



# Maytag Compact 24" Front Loading Washing Machine

**MAYTAG**







**Slide 1**

24” Maytag Compact Washer

**Slide 2**

New Maytag 24” Front Load Laundry

Launch date November 2004

**Slide 3**

24” Maytag Front Load Flexibility

Standard installation

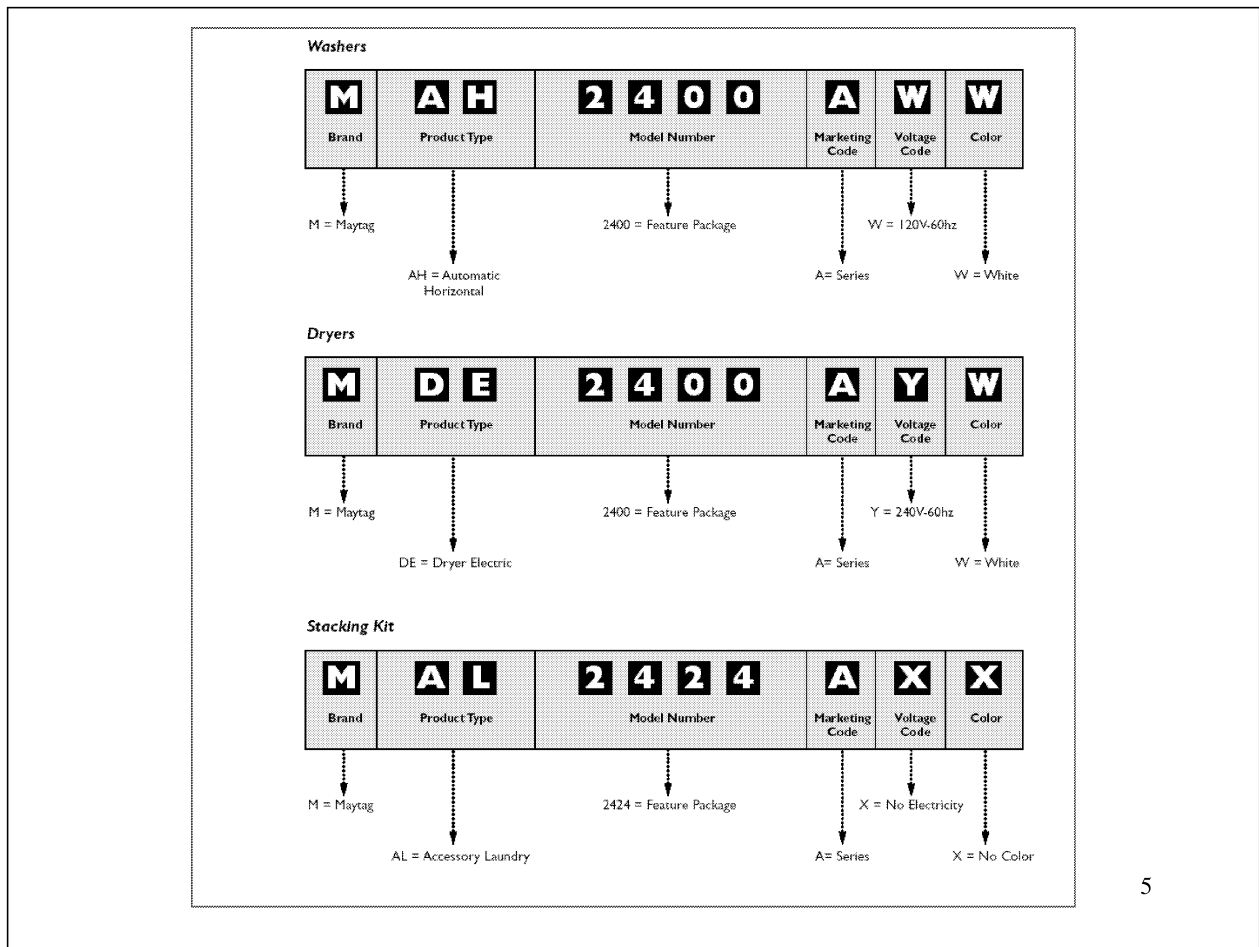
Stack

Built in – Consult with contractor or plumber and follow all local codes

**Slide 4**

Maytag 24” Front Load Washer

**Slide 5 – Interpreting model number**



## Slide 6

Washer Dimensions - 23.5" Wide, 33.5" High, 24" Deep

Weight –165 Lbs

22 Wash Cycles

Energy Star Rated

Water Consumption 12-18 Gallons

2.4 Cu. FT Capacity

½ HP DC Brush Type Motor

80 Watt Drain Pump – Pumps to an elevation of 9 FT

ATC Control Cold– 65 Degrees Warm–105 Degrees

19 Hour Delay Start

Spin Speeds High–1200 Medium-800 Low-600

**Note: The information contained in Slide 7 represents the series of events or phases in each cycle. The Micom monitors the water sensor and other inputs and reacts accordingly determining the actual operation of each phase. The numbers listed under each phase represents minutes.**

Cycle	Temperature	Wash						Rinse 1						Rinse 2						Spin			Total (minutes)			
		Drain	Fill / Tumble	Soak	Wash	Loose / Cool	Sub Total	Drain	Midterm Spin	Fill / Tumble	Rinse	Loose / Anti-studs Fill	Sub Total	Drain	Midterm Spin	Fill / Tumble	Rinse	Loose / Anti-studs Fill	Sub Total	Drain	Final Spin	Loose		Sub Total		
Heavy Duty	W/C	(1)	(2)	3	34	1	41	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	71
	W/W	(1)	(2)	3	34	1	41	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	71
	H/C(N)	(1)	(2)	3	34	1	41	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	71
Normal	C/C(N)	(1)	(2)	3	18	1	25	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	55
	C/C	(1)	(2)	3	18	1	25	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	55
	W/C	(1)	(2)	3	18	1	25	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	55
Wrinkle Control	W/W	(1)	(2)	3	18	1	25	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	55
	H/C(N)	(1)	(2)	3	18	1	25	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	55
	C/C(N)	(1)	(2)	3	16	1	23	(1)	-	(2)	4	(1)	(1)	-	(2)	4	(1)	(1)	-	(2)	7	(1)	(6)	(1)	8	45
Colors	C/C	(1)	(2)	3	16	1	23	(1)	-	(2)	4	(1)	(1)	-	(2)	4	(1)	(1)	-	(2)	7	(1)	(6)	(1)	8	45
	W/C	(1)	(2)	3	16	1	23	(1)	-	(2)	4	(1)	(1)	-	(2)	4	(1)	(1)	-	(2)	7	(1)	(6)	(1)	8	45
	H/C(N)	(1)	(2)	3	16	1	23	(1)	-	(2)	4	(1)	(1)	-	(2)	4	(1)	(1)	-	(2)	7	(1)	(6)	(1)	8	45
Delicate	C/C(N)	(1)	(2)	3	16	1	23	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	53
	C/C	(1)	(2)	3	16	1	23	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	53
	W/C	(1)	(2)	3	16	1	23	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	53
Handwash	H/C(N)	(1)	(2)	3	16	1	23	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	4	(1)	(1)	(4)	(2)	11	(1)	(6)	(1)	8	53
	C/C(N)	(1)	(2)	-	10	-	13	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	12	(1)	(6)	(1)	8	45
	C/C	(1)	(2)	-	10	-	13	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	12	(1)	(6)	(1)	8	45
Quick Wash	W/C	(1)	(2)	-	10	-	13	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	12	(1)	(6)	(1)	8	45
	W/W	(1)	(2)	-	10	-	13	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	12	(1)	(6)	(1)	8	45
	H/C(N)	(1)	(2)	-	10	-	13	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	5	(1)	(1)	(4)	(2)	12	(1)	(6)	(1)	8	45
Drain Spin	C/C(N)	(1)	(2)	3	4	1	11	(1)	-	(2)	2	(1)	(1)	-	(2)	2	(1)	(1)	-	5	(1)	(6)	(1)	8	29	
	C/C	(1)	(2)	3	4	1	11	(1)	-	(2)	2	(1)	(1)	-	(2)	2	(1)	(1)	-	5	(1)	(6)	(1)	8	29	
	W/C	(1)	(2)	3	4	1	11	(1)	-	(2)	2	(1)	(1)	-	(2)	2	(1)	(1)	-	5	(1)	(6)	(1)	8	29	
Rinse & Spin	W/W	(1)	(2)	3	4	1	11	(1)	-	(2)	2	(1)	(1)	-	(2)	2	(1)	(1)	-	5	(1)	(6)	(1)	8	29	
	H/C(N)	(1)	(2)	3	4	1	11	(1)	-	(2)	2	(1)	(1)	-	(2)	2	(1)	(1)	-	5	(1)	(6)	(1)	8	29	
	C/C(N)	(1)	(2)	-	-	-	-	(1)	-	-	-	(1)	(1)	-	-	-	(1)	(1)	-	5	(1)	(6)	(1)	8	29	

24" Front Load Washer Cycle Chart (Participants Guide)

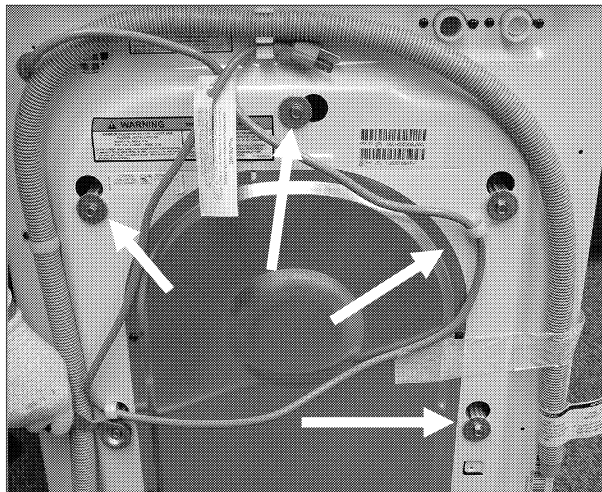
### Slide 8

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, i.e. the color of the lower weight and the color of the screws are different.

### Slide 9

Installation – Refer to the installation manual shipped with the product for detailed instructions. An installation and service video has been shipped to all authorized Maytag servicers.

### Slide 10



Loosen the five  
10mm shipping bolts



Discard the power cord retainers

10



Slide 11

4

Slide the bolt and spacer up and remove. Save bolts and spacers for reinstallation in case of future move

10mm

Install plugs to cover holes

11

Slide 12

Level the washer

Make sure to tighten the locking nut to help prevent unbalance and vibration

Connect Water Hoses

Cold

Hot

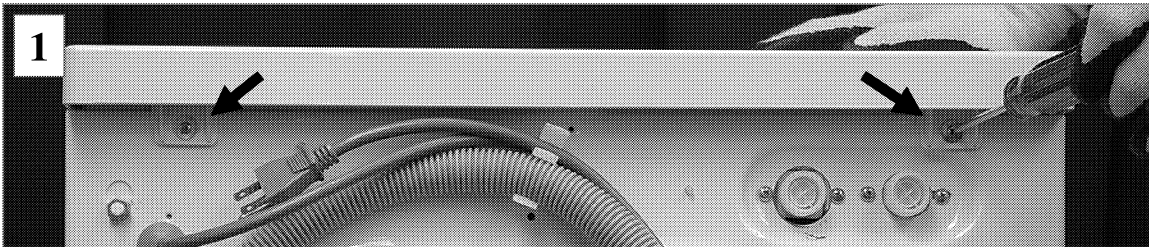
Secure drain hose with bracket provided

12

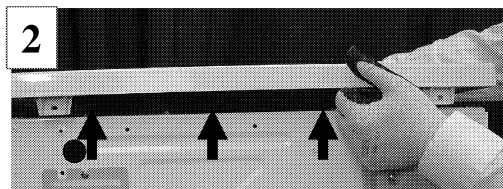
**Slide 13**

Accessing components under the top

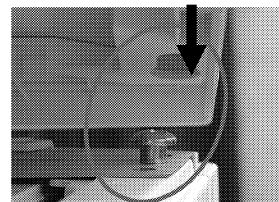
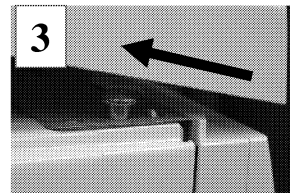
**Slide 14**



Remove 2 screws located at the rear of the top

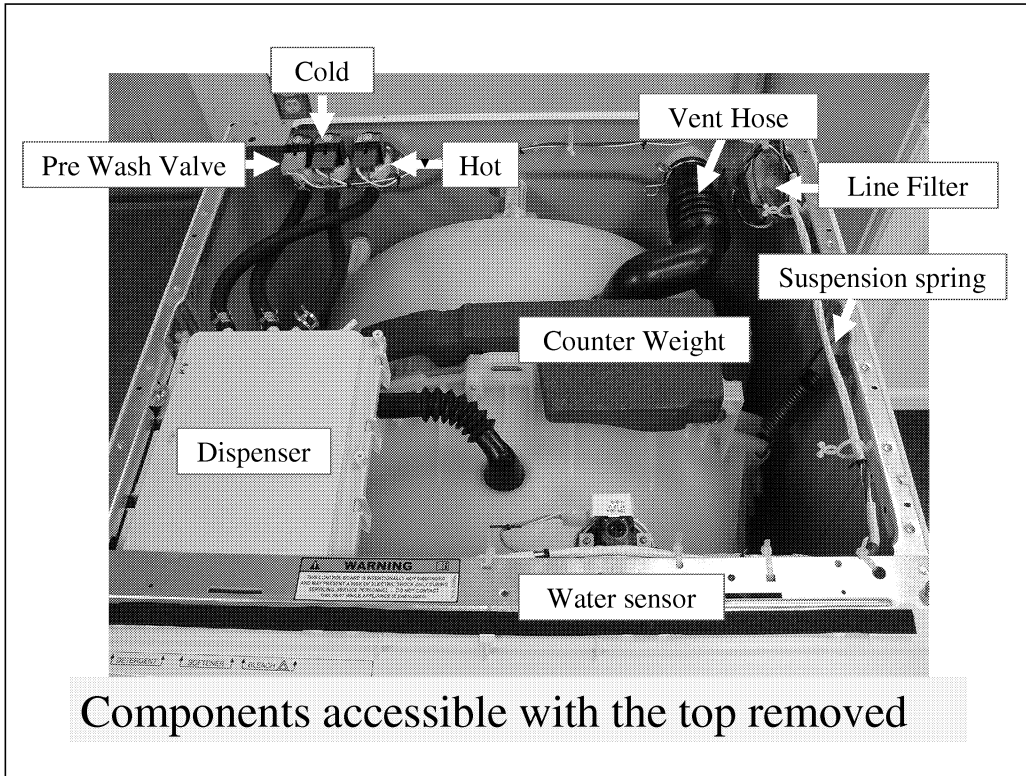


Lift up on the back of the top and slide it toward the rear of the machine approximately one inch. This will allow two large diameter screws located in the front of the machine to align with corresponding holes in the top so the top can be lifted and removed



14

Slide 15



Components accessible with the top removed

Slide 16

To remove inlet valves

Remove hoses

Remove connectors

Remove screws securing valve(s)

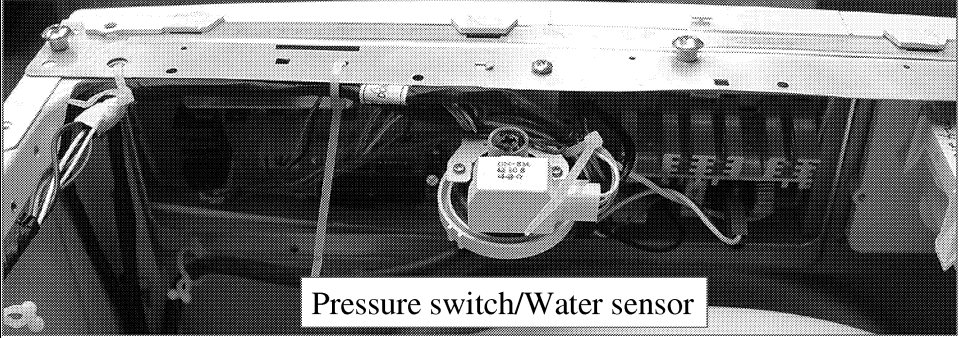
Red Hot    Blue Cold    White Pre Wash

Hot valve

Pre Wash    Cold

16

Slide 17



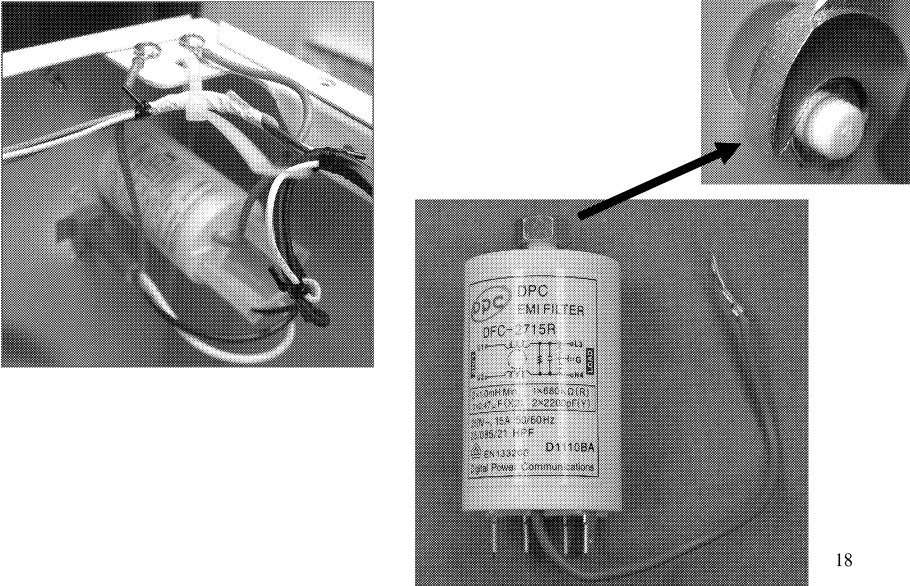
Pressure switch/Water sensor

The water sensor, usually referred to as a pressure switch communicates with the control circuit board via a frequency signal. To check the sensor use the service mode diagnostics outlined in the Technical Data sheet shipped with the product.

17

Slide 18

EMI – Electro-magnetic interference filter



Detailed view of the EMI filter label:

DPC  
EMI FILTER  
DPC-2715R

400MHz Min. 1x686-Q(R)  
150V, F.O. 2x2200pF(Y)

ANV-15A 150/60HZ  
10/85/21 H.P.F.

EN133200 D1110BA  
Digital Power Communications

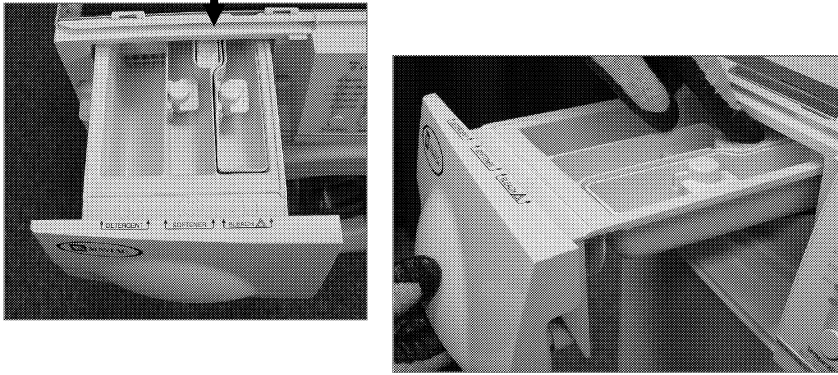
18

**Slide 19**

Accessing the machine control board

**Slide 20**

Open dispenser drawer and depress release to remove

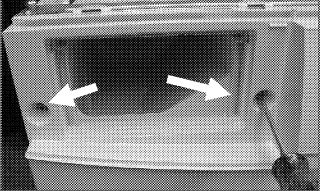


20

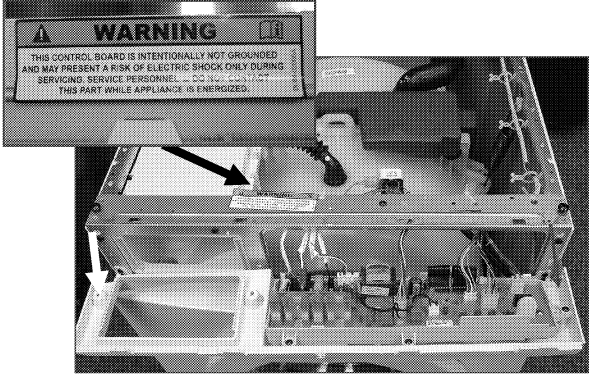
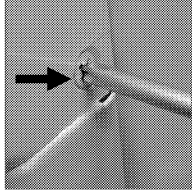
**Slide 21**

To remove the console

After removing the dispenser, remove the two screws located behind it



Remove the white painted screw on the right side of the console



Lift the console and roll the top out and down

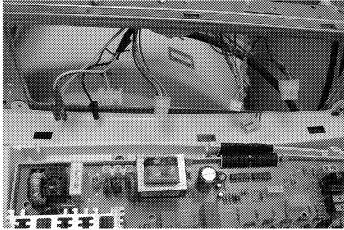
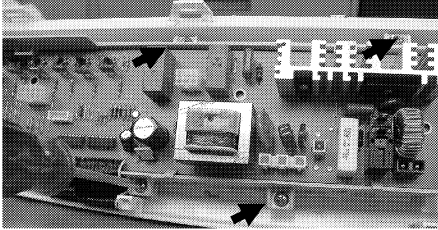
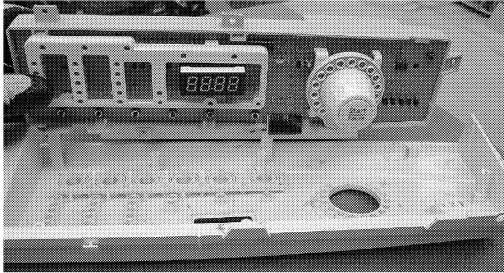
**WARNING**  
THIS CONTROL BOARD IS INTENTIONALLY NOT GROUNDED AND MAY PRESENT A RISK OF ELECTRIC SHOCK ONLY DURING SERVICING. SERVICE PERSONNEL - DO NOT TOUCH THIS PART WHILE APPLIANCE IS ENERGIZED.

