

LG TRAINING MANUAL

WM2277H* Washing Machine - Fall 2007



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INTRODUCTION

The **WM2277**** washer is most notable in that there are two distinct versions with this same model number. The only way to tell them apart is by date code, which is included in the serial number. (See page 7 concerning serial numbers.) Models with a date code of **608 or later** are the newer model (without the recirculation pump); models beginning with 607 or earlier are the older models (with the recirculation pump).

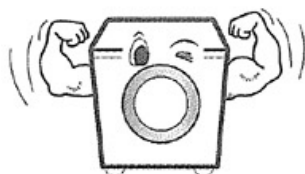
The later series includes three added options: **TubClean**, **SpinSense**, and **Water+Plus**. The recirculating pump has been eliminated and the pump housing changed accordingly. As a result, there have been changes in the display board and assembly, the main control board, the flat cable, the owner's manual, and the tub size.

SPECIFICATIONS

Item	WM2277H*	
Color	W – White, B – Black, S – Titanium	
Power Input	120 V _{AC} , 60 Hz	
Weight	190 lbs (86 kg)	
Electric Power Consumption	Washing	280 W
	Drain Motor	80 W
	Water Heater	1000 W
Drum Speed	Wash	42 rpm
	Spin	0 ~ 1150 rpm
Options	Prewash, Stain cycle, Extra Rinse, Rinse+Spin, Delay wash, Water Plus	
Cycles	7	
Wash/Rinse temperatures	5	
Options	Prewash, Stain cycle, extra rinse, Rinse+Spin, Delay Wash, Water+Plus	
Custom Program	Available	
Water Circulation Pump	Varies by production date	
Control Type	Electronic	
Water Pressure Requirement	4.5 ~ 145 PSI (30 ~ 1,000 kPa)	
Wash Capacity (cu. ft.)	3.32 (3.83 IEC)	
Dimensions W x D x H	27" x 29 ³ / ₄ " x 38 ¹¹ / ₁₆ " (50 ¹³ / ₁₆ " door open)	
Delay Wash	up to 12 hours	
Water Levels	10 steps, controlled by sensor	
Load Sensing	Included	
Error Diagnosis	Included	
Auto Power-Off	Included	
Child Lock	Included	
Remote Laundry Monitor	Available	

FEATURES

LARGE CAPACITY



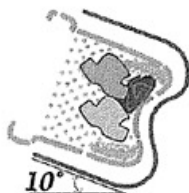
The larger drum (3.83 cu. ft. I.E.C.) allows washing of larger (heavier) loads and oversized items (comforters, curtains, blankets, etc.) There is less wrinkling and tangling of the laundry.

DIRECT DRIVE



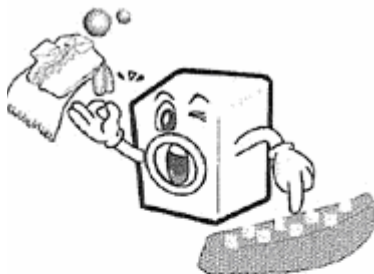
The brushless DC motor drives the drum directly without belts, pulleys, or transmissions. The maximum spin speed of 1,150 RPM extracts more water from the laundry, reducing drying times.

TILTED DRUM and LARGE DOOR



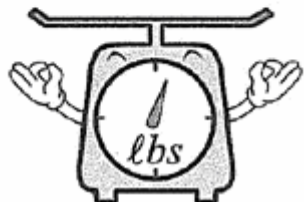
The tilted drum (10°) and large door opening allow easier loading and unloading.

ROLLER JETS and BALLS



The baffles pick up water as the drum turns and allow it to pour through the clothing as it tumbles. The balls enhance the washing performance while maintaining fabric care.

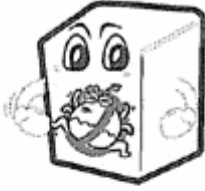
AUTOMATIC LOAD DETECTION



The microprocessor reads the current required to turn the drum and determines the weight of the load. This input is used to make numerous decisions during the wash cycle.

FEATURES, continued

BUILT-IN HEATER



The internal heater helps maintain the water at its optimal temperature for selected cycles. The SANITARY cycle kills most common germs and bacteria.

CHILD LOCK



This allows the user to lock the controls. Children then cannot play with the buttons and disturb the wash cycle.



USE ONLY HE DETERGENT (HIGH EFFICIENCY)

Use only **HE** detergents. These machines need no more than 2 tablespoons of powdered or 1 ounce of liquid detergent for a load. Overuse of laundry products will reduce efficiency and cause buildup and odors in the machine.

Use fabric softener sparingly. We suggest no more than 2 teaspoons per load.

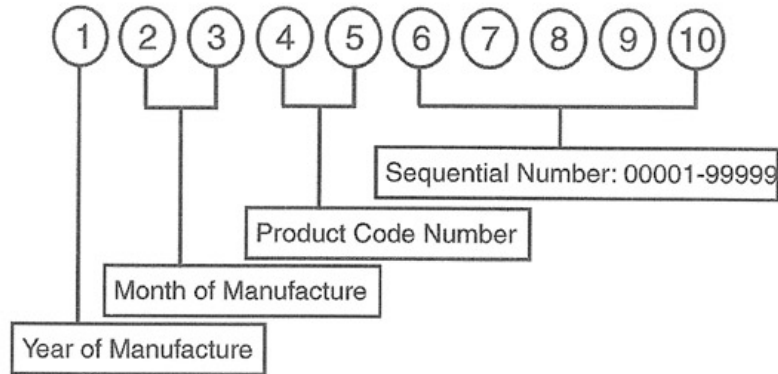
Be careful when using the **Ultra** or **X-tra concentrated** brands, because very thick or highly viscous liquids do not dispense properly. You might need to use a different product or dilute your preferred product before putting it into the dispenser.

Remember, these machines use small amounts of water, so you need small amounts of detergent, softener, and bleach.

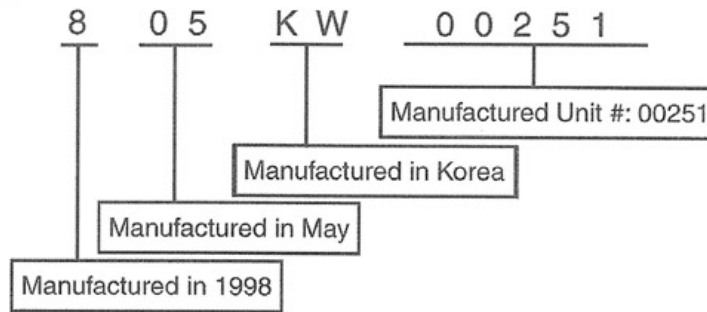
SERIAL NUMBER INFORMATION

The serial number is unique to each product. It gives information concerning the time and place of manufacture. The serial number is required to be paid for warranty service and to get the correct part in the event a running production change was made. Some models may have four (4) letters instead of two (2) for the product code number. The third and fourth letters are significant only to the manufacturing facility.

This chart will help you decode the serial number.



Example



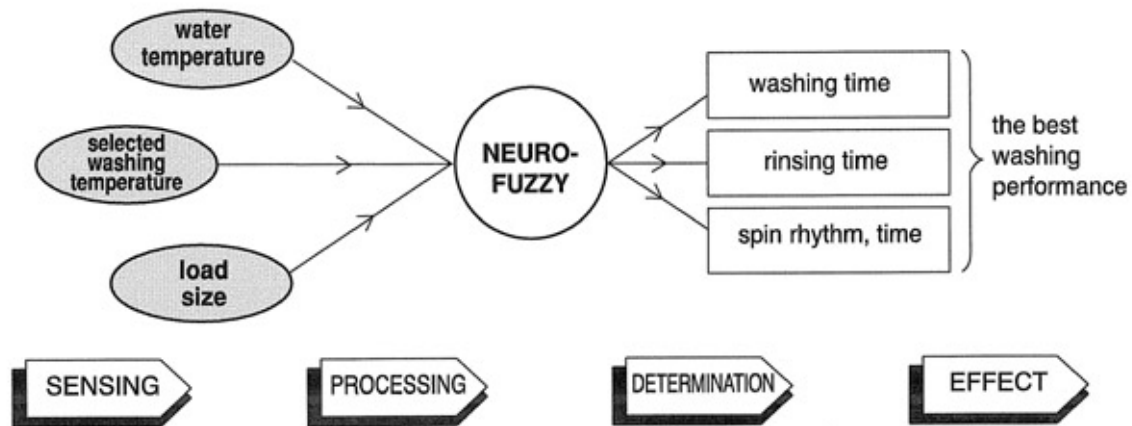
Eventually, serial numbers will all be migrated to this new format, which includes a sequential production number, model code, date code, and other information.

12345KR406YP000002 + Option

Model ID	District	Year	Secret	Sequence
		Month	Code	

FUZZY LOGIC

To get the best washing performance, the user selects one of the standard cycles. Sensors in the washer allow the microprocessor to make an infinitely variable number of adjustments as the cycle progresses. Adjustments are made automatically for load size, incoming water temperature, soil level, rinses required, and other variables.



DOOR LOCK

The door has an automatic, electrically operated lock system. When the machine is off or paused, the door can be opened by pulling it. When the machine is operating, the electric latch keeps the door closed.

The door cannot be opened:

- When the washer is operating
- When the power failed or the washer is unplugged (until the capacitor discharges and releases the lock)
- When the **DOOR LOCK** light is on
- When the drum is still turning

DOOR LOCKED LAMP

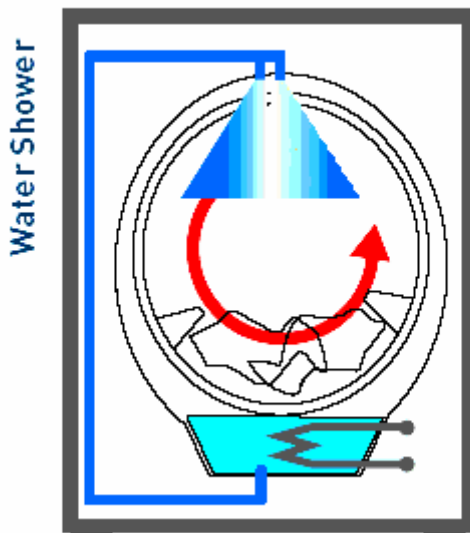
The DOOR LOCK lamp lights:

- When the washer is operating
- When the water level sensor frequency is lower than 22.9 kHz
- When the temperature inside the tub is over 45° C (113°F)

WATER CIRCULATION (Some Versions)

On earlier versions of the WM2277, the recirculation pump circulates the water during most of the cycle. Later versions do not include the recirculation pump.

During the WASH cycle, the pump runs continuously for the first 3 minutes and then intermittently throughout the cycle. During the RINSE cycle, it runs continuously as soon as the appropriate amount of rinse water has been added. This recirculated water enters the drum at the top of the door at a small shower head. This spray not only keeps the window and gasket clean, it allows the clothes to be soaked with detergent or rinse water more quickly and can be used to control an oversudsing event.



The recirculation pump is separate from the drain pump, but they are attached to opposite sides of the filter housing.

The pump(s) and filter are located at the bottom left front corner. The filter can be unscrewed, cleaned, and replaced. Earlier versions include a recirculation pump; later versions do not.

Use the small drain hose to evacuate the water remaining in the bottom of the tub before removing the filter.

The drain pump is on the left and exhausts the water via the gray corrugated hose.

Older versions of the 2277 have a recirculating pump on the right, which recirculates water from the tub to the shower spray at the top of the door gasket via the smaller black hose. Newer versions do not have the recirculating pump. (See pages 54 and 63.)

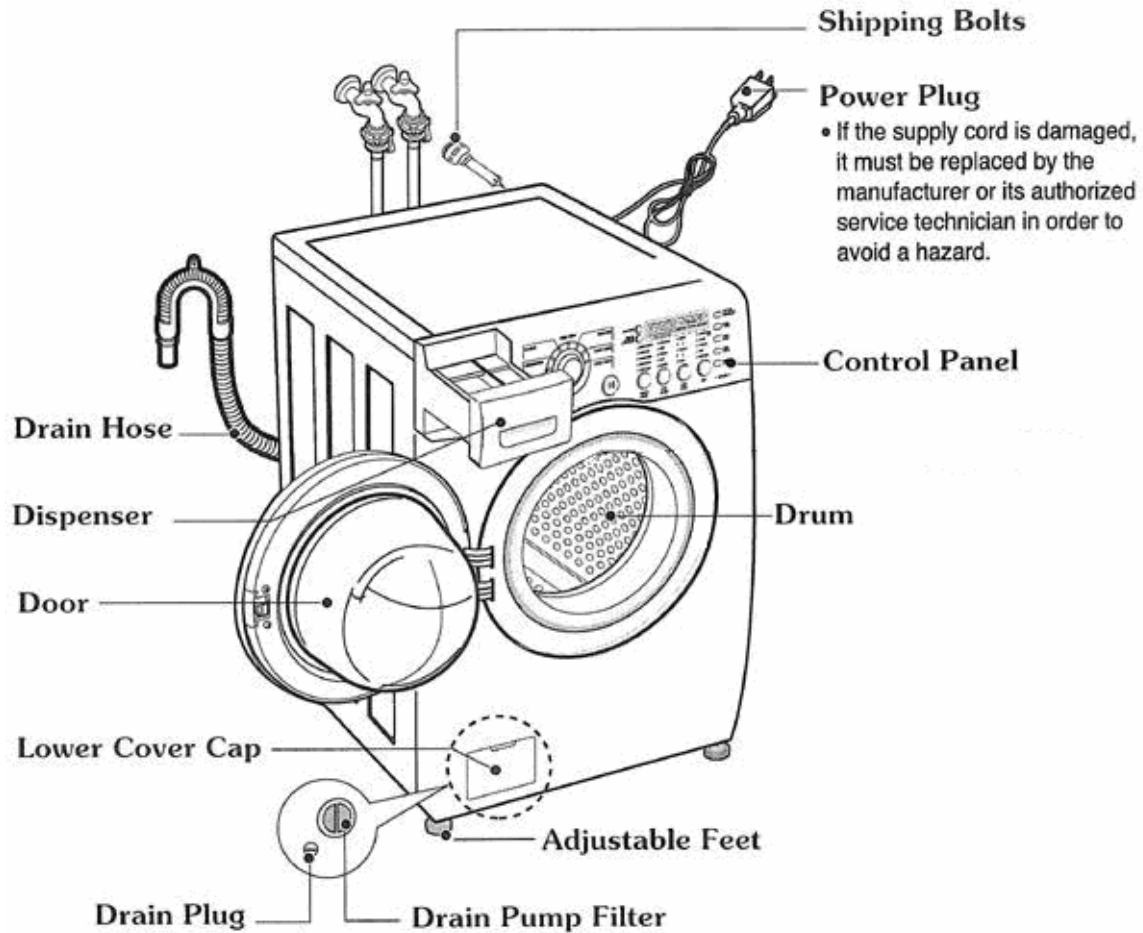


DRAIN

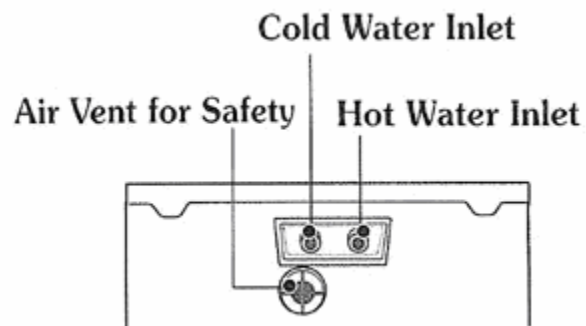
RECIRCULATION

PARTS IDENTIFICATION

(Front of Washer)



(Back of washer)



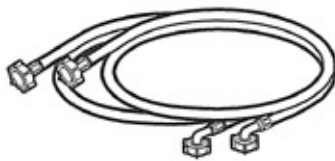
The air vent on the back of the machine must be left open and clear at all times.

If the washer is installed in a closet or closed laundry alcove, there must be sufficient clearance and ventilation. The closet should have a full louvered door with at least 800 square inches (0.5 m²) of open area for ventilation.

The washer requires a space of at least 1 inch (2.5 cm) between the wall and the machine on each side and at least 4 inches (10 cm) between the back of the washer and the wall. Additional space may be needed for servicing.

ACCESSORIES

The washer comes with the two input hoses. The blue stripe is for cold water and the red stripe is for hot water. The hoses are **NOT** mechanically identical; it is critical to the performance of the washer to have the hot and cold hoses connected correctly.



