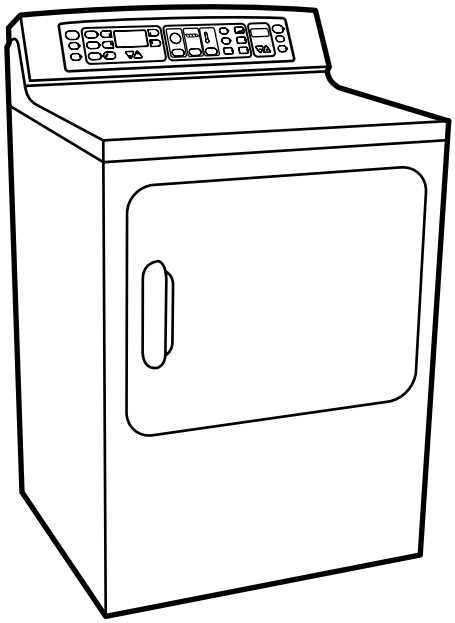
GE Consumer Home Services Training

TECHNICAL SERVICE GUIDE

Profile Stainless Steel
Gas and Electric Dryers



MODEL SERIES:

DPSB650
DPSB620

PUB # 31-9096 10/02

IMPORTANT SAFETY NOTICE

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

WARNING

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

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

WARNING

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

RECONNECT ALL GROUNDING DEVICES

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

GE Consumer Home Services Training
Technical Service Guide
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Table of Contents

Nomenclature

D P S B 6 5 0 E C 0 W W

GE Dryer

Feature Pack
Common Brand Features
Exceptions:
H = Energy Star
P = Profile™
K, N = Special
S = Spacemaker®

Capacity/Configuration
L = Large S = Super
X = Extra-Large K = Compact

Control Platform
B = Buttons (Touch Pad)
Q = QuickClean S = Stationary
R = Rotary F = Fabric Care
P = Portable H = Horizontal Axis Drying Machine

Heat Selections

Number of Cycles

Dryer Control

Fuel/Voltage
E = Electric
G = Gas

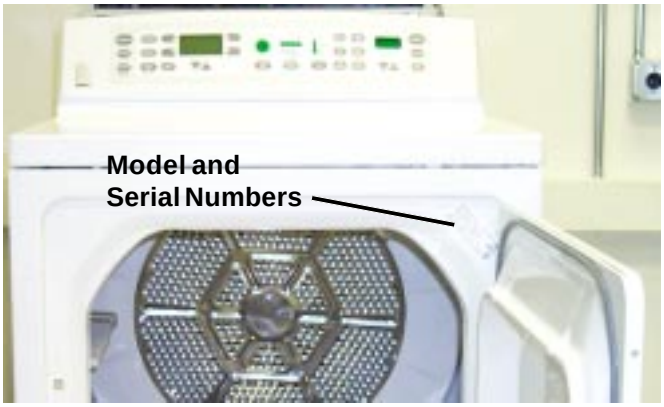
Engineering Revision

Model Year Designator

Body Color

Backsplash Color

Serial Number



Note: Model number and serial number are located on the front panel inside the door.

- The technical sheet is located behind the control panel.

The first two characters of the serial number identify the month and year of manufacture.
Example: AD123456S = January 2002

A - JAN	2005 - H
D - FEB	2004 - G
F - MAR	2003 - F
G - APR	2002 - D
H - MAY	2001 - A
L - JUN	2000 - Z
M - JUL	1999 - V
R - AUG	1998 - T
S - SEP	1997 - S
T - OCT	1996 - R
V - NOV	1995 - M
Z - DEC	1994 - L

The letter designating the year repeats every 12 years.

Example:
T - 1974
T - 1986
T - 1998

Warranty

GE Dryer Warranty. *(For customers in the United States)*

All warranty service provided by our Factory Service Centers, or an authorized Customer Care® technician. To schedule service, on-line, 24 hours a day, visit us at www.GEAppliances.com, or call 800.GE.CARES (800.432.2737).

For The Period Of:	*We Will Replace:*
One Year *From the date of the original purchase*	***Any part*** of the dryer which fails due to a defect in materials or workmanship. During this ***full one-year warranty,*** GE will also provide, ***free of charge,*** all labor and related service costs to replace the defective part.
Second Year *From the date of the original purchase*	***Any part*** of the dryer which fails due to a defect in materials or workmanship. During this ***additional one-year limited warranty,*** you will be responsible for any labor or related service costs.
Third through Fifth Year *From the date of the original purchase*	***The extra large or super capacity dryer drum and main electronic control board*** if any of these parts should fail due to a defect in materials or workmanship. During this ***additional three-year limited warranty,*** you will be responsible for any labor or related service costs.

What Is Not Covered:

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

This warranty is extended to the original purchaser and any succeeding owner for products purchased for home use within the USA. In Alaska, the warranty excludes the cost of shipping or service calls to your home.

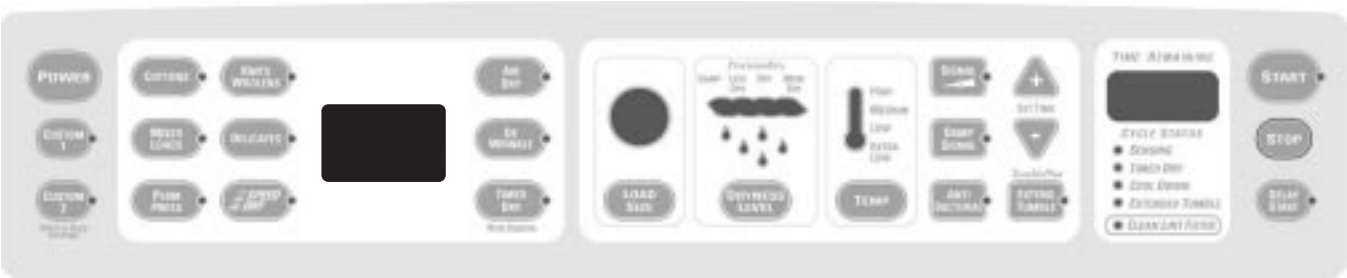
Some states do not allow the exclusion or limitation of incidental or consequential damages. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. To know what your legal rights are, consult your local or state consumer affairs office or your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

Warrantor: General Electric Company. Louisville, KY 40225

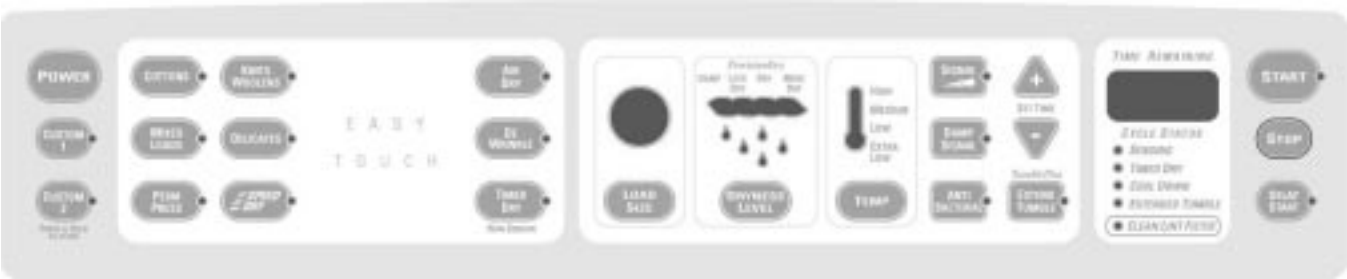
Control Features

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

Model DPSB650



Model DPSB620



START

- After you have selected a new cycle, press once to start the cycle.
- Press twice to select the last cycle used and start the dryer.
- If the dryer is running, press once to interrupt the cycle; press again to continue the cycle.

STOP

If the dryer is running, press once to interrupt the cycle; press again to cancel the cycle.

Time Remaining

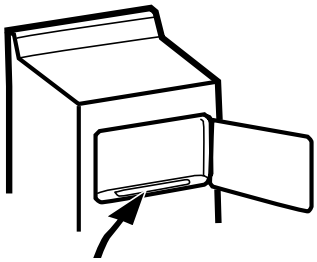
Displays the approximate time remaining until the end of the cycle.

As the cycle begins, you will see the approximate total cycle time in the display. Then lights will “race” in the display. This means the dryer is continuously monitoring the amount of moisture in the load. The lights will continue until the dryer senses a low level of moisture in the load. At that point, the dryer will calculate and display the approximate time remaining.

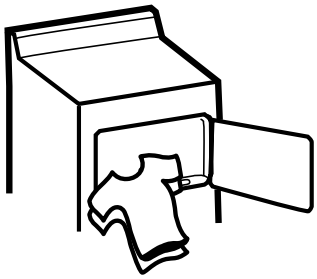
Control Quick Start Cycles (Model DPSB650)

1. Clean the lint filter.

   IMPORTANT: Clean the lint filter each time you use the dryer.



2. Add clothes. ***Do not overload.*** This wastes energy and causes wrinkling.

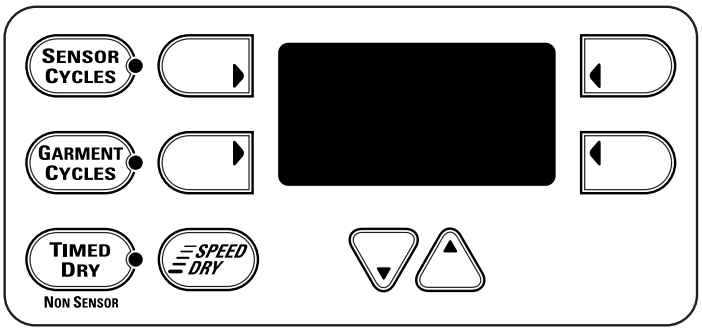


3. Select one of the three drying methods:
   - Press ***SENSOR CYCLES*** to dry according to **load type**
   - Press ***GARMENT CYCLES*** to dry according to **clothing type**
   - Press ***TIMED DRY*** to specify **dry time**

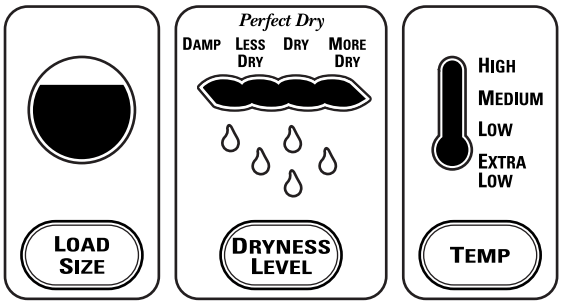
   Select the dry cycle by pressing the arrow pads ( ) at the sides of the display. You can scroll up and down through the list of cycles by pressing the ***UP*** (△) and ***DOWN*** (▽) arrow pads beneath the display.

   For ***TIMED DRY***, you can use either the display or the ***SET TIME*** arrow pads to set the drying time.

   NOTE: *Any time you make a selection that is incompatible with the chosen dry cycle, the dryer will beep twice.*



4. Change any of the automatic settings, if desired, by pressing the pad beneath the setting.
   - For best performance, adjust load size to appropriate setting
   - Dryness level determines how dry your clothes will be at the end of the cycle
   - Adjust temperature as recommended on the fabric manufacturer's care label

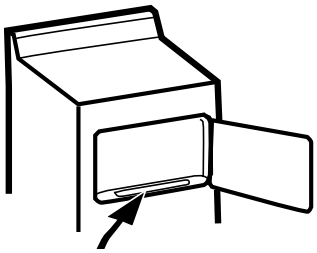


5. Close the door and press ***START.***

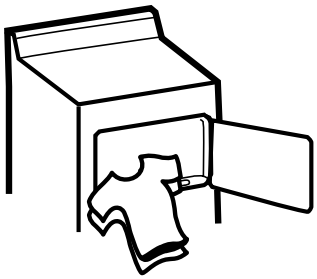
Control Quick Start Cycles (Model DPSB620)

1. Clean the lint filter.

   IMPORTANT: Clean the lint filter each time you use the dryer.



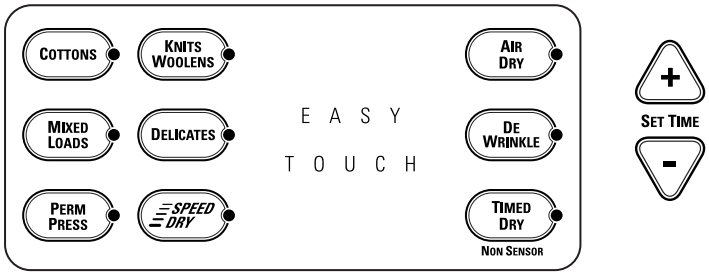
2. Add clothes. ***Do not overload.*** This wastes energy and causes wrinkling.



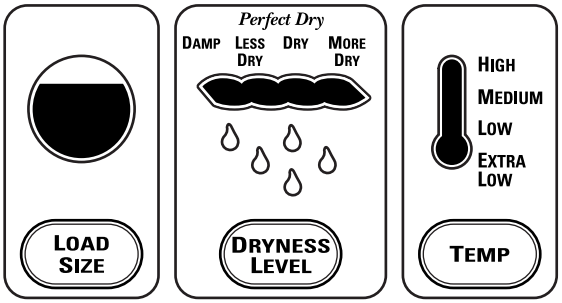
3. Select the dry cycle and other options.

   For ***TIMED DRY***, use the ***SET TIME*** arrow pads to set the drying time.

   NOTE: *Any time you make a selection that is incompatible with the chosen dry cycle, the dryer will beep twice.*



4. Change any of the automatic settings, if desired, by pressing the pad beneath the setting.
   - For best performance, adjust load size to appropriate setting
   - Dryness level determines how dry your clothes will be at the end of the cycle
   - Adjust temperature as recommended on the fabric manufacturer's care label



5. Close the door and press ***START.***

SENSOR CYCLES

The ***Sensor Cycles*** continuously monitor the amount of moisture in the load and stop the dryer when the clothes are dry.

COTTONS	For cottons and most linens.
PERM PRESS	For wrinkle-free, permanent press and delicate items, and knits.
MIXED LOAD	For loads consisting of cottons and poly-blends.
KNITS	For knits with fabric care labels that say "Machine Dry."
SPEED DRY	For small loads that are needed in a hurry, such as sport or school uniforms. Can also be used if the previous cycle left some items damp, such as collars or waistbands.
DRYEL	Designed for use with the DRYEL™ "dry-clean only" fabric care system. See product package for directions. For questions or issues related to the use and performance of DRYEL™, call 1.800.214.8913, or visit the DRYEL™ Website at www.dryel.com.
DELICATES	For lingerie and special-care fabrics.
DEWRINKLE	For removing wrinkles from items that are dry or slightly damp. This cycle is not recommended for delicate fabrics.
WARM UP	Provides 10 minutes of warming time to warm up clothes.
RACK DRY	For use with the drying rack.

GARMENT CYCLES

The ***Garment Cycles*** are customized to provide optimum drying for a variety of fabrics and clothing types.

Garment Cycles include:

- *Jeans*
- *Dress Shirts*
- *Khakis*
- *Knit Shirts*
- *Athletic Wear*
- *Underwear*
- *Play Clothes*
- *Everyday Wear*
- *Towels*
- *Mats/Rugs*
- *Sheets*
- *Linens*
- *Infant Wear*
- *Lingerie*
- *Washable Silks*

NON SENSOR

SET TIME

TIMED DRY

Use to set your own drying time. ***TIMED DRY*** is also recommended for small loads.

To use TIMED DRY:

1. Press ***TIMED DRY.***
2. Select the drying time.
3. Select the ***TEMP*** setting.
4. Select any ***OPTIONS***. (***NOTE:*** The ***ANTI-BACTERIAL*** and ***EXTEND TUMBLE*** options are not available with ***TIMED DRY*** cycles.)
5. Close door.
6. Push ***START***.

Control Easy Touch Selections (Model DPSB620)

COTTONS	**COTTONS**	For cottons and most linens.
MIXED LOADS	**MIXED LOADS**	For loads consisting of cottons and poly-blends.
PERM PRESS	**PERM PRESS**	For wrinkle-free, permanent press and delicate items, and knits.
KNITS WOOLENS	**KNITS WOOLENS**	For knits with fabric care labels that say "Machine Dry."
DELICATES	**DELICATES**	For lingerie and special-care fabrics.

TIMED DRY

NON SENSOR

SET TIME

TIMED DRY

Use to set your own drying time. ***TIMED DRY*** is also recommended for small loads.

To use TIMED DRY:

1. Press ***TIMED DRY.***
2. Select the drying time.
3. Select the ***TEMP*** setting.
4. Select any options. (***NOTE:*** The ***ANTI-BACTERIAL*** and ***EXTEND TUMBLE*** options are not available with ***TIMED DRY*** cycles.)
5. Close door.
6. Push ***START***.

Control Drying Cycles

SPEED DRY

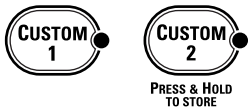
For small loads that are needed in a hurry, such as sport or school uniforms. Can also be used if the previous cycle left some items damp, such as collars or waistbands.

DEWRINKLE

Use this feature to remove wrinkles from items that are dry or slightly damp. This cycle is not recommended for delicate fabrics.

AIR DRY

Use this feature to tumble items without heat.



CUSTOM Cycles *(on some models)*

Set up your favorite combination of settings and save them here for one-touch recall.

These custom settings can be set while a cycle is in progress.

To store a custom combination of settings:

1. Select an ***EASY TOUCH*** setting.
2. Change ***LOAD SIZE, DRYNESS LEVEL*** and ***TEMP*** setting to fit your needs.
3. Select any drying ***OPTIONS*** you want.
4. Press and hold the ***CUSTOM*** pad for three seconds to store your selection. A beep will sound and the pad will light up.

To recall your stored combination:

Press the ***CUSTOM*** pad, then press ***START***.

To reprogram the CUSTOM settings:

Repeat steps 1-4 above.

Control Dryness Levels

MORE DRY

Use for heavy-duty fabrics.

DRY

Use for a normal dryness level suitable for most loads. This is the preferred cycle for energy saving.

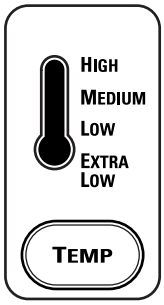
LESS DRY

Use for lighter fabrics.

DAMP

For leaving items partially damp.

Control Heat Settings



HIGH
For regular to heavy cottons.

MEDIUM
For synthetics, blends and items labeled permanent press.

LOW
For delicates, synthetics and items labeled *Tumble Dry Low*.

EXTRA LOW
For lingerie and special-care fabrics.

Cycle Options

(Appearance and features may vary)

SIGNAL

Alerts you that the cycle is complete. The beeper will continue to sound every two minutes for the next 6 minutes, until the clothes are removed. The clothes should be removed when the beeper goes off so wrinkles won't set in.

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

EXTEND TUMBLE PLUS

Minimizes wrinkles by adding approximately 60 minutes of no-heat tumbling after clothes are dry. The beeper will sound every 5 minutes to remind you to remove the clothes. The ***TIME REMAINING*** display will show ***00***.

ANTI-BACTERIAL *(on some models)*

This option can only be used with the ***COTTONS*** or ***MIXED LOADS*** cycles. This option reduces certain types of bacteria by 99.9%, including: *Staphylococcus aureus, Pseudomonas aeruginosa* and *Klebsiella pneumoniae**. The anti-bacterial process occurs when high heat is used during a portion of the drying cycle.

NOTE: Do not use this cycle on ***delicate*** fabrics.

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

NSF Protocol P154
Sanitization Performance of
Residential Clothes Dryers

DELAY START *(on some models)*

Use to delay the start of your dryer.

1. Choose your dry cycle and any options.
2. Press ***DELAY START***. You can change the delay time in 30 minute increments using the ***SET TIME*** arrow pads.
3. Press the ***START*** pad to start the countdown.

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

NOTE: If the door is opened while the dryer is in ***DELAY***, the countdown time will not restart unless the door is closed and ***START*** has been pressed again.

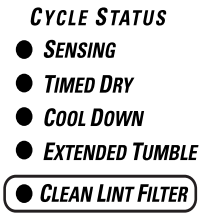
DAMP SIGNAL *(on some models)*

This option causes the dryer to beep when clothes have dried to a damp level. Remove items that you wish to hang dry. The ***DAMP SIGNAL*** will only beep when the dryer ***SIGNAL*** is turned on.

Removing clothes and hanging them when they are damp can reduce the need to iron some items.

Cycle Status

The cycle status indicator lights (on some models) show what part of the cycle the dryer is in and remind you to clean the lint filter. On models without indicator lights, the cycle status will show in the display.



SENSING

This light comes on when an ***EASY TOUCH Sensor Dry Cycle*** is active.

TIMED DRY

This light comes on when ***AIR DRY, DEWRINKLE, DRYEL***™ *(on some models)*, ***TIMED DRY*** or ***RACK DRY*** is selected.

EXTENDED TUMBLE

This light comes on when the dryer is in the ***EXTEND TUMBLE*** mode.

CLEAN LINT FILTER

This light is a reminder to clean the lint filter. It comes on at the end of a cycle and goes off when the door is opened.

Cycle Chart

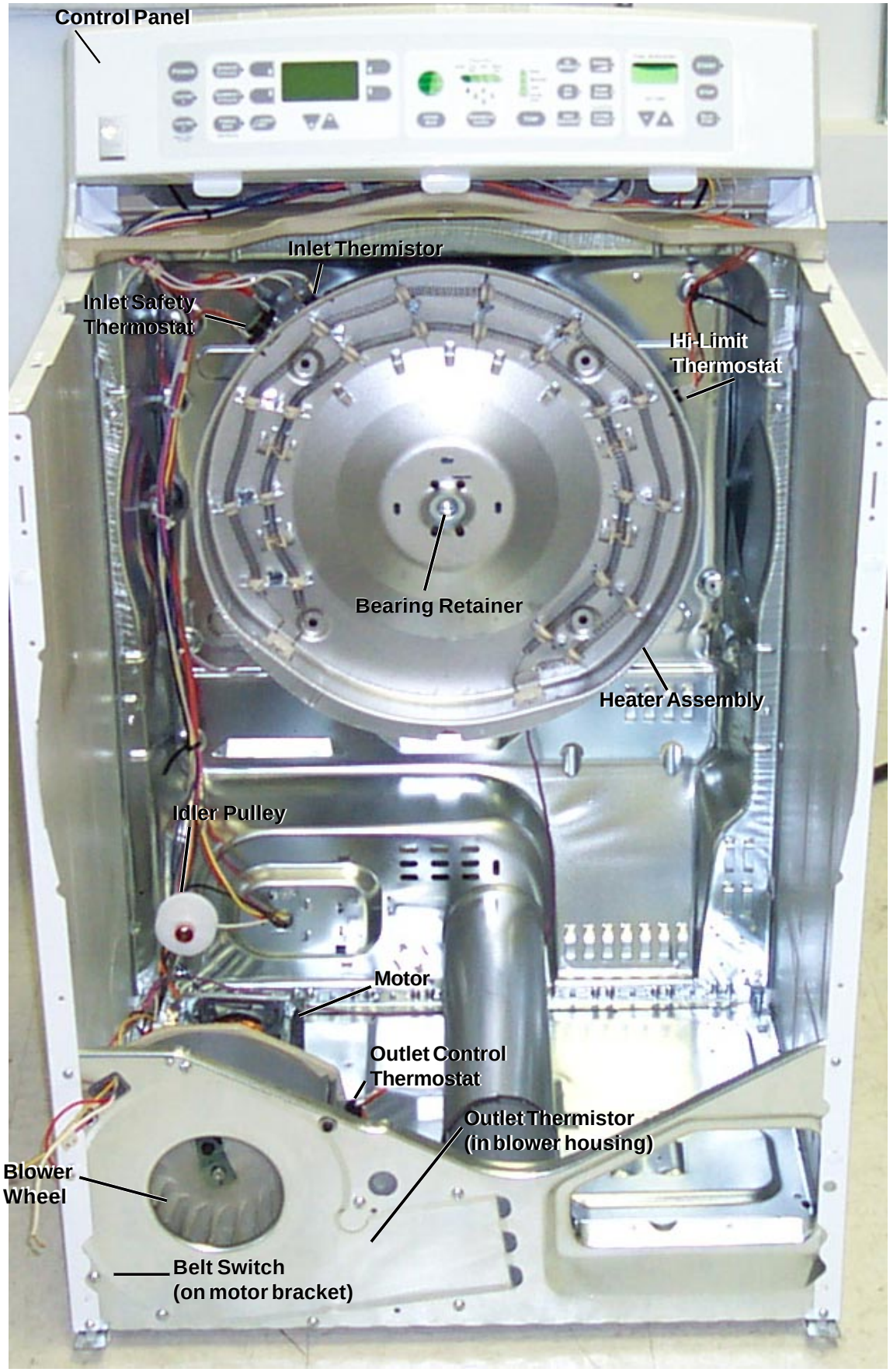
Time Cycles					
Cycle	Default Drying Time	Fixed Cooldown Time	Default Drying Temperature	Optional Drying Temperature	Adjustable Drying Time
Air Dry	10	0	None	None	Yes
De-Wrinkle	10	5	Medium	Medium	Yes
Dryel	20	5	Medium	Medium	No
Warm-Up	10	0	Medium	Any	Yes
Rack Dry	30	10	Medium	Any	Yes
Generic (10 minutes to 120 min)	30	5	Medium	Any	Yes

Sensor Cycles								
Sensor Cycle	Default Load Size	Optional Load Sizes	Default Dryness Level	Optional Dryness Level	Default Drying Temperature	Optional Drying Temperature	Maximum Cool-Down Time	Cool-Down Temperature
Cottons	Medium	Any	Dry	Any	High	Any	5	114 °F
Mixed Loads	Medium	Any	Dry	Any	High	Ex Low, Low, Medium	5	114 °F
Permanent Press	Medium	Any	Dry	Any	Medium	Any	10	97 °F
Knits	Small	Any	Less Dry	Any	Low	Extra Low	5	97 °F
Speed Dry	Small	Any	Dry	Any	High	High	2	114 °F
Delicates	Small	Any	Less Dry	Any	Extra Low	Low	5	97 °F
Jeans	Medium	Any	More Dry	Any	High	Any	Variable	114 °F
Khakis	Medium	Any	Dry	Any	High	Any	Variable	114 °F
Dress Shirts	Small	Any	Dry	Any	Medium	Any	Variable	97 °F
Knit Shirts	Medium	Any	Dry	Any	Medium	Any	Variable	114 °F
Athletic Wear	Small	Any	Less Dry	Any	Medium	Any	Variable	114 °F
Play Clothes	Medium	Any	More Dry	Any	High	Any	Variable	114 °F
Underwear	Small	Any	Dry	Any	Medium	Any	Variable	114 °F
Everyday Wear	Medium	Any	Dry	Any	Medium	Any	Variable	114 °F
Towels	Medium	Any	More Dry	Any	High	Any	Variable	114 °F
Sheets	Medium	Any	More Dry	Any	High	Any	Variable	114 °F
Mats/Rugs	Medium	Any	Dry	Any	Medium	Any	Variable	114 °F
Table Linen	Small	Any	Dry	Any	Medium	Any	Variable	97 °F
Infant Wear	Medium	Any	Dry	Any	Medium	Any	Variable	114 °F
Washable Silks	Small	Any	Dry	Any	Extra Low	Low	Variable	97 °F
Lingerie	Small	Any	Less Dry	Any	Extra Low	Extra Low	Variable	97 °F

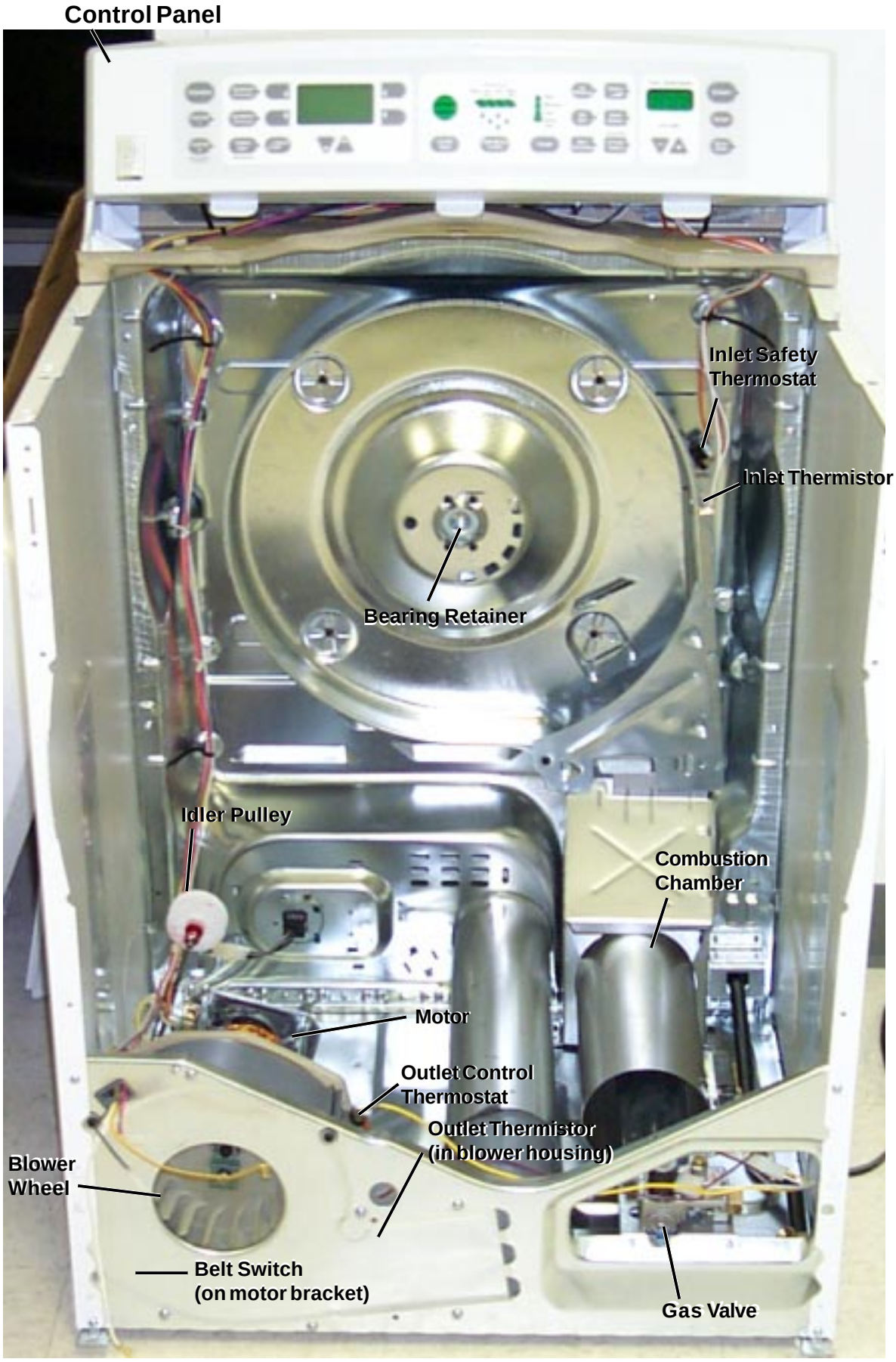
Note:

- The DSSD will display **cd** during the cooldown portion of the cycle.
- During sensor drying, if the sensor rods are not shorted within the first 6 minutes of the cycle, the unit will determine that the drum is empty and terminate the drying cycle.

Component Locator View



Electric Model


Control Panel
Inlet Safety Thermostat
Inlet Thermistor
Bearing Retainer
Idler Pulley
Combustion Chamber
Motor
Outlet Control Thermostat
Outlet Thermistor (in blower housing)
Blower Wheel
Belt Switch (on motor bracket)
Gas Valve

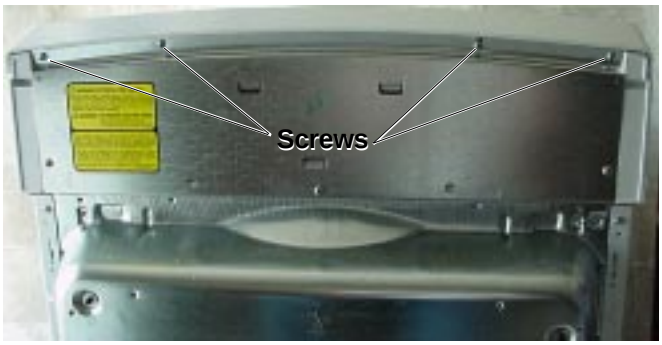
Gas Model

Dryer Components

Control Panel

To place the control panel in the service position:

1. Remove 4 screws from the rear of the control panel.
2. Gently pull on each corner to unsnap the control panel from the sides of the unit.
3. Rotate the control panel forward approximately 1 inch and slide to the right to unlock the bottom locking tabs.
4. Lift up and off the top panel.



Top Panel

The top panel is fastened at the front by 2 screws and at the rear by locking tabs protruding from the bottom of the control panel.

To remove the top panel:

1. Remove the control panel.
2. Remove 2 screws that secure the top panel to the cabinet and the top panel.

Front Panel

Warning: Sharp edges may be exposed when the front panel is removed. Use caution to avoid injury when servicing dryer.

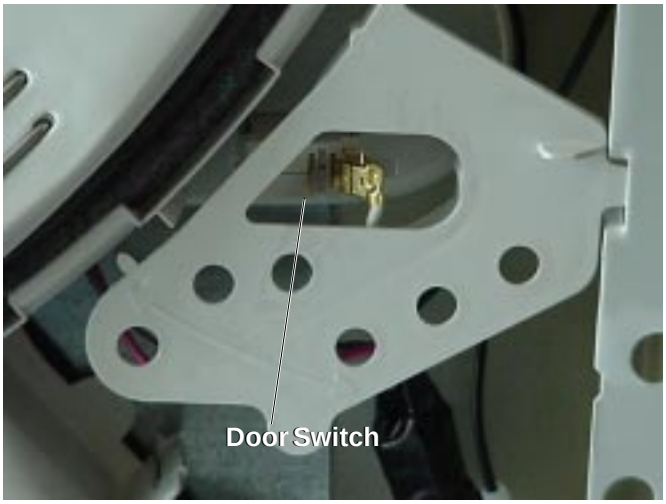
The front panel is fastened to the cabinet at the inside front by 2 screws and at the bottom by 2 tabs protruding from the base of the cabinet.

To remove the front panel:

1. Remove the control panel and top panel. (See Control Panel and Top Panel.)
2. Remove 2 screws from the front inside edge of the front panel.
3. Tilt the top edge of the front panel out and lift off the bottom tabs.
4. Disconnect wiring to the door switch, light, and sensor rods and remove the front panel.

Door Switch

The door switch is fastened to the front panel by 2 locking tabs and is common to all dryer functions. When the dryer door is closed, the switch will complete the motor circuit, allowing dryer operation. When the dryer door is open, the switch will open the motor circuit, interrupting dryer operation. Opening the dryer door will also cause the door switch to close the drum light circuit, allowing the drum light to be energized.



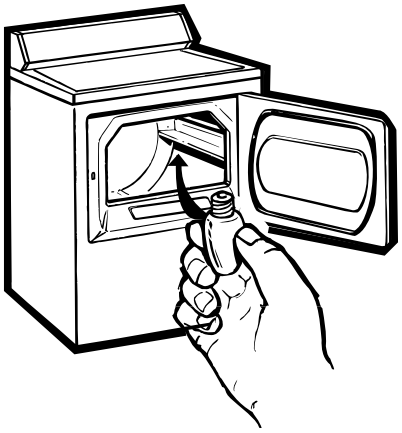
To test the door switch:

Place the unit in service mode. Index to the door switch function. Open and close the door while observing the DSSD. When the door is open, OPn should be displayed on the DSSD. When the door is closed, CLS should be viewed on the DSSD.

Note: If the dryer door switch has not opened after 3 consecutive completed cycles, the dryer will log the door switch error code and disable the dryer. See Error Codes.

Drum Light

The drum light is a screw-in 10-watt, 120-VAC bulb located in the top of the front panel. The light is connected to the L2 circuit for electric models and to L1 for gas models. Both models are switched on the neutral side by the door switch. Replace only with a bulb of the same size and type.



Drum

Warning: Sharp edges may be exposed. Use extreme caution when removing the drum.

The dryer drum is made of stainless steel and has 3 replaceable drum vanes attached to the inside. The drum is mounted in the same manner as the previous Wizard model. The rear of the drum has a shaft and bearing that fits into a bearing retainer, which is fastened to the center of the heater assembly. The front of the drum rides on a slide assembly consisting of 2 guide slides and 2 weight-bearing slides.

To remove the drum:

1. Remove the top panel and the front panel. (See Top Panel and Front Panel.)
2. Remove the drive belt from the motor. (See Belt.)
3. Remove 1 screw from each side of the cabinet and gently spread the sides apart to provide clearance for the tub.
4. Using the belt as a handle, pull the drum forward and guide out of the cabinet.

Drum Shaft Bearing

The drum shaft bearing (PN WE25M40) is mounted on the drum shaft at the rear of the drum. The bearing fits into the bearing retainer in the center of the heater assembly.

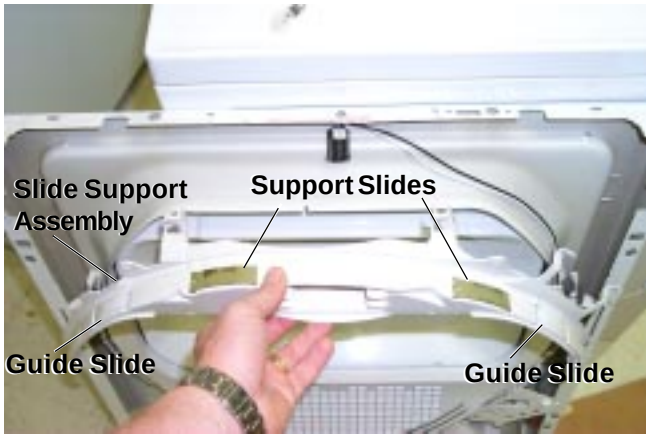
Caution: Do not lubricate the drum shaft or bearing.

Drum Slide Assembly

The drum slide assembly, located on the back side of the front panel, utilizes 4 drum slides. Two white outer slides are used as guides, and 2 dark color center (top) slides are used to support the weight of the drum. When replacing the slides, the dark color support slides must be replaced with the support slide replacements. Guide slides may also be replaced with support slides**. Do not replace the center (top) support slides with white guide slides. Damage to the dryer will result.**

To remove the drum glide assembly:

1. Remove the top panel and the front panel. (See Top Panel and Front Panel.)
2. Remove the drum lightbulb.
3. Grasp the top, inside edge of the support assembly and unsnap the support from the front panel and remove.



Drive Belt

Warning: Sharp edges may be exposed. Use caution to avoid injury when removing or installing the drive belt.

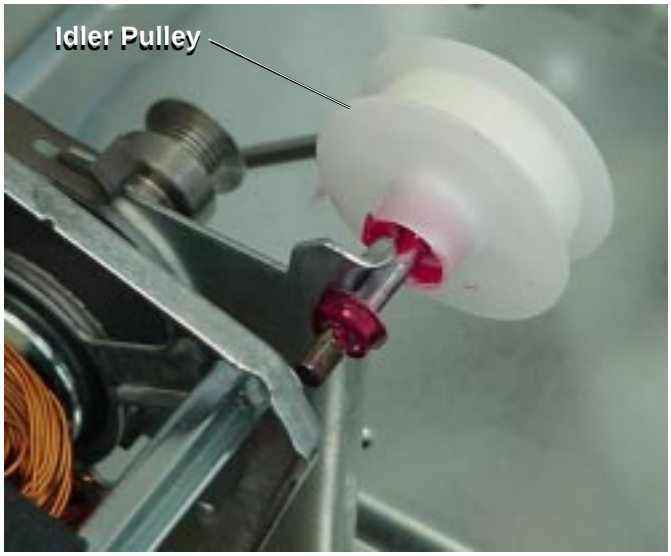
The drive belt (P/N WE12M22) extends from the motor pulley, past the idle pulley, and around the perimeter of the dryer drum. (See belt diagram.)

<u>To remove the drive belt:</u>

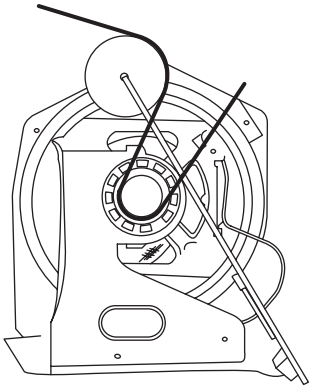
1. Remove the top panel and front panel. (See Top Panel, and Front Panel.)
2. Reach under the left-hand side of the drum, push the idler pulley down and to the right, and lock the pulley shaft on the top corner of the motor bracket to release belt tension. (See photo.)
3. Remove the belt from the motor pulley and remove through the front of the dryer.

<u>To install the drive belt:</u>

1. Remove the top and front panels. (See Top Panel and Front Panel.)
2. Reach under the left-hand side of the drum, push 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 center 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.
5. Check to make sure the belt is in place and not twisted before installing the top and front panels.

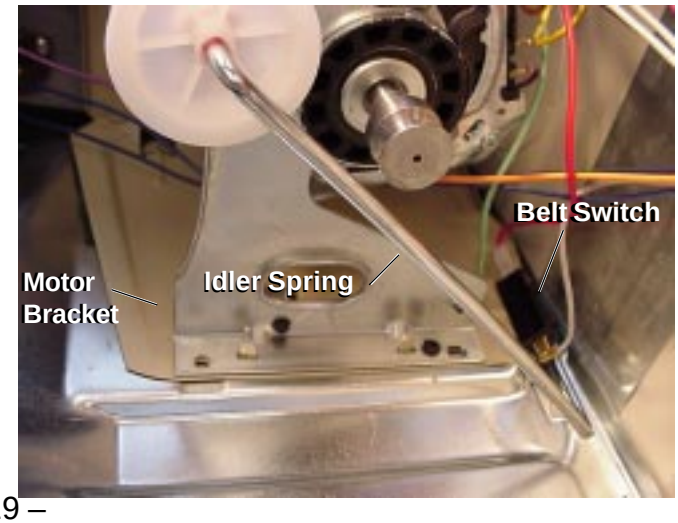


Pulley shown in locked position.



Belt Switch

A belt switch, activated by the idler spring, is fastened to the motor bracket by 2 screws. Should the drive belt break, the belt switch will open the drive motor circuit, interrupting dryer operation.



Motor and Blower Wheel

The drive-motor is a single-speed, dual-shaft, ¼-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.

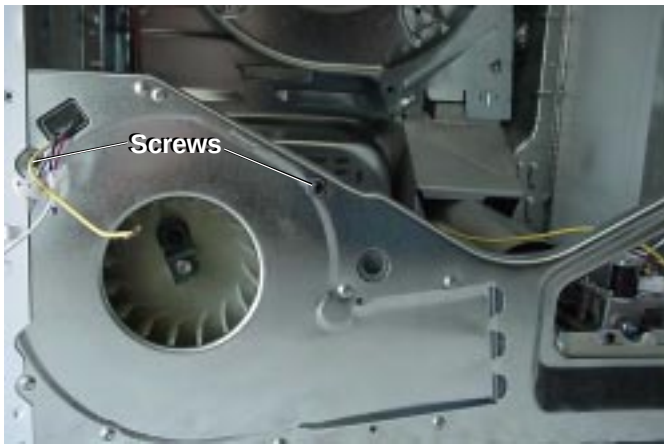
Motor resistance values:

Start winding = 5 ohms

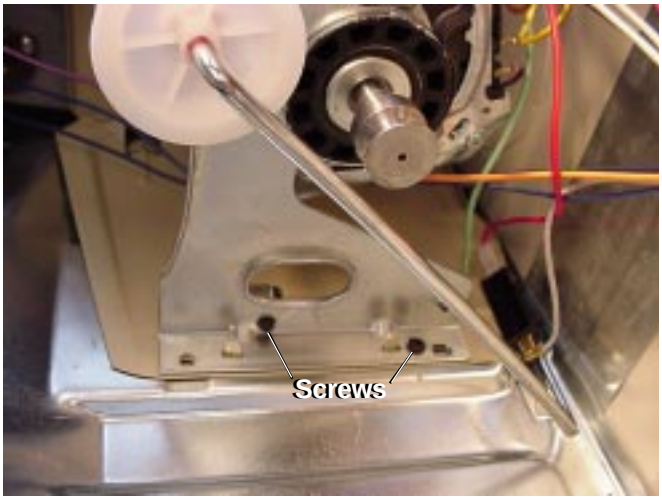
Run winding = 4 ohms

To remove the motor:

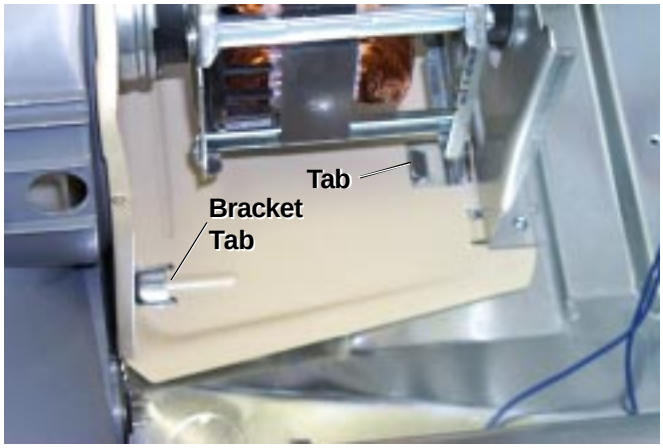
1. Disconnect power to the unit.
2. Remove the top panel, the front panel, and the drum. (See Top Panel, Front Panel, and Drum.)
3. Remove 2 Phillips screws fastening the blower housing to the cabinet.



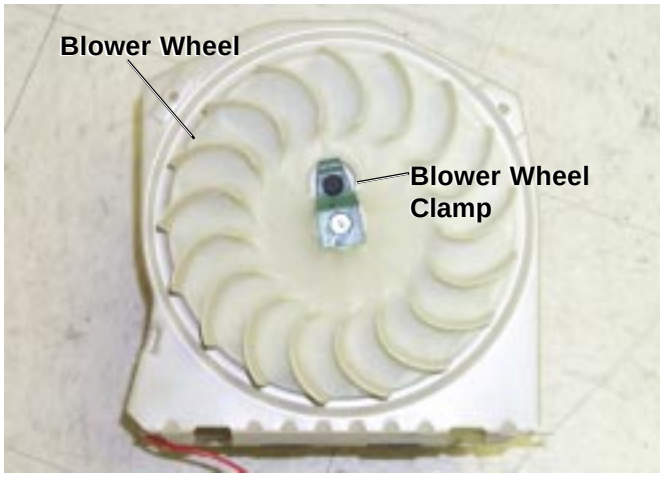
4. Remove 1 (Phillips) screw and 1 (1/4-in.) screw fastening the motor bracket to the cabinet.
5. Disconnect the motor and belt switch wiring.



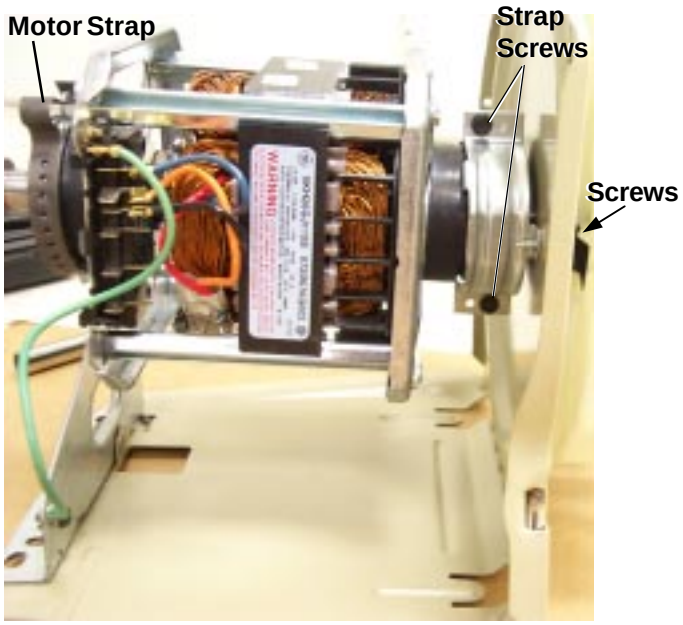
6. Lift the rear of the motor bracket up and over the tab protruding from the dryer bottom.
7. Slide the motor bracket back until the bracket tabs clear the slots in the base of the cabinet. Remove the blower and motor.
8. Disconnect the motor ground wire from the motor bracket.



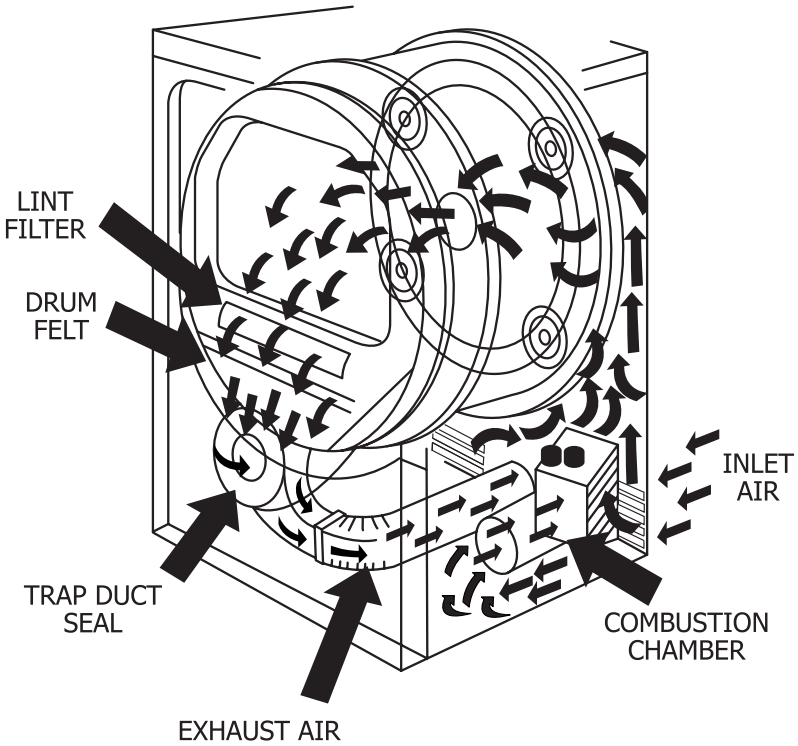
9. Loosen the blower wheel clamp and pull the blower off the motor shaft.



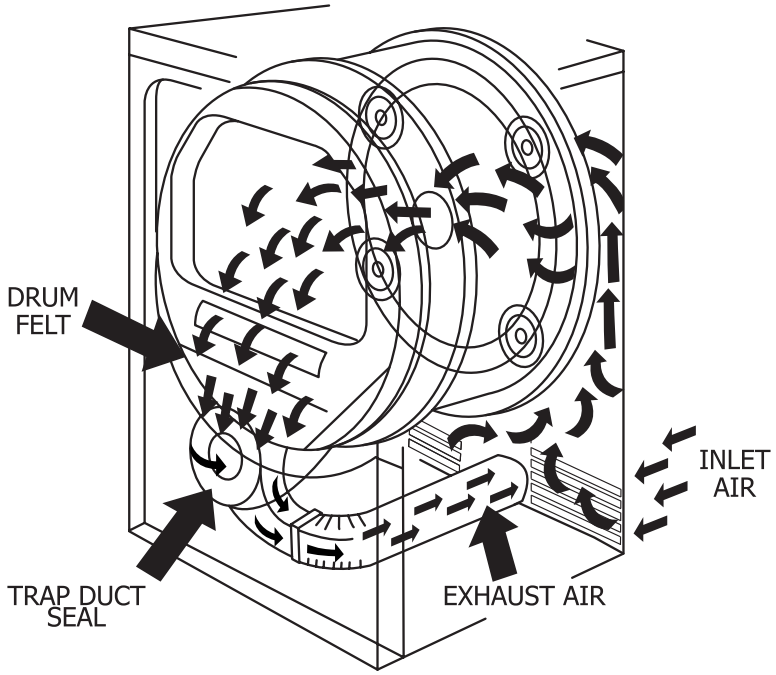
10. Remove 2 screws (from the blower side of the motor bracket) securing the front motor strap.
11. Loosen 2 motor strap screws and remove the front motor strap from the motor.
12. Compress the rear motor strap and remove from the motor bracket.
13. Remove the motor from the bracket.



Gas Dryer

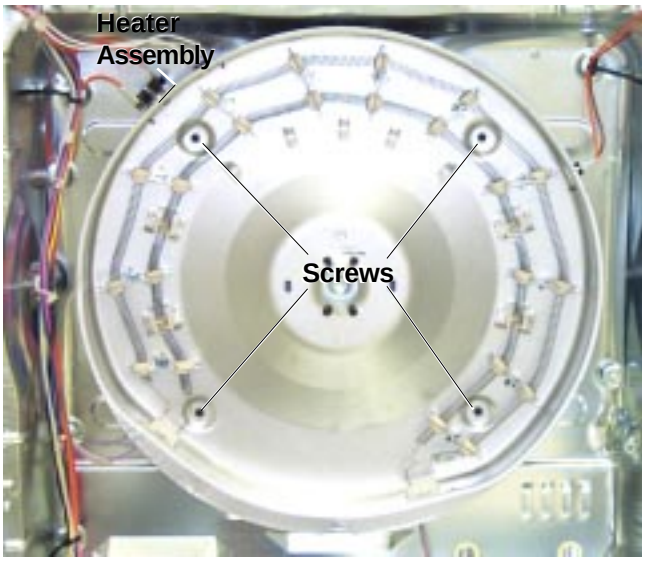


Electric Dryer



Heater Assembly (electric models)

The heater assembly is located behind the drum and consists of 2 open coils fastened to a single housing. Holes in the back of the drum allow air to be drawn over the heating coils and into the drum. Each heater coil is individually controlled by a separate relay on the board and should have a resistance reading of approximately 20 ohms.

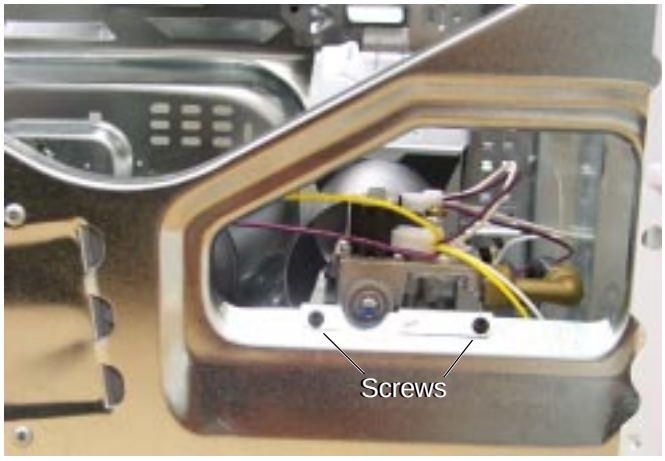


To remove the heater assembly:

1. Remove the top panel, the front panel, and the drum. (See Top Panel, Front Panel, and Drum.)
2. Disconnect the lead wires from the heaters, thermistor, inlet safety thermostat, and hi-limit thermostat.
3. Remove 4 screws and the heater assembly.

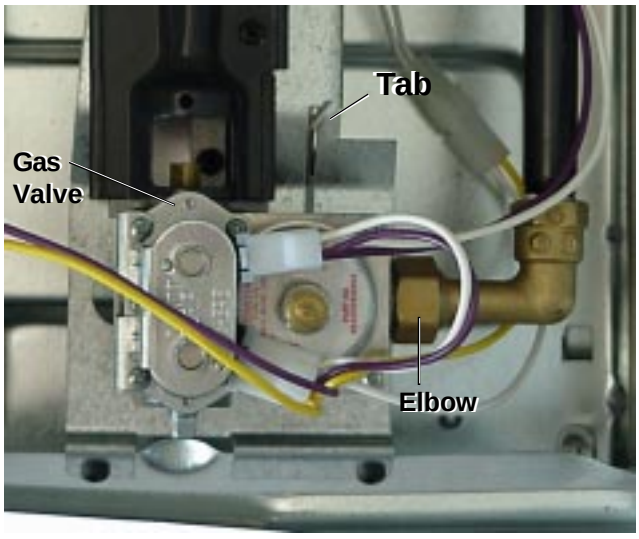
Gas Valve

The gas valve is mounted by 2 screws to the front right-hand side of the cabinet, behind the front panel.



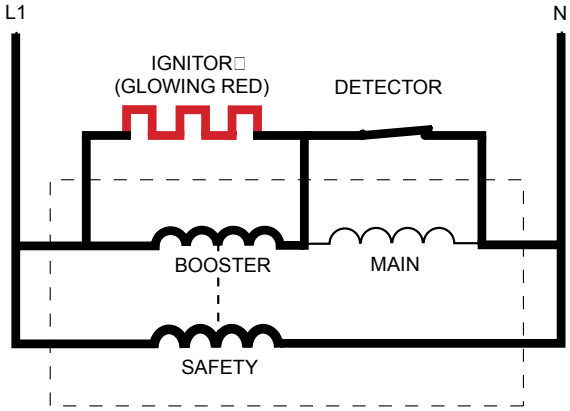
To remove the gas valve:

1. Shut the gas off to the unit.
2. Remove the top panel, front panel, and drum. (See Top Panel, Front Panel, and Drum.)
3. Disconnect the elbow coupling from the gas valve by turning counterclockwise (toward the rear of the dryer).
4. Straighten the tab fastening the gas valve to the dryer bottom.
5. Disconnect the wiring from the gas valve.
6. Remove 2 screws fastening the gas valve to the cabinet, lift the valve off the tab, and remove.

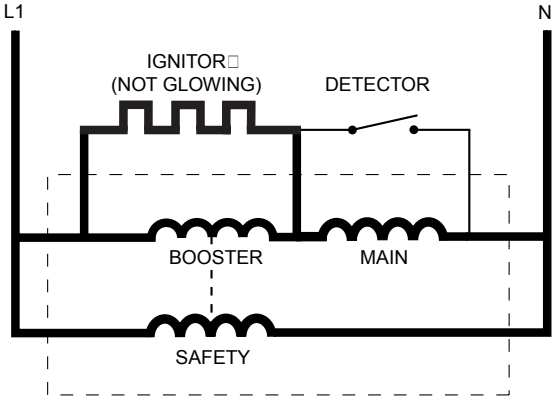


Glo-Bar Igniter Circuit Operation

The glo-bar igniter circuit is made up of the following components: a gas valve with safety and main valves, a glo-bar igniter, and a flame detector. The safety valve is actuated by a double coil, that comprises a safety coil (resistance approximately 1400 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 1300 ohms).



Ignitor On



Gas Valve Open

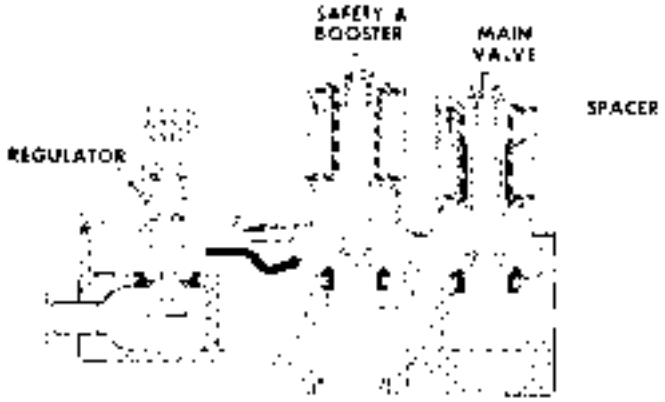
The flame detector (< 1 ohm) is mounted on the combustion chamber. It is normally in the closed position (N.C.). The flame detector is opened by the radiant heat produced by the glo-bar; and once open, the flame detector will be held open by the radiant heat produced by the gas flame.

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

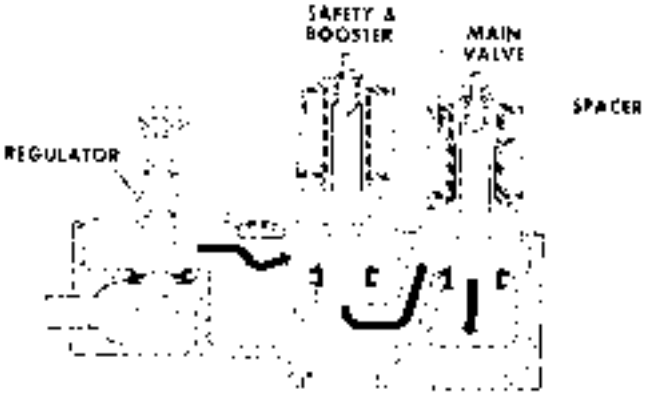
1. N- through detector, igniter, outlet control backup, inlet safety thermostats to L1.
2. N- through detector, booster coil, outlet control backup, inlet safety thermostats to L1.
3. N- through safety coil and outlet control backup, inlet safety thermostats to L1.

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, approximately 60 seconds or less, the flame detector is heated and opens, which places 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, approximately 30 seconds.



Valves Closed



Valves Open

Inlet Thermistor

The inlet thermistor is located on the top left side of the heater housing on electric models and on the top right side of the housing on gas models. The inlet thermistor measures the inlet air temperature and will respond to temperature changes of 3 °F. The inlet thermistor provides temperature change information to the electronic control board. The electronic control board makes heating decisions based on this information. The thermistor's resistance has a negative coefficient, as the temperature increases, the thermistor's resistance decreases.

To check thermistor resistance, refer to the thermistor resistance chart.

To remove the thermistor:

1. Remove the top panel, the front panel, and the drum. (See Top Panel, Front Panel and Drum.)
2. Disconnect the lead wires to the thermistor.
3. Remove 1 screw and the thermistor.

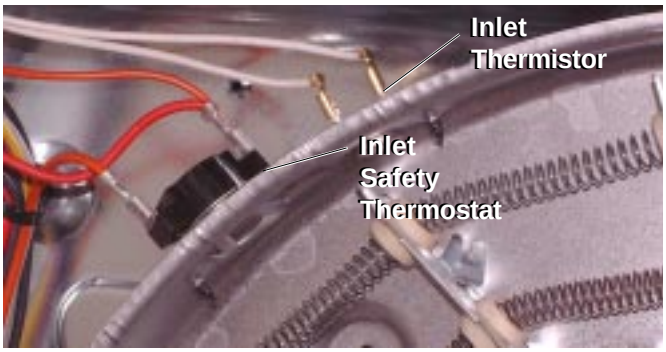
Thermistor Restance Values		
Temperature °C	Temperature °F	Resistance K-ohms
10	50	202
16	60	151
21	70	120
25	77	100
32	90	74
38	100	57
49	120	37
57	135	27
66	150	19
93	200	8
121	250	3

Inlet Safety Thermostat

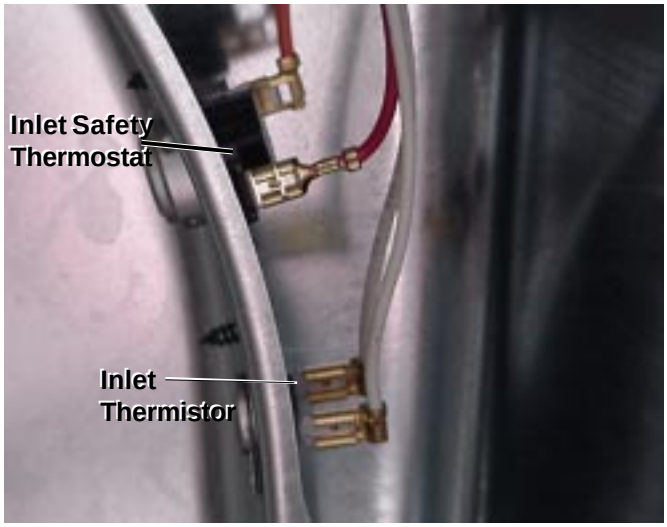
An inlet safety thermostat is located on the left side of the heater housing on electric dryer models, and on the right side of the housing on gas dryer models. The electric model has an L210-30 °F rating and the gas model has an L300-40 °F rating. The inlet thermostat is wired in series with the outlet control thermostat. If the thermostat reaches 210 °F on electric models or 300 °F on gas models, it will open the L1 side of the heater or gas valve circuit, interrupting heater or gas valve operation. The thermostat will close when it has cooled to 180 °F on electric models and 260 °F on gas models, restoring heater operation.

To remove the inlet safety thermostat:

1. Remove the top panel, the front panel, and the drum. (See Top Panel, Front Panel and Drum.)
2. Disconnect the thermostat wiring.
3. Remove 1 screw and the thermostat.



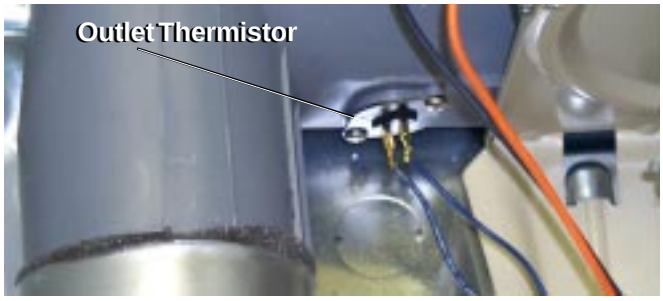
Electric Model



Gas Model

Outlet Thermistor

The outlet thermistor is attached to the blower housing. The outlet thermistor reads the temperature of the air being exhausted from the dryer and will respond to temperature changes of 3 °F. The outlet thermistor provides temperature change information to the electronic control board. The electronic control board makes heating decisions based on this information.



The thermistor's resistance has a negative coefficient. As the temperature increases, the thermistor's resistance decreases.

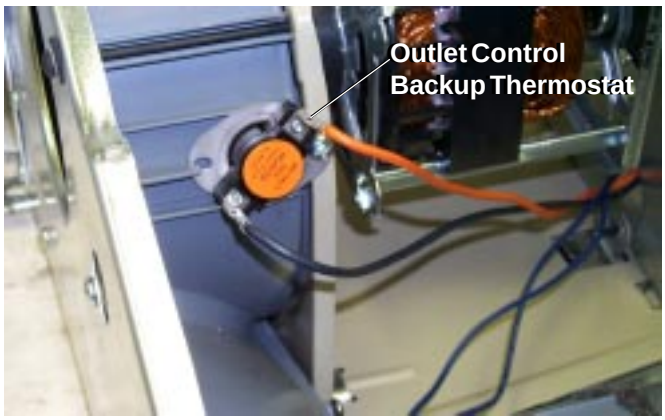
Thermistor Restance Values		
Temperature °C	Temperature °F	Resistance K-ohms
10	50	202
16	60	151
21	70	120
25	77	100
32	90	74
38	100	57
49	120	37
57	135	27
66	150	19
93	200	8
121	250	3

To remove the outlet thermistor:

1. Remove the top panel, the front panel, and the drum. (See Top Panel, Front Panel, and Drum.)
2. Disconnect the thermistor wiring.
3. Remove 2 screws and the thermistor.

Outlet Control Backup Thermostat

An L165-10 °F outlet control backup thermostat is located on the blower housing. The same thermostat is used on both gas and electric models. It is wired in series with the inlet safety thermostat and heater relay. If the thermostat reaches 165 °F, it will open the L1 side of the heater circuit, interrupting heater operation. The thermostat will close when it has cooled to 155 °F, restoring heater operation.



To remove the outlet control backup thermostat:

1. Remove the top panel and the front panel. (See Top Panel and Front Panel.)
2. Disconnect the thermostat wiring.
3. Remove 1 screw and the thermostat.

Hi-Limit Thermostat (Electric Models)

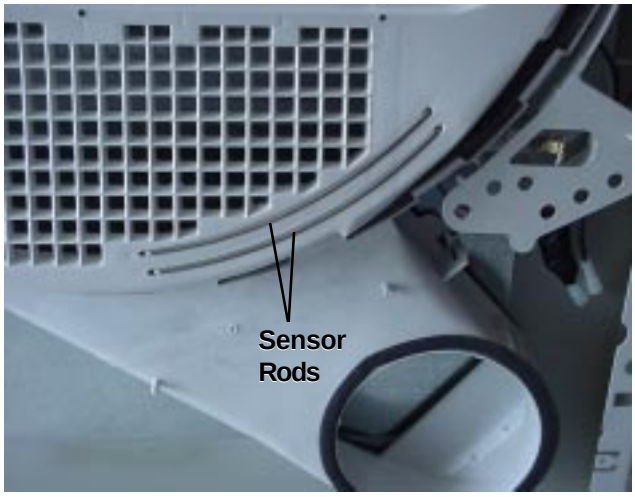
An L315-65F hi-limit thermostat is located on the left side of the heater assembly (electric models only). The hi-limit thermostat is wired in series with the L1 side of the motor relay. The thermostat will open if an excessive temperature of 315 °F is attained, disabling all dryer functions. The hi-limit thermostat will close when its temperature has cooled to 250 °F.

To remove the thermostat:

1. Remove the top panel, the front panel, and the drum. (See Top Panel, Front Panel, and Drum.)
2. Disconnect the lead wires to the hi-limit thermostat.
3. Remove 1 screw and the thermostat.

Sensor Rod Circuit

The moisture-sensing rods are part of a circuit that is designed to utilize a low-voltage capacitor that charges to 5 VDC when the circuit is open and discharges to 1 VDC when the circuit is shorted. A space between the 2 rods causes an open in the sensor rod circuit. When wet clothes touch the two rods, they create a short, which discharges the capacitor. When the clothes become dry, they cannot short the circuit; and the charge across the capacitor builds to 5 VDC. If the electronic control board reads 1 VDC across the capacitor, it is determined that the clothes are wet. As the clothes are dried, the voltage across the capacitor increases. When the electronic control board reads 5 VDC across the capacitor, it is determined that the clothes are completely dry. The capacitor for the sensor rod circuit is in the wire harness near the sensor rods and can be replaced as a separate component.



Note:

- Proper leveling of the dryer is vital for accurate sensor drying. Excessive rearward adjustment will cause clothes to tumble toward the rear of the drum, preventing contact with the senor rods, thus producing a false dryness reading.
- During sensor drying, if the sensor rods are not shorted within the first 6 minutes of the cycle, the unit will determine that the drum is empty and terminate the drying cycle.

The dryer will signal when the clothes are at 17% moisture level if equipped with a damp signal that has been selected.

Approximate values for dryness level**:**

Damp =	17%
Less dry =	10%
Dry =	2-6%
More dry =	<2%

To test the sensor rod circuit:

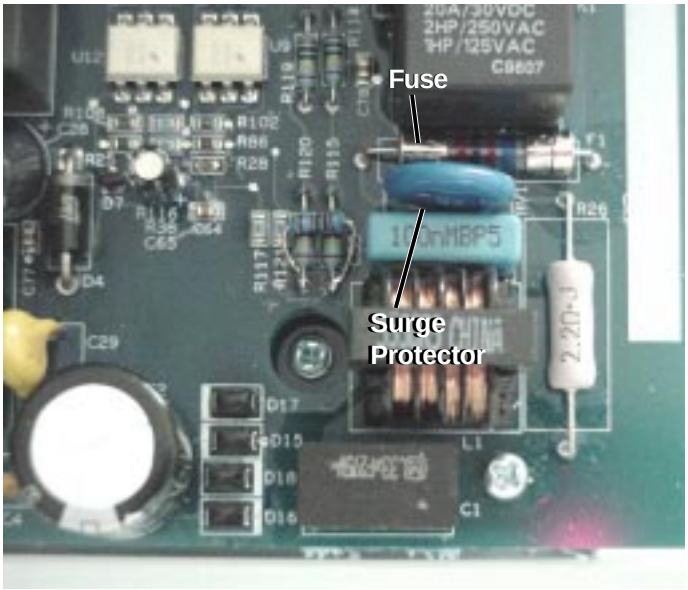
Place the dryer in service mode and index to the rod voltage test. The rod voltage, in hundredths of a volt, shall be displayed on the DSSD. Open the door and touch the rods with your hands and view the DSSD. The voltage displayed on the DSSD should diminish, indicating that the capacitor is discharging properly. No change on the DSSD indicates that either the rods are not connected to the board, an open exists in the sensor rod circuit, or there is some other problem on the board. When the rods are released, the voltage displayed on the DSSD should increase. The sensor rods come as part of the air duct assembly.

Note: Wait at least 45 seconds before repeating the test to allow the capacitor to charge fully.

Electronic Control Board

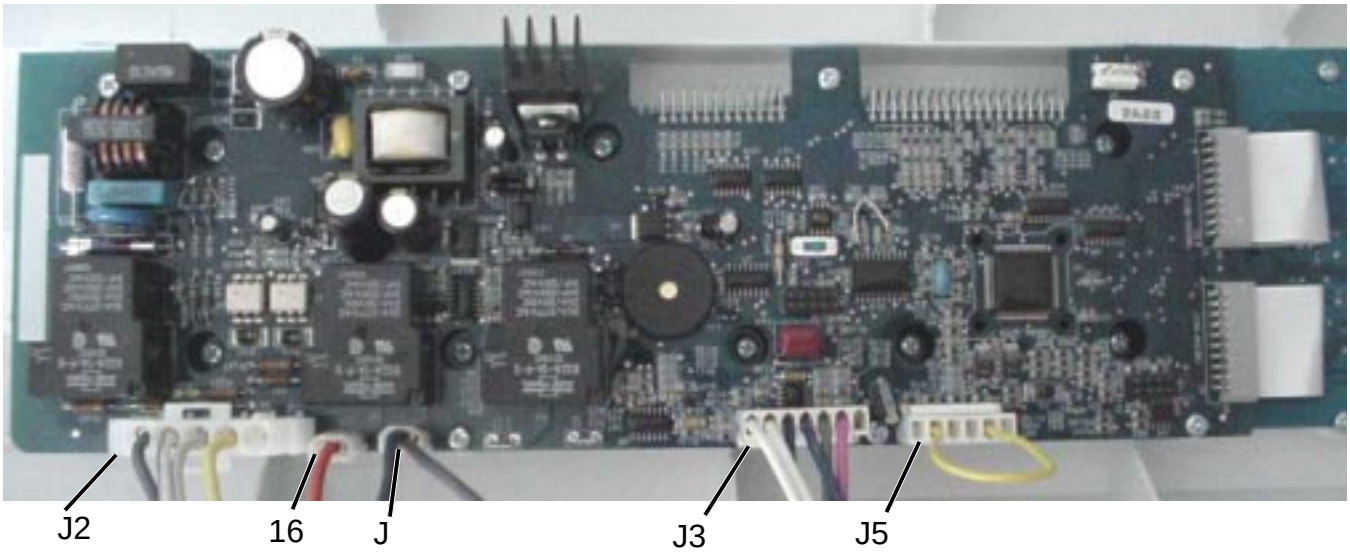
The electronic control board consists of 2 circuit boards connected by 2 ribbons. The boards are attached to the back of the control panel and control all washer functions. The boards are replaced with the control panel as an assembly.

If a faulty board is suspect, check for continuity across the fuse and visually inspect the surge protector mounted on the board. If no continuity is read across the fuse or if the surge protector appears burnt or damaged, replace the board.



Caution:

- When replacing the control panel, remove the protective coating from the overlay prior to power-up to prevent ESD from damaging the new board.
- To prevent electrostatic discharge, ground yourself to the washer cabinet or use an ESD wristband.



Temperature Setpoints (Electric)				
Heat Source	**Temperature Setpoint**	**Heat Setting**	**Low Setpoint**	**High Setpoint**
Electric Inner Coil	Outlet	Extra Low	102 °F	107 °F
		Low	117 °F	124 °F
		Medium	127 °F	133 °F
		High	130 °F	142 °F
	Inlet	Extra Low	152 °F	152 °F
		Low	201 °F	243 °F
		Medium	220 °F	253 °F
		High	225 °F	270 °F
Electric Outer Coil	Outlet	Extra Low	0	0
		Low	116	119
		Medium	125	128
		High	134	137
	Inlet	Extra Low	0	0
		Low	176	179
		Medium	201	204
		High	227	230

Temperature Setpoints (Gas)				
Heat Source	**Temperature Setpoint**	**Heat Setting**	**Low Setpoint**	**High Setpoint**
Gas	Outlet	Extra Low	102 °F	107 °F
		Low	117 °F	124 °F
		Medium	127 °F	133 °F
		High	130 °F	142 °F
	Inlet	Extra Low	152 °F	152 °F
		Low	201 °F	243 °F
		Medium	220 °F	253 °F
		High	225 °F	270 °F

Service Mode

Service Mode

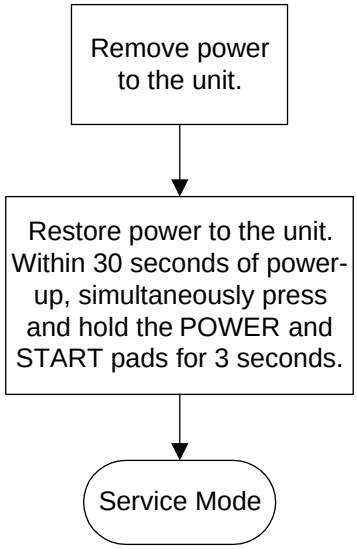
Service Mode enables individual machine functions to be selected and performed apart from the unit's normal operation. Field Service Mode also allows error codes to be displayed.

To enter Service Mode:

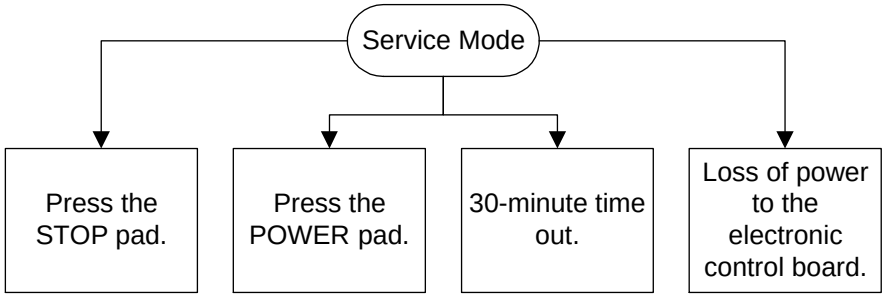
1. Turn the unit off at the POWER pad.
2. Remove power to the unit by unplugging it for 15 seconds.
3. Restore power. Within 30 seconds of power-up, simultaneously press and hold the POWER and the START pads for 3 seconds.

When Service Mode is entered, the control panel will display the dryer model code. (See Model Codes chart.)

Enter Service Mode



Exit Service Mode



Service Mode can be **exited** in 4 ways:

1. Press the STOP pad.
2. Press the POWER pad.
3. Unplug the unit.
4. 30-minute time-out.

To **index to the next function** within Service Mode, press the CUSTOM 2 pad. To **index back to the previous function**, press the CUSTOM 1 pad.

The chart below lists the order and various functions of service mode.

Service Mode Functions		
Mode	Default Display	Press Start
Model Display Test	See model codes chart	Model selector plug number
Software Version Test	Three digit software version number	E and 2 digit EEPROM number
Program EEPROM Test	**EEP**	Reprograms EEPROM from flash
Display Error Codes	**E00** if no error logged or if errors are logged, most recent code will display	Clears displayed error code and displays next most recent error code
User Interface Test	All LED's and LCD illuminated	Toggles checkerboard on LCD
Inlet Temperature Test	Current Inlet temperature in °F. Will display **LO** if below 95 °F. Will display **OPn** if greater than 275 °F.	Initiates heating and motor operation
Outlet Temperature Test	Current outlet temperature in °F. Will display **LO** if below 80 °F. Will display **OPn** if greater than 160 °F.	Initiates heating and motor operation
Door Switch Test	**OPn** if open - **CLS** if closed	No change
Rod Voltage Test	Displays the voltage of the moisture sensing rods in hundredths of a volt	No change
Drum Motor Test	**dOF** upon entry	Activate motor
Heater Inner Coil/Gas Valve Test	**iOF** = off (electric) **GOF** = off (gas)	Activates inner heater coil (electric dryer); displays **iOF** Activates gas valve (gas dryer); displays **oO**n
Heater Outer Coil Test	**oON/oOF**	Activates outer heater coil (electric dryer)

Dryer Model Codes

The model code shall be displayed on the DSSD upon entering the Model Display Test.

Pressing the START pad while in the Model Display Test will display the model selector group.

Dryer Model Codes	
LCD Electric	SrE
LCD Gas	SrG
Non-LCD Electric	JrE
Non-LCD Gas	JrG

Software Version Number Test

Upon entering the Software Version Number Test, the 3 digit software version number will be displayed on the DSSD. When the START pad is pressed and held, the appliance will display **E** and the 2 digit EEPROM version number on the DSSD.

Program EEPROM Test

Upon entering the program EEPROM test, **EEP** will be displayed on the DSSD. The appliance shall reprogram the EEPROM from flash if the START pad is pressed during the test. A (key press) beep will sound after successfully reprogramming EEPROM. The appliance shall display **Err** on the DSSD and sound a warning beep if the EEPROM can not be reprogrammed.

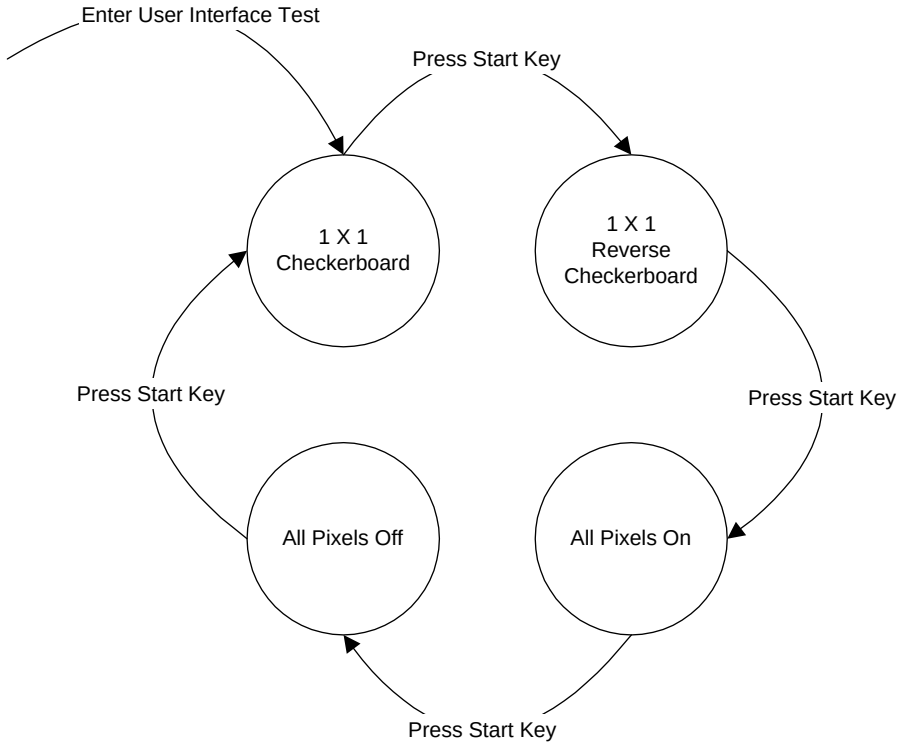
Display Error Codes Test

Upon entering the Display Error Codes Test, the most recent error code recorded in the fault log will be displayed on the DSSD. If no errors are recorded in the fault log, **E00** will be displayed. Pressing START will clear any displayed error codes from the fault log and cause the next most recent error code recorded to be displayed.

After clearing all errors from the fault log, the appliance shall display **E00** on the DSSD.

User Interface Test

Upon entering the User Interface Test, all LED's and the LCD's (LCD models only) will be illuminated. The LCD model will turn on the LCD backlight and display a 1x1 checkerboard pattern upon entry. Pressing the START pad will scroll the LCD through the display patterns as defined in the diagram below.



Inlet Temperature Test

Upon entering the Inlet Air Temperature Test, the inlet air sensor temperature in degrees Fahrenheit will be displayed on the DSSD. If the measured temperature is less than 95 °F, LO will be displayed. If the measured temperature is greater than 275 °F, OPn shall be displayed on the DSSD.

Pressing the START pad while in the Inlet Temperature Test will initiate heat and drive motor operation. The START pad should be pressed to increase the inlet air temperature before testing the inlet temperature sensor.

The Inlet Temperature Test displays the inlet air temperature sensor reading. It does not include room air temperature.

Outlet Temperature Test

Upon entering the Outlet Air Temperature Test, the outlet air sensor temperature in degrees Fahrenheit will be displayed on the DSSD. If the measured temperature is less than 80 °F, **LO** will be displayed on the DSSD. If the measured temperature is greater than 160 °F, **OPn** shall be displayed on the DSSD.

Pressing the START pad while in the Inlet Temperature Test function will initiate heat and drive motor operation. The START pad should be pressed to increase the outlet air temperature before testing the outlet temperature sensor.

Door Switch Test

Upon entering the Door Switch Test, **OPn** will be displayed on the DSSD if the door switch is in the open position. If the door switch is in the closed position, **CLS** will be displayed.

Rod Voltage Test

Upon entering the Rod Voltage Test, the voltage of the moisture-sensing rods will be displayed in hundredths of a volt on the SDDS. (See Sensor Rod Circuit.)

Drum Motor Test

Upon entering the Drum Motor Test, **dOF** will be displayed on the DSSD. Pressing START will activate the drum motor and change the DSSD display to **dOn**. The dryer shall turn off the drum motor when the Drum Motor Test has been exited.

Heater Inner Coil/Gas Valve Test

Upon entering the Heater Inner Coil/Gas Valve Test, the DSSD will display **iOF,** indicating the inner heater is off (electric models) or **GOF,** indicating the gas valve is off (gas models).

Pressing the START pad will activate the inner heater (electric models) or the gas valve (gas models) and activate the motor. The DSSD display will change to **iOn** (electric models) or **GOn** (gas models), indicating that the heater or gas valve is on. The dryer shall turn off the heater/gas valve and drum motor when the Heater Inner Coil/Gas Valve Test has been exited.

Heater Outer Coil Test (Electric Models)

Upon entering the Heater Outer Coil Test, the DSSD will display **oOF,** indicating the outer heater coil is off.

Pressing the START pad will activate the outer heater (electric models) and motor. The DSSD display will change to **oOn**, inidcating the heater is on. The dryer shall turn the heater and drum motor off when the Heater Outer Coil Test has been exited.

Error Codes

Refer to steps below to check error codes. Refer to the Error Codes table for a listing and description of all error codes.

To check error codes:

1. Enter field service mode.
2. Index to the Error Codes function using the CUSTOM CYCLE 2 pad.

- If an error code is present, the error code will display immediately. If there is more than one error, pressing the START pad will clear the displayed error code from the fault log and cause the next most recent error to be displayed.

Error Codes			
Display	**Function/ Error**	**Problem**	**Solution**
E00	All	No Error	Normal
E02	Rod Voltage Error	Open or shorted moisture sensing rod.	Check moisture sensing rod and connections. If OK, replace elelctronic control board.
E50	Electronic Control Error	EEPROM failure.	Reprogram EEPROM using field service mode EEPROM Test. If problem is not corrected replace electronic control board.
E60	Door switch Error	Door switch has not opened last 3 completed cycles.	Test door switch using service mode. If faulty, replace switch and reset error code.**
E61	Inlet Thermistor Error	Inlet thermistor shorted.	Check inlet thermistor and connections. Repair or replace as needed.
E62	Outlet Thermistor Error	Outlet thermistor shorted.	Check outlet thermistor and connections. Repair or replace as needed.

** If the door switch has not been opened (due to failure to open the door or a faulty switch) for 3 consecutive completed cycles, the dyer will be disabled on the 4th cycle attempt. Once the switch has opened, dryer operation will automatically be restored.

Troubleshooting Guide

OPERATION	Possible Causes	What To Do
Control pads not responding	**Controls accidentally put in service mode**	• Press ***STOP***.
Dryer doesn't start	**Control panel is "asleep"**	• This is normal. Press START twice to choose the last cycle you used and to start the dryer.
	Dryer is unplugged	• Make sure the dryer plug is pushed completely into the outlet.
	Fuse is blown/circuit breaker is tripped	• Check the building's fuse/circuit breaker box and replace fuse or reset breaker. ***NOTE:*** Electric dryers use two fuses or breakers.
Dryer doesn't heat	**Fuse is blown/circuit breaker is tripped; the dryer may tumble but not heat**	• Check the building's fuse/circuit breaker box and replace both fuses or reset both breakers. Your dryer may tumble if only one fuse is blown or one breaker tripped.
	Gas service is off	• Make sure gas shutoff at dryer and main shutoff are fully open.
	LP gas supply tank is empty or there has been a utility interruption of natural gas (gas models)	• Refill or replace tank. Dryer should heat when utility service is restored.
Dryer shakes or makes noise	**Some shaking/noise is normal. Dryer may be sitting unevenly**	• Move dryer to an even floor space, or adjust leveling legs as necessary until even.
Inconsistent drying times	**Type of heat**	• Drying time will vary according to the type of heat used. If you recently changed from an electric to a gas (natural or LP) dryer, or vice versa, the drying time could be different.
	Type of load and drying conditions	• The load size, types of fabric, wetness of clothes and the length and condition of the exhaust system will affect drying times.
No numbers displayed during cycle, only lights	**Dryer is continuously monitoring the amount of moisture in the clothes**	• This is normal. When the dryer senses a low level of moisture in the load, the dryer will display the dry time remaining.
Time Remaining jumped to a lower number	**The estimated time may change when a smaller load than usual is drying**	• This is normal.
Clothes are still wet and dryer shut off after a short time	**The door was opened mid-cycle. The load was then removed from the dryer and a new load put in without selecting a new cycle**	• A dry cycle must be reselected each time a new load is put in.
	Small load	• When drying only a few items, choose ***SPEED DRY*** or ***TIMED DRY***.
	Load was already dry except for collars and waistbands	• Choose ***SPEED DRY*** or ***TIMED DRY*** to dry damp collars and waistbands. In the future, when drying a load with collars and waistbands, choose ***MORE DRY***.

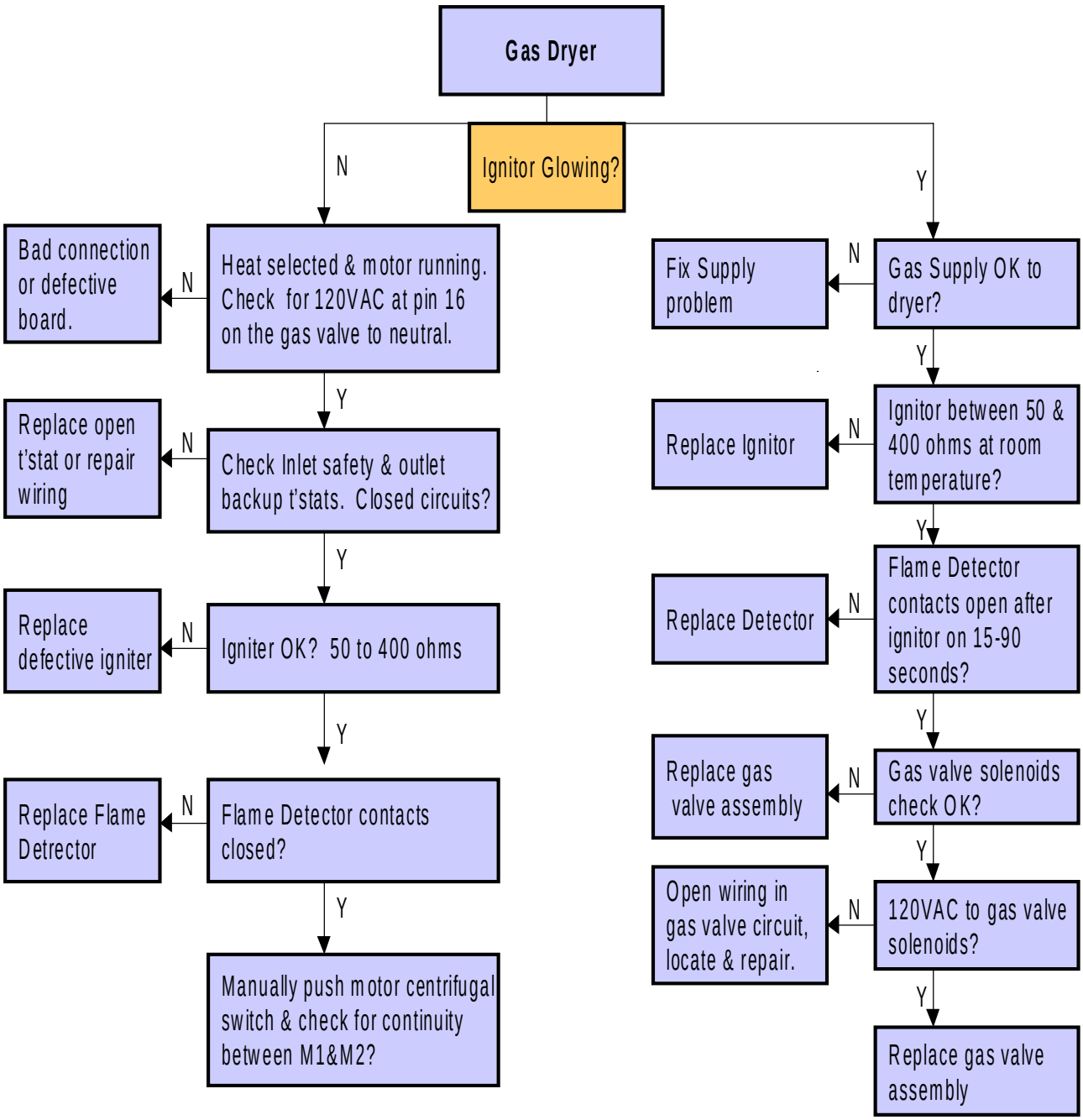
OPERATION	Possible Causes	What To Do
The DRY dryness level was chosen but load is still damp	**Load consists of a mixture of heavy and light fabrics**	• When combining heavy and light fabrics in a load, choose ***MORE DRY***.
	Exhaust system is blocked	• Inspect and clean exhaust system.
Cannot make a selection and the dryer beeps twice	**The *DRYNESS LEVEL, TEMP* or *OPTION* that you are trying to select is incompatible with the chosen dry cycle**	• This is normal.
Dryer is running but 00 is displayed in Time Remaining	**The *EXTEND TUMBLE* option was chosen**	• This is normal. During extended tumbling, the time remaining is not displayed. The extended tumbling option lasts approximately 20 minutes.

LAUNDRY PRACTICES	Possible Causes	What To Do
Clothes are wrinkled	**Overdrying**	• Select a shorter drying time. • Remove items while they still hold a slight amount of moisture. Select a ***LESS DRY*** or ***DAMP*** setting.
	Letting items sit in dryer after cycle ends	• Remove items when cycle ends and fold or hang immediately, or use the ***EXTEND TUMBLE*** option.
Clothes shrink	**Some fabrics will naturally shrink when washed. Others can be safely washed, but will shrink in the dryer**	• To avoid shrinkage, follow garment care labels exactly. • Some items may be pressed back into shape after drying. • If you are concerned about shrinkage in a particular item, do not machine wash or tumble dry it.
Greasy spots on clothes	**Improper use of fabric softener**	• Follow directions on fabric softener package.
	Drying dirty items with clean ones	• Use your dryer to dry only clean items. Dirty items can stain clean items and the dryer.
	Clothes were not completely clean	• Sometimes stains which cannot be seen when the clothes are wet *appear* after drying. Use proper washing procedures before drying.
Lint on clothes	**Lint filter is full**	• Clean lint screen before each load.
	Improper sorting	• Sort lint producers (like chenille) from lint collectors (like corduroy).
	Static electricity can attract lint	• See suggestions in this section under ***STATIC.***
	Overloading	• Separate large loads into smaller ones.
	Paper, tissue, etc., left in pockets	• Empty all pockets before laundering clothes.

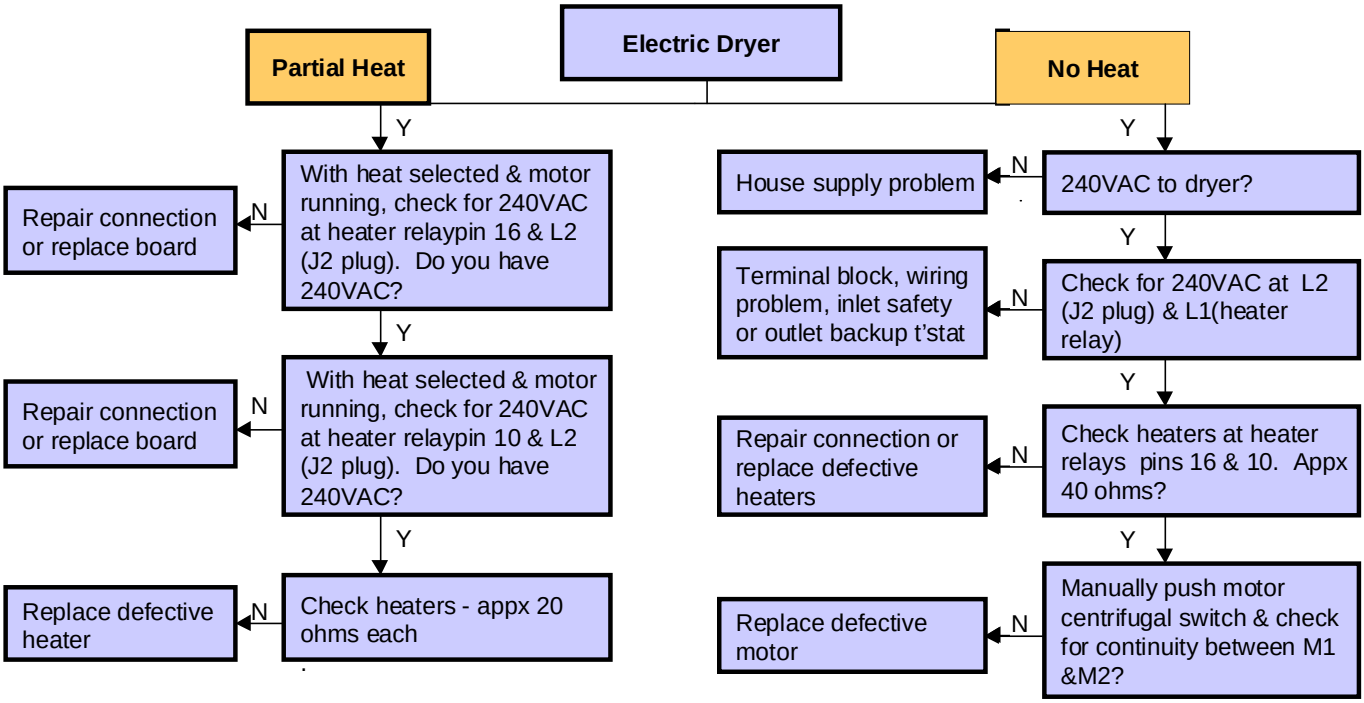
LAUNDRY PRACTICES	Possible Causes	What To Do
Static occurs	**No fabric softener was used**	• Try a fabric softener. • Bounce® Fabric Conditioner Dryer Sheets have been approved for use in all GE Dryers when used in accordance with the manufacturer's instructions.
	Overdrying	• Try a fabric softener. • Adjust setting to ***LESS DRY*** or ***DAMP***.
	Synthetics, permanent press and blends can cause static	• Try a fabric softener.
Collars and waistbands still wet at end of cycle	**The dryness monitor senses that the body of the clothes is dry**	• Choose ***SPEED DRY*** or ***TIMED DRY*** to dry damp collars and waistbands. In the future, when drying a load with collars and waistbands, choose ***MORE DRY***.
Clothes take too long to dry	**Improper sorting**	• Separate heavy items from lightweight items (generally, a well-sorted washer load is a well-sorted dryer load).
	Large loads of heavy fabrics (like beach towels)	• Large, heavy fabrics contain more moisture and take longer to dry. Separate large, heavy fabrics into smaller loads to speed drying time.
	Controls improperly set	• Match control settings to the load you are drying.
	Lint filter is full	• Clean lint filter before every load.
	Improper or obstructed ducting	• Check installation instructions for proper ducting/venting. • Make sure ducting is clean, free of kinks and unobstructed. • Check to see if outside wall damper operates easily. • Check the Installation Instructions to make sure the dryer venting is correct.
	Blown fuses or tripped circuit breaker	• Replace fuses or reset circuit breakers. Since most dryers use 2 fuses/breakers, make sure both are operating.
	Overloading/combining loads	• Do not put more than one washer load in the dryer at a time.
	Underloading	• If you are drying only one or two items, add a few items to ensure proper tumbling.

Troubleshooting Flowcharts

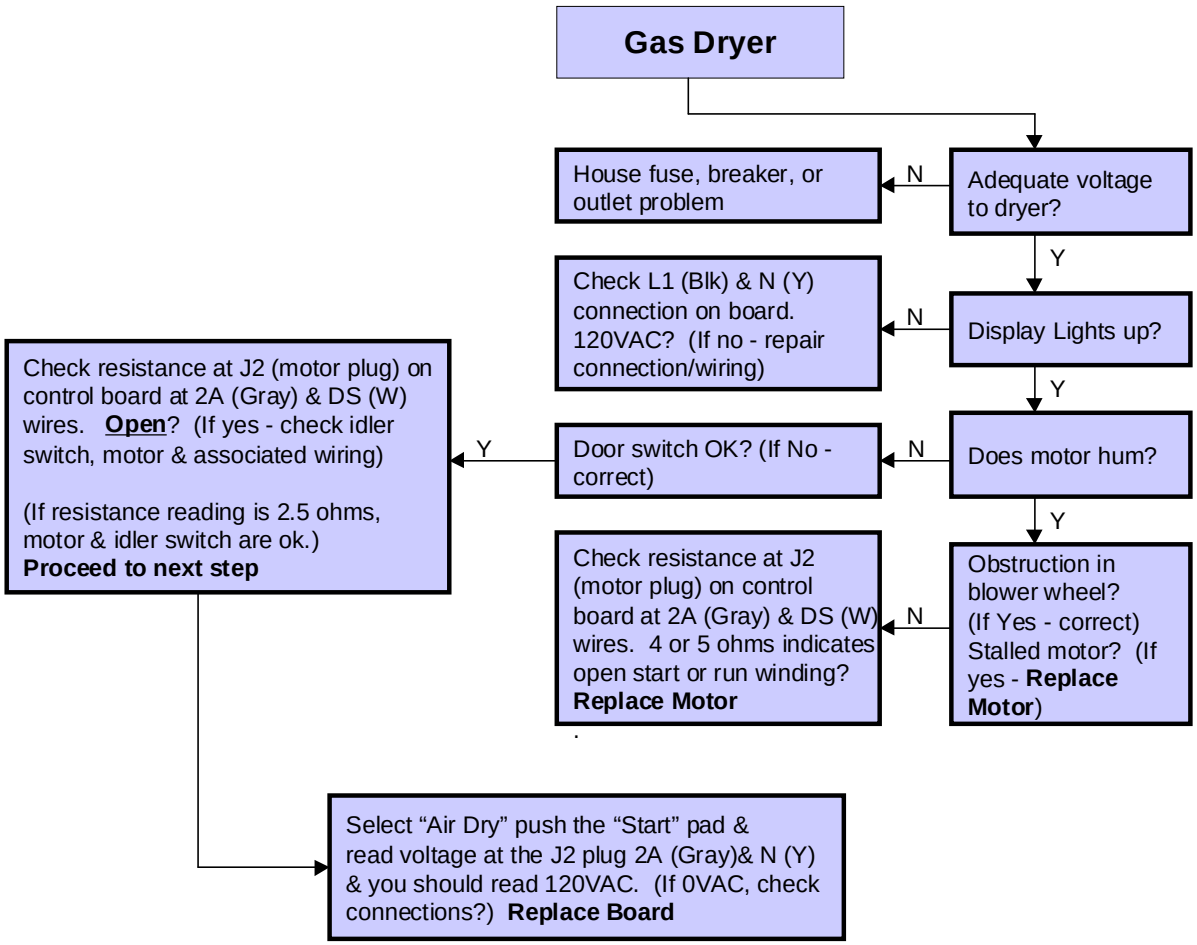
No Heat - Drum Turns



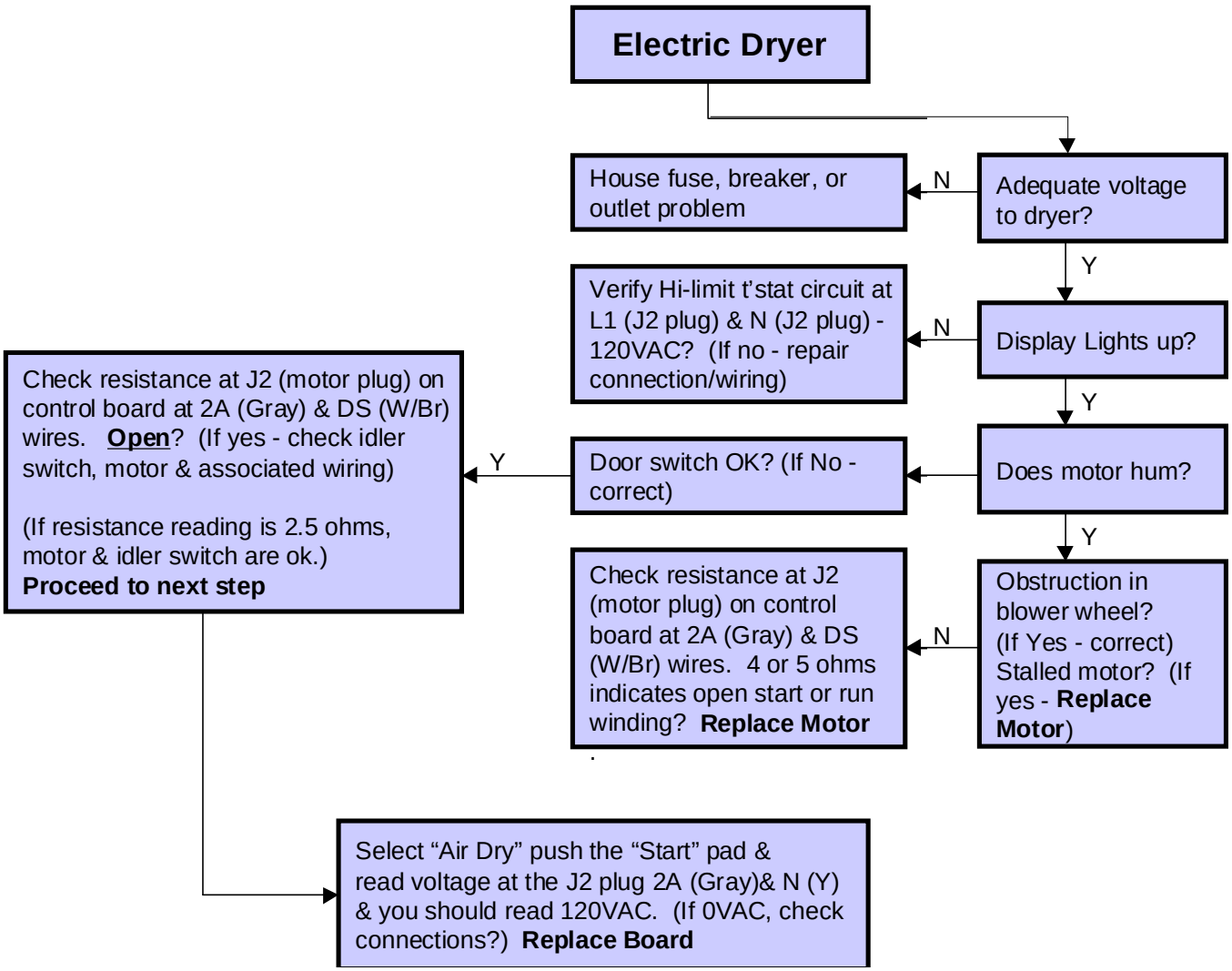
No Heat or Partial Heat - Drum Turns



Dryer Will Not Run



Dryer Will Not Run

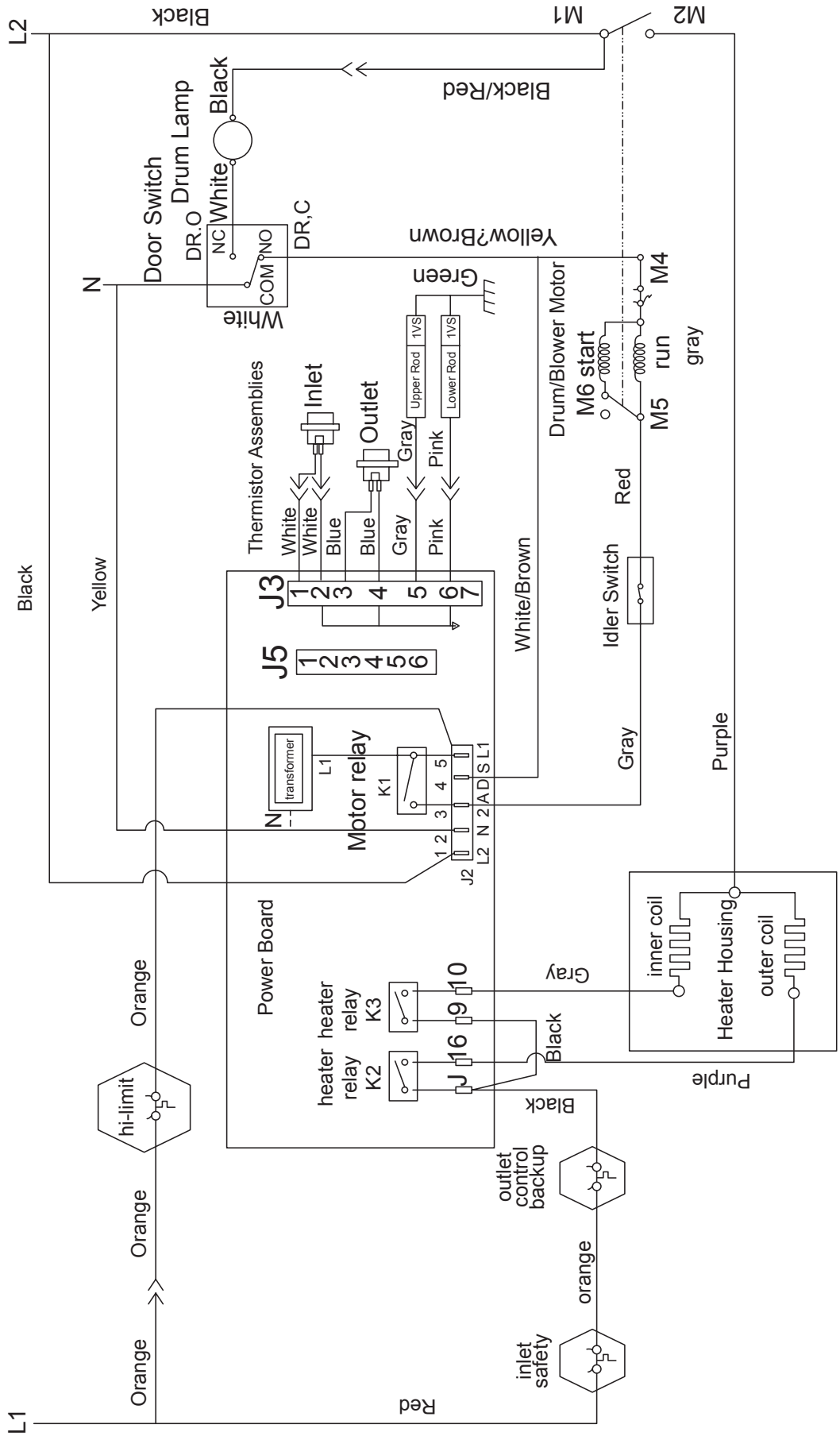


Notes

Schematics

Warning: Disconnect electrical power before servicing.

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



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