21

**Observe caution on warning tab!**

**Slide 22**

**To remove the machine control board**

 <p>Remove connectors from board</p>	 <p>Remove 5 screws</p>
 <p>Separate machine control from console</p>	



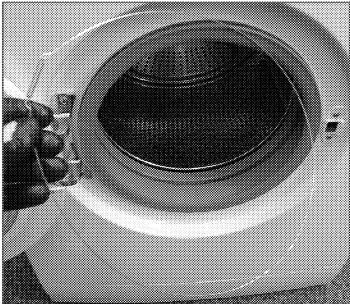
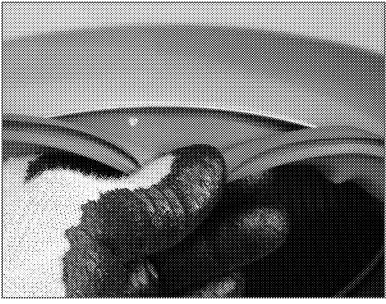
22

**Slide 23**

Servicing the door assembly

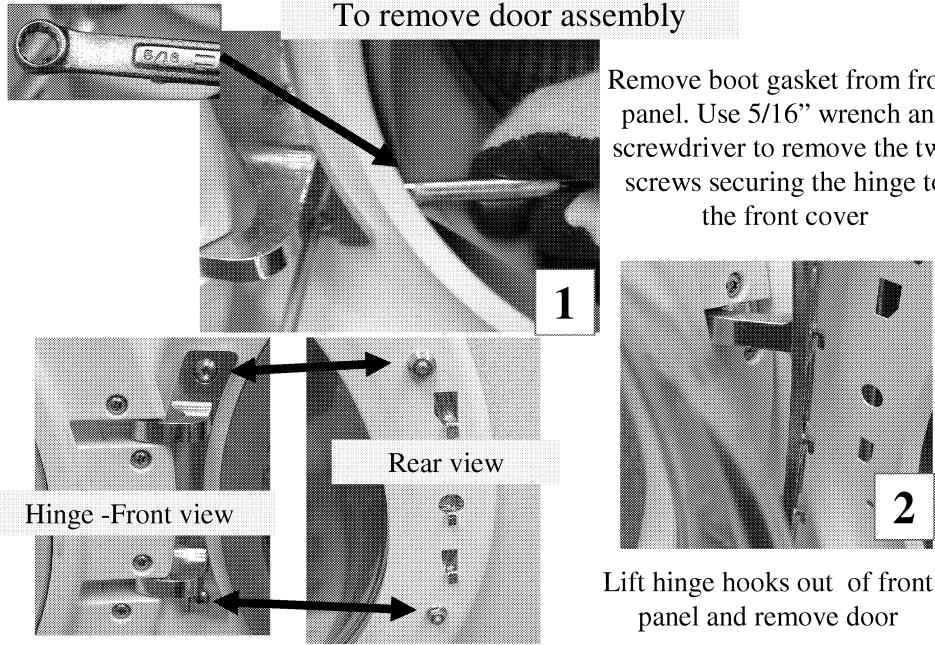
**Slide 24**

**Removing boot from front panel**

 <p>Grasp hook on spring</p>	 <p>Pull wire out of the groove in the boot</p>
 <p>Remove boot retainer</p>	 <p>Pull boot over lip to release<sup>24</sup></p>

Slide 25

To remove door assembly



Remove boot gasket from front panel. Use 5/16" wrench and screwdriver to remove the two screws securing the hinge to the front cover

1

2

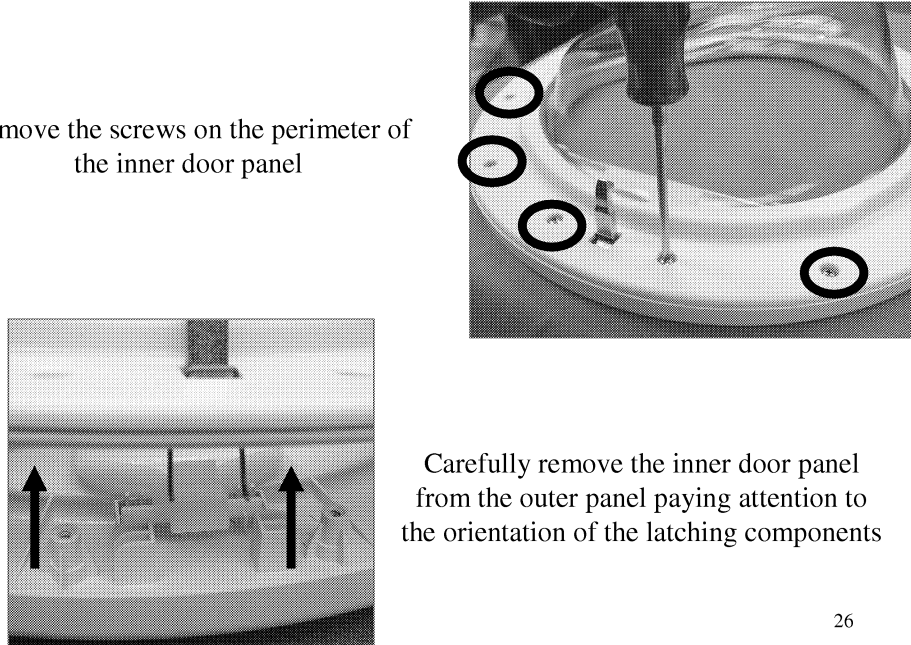
Lift hinge hooks out of front panel and remove door

Note: It is not necessary to remove the door to remove the front panel 25

Slide 26

To service door assembly

Remove the screws on the perimeter of the inner door panel

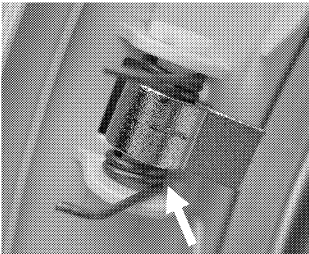


Carefully remove the inner door panel from the outer panel paying attention to the orientation of the latching components

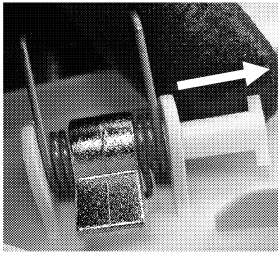
26

Slide27

To remove door strike and spring



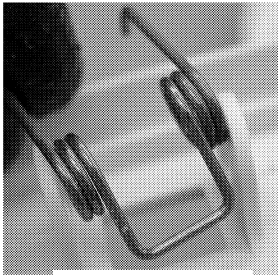
Notate spring location and orientation before removing



Slide out shaft



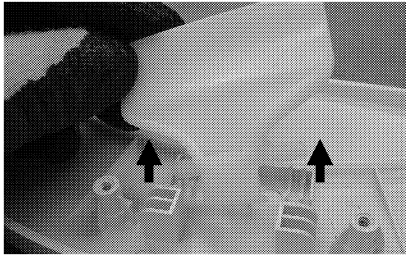
Remove strike



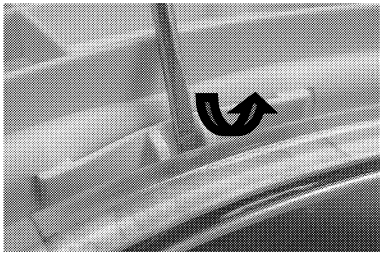
Remove spring

27

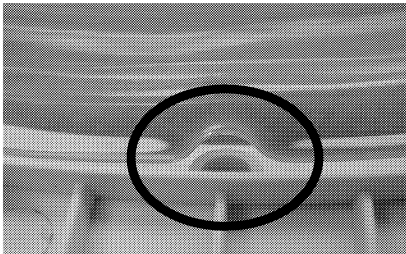
Slide 28



Door handle snaps out of embossments in the panel



Carefully free the inner glass from the retainers

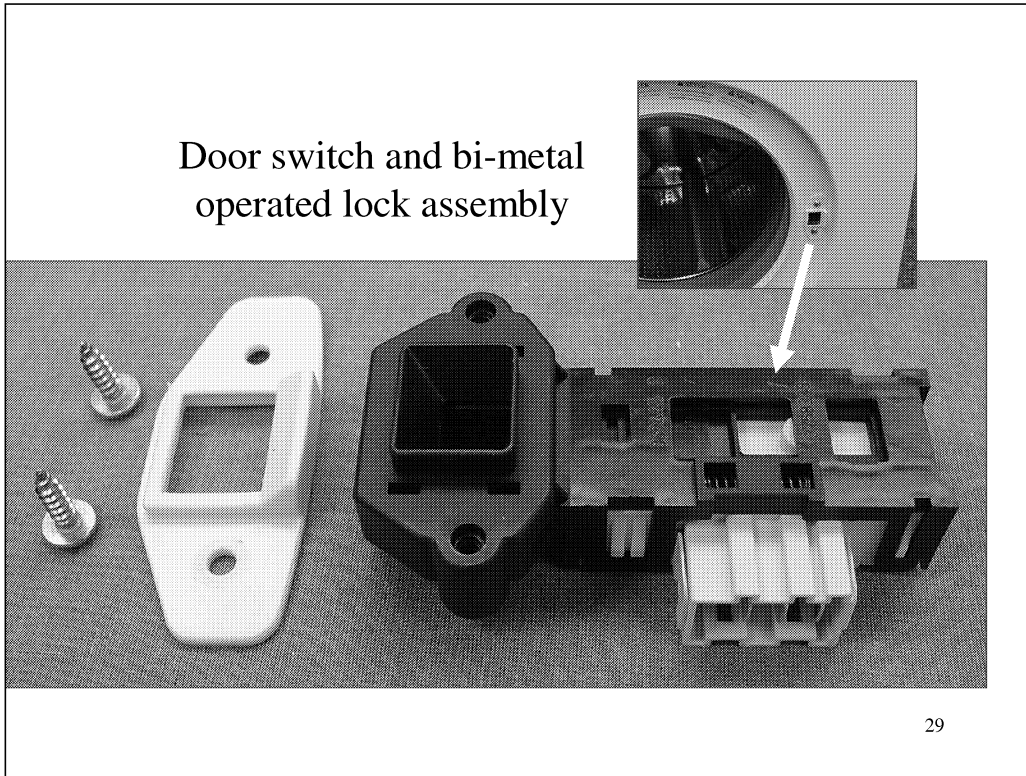


Align the indent in the glass and the drain hole in the panel

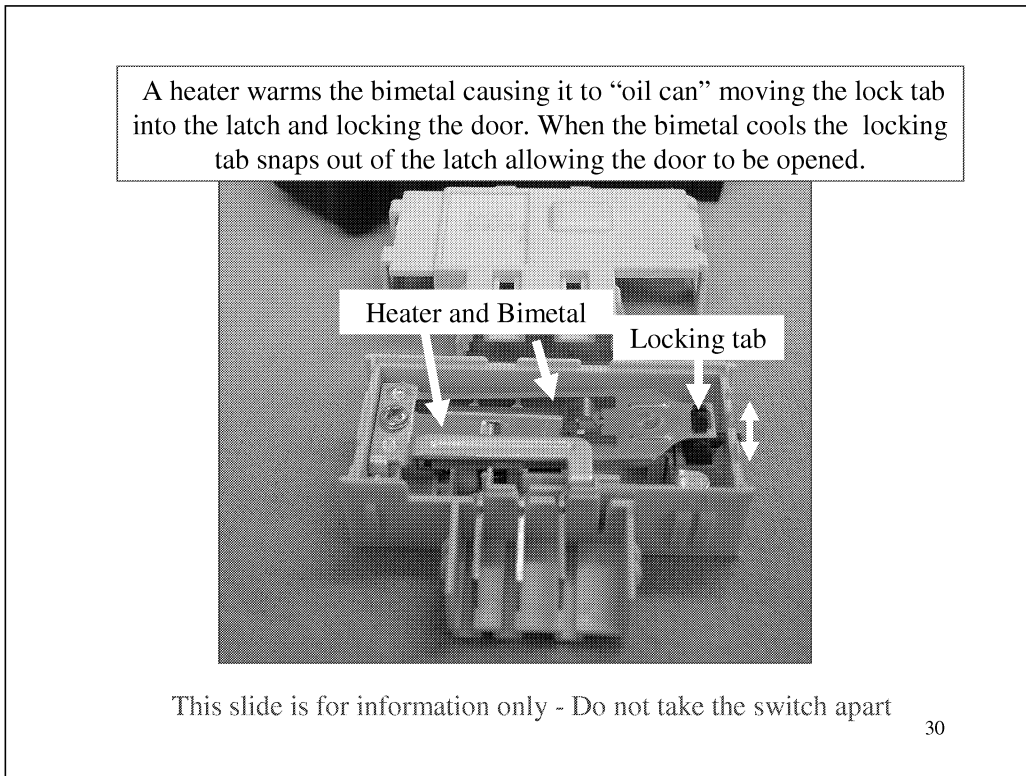
28



Slide 29



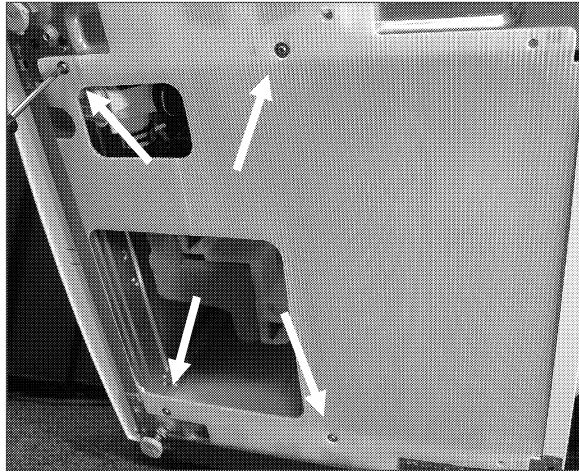
Slide 30



**Slide 31**

Removing the drain pump

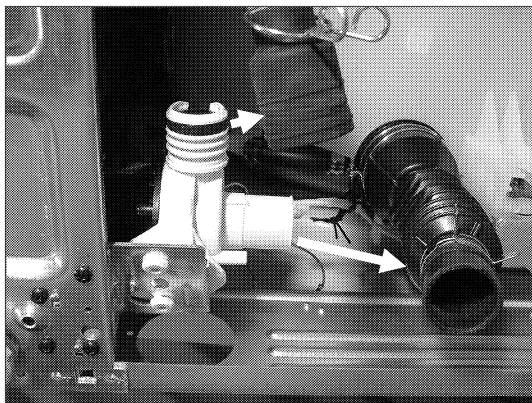
**Slide 32**



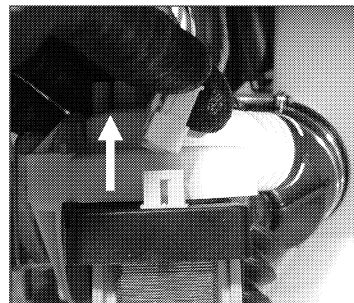
Remove 4 screws securing panel to the bottom of the cabinet and remove

32

**Slide 33**



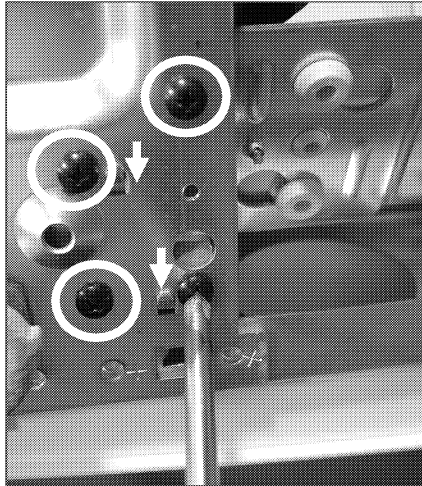
Remove drain hose and tub hose from pump



Disconnect electrical connector

33

**Slide 34**



Remove 4 screws and slide pump mounting bracket to free tabs and remove motor

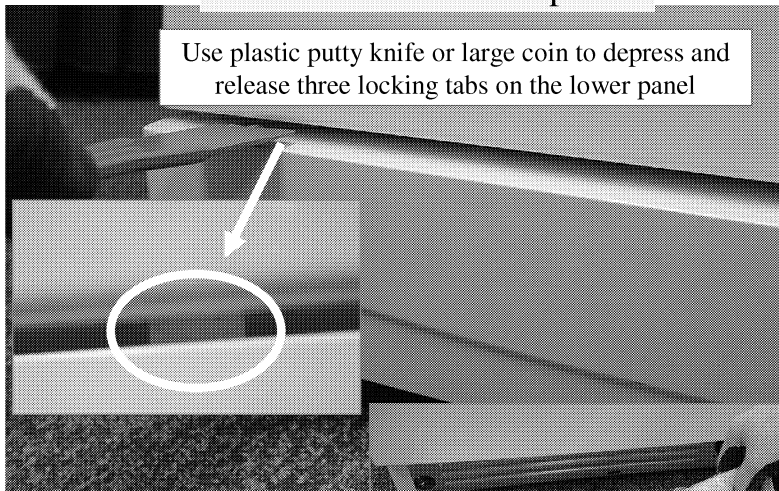
34

**Slide 35**

Removing the front panels

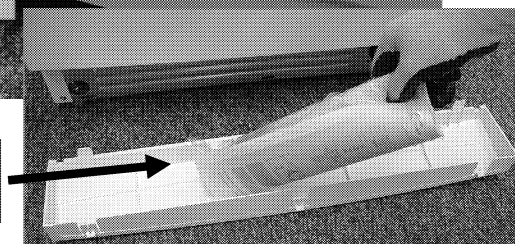
**Slide 36**

To remove the lower panel



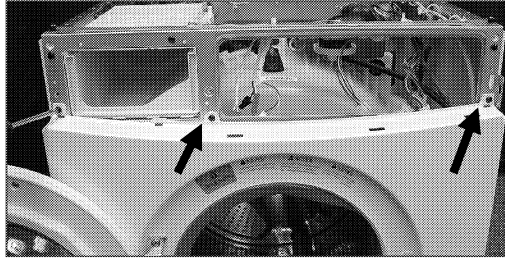
Use plastic putty knife or large coin to depress and release three locking tabs on the lower panel

Technical Data Sheet with schematic located in lower panel

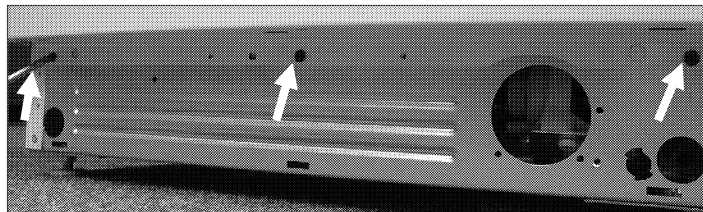


Slide 37

To remove the front panel



Remove the console to expose three screws on top of front panel. Remove screws

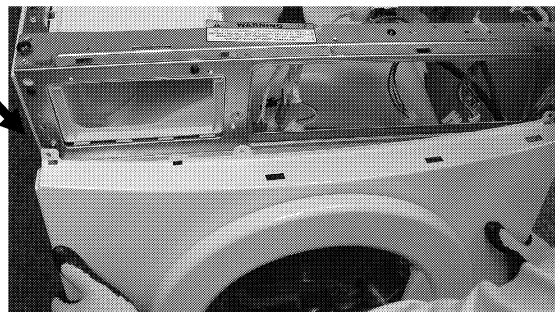
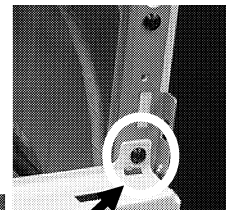
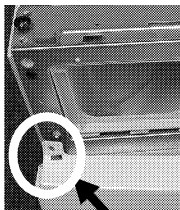


Remove the three screws located across the bottom of the front panel

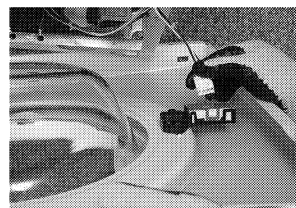
37

Slide 38

Lift front panel off hooks on the upper left and right corners and drop panel far enough to access the door switch.

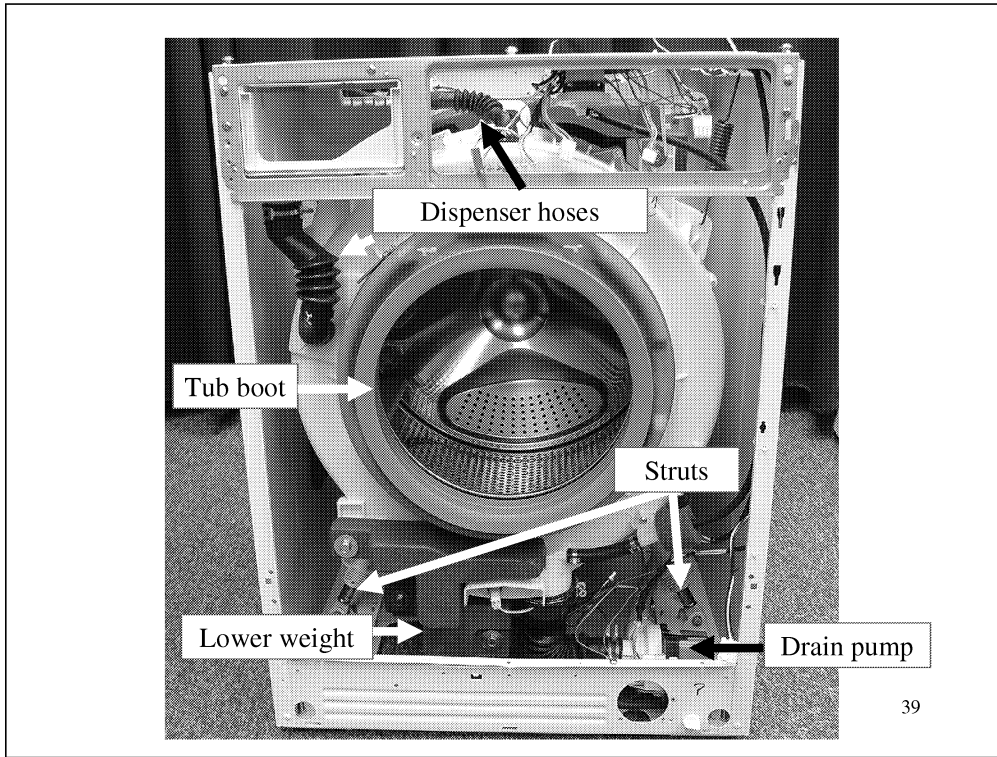


Release the electrical connector and remove. Remove front panel



38

Slide 39



Slide 40

Servicing the motor belt and pulley

Slide 41

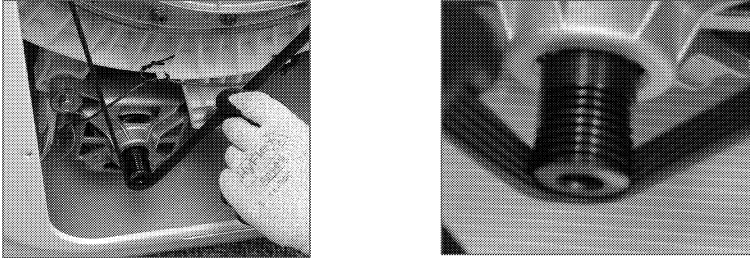
**Accessing the motor and belt**  
Remove the three screws and remove the back

**WARNING**  
CONTROL BOARD, HEAT SINK, MOTOR AND PUMP ARE  
INTENTIONALLY NOT GROUNDABLE AND MAY PRESENT  
A RISK OF ELECTRIC SHOCK, ONLY DURING SERVICING

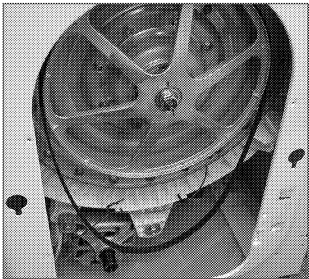
**CAUTION**  
KEEP CLEAR  
ROTATING BELTS AND PULLEYS

41

Slide 42



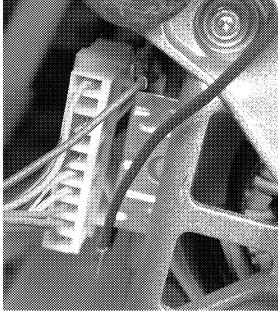
To remove belt, grasp the belt and pull as you rotate the belt off the motor pulley



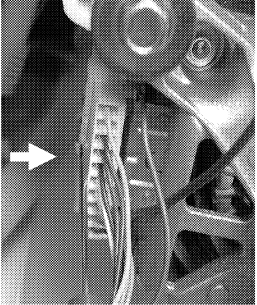
42

Slide 43

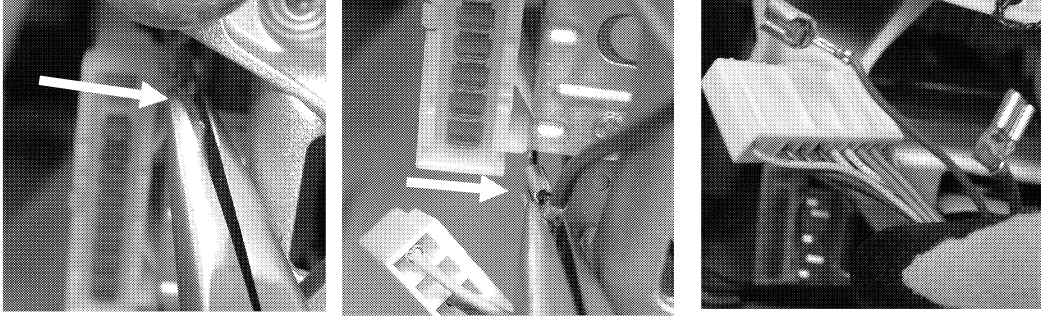
Remove wiring harness and two ground wires



Release lock to remove harness

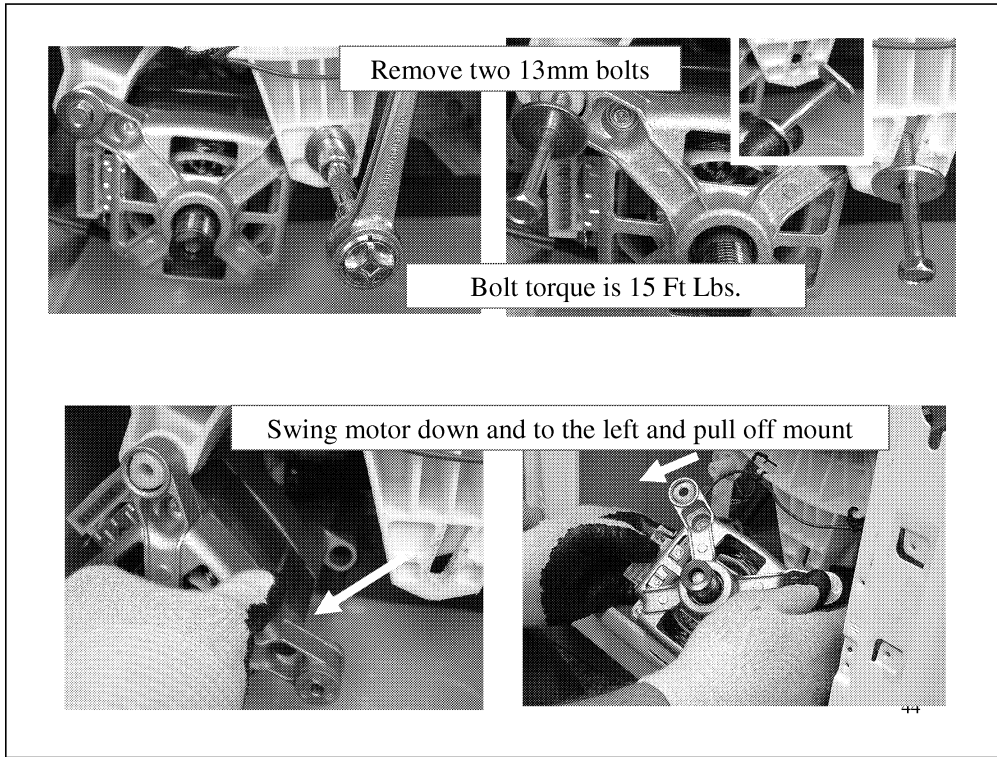


Use needle nose to depress terminal locks on ground wires and pull off



18

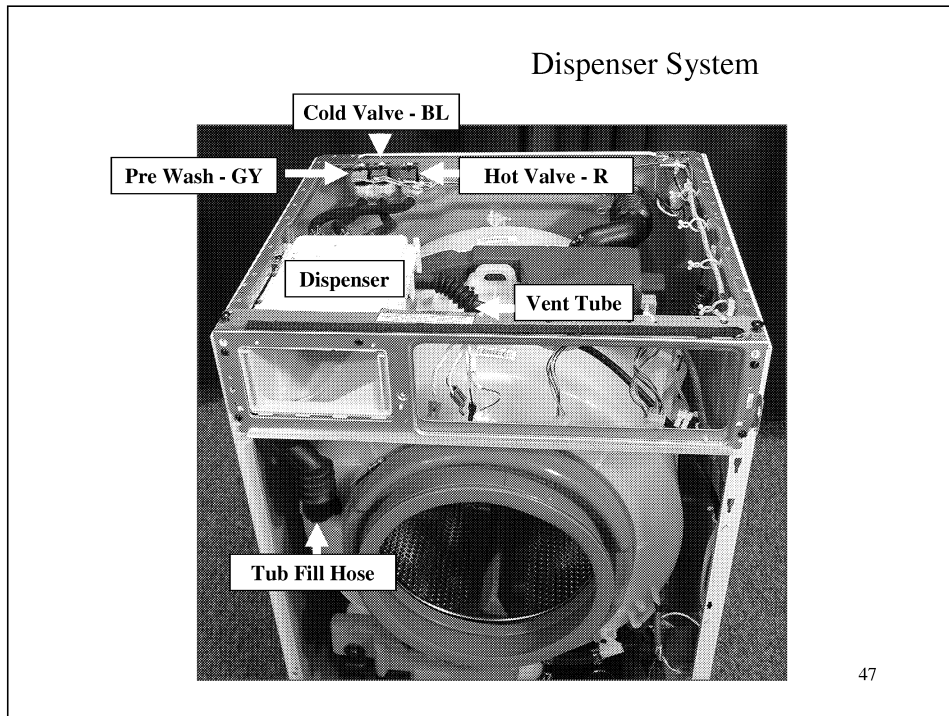
**Slide 44**



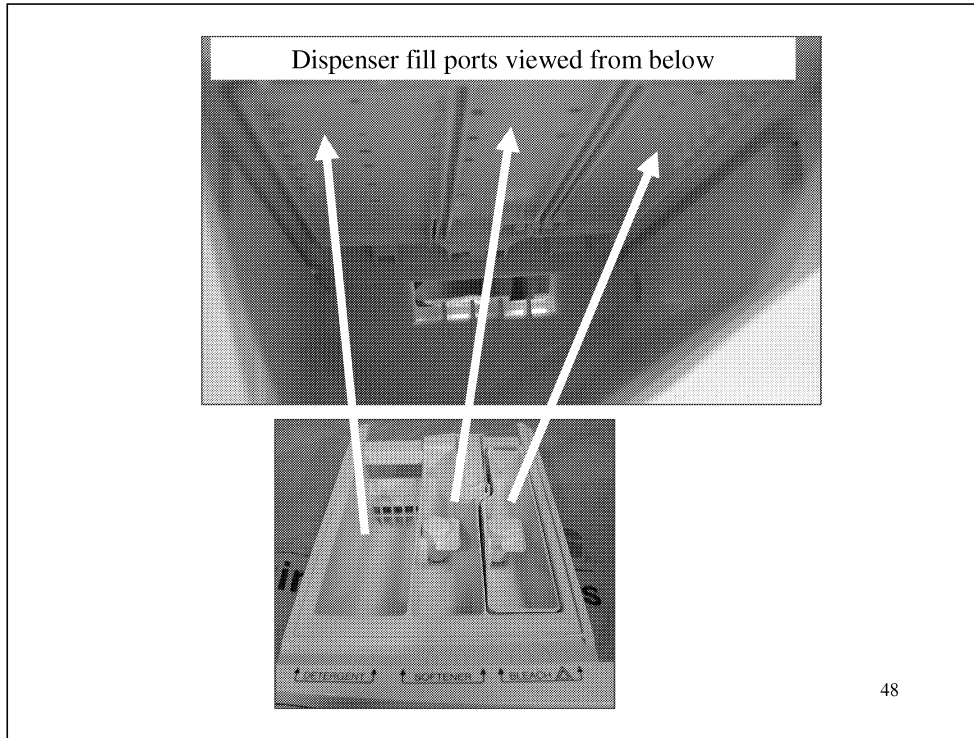
**Slide 45 - Blank**

**Slide 46 - Dispenser and Fill Circuit**

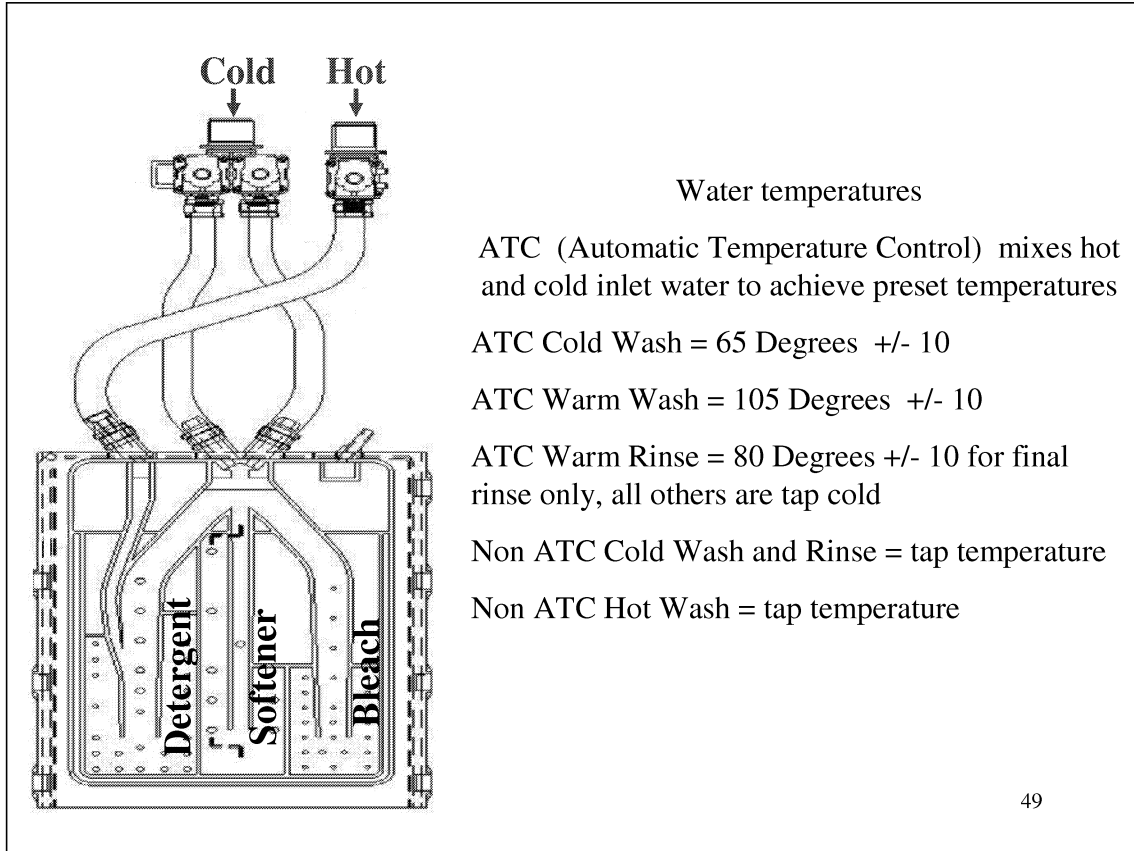
**Slide 47**



Slide 48

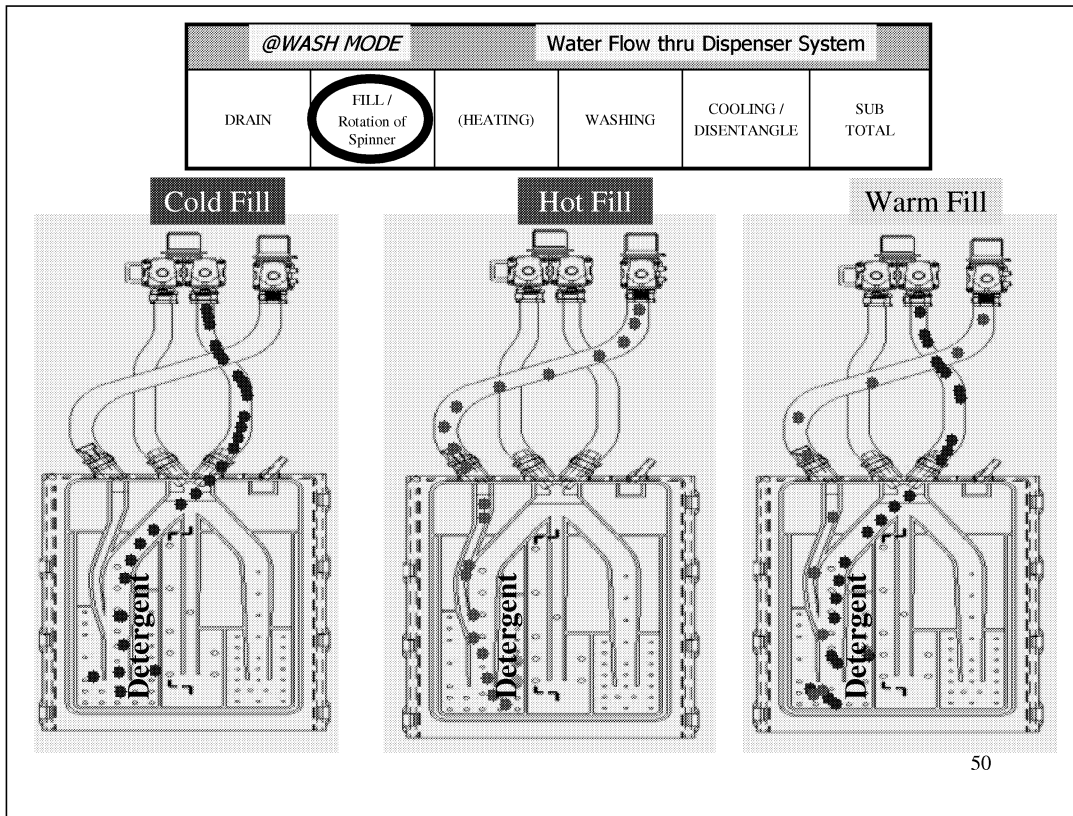


Slide 49

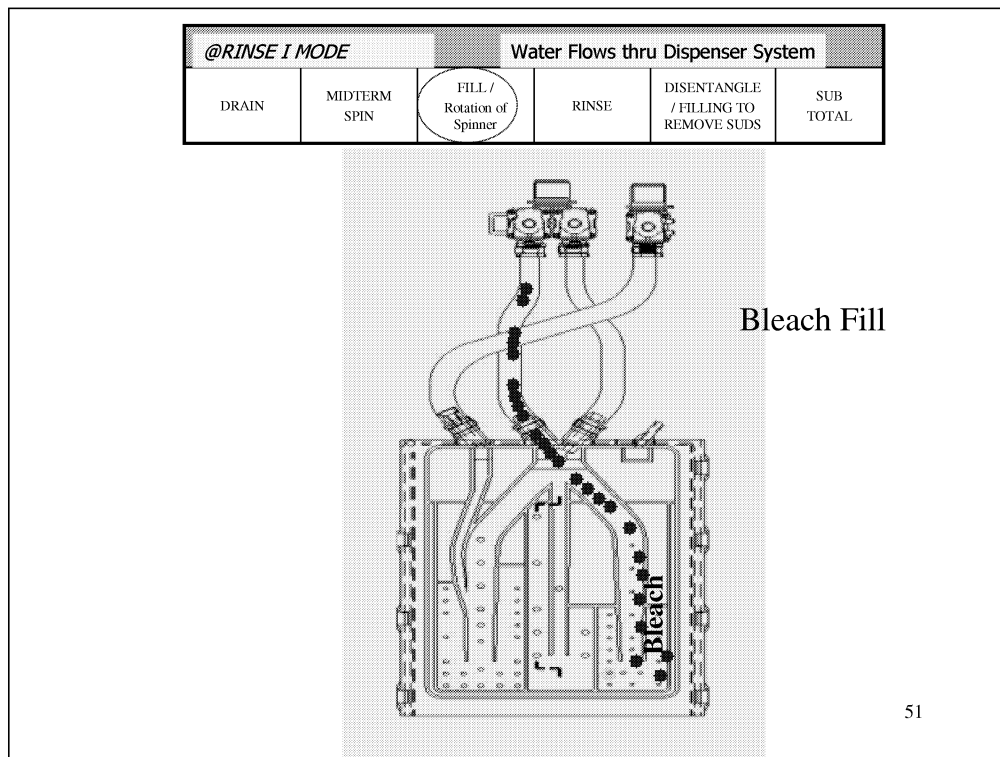




Slide 50



Slide 51

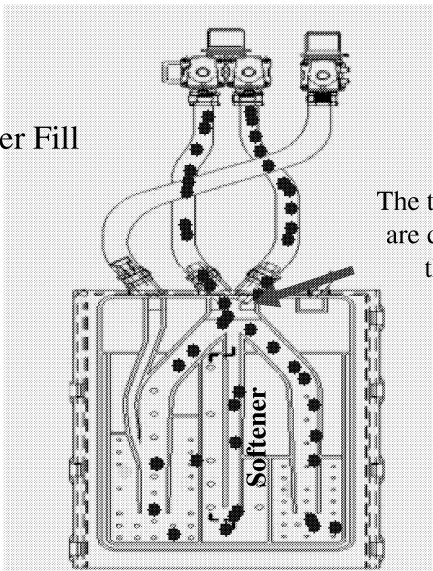


Slide 52

@RINSE 2 MODE			Water Flows thru Dispenser System		
DRAIN	MIDTERM SPIN	FILL / Rotation of Spinner	RINSE	DISENTANGLE / FILLING TO REMOVE SUDS	SUB TOTAL