Hot/Cold (1 each)
Hose



Wrench



Tie strap (Option)
to secure drain hose to standpipe,
inlet hose, or laundry tub

The wrench is used to remove (and replace) the shipping bolts and to adjust the leveling feet. Be sure to leave it and encourage the customer to retain the wrench, the four shipping bolts, and the manual in a safe place in the event the washer requires service or the customer moves.



The shipping bolts **MUST BE REMOVED** before operating the washer. (See page 13.)

Use the wrench supplied or a socket wrench for speed. Notice there is a piece of tape securing the cord and reminding the installer to remove the bolts before connecting the cord. There is also a clip on one of the bolts to prevent connection before the bolts are removed.

INSTALLATION



Unpack the washer near the installation area. Cut the straps and lift off the box.

Check the packing materials for manuals and accessories before discarding them.

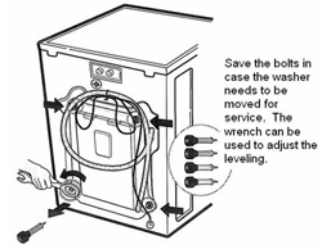
Notice the wrench packed in the foam shipping base. This will be used to level the legs and to remove the shipping bolts.



Be sure to remove the foam block from the base of the washer.



Remove the shipping bolts when you get the washer into the utility room and not before. Save the bolts in case the washer must be moved for servicing or relocation.



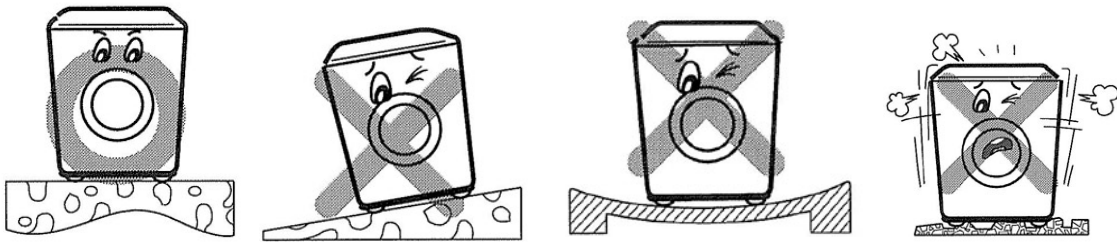
Notice that one of the bolts has a retainer clip for securing the cord. This is another way to encourage the removal of the shipping bolts.



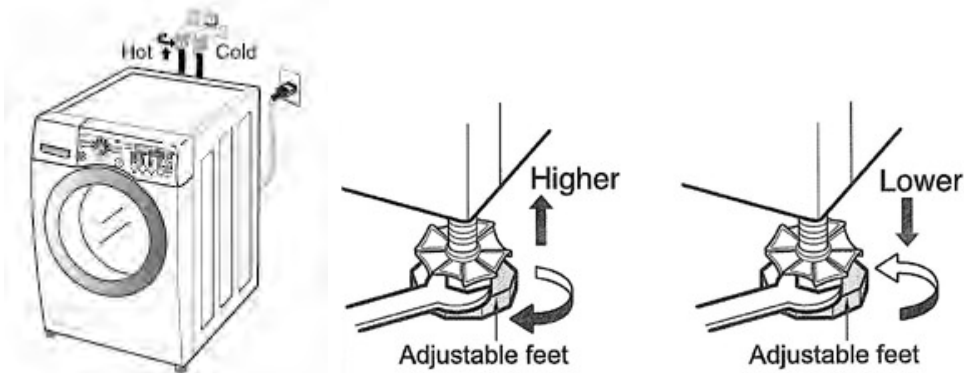
The power cord is taped to the back of the machine with a sticker reminding the installer or customer to remove the shipping bolts before installing or using the washer.

It is imperative that these bolts be removed; if they remain in place, serious damage will result when the washer is operated.

INSTALL THE WASHER ON A FIRM, FLAT SURFACE.



ADJUST THE FEET TO BE LEVEL.



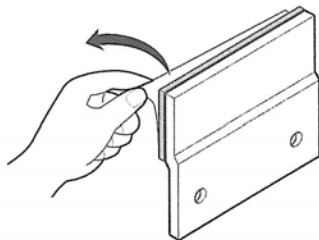
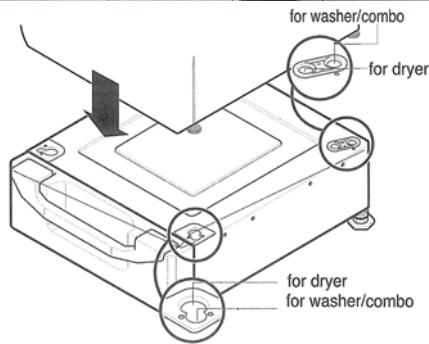
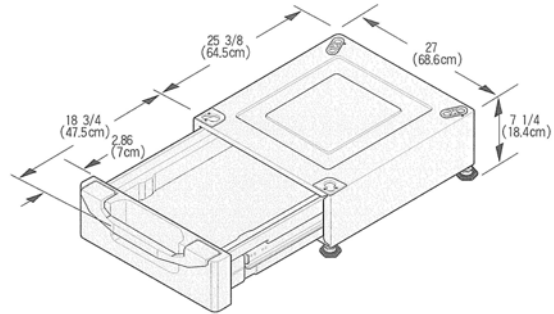
This photo shows the leveling leg with plastic foot and locking ring. After adjusting the foot by using the wrench to raise or lower it. You can lock the adjustment into place by tightening the lock ring against the underside of the washer.



Use a spirit level to adjust the feet to make the washer level. You may have to adjust more than one foot to get the desired results. The legs must be firmly against the floor, and the washer must be level in all directions: front to back, left to right, and corner to corner. Proper leveling will minimize shaking and vibration.

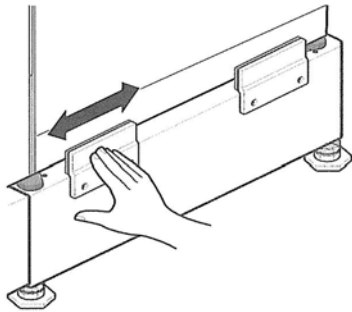
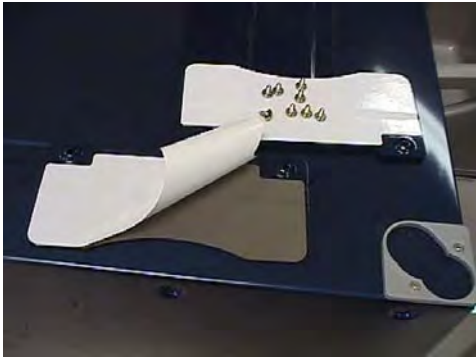
INSTALLATION (PEDESTAL KIT)

This procedure covers installing and leveling the 7½” and 13” pedestals for 27” washers, dryers, and combos. If the products are stacked, the washer must be below the dryer, and you’ll use only one pedestal.



1. Remove the pedestal, installation hardware, and instructions from the shipping carton. Set the pedestal as close to the installation position as possible.
2. Level the pedestal on a flat, solid floor before proceeding. Lock down the rear adjusters but leave the front ones free for now.
3. Note which holes are for the washer and which are for the dryer. If you are stacking the appliances, the washer **must** be on the bottom.
4. Remove the protective paper from the adhesive surface of the bracket. Be particularly careful, because when the adhesive makes contact, there is no adjustment possible.

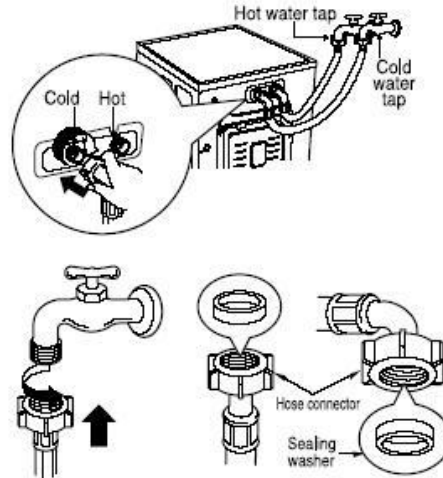
PEDESTAL, continued



5. Depending upon the model, your pedestal may have straight or curved brackets. The curved ones are to be used on the rear positions when mounting a dryer to a pedestal, but can also be used in any other position on the pedestal.
6. Holding the exposed adhesive away from the appliance, insert the screws and get them started. Then press the brackets to the appliance and tighten all the screws. Rub the bracket from side to side to ensure a complete bond.
7. Use the wrench to turn each leg of the appliance approximately $\frac{1}{4}$ turn to put a little pressure between the appliance and the pedestal. This will eliminate any rattles.
8. If you are stacking the dryer on top of the washer, it is usually easier to set the pedestal and washer into place and connect the water and drain hoses before placing the dryer on top.

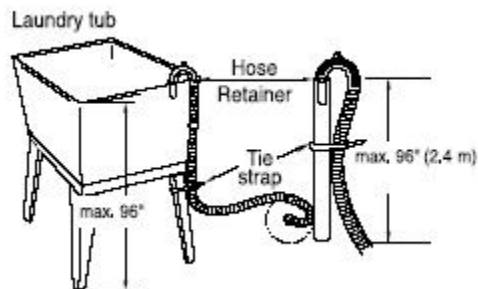
CONNECTIONS

WATER



Be sure the rubber washer is inside the hose end. Attach the hoses to the washer (red is **HOT**, blue is **COLD**). Tighten them firmly but don't strip the plastic threads on the washer connections. Be sure to use the correct hoses for **HOT** and **COLD**. The hoses may look mechanically identical, but the hot hose is marked with a **RED** stripe and can withstand higher temperatures and pressures.

DRAIN



The drain pipe should be firmly attached to the standpipe or the laundry tub or sink where it drains. The pump has sufficient power to cause the pipe to move around when the water is expelled. The pump can lift the drain water a maximum of 96 inches (2.4 m), but there is no minimum height requirement. The vacuum breaker in the drain line will prevent drainage by gravity or siphoning. The hose can lay flat into a floor drain as long as the end of it is not submerged.

ELECTRICAL

The washer requires a 120 VAC, 60 Hz., dedicated, 15-amp circuit.

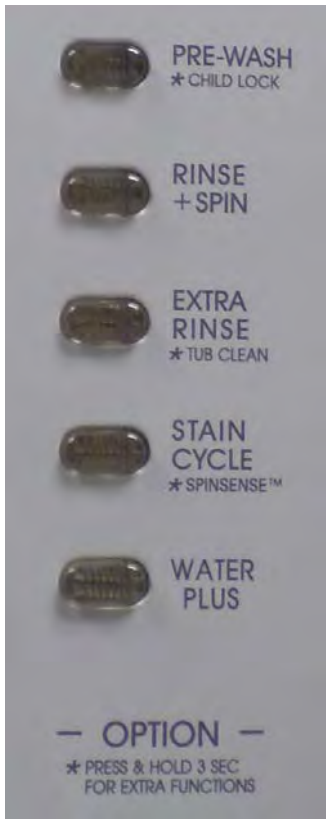
CONTROL PANEL

The control panel is located on the front of the washer. All options are available from the control panel. (See larger drawing, page 20.)



- Cycle Knob** The large knob that selects the cycle. (See chart, p. 21.)
- ON/OFF button
START/PAUSE** Pressing this button turns the machine **ON** or **OFF**. Press this button to start the cycle or to pause the washer when a cycle is in progress. The door may not unlock in every case. (See page 8.)
- Custom Program** Set the controls for a special cycle that you use often, then press and hold this button to set that cycle. Then use this button every time you wish to use your special, custom cycle.
- Delay Wash** Set the cycle controls and then press this button up to 12 times to delay the start of the cycle for up to 12 hours.
- Wash / Rinse** Selects one of the wash and rinse temperature combinations available.
- Spin Speed** Selects one of the available spin speeds between 0 (no spin) and 1,150 rpm.
- Soil Level** Adjusts the default washing time by ± 16 minutes based on soil level.
- Beeper** Adjusts the warning tone from **OFF** to **LOUD** in 5 steps.
- Option Buttons** See the chart on the next page.

OPTION BUTTONS



PRE-WASH

* Child Lock

Press to add a pre-wash cycle.
(Press and hold to select or
deselect the Child Lock function)

RINSE+SPIN

Press after power-up without
selecting a cycle to **RINSE** and
SPIN only, without washing!

EXTRA RINSE

*Tub Clean

Press to add an **EXTRA RINSE**
cycle.
(Press and hold to run a tub
cleaning cycle.
The washer must be empty!)

STAIN CYCLE

Press to add an additional 16
minutes of washing time to any
cycle.
(Press and hold until the machine
beeps to adjust the spin speeds
lower to decrease vibration.

WATER PLUS

Press to add up to one gallon extra
water to the wash and rinse cycles.

To select the optional feature, follow the instructions in
parentheses.

OPTION CHART

MAX WATER TEMP		SPIN SPEED		SOIL LEVEL	STAIN CYCLE
Extra Hot	158° F	Extra High	1,150	adds time to wash and spin cycles	adds time and changes temperature
Hot	122° F	High	980		
Warm	104° F	Normal	960		
Cold	77° F	Low	600		

Press **DELAY WASH** and **SOIL LEVEL** to read the drum RPM.

Press **DELAY WASH** and **PRE WASH** to read the water temperature in ° C.

Press **DELAY WASH** and **BEEPER** to read the water level frequency.

WM2277** Control Panel (New Version)

The diagram shows the control panel of the WM2277** washer. It includes a central digital display showing '18:00' and 'ESTIMATED TIME REMAINING'. To the left of the display is a 'CYCLE SELECTOR knob' with settings for 'COTTON/TOWELS', 'NORMAL', 'DELICATES', 'SANITARY', 'HAND WASH', and 'SPEED WASH'. Below the knob is a 'POWER button'. To the right of the display are several buttons: 'DELAY WASH', 'CUSTOM PROGRAM', 'PREWASH', 'RINSE & SPIN', 'EXTRA RINSE', 'STAIN CYCLE', 'WATER PLUS', and 'OPTION'. Below these are 'WASHY RINSE', 'SOIL LEVEL', 'SPIN SPEED', and 'BEEPER' buttons. At the bottom are 'START/PAUSE' and 'CUSTOM PROGRAM' buttons. A 'DOOR LOCKED lamp' is located at the top right. A 'STATUS INDICATOR' is at the top left. A 'CHILD LOCK' button is on the left side. A 'WASH/RINSE temp., SPIN SPEED, SOIL LEVEL, BEEPER' button is on the right side.

- POWER button**
 - Use this button to turn the power On/Off.
- EST. TIME REMAINING**
 - This display shows:
 - the estimated time remaining in the cycle when operating.
 - an error code when an error has been detected.
- CHILD LOCK**
 - Use this option to prevent unwanted use of the washer. Press and hold PRE WASH button for 3 seconds to lock/unlock control.
 - When Child lock is set, CHILD LOCK lights and all buttons are disabled except the Power button. You can lock the washer, while it is operating.
- DELAY WASH button**
 - Allows the start of any cycle to be delayed for 1-12 hours.
- STATUS INDICATOR**
 - These lights show which portion of the cycle the washer is operating.
- CYCLE SELECTOR knob**
 - Rotate the Cycle selector knob to select the cycle designed for different types of fabric and soil levels.
- DOOR LOCKED lamp**
 - Lights whenever the door of the washer is locked.
 - The door can be unlocked by pressing the Start/Pause button to stop the washer.
- START/PAUSE button**
 - Use this button to Start/Stop the washer.
- CUSTOM PROGRAM button**
 - Allows you to store a customized wash cycle for future use.
 - To create a Custom Program:
 - Select a cycle.
 - Select the other desired Wash/Rinse Temp., Spin Speed, Soil Level.
 - Select the desired Options.
 - Press and hold the Custom Program button for 3 seconds (2 beep sounds). The Custom Program is now stored for future use.
 - To reuse the program, select Custom Program and press Start/Pause.
- WASH/RINSE temp., SPIN SPEED, SOIL LEVEL, BEEPER button**
 - Select a water temperature based on the type of load you are washing.
 - To change the spin speed, press the Spin Speed button repeatedly to cycle through available options.
 - To change the soil level, press the Soil Level button repeatedly until the desired setting is on.
 - Press repeatedly to adjust the volume of the Beeper.
- OPTION button**
 - Prewash: Use this option for loads that need pretreatment. It adds 16 minutes prewash and drain.
 - Rinse+Spin: Use this option to rinse and then spin.
 - Extra Rinse: This option provides an additional rinse cycle.
 - Stain Cycle: Adds time to the wash and rinse cycles for better stain removal. Automatically provides a rinse.
 - Water Plus: Adds extra water to the wash and rinse cycles for superior results.

