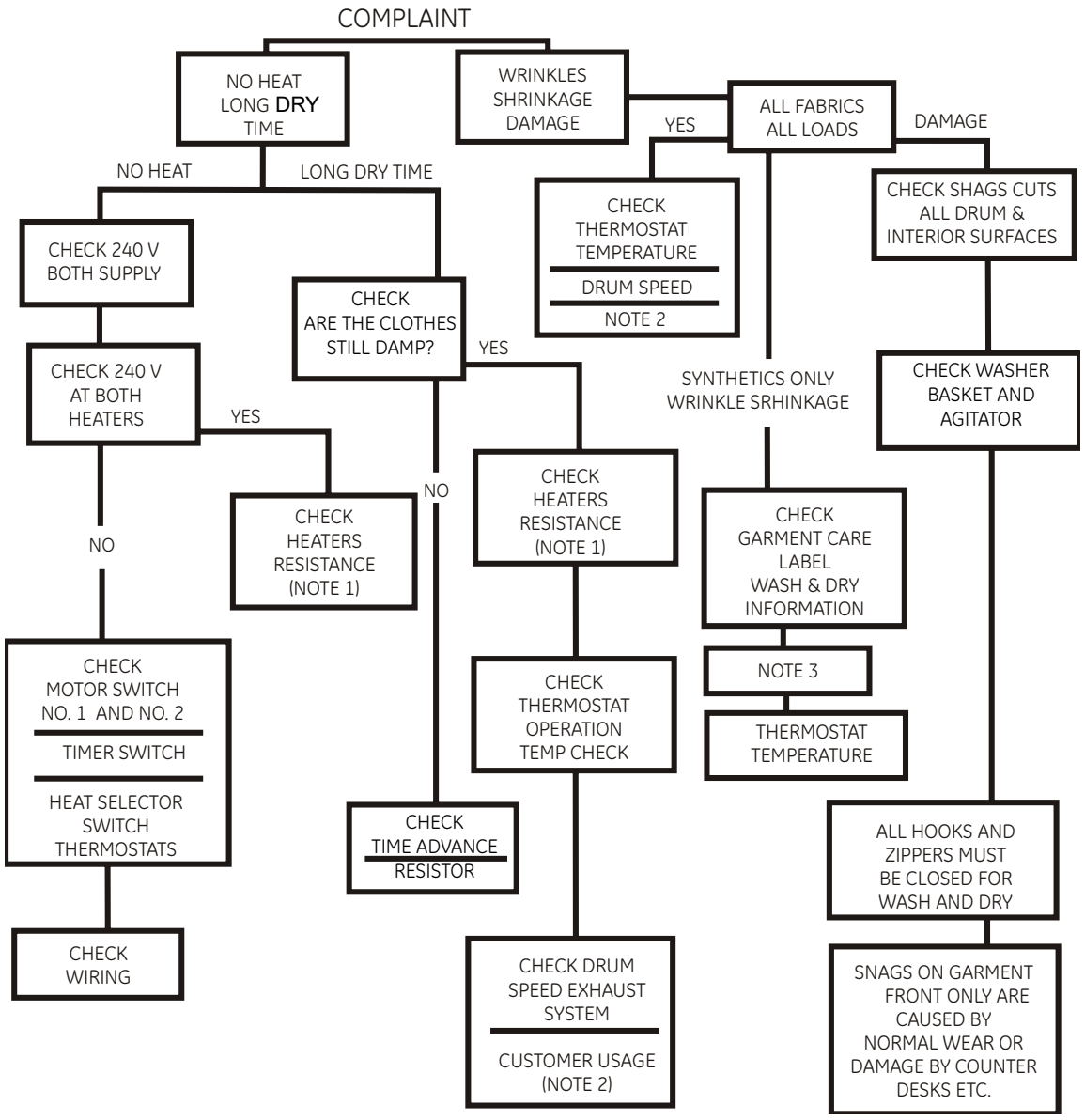
9. Pull the wires and connector down through the harness entry.

NOTE: Make certain the rubber gasket is in place on the thermistor when reassembling.



Troubleshooting

General Troubleshooting Guide - Electric Dryer



NOTE:

1. Check for infinite resistance between any heater terminal and dry cabinet. Heater failure could result from low air flow caused by improper sealing, kinked or excessive ducting or excessive line voltage.

2. Other factors contributing to long dry times, or clothes condition: load size, large bulky items, ambient temperature, room size (if not exhausted outdoor), washer spin speed, washer rinse temperature.

3. Small loads (less than 3 lbs.) if not treated with destaticizer, could develop a static charge if over dried and cling to drum surface (no tumble), causing wrinkles, shrinkage, or melting. Use a fabric softener (washer or dryer), or add 2 large bath towels to act as a buffer when drying.

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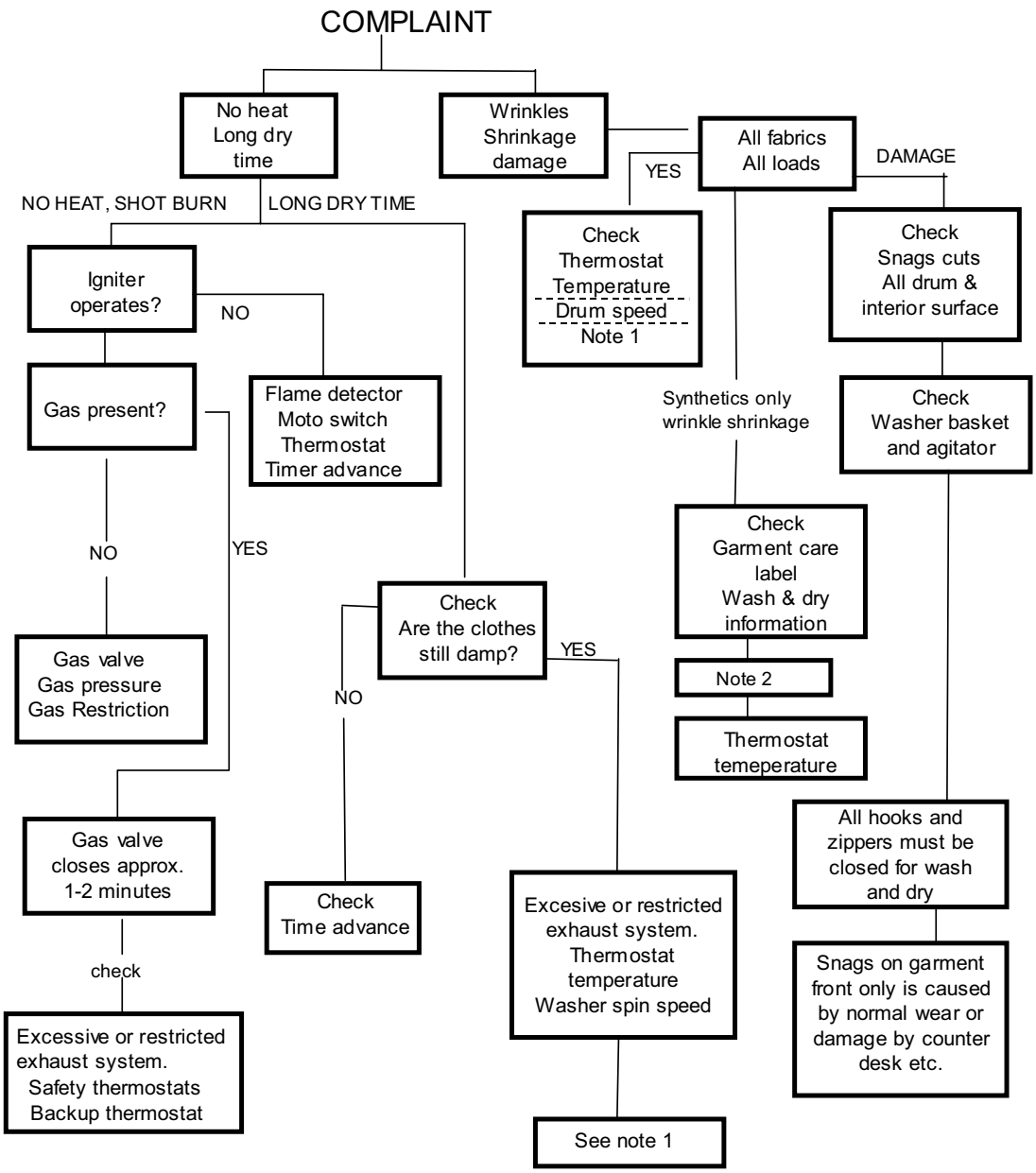
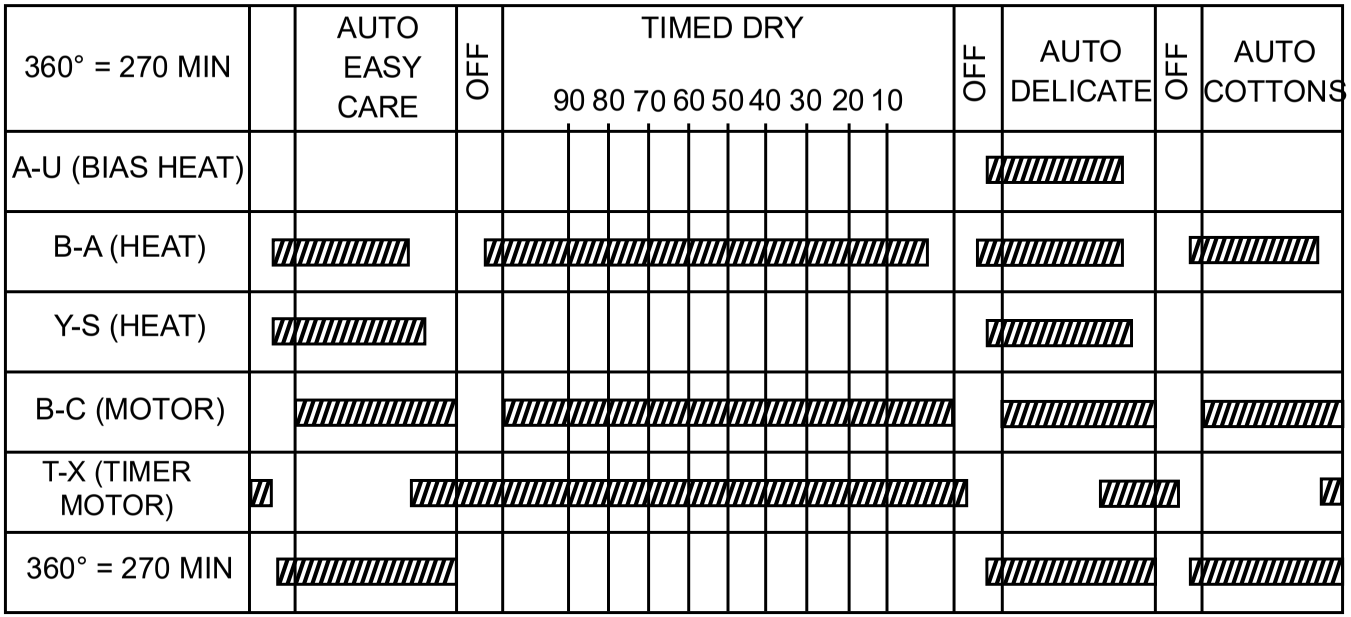
General Troubleshooting Guide - Gas Dryer



NOTE:

1. Other factors contributing to long dry times, or clothes condition: load size, large bulky items, ambient temperature, room size (if not exhausted outdoor), washer spin speed, washer rinse temperature, gas supply (restrictions), and gas pressure.

2. Small loads (less than 3 lbs.) if not treated with destaticizer, could develop a static charge if over dried and cling to drum surface (no tumble), causing wrinkles, shrinkage, or melting. Use a fabric softener (washer or dryer), or add 2 large bath towels to act as a buffer when drying.



TERMINAL LEGEND

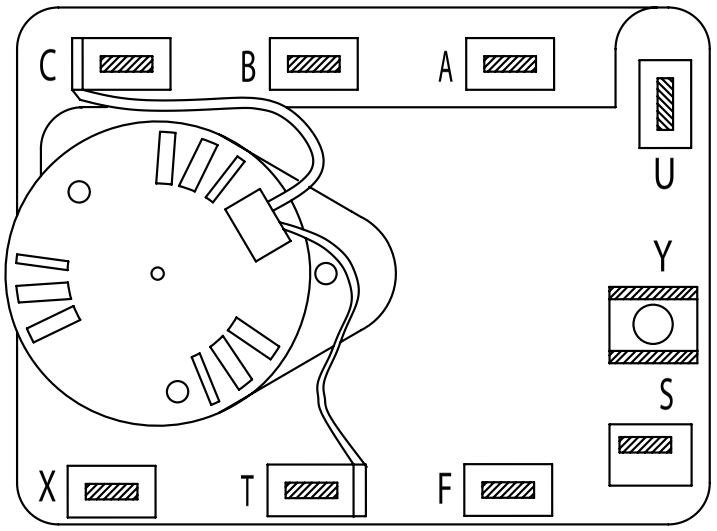
- CLOSED
- OPEN
- NOT AFFECTED
- M — MOMENTARY

NOMENCLATURE

T- = TIMER CONTROL

M- = DRIVE MOTOR

CONTROL TIMER



WARNING:

The timer and start switch are intentionally not grounded and may present a risk of electric shock during servicing.

Disconnect electric power supply prior to servicing.

Washer Field Service Mode

Enter Field Service Mode:

- Control must be in idle/standby state (all LED's off).
- Press and hold the start button, turn the cycle knob 180 degrees and then release the start button.
- Once in the service mode, all LED's will blink.
- Rotate the knob clockwise to various positions per service function table to perform functional tests.
- To exit/end test, rotate cycle knob 1 click in either direction.

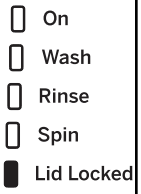
Exit Field Service Mode:

- Field service mode will time out after 30 minutes if there is no user activity.
- Press and hold the start button for 3 seconds or unplug the machine.

Once the washer is in service mode, the following tests can be accessed via the cycle knob (on some models):

***Knob Index/Test number (Displayed in binary format utilizing the cycle status LEDs)**

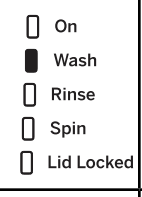
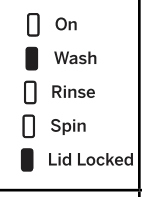
****Turning the cycle knob will index to the next or prior test. If tests call for numbers to be shown it will: (Displayed in binary format).**

Knob Index/ Test number	Test Name	Description of test
0 	All LEDs blink	All LEDs on the display will blink at a rate of 1Hz.
1 	Fault Codes	Laundry Center fault codes will display in binary (see **Fault Code Binary Display**, in this section of service guide) • On Start button press, display the first fault code in binary. • On next Start button press, blink next fault code. • At the end of the list OR if no faults are present, LED's will flash a lite pattern. • Pressing Start at the end of the fault list will wrap back around.
2 	Personality ID	Pressing Star shall start test. Flash the set personality after pressing Start using binary code where the LID Locked LED is the least significant digit. 0: GUD24 models and 1: GUD27 models and XUD27 models

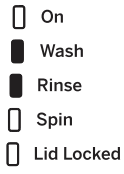
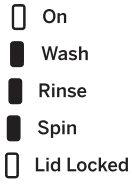
(Continued Next Page)

Knob Index/ Test number	Test Name	Description of test
3 	MC Software Version (Critical)	After entering this test, press the Start button to toggle through the software version number as follows: (Example: v01.23) **Major Version** (Lid Locked LED ON). • **1st Press**: Display 0 in binary (all LEDs off). • **2nd Press**: Display 1 in binary. **Minor Version** (Lid Locked LED OFF). • **3rd Press**: Display 2 in binary. • **4th Press**: Display 3 in binary.
4 	MC Software Version (Non-critical)	After entering this test, press the Start button to toggle through the software version number as follows: (Example: v01.23) **Major Version** (Lid Locked LED ON). • **1st Press**: Display 0 in binary (all LEDs off). • **2nd Press**: Display 1 in binary. **Minor Version** (Lid Locked LED OFF). • **3rd Press**: Display 2 in binary. • **4th Press**: Display 3 in binary.
5 	XML Version (Non-critical)	After entering this test, press the Start button to toggle through the software version number as follows: (Example: v01.23) **Major Version** (Lid Locked LED ON). • **1st Press**: Display 0 in binary (all LEDs off). • **2nd Press**: Display 1 in binary. **Minor Version** (Lid Locked LED OFF). • **3rd Press**: Display 2 in binary. • **4th Press**: Display 3 in binary. **NOTE**: We only show the non-critical version number because the critical XML version number must match application non-critical version number for the control to boot. If you get to service mode, then critical XML version is correct.

(Continued Next Page)

Knob Index/ Test number	Test Name	Description of test
6 	UI Version (Critical)	After entering this test, press the Start button to toggle through the software version number as follows: (Example: v01.23) **Major Version** (Lid Locked LED ON). • **1st Press**: Display 0 in binary (all LEDs off). • **2nd Press**: Display 1 in binary. **Minor Version** (Lid Locked LED OFF). • **3rd Press**: Display 2 in binary. • **4th Press**: Display 3 in binary.
7 	UI Version (Non-critical)	After entering this test, press the Start button to toggle through the software version number as follows: (Example: v01.23) **Major Version** (Lid Locked LED ON). • **1st Press**: Display 0 in binary (all LEDs off). • **2nd Press**: Display 1 in binary. Minor Version (Lid Locked LED OFF). • **3rd Press**: Display 2 in binary. • **4th Press**: Display 3 in binary.
8 	Hot Water Valve	Pressing Start will toggle the hot valve on and off. Test will have a timeout for how long valve will be on (1 minutes). The valve will turn off when the test is exited.
9 	Cold Water Valve	Pressing Start will toggle the cold valve on and off. Test will have a timeout for how long valve will be on (1 minutes). The valve will turn off when the test is exited.
10 	Pressure Sensor	Pressing Start will start the test. Pressure sensor test will have a timeout. All valves will turn on. All LEDs will blink at start of test. Stop blinking LEDs as water levels are crossed. The levels are: 2", 3", 4", 5", 6".
11 	Drain Pump	Pressing Start will toggle the drain pump on and off. Test will have a timeout for how long drain pump will be on (4 minutes). The drain pump will turn off when the test is exited.

(Continued Next Page)

Knob Index/ Test number	Test Name	Description of test
12 	Lid Switch	Pressing Start will start the test. When the lid is open, the Lid Locked LED will blink. When the lid is closed, the Spin LED will blink.
13 	Spin	Pressing Start will start the test. Spin test will perform child safety algorithm before it starts to spin. (Two (2) sprays of water before locking the lid.) The lid must be closed to start the test. If lid is open the Lid Locked LED will blink. When started, the mode shift to spin will occur if required and the lid will be locked. When mode shift is complete, the unit will begin spinning. Spin test will have a timeout (4 minutes). No OOB detection during the spin. The spin shall stop when the test is exited. The lid shall unlock once the speed reaches 0 after the test is exited.
14 	Agitate	Pressing Start will start the test. Agitate test will perform child safety algorithm before it starts to agitate. The lid must be closed to start the test. If lid is open, the Lid Locked LED will blink. When started, the mode shifts to agitate will occur if required. When mode shift is complete; the washer will begin agitating. The test will pause if the lid is opened after starting. The test will resume on lid close if it was running when opened. The test will stop when the test is exited.
15 	Clear all Fault Codes	Pressing Start will clear all faults.
16 	Analog Knob	Pressing Start will start the test. Each knob is represented by a specific status LED. When knob position changes, LED for the specific knob indicates knob position. The far left selection will turn the corresponding LED on solid. With each click to the right, the LED for the specific knob blinks faster. Clicking back to the left will reduce the blink frequency until it gets to the far left selection, then the LED will stay on solid. The left option knob will control the deep rinse LED ("On" LED). The right option knob will control the wash rinse LED ("Wash" LED).

Fault Code

Fault Code	Fault Name	Description	Repair Action
1	Lock Monitor	Lid lock didn't occur or lid lock signal not seen by control due to lack of connection.	• Check the resistance of the lid lock assembly. • Check the harness for open wires and/or connectors from the board to the lock assembly. • If lock assembly and harness prove good at the time of service, replace the lid lock assembly.
2	Lid Monitor	Control did not get lid closed signal from switch while motor was moving. Could mean the switch didn't close or control didn't get the signal because of lack of connection.	• Replace lid lock if this happens frequently.
3	Locked Rotor Monitor	For 5 straight seconds control not seeing signal changes indicating the motor is turning while trying to spin. Could mean the motor isn't rotating or Control didn't get the signal because of lack of connection.	• Physically check the washer for anything preventing motor movement. • Check harness and harness connectors from the control to the motor. • Verify hall sensor is connected to the main harness. Put washer in Service Mode and run TEST 13. Spin Test. If hall sensor is bad or disconnected, the basket will start to spin normally and then stop spinning after approximately 5 seconds. Ensure hall sensor is properly connected and positioned on the motor. If basket spins for approximately 15 seconds, the hall sensor is most likely NOT the cause. • TCO should reset in approximately 45 minute. If TCO is tripped, make sure motor moves freely and that nothing is jamming it. Replace motor if it does not.

Fault Code	Fault Name	Description	Repair Action
5	Mode Shifter	Control didn't see the transition from Agitate to Spin or vice versa in the time required. Could mean the shift didn't occur or Control didn't get the signal because of lack of connection.	• Check mode shifter coupler for damage and the ability to slide in and out freely. • Using an ohm meter, check to ensure mode shifter switch is in the open position. • Check resistance of mode shifter motor (approximately 5.7K ohms). • Check for 120 VAC to the mode shifter motor at the control J512 connector. • If voltage is present, replace the mode shifter.
6	Critical Flood Level by Pressure. Pressure level exceeds 17.5" above pressure port.	Control received an extended period of pressure readings that is nearing overflow levels. Pressure 14.89". Voltage Output must be present. Could mean water did get that high due to briefly stuck water valve. Voltage output of sensor too high for actual water level because of sensor or water in pressure tube increasing pressure.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check water valve operation and for any leaking water valves. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.

Fault Code	Fault Name	Description	Repair Action
8	Pressure Sensor Loss	This determines if there has been a too great of a difference in the pressure sensor reading and the expected pressure sensor reading for the amount of water the control calculated it has put in. It assumes there is a pressure leak, a clog in the pressure hose/system delaying the increase in pressure, or a significant amount water leaking out.	• Check to make sure house water supply valves are turned on. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Check pressure tube for trapped water. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
9	Lid Switch Redundancy	Start attempted for a 4th cycle when the previous 3 cycles have completed with backup micro seeing lid open. Could mean the switches didn't occur or backup processor the signal because of lack of connection. See Fault #2 as well.	• Open and close the lid to clear the fault. • Check harness and connectors that go to the lid switch. • If the fault will not clear, replace the lid switch.
10	Mode Shift Feedback Monitor	Signal feedback state from the mode shifter (agitate or spin) and the state requested by the control are not the same and the basket or agitator is rotating faster than 45 RPM. Agitate mode feedback signal is no voltage.	• Check mode shifter coupler for damage and the ability to slide in and out freely. • Use ohm meter to ensure harness shows continuity to the mode shifter from the control. • Check resistance of mode shifter motor (approximately 5.7K ohms). • Check for 120 VAC to the mode shifter motor at the control J512 connector. • If voltage is present and no operation, replace the mode shifter.

Fault Code	Fault Name	Description	Repair Action
12	Redundant Flood Condition	Backup processor received an extended period of pressure readings that is nearing over-flow levels. Could mean water did get that high due to briefly stuck water valve. Voltage output of sensor too high for actual water level because of sensor or water in pressure tube increasing pressure.	• Check pressure tube for trapped water. • Check each valves operation. (Replace water valve and send back to GE Appliances.) • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Check pressure tube for pinches where it goes through top cover grommet • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
13	Redundant Lid Unlocked	In spin mode, the lid switch feedback has voltage (lid closed), for more than 5 seconds the motor speed feedback assumes the basket is spinning > 65 RPM when the lid lock feedback has no voltage (Lid Unlocked). Lid Switch Feedback has no Voltage when the BRPM is > 65 RPM.	• Check lid switch continuity at J513 on the control. • Check continuity of lid lock position. Opened or Closed. • Check for proper operation of lid lock. 120 VAC while activating • Check lid lock wiring harness from the control to lock assembly.
15	Water Temp Sensor Invalid	1. Thermistor disconnected/not present. 2. Failed thermistor.	• Check thermistor resistance from connector J701 on the control board. Validate the resistance matches the table in mini-manual. • Check wiring harness and connections. • Replace thermistor.
17	Dry Load Sense Timeout	Dry load sense times out and moves to the next part of the cycle selected. This occurs when washer is not reaching target speed within a defined time limit for load type selected.	1. Check for water in the bottom of the tub. If so, drain and try cycle again. 2. Check the basket for excessive friction. Basket should spin freely. If not, find source of friction and remove it.

Fault Code	Fault Name	Description	Repair Action
18	Drain Pump Clearing algorithm failed	While draining the pressure sensor value for water level did not indicate the washer was empty before the Max Continuous Drain ON time was reached.	• This fault is set and will be seen with fault 16 when drain pump clearing algorithm failed to remove the blockage and the rest of the water in the tub. Also this fault may occur due to possible issue with the pressure sensor system. If drain pump system is working correctly, refer to the last four steps of fault 8. • Check the drain pump for blockage. • Check Owner's Manual and Installation Instructions for proper standpipe height. • Check resistance of the pump (13.5 ohms) from J512 connector on the control. • If open circuit, check wiring harness to the pump and pump motor. • Check for 120 VAC to the drain pump. • If voltage is present and pump does not operate, replace pump. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Check pressure tube for trapped water. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.

Fault Code	Fault Name	Description	Repair Action
19	UI State Timeout	This will happen if a cycle is paused or canceled and water is left in the tub for more than 24 hours.	• This is normal operation. This will happen if the consumer and/or control switched cycle to a paused state. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Check pressure tube for trapped water. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
20	Critical Flood Level by Gallons	A. 24" Model - Critical Flood Volume = 19.89 (+/-0.5) gallons. B. 27" Model - Critical Flood Volume = 29.54 (+/-0.5) gallons.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check for any leaking water valves. • Check home water pressure. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart.
22	Out of Balance (OOB) during Dry Load Sense	Large wet/OOB load being washed. This is set if OOB condition is detected during dry load sense algorithm. Dry load sense will be abandoned and wet load sense will be started.	• Check for excessively OOB load. Customer Education on how to distribute load. • Check the basket for excessive friction or for being excessively out of round. Basket should spin freely and without wobble. If friction is found, remove it. If basket is bad, replace it. • Check speed sensor for loose connection to the motor.

Fault Code	Fault Name	Description	Repair Action
23	Critical Lid Lock Failure	1. Lock blockage 2. Lid Lock failure. Will not lock or unlock or is locked while lid is opened.	• Verify that the lid lock is not blocked by any external debris. • Check lid switch continuity at J513 on the control. • Check continuity of lid lock position. Opened or Closed. • Check for proper operation of lid lock. 120 VAC while activating • Check lid lock wiring harness from the control to lock assembly.
24	Lid Logic Failure	Lid switch failure. This fault is set if the system perceives the lid to be both OPEN and LOCKED for 5 consecutive seconds.	1. Check harness and connections from the control to the lid lock assembly for damage and continuity. 2. Run a spin cycle. Pull up on the lid during spin for more than 5 seconds and see if this fault occurs. Replace lid lock assembly.
25	Pressure Sensor Dropout	1. Disconnected pressure hose. 2. Pressure tube is pinched or has water in it. 3. Pressure sensor failure.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check water valve operation and for any leaking water valves. • Check home water pressure. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
26	Out of Balance (OOB) Ended Final Spin	Washer could not redistribute load to eliminate OOB condition to achieve final targeted spin speed.	• Manually rebalance the load, check basket for damage, and run a Drain & Spin cycle. • If washer spins properly, talk with consumer about loading. • If the washer will not spin properly, check the balance ring, the rod and spring assemblies, the speed sensor, and the speed sensor harness for proper operation. • Check if the unit is stable and leveled.

Fault Code	Fault Name	Description	Repair Action
27	Water Accessibility	This will happen if water is left in the tub with the lid open for more than 15 minutes.	• Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • This is normal operation. This will happen if the consumer and/or control switched cycle to a paused state.
28	Options Knobs Feedback Invalid	This fault is set if a cycle is running and an invalid knob position is detected.	• Make sure knobs are in a valid position. • Ensure knob harness is fully seated and not routed under knob assembly.
29	Suds Lock Abatement Failure	Cycle has terminated due to too many suds.	• Ensure basket is able to rotate freely. • Ensure consumer is using the proper amount of HE detergent. • Ensure speed sensor is plugged in and correctly seated to the motor.
30	Stuck Button Fault	Buttons not operating when pressed.	• Check buttons and adjust. • Check button tree. • Check the clearance between the button and the backsplash hole.
31	Out of Balance (OOB) Fallback In Final Spin	This fault is set if machine is unable to reach terminal speed during final spin due to OOB.	• Manually rebalance the load, check basket for damage, and run a Drain & Spin cycle. • If washer spins properly, talk with consumer about loading. • If the washer will not spin properly, check the balance ring, the rod and spring assemblies, the speed sensor, and the speed sensor harness for proper operation. • Check if the unit is stable and leveled.
32	Critical Lid Lock Failure: Can't Unlock Lid	This fault is set when the software has tried multiple times to unlock the lid without success.	• Check to ensure lid lock harness is correctly seated on the lid lock and control board.

Fault Code Binary Display

Fault # displayed on 5 segment display	Fault # displayed in binary format using cycle status lights				
	●=ON | ○=OFF | ⊗=Blinking				
	Fabric Softener	Wash	Rinse	Spin	Lid Lock
1	○	○	○	○	⊗
2	○	○	○	⊗	○
3	○	○	○	⊗	⊗
5	○	○	⊗	○	⊗
6	○	○	⊗	⊗	○
8	○	⊗	○	○	○
9	○	⊗	○	○	⊗

Fault # displayed on 5 segment display	Fault # displayed in binary format using cycle status lights				
	●=ON | ○=OFF | ⊗=Blinking				
	Fabric Softener	Wash	Rinse	Spin	Lid Lock
10	○	⊗	○	⊗	○
12	○	⊗	⊗	○	○
13	○	⊗	⊗	○	⊗
15	○	⊗	⊗	⊗	⊗
17	⊗	○	○	○	⊗
18	⊗	○	○	⊗	○
19	⊗	○	○	⊗	⊗

Fault # displayed on 5 segment display	Fault # displayed in binary format using cycle status lights				
	●=ON | ○=OFF | ⊗=Blinking				
	Fabric Softener	Wash	Rinse	Spin	Lid Lock
20	⊗	○	⊗	○	○
22	⊗	○	⊗	⊗	○
23	⊗	○	⊗	⊗	⊗
24	⊗	⊗	○	○	○
25	⊗	⊗	○	○	⊗
26	⊗	⊗	○	⊗	○
27	⊗	⊗	○	⊗	⊗

Fault # displayed on 5 segment display	Fault # displayed in binary format using cycle status lights				
	●=ON | ○=OFF | ⊗=Blinking				
	Fabric Softener	Wash	Rinse	Spin	Lid Lock
28	⊗	⊗	⊗	○	○
29	⊗	⊗	⊗	○	⊗
30	⊗	⊗	⊗	⊗	○
31	⊗	⊗	⊗	⊗	⊗
32	●	●	●	●	⊗

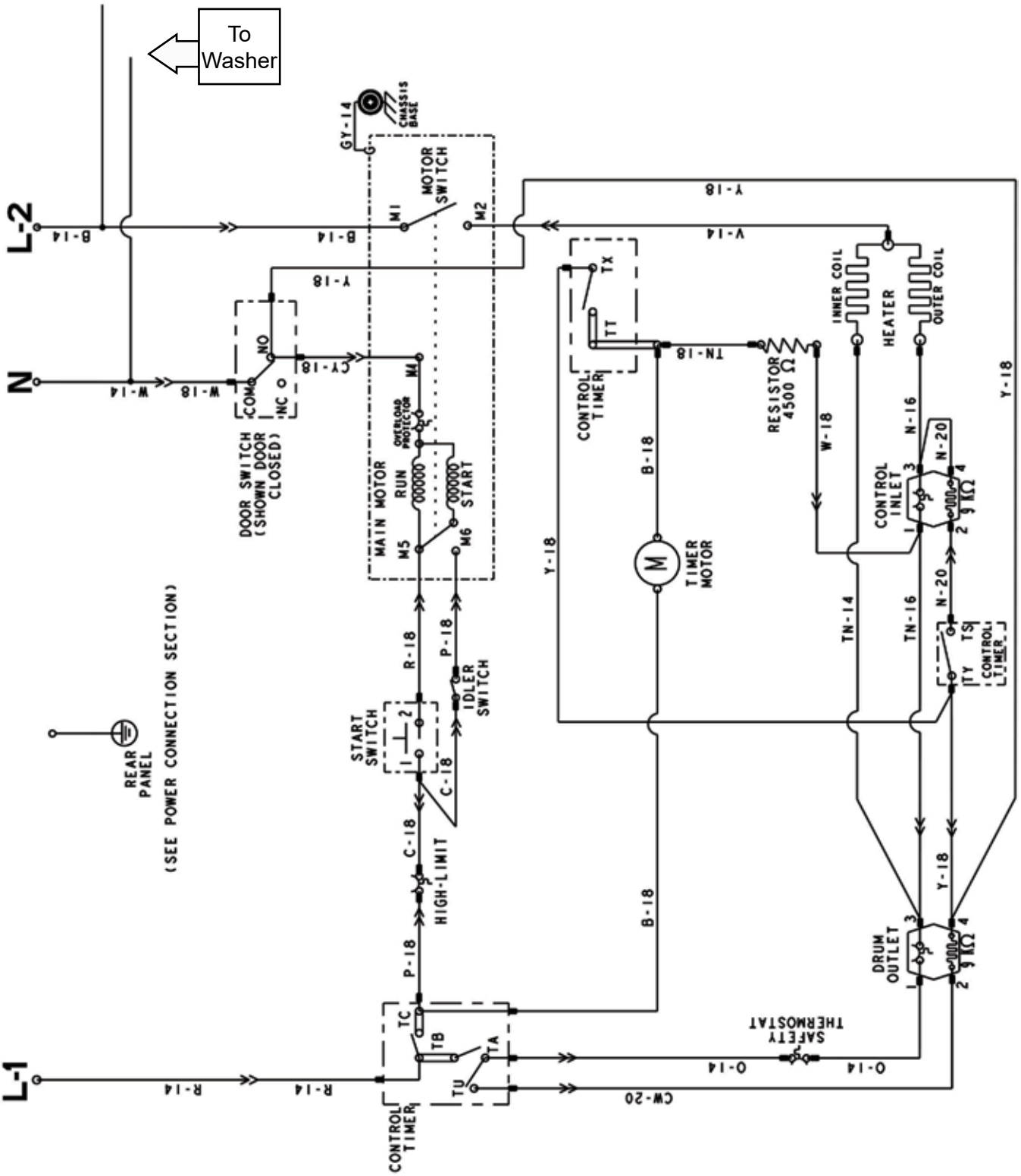
KEY	ON	OFF	BLINK
	●	○	⊗

NOTE:

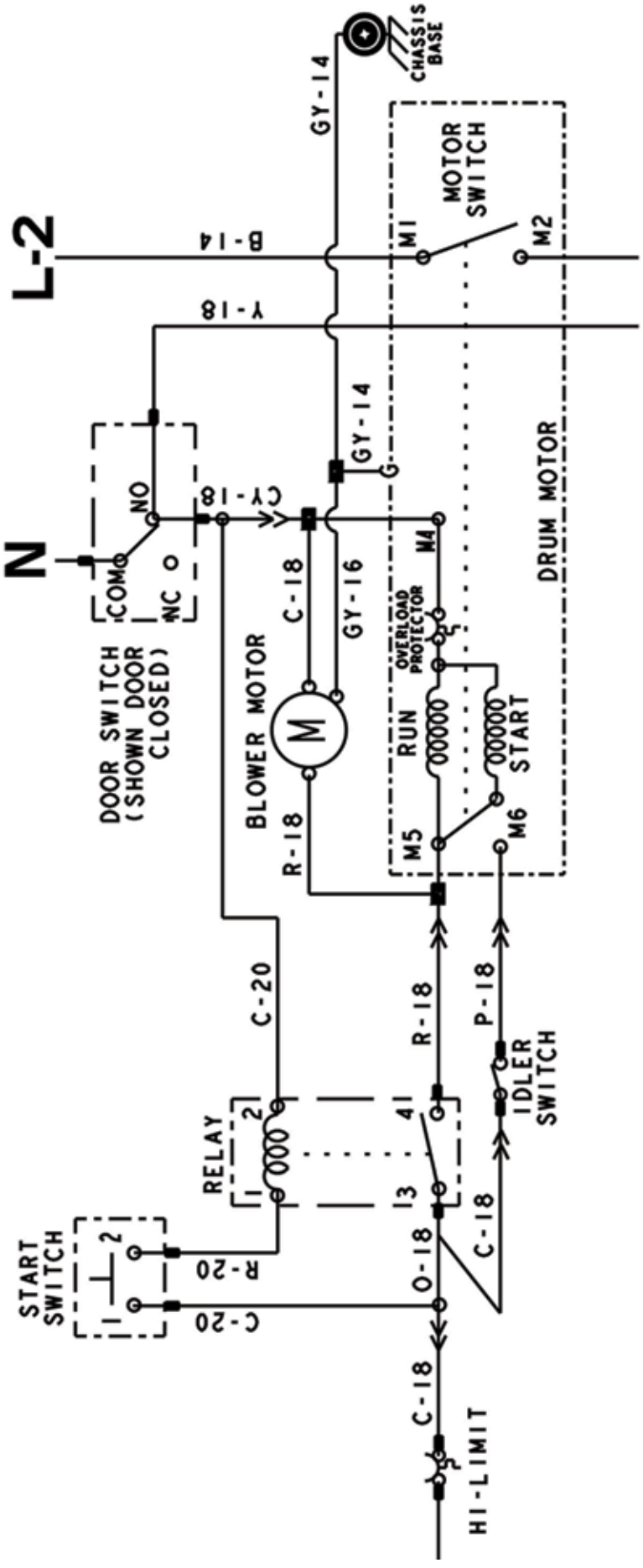
There is nothing special about Fault 32. Because of the limited number of LED's, these LED's will be on solid to differentiate it as another fault code.

Wiring Diagrams

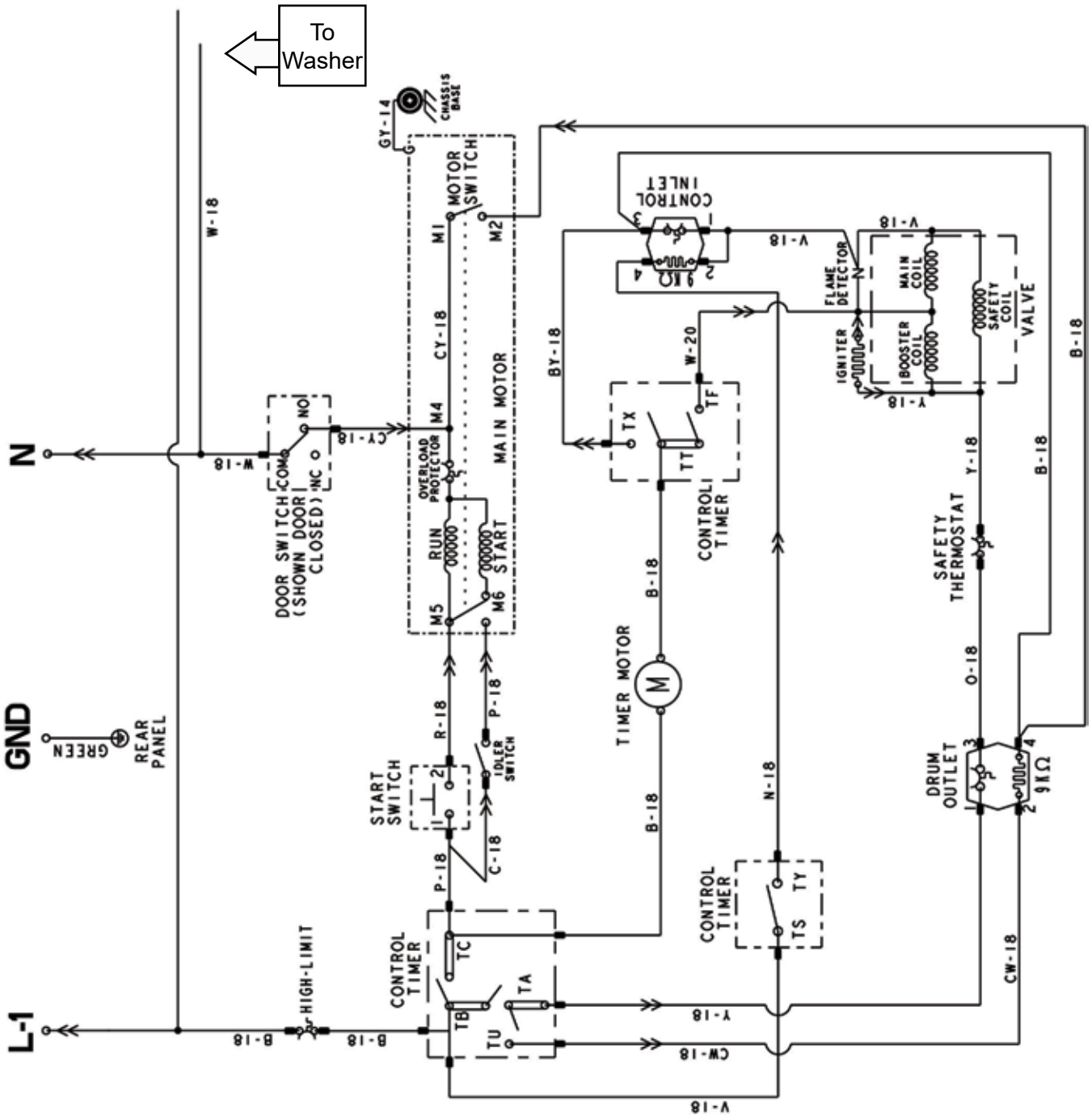
Electric Dryer



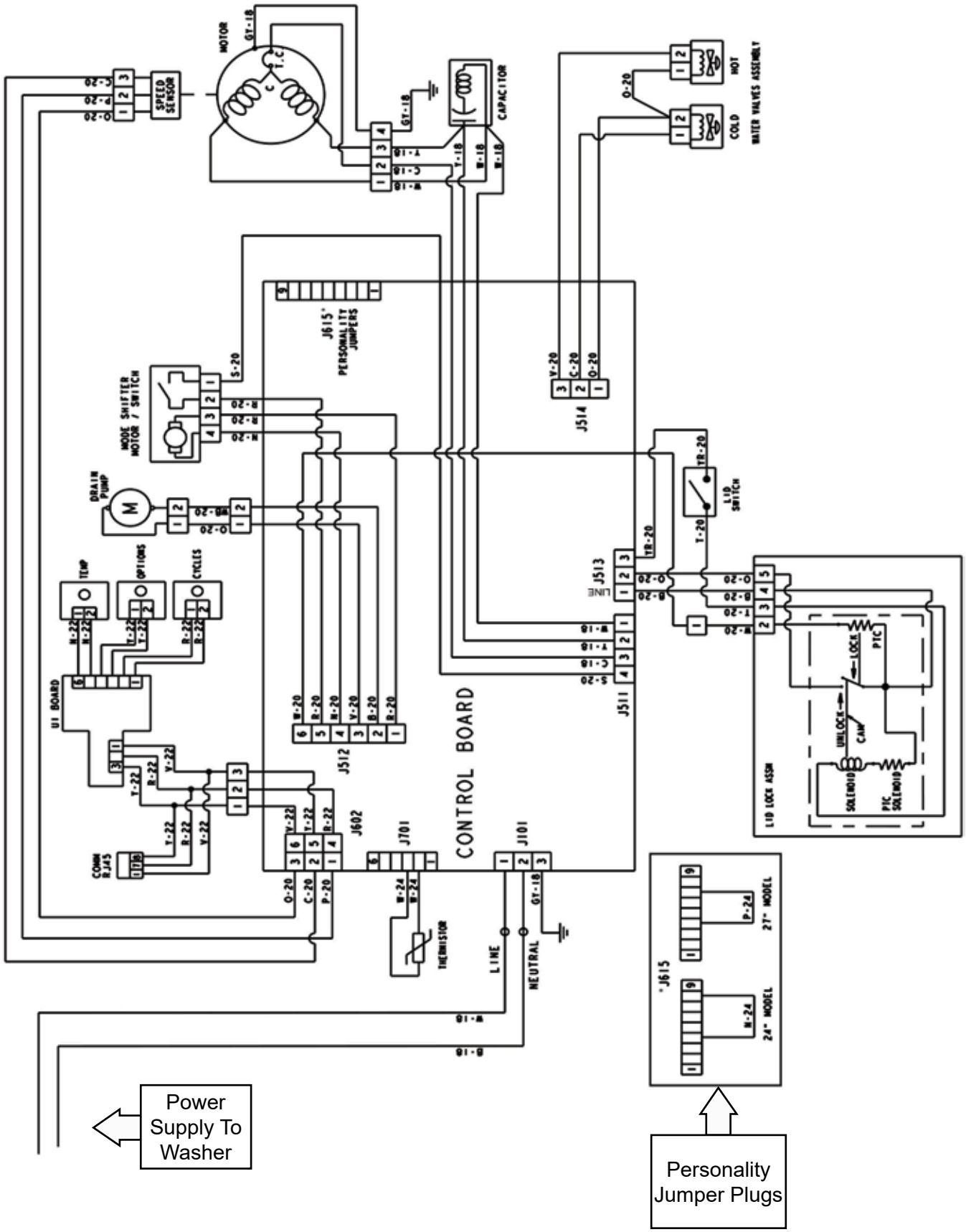
Electric Dryer Long Vent Blower Motor Circuit



Gas Dryer


To Washer
N
GND
L-1
GREEN
REAR PANEL
W-18
GY-14
CHASSIS BASE
MOTOR SWITCH
M1
M2
M4
M5
M6
CY-18
MAIN MOTOR
OVERLOAD PROTECTOR
RUN
START
DOOR SWITCH (SHOWN DOOR CLOSED)
COM
NO
NC
CY-18
W-18
B-18
HIGH-LIMIT
CONTROL TIMER
TC
TA
TB
TU
P-18
C-18
START SWITCH
R-18
IDLER SWITCH
TIMER MOTOR
M
B-18
CONTROL TIMER
TX
TT
TF
W-20
BY-18
CONTROL TIMER
TS
TY
N-18
CW-18
Y-18
V-18
CONTROL INLET
FLAME DETECTOR
IGNITER
BOOSTER COIL
MAIN COIL
SAFETY COIL
VALVE
Y-18
B-18
SAFETY THERMOSTAT
O-18
DRUM OUTLET
9 KΩ

Washer


MOTOR
SPEED SENSOR
CAPACITOR
HOT
COLD
WATER VALVES ASSEMBLY
J615* PERSONALITY JUMPERS
MODE SHIFTER MOTOR / SWITCH
DRAIN PUMP
J514
LID SWITCH
J513
LINE
J511
J512
UI BOARD
TEMP
OPTIONS
CYCLES
COMM RJ45
J602
J701
J101
CONTROL BOARD
THERMISTOR
LINE
NEUTRAL
LID LOCK ASSM
LOCK
PTC
UNLOCK
CAM
SOLENOID
PTC SOLENOID
*J615
27" MODEL
24" MODEL
Power Supply To Washer
Personality Jumper Plugs

Index