Fabric Softener Fill

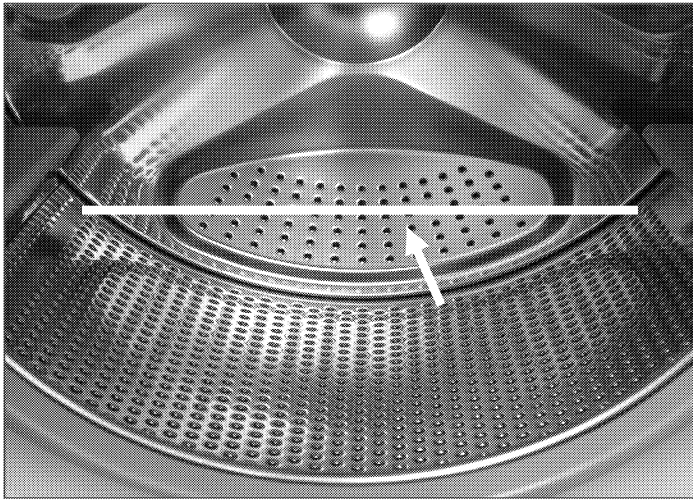


The two streams of cold water are designed to collide to fill the Softener reservoir

52

Slide 53

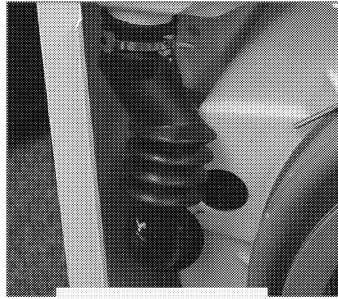
Correct Water Level for a normal Wash fill should be between the 4<sup>th</sup> and 5<sup>th</sup> rows of holes on the back of the spinner



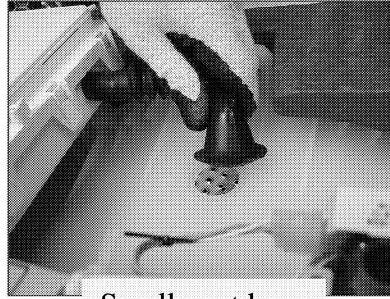
53

**Slide 54 - Removing dispenser**

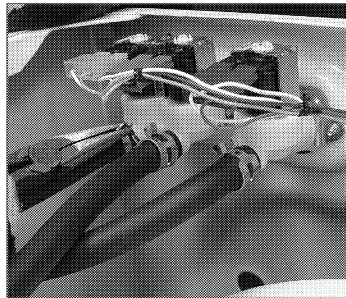
**Slide 55**



Tub fill hose



Small vent hose

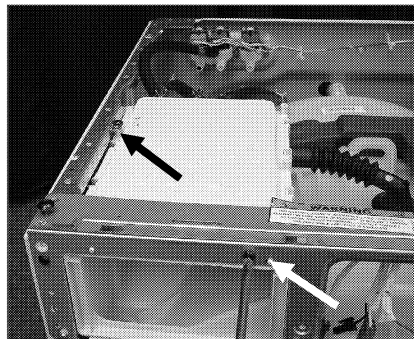


Remove the tub fill hose, small vent hose and 3 inlet fill hoses.

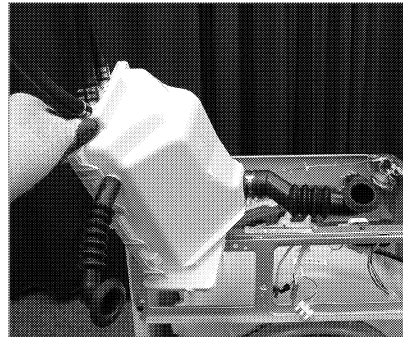
Note: Hose routing diagram is embossed into top of dispenser

55

**Slide 56**



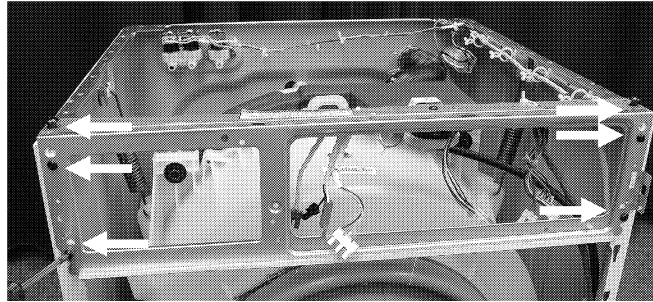
Remove two screws and remove dispenser



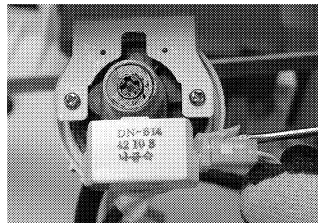
56

**Slide 57 - Removing the tub**

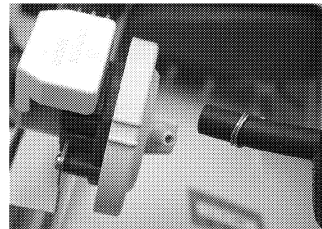
**Slide 58**



Remove 6 screws securing the console mounting support bracket



Release lock and remove harness from water sensor

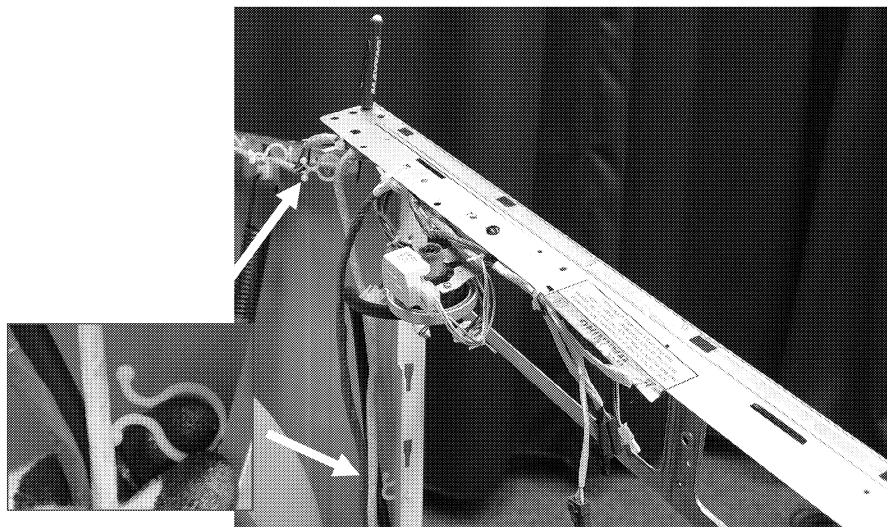


Remove pressure hose

58

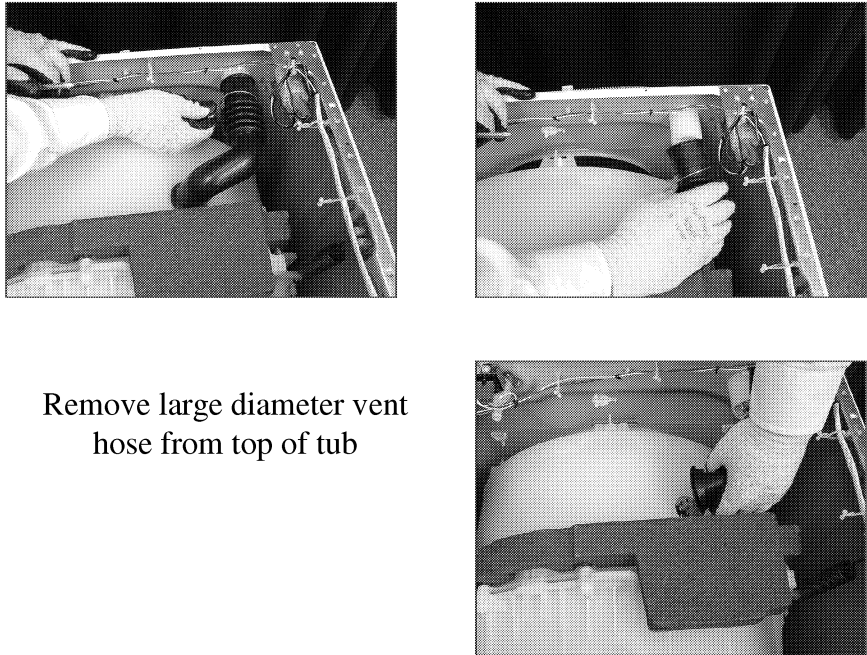
**Slide 59**

Remove wire harness from clips to allow the console support bracket to be positioned as indicated. Use a small screwdriver to secure the bracket through holes in the bracket and cabinet



59

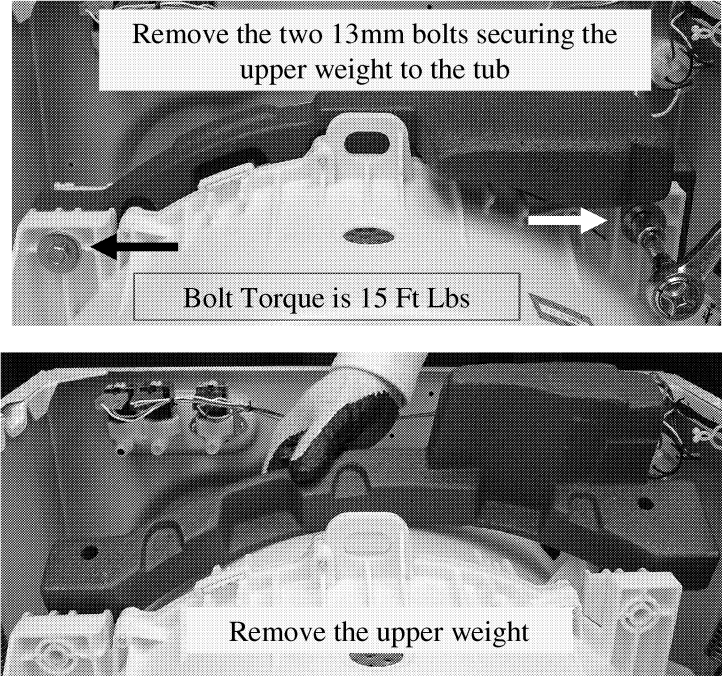
Slide 60



Remove large diameter vent hose from top of tub

The slide contains three black and white photographs. The top-left photo shows a person's hands using a tool to disconnect a large black vent hose from a metal frame. The top-right photo shows the person's hands holding the disconnected hose. The bottom-right photo shows the person's hands pulling the hose away from the tub's top edge.

Slide 61



Remove the two 13mm bolts securing the upper weight to the tub

Bolt Torque is 15 Ft Lbs

Remove the upper weight

61

The slide contains two black and white photographs. The top photo shows a person's hands using a wrench to remove two bolts from a white plastic upper weight. A text box above the photo says "Remove the two 13mm bolts securing the upper weight to the tub". A text box below the photo says "Bolt Torque is 15 Ft Lbs". The bottom photo shows the person's hands lifting the upper weight out of the tub. A text box below the photo says "Remove the upper weight". The number "61" is in the bottom right corner.

Slide 62

Disconnect Thermistor

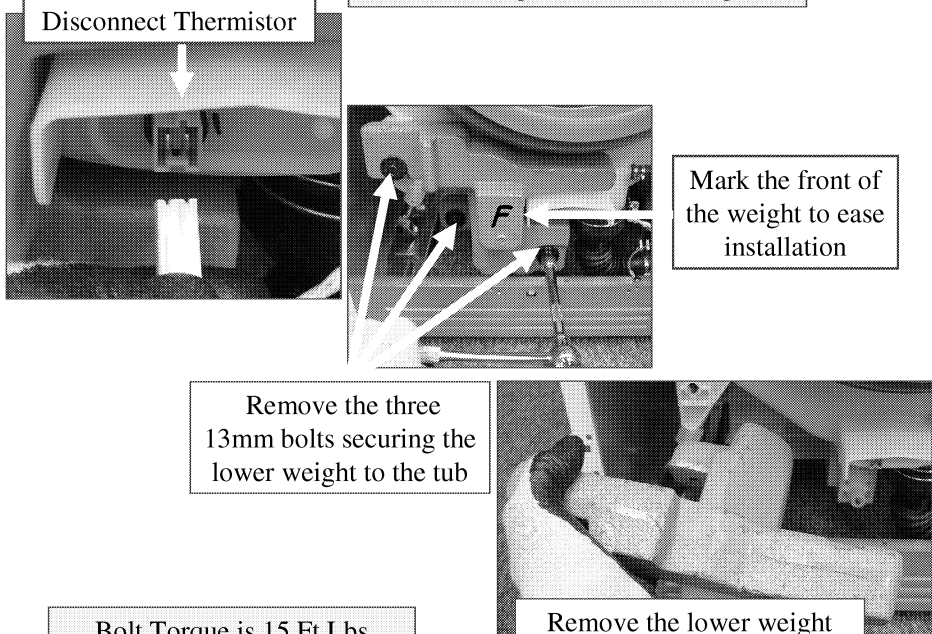
Removing the lower weight

Mark the front of the weight to ease installation

Remove the three 13mm bolts securing the lower weight to the tub

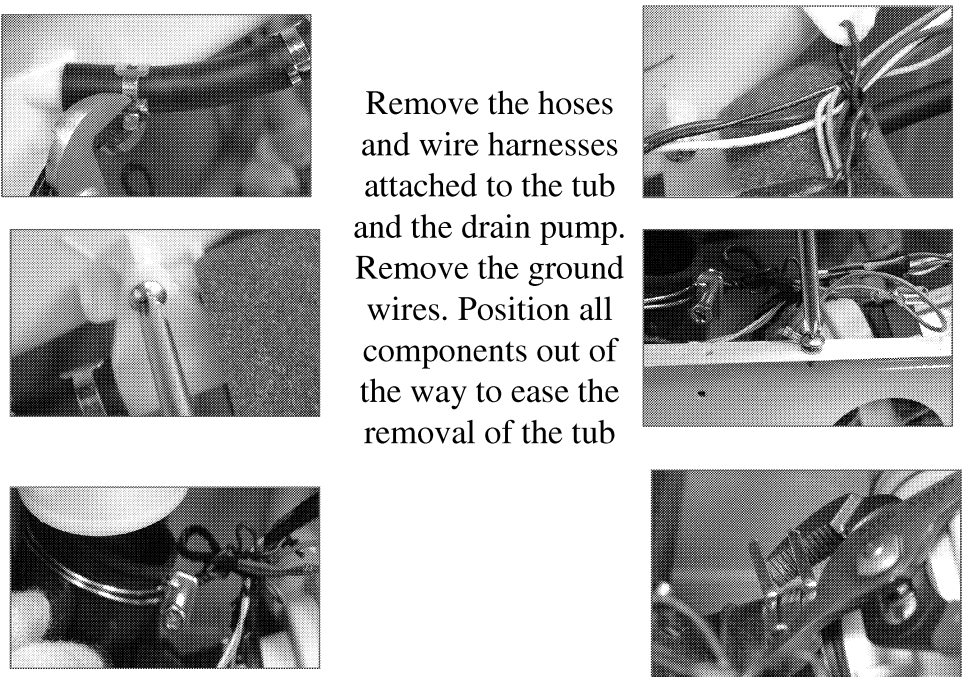
Bolt Torque is 15 Ft Lbs

Remove the lower weight

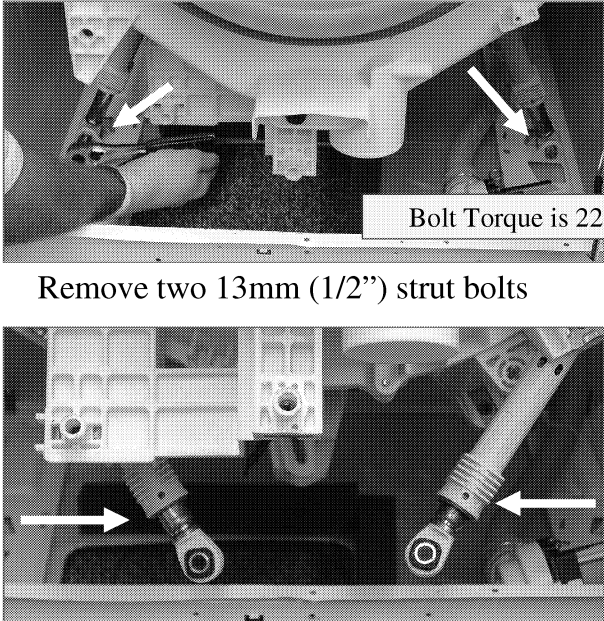


Slide 63

Remove the hoses and wire harnesses attached to the tub and the drain pump. Remove the ground wires. Position all components out of the way to ease the removal of the tub



Slide 64



The top photograph shows a close-up of the rear suspension area of a washing machine. Two white arrows point to the locations of the strut bolts. A text box to the right of the image states "Bolt Torque is 22 Ft Lbs". Below this image is the text "Remove two 13mm (1/2'') strut bolts". The bottom photograph shows the same area from a different angle, with two white arrows pointing towards the center of the machine, indicating the struts should be moved to the center.

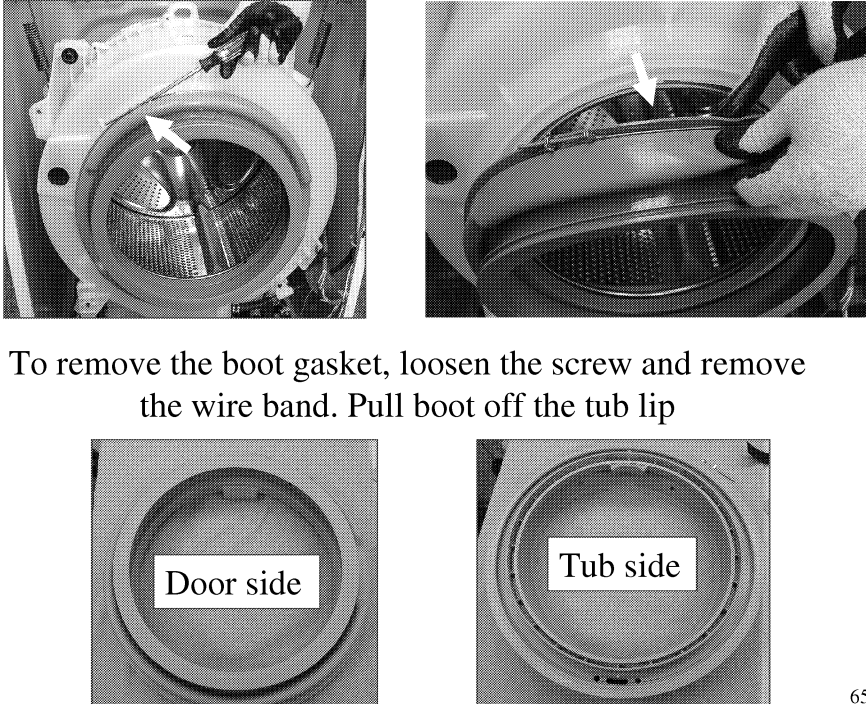
Bolt Torque is 22 Ft Lbs

Remove two 13mm (1/2'') strut bolts

Move struts to center

64

Slide 65



The top-left photograph shows a person using a screwdriver to loosen a screw on the door boot gasket. A white arrow points to the screw. The top-right photograph shows the person pulling the boot gasket away from the tub lip, with a white arrow pointing to the gasket. Below these two images is the text "To remove the boot gasket, loosen the screw and remove the wire band. Pull boot off the tub lip". The bottom-left photograph shows the door side of the tub with a white label "Door side". The bottom-right photograph shows the tub side of the tub with a white label "Tub side".

To remove the boot gasket, loosen the screw and remove the wire band. Pull boot off the tub lip

Door side

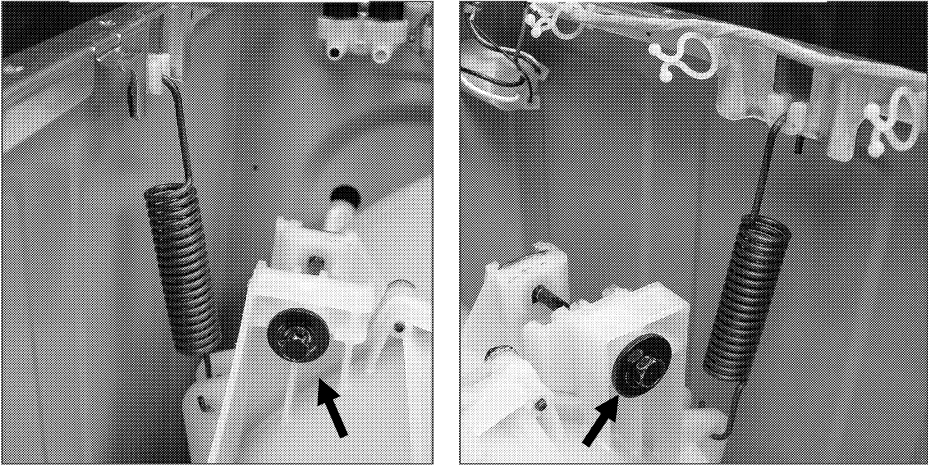
Tub side

65

Slide 66

Left side spring

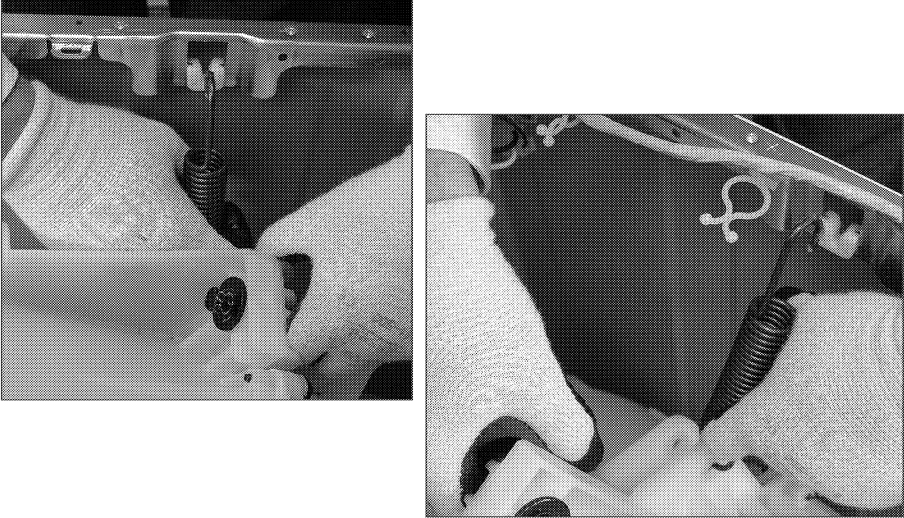
Right side spring



Install the two upper weight bolts to use as handles during tub removal

66

Slide 67



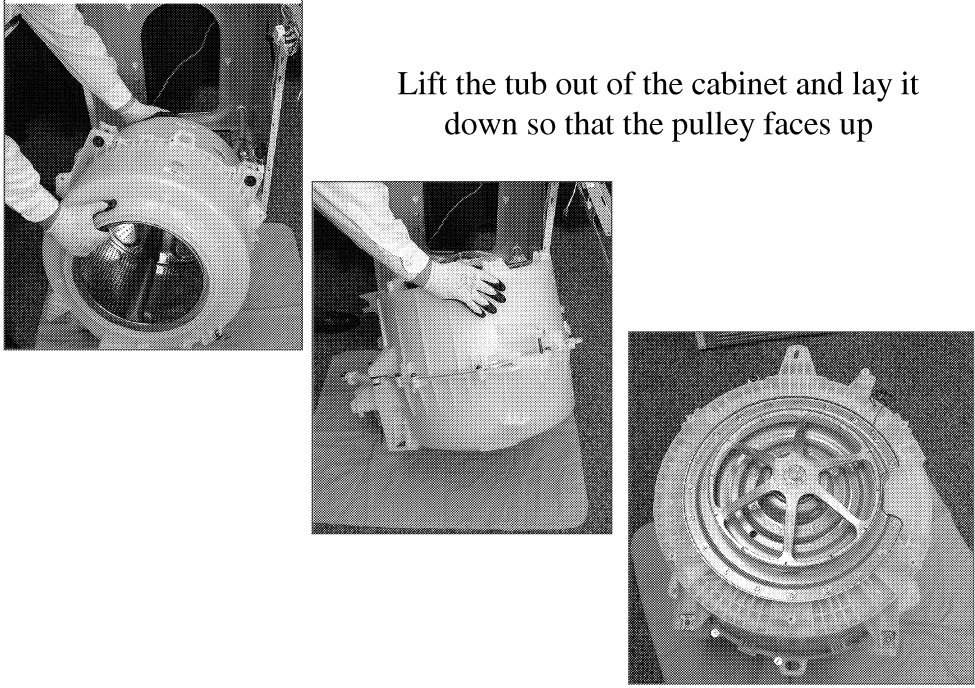
Lift tub and remove left and right springs

67



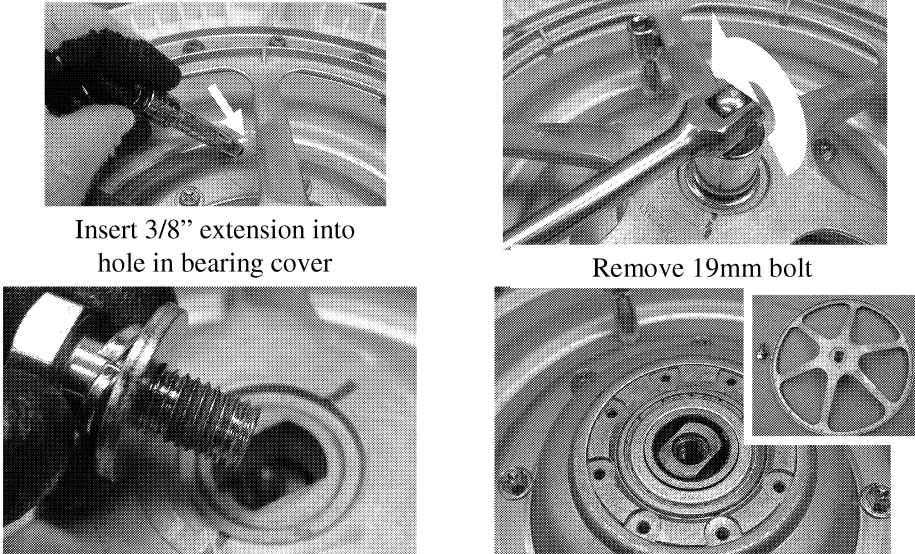
Slide 68

Lift the tub out of the cabinet and lay it down so that the pulley faces up



Slide 69

To remove pulley



Insert 3/8" extension into hole in bearing cover

Remove 19mm bolt

Blue Locktite is used on the bolt threads

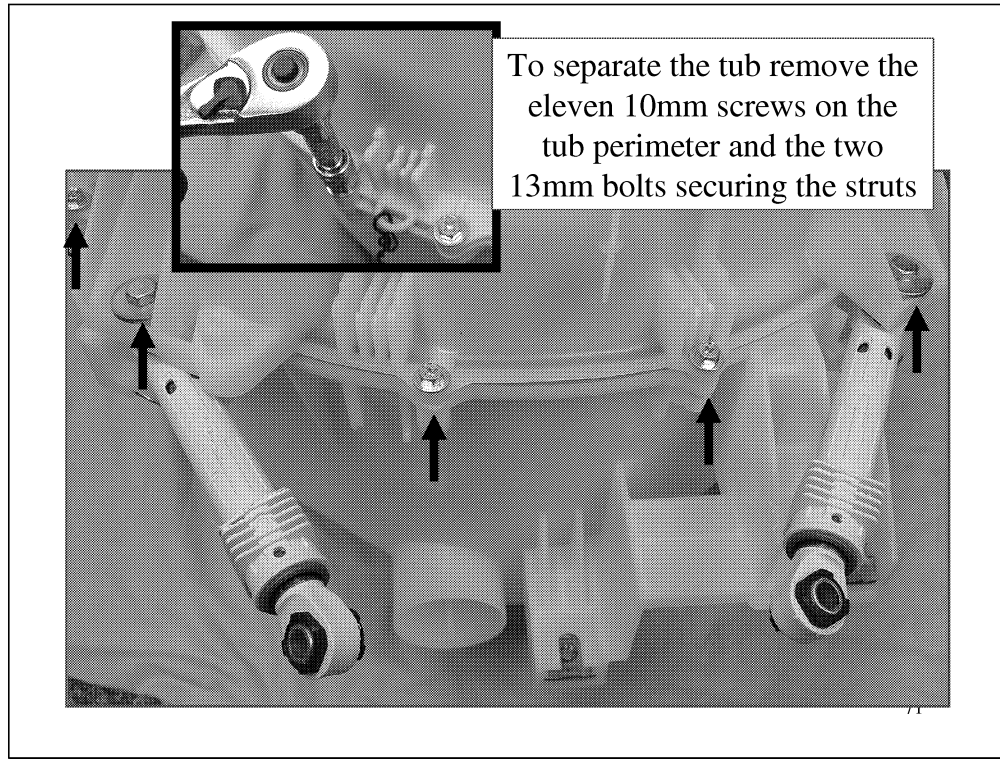
Remove pulley

Bolt Torque is 25 Ft Lbs.

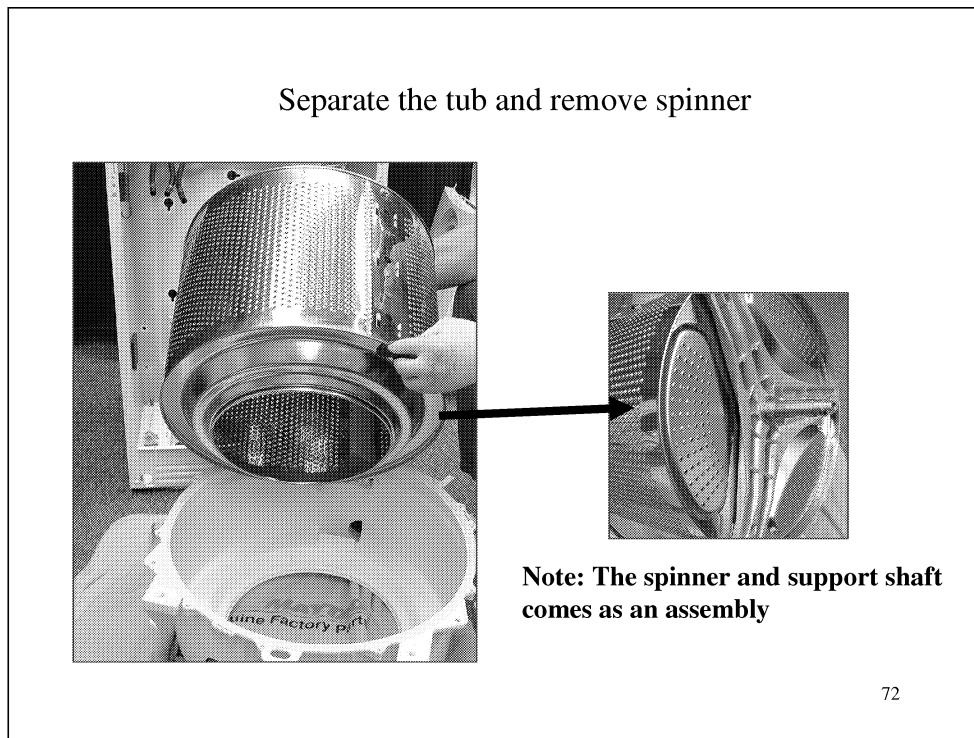
69

**Slide 70 - Servicing the tub and spinner**

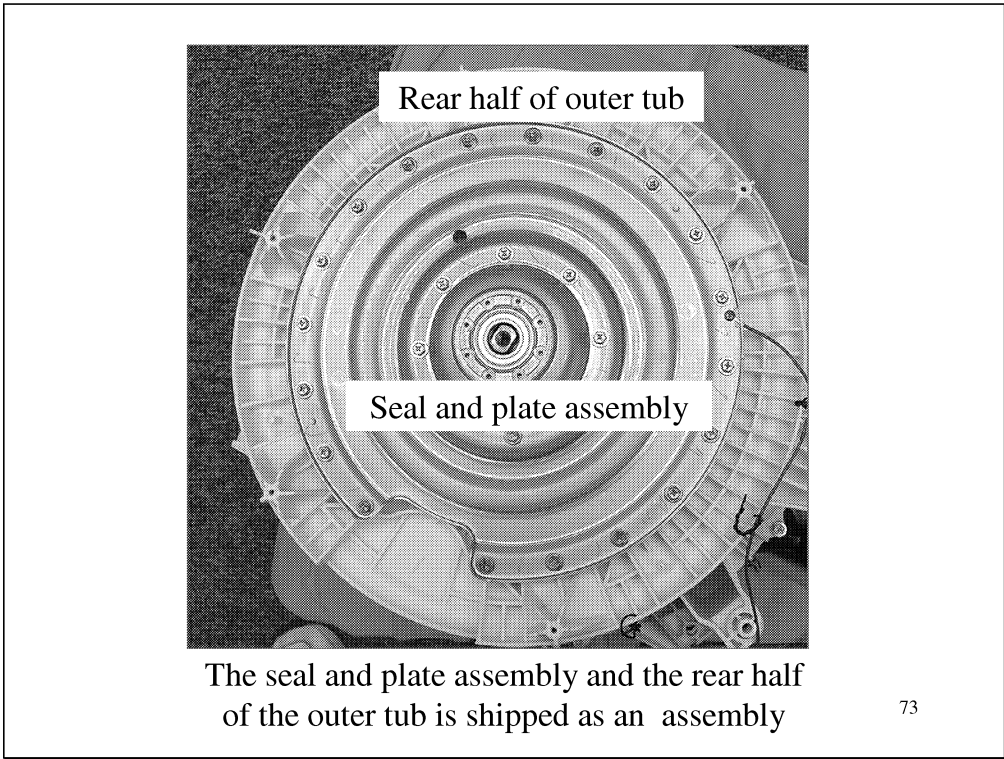
**Slide 71**



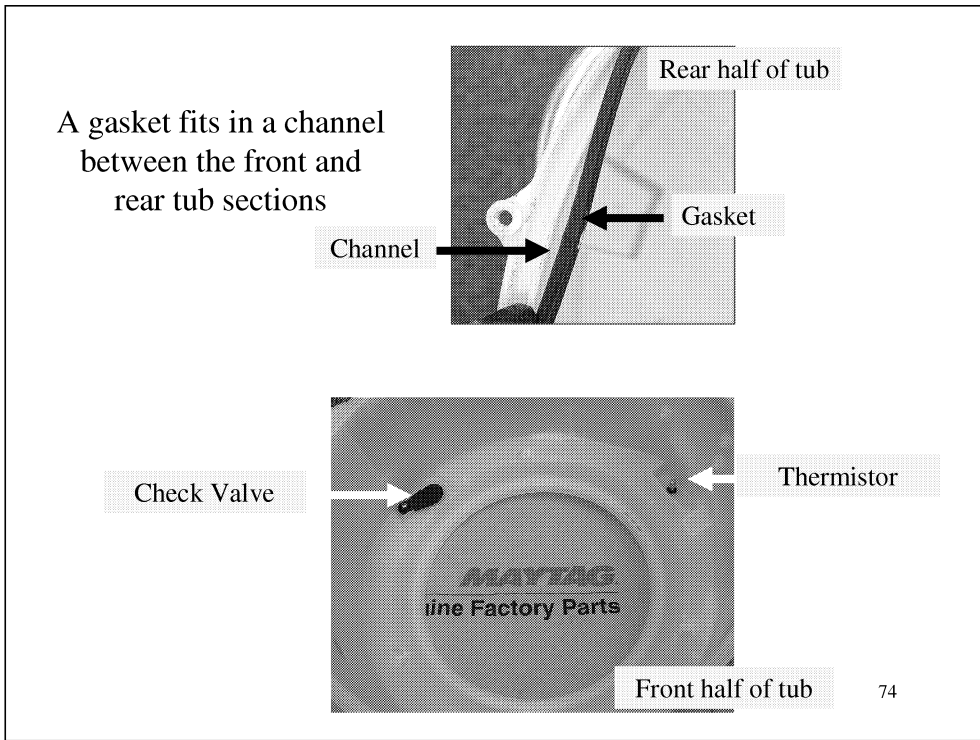
**Slide 72**



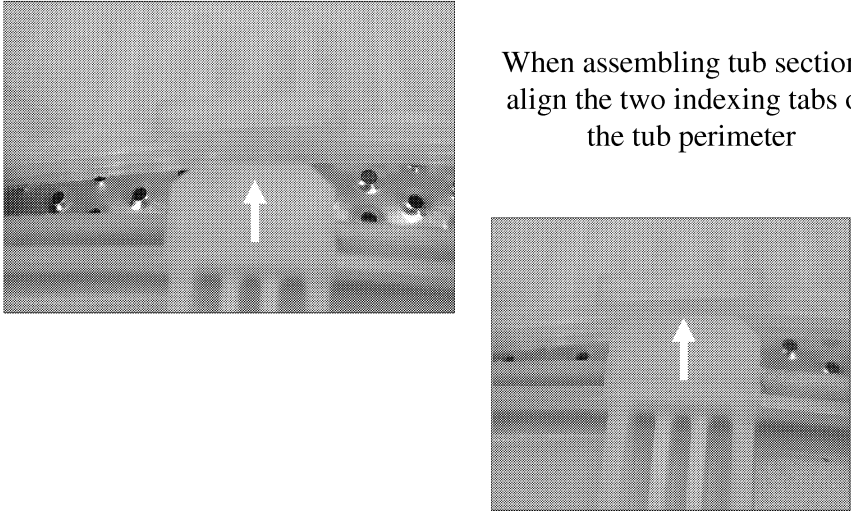
Slide 73



Slide 74



**Slide 75**



When assembling tub sections, align the two indexing tabs on the tub perimeter

75

**Slide 76** – Blank video marker

**Slide 77** - Troubleshooting information

**Slide 78**

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

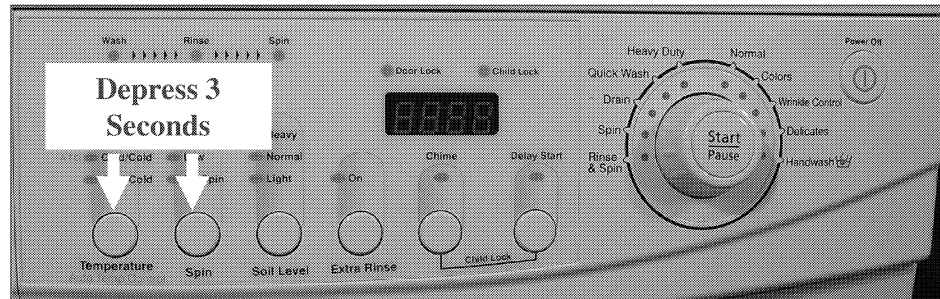
- Diagnostic Codes
- Service Mode
- Component Testing Procedures
- Wiring Schematic

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](#)

78

## Slide 79



### **Service Mode**

Service Mode enables service personnel to verify the operation of the washing machine and diagnose problems. Service Mode can be entered in the middle of any wash cycle without interrupting the cycle. While in Service Mode, the technician can cancel the current cycle, set a continuous running mode, start a variety of special service tests and view diagnostic displays.

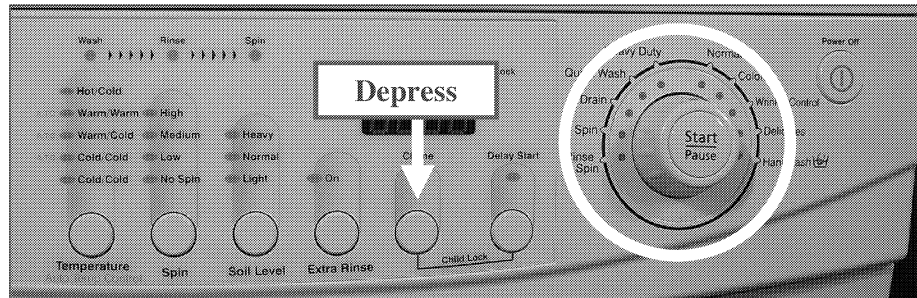
### **Enter / Exit Service Mode**

To enter Service Mode press the *Spin* and *Temperature* keys for three seconds or until the control beeps.

**NOTE:** The washer must be on before Service Mode can be entered  
**Refer to the Technical Data Sheet shipped with the product for detailed instructions.**

79

## Slide 80



### Display Diagnostic Codes

The diagnostic code display can be toggled on and off from Service Mode by pressing the *Chime* key and rotating the cycle select knob. The display will show a “d”.

Rotating the Cycle Selector knob in either direction will cycle through the list of codes one code at a time with no wrap.

**Refer to the Technical Data Sheet shipped with the product for detailed information.**

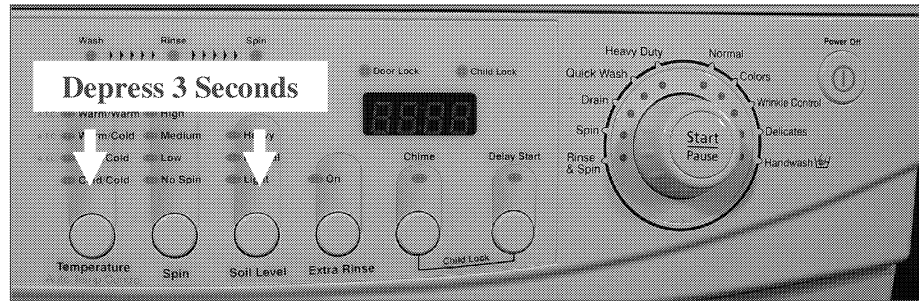
Slide 81

An Example of the Diagnostic codes found in the *Technical Data Sheet*

Diagnostic Codes

Diag. Code	Description	Trigger	Action to be taken
1	No Drain	The water level fails to drop below the Low Water level reset within 15 minutes, before a spin begins.	Displays "nd" Go to "Will Not Drain" Troubleshooting Section
2	Not Used		
3	No Fill	Continuous fill of 12 minutes. Total fill of 20 minutes.	Displays "nF" Go to "No Water Fill" Troubleshooting Section
4-7	Not Used		
8	Water level sensor fault.	Input signal from water level Sensor is out of range, Washer will beep and pause the wash cycle.	Displays "LE" Go to "No water fill troubleshooting".
9	Not Used		

## Slide 82



### Quick Service Cycle

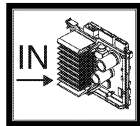
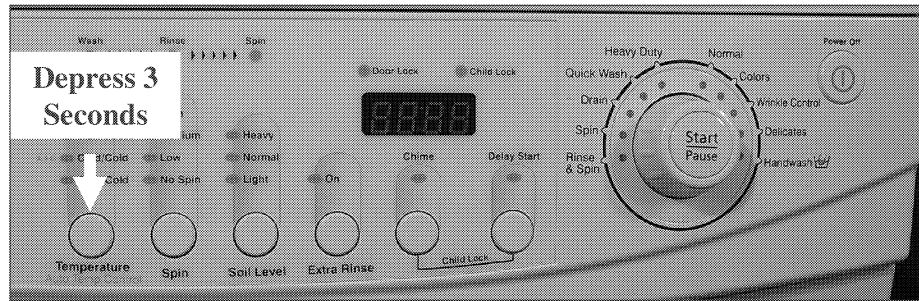
While in Service Mode, pressing the *Temperature* and *Soil Level* key for 3 seconds will start a Quick Service Cycle. This will be a quick check of all systems. If display shows **od**, then open and close door. Display shows “**sc**”.

Pressing *Chime* will advance to the next cycle.

**Refer to the Technical Data Sheet shipped with the product for detailed information.**



## Slide 83

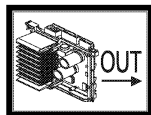
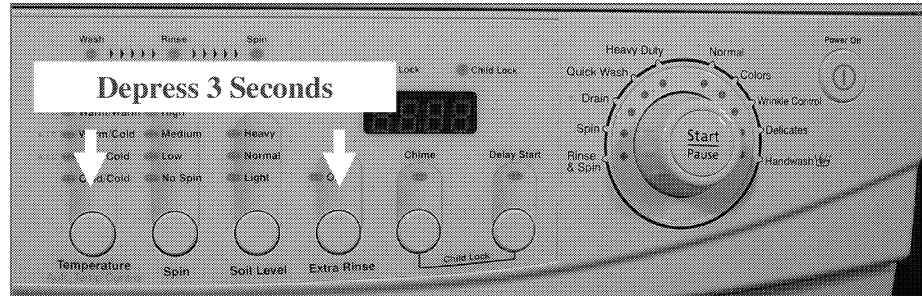


### Board Input Test

While in Service Mode, pressing the *Temperature* key will begin the **Board Input Test**. This test turns on a specified output after a key press. Pressing the *Temperature* key again cancels the test. (Display shows **in**).

Refer to the **Technical Data Sheet** shipped with the product for detailed information.

## Slide 84

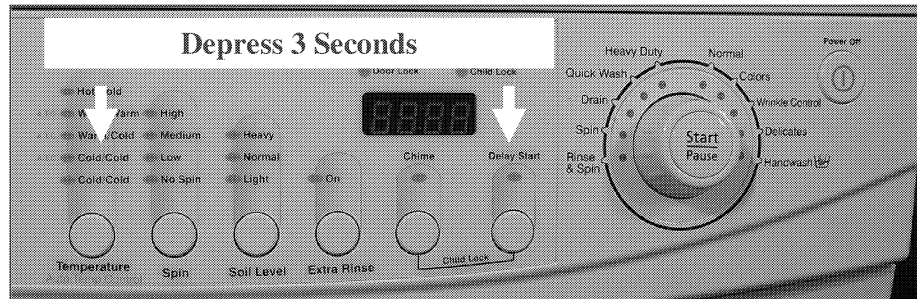


### Board Output Test

While in Service Mode, pressing the *Temperature* and *Extra Rinse* key will begin the **Board Output Test**. This test turns on a specified output after a key press. (Pressing the *Temperature* and *Extra Rinse* key again cancels the test.) Only one output can be “on” at any time. All outputs will be turned off after five (5) minutes of inactivity.

**Refer to the Technical Data Sheet shipped with the product for detailed information.**

## Slide 85



### Quick Spin Test

While in Service Mode, press *Delay Start* and *Temperature* keys to start a *Quick Spin* Test.

Refer to the Technical Data Sheet shipped with the product for detailed information.

## Slide 86

### 24" Washer Spin Profile



#### Midterm Spin (After Washing Mode is completed and before Rinse Mode)

- Period 1: 1st Tumble (50 rpm) and spin (98 RPM)
- Period 2: Preliminary Spin (1<sup>st</sup> Peak - 220 RPM / 2<sup>nd</sup> Peak - 500 RPM)
- Period 3: 2<sup>nd</sup> Tumble (50 rpm) and spin (98 RPM)
- Period 4: Main Spin (Target RPM - 800 rpm)



#### Final Spin (After Rinse)

- Period 1: 1st Tumble (50 rpm) and spin (98 RPM)
- Period 2: Preliminary Spin (1<sup>st</sup> Peak - 220 RPM / 2<sup>nd</sup> Peak - 500 RPM)
- Period 3: 2<sup>nd</sup> Tumble (50 rpm) and spin (98 RPM)
- Period 4: Main Spin:
  - Low – 600 RPM
  - Medium – 800 RPM
  - High – 1200 RPM

86

## Slide 87

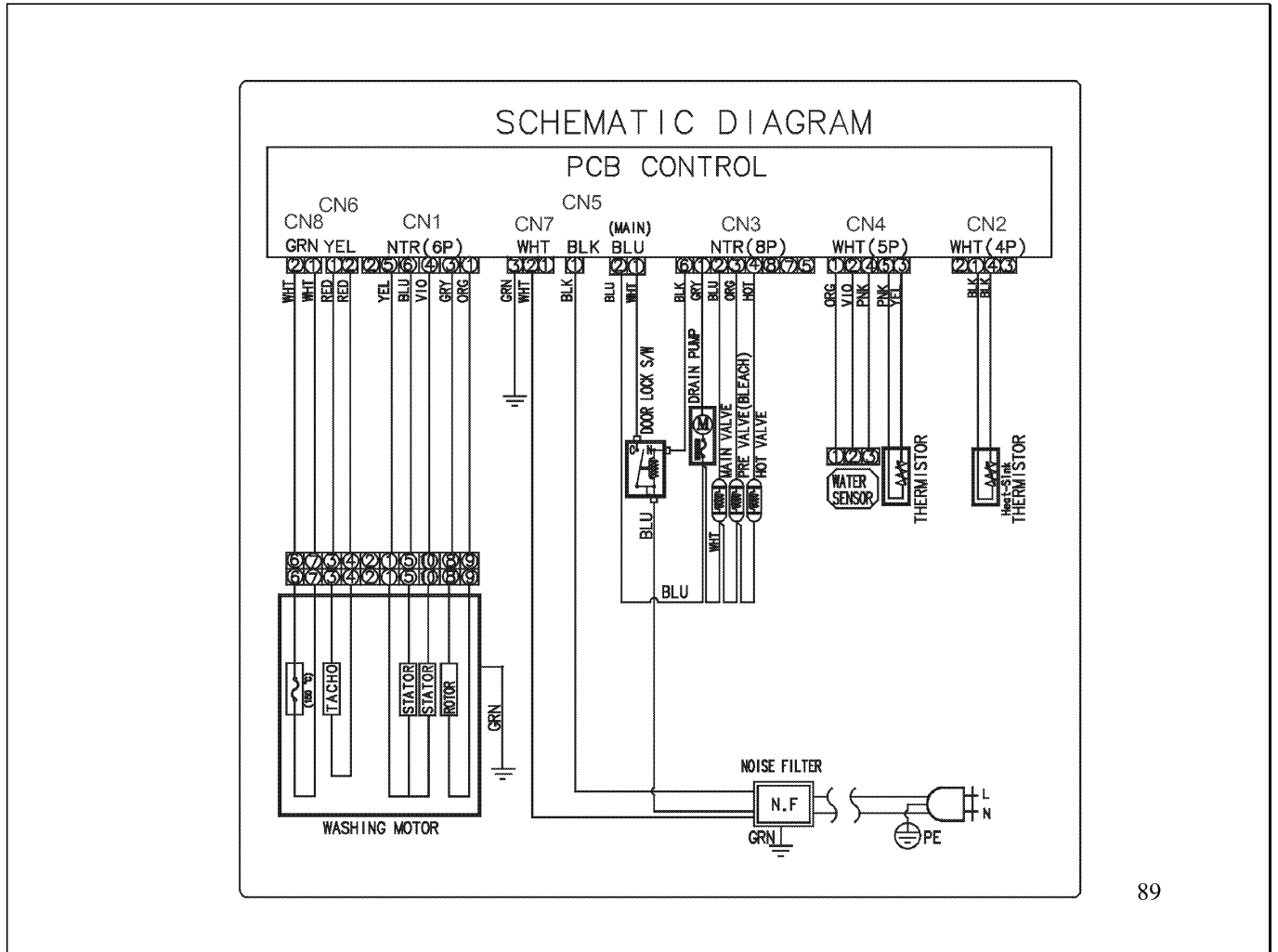
### Unbalance Detection

The control board monitors the difference between the minimum and maximum spin speeds achieved during the preliminary spin speed ramp ups prior to the Main Spin. If the difference exceeds a specific factor, the washer will stop and repeat the spin ramp up program without a water fill. If the control board detects an unbalanced condition 15 times, the washer will shut down and display “UE”

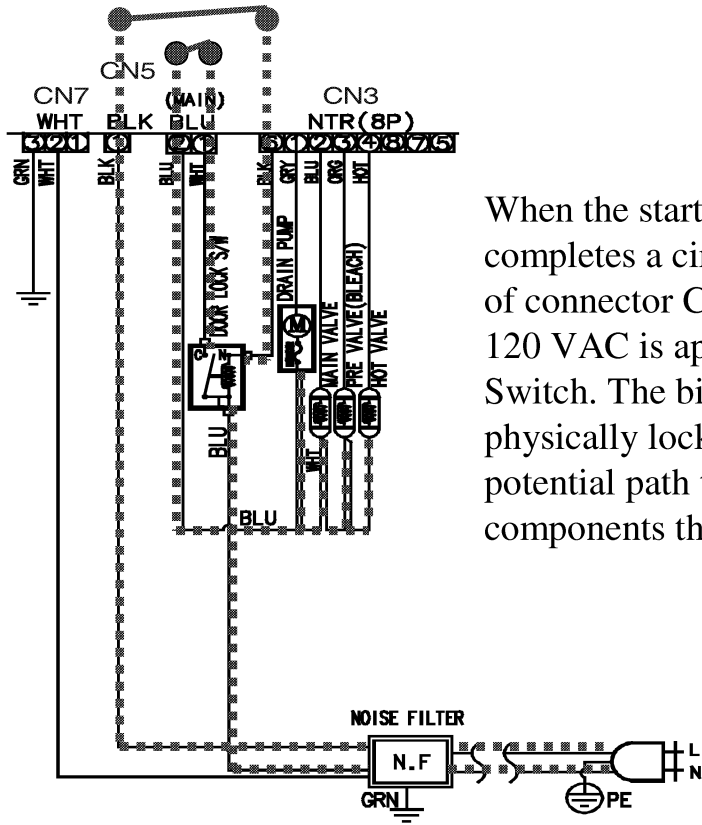
87

Slide 88 – Blank video

Slide 89

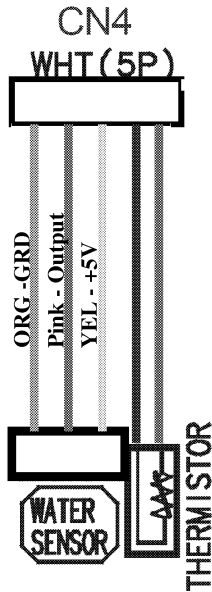


## Door Lock Switch Circuit



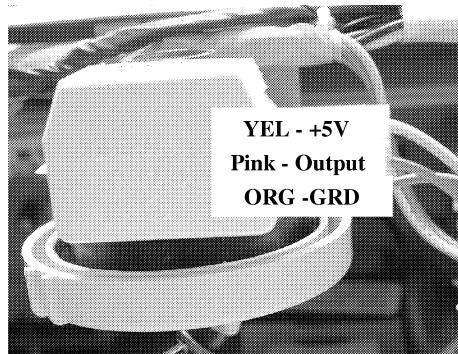
When the start button is depressed, the control board completes a circuit between L1, the Black wire @ P1 of connector CN5 and the Black wire @ P6 of CN3. 120 VAC is applied to a bimetal in the Door/Lock Switch. The bimetal actuates causing the door to physically lock and at the same time establishes a potential path to the neutral legs of the load components through the Blue and White wires.

## Water Sensor

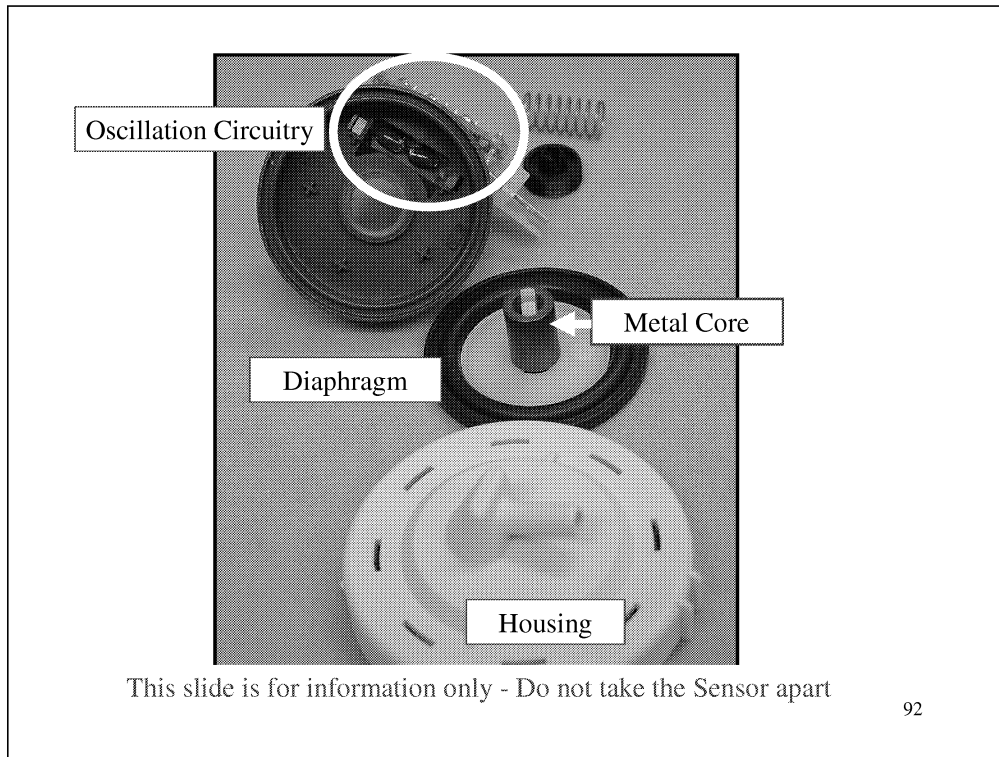


Similar to a conventional pressure switch, the water level sensor is operated by pressure changes in the air dome. A change in pressure causes the diaphragm to raise or lower a small metal core that is part of an oscillation circuit. The movement of this core changes the frequency of the circuit which is monitored by the MICOM. The MICOM converts frequency to water level.

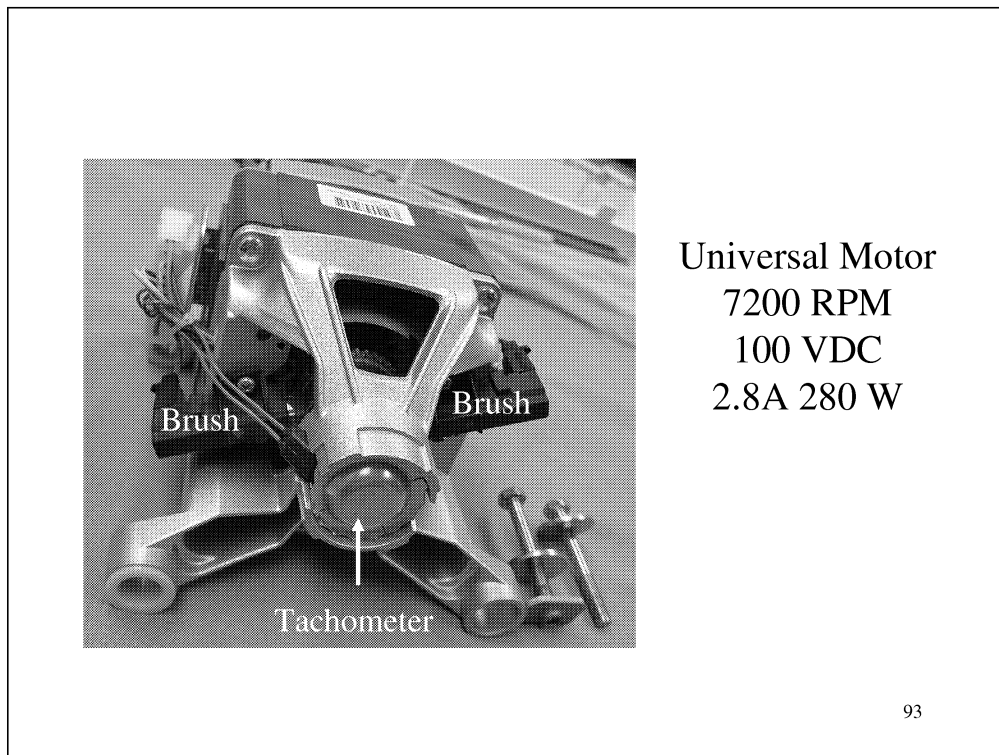
The frequency range is 21kHz at Max water level to 26kHz when empty. A diagnostic error code is generated if the frequency is lower than 15kHz or more than 30kHz. Follow the troubleshooting information included in the Technical Data sheet when troubleshooting a no fill or low fill complaint.



**Slide 92**

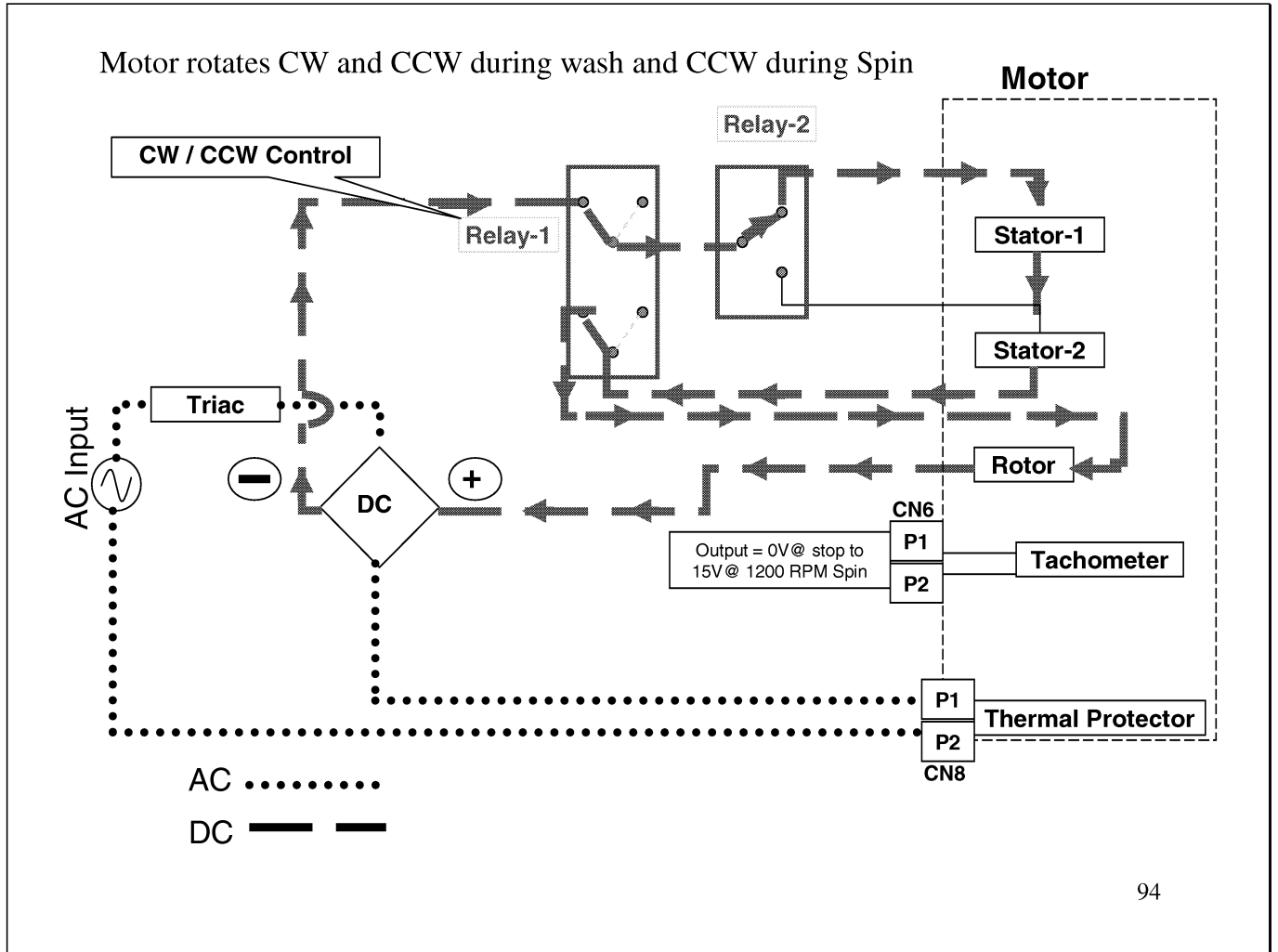


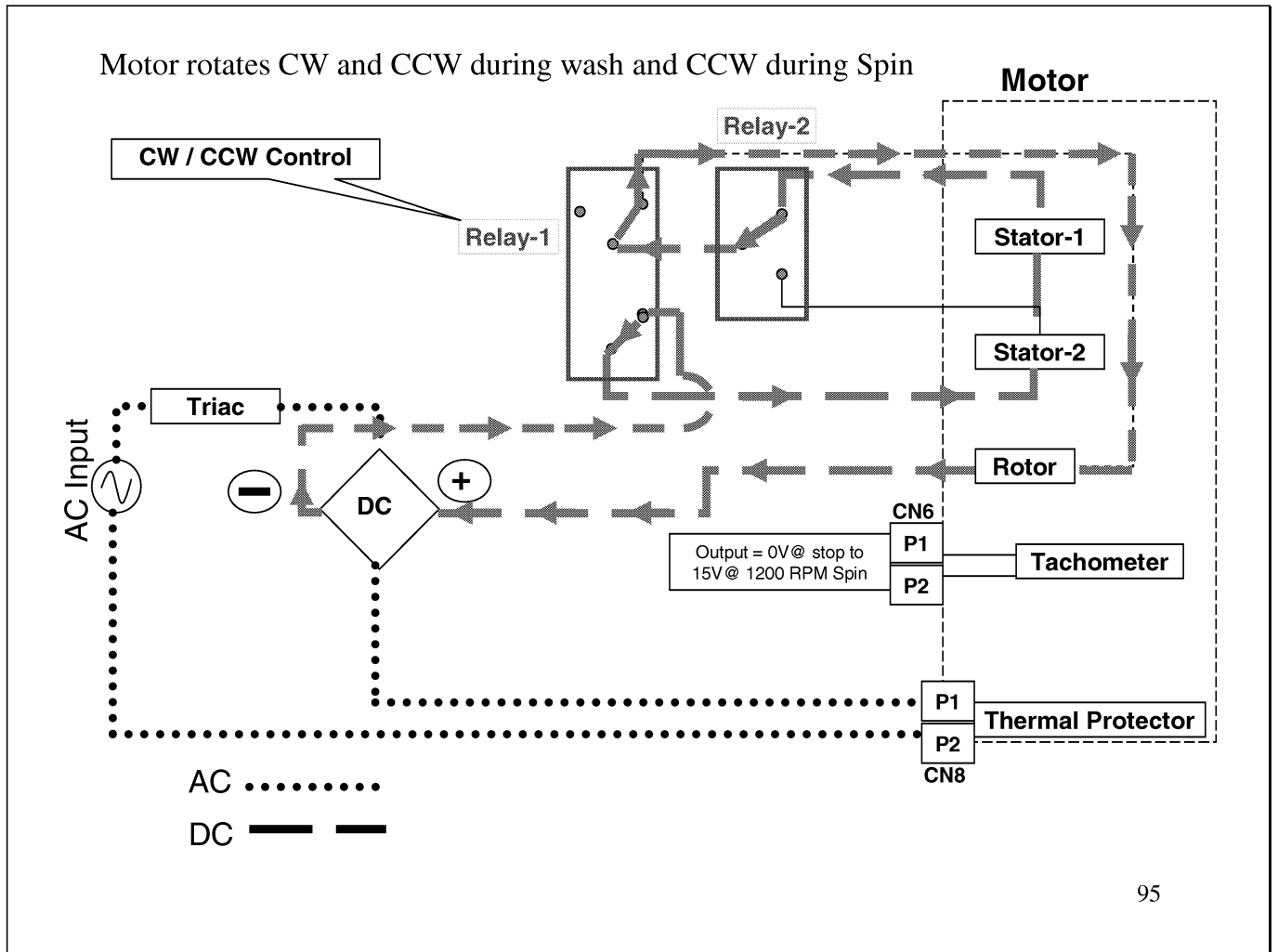
**Slide 93**





Slide 94





## Motor Resistance Values

Component	Test Points @ Control Board	Resistance
Stator Windings 1&2	CN1-Pin 4 Violet & Pin 6 Blue	1.2 Ohms +/- 7%
Stator Winding 2	CN1-Pin 5 Yellow & Pin 6 Blue	.25 Ohms +/- 7%
Rotor	CN1-Pin 1 Orange & Pin 3 Grey	1 Ohm +/- 7%
Tachometer	CN6-Pin 1 Red & Pin 2 Red	42 Ohms +/- 7%
Thermal Protector	CN8- Pin 1 White & Pin 2 White	Zero

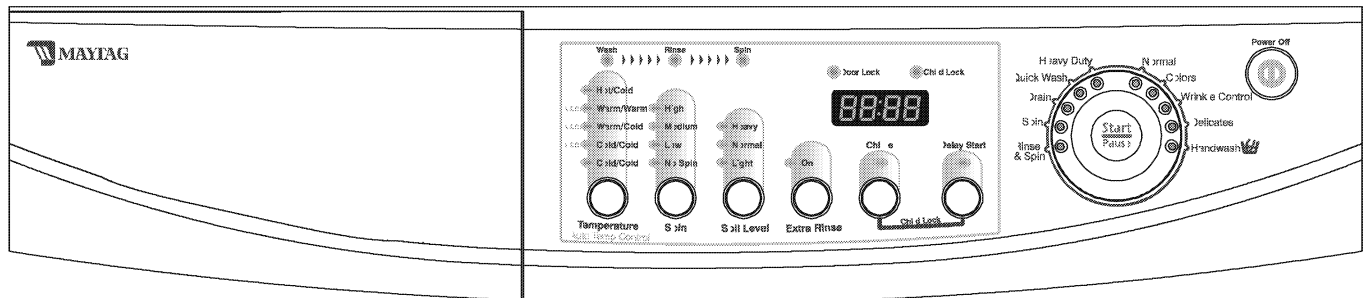
**Important: All readings must be taken on the wire connectors removed from the Control Board**

# 24" Front Load Washer—Technical Information

## MAH2400A\*

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 16023430 for detailed installation, operating, testing, troubleshooting, and disassembly instructions.
- **Warning! All safety information must be followed as provided in Service Manual 16023430. To avoid risk of electrical shock, personal injury or death; disconnect power to washer before servicing, unless testing requires power.**



FEATURES	MAH2400AW
Controls	LED
Time Remaining Indicator	•
Start/Pause Pad	•
Wash tub	Stainless Steel
Capacity	2.4 Cu.Ft.
Baffles	3
Speed Combinations	Infinite
TumbleClean™ Wash System	•
Speed/Fabric Program	
Normal Wash Cycle	•
Wrinkle Control Cycle	•
Delicates Wash Cycle	•
Handwash Cycle	•
Rinse & Spin Cycle	•
Quick Wash Cycle	•
Heavy Duty Wash Cycle	•
Delay Start Option	19 Hours
Extra Rinse Option	•
End-of-Cycle Chime	On/Off
Child Lock Option	•
Water Level Control	IntelliFill™
Water Temperature Combinations	5
ATC (Energy Star®)	Cold = 65° / Warm = 105°
Soil Level Selections	Heavy/Normal/Light

Automatic Detergent Dispenser	Timed
Automatic Bleach Dispenser	Timed
Automatic Fabric Softener Dispenser	Timed
Self Cleaning Lint Removal	System
Suspension	2 Springs + Struts
Top	Laminate
Cabinet	Tri-Coat
Spin Speeds	
High	1200
Medium	800
Low	600
No Spin	0
Colors	W

DIMENSIONS	
Width	23.75 in.
Height	33.5 in.
Depth	25.2 in.
Depth With Door Open 90°	41.25 in.

# Troubleshooting



## WARNING

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

### Will Not Start

- Plug cord into live electrical outlet. Check for proper voltage.
- Check fuse or reset circuit breaker.
- Push the START/PAUSE button to start the clothes washer.
- Close door and push the START/PAUSE button to start the clothes washer. START/PAUSE LED should change from flashing to on continuously.
- Check to see if the washer in a pause or soak period in the cycle. Wait briefly and it may start.
- Check for restricted drain system.
- Check the line filter connection terminals for good connections.
- Check the machine control board terminal connections AC1-CN7 (Pin 2) White to AC2-CN5 Black for good connections.
- Check for stuck buttons on console, pushing in on board tact switches. Readjust buttons on inside of console.
- Replace console control board.

### Leaking

- Make sure inlet hose connections are not leaking. Check for rubber gasket damage due to over-tightening.
- Check standpipe for leak. Wrap a dry rag around the standpipe opening. If rag becomes wet, leak is fault of home plumbing. Be sure the standpipe is capable of accepting the flow of water from the washer.
- Make sure end of drain hose is correctly inserted and secured to drain standpipe.
- Check internal hose connections (fill, drain systems, dispenser hoses & clamps).
- Check rubber boot. Remove, reposition and reinstall, if necessary.

- Check for possible kinked dispenser to outer tub hose. Hot water pressurization may force door open.

### No Tumble

- Start normal cycle with an empty machine and allow a fill to check tumble.
- Fabric cycles such as NORMAL, DELICATES, HAND WASH, & WRINKLE CONTROL only tumble periodically, every 60 seconds.
- Washer does not tumble during most fills or during presoak.
- Perform **Board Output Test**.
- Check for loose connections at machine control board, pressure switch, motor, tach harness and motor control. .
- Check motor windings resistance. (Pins 8 & 9 = 3.6 ohms, pins 1 & 10 = 1.1 ohms, Pins 5 & 10 = 1.1 ohms)
- Check belt.
- Washer with heat option does not tumble while heating. (Export washers only)

### Will Not Spin

- Check to make sure the door is fully closed.
- Check for water left inside the washer. If present, see **Will Not Drain**.
- Perform **Board Output Test**. Will washer spin? Possible unbalanced load scenario previously.
- Check for loose connections at machine control board, pressure switch, motor, tach harness and motor control. .
- Check belt.

### No Water Fill

- Test water fill. Perform **Board Output Test**.
- Check to make sure water supply is turned on fully.
- With no clothes in washer normal

# Troubleshooting



## WARNING

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

water level is between the 4<sup>th</sup> and 5<sup>th</sup> hole on the spinner back wall.

- Check electrical circuit and connections at the water valve, and pressure switch.
- Check for kinks in inlet hoses.
- Check for clogged inlet screens.
- Visually check hot and cold separately for fill.
- Check for low water pressure. May be dependent on pressure entering home. Variations may occur due to usage in the home at the time machine is used.
- Check for frozen pipes and hoses.
- Check resistance of water valve coils. (normal 1.18K ohms; CN3 connector – Cold (BU) – Bleach (OR) – Hot (RD))
- Check for loose connections at the pressure switch or on the machine control board, connector 5P.

### Tub Full of Suds

- Check for restricted drain system. See **Will Not Drain** and **Will Not Spin**.
- Check for loose wire connections at control board and pump.
- Perform **Board Output Test**.
- Use high efficiency or low sudsing detergent specially formulated for front load washers.
- Reduce detergent amount for that specific load size and soil level. Towel loads have a minimal amount of soil present and typically create more suds.
- Check to see if belt is off motor and pulley.
- Run the clothes washer through another complete cycle using the coldest water, tablespoon of salt and no detergent.

### Wet Clothes

- Very small clothes loads can cause unbalanced loads. Add additional towels.
- Excessive suds may have been

present, due to not using High-efficiency detergent. Reduce amount of detergent usage.

- See **Will Not Spin**.
- Low Spin Speed was selected.

### Will Not Lock

- Door not all the way closed or not properly aligned. Possible laundry load is too large to close door.
- Place washer into **Service Mode** and check for diagnostic codes 4 & 18.
- Perform **Board Output Test**. Check door lock system.
- Check electrical connections at lock switch assembly and machine control board (CN2).

### Will Not Unlock

- Push door closed to make sure nothing from inside is pressing against it, which may keep it from unlocking.
- Display shows **LO**. Press **Off**, **Start/Pause** or unplug washer. Door will unlock after 3 minutes.
- Door locked from water level too high. Opening door will result in water draining from door opening.
- Place washer into **Service Mode**.
- Perform **Board Output Test**. Check door lock system for loose connections.

### Will Not Drain

- Check for restricted drain system.
- In cold climates check for frozen drain hose.
- Check for 120 VAC at the pump when a spin cycle is selected.
- Check pump motor winding resistance. (14.2 ohms)
- Check that the machine control correctly senses the water level in the washer. See **Board Input Test**.

# Troubleshooting



## WARNING

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

- Go to **Board Output Test** and perform Pump out test.
- Check the machine control board connections at CN3 (Pin 1) for the pump. Should see 110-120VAC.
- Check tub to pump hose for twist in hose.

### Wrong Water Temperature

- Check that both faucets are turned on fully.
- Make sure water heater is set to deliver a minimum of 120°F (49°C) hot water at the tap. Also check water heater capacity and recovery rate.
- If the water heater is located a long distance from washer, the water line may need to be purged prior to starting wash cycle.
- Too Hot/Too Cold: This washer uses a reduced amount of water, while the control board meters the incoming flow to regulate the actual temperature of the water in the tub. This may appear to be significantly warmer/cooler than expected.
- Make sure the temperature selection is correct.
- Disconnect inlet hoses from the Water Valve and clean the valve screens of any debris.

### Noisy and/or Vibration/Walking

- Check if the washer was properly leveled and the locking nuts are securely tightened up against the base frame of the washer.
- Check and determine all five of the shipping bolts and spacers have been fully removed from the rear panel of the washer.
- Check for proper load size and distribution. If clothes load is too small, add a few towels to balance the clothes load better.
- Check the tightness of the rear pulley bolt. Tighten if necessary.
- Clean floor and bottom side of washer

feet.

### Rubber Feet Leaving Marks on Floor

- Use a pencil eraser to remove mark.
- Walk washer into location, do not drag.

### Additive Cups Full of Water

- Small amount of water in bottom of additive cups is normal.
- Remove and wash Dispenser Tray, removable Cup, and Rinse Cap.
- Level washer.

### Buttons do not Respond

- Options cannot be changed while cycle is running. Press **Start/Pause** once to pause cycle while making selections. Press **Start/Pause** again to restart washer.
- Child Lock feature has been selected. To disable feature press and hold **Chime** and **Delay Start** simultaneously until a beep is heard.
- When display shows "**End**", only the **Power Off** button will function. Press **Power Off** and make new cycle selections.

### Consumer Information Codes

If the consumer observes codes on display, see table below.

LED Display	Description
dc	Distribute Clothes: The load is unbalanced, preventing high-speed spin. Redistribute clothes. See Diagnostic Code 10
nd	No Drain: The machine has tried to drain.
od	Open the Door: The door has not been opened for the last three completed cycles.
nF	No fill: the machine has tried to fill. See No Water Fill.
dL	Latch Unlocked: Close door tightly to enable locking.

# Troubleshooting



## WARNING

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

LED Display	Description
LE	Water fill error. Go to fill test
tE	Sump thermistor failure. Check for loose wires. Replace sump thermistor.
3E	Drive system is not working correctly. Bad windings, speed sensor, wiring connections, or Control Board.

### Service Mode

Service Mode enables service personnel to verify the operation of the washing machine and diagnose problems. Service Mode can be entered in the middle of any wash cycle without interrupting the cycle. While in Service Mode, the technician can cancel the current cycle, set a continuous running mode, start a variety of special service tests and view diagnostic displays.

#### Enter / Exit Service Mode

To enter Service Mode press the **Spin** and **Temperature** keys for three seconds or until the control beeps.





**NOTE:** The washer must be on before Service Mode can be entered.

The motor speed will be displayed when started (motor not running display will be 0). The present state of the machine will not be changed. (i.e., the current cycle in progress will not be interrupted and only the display will change). All LED's will be turned off except the "Door Lock" LED. It will continue to display the condition of the door lock.

To exit: 1) Press **Spin** and **Temperature** keys for 3 seconds again, or 2) press **Off**, or 3) unplug the machine. Pressing the **Start/Pause** button while running a test will pause the individual test, while remaining in Service Mode.

The following table summarizes special tests and features available in Service Mode, along with methods of activation and cancellation.

### Access Service Tests and Diagnostic Features while in Service Mode.

Test or Display	Press LED to Start	Press LED to Cancel
 <b>Quick Spin Test</b>	Press <b>Delay Start</b> and <b>Temperature</b>	Press <b>Delay start</b> and <b>Temperature</b> Press <b>Off</b> (exits Service Mode)
 <b>Hold Quick Spin Step</b> (holds predefined RPM)	Press <b>Start Pause</b> (during test)	Press <b>Delay Start</b> and <b>Temperature</b> (cancels hold & resumes next step)
 <b>Fast Time-Down / Advance to Next Step</b>	Press <b>Spin</b> to start test. Press <b>Start/Pause</b> during cycle to advance.	Press <b>Spin</b>
 <b>Quick Service Cycle</b>	Press <b>Temperature</b> and <b>Soil Level</b>	Press <b>Off</b> (also exits Service Mode)
<b>Hold Quick Service Cycle Step</b>	Press <b>Delay Start</b> and <b>Chime</b> together	Press <b>Delay Start</b> and <b>Chime</b> to resume

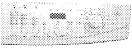





# Troubleshooting



## WARNING

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

Test or Display	Press LED to Start	Press LED to Cancel
 <p><b>LED/Switch Test</b></p>	Press <b>Delay Start</b> (then individual buttons to test) Rotate Cycle Selector clockwise, the LED's around it will be toggled. Rotate counter clockwise, the 7-segment LED's toggle. Press Start/Pause button inside the "Rotary Cycle Selector, all of the LED's around the Rotary Cycle Selector will be toggled.	Press <b>Off</b> twice after starting test
 <p><b>Board Input Test</b></p>	Press <b>Temperature</b>	Press <b>Temperature</b>
 <p><b>Board Output Test / System Check</b></p>	Press <b>Temperature</b> and <b>Extra Rinse</b>	Press <b>Temperature</b> and <b>Extra Rinse</b>

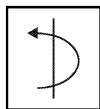
Test or Display	Press LED to Start	Press LED to Cancel
 <p><b>Diagnostic Code Display (Initial)</b></p>	Press <b>Chime</b> – 1 <sup>st</sup> code displays	Press <b>Chime</b> again
<p><b>All Diagnostic Codes</b></p>	Rotate <b>Cycle Selector</b> either direction	N/A
<p><b>Cycle Count No. for Diagnostic Code</b></p>	Press and hold <b>Start/Pause</b> in center of cycle selector knob, while diagnostic code is displayed	Release <b>Start/Pause</b> (returns to diagnostic code display)
<p><b>Clear All Diagnostic Codes</b></p>	Press <b>Delay Start + Soil Level</b> together while displaying diagnostic codes	
<p><b>Display Software Version</b></p>	Press <b>Soil Level</b> . Press 2 times for displays with only 2 character positions.	Press <b>Soil Level</b> a 3 <sup>rd</sup> time
<p><b>Cycle Count</b></p>	Press <b>Extra Rinse</b>	

# Troubleshooting



## WARNING

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

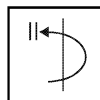


### Quick Spin Test

While in Service Mode, press **Delay Start** and **Temperature** keys to start a **Quick Spin Test**.

Quick Spin test steps are as follows:

- 1) Lock the door.
- 2) Spin clockwise and stop.
- 3) Spin counterclockwise and stop.
- 4) Spin counterclockwise, start Drain Pump and spin to maximum RPM. Hold for 25 seconds.
- 5) Coast down, stop and turn off Drain Pump.
- 6) Unlock Door after 60 seconds. Beeps once



### Hold Quick Spin Step

If the **Start Pause** key is pressed during the Quick Spin test, the machine will hold at the current speed for up to 10 minutes. At the end of 10 minutes, the machine will resume and finish the Quick Spin test. To cancel the Hold and allow the Spin Test to continue, press the **Delay Start and Temperature** keys.



### Fast Time Down Test

While any test or cycle is running in Service Mode, pressing the **Spin** key will start the fast time down test. Pressing the **Start/Pause** will advance the program to the next cycle stage.

Cycle stages are located at key locations in the machine operation. As the program is advanced it will index as follows: The end of each fill (the same as the beginning of a tumble session for Wash, or Rinse); at the beginning of a drain session; at the beginning of a spin session (at this position, check the water level, if over reset level, drain first before entering the spin function); at the beginning of a fill session; at the beginning of Bleach fill; at the beginning of Fabric Softener fill; and every 3 minutes during the tumble sessions (Wash, and Rinses).



### Quick Service Cycle

While in Service Mode, pressing the **Temperature** and **Soil Level** key for 3 seconds will start a Quick Service Cycle. This will be a quick check of all systems. If display shows **od** then open and close door. Pressing **Chime** will advance to the next cycle.

The following steps are performed: Display shows “**sc**”.

1. Lock door and pump starts.
2. Hot water for 5 seconds and then turn off.
3. Cold water for 5 seconds and then turn off.
4. Bleach valve for 5 seconds and then turn off.
5. Dispense softener using cold water and bleach water for 5 seconds and then turn off.
6. Turn on Hot and Cold valves until the control detects proper water level. During this time, tumble at 45 rpm for 5 seconds in a clockwise direction, pause for 2 seconds, tumble at 45 rpm for 5 seconds in a counterclockwise direction, pause for 2 seconds. Continue pattern until the water level is detected. Minimum time for this segment to be 5 seconds. After water height is achieved, continue tumble pattern for another 14 seconds. If the washer is equipped, turn on heater for first 5 seconds of this tumble pattern. Advance the washer to next step if water is not connected to machine.
7. Drain and spin to maximum speed. Machine will achieve maximum speed using the safest, fastest method
8. Display a “**PA**” (Passed) continuously for 5 seconds if no diagnostic codes were logged during the test. Washer will return to the normal Service Mode at the end of the 10 second period.
9. Unlock the door when the RPM is zero.

The “**SC**” in the display will blink as an indication of failure, and continue blinking until the quick service cycle test has reached the end. Any diagnostic code logged during this test will result in failure of the test, but will not necessarily stop the test.

During the Quick Service Cycle, pressing the **Chime** key will advance to the next step. Pressing the **Delay Start** and **Chime** keys will suspend the machine at the current step for up to 30 minutes or until **Delay Start** and **Chime** are pressed again. All LEDs should flash on and off while the system is suspended or on hold.

# Troubleshooting



## WARNING

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

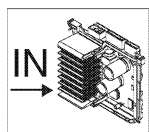


### LED/Switch Test

While in Service Mode, press and hold the **Delay Start** key to start a LED/Switch check. All the LEDs can be toggled or slewed by pressing the key associated with the LED or set of LEDs. Each time the **Rotary Cycle Selector** is rotated clockwise, the LED's around it will be toggled in a clockwise motion. If the **Rotary Cycle Selector** is rotated counter clockwise, the 7-segment LED's toggle. If the **Start/Pause** button inside the Rotary Cycle Selector is pressed, all of the LED's around the Rotary Cycle Selector will be toggled.

All keys (including the **OFF** button) must be pressed within 5 minutes for this test to pass. "PA" will be displayed for five (5) seconds once all keys have been pressed and the test is completed. Following 20 seconds of inactivity at any point, this test will exit without any display. The **Power Off** switch pad must be pressed twice within 30 seconds to cancel this test.

Switch	Action
Delay Start	Press once
Chime	Press once
Extra Rinse	Press once
Soil Level	Press 4 times
Spin	Press 5 times
Temperature	Press 6 times
Selector Knob	Rotate 1 full revolution clockwise
Selector Knob	1 position counterclockwise
Start Pause	Press once
Power Off	Press once



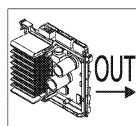
### Board Input Test

While in Service Mode, pressing the **Temperature** key will begin the **Board Input Test**. This test turns on a specified output after a key press. Pressing the **Temperature** key again cancels the test. (Display shows **in**).

While in Service Mode follow chart to check respective function.

Selection	Function	Display
Rotary Cycle Selector Set To Normal Press Start Pause	Lock State	UL or LO
Rotary Cycle Selector Set To Wrinkle Control Press Start Pause	High Water Level	~ □ Below Level ~ † Above Level
Rotary Cycle Selector Set To Colors Press Start Pause	Low Water Level	_ □ Below Level _ † Above Level
Rotary Cycle Selector Set To Hand Wash Press Start Pause	*Tub Balance	UC Balanced UO Unbalanced
Press Delay Start	Water Temperature	Degrees F
Rotary Cycle Selector Set To Delicates Press Start Pause	Water Temperature	Degrees C

\* Machine must be running to perform test. **UO** will be displayed during the time when the machine is correcting for the unbalance; e.g. slowing down to redistribute the load or to get to a lower spin speed. Once the situation has been corrected (i.e. the load has begun tumbling or the lower speed has resulted in an acceptable amount of unbalance) **UC** will be displayed again.



### Board Output Test

While in Service Mode, pressing the **Temperature** and **Extra Rinse** key will begin the **Board Output Test**. This test turns on a specified output after a key press. (Pressing the **Temperature** and **Extra Rinse** key again cancels the test.) Only one output can be "on" at any time. All outputs will be turned off after five (5) minutes of inactivity. While in Service Mode follow chart to check respective function.

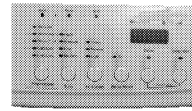
# Troubleshooting



## WARNING

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

will be given and the heater will not be turned on.



### Display Diagnostic Codes

The diagnostic code display can be toggled on and off from Service Mode by pressing the **Chime** key and rotating the cycle select knob. The display will show a “d”.

Selection	Component	Function
Rotary Cycle Selector Set To Heavy Duty Press Start Pause	Main Relay	Off To On or On To Off
Rotary Cycle Selector Set To Normal Press Start Pause	Hot Water Valve	Valve On 2nd Press Valve Off
Rotary Cycle Selector Set To Wrinkle Control Press Start Pause	Cold Water Valve	Valve On 2nd Press Valve Off
Rotary Cycle Selector Set To Delicates Press Start Pause	Bleach Valve	Valve On 2nd Press Valve Off
Rotary Cycle Selector Set To Quick Wash Press Start Pause	Drain Pump	Pump On 2nd Press Pump Off
Press Delay Start	Motor	Motor On * 2nd Press Motor Off
Press Chime	Door Lock	1 Attempt To Unlock
Press Temperature	Door Lock	Lock Door
Extra Rinse	Bleach Valve and Cold Water Valve	Fabric Softener Fill 2nd Press Valves Off

Rotating the Cycle Selector knob in either direction will cycle through the list of codes one code at a time with no wrap. 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. If rotation is continued to the limits of the list, the display will remain at the top or the end of the list. A pair of dashes “- -” will be displayed at the end of the list of diagnostic codes. If the user navigates up the list of codes, when the control reaches the top, it will again show “d”.

A code generated during the current cycle will be displayed with the Spin Indicator LED turned “ON”. If no cycle is currently running, a code generated during the previous cycle will be displayed with the Spin Indicator LED turned “ON”.

**\*Note:** Function may not occur for up to 20 seconds. The “Delay Start” LED is on. When activated, the machine will tumble for 5 seconds in the CW direction, pause for 2 seconds, tumble in the CCW direction for 5 seconds, pause for 2 seconds; repeating this pattern until the Delay Start button is pressed again. All tumble speeds are 45 rpm.

**\*\*Note** Will only function If the water level is above the Heater Safety Level. If the water level is below the Heater Safety Level, a warning beep

### Access Other Features

While a diagnostic code is displayed, if the **Start Pause** button on the rotary cycle selector knob is pressed and held, the machine will display the number of cycles since the diagnostic code occurred. To clear the diagnostic list press the **Delay Start** and **Soil Level** keys for 3 seconds while viewing the list.

# Troubleshooting



## WARNING

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

### Diagnostic Codes

Diag. Code	Description	Trigger	Action to be taken
1	No Drain	The water level fails to drop below the Low Water level reset within 15 minutes, before a spin begins.	Displays " <b>nd</b> " Go to " <b>Will Not Drain</b> " Troubleshooting Section
2	Not Used		
3	No Fill	Continuous fill of 12 minutes. Total fill of 20 minutes.	Displays " <b>nF</b> " Go to " <b>No Water Fill</b> " Troubleshooting Section
4-7	Not Used		
8	Water level sensor fault.	Input signal from water level Sensor is out of range, Washer will beep and pause the wash cycle.	Displays " <b>LE</b> " Go to "No water fill Troubleshooting".
9	Not Used		

Diag. Code	Description	Trigger	Action to be taken
10	Unbalance detected during final spin, which prevented the spinner from exceeding 400 rpm	Never exceeded 400 rpm due to an unbalanced load. If detected, washer will pause and alert user to redistribute the load.	LED – Will display " <b>dc</b> " Go to "Machine Control Board Output Test"
11	Will not remember machine settings	Difficulty in reading memory	Go to " <b>Clear diagnostic codes</b> " Disconnect and reconnect the washer power cord at power supply outlet. If condition still exists, replace machine control board.
12-17	Not Used		
18	Detected door lock switch open during cycle when not expected.	Open door lock switch with motor running.	Check for loose wire connections Clear the diagnostic code and recheck; if reoccurs, perform Diagnostic Motor/Machine Control Board test Check for faulty motor relay on the machine control board.

# Troubleshooting



## WARNING

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

Diag. Code	Description	Trigger	Action to be taken
E	Water sensor level fault.	Water level in the machine is believed to be above the overflow level. When this condition is detected, the machine will automatically begin pumping water out of the machine until it falls below the overflow level.	First check to see that water valve is not stuck. If water valve is OK, check water level sensor
19-24	Not Used		
25	Motor tach signal exists without motor running.	Tach signal exists without torque commanded or when not expected (Abnormal condition only).	Displays " <b>bE</b> ". Replace motor control board.
26-28	Not Used		

Diag. Code	Description	Trigger	Action to be taken
29	Sump thermistor failure (Optional)	Abnormal high/low temp or ohm resistance seen	Displays " <b>tE</b> ". - Loose or pinched wires - Bad sump thermistor
30-39	Not Used		
3E	Motor failure	Motor speed indicator error. Motor won't turn.	Displays " <b>3E</b> ". Check the motor windings, the speed sensor, wiring connections, or Control Board.
40-92	Not Used		

### Exit Service Mode

To exit: 1) Press **Spin** and **Temperature** keys for 3 seconds again, or 2) press **Off**, or 3) unplug the machine. After five (5) minutes of inactivity (user key presses) in Service Mode, the machine will exit the Service Mode and resume normal operations. Pressing the **Off** key will completely exit Service Mode. If a cycle is running, cancel the cycle. Pressing the **Start/Pause** key while running a test will pause the individual test, while remaining in Service Mode. A power loss during Service Mode will cancel this mode.

# Wiring Schematic

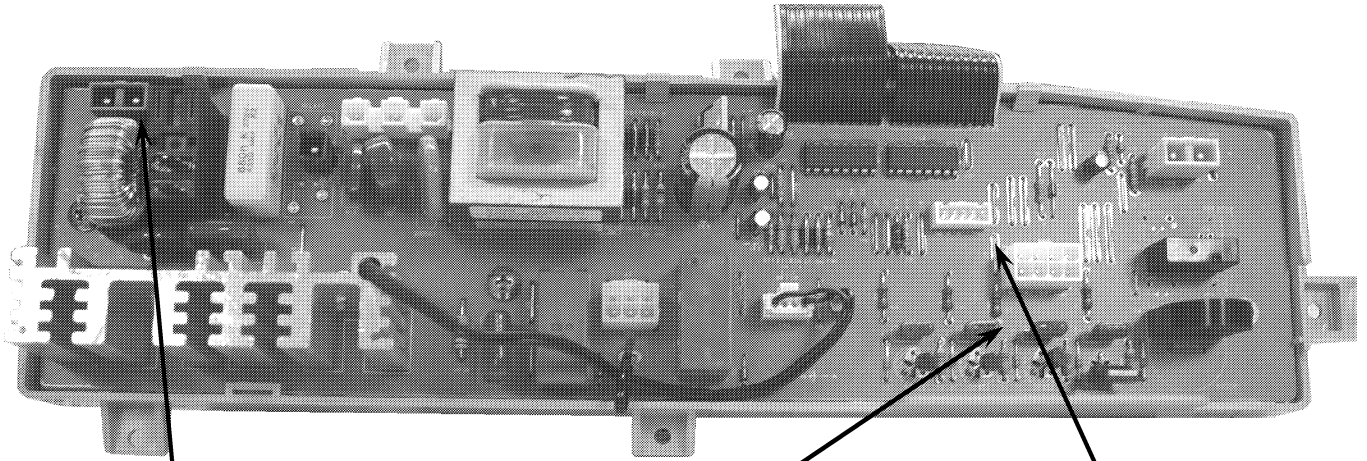


## WARNING

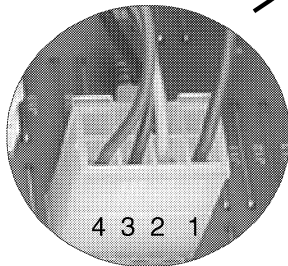
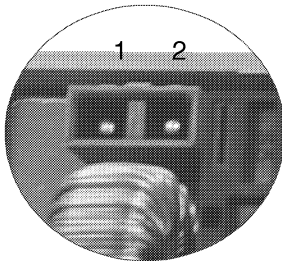
To avoid risk of electrical shock, personal injury, or death, disconnect power to washer before servicing, unless testing requires it.

### Component Diagnostics

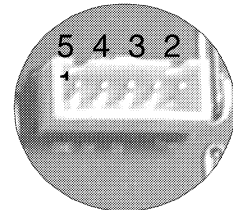
**NOTE:** For ohm checks unplug harness connector on console and test from wire insertion side.



#### Drain Pump



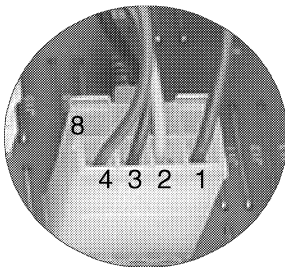
#### Tub Sump Thermistor



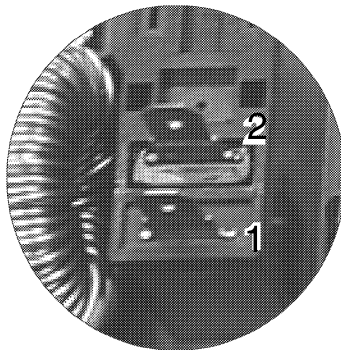
Yellow wire Pin 3 on CN4 to Pink wire Pin 4 5V or approx 12,000 ohms

Blue wire Pin 2 on Relay to Gray wire Pin 1 on CN3 120V or approx 16 ohms

#### Water Valve



CN3



MAIN

# Wiring Schematic



## WARNING

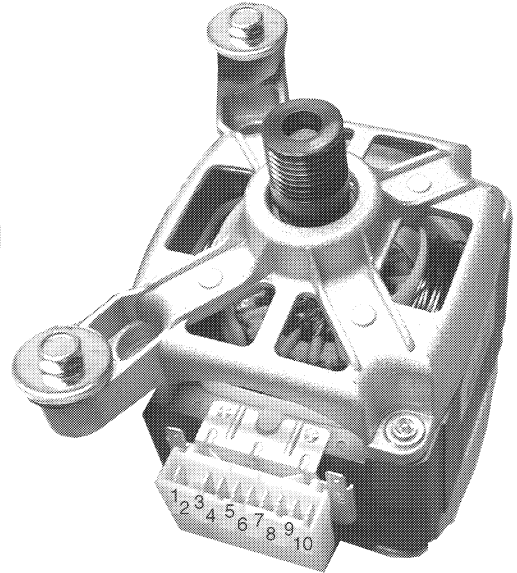
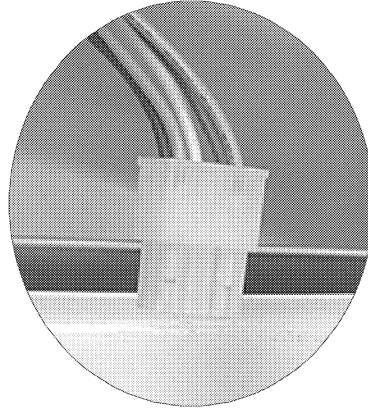
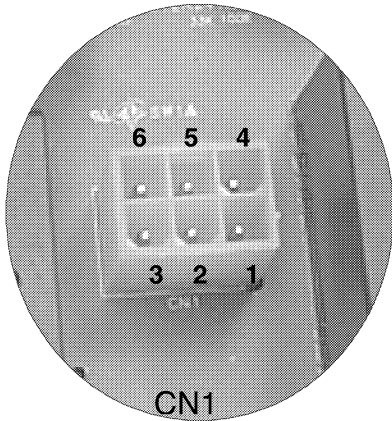
To avoid risk of electrical shock, personal injury, or death, disconnect power to washer before servicing, unless testing requires it.

(Hot Valve) Red wire Pin 4 on CN3 to White wire Pin 1 on Main. Approx 11,000 ohms or 120 volts.

(Bleach Valve) Orange wire Pin 3 on CN3 to White wire Pin 1 on Main. Approx 11,000 or 120 volts.

(Cold Valve) Blue wire Pin 2 on CN3 to White wire Pin 1 on Main. Approx 11,000 ohms or 120 volts.

## Motor windings



**(CN1)** Unplug connector and test Resistance.

**Rotor** Orange Pin 1 to Gray Pin 3 = approx 2.5 ohms);

**Stator** Yellow Pin 5 to Violet Pin 4 = approx 1 ohms),

**Stator** Yellow Pin 5 to Blue Pin 6 = approx 1 ohms)

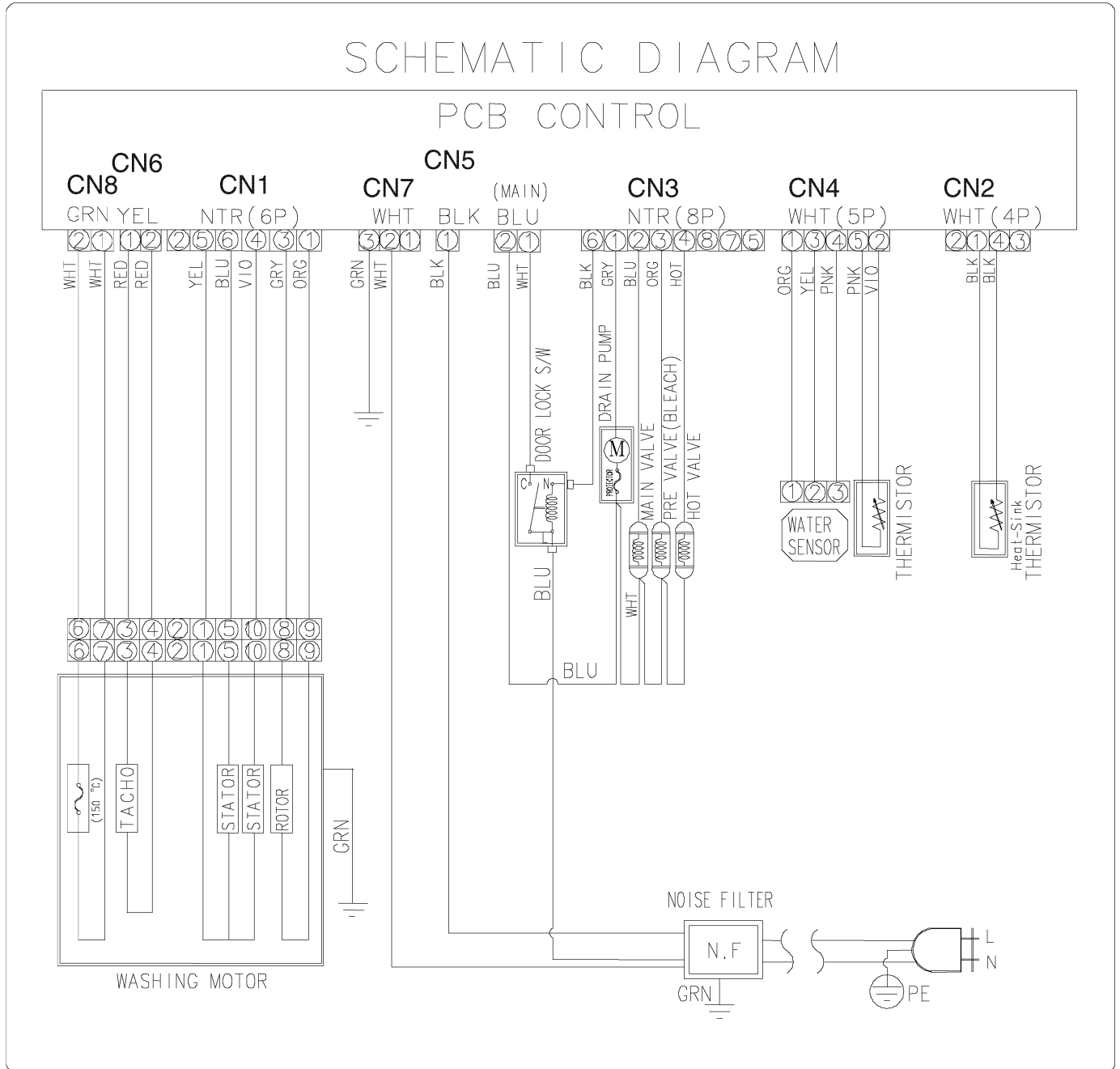


# Wiring Schematic



## WARNING

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









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

**MAYTAG *Training*  
SERVICES**