PROGRAM CHART



PROGRAM CHART

* Water Supply: W-S

* Intermittent Spin: I-S

* Disentangle: D-T

COURSE STEP Time (SEC)	Wash							Rinse												Spin			A U T O F F E N D 20	**Approx. Working Time (Minutes)									
	Pre			Main				Normal				Extra or Stain				Extra & Stain				Drain	Spin	D-T											
	W-S	Wash	Drain	W-S	Heat	Wash	W-S	Rinse	Drain	1	2	3	3	3	3	3	3	3															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22			23	24	25	26	27	28	29	20	20
Sanitary	8	*	60	300	60	*	60	60	60	60	360	60	240	60	360	60	240	60	300	60	240	60	300	60	240	60	360	60	680	180	20	20	105
Cotton /Towels	8						67																									58	
Normal	8						20																									57	
Perm Press	8						19																									55	
Delicates	8						14																									34	
Wool /Silk							13																									34	
Hand Wash							14																									34	
Speed Wash							8																									30	
Drain+Spin																																12	
Wash + Rinse	8						19																									45	
Rinse + Spin																																29	

 Basic Cycle
 Optional Cycle
 Pre-Setting Time : Water Supply - 60 sec.
 Drain - 60 sec.

* Wash time is in minutes.

** The total working time will vary with the load size, water temperature and ambient temperature.

This chart shows the components and their times of operation in the various wash cycles. The time estimates shown here are for the basic cycles before the fuzzy logic adjustments are made. Variations may be made in almost any cycle by making adjustments on the control panel. Some options are locked out on some cycles; for example, you cannot select EXTRA HOT WASH on a DELICATE CYCLE or EXTRA HIGH SPIN on PERMANENT PRESS.

BEFORE PERFORMING SERVICE

- Be careful to avoid electric shock when disconnecting parts for troubleshooting.
- Most terminals in the washer have 120 V_{AC} or V_{DC} on them, sometimes even when the washer is off.
- Spinning the drum by hand, even when the washer is OFF and unplugged, can cause the motor to generate voltage and backfeed it into the controls.

DISPENSER

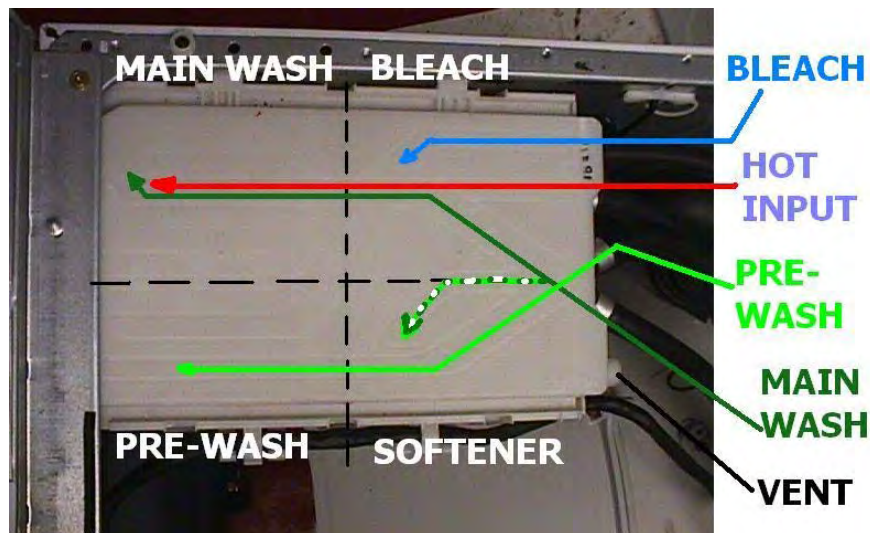
The dispenser drawer is a multi-chambered reservoir that allows the user to add all the appropriate laundry additives before starting the cycle. It has a place for pre-wash detergent, main wash detergent, fabric softener, and bleach. Powdered or liquid detergents may be use, but softener and bleach must be liquids. Detergents must carry the **HE** designation.

Do not use regular detergents in the washer or oversudsing will occur.

We recommend using **NO MORE THAN 2 TABLESPOONS** of powdered **HE** detergent or **NO MORE THAN 1½ OUNCES** of liquid **HE** detergent.



The top of the dispenser box is shown here.



The dispenser works by using various solenoids to apply water to different compartments. The liquid products are dispensed from a siphon box. As the appropriate chamber is flooded, the box fills and the water flushes the laundry product into the tub. It is mixed with water before contacting the laundry to prevent spotting or damaging the fabric.

Notice that the pre-wash and main wash fill tubes enter the dispenser at an angle. If one or the other fill valve is opened, the water goes into the appropriate detergent compartment. However, if they are opened simultaneously, the streams deflect and dispense the softener. Some water may run through the main and pre-wash compartments, but since the detergent has already been dispensed in an earlier part of the cycle, this is of no consequence.

If liquid detergent is added to the pre-wash box, it will run immediately into the tub. This does not affect the operation of the cycle. To use liquid detergent in the main wash, place the detergent siphon box in the main wash compartment. Otherwise, the main wash liquid detergent will run into the tub along with the pre-wash detergent, causing oversudsing in the pre-wash and no cleaning in the main wash.

The siphon boxes are designed to hold a liquid laundry product until the appropriate time for dispensing into the load. When the box fills with water, it begins to discharge its contents into the washer fill stream. Once the siphon action has started, it will continue until the siphon box has emptied itself. Use only regular viscosity bleaches and softeners; the ultra versions are usually much thicker and do not dispense well, if at all.



By the end of any cycle, water will have run through all of the dispenser compartments, preventing any cross-contamination of subsequent loads. The MAX indicator shows the maximum you can put in the dispenser cup before siphoning begins, NOT the maximum you should use per load.

DIRECT DRIVE MOTOR



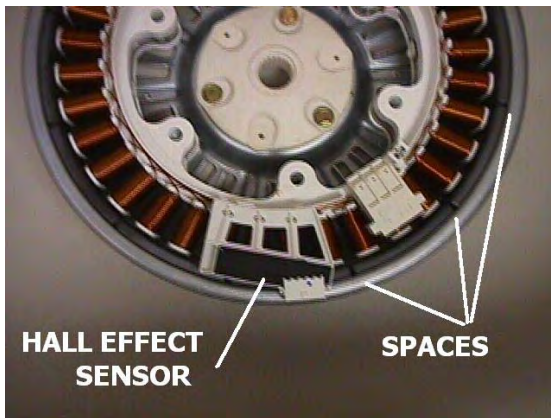
The motor is a direct-drive, brushless, DC motor. It is attached to the drum via a splined shaft, eliminating belts, pulleys, transmissions, and the inherent problems associated with them.

The rotor is attached to the shaft by one large (17 mm) bolt. Remove the bolt by holding the drum and turning.



When the rotor is removed, you can remove the stator. Loosen the six bolts holding it to the tub and lift it away. Be careful of the wiring. You must remove a connector that powers the stator and another that connects to the hall sensor.

When reassembling the motor, these connectors must be reassembled before the stator is mounted.

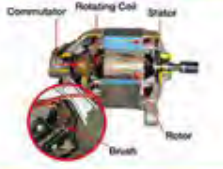
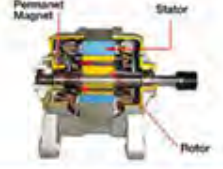

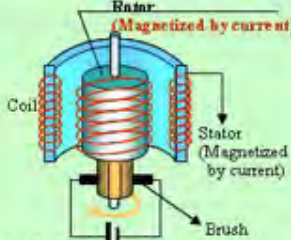
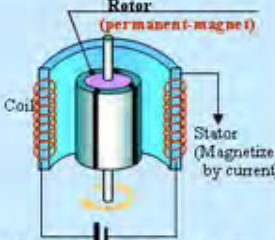
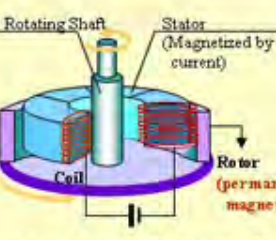


The DC motor can be driven from stopped to maximum speed in infinite steps in either direction. There are 36 poles on the stator; 12 permanent magnets spaced around the rotor. There are no brushes to wear out. Unlike a more traditional brushless motor, the rotor surrounds the stator rather than being attached to it. A Hall Effect sensor determines the speed and direction of the motor. It also can read that the load is off balance when the drum speed fluctuates. (See page 25.)

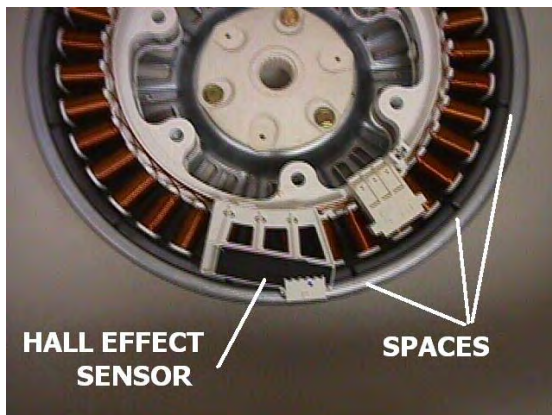
Stator Resistance Readings

Pins 1 ~ 3 5 ~ 15Ω
Pins 2 ~ 3 5 ~ 15Ω
Pins 1 ~ 2 5 ~ 15Ω

DIRECT DRIVE MOTOR

Universal AC Motor	BLDC Motor	Direct Drive Motor
		
 <p>● Brush makes Friction Noises ● Coiled rotor needs electricity. ● Brush abrades and needs replacement.</p>	 <p>★ No Friction Noises ★ Rotor doesn't need electricity ★ No brush replacement</p>	 <p>★ Powerful & Reliable control ★ Minimum vibration & noise ★ Optimum energy consumption</p>

HALL EFFECT SENSOR



The Hall Effect sensor is easily removed and replaced. You'll have to remove the rotor and stator to access the sensor. When replacing the rotor, you'll probably need a helper to hold the drum in place when you push the rotor onto the shaft. Otherwise, the drum may move forward enough to make replacing the bolt difficult. The helper can also hold the drum from turning while you tighten the bolt.



Before going to this trouble, check the connector on the main board. The motor connector is the red one closest to the heat sink. Pull the connector off and verify the board is receiving a signal from the sensor.

(See test procedure, page 26.)

HALL SENSOR TEST PROCEDURE

Check the wiring diagram for your machine. The wiring diagrams on some washing machines were incorrect in depicting the hall sensor wiring. The error involves wiring terminal designation. See the diagrams below.

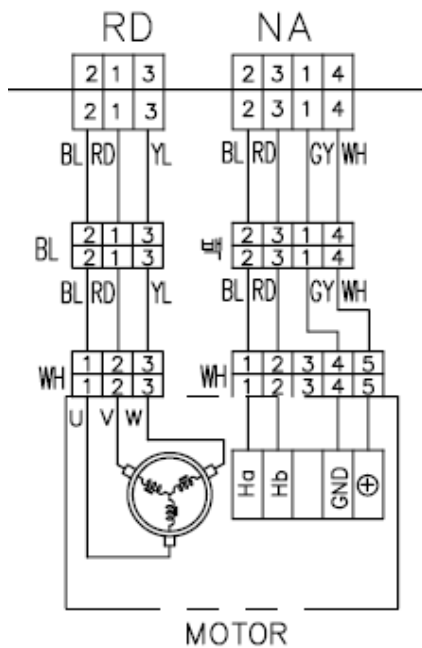
The correct wiring terminal colors are:

White is (+)
Red is Hb

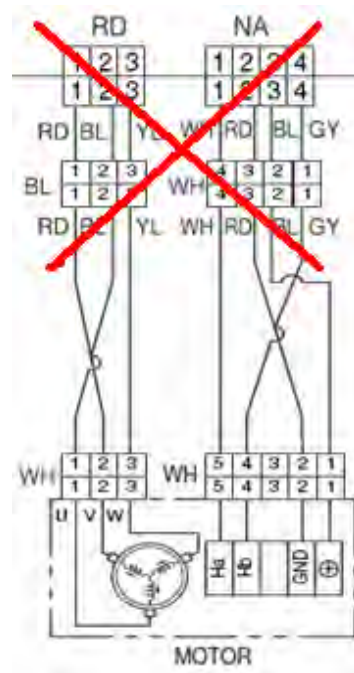
Gray is (-)
Blue is Ha.

The correct depiction is shown **left** and the incorrect depiction is shown **right**.

Also see photo, page 29.



Correct




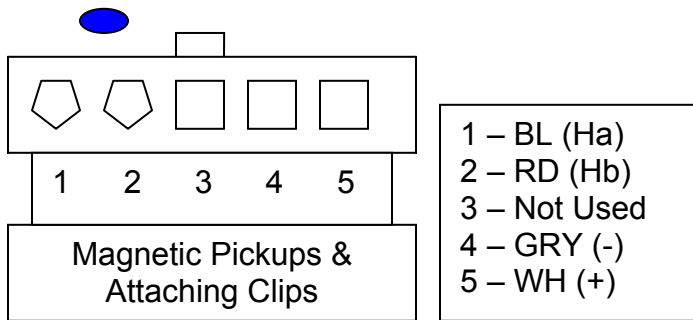
Incorrect

Pay particular attention to the **color codes** and the **position numbers** in the connectors. This will be critical when you take voltage readings to determine component malfunction.

Hall Sensor testing methods are now available on the following pages when LE error code troubleshooting says “**hall sensor is out of order or defective.**”

Test FIRST!!

LOCKED MOTOR ERROR		<ul style="list-style-type: none"> • The connector (3-pin, male, white) in the MOTOR HARNESS is not connected to the connector (3-pin, female, white) of STATOR ASSEMBLY. • The electric contact between the connectors (3-pin, male, white) in the MOTOR HARNESS and 4-pin, female, white connector in the MAIN PWB ASSEMBLY is bad or unstable. • The MOTOR HARNESS between the STATOR ASSEMBLY and MAIN PWB ASSEMBLY is cut (open circuited). • The hall sensor is out of order/defective.
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OHM Checking	Voltage Checking
5 to 1 = 10KΩ	5 to 4 = 10 to 15 V _{dc} Voltage Input
5 to 2 = 10KΩ	4 to 1 = pulsing 10 V _{dc} Signal Output
	4 to 2 = pulsing 10 V _{dc} Signal Output
Note: Ohm values are approximate; if the ohm check determines either resistor open, hall sensor has failed and must be replaced!!	

Terminal Designation / Ohm & Voltage Specifications



Part No. 6501KW2002A

Hall Sensor Testing

The hall sensor can be tested from the control board or at the hall sensor.

Ohm Testing the Hall Sensor

If tested off the stator using the diagram on the previous page, ohm check the resistors from pin 5 to pin 1 and pin 2. If the hall sensor is good, you should measure approximately 10 K Ω from pin 5 to pin 1 and 10 K Ω from pin 5 to pin 2. If either test shows an open (infinity) the hall sensor is defective and must be replaced.

Voltage Testing Hall Sensor at Stator

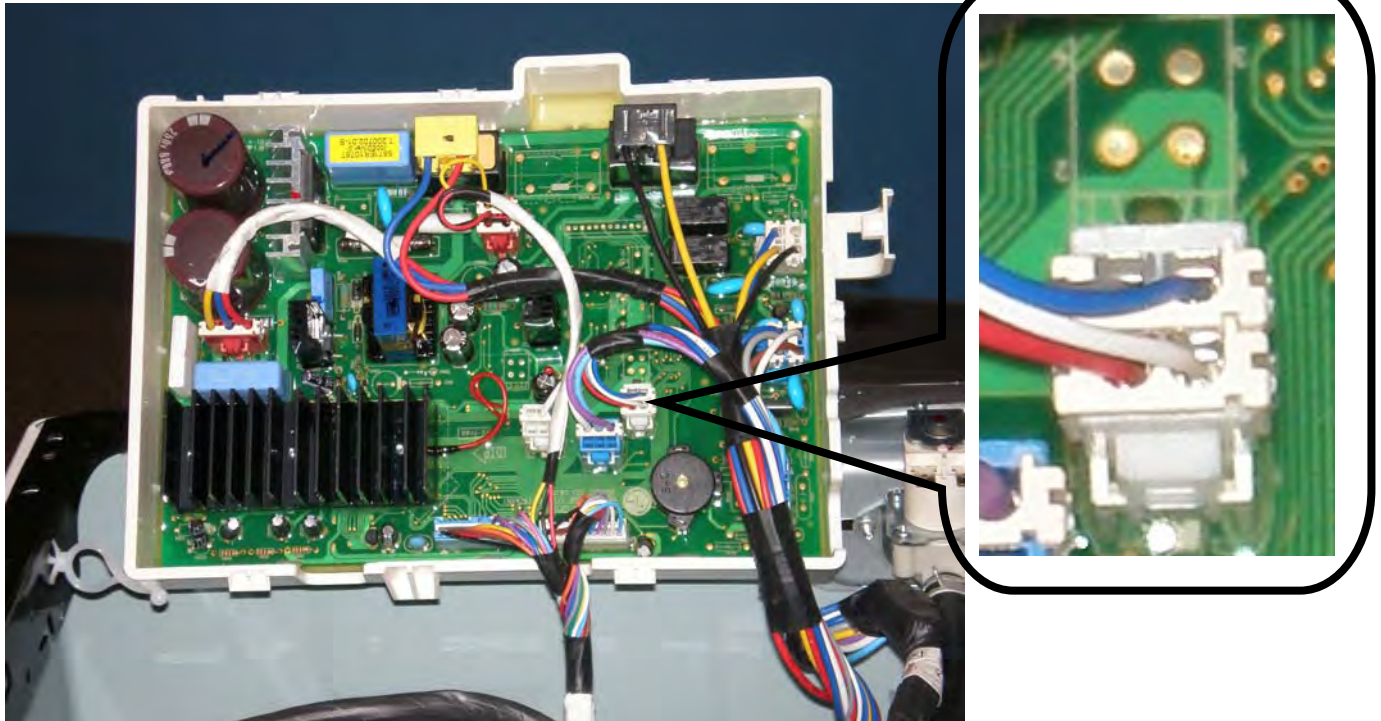
If measuring voltage from the control board to the hall sensor, follow the following steps:

1. Unplug the power cord.
2. Remove the rear washer panel.
3. Locate the Hall sensor connector on the stator behind the rotor.
4. Place the meter leads on terminals 5 to 4, white to gray.
5. Plug in the power cord, close the door, and press the power button.

DO NOT PRESS START!

6. You should measure 10 to 15 V_{dc}. If 10 to 15 V_{dc} is present, the control board is OK! ***If not, follow the testing output voltages on control board in next section.***
7. To measure output signal voltage from the hall sensor, carefully move test leads to terminals 4 (gray) to 1 (blue). Slowly rotate the motor rotor by hand. You should read a pulsing 10 V_{dc}. If 10V_{dc} is measured from 4 to 1, move the lead on the blue wire to the red wire, terminal 2. Repeat rotating motor rotor by hand. You should read a pulsing 10 V_{dc}.
8. If pulsing 10 V_{dc} is measured from pin 4 to pin 1 and pin 4 to pin 2, the hall sensor is OK! If either test netted only 9 to 10 V_{dc} without changing (no pulsing) the hall sensor is likely defective. Disconnect power by unplugging the washer. Ohm check the hall sensor as outlined in **Ohm Testing Hall Sensor** (See above) to verify failure of the hall sensor.

Testing the Hall Sensor from the Control Board



Control Board Testing Location

Control Board Output and Hall Sensor Input can be measured with the connector connected to the board and the machine operating. Also, these voltages can be measured by parking the meter leads on the desired terminals and spinning the tub briskly with the power cord disconnected.

- White to Gray – 10 to 15 vdc
- Gray to Blue – pulsing 10vdc
- Gray to Red – pulsing 10vdc

Note: If 10 V_{dc} from gray-to-blue or gray-to-red **does not** change (pulse), that resistor is open! Confirm by disconnecting the power, disconnecting the hall sensor connector on the main board, and ohm check that individual circuit!

With power disconnected and the connector disconnected, the hall sensor can be tested ohmmetrically from:

- White to Blue – 10 K Ω
- White to Red – 10 K Ω

Note: Ohm values are approximate; if either ohm check shows an open, the wire harness is open or the hall sensor is defective. Test both separately to determine the area of failure!

IMPORTANT SAFETY NOTICE

The information in this training manual is intended for use by persons possessing an adequate background in electrical equipment, electronic devices, and mechanical systems. In any attempt to repair a major appliance, personal injury and property damage can result. The manufacturer or seller maintains no liability for the interpretation of this information, nor can it assume any liability in conjunction with its use. When servicing this product, under no circumstances should the original design be modified or altered without permission from LG Electronics. Unauthorized modifications will not only void the warranty, but may lead to property damage or user injury. If wires, screws, clips, straps, nuts, or washers used to complete a ground path are removed for service, they must be returned to their original positions and properly fastened.

CAUTION

To avoid personal injury, disconnect the power before servicing this product. If electrical power is required for diagnosis or test purposes, disconnect the power immediately after performing the necessary checks. Also be aware that many household appliances present a weight hazard. At least two people should be involved in the installation or servicing of such devices. Failure to consider the weight of an appliance could result in physical injury.

ESD NOTICE

Some of the electronics in appliances are electrostatic discharge (ESD) sensitive. ESD can weaken or damage the electronics in these appliances in a manner that renders them inoperative or reduces the time until their next failure. Connect an ESD wrist strap to a ground connection point or unpainted metal in the appliance. Alternatively, you can touch your finger repeatedly to a ground connection point or unpainted metal in the appliance. Before removing a replacement part from its package, touch the anti-static bag to a ground connection point or unpainted metal in the appliance. Handle the electronic control assembly by its edges only. When repackaging a failed electronic control assembly in an anti-static bag, observe these same precautions.

REGULATORY INFORMATION

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a residential installation. This equipment generates, uses, and can radiate radio frequency energy, and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures: Reorient or relocate the receiving antenna; Increase the separation between the equipment and the receiver; Connect the equipment to an outlet on a different circuit than that to which the receiver is connected; or consult the dealer or an experienced radio/TV technician for help.

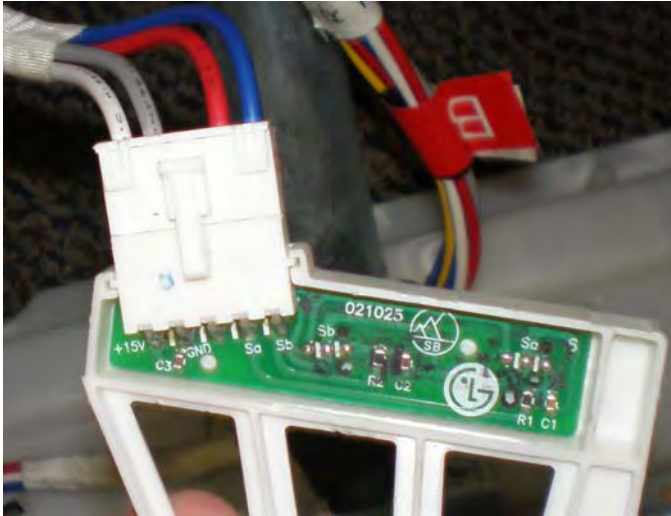
DISCLAIMER

The information in this training manual was accurate at the time of publication. Every effort has been made to ensure accuracy. Updates, changes, etc. are available via GCSC and LGCSAcademy.

COMPLIANCE

The responsible party for this device's compliance is:

**LG Electronics Alabama, Inc.
201 James Record Road
Huntsville, AL, 35813**



Actual Terminal Wiring

The potting epoxy has been removed to show the PC board and components.

Voltage Testing Hall Sensor at Control Board (See page 29.)

1. Unplug the power cord.
2. Remove the rear panel.
3. Remove the top plate.
4. Remove the main board from the rear cabinet corner.
5. Remove the main board cover, as shown on page 29.
6. Locate the hall sensor connector (white, 4-pin) using the wiring diagram and wire colors as your guide. (See wiring diagram and main board photo, page 45.)
7. Plug in the power cord, close the door, and press **POWER**.
8. **DO NOT PRESS START!**
9. Place your meter leads on the **WHITE** and **GRAY** wires. You should read 10 ~ 15 V_{DC} output from the main board to the hall sensor. If 10 ~ 15 V_{DC} are not observed, the main board is defective.
10. Place your meter leads on the **BLUE** and **GRAY** wires. Turn the motor rotor slowly by hand. You should measure a pulsing 10 V_{DC}. Place your meter leads on the **RED** and **GRAY** wires. Turn the motor rotor slowly by hand. You should measure a pulsing 10 V_{DC}.

If both of these tests measure a pulsing 10 V_{DC}, the hall sensor and wiring harness are OK. If either or both tests measures 9 ~ 10 V_{DC} but does not pulse or change, the hall sensor has failed and must be replaced.

If either test measures 0 (zero) voltage, check the red and blue wires for continuity. Repair or replace the wiring harness as necessary.

TEST MODE

The washer must be empty and **OFF** to enter the test mode.

1. Press and hold **SPIN SPEED** and **SOIL LEVEL**.
2. Press **POWER**.
3. Press **START/PAUSE** to cycle through the test modes. (See chart.)

# of times the START button is pressed	Event	Display
0	All lamps on, door locked	XX:XX (see below)
1	Tumble clockwise	rpm (40~50)
2	Low speed spin	rpm
3	High speed spin	rpm
4	Prewash inlet valve opens	water level freq (25 ~ 65)
5	Main wash valve opens	water level freq (25 ~ 65)
6	Hot inlet valve opens	water level freq (25 ~ 65)
7	Bleach inlet valve opens	water level freq (25 ~ 65)
8	Tumble clockwise	rpm (40~50)
9	Heater on for 3 seconds	water temperature ° C
10	Circulation pump runs	water level freq (25 ~ 65)
11	Drain pump runs	water level freq (25 ~ 65)
12	Power off, unlock door	All lamps off

The EPROM check sum will be displayed at the beginning of the test. The checksum will indicate the model number and the program on the main board.









1F:61 WM2677H*M

CHECK THE WATER LEVEL FREQUENCY (In QC Test Mode)

The display will show a number (usually between 25 and 65) to indicate the water level frequency. In QC Test Mode, multiply the 2-digit readout by 0.1 and add 20 to determine the frequency. For example, the display shows 65 at steps 4, 5, 6, 7, 10, and 11 in the test mode. Multiply 65 by 0.1 to get 6.5, add 20 to get 26.5 kHz, which is the water level frequency.

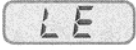



ERROR DISPLAY

- If you press START/PAUSE when an error is displayed, any error (except **PE**) will disappear and the machine will enter PAUSE mode.
- In the event of **PE**, **tE**, or **dE**, The power will be turned off within 20 seconds and the error code will blink.
- In the event of any other error code, the power will be turned off after 4 minutes.
- If the error code is **FE**, the power will NOT be turned off.




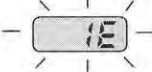



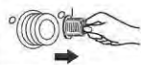
	ERROR	SYMPTOM	CAUSE
1	WATER INLET ERROR		• Correct water level (246) is not reached within 8 minutes after water is supplied or it does not reach the preset water level within 25 minutes.
2	UNBALANCE ERROR		• The load is too small. • The appliance is tilted. • Laundry is gathered to one side. • Non distributable things are put into the drum.
3	DRAIN ERROR		• Not fully drained within 10 minutes.
4	OVER FLOW ERROR		• Water is overflowing (water level frequency is over 213). ※ If  is displayed, the drain pump will operate to drain the water automatically.
5	PRESSURE SENSOR ERROR		• The SENSOR SWITCH ASSEMBLY is out of order.
6	DOOR OPEN ERROR		• Door not all the way closed. • Loose electrical connections at Door switch and PWB Assembly. • The DOOR SWITCH ASSEMBLY is out of order.
7	HEATING ERROR		• The THERMISTOR is out order.

continued on next page






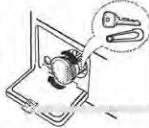

ERROR DISPLAY, continued

	ERROR	SYMPTOM	CAUSE
8	LOCKED MOTOR ERROR		<ul style="list-style-type: none"> • The connector (3-pin, male, white) in the MOTOR HARNESS is not connected to the connector (3-pin, female, white) of STATOR ASSEMBLY. • The electric contact between the connectors (3-pin, male, white) in the MOTOR HARNESS and 4-pin, female, white connector in the MAIN PWB ASSEMBLY is bad or unstable. • The MOTOR HARNESS between the STATOR ASSEMBLY and MAIN PWB ASSEMBLY is cut (open circuited). • The hall sensor is out of order/defective.
9	EEPROM ERROR		<ul style="list-style-type: none"> • EEPROM is out of order. <p>※ Displayed only when the START/PAUSE button is first pressed in the QC Test Mode.</p> <p>Try unplugging and plugging in again to reset the micro.</p>
10	POWER FAILURE		<ul style="list-style-type: none"> • The washer experienced a power failure.
11	COMMUNI- CATION ERROR		<p>Check all connections on the main board.</p> <p>Something is not plugged in correctly.</p>


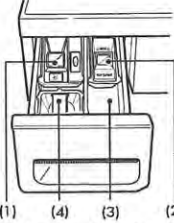

DIAGNOSIS and CHECK LIST (Abnormal Operation)

SYMPTOM	GUIDE FOR SERVICE CALL
<p style="text-align: center;">No power</p>	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Is the power plug connected firmly to 120 V AC outlet?</p> <p style="text-align: center; font-weight: bold;">YES</p> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Power failure? or Breaker opened? Is the outlet controlled by a switch?</p> <p style="text-align: center; font-weight: bold;">NO</p> <p style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Call for service.</p> </div> <div style="width: 35%; text-align: center;">   </div> </div>
<p style="text-align: center;">Water inlet trouble</p> <div style="text-align: center; margin: 10px 0;">  </div>	<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Is displayed?</p> <p style="text-align: center; font-weight: bold;">YES</p> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Is the tap opened?</p> <p style="text-align: center; font-weight: bold;">YES</p> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Is the tap frozen?</p> <p style="text-align: center; font-weight: bold;">NO</p> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Is the water supply shut-off?</p> <p style="text-align: center; font-weight: bold;">NO</p> <p style="border: 1px solid black; padding: 5px; margin-bottom: 10px;">Is filter in the inlet valve clogged with foreign material?</p> <p style="text-align: center; font-weight: bold;">NO</p> <p style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; margin-top: 10px;">Call for service.</p> </div> <div style="width: 35%; text-align: center;">     <div style="border: 1px solid black; padding: 5px; margin-top: 10px;"> <p style="font-size: small;">Clean the filter of inlet valve</p>  </div> </div> </div>

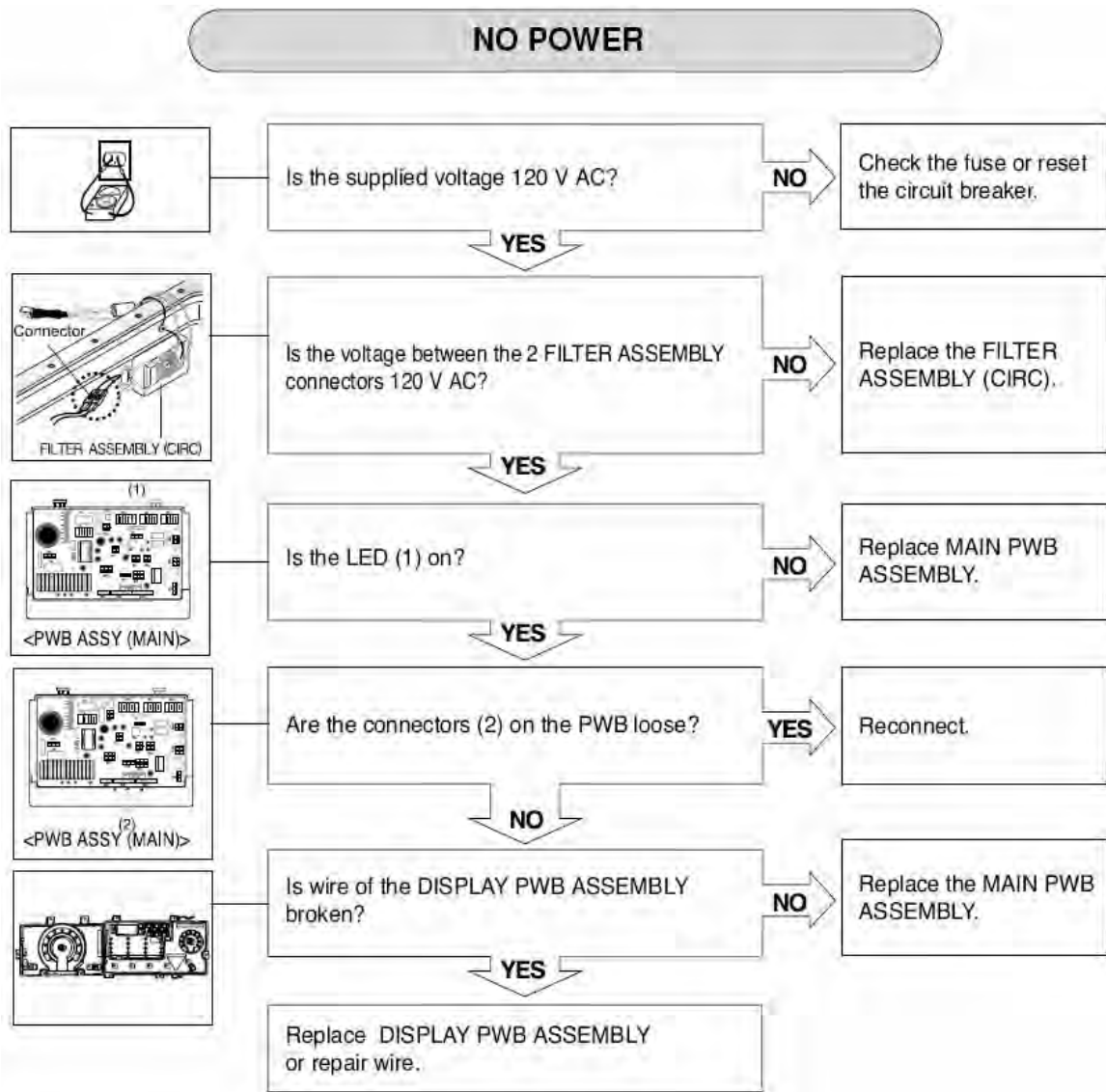
DIAGNOSIS and CHECK LIST (Abnormal Operation, continued)

SYMPTOM	GUIDE FOR SERVICE CALL
<p>Door error</p> 	<p>Started with door opened? YES → </p> <p>NO ↓</p> <p>Was the load too large? YES → Avoid overloading.</p> <p>NO ↓</p> <p>Clicking sound is heard once or twice, when the START/PAUSE button is pressed to start the cycle?</p> <p>NO ↓</p> <p>Call for service.</p> <p>Check if the door switch is OK.</p> <p>Close the door. </p>
<p>Drain trouble</p> 	<p>Is  displayed? YES ↓</p> <p>Is the drain pump filter clogged with foreign material such as pins, coins, etc? YES → Clean up the filter. </p> <p>NO ↓</p> <p>Is the drain hose frozen, kinked, or crushed? NO ↓</p> <p>Call for service. </p>

DIAGNOSIS and CHECK LIST (Abnormal Operation, continued)

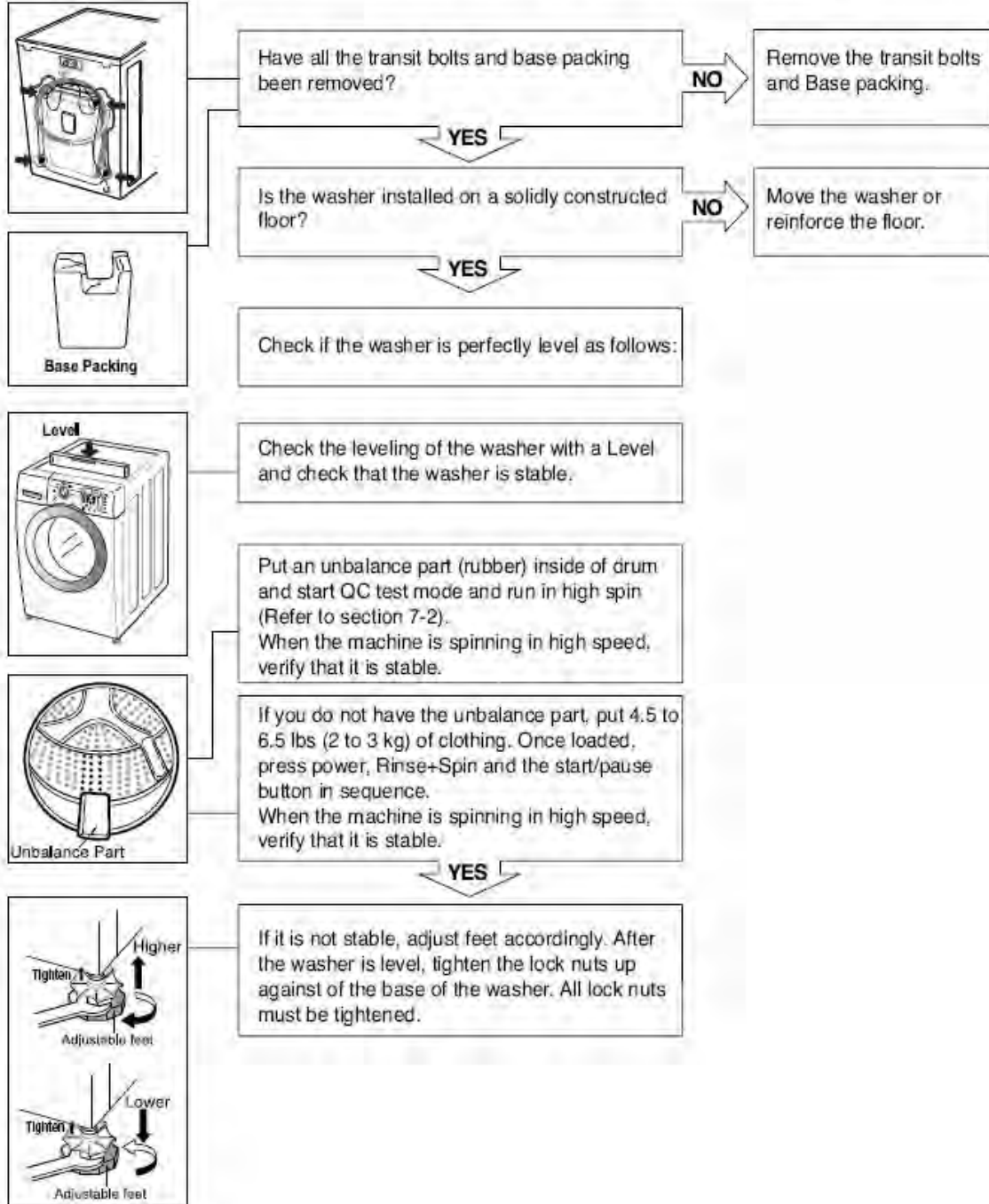
SYMPTOM	GUIDE FOR SERVICE CALL
<p>Suds overflow from the appliance. (In this condition, wash and spin do not operate normally)</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 60%;"> <p style="text-align: center;">Is HE detergent used?</p> <p style="text-align: center;">↓ YES ↓</p> <p style="text-align: center;">Is the proper amount of detergent used as recommended?</p> <p style="text-align: center;">↓ YES ↓</p> <p style="text-align: center;">Recommend to reduce the amount of detergent.</p> <ul style="list-style-type: none"> * This appliance has an automatic suds sensing function which prevents overflow. * When excessive suds are sensed, the suds removing implementations such as drain, water input, pause will operate, without rotating the drum. </div> <div style="width: 35%; text-align: center;">  </div> </div>
<p>Liquid laundry products do not flow in.</p>	<div style="display: flex; justify-content: space-between; align-items: center;"> <div style="width: 60%;"> <p style="text-align: center;">Is liquid laundry product put in the correct compartment of the dispenser?</p> <p style="text-align: center;">↓ YES ↓</p> <p style="text-align: center;">Is the cap clogged?</p> <p style="text-align: center;">↓ YES ↓</p> <p style="text-align: center;">Explain proper use of liquid laundry products.</p> <p style="text-align: center;">Clean the compartment.</p> </div> <div style="width: 35%; text-align: center;">  <p style="font-size: small;">(1) Liquid chlorine Bleach Compartment (2) Liquid fabric Softener Compartment (3) Prewash Compartment (4) Main Wash Compartment</p> </div> </div>
	<p style="text-align: center;">Call for service.</p>

FAULT DIAGNOSIS and TROUBLESHOOTING



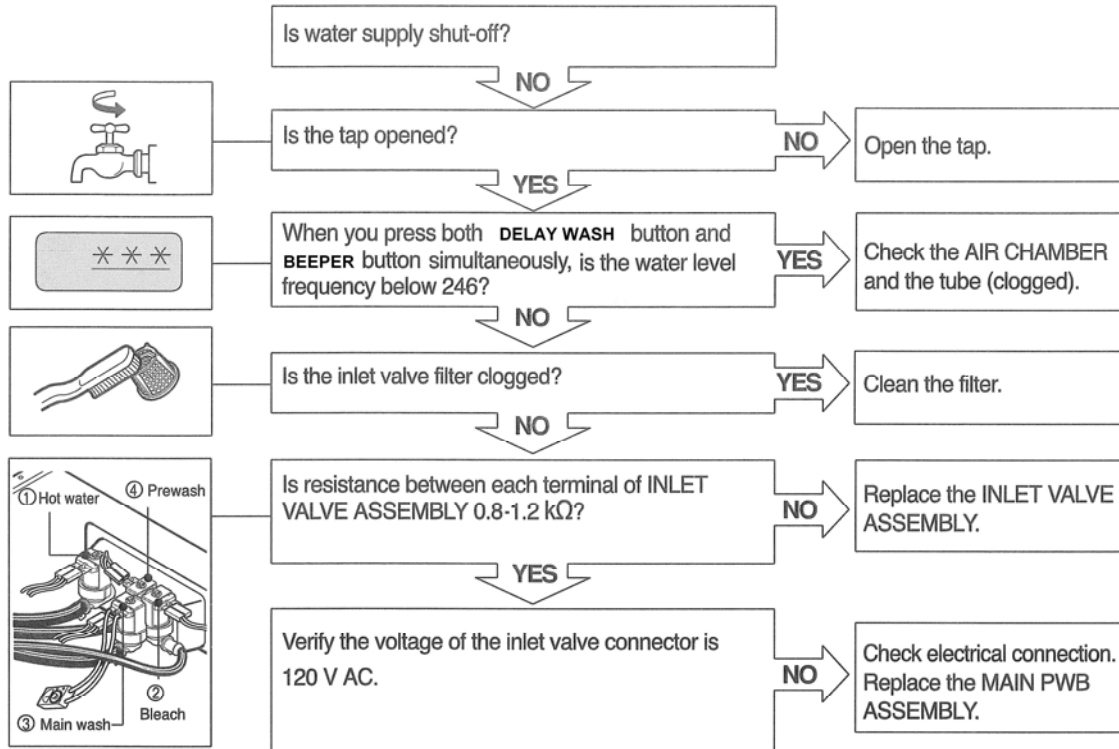
DIAGNOSIS/TROUBLESHOOTING (continued)

VIBRATION & NOISE IN SPIN

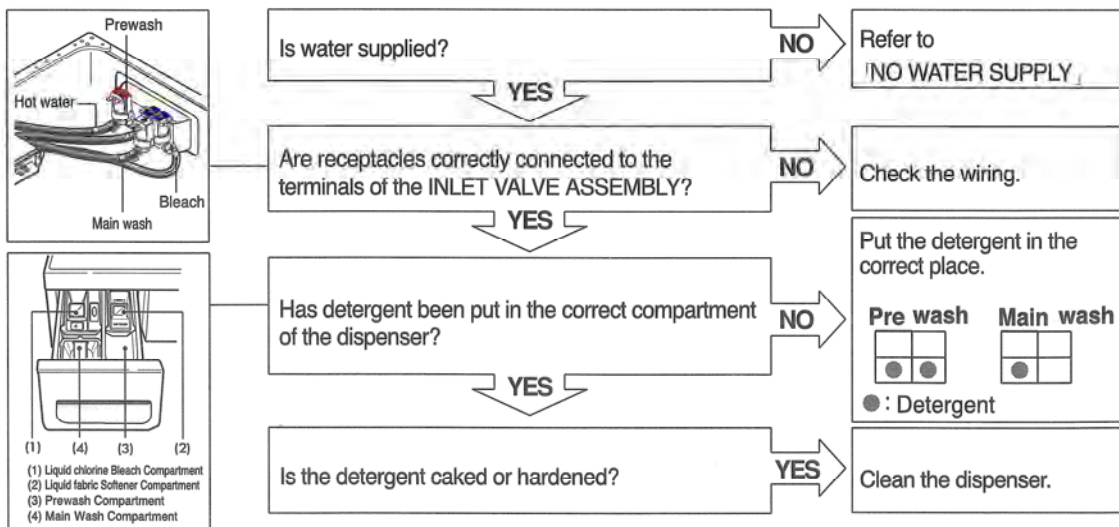


DIAGNOSIS/TROUBLESHOOTING (continued)

NO WATER SUPPLY

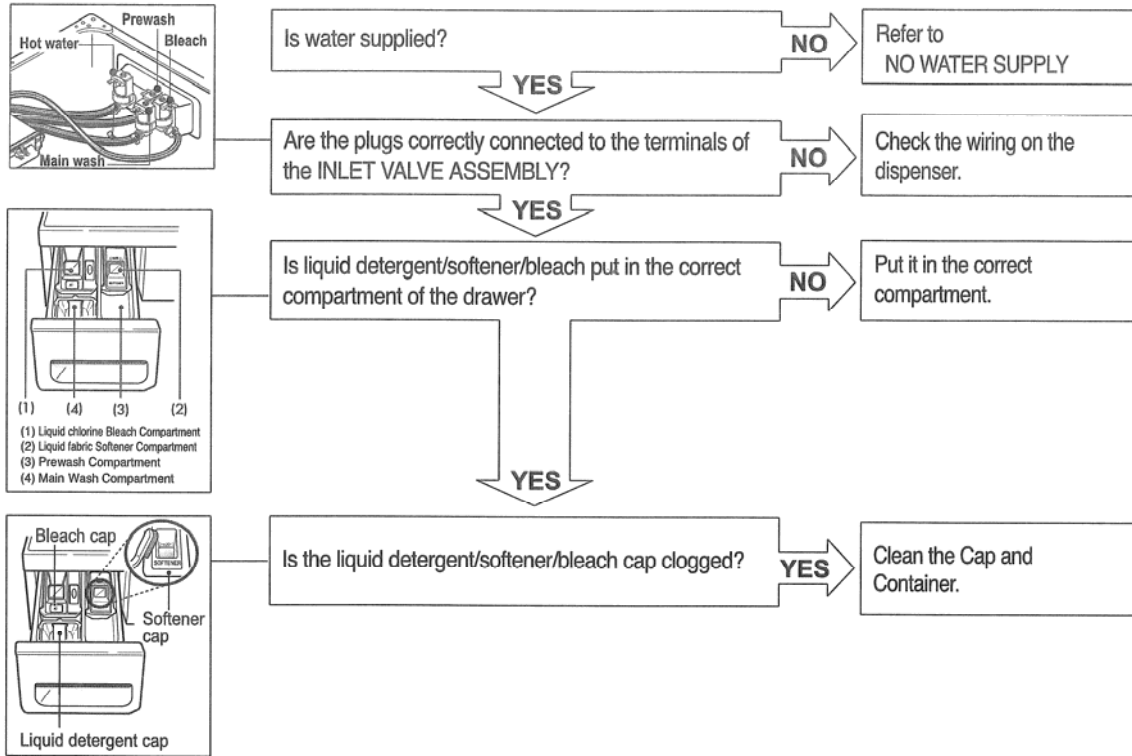


DETERGENT NOT DISPENSED

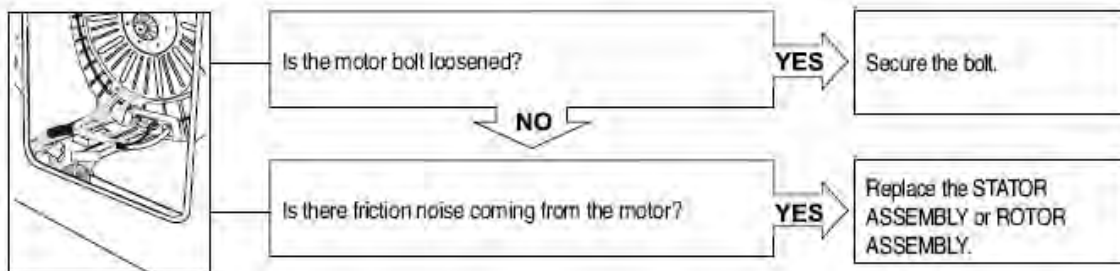


DIAGNOSIS/TROUBLESHOOTING (continued)

LIQUID SOFTENER AND BLEACH ARE NOT DISPENSED

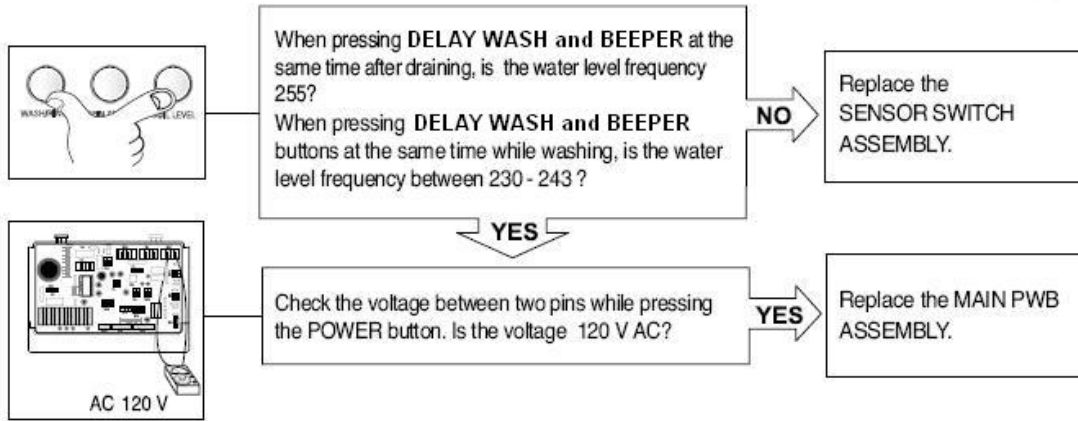


ABNORMAL SOUND

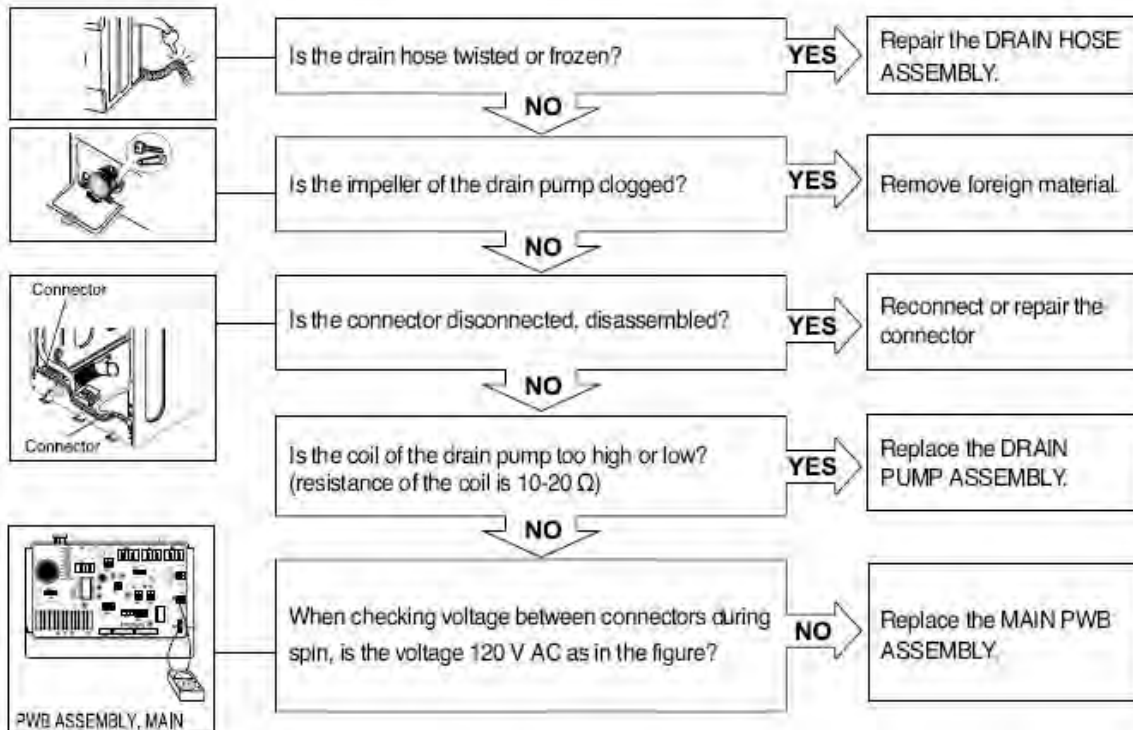


DIAGNOSIS/TROUBLESHOOTING (continued)

HEATING WITHOUT WATER

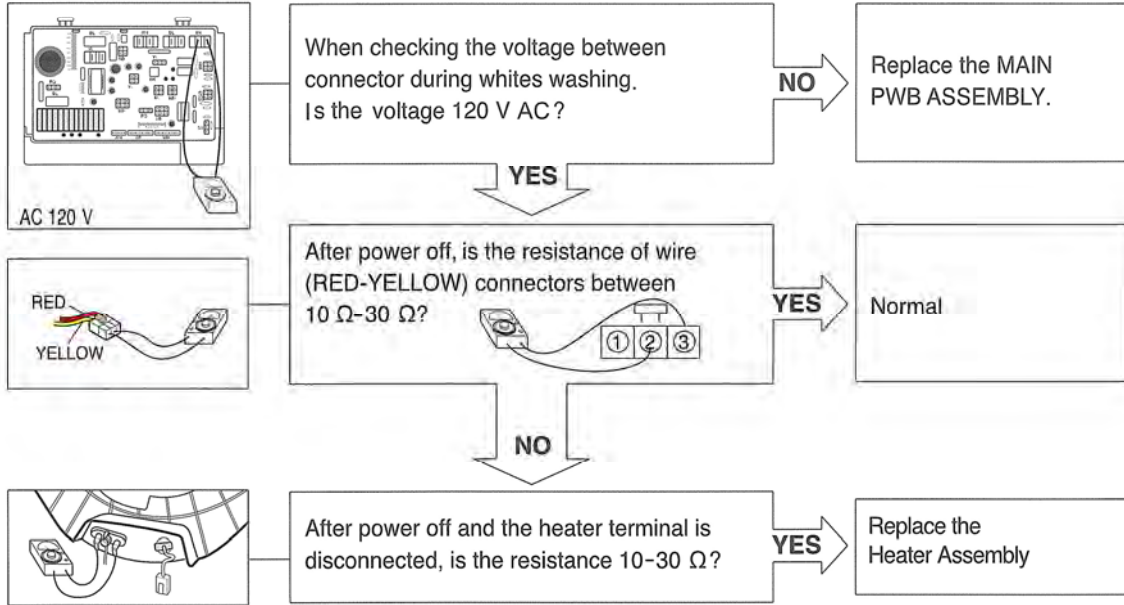


DRAIN MALFUNCTION

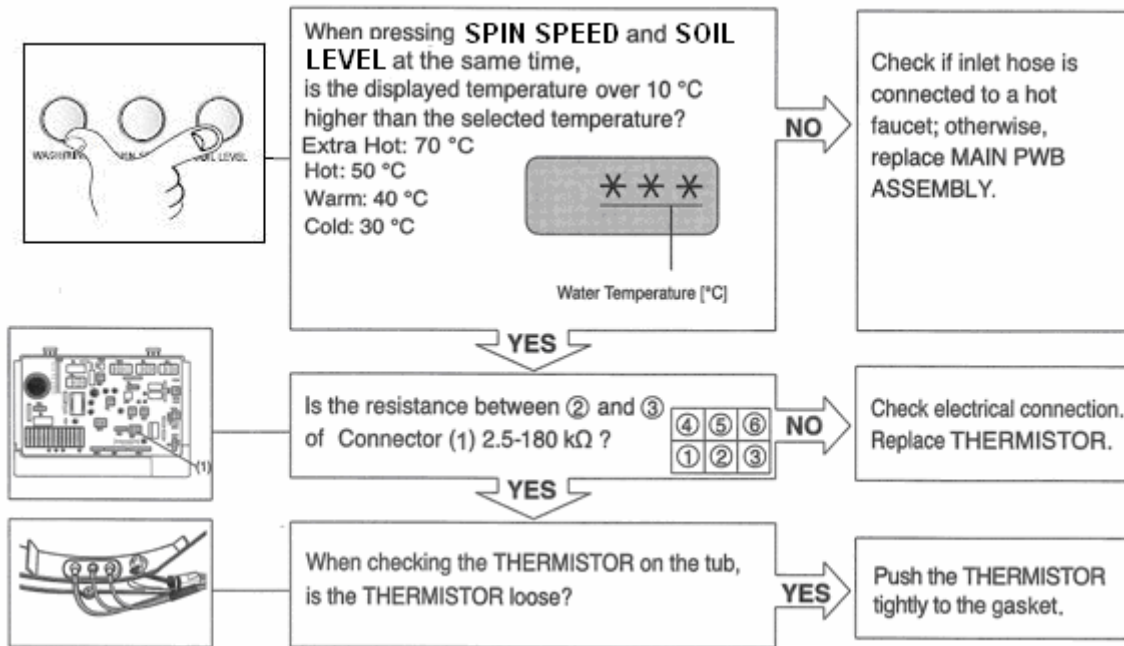


DIAGNOSIS/TROUBLESHOOTING (continued)

WASH HEATER TROUBLE

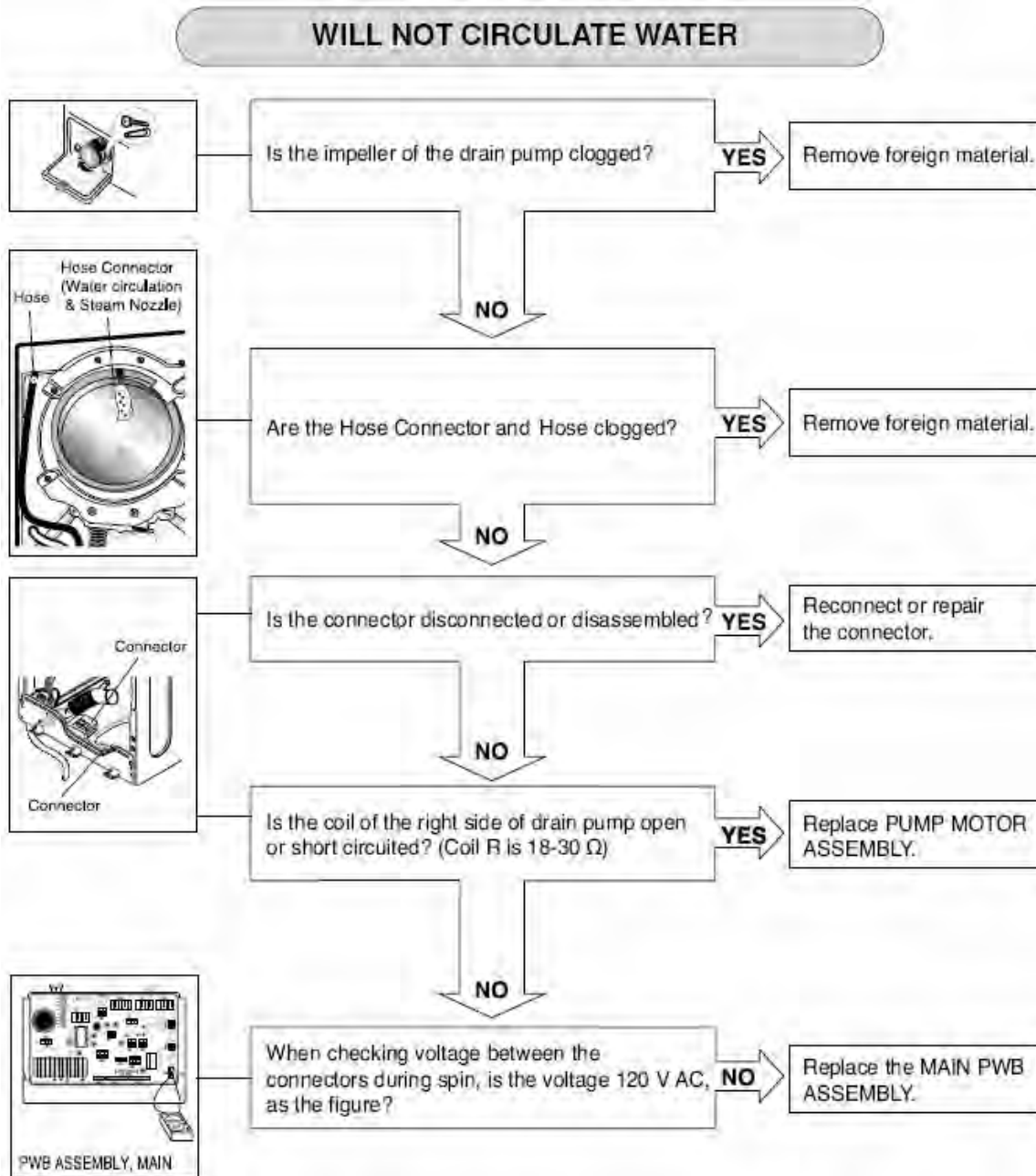


HEATER MALFUNCTION (CONTINUOUS OVERHEATING)



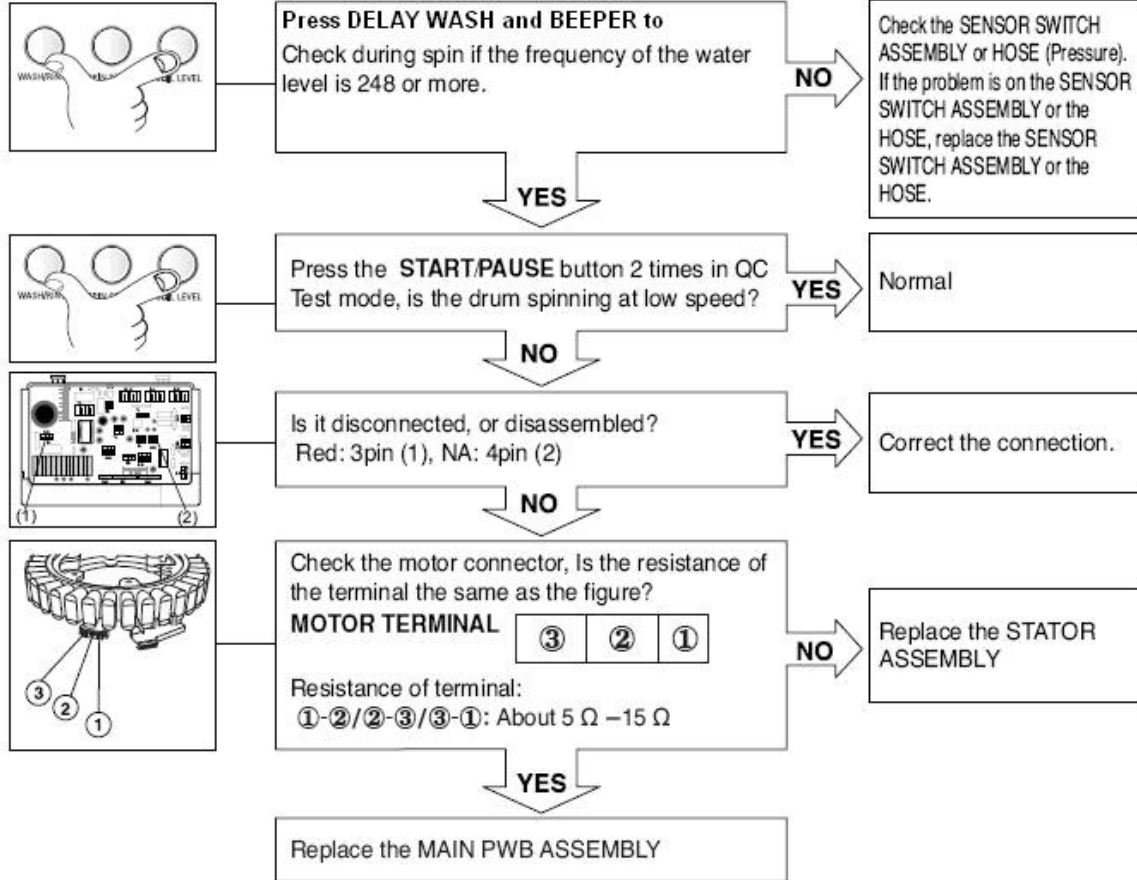
DIAGNOSIS/TROUBLESHOOTING (continued)

Before conducting this diagnostic procedure, be sure your version includes the recirculation pump. The pump housings are not interchangeable, and this option cannot be added to a version not so equipped at the factory.

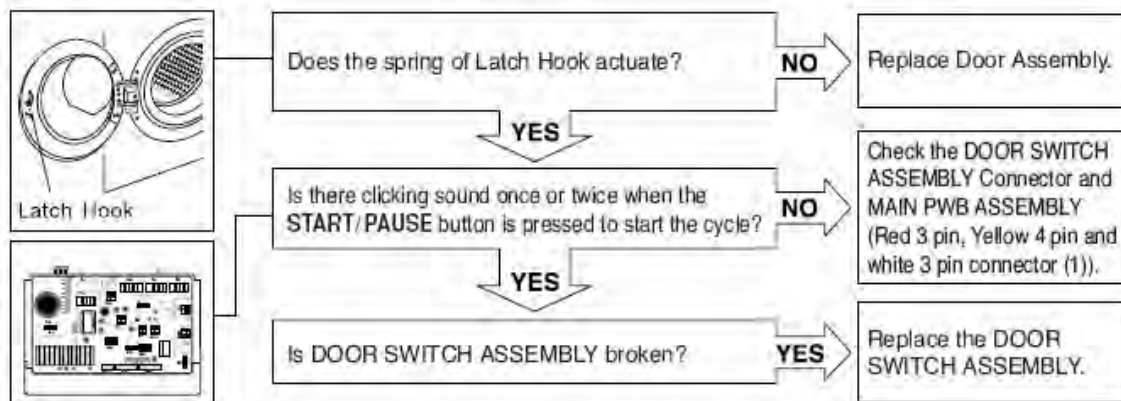


DIAGNOSIS/TROUBLESHOOTING (continued)

SPIN TROUBLE



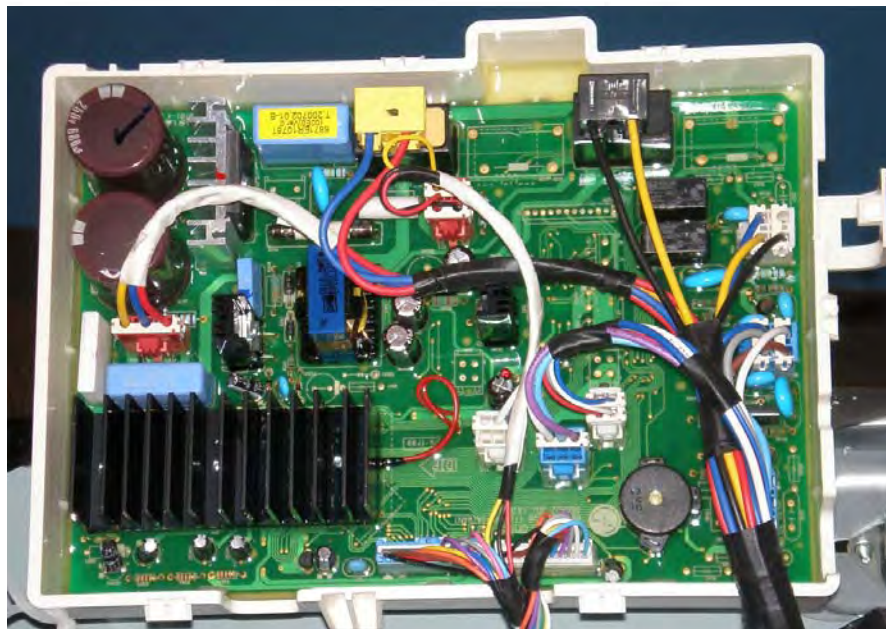
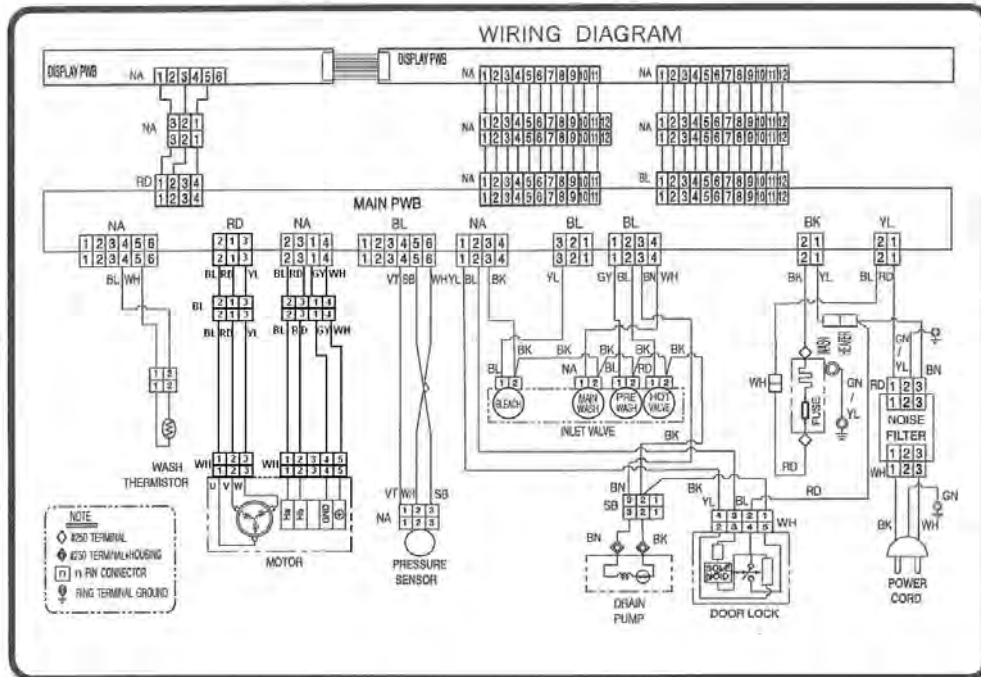
DE ERROR



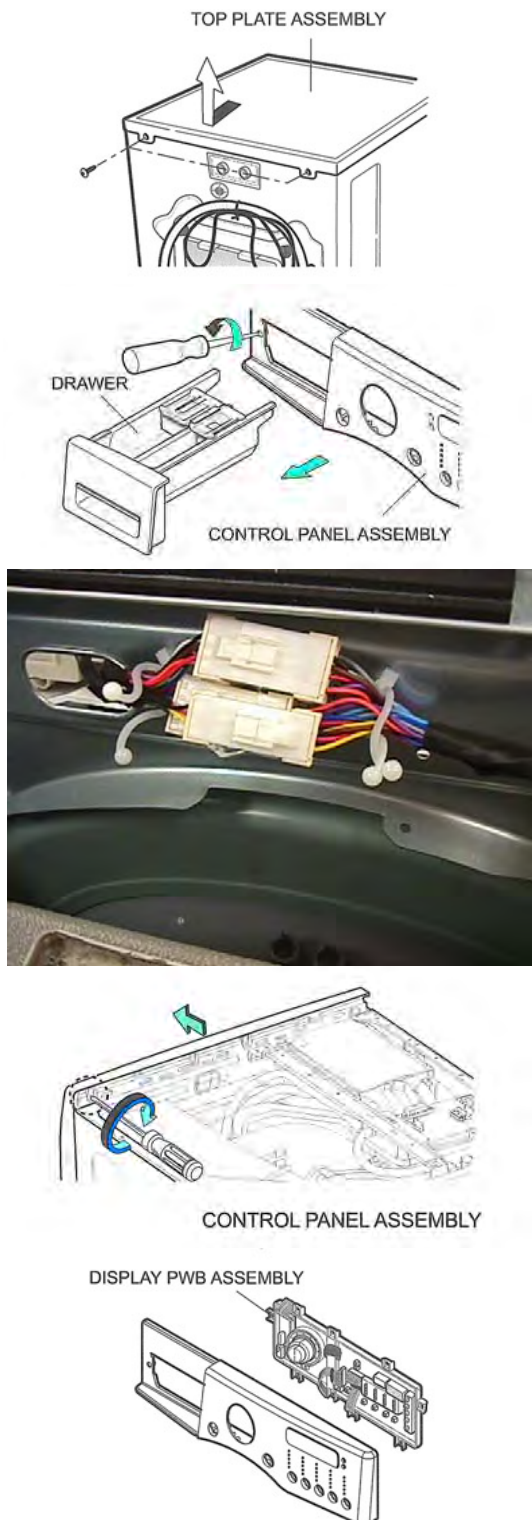
DISASSEMBLY and REPAIR

The following pages will show the instructions for disassembly, repair, replacement of parts, and reassembly. Many times, electrical components may be tested by connecting the appropriate meter to the leads or connectors on the main PC Board. (Refer to the block wiring diagram, below.) Proper diagnosis will eliminate unnecessary labor and expedite repairs.

BLOCK WIRING DIAGRAM



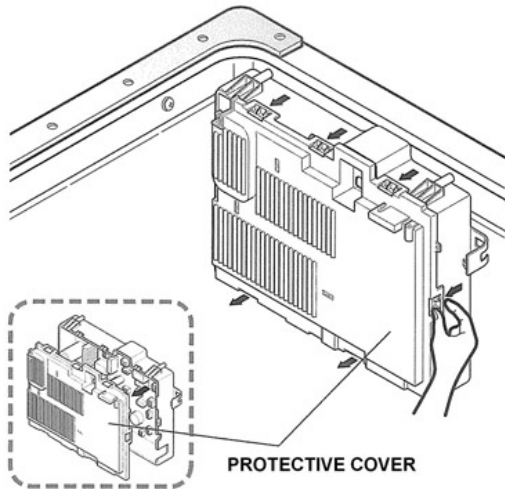
DISASSEMBLY/REPAIR (Control Panel)



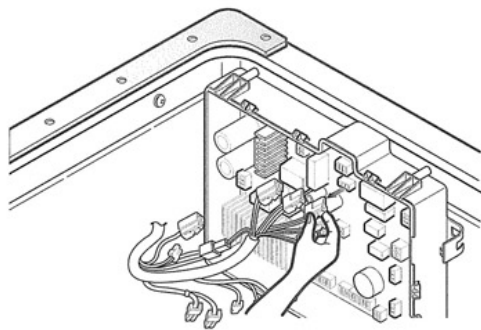
1. Remove two screws on the back of the top plate.
2. Pull the top plate backward and lift, as shown.
3. Remove the detergent drawer.
4. Remove two screws behind the detergent drawer.
5. Disconnect the connectors for the Display PWB.
6. Remove one screw from the corner of the control panel.
7. Lift the top away from the support rail and pull the control panel up and away to remove.
8. Remove eight screws to separate the control panel and PWB.
9. Reassembly is the reverse of these steps.

DISASSEMBLY/REPAIR (Main Board)

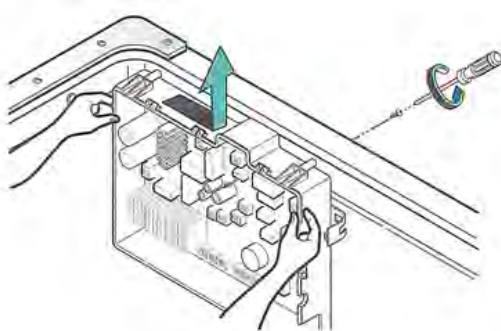
Often, you can diagnose a failed part by removing its connector on the main board and connecting the tester to the leads in the connector. (See page 45.)



1. Disconnect the POWER connector and the Water Level Sensor Switch.
2. Remove the protective cover. Press the plastic tabs out of the way to remove the cover. The main board is potted, so no repairs are possible. Replacement is the only option.



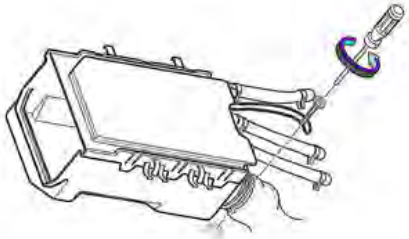
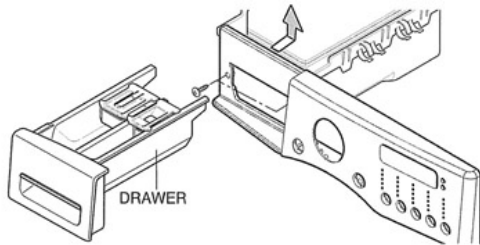
3. Disconnect the connectors on the main board. They are all different, keyed, and color-coded to prevent incorrect connection.
4. Pull the wires out of the way.



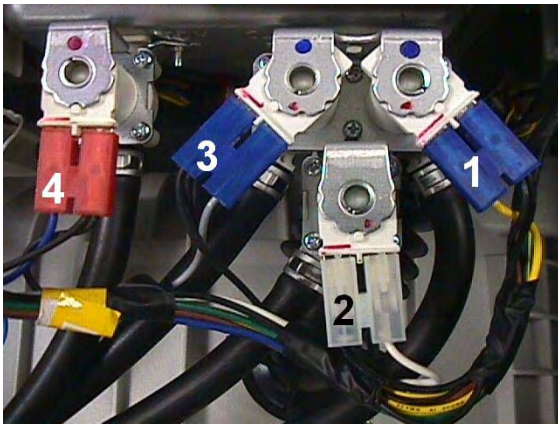
5. Remove one screw on the back of the washer to release the main board housing.
6. Remove the main board by sliding it to the right and lifting it up.

Replacement is accomplished by pressing it toward the back of the washer and sliding it toward the left.

DISASSEMBLY/REPAIR (Dispenser)



1. Remove the top plate.
(See page 46.)
2. Remove the dispenser drawer.
3. Remove two screws to release the dispenser.
4. Loosen the clamp on the large hose that runs from the dispenser to the drum. Have an old towel handy to stuff under the dispenser to soak up any spillage.
5. Disconnect the connector from the solenoid. Make a note of the color codes and connections.

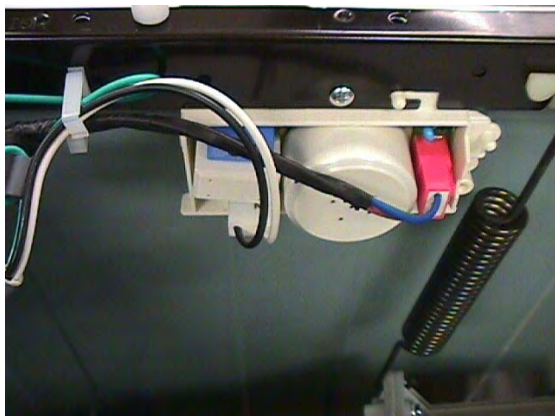


- #1 Blue; yellow/black (bleach)
- #2 White; white/black (main)
- #3 Blue; white/black (pre-wash)
- #4 Red; blue/black wires (hot)

They should measure $120 V_{AC} \pm 10\%$ or $950 \sim 975 \Omega$ with the harness disconnected.

6. Remove two screws from the back of the cabinet

DISASSEMBLY/REPAIR (Noise Filter)



1. Remove the connectors from the noise filter.
2. Remove the screw from the top bracket.
3. Replace the filter as an assembly. There are no user-serviceable parts in it. The white connector is input; the pink is output. Both are $110 V_{AC}$.

DISASSEMBLY/REPAIR (Front Cabinet, Tub, and Drum)



NOTE!

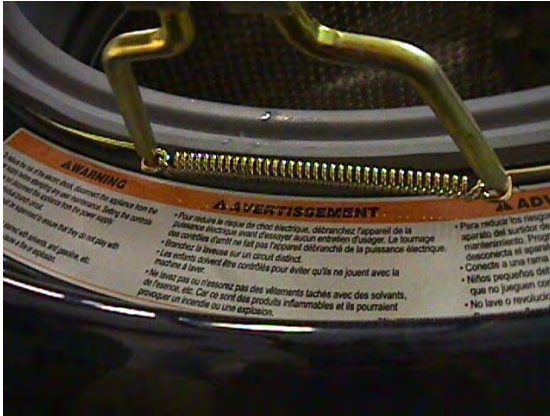
There is a piece of adhesive foam tape along the top rail on both sides of the machine. This is to prevent noise from vibration. It may become stuck to the top, so you'll need to use an extra push to get the top plate loose.



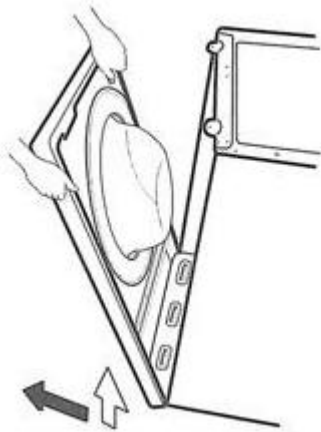
1. Remove the top plate.
(See page 46.)
2. Remove the control panel.
(See page 46.)
3. Remove four screws that secure the front panel.



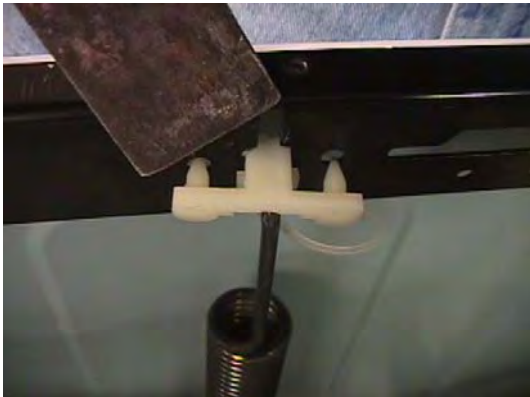
4. Remove the screw that secures the filter cover. Be sure to drain the water. (See page 9.)
5. Use a flat screwdriver or a putty knife to loosen the filter cover and pull it out.
6. Stick the screwdriver into the cover slot and pry it out sideways to free it.



7. Open the door.
8. Remove the clamp using special tool **383EER4001A**. Leave the gasket attached to the tub at this time.



9. Lean the cabinet front forward, being careful to avoid breaking the glass. The door is **HEAVY**.
10. Disconnect the door switch connector. (Remember to replace it upon reassembly.) (See page 52.)



11. Lift the door and front cover off the cabinet base as an assembly. Lay it face down on a blanket or some other protective surface.
12. Separate the spring retaining clip so you can lift the tub out of the cabinet.

Be careful and make sure you have disconnected every wire and hose to avoid damage or complications.



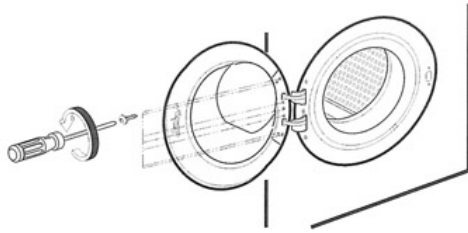
13. Use the weights you removed from the front of the tub as supports to hold the tub while you work on it and to avoid damaging the shaft and floor.



14. Unbolt the tub halves to separate them and remove the drum. Be careful to avoid damaging the gasket between the halves or it must be replaced.

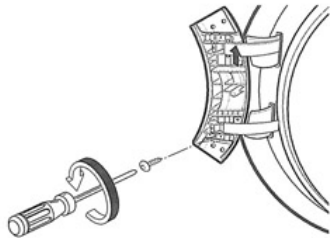
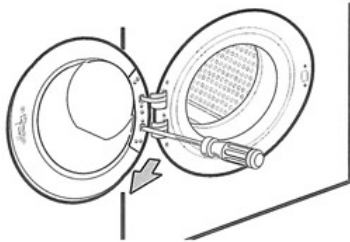
Do not pry on the mating surfaces of the drum halves.

DISASSEMBLY/REPAIR (Door)



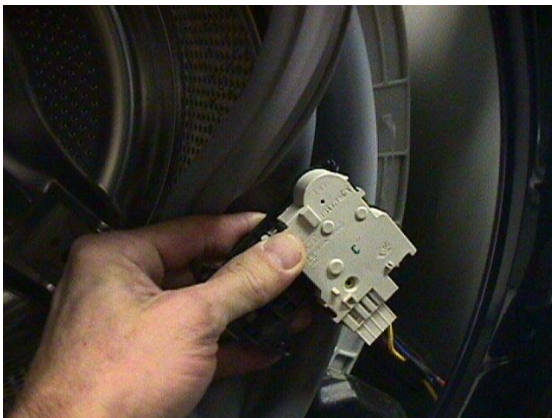
Removing the door with the front cover still on the machine.

1. Open the door.
2. Remove seven screws from the hinge cover.
3. Pry off the hinge cover with a flat screwdriver.
4. Remove the screw at the bottom of the hinge.
5. Lift the door off the hinge.



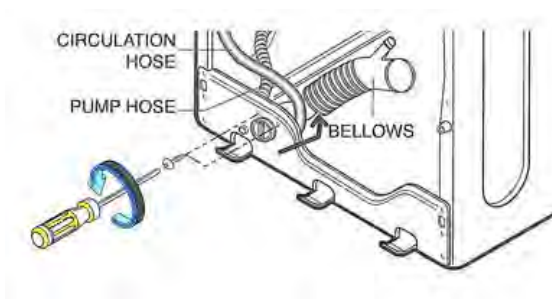
CAUTION! The door is **HEAVY!**

DISASSEMBLY/REPAIR (Door switch removal)

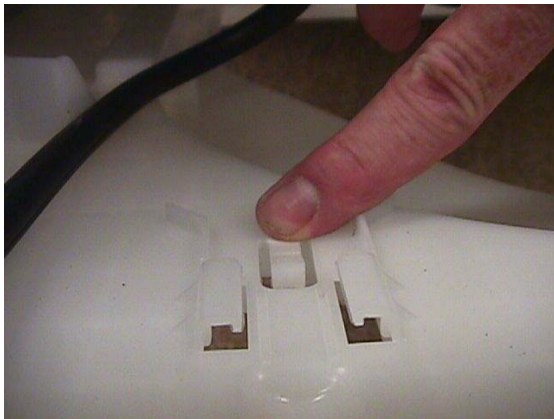


1. Open the door.
2. Remove the gasket clamp using special tool **383EER4001A**.
3. Remove the two screws holding the switch.
4. Push the gasket aside to remove the switch.
5. Unplug the switch to change it.
6. Make sure the wires don't fall back in before you can replace the switch.

DISASSEMBLY/REPAIR (Pump)



1. Remove the front cabinet. (See page 46.)
2. Drain the water from the sump. (See page 9.)
3. Remove the clamps and hoses.
4. Remove two screws and push the pump backward and up.
5. Press down the plastic tab on the base behind the pump to slide the pump assembly backward.



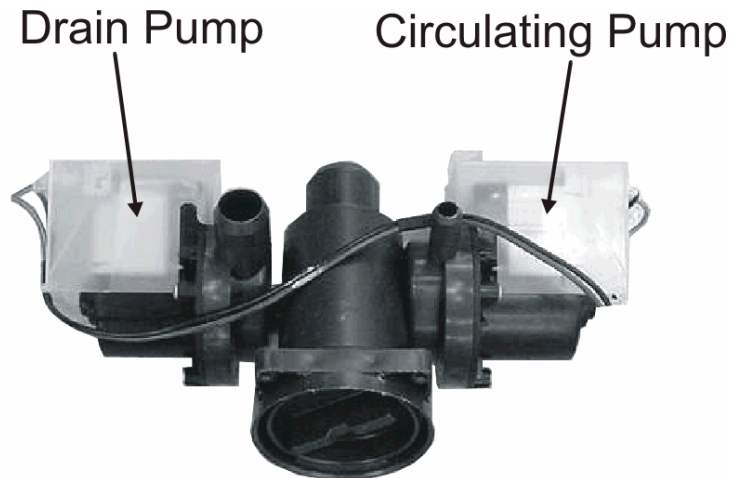
You don't have to worry if you break the tab. It is there for the assembly process in the factory. A screw holds the pump housing in place when the washer is assembled. Just slide it into the bracket.



6. You can tilt the pump in either direction to remove/replace the individual pumps without having to remove the tub.

Have a towel handy to catch the spillage.

DRAIN PUMP (Your model may vary)



Before performing this operation, verify which version WM2277 you are repairing. Some do not have the recirculation pump.

The drain pump and the circulating pump are attached to either side of the filter housing. The pumps are different and are not interchangeable. The drain pump is used to exhaust the water from the washer. The recirculating pump serves three purposes: it sprays water from the tub onto the laundry, creating a better saturation of detergent and better rinsing, it keeps the window clean, and it allows the customer to see water in the tub. The filter between the pumps is not a lint filter in the traditional sense. It serves to trap larger objects (keys, coins, buttons, etc.) that may find their way into the washer and protects the pumps from physical damage.

Depending upon which version you have, the washer may not have a circulating pump (the pump on the right) and the corresponding electrical and plumbing connections. The pump housings are very similar but not interchangeable, and the circulating pump cannot be added to models that are not so equipped at the factory.



This photo shows the drain pump and pump housing for the models without the recirculating pump. The housings look very similar but are not interchangeable and cannot be modified to fit models that include the recirculation pump.

The pump should read 120 VAC \pm 10%. Ohm check should show 15 ~ 20 Ω between the brown and black wires.

DISASSEMBLY/REPAIR (Heater)



1. Remove the front cabinet. (See page 46.)
2. Drain the water from the sump. (See page 9.)
3. Remove the push-on connectors from the heater.
4. Remove the nut that holds the ground wire. Then loosen but **do not remove** the nut that secures the heater clamp and pull the heater out. You may have to wiggle it to release the gasket.



The heater element must slide in to its bracket, which is attached to the rear half of the tub. Proper positioning is critical. (Note the drum half seam near the bottom of photo.)

The heater runs on 120 V_{AC}. Ohm check is 14 Ω

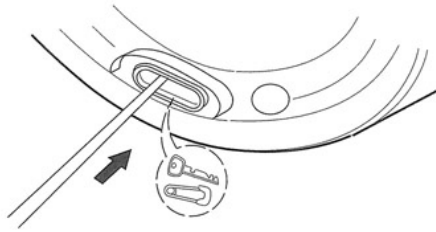
DISASSEMBLY/REPAIR (Thermistor)



1. Remove the front cabinet. (See page 46.)
2. Drain the water from the sump. (See page 9.)
3. Unplug the white connector.
4. Hold the bracket and pull the thermistor out.

The thermistor can be pulled out of the rubber grommet and replaced the same way, without removing the grommet from the tub. Be sure the bracket on the thermistor is snapped into place between the rubber tabs on the grommet.

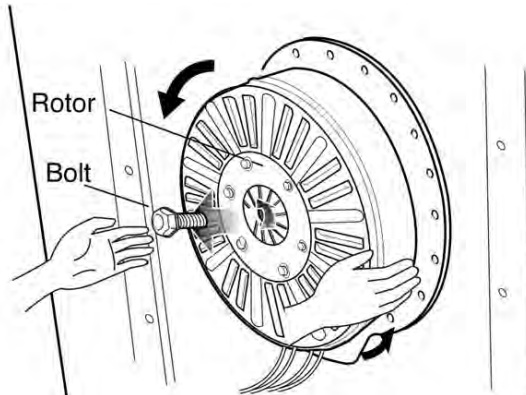
DISASSEMBLY/REPAIR (Object between tub and drum)



1. Remove the top cover. (See page 46.)
2. Remove the front cabinet cover. (See page 48.)
3. Remove the heater. (See page 55.)
4. Fish out the foreign object(s) using a wire or bar.

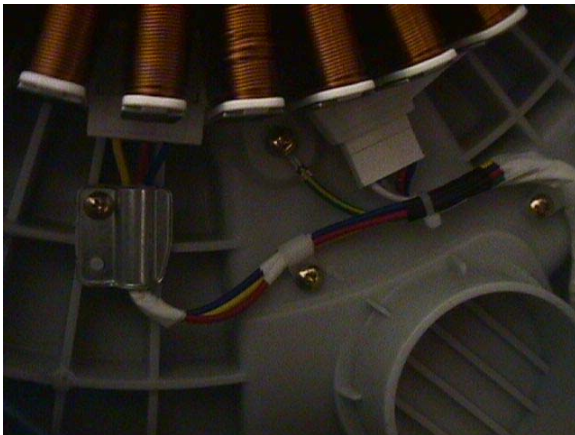
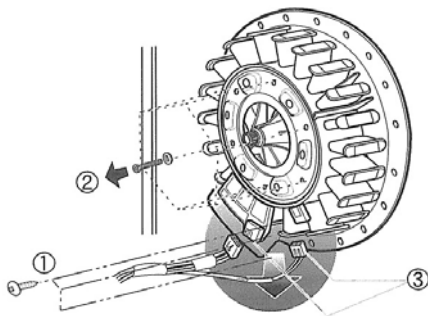


DISASSEMBLY/REPAIR (Motor)



For technical information concerning the direct drive DC motor, refer to page 25.)

1. Remove the back cover.
2. Remove the large bolt in the center shaft. (Your helper can hold the inside of the drum.)
3. Pull the rotor off the shaft.
4. Remove two screws from the tub bracket.
5. Remove six bolts on the stator.
6. Unplug two connectors on the stator.
7. Pull the stator off the shaft.
8. When re-installing, the clamps and the ground screw must be installed and the connectors pressed into place before the rotor is bolted onto the shaft.



DISASSEMBLY/REPAIR (Damper)



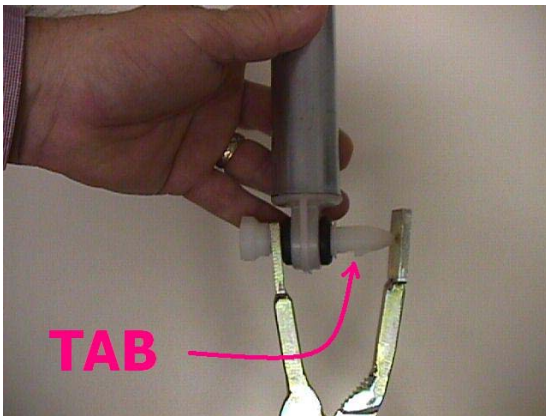
1. Disconnect the dampers from the tub and the base. (See photos, left.)

Be sure to press in the safety tab before pushing the pin out of the damper. You can use a socket to hold the tab in while you squeeze the pin with the special tool **383EER4003A**.



2. The flat end of the tool goes on the small end and the split end allows the head end to pass through while the pin is pushed out.

The color and/or appearance of the damper may vary by model.



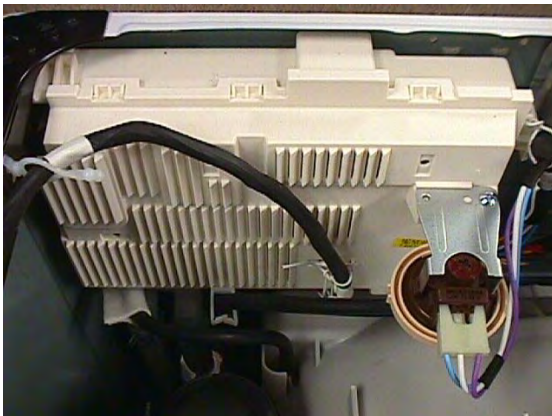
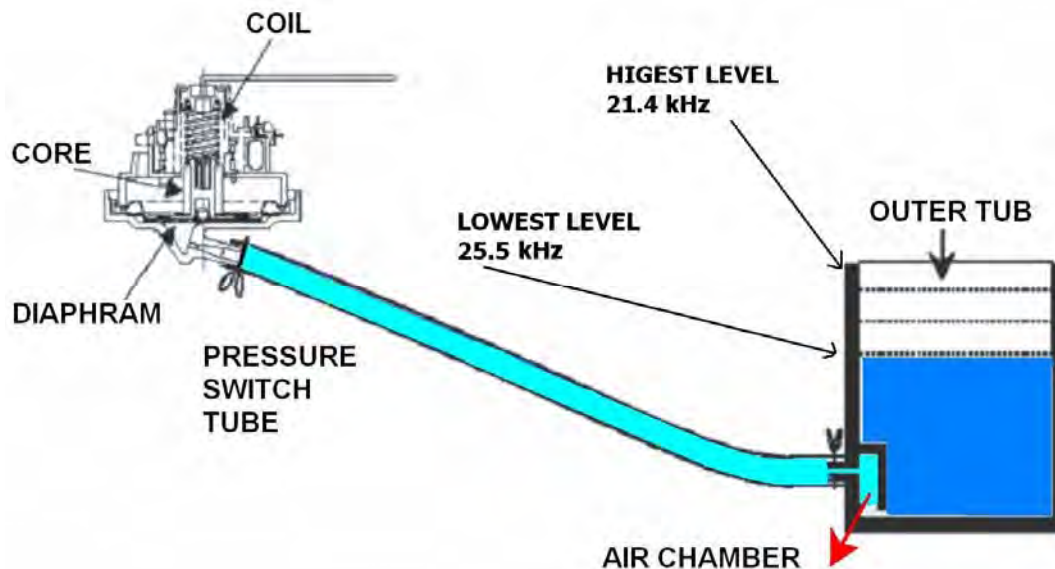
3. Use special tool **383EER4003A** to remove the damