

# **MAYTAG Training SERVICES**

## **Maytag Compact 24" Dryer**



***Be Aware, Be Alert  
Always work safely.  
On the Job, On the Road, In the Home  
Every Time, All the Time***

**MAYTAG Training  
SERVICES**

**MAYTAG**

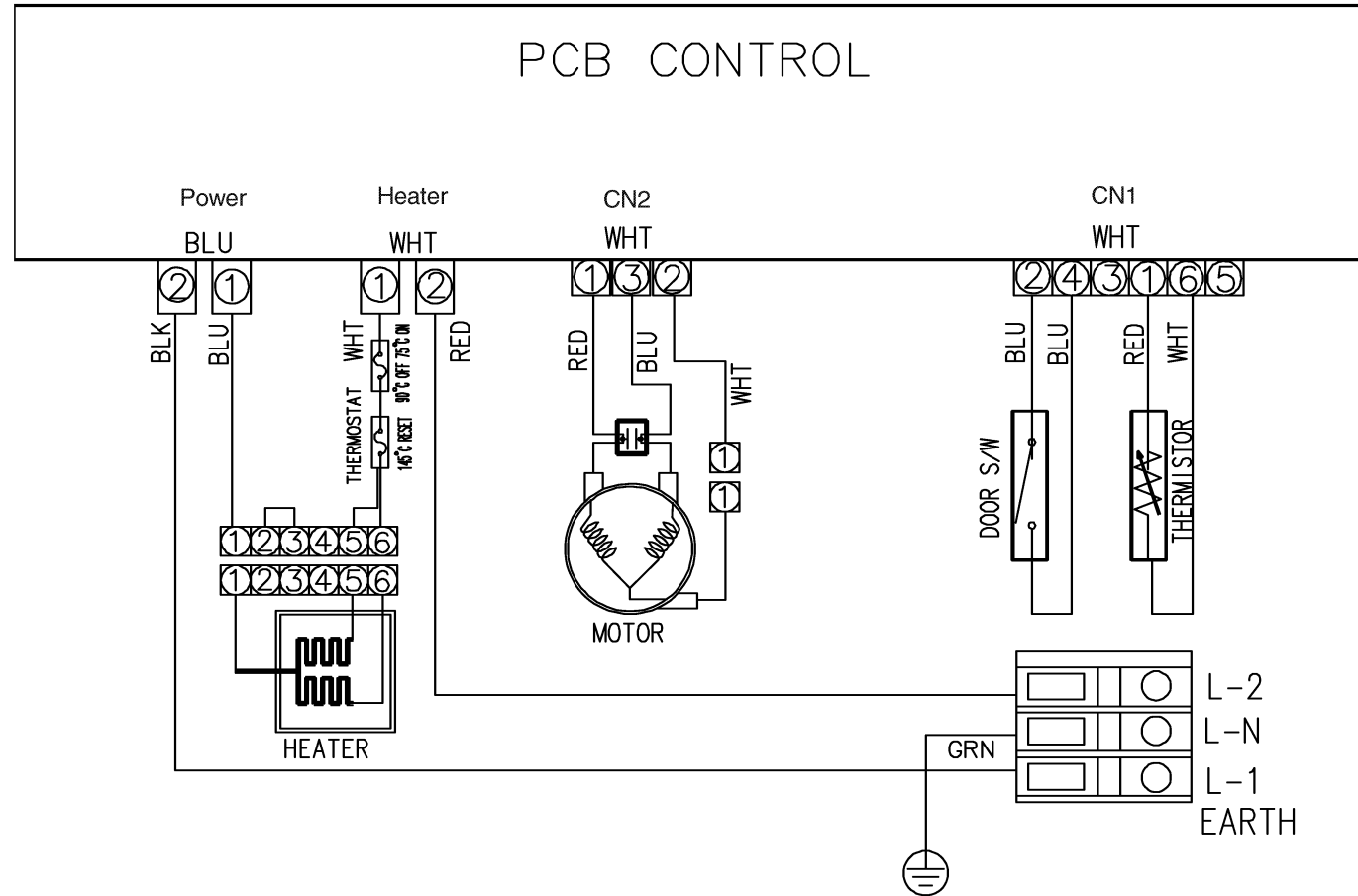


# Troubleshooting

## **WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to dryer before servicing, unless testing requires power.

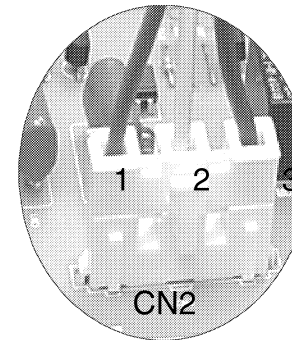
### SCHEMATIC DIAGRAM



# Troubleshooting

## **WARNING**

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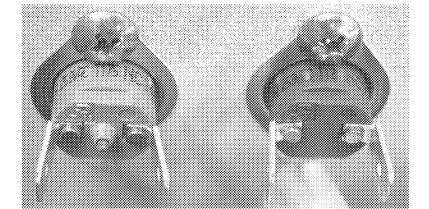


Disconnect harness and test White wire Pin 2 to Red wire Pin 1. Approx  $35 \Omega \pm 10\%$

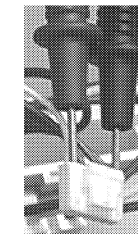
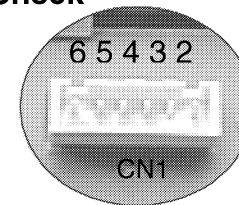
Disconnect harness and test Blue wire Pin 3 to White wire Pin 2. Approx  $29 \Omega \pm 10\%$

**Resettable Thermal Fuse**  
Less than 1 ohm

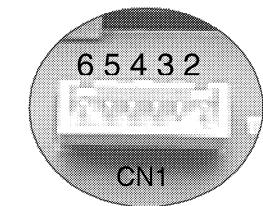
**High Limit Thermostat**  
Less than 1 ohm



### Thermistor Check

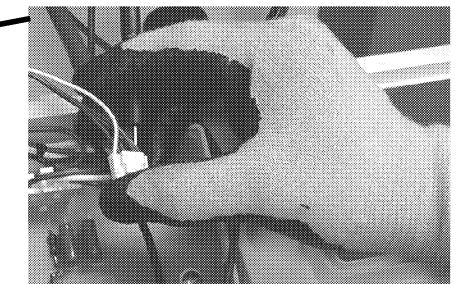
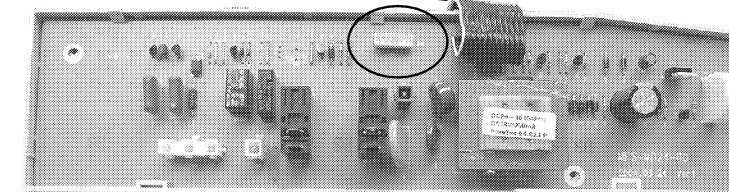


Remove plug and test from Red wire Pin 1 to White wire Pin 6. Approx 60K ohms @ room temp.



### Door Switch Check

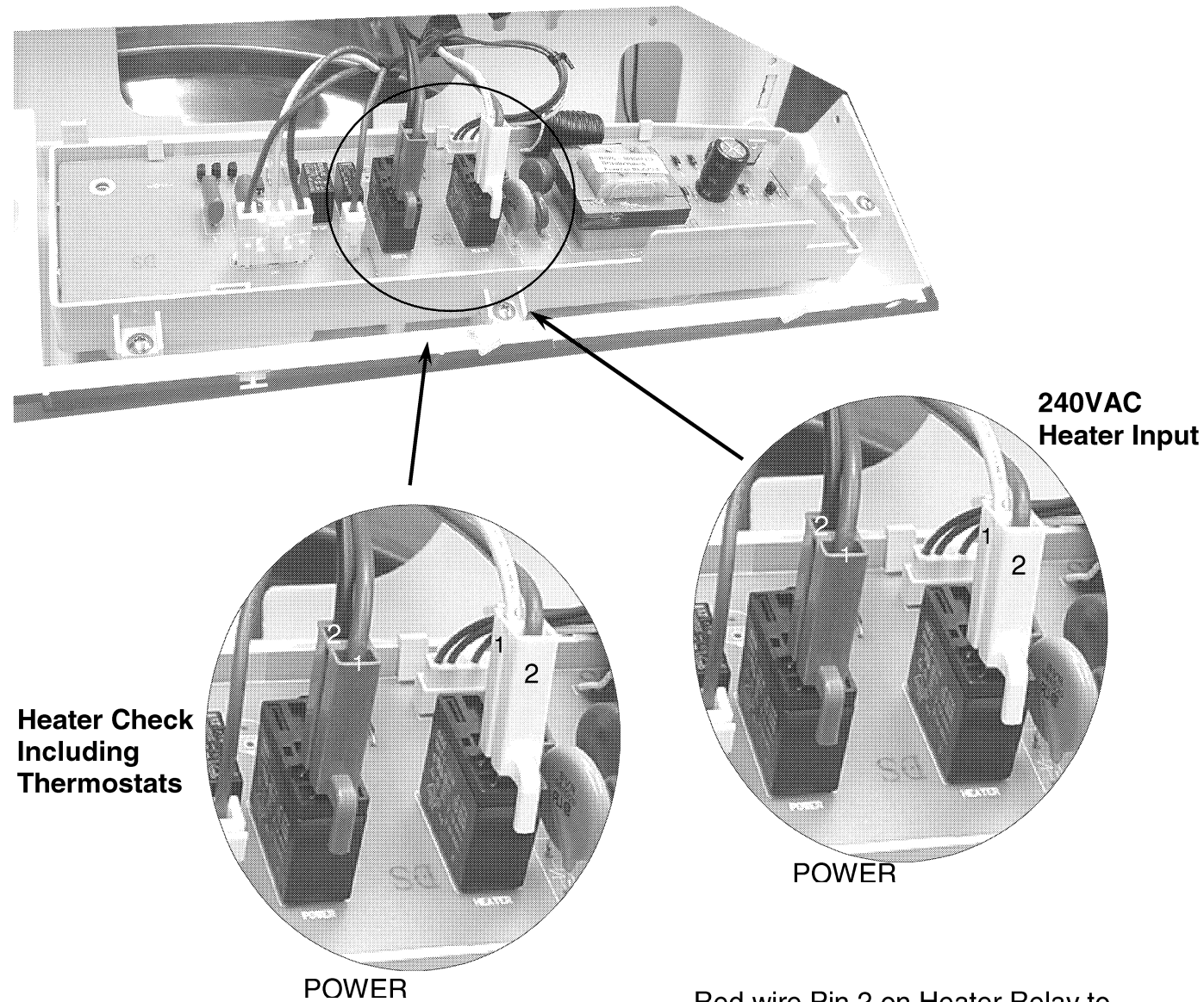
Disconnect harness and test Blue wire Pin 2 to Blue Wire Pin 4. Less than 1ohm



# Troubleshooting

## **WARNING**

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**Heater Check Including Thermostats**

**POWER**

**240VAC Heater Input**

**POWER**

Red wire Pin 2 on Heater Relay to  
Black wire Pin 2 on Power Relay  
52.4  $\Omega \pm 5\%$

Disconnect harness and test White wire Pin 1 on Heater Relay to  
Blue wire Pin 1 On Power Relay. Approx 26  $\Omega \pm 5\%$

**Motor Check**

**Slide 1 - 24" Maytag Compact Dryer**

**Slide 2 - New Maytag 24" Front Load Laundry –November 2004**

**Slide 3**



## 24" Maytag Electric Dryer

- 4.0 cu. ft. Capacity
- Stainless Steel Drum
- Electronic Controls
- 16 Cycles
- Sensor Dry
- 24" width x 33.5" height
- White
- MDE2400AYW
- \$499 Suggested Retail

**Slide 4**

**Dimensions - 23.5" Wide 33.35" High 24" Deep**

**Capacity 3.7 Cu. FT**

**Blower – 100CFM**

**Temperature Settings 140, 145 and 150 Degrees**


**240 VAC 1/5 HP PSC Motor**

**Wrinkle Free Option – 95 Min**

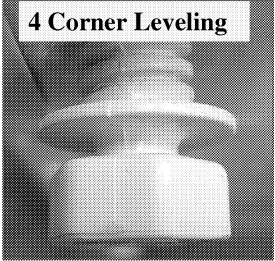
**Slide 5-** Note: The Power Point Presentation and Participant's Guide for this training session were developed using prototype machines. There might be slight cosmetic differences between the product pictured and the current production units.

**Slide 6 -** Installation

**Slide 7**




**Refer to the installation manual shipped with the product and follow all local codes when installing and venting dryer**



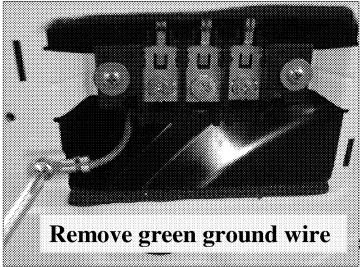
**4 Corner Leveling**

**Slide 8**

**4 Wire Electrical Hookup**



**Remove screw and cover**



**Remove green ground wire**

## Troubleshooting

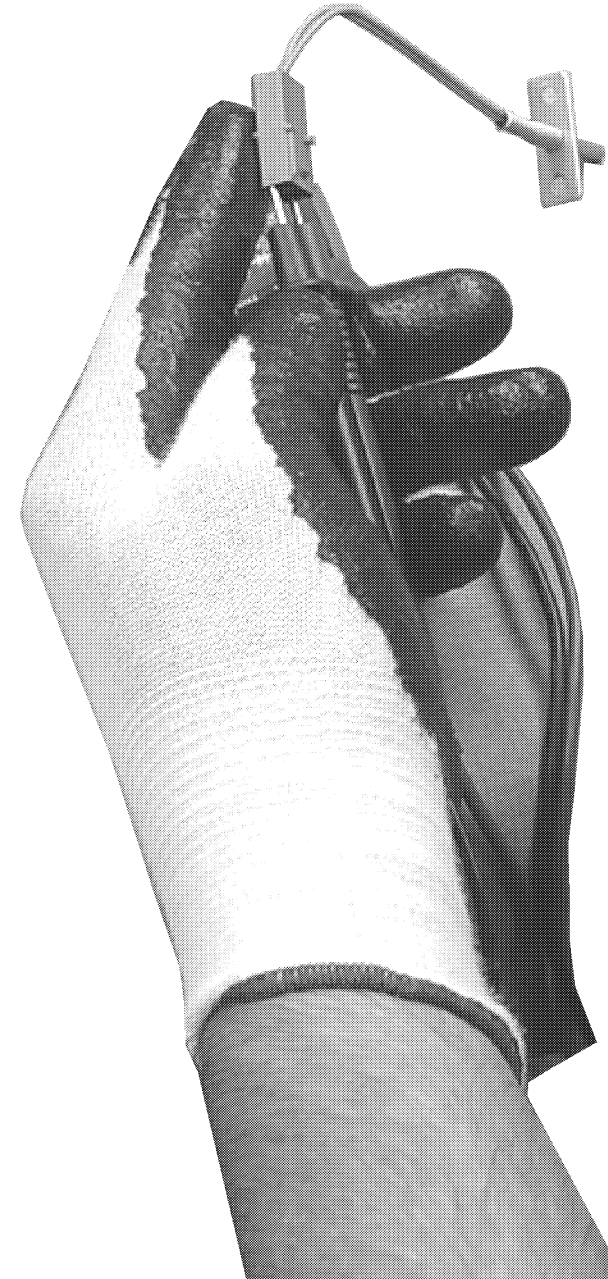
**⚠ WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to dryer before servicing, unless testing requires power.

Code	Description	Trigger	Action Taken
8	Stuck Key	A key is sensed to be pressed more than 75 seconds, the key shall be assumed to be stuck.	Run membrane pad check and replace console w/membrane pad if necessary.

### Component Electrical Testing

Thermistor resistance 60K  $\Omega$  @ 20°C 68°F



# Troubleshooting

## WARNING

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displayed for five (5) seconds once all switch pads have been pressed and this test is completed. Following 10 seconds of inactivity at any point, the test will exit without any display. The **Power Off** switch pad must be pressed twice within thirty (30) seconds to cancel this test.

Switch	Action
Wrinkle Prevent	Press once
Chime	Press once
More Time	Press once
Less Time	Press once
Temperature	Press once
Dryness Level	Press once
Selector Knob	Rotate 1 position
Start Pause	Press once
Off	Press once

### Diagnostic Codes

The Diagnostic Codes are identified when the severity level of the abnormality detected is higher and service may be required.

When a problem with the dryer is detected a Diagnostic Code is assigned, and can be displayed. The Control Board will not log multiple same codes per cycle; however, it will log as many Diagnostics as possible for the machine to continue running.

Access Diagnostic Codes by entering the Service Mode and pressing **Wrinkle Prevent**. A **d** will be displayed.

Rotate the Cycle Selector Knob in either direction to step through the list of codes one code at a time. Once an initial direction is selected by the user (either Clockwise or Counterclockwise), subsequent movements of the knob in the same direction will show older codes. If the user changes direction and turns the knob in the opposite direction, the more recent code will be displayed.

While a diagnostic code is displayed, if the **Start/Pause** button in the center of the Rotary Cycle Selector is pressed and held, the machine will display the number of cycles ago the diagnostic code occurred. When the **Start/Pause** button is released, the diagnostic code is again displayed.

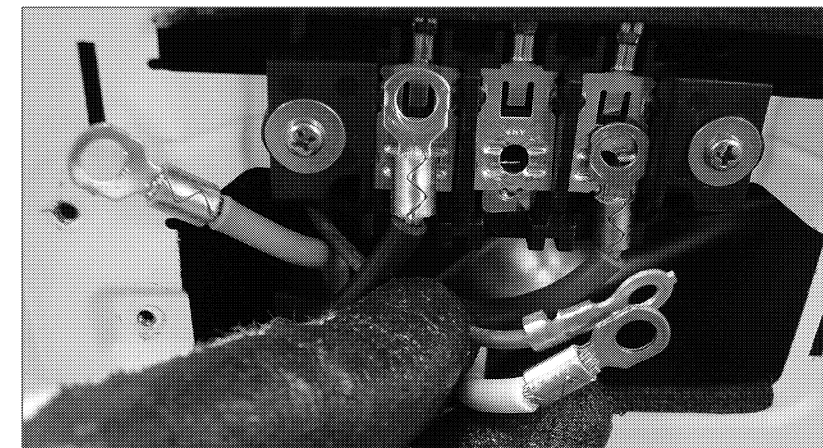
### Clearing Diagnostic Codes

To clear the diagnostic code list press the **Adjust Time More** and **Less** keypads together for 3 seconds while viewing the list. The cycle count for each diagnostic code will be reset to 0, but not the machine cycle count.

### Diagnostic Codes

Code	Description	Trigger	Action Taken
1	Dryer Thermistor Short Sensed	The Thermistor resistance is very low.	<u>Check for:</u> - Clogged lint screen. - Restricted vent system. - Check Thermistor resistance.
2	Thermistor Open Sensed	The Thermistor resistance is very high	<u>Check for:</u> - Low ambient temperature in room (Below 50°F/10°C). - Outside vent damper is stuck open in wintertime. - Loose or open wire terminals. - Check Thermistor resistance.
3	Door Circuit Failure	Invalid state for more than 256 milliseconds	<u>Check for:</u> - Loose or open wire terminals in Door Sense circuit.
4	Possible motor transistor error	If either motor transistor is seen open or shorted during startup	<u>Check for:</u> - Loose connections in motor circuit. - Run System Check Mode and check the motor relay function. - If relay functions, disregard the diagnostic code. - If relay does not function, replace machine control board.

### Slide 9



Connect the 4 cord wires as follows:

**Green – Chassis Ground**

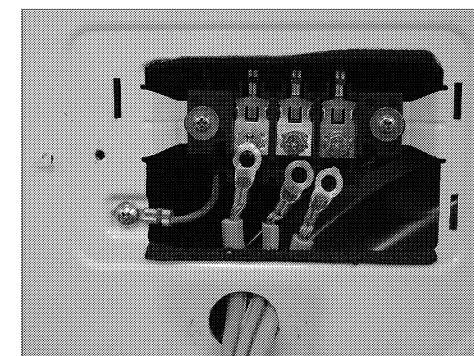
**Black – Left Terminal**

**White from cord and Green from chassis – Center Terminal**

**Red – Right Terminal**

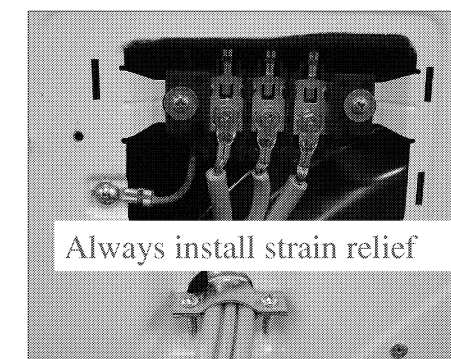
9

### Slide 10



### Three Wire Connection

Leave the Green wire connected to the chassis and connect the 3 wire pigtail to the terminal block



Always install strain relief

10

Slide 11

**Level the dryer, connect the vent, tape the joints and test run the machine**

11

Slide 12 - Removing Top

Slide 13

**1**

**Remove 2 screws located at the rear of the top**

**2**

**Lift up on the back of the top and slide it toward the rear of the machine approximately one inch. This will allow two large diameter screws located in the front of the machine to align with corresponding holes in the top so the top can be lifted and removed**

**3**

13

## Troubleshooting

**! WARNING**

To avoid risk of electrical shock, personal injury or death; disconnect power to dryer before servicing, unless testing requires power.

**Enter Service Mode:**

Dryer must be on before Service Mode can be entered. Press **Chime** and **Temperature** Keys for 3 seconds, or until 3 beeps are heard. The machine will now be in Service Mode.

**Exit Service Mode**

Press the **OFF** key to exit Service Mode or repeat the **Chime** and **Temperature** sequence.

Key Press	Special Test/Function
Start/Pause	Start or pause cycle running but remain in diagnostic mode. Display the number of cycles ago the diagnostic code occurred.

**System Check Mode**

While in Service Mode, pressing the **Less Time** and **Wrinkle Prevent** keys for 3 seconds, will put the dryer into the System Check mode and "in" will display. The following table lists the various functions based on the keys being pressed.

**System Check Mode Table**

Key Pressed:	Function Performed
Start/Pause	Cycles the motor on/off.
Rotate the Cycle Selector Knob to <b>Delicates</b>	LED's and 7 segment display flash.
Rotate the Cycle Selector Knob to <b>Damp Dry</b>	View current cycle temperature in Celsius.

**LED/Switch Check**

While in Service Mode, pressing the **Chime** and **Wrinkle Prevent** keys for 3 seconds, will start a LED/Switch Test. To exit the test at any point, press the same keys again for 3 seconds or press the **OFF** key to exit Service Mode.

Perform the check by pressing the keys which toggle the LED's on and off.

All switch pads must be pressed within 5 minutes for this test to pass. **PA** will be

**Diagnostic Tests**

The following table lists the various tests available while in the Service Mode, which can be accessed by pressing the following keys:

Key Press	Special Test/Function
<b>Wrinkle Prevent</b> Displays "d"  Then rotate the <b>Cycle Selector Knob</b>	Display list of diagnostic codes.  To sequence thru the diagnostic and help codes.
<b>Temperature Key</b>	Display software revision number



# Troubleshooting



## WARNING

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### Will Not Run

#### Will not start or run:

- All wires are hooked up to their corresponding terminals.
- Dryer is plugged in.
- Blown fuse or circuit breaker.
- Door switch functional...door closed. Check for error code 3.
- Start/Pause switch functional.
- Control Board operational.
- Drive motor functional.
- Check motor capacitor.

#### Motor runs/ tumbler will not turn:

- Belt off or broken/damaged.
- Idler tension spring too weak or stretched.
- Idler pulley jammed or stuck.

#### Runs a few minutes and then stops:

- Lint buildup around drive motor.
- Low voltage present.
- Blower impeller blocked in blower housing.
- Drive motor - start switch contacts stuck closed.

#### Blows fuses or trips circuit breaker:

- The amperage readings are at 240 volts. One line will be 24 amps and the other line will be 21 amps. The neutral line will be at 3 amps. If the above amperages are present, then the house wiring, fuse box or circuit breaker should be suspect.
- Shorted heating element to housing.
- Incorrect wiring or a wire shorting to ground.
- Drive motor winding shorting to ground.

### Will Not Dry

#### Will not heat (motor runs):

- Open heating element.
- Hi-Limit trips easily or is open.
- Regulating thermostat trips easily or is open.
- Membrane switch open.
- Check Thermistor.

#### Improper drying/clothes wrinkled/ rough texture/long dry time:

- Lint filter is not clean.
- Restriction in exhaust.

- Outside exhaust hood damper door stuck closed.
- Exhaust too long, too many elbows, flex ductwork installed.
- Poor makeup air available for the dryer.
- Incorrect tumbler speed. Tumbler belt slipping.
- Blower impeller bound; check for foreign material in blower area.
- Customer overloading dryer.
- Check clothing labels for fabric content and cycle selected.
- Clothes too wet due to insufficient spin out by washer.

### Will Not Shut Off

- Short in Sensor Circuit.
- Check Membrane Pad.
- Check Electronic Control Board.

### Troubleshooting the electronic control circuit:

- Check for miswiring of the electrical connector at the electronic control board.

### Noisy and/Or Vibration

- **Thumping** Check for loose tumbler baffle, out-of-round tumbler or high weld seam on tumbler.
- **Ticking** Check for loose wire harness or object caught in blower wheel area.
- **Scraping** Worn tumbler front bearings.
- **Roaring** Check for blower wheel rubbing on blower housing or bad motor bearings.
- **Popping or squealing sound.** Check for a sticky or frayed belt.

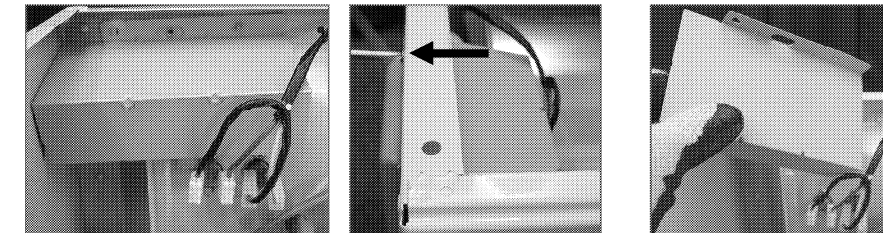
## Service Mode

This mode provides Service Personnel the ability to verify the operation of the dryer.

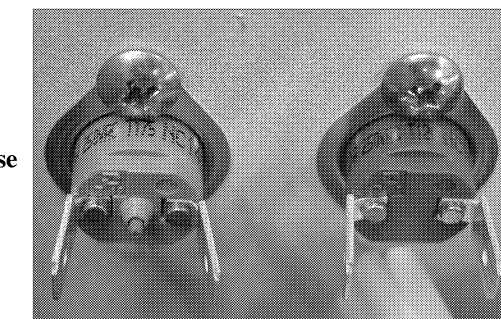
The Service Mode can be implemented at any time, including the middle of a dry cycle. While in the Service Mode, the Technician can start special diagnostic tests such as a System Check Mode, LED Switch/Check, Display Software version number and display diagnostic/help code listings.

### Slide 14 - Servicing Thermostats

### Slide 15



The high limit and thermal fuse are covered with a metal shield. Remove the screw from the back of the cabinet to remove shield



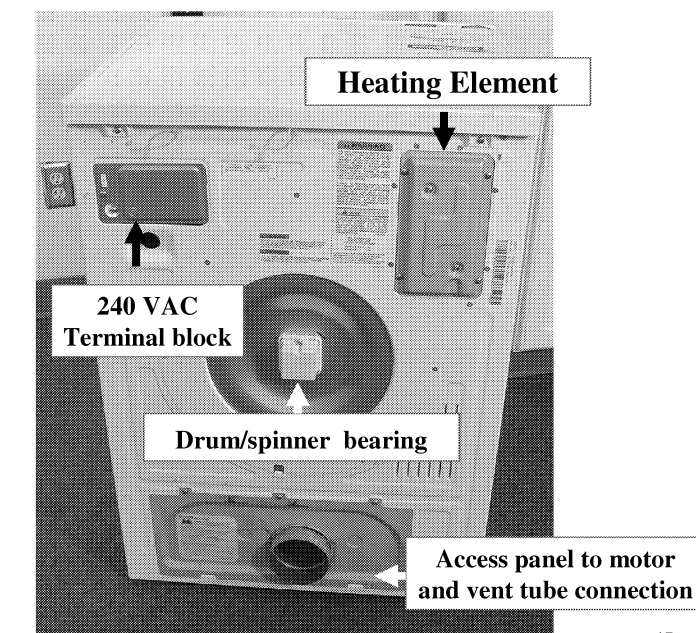
Reset able Thermal Fuse

High limit Thermostat

15

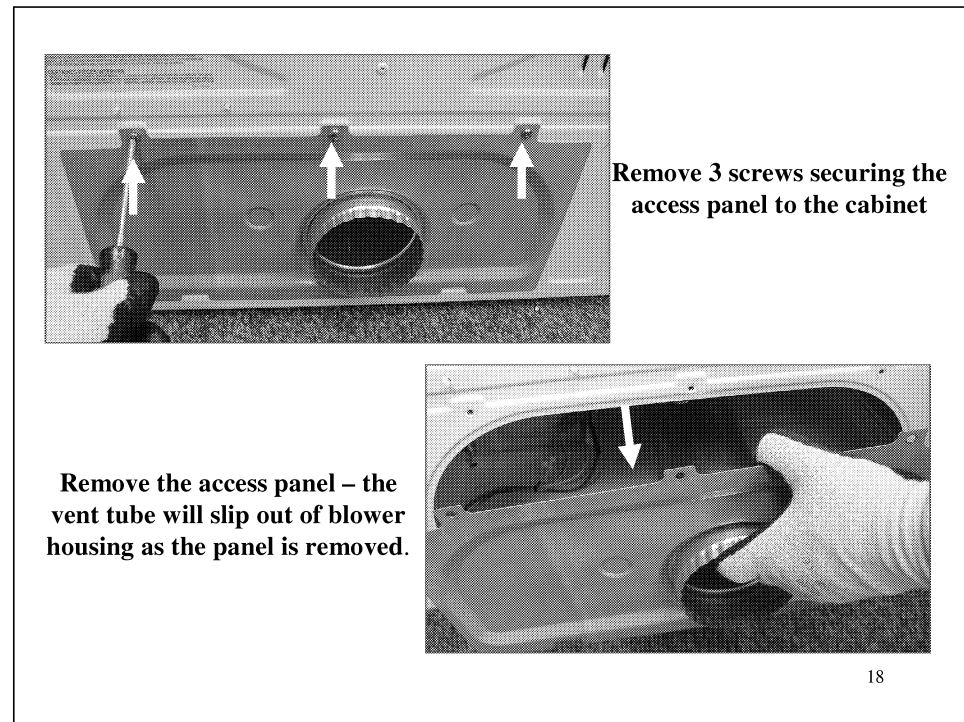
### Slide 16 - Removing back access cover

### Slide 17

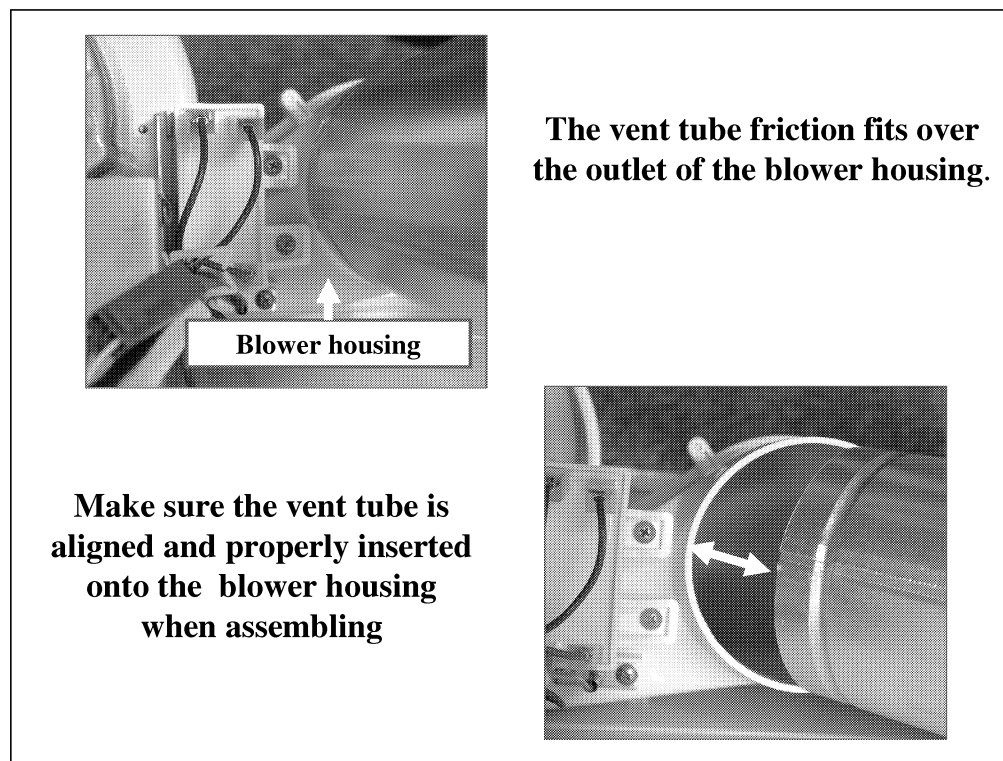


17

Slide 18



Slide 19



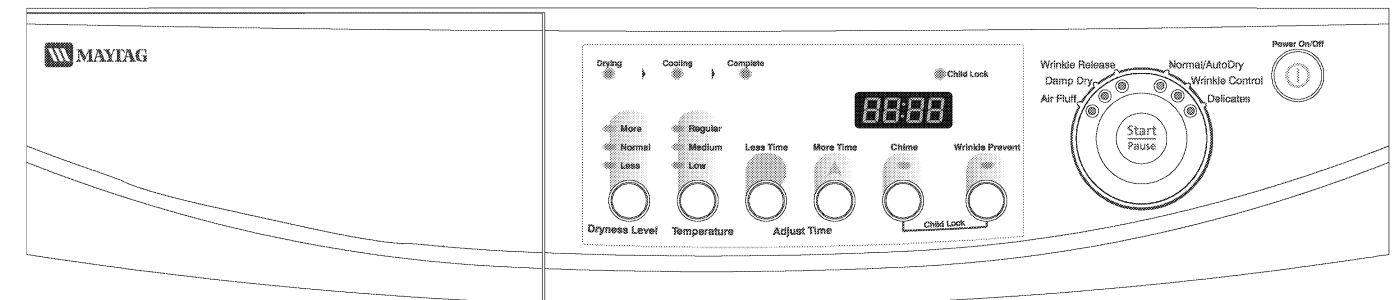
## 24" Domestic Dryer—Technical Information

MDE2400A\*

**Due to possibility of personal injury or property damage, always contact an authorized technician for servicing or repair of this unit.**

- Refer to Service Manual 16023432 for detailed installation, operating, testing, troubleshooting, and disassembly instructions.

**Warning! All safety information must be followed as provided in Service Manual 16023432. To avoid risk of electrical shock, personal injury or death; disconnect power to dryer before servicing, unless testing requires power.**

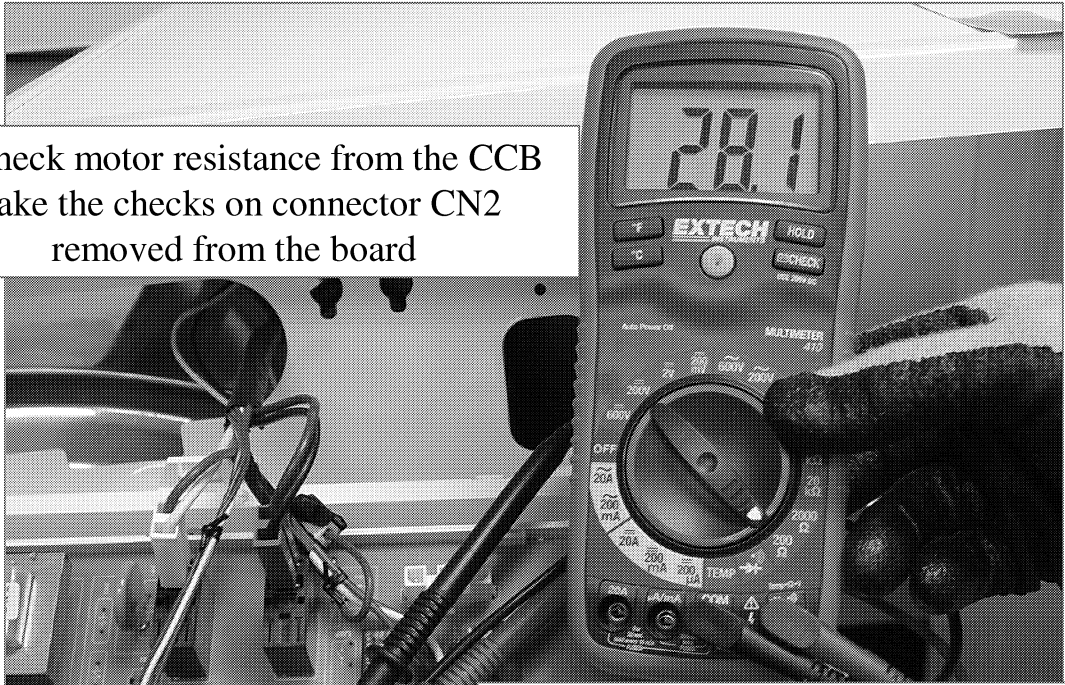


FEATURES	MDE2400AYW
Controls	LED
Time Remaining Indicator	•
Start/Pause Pad	•
Dryer Drum	Stainless Steel
Capacity	4.0 Cu.Ft.
Oversize Baffles	3
Large Door Opening	•
Reversible Door Design	•
GentleBreeze™ Drying System	•
High Capacity Blower	100 CFM
Dryness Control	AutoDry
Adjustable Degrees of Dryness	150°/145°/140°
Temperature Settings	4
Low Temperature Setting	140°
Medium Temperature Setting	145°
Regular Temperature Setting	150°
Time Dry Cycle	•
Fabric Selections	
Normal/AutoDry	•
Wrinkle Control Cycle	•
Delicates Cycle	•
Air Fluff Cycle	•
Damp Dry Cycle	•
Wrinkle Release Cycle	•
Wrinkle Prevent Option	•
End-of-Cycle Chime	On/Off

Child Lock Option	•
Suspension	3-Point
Top	Laminate
Cabinet	Tri-Coat
<b>DIMENSIONS</b>	
Width	23.75 in.
Height	33.5 in.
Depth	23.75 in.
Depth With Door Open 90°	38.25 in.

Slide 77 - Motor Resistance Check

Slide 78



To check motor resistance from the CCB make the checks on connector CN2 removed from the board

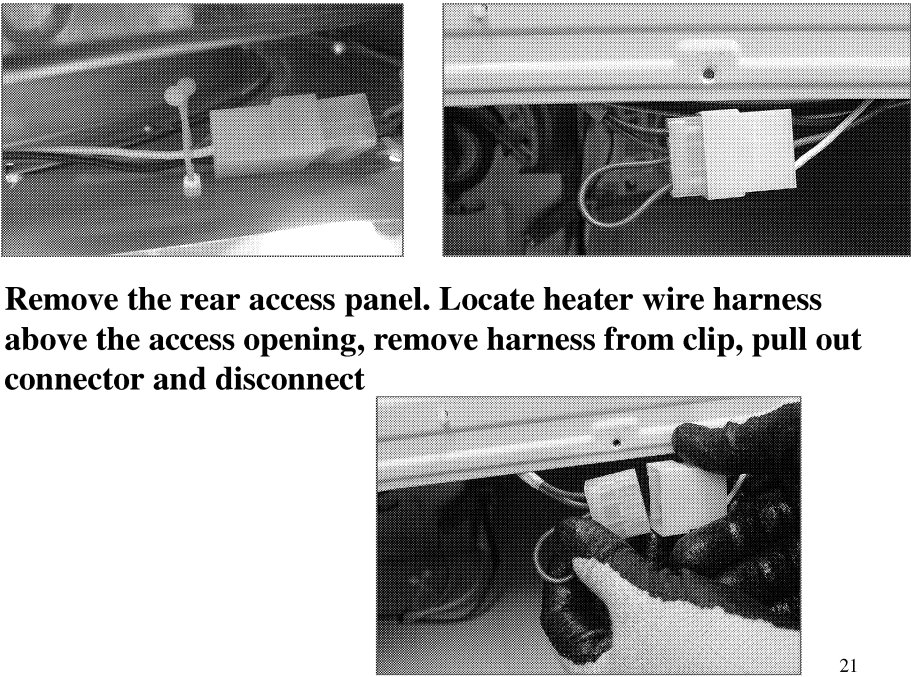
Run – Blue and White 28 Ohms  
Start – Red and White 34 Ohms  
Run and Start - Red and Blue 63 Ohms  
All readings are approximate

78

Slide 79 – End

Slide 20 - Heater Element Service

Slide 21

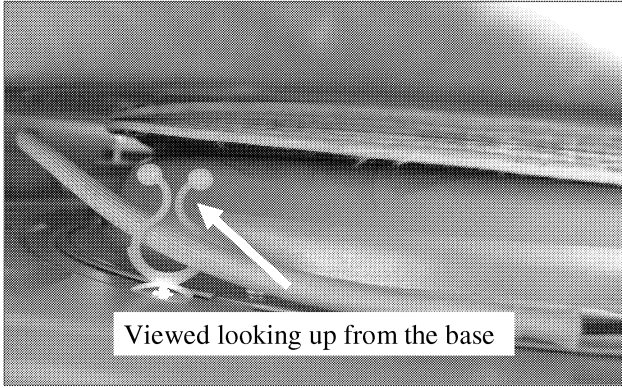


Remove the rear access panel. Locate heater wire harness above the access opening, remove harness from clip, pull out connector and disconnect

21

Slide 22

Locate the heater wire harness retainer located about 10" from the top of the access panel opening. Release retainer and remove harness

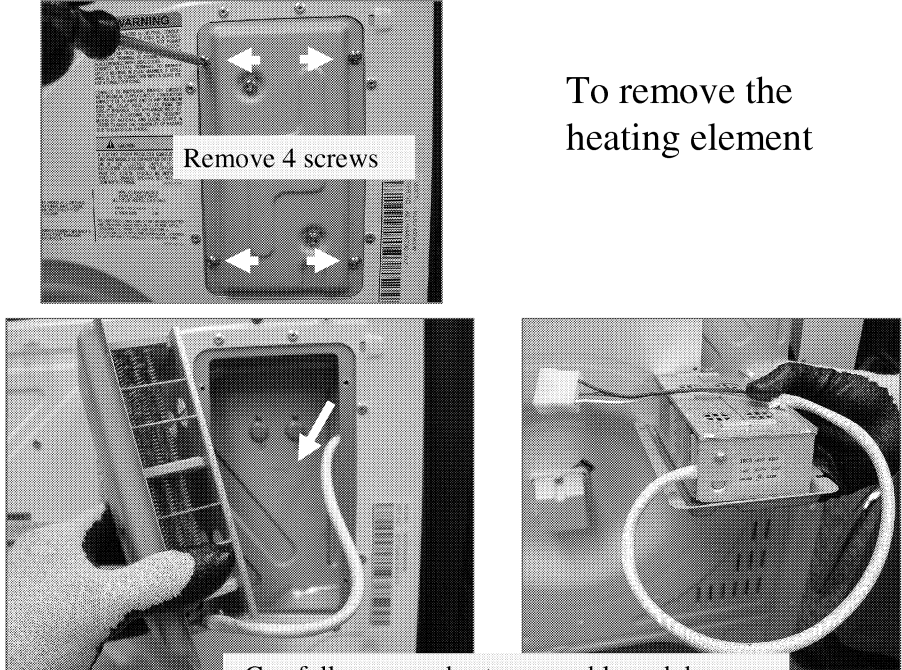


Viewed looking up from the base

Make sure the wire harness is secured back into the retainer when assembling. Failure to do so will allow the harness to contact the rotating drum

22

Slide 23



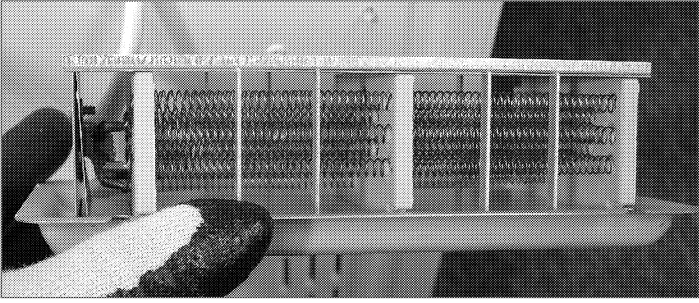
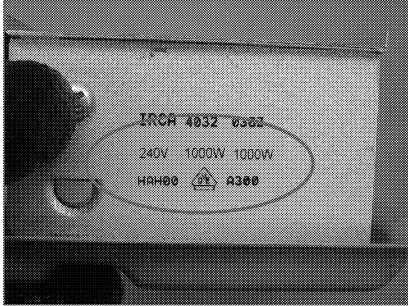
To remove the heating element

Carefully remove heater assembly and harness

23

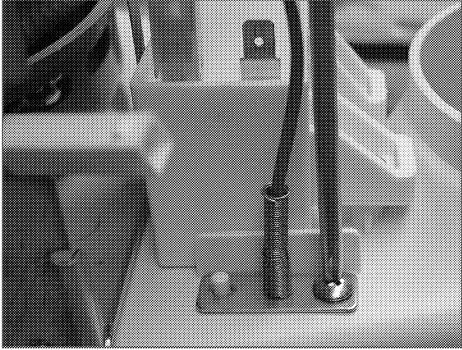
Slide 24

240 VAC 2000 WATT Heating Element


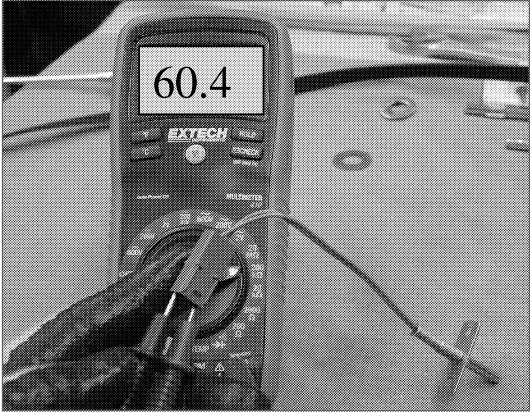


24

Slide 76



A screw secures the thermistor to the blower housing. The thermistor does not have to be removed to check. A resistance check can be made from the console or at the connector near the motor

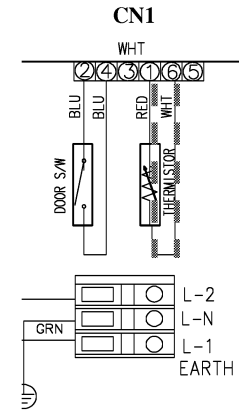


The resistance of the thermistor decreases with a temperature rise

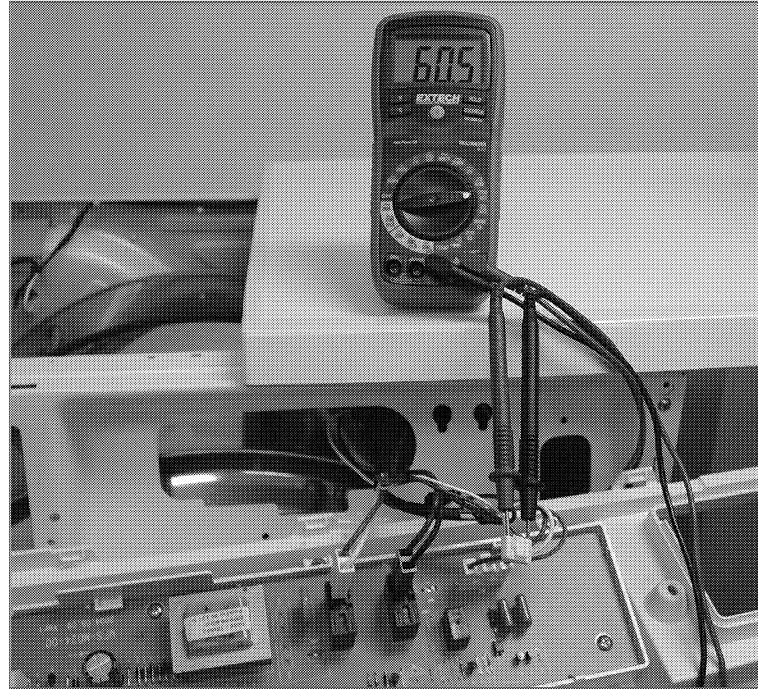
76

Slide 74 - Thermistor Service

Slide 75

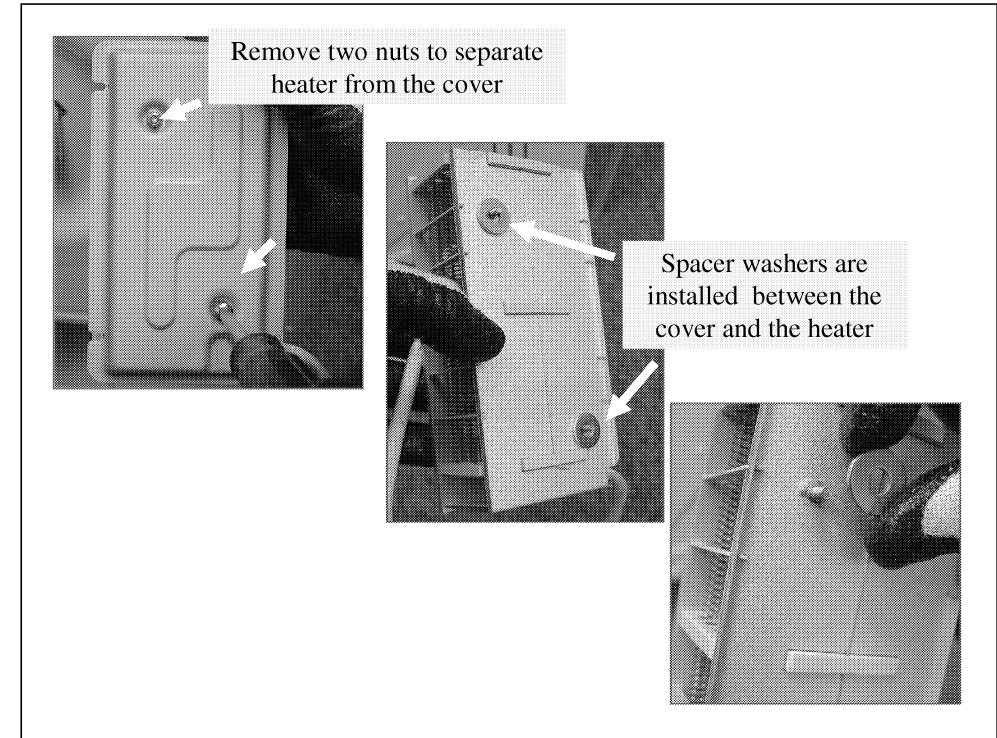


To check thermistor from the console, remove CN1 on the control board and check across the red and white wires in the harness connector. The resistance should be approximately 60k Ohms at 70 degrees F. and decrease with a temperature rise.



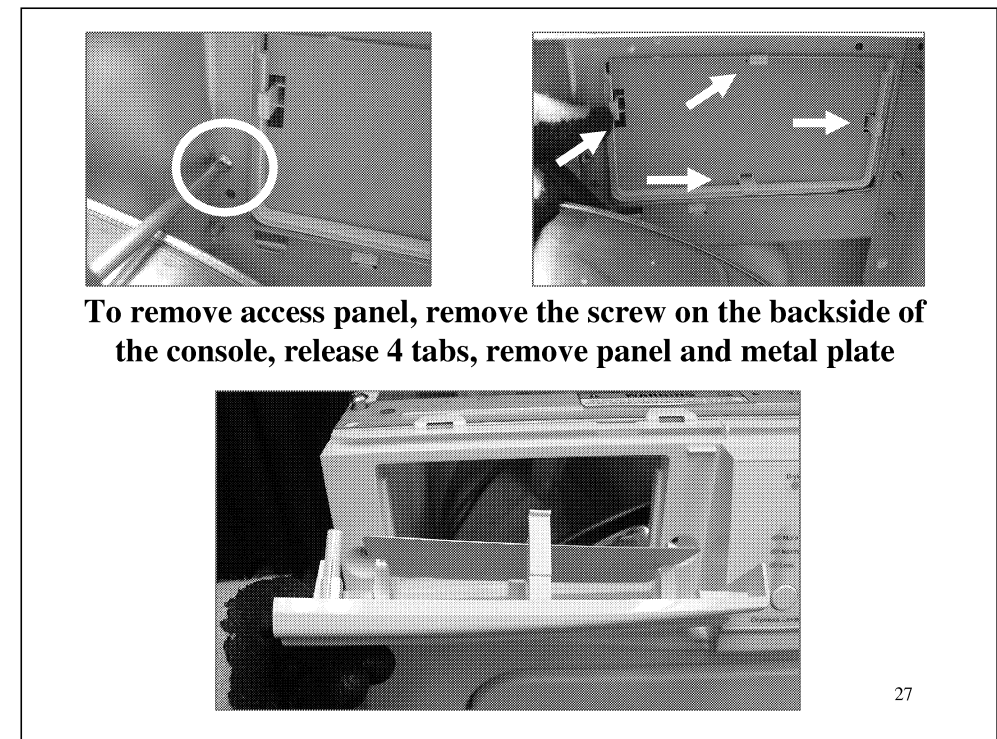
75

Slide 25



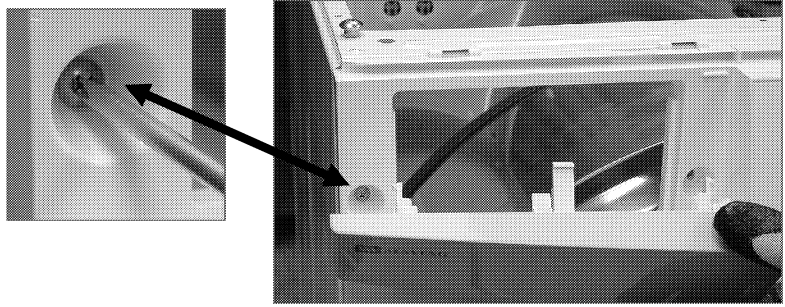
Slide 26 - To remove console

Slide 27



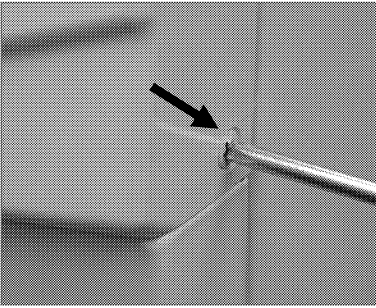
27

Slide 28

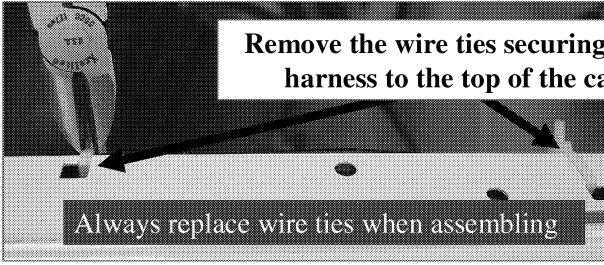


**Remove the screw hidden behind the cover plate on the left side of the console**

**Remove the painted screw from the right side of the console**

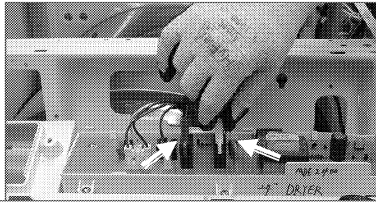


Slide 29

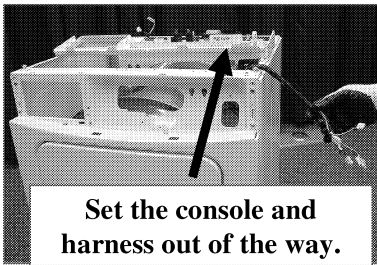


**Remove the wire ties securing the wire harness to the top of the cabinet**

Always replace wire ties when assembling



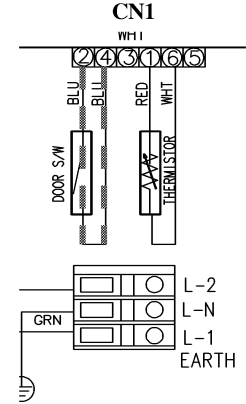
**Remove the connectors from the control. When assembling, attach the blue connector to the power relay and the white connector to the heater relay**




**Set the console and harness out of the way.**

29

Slide 73

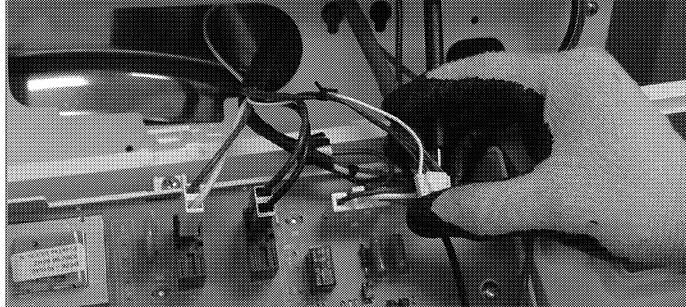


**Checking door switch**

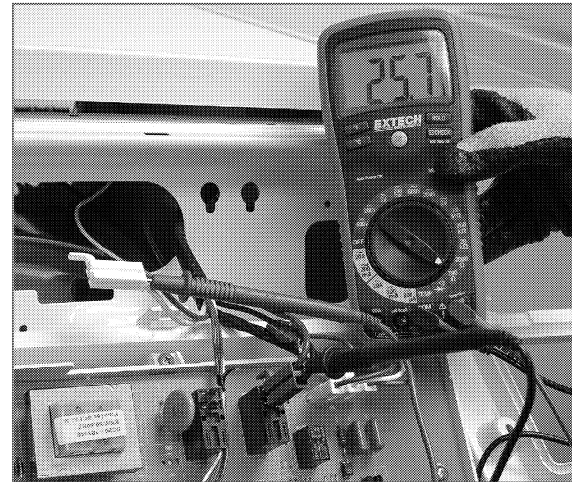


With connector CNI removed from the circuit board, check across the two blue wires on pins #2 and #4. Resistance should be less than one Ohm.

Resistance can also be checked at the switch.



73

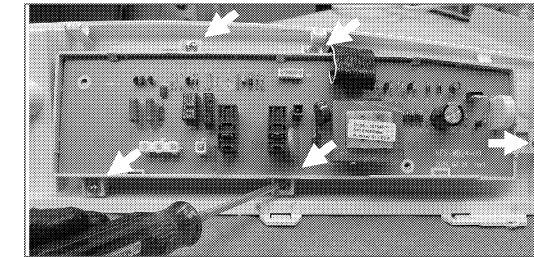


To check the heating element and thermostats from the console, check across the blue wire on the power relay and the white to the heater relay with the connector removed

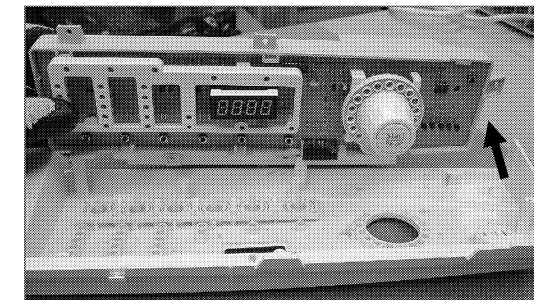


To check only the heating element disconnect the red wire from the thermostat and check across the red wire and the blue wire on the power relay

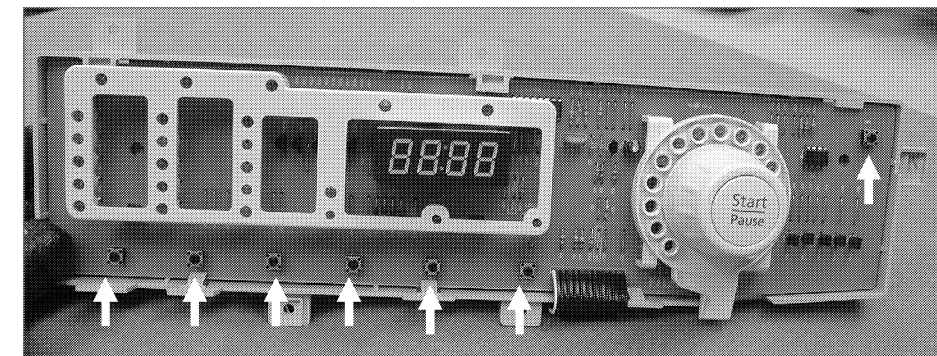
**Heater resistance is approximately 26 ohms**



**Remove 5 screws securing the control circuit board to the console**



**Lift the CCB out of the console**

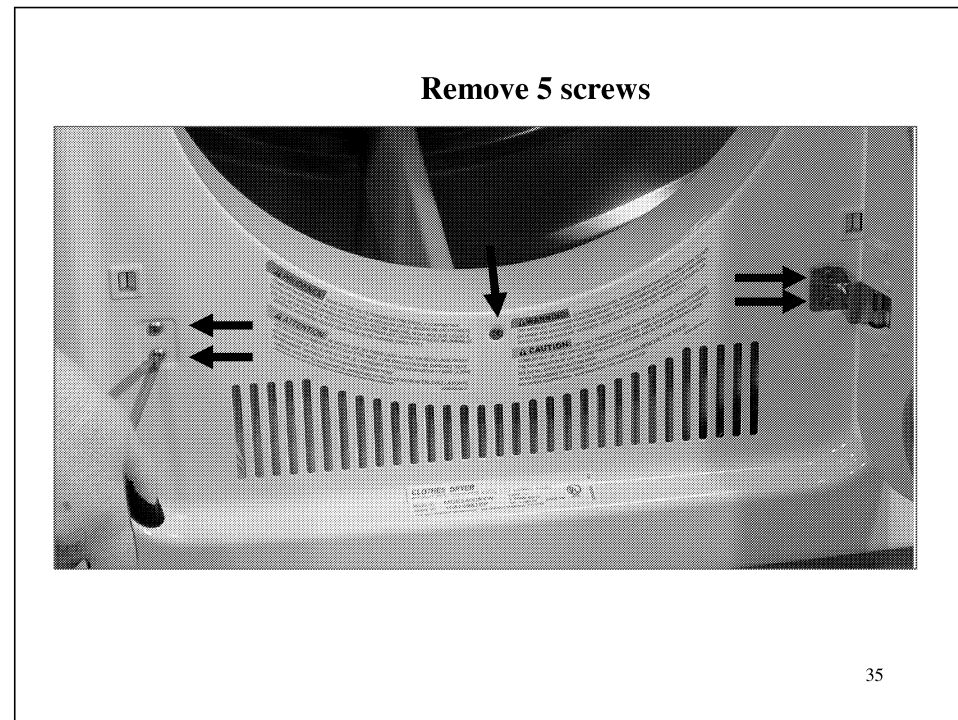


**Switches on the CCB mate with buttons on the console**

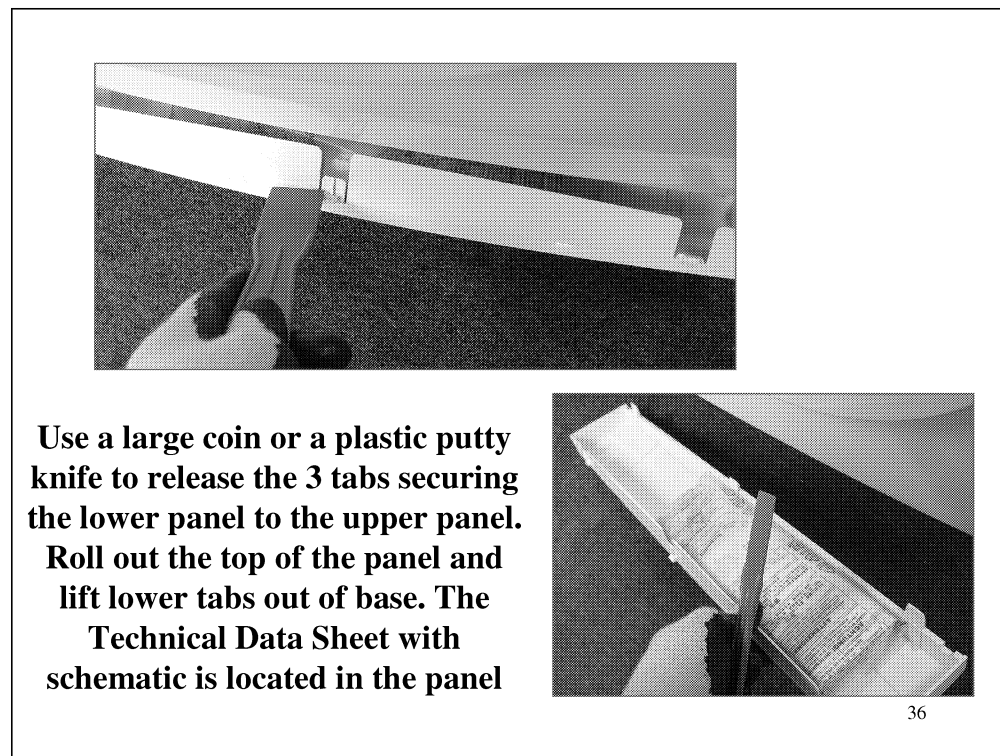
Slide 33 – Video

Slide 34 - Removing the Front panel

Slide 35

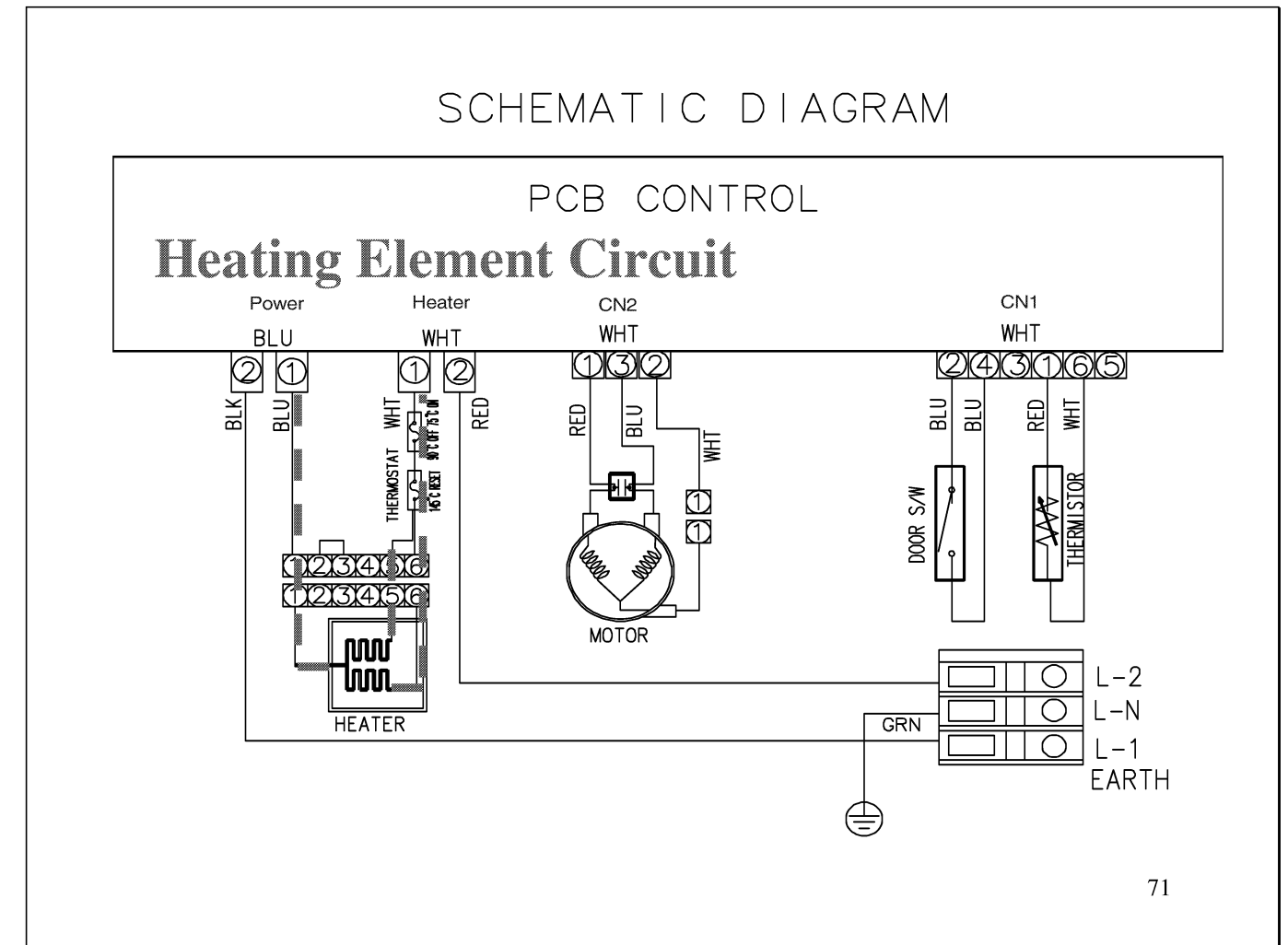


Slide 36



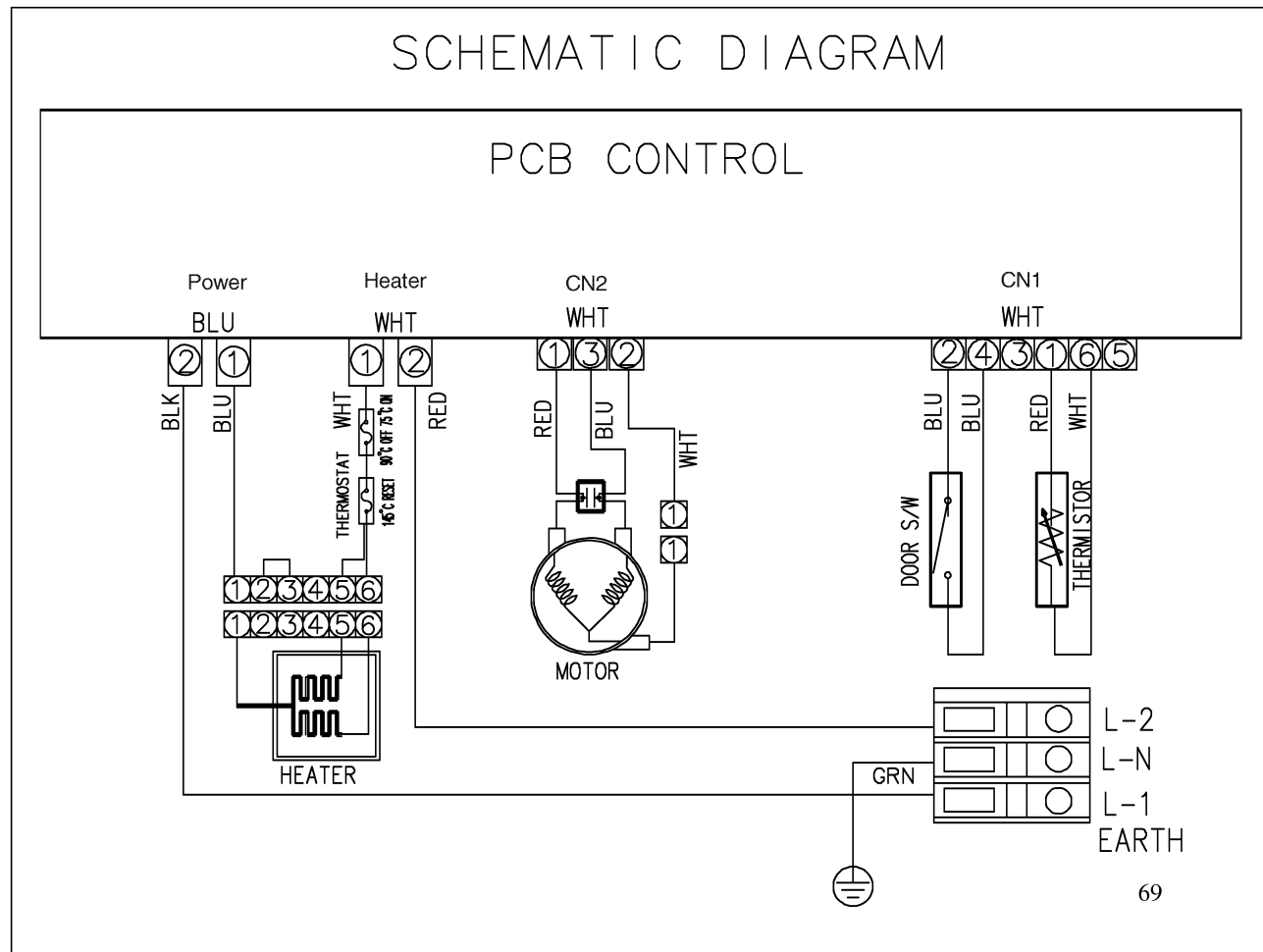
Slide 70 - Heating element check

Slide 71



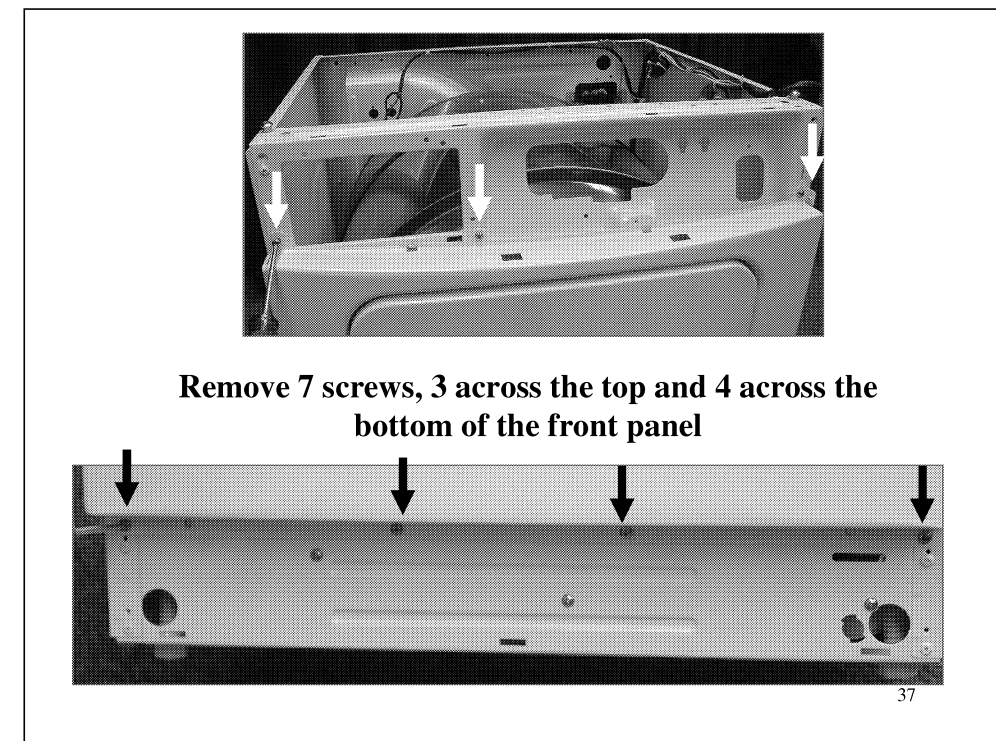


Slide 69

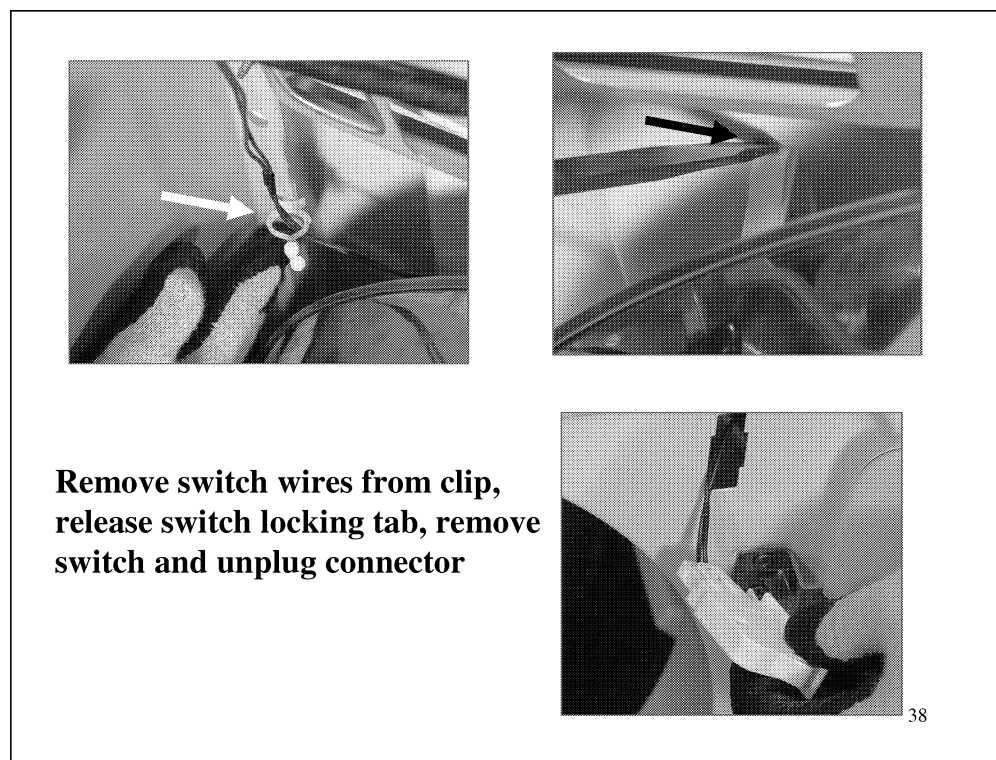


Schematic Diagram

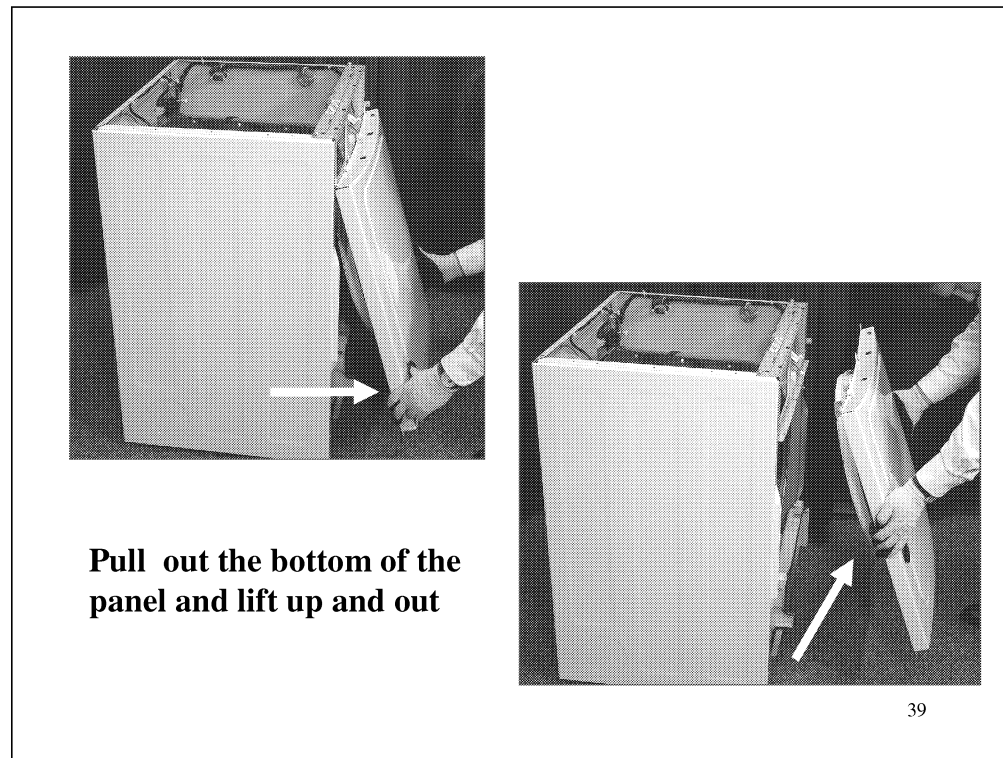
Slide 37



Slide 38



Slide 39



Slide 40



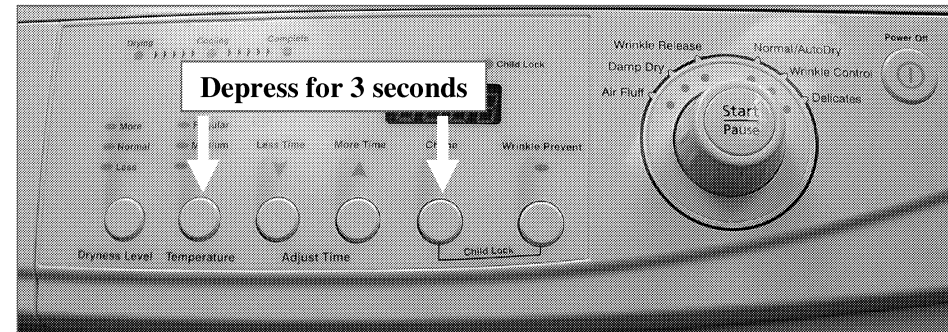
Slide 68

**System Check Mode**  
While in **Service Mode**, pressing the **Less Time** and **Wrinkle Prevent** keys for 3 seconds, will put the dryer into the System Check mode and "in" will display. The following table lists the various functions based on the keys being pressed.

Key Pressed:	Function Performed
<b>Start/Pause</b>	Cycles the motor on/off.
Rotate the Cycle Selector Knob to <b>Delicates</b>	Cycles through LED's and 7 segment display
Rotate the Cycle Selector Knob to <b>Damp Dry</b>	View current cycle temperature in <b>Celsius</b>

Celsius to Fahrenheit Conversion - Celsius Temp. X 1.8 + 32 = F Temp 68

Slide 67



**Service Mode**

This mode provides Service Personnel the ability to verify the operation of the dryer. The Service Mode can be implemented at any time, including the middle of a dry cycle. While in the Service Mode, the Technician can start special diagnostic tests such as a System Check Mode, LED Switch/Check, Display Software version number and display diagnostic/help code listings.

**Enter Service Mode:**

Dryer must be on before Service Mode can be entered. Press **Chime** and **Temperature Keys** for 3 seconds, or until a beep is heard. The machine will now be in Service Mode.

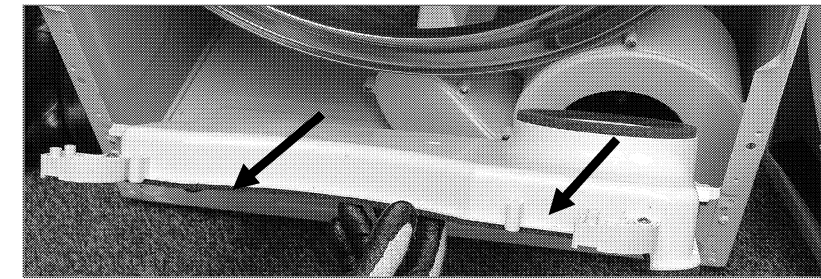
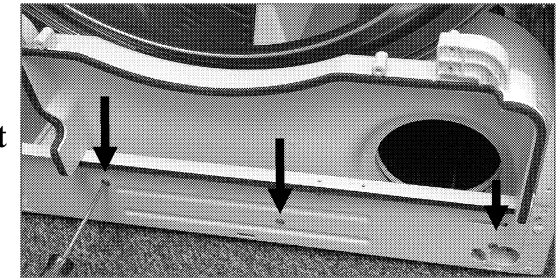
**Exit Service Mode**

Press the **OFF** key to exit Service Mode or repeat the **Chime** and **Temperature** sequence.

Slide 41 - Belt Service

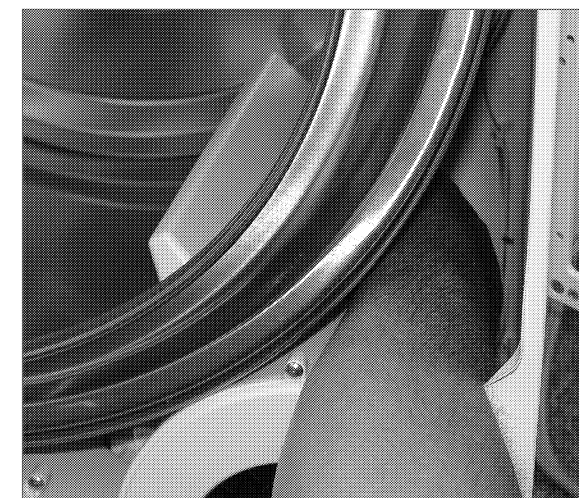
Slide 42

Remove the 3 screws securing the blower outlet duct to the cabinet and lift the duct out



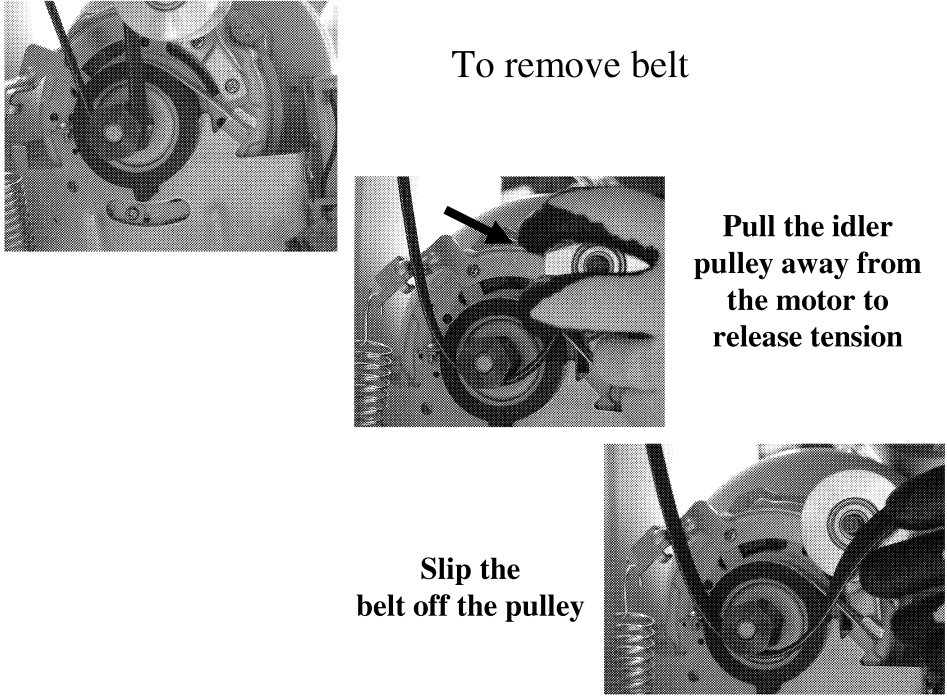
Replacement blower housing comes with seals attached. Seals can also be ordered separately

Slide 43



The belt can be removed and installed from the front of the machine

Slide 44



To remove belt

Pull the idler pulley away from the motor to release tension

Slip the belt off the pulley

The image shows three sequential steps: 1. A close-up of a motor pulley with a belt. 2. A hand pulling an idler pulley away from the motor pulley to slacken the belt. 3. The belt being slipped off the motor pulley.

Slide 45



Remove the belt. The drum can be lifted for easy removal and installation of belt.

45

The image shows the interior of a washing machine with the drum being lifted upwards by a black belt. A white arrow points to the belt.

Slide 64 – Video

Slide 65 – Troubleshooting

Slide 66

**The Technical Data Sheet shipped with the product includes the following troubleshooting tools:**

- Diagnostic Codes
- Service Mode
- Component Testing Procedures
- Wiring Schematic

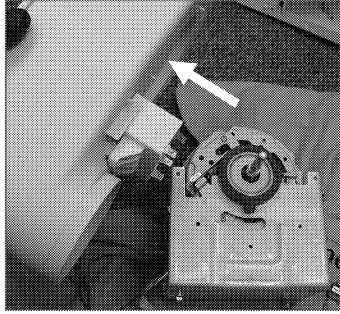
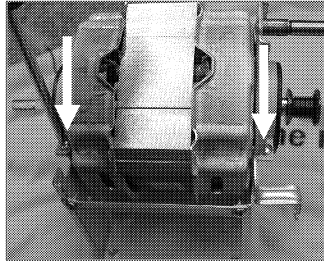
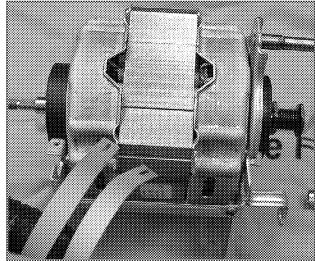
Note: Examples of some of the Service Mode tests available follow. Refer to the technical Data Sheet for complete instructions

[Click on button to open hyperlink to view Tech Data Sheet - Adobe 6.0](#)

66

Slide 62

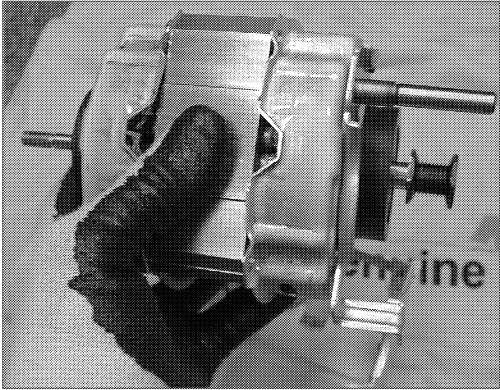
**Remove the blower housing from the motor bracket**

**Remove the two screws securing the motor clamps to the motor bracket**

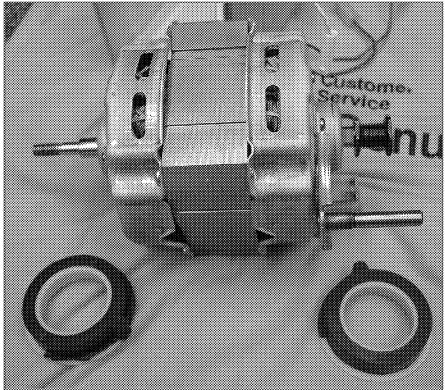
62

Slide 63



**Remove motor**

**Motor - 240 VAC/ 1/5 HP**

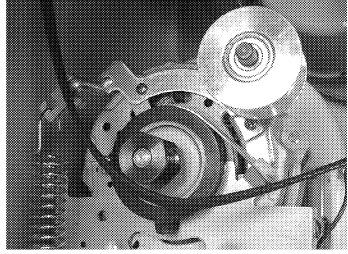


**Mounting grommets slip off motor**

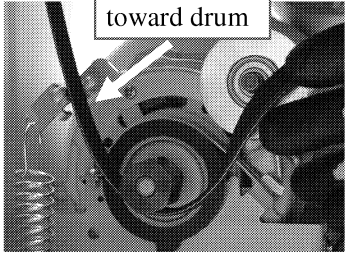
63

Slide 46

**Belt Installation**

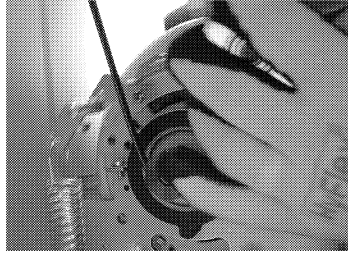


**Route belt around motor pulley**

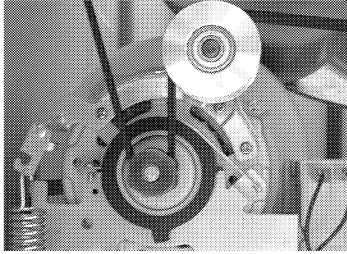


**Loop belt around idler pulley**

Ribbed side toward drum




**Release idler**



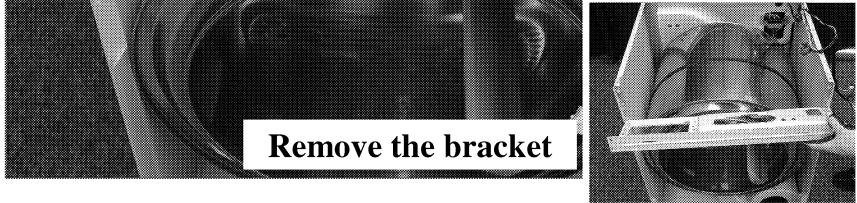
**Rotate drum to make sure belt is positioned on drum properly**

Slide 47 - To remove the drum

Slide 48 -



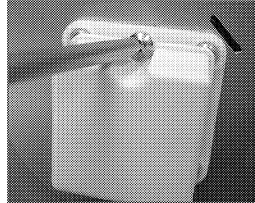
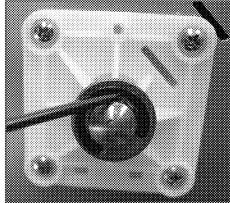

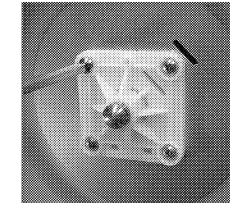
**Remove screws securing console support bracket to the cabinet**



**Remove the bracket**

Slide 49

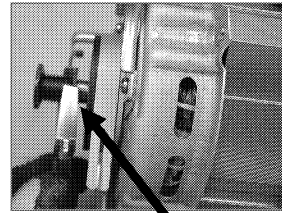
**To Remove bearing assembly**

 <b>Remove bearing cover</b>	 <b>Remove "C" ring</b>
 <b>Remove ring and washers</b>	 <b>Remove bearing bracket</b>

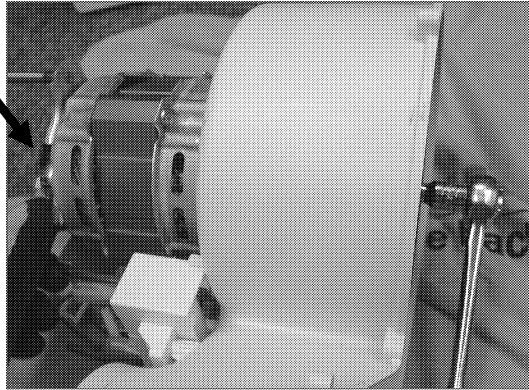
Note: The bearing does not have to be removed to replace the spinner assembly but removing the bearing will ease installation. Install the bearing after the spinner and front panel are in place

49

Slide 60




Use a 7/8" wrench on the hex nut on the motor pulley to hold the shaft while removing the 1/2" nut on the blower wheel



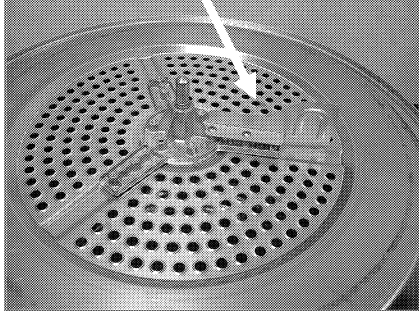
60

Slide 50

Slide the drum out the front of the machine

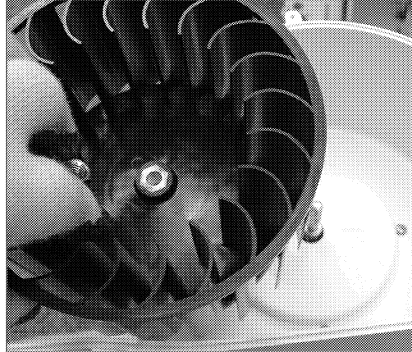


The drum bracket increases air movement to limit the possibility of lint build up on the back of the dryer

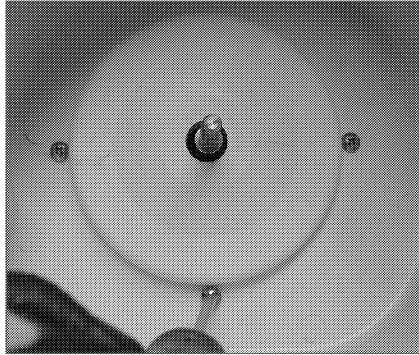


50

Slide 61



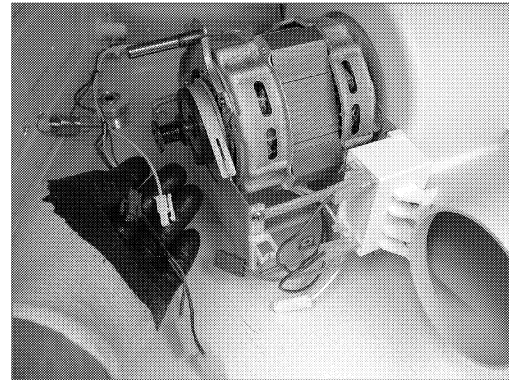
**Remove the blower wheel**



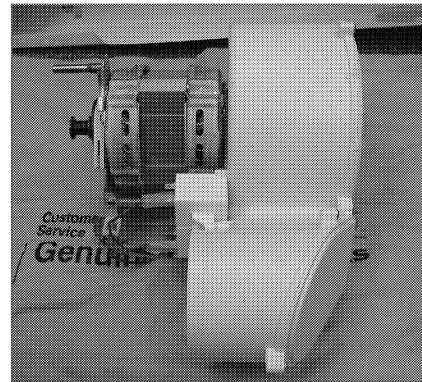
**Remove 3 screws securing the blower housing to the motor bracket**

61

Slide 58



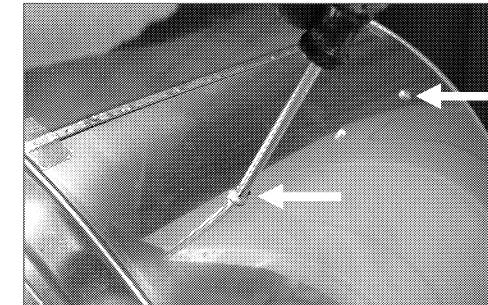
Remove the motor blower assembly from the base and disconnect the wire connectors to the capacitor, motor and thermistor



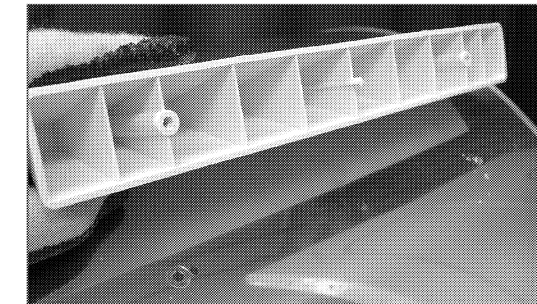
Remove the motor blower assembly

58

Slide 51



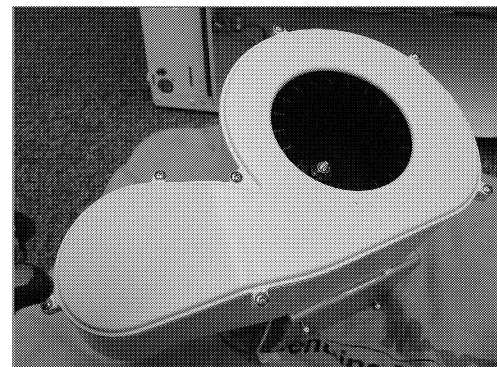
Drum baffles are held in place with two screws



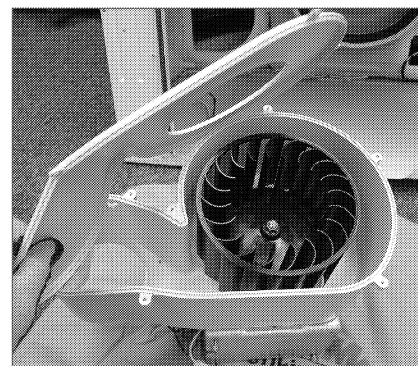
51

Slide 59

To access the blower wheel



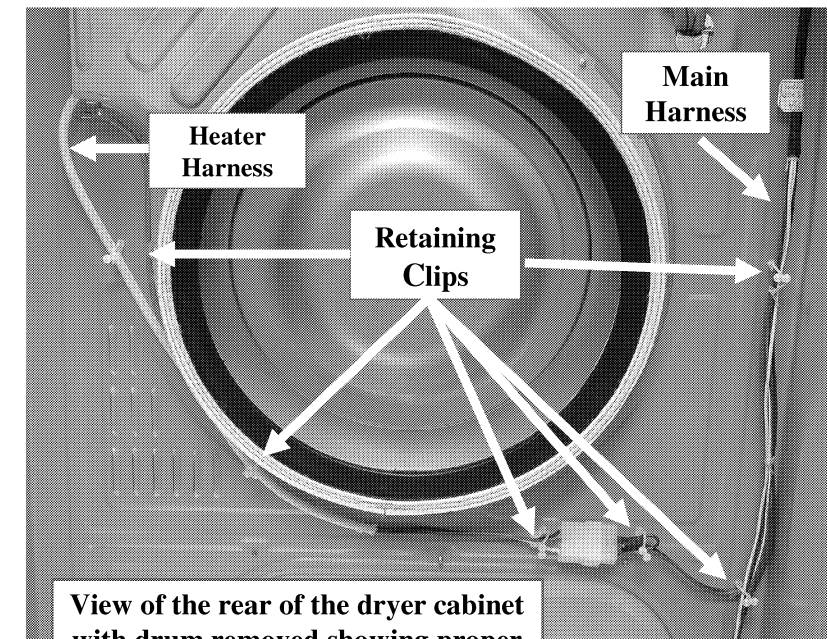
Remove 7 screws securing cover to housing



Remove cover

59

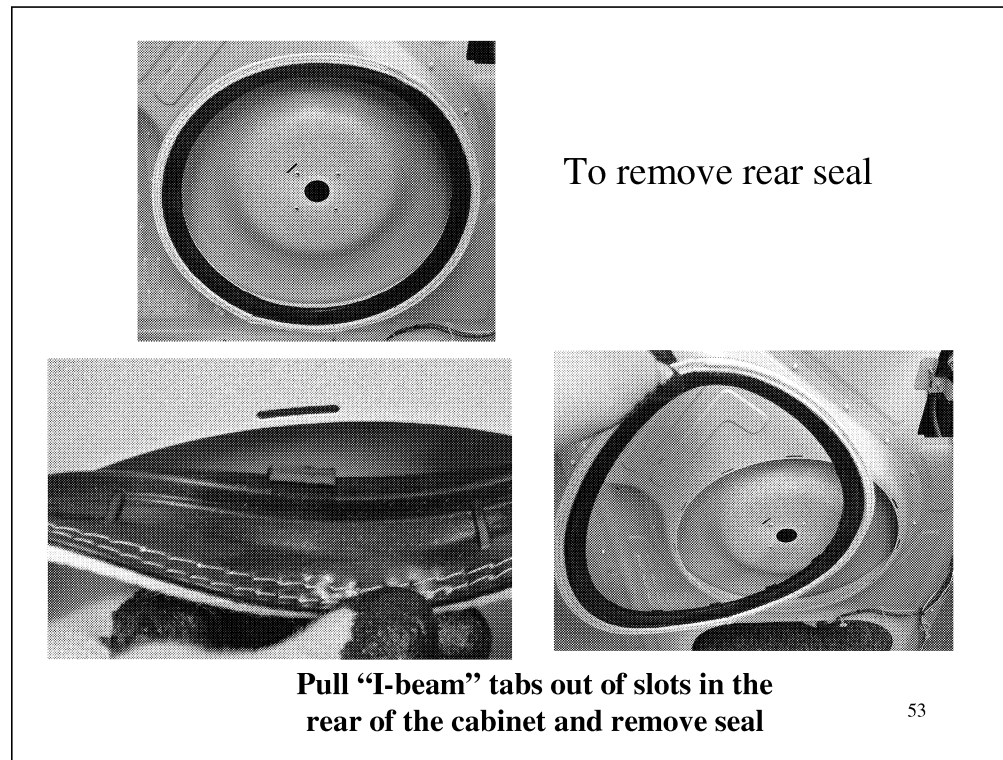
Slide 52



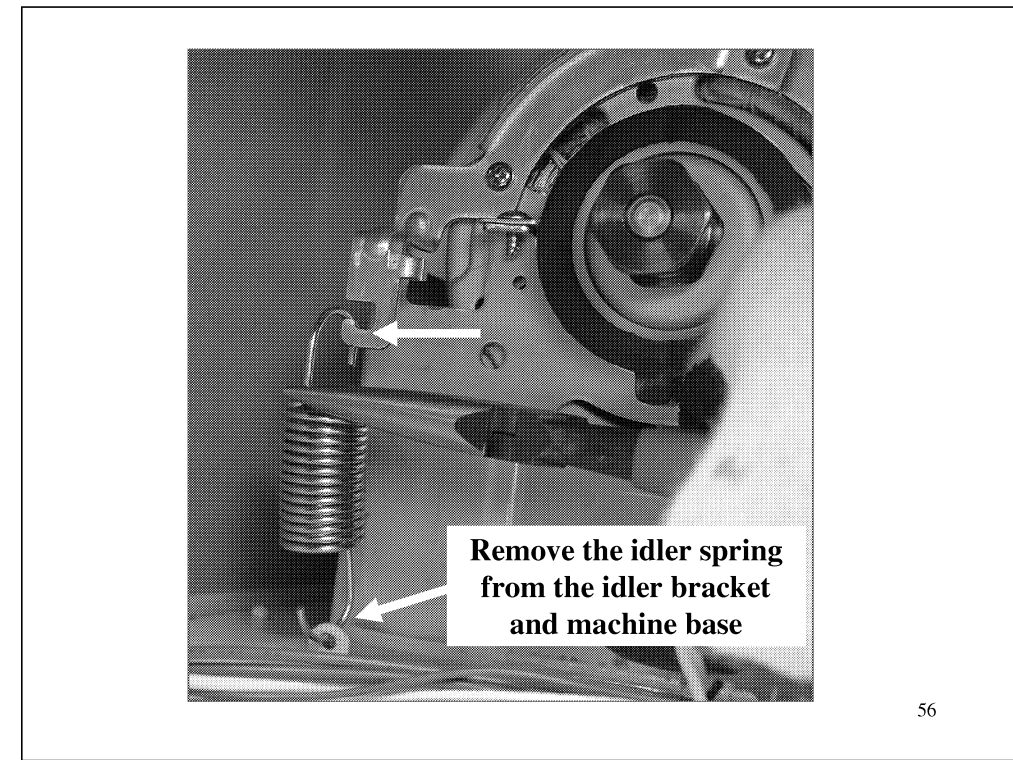
View of the rear of the dryer cabinet with drum removed showing proper wire harness routing and location of retaining clips.

52

Slide 53

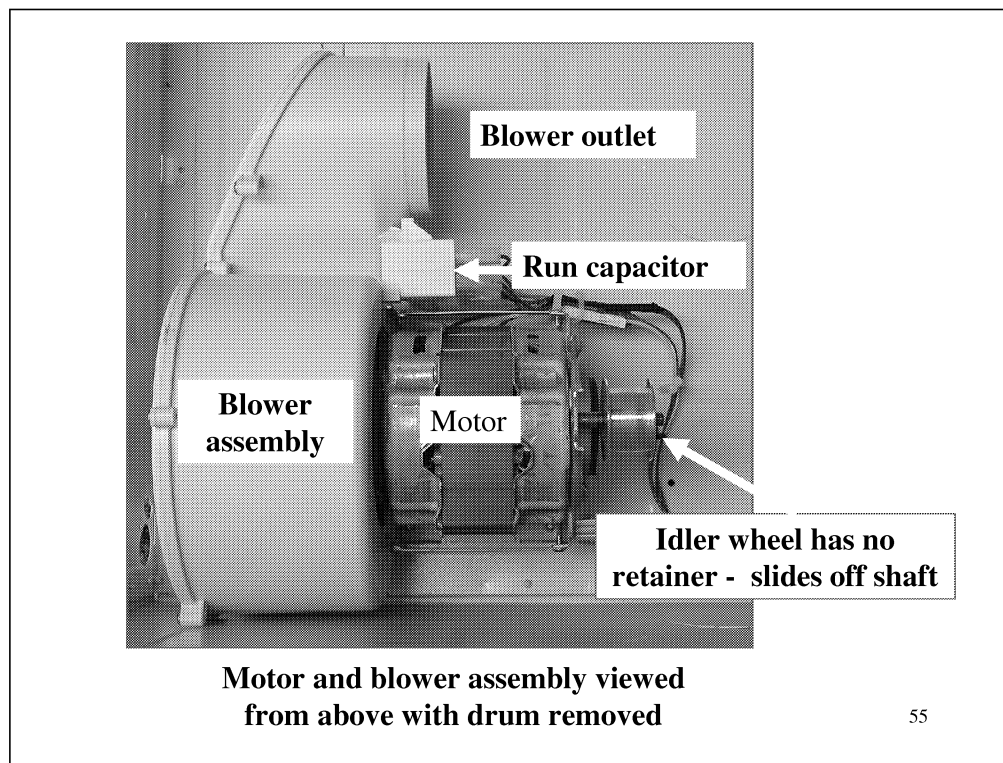


Slide 56



Slide 54 - Motor and Blower Service

Slide 55



Slide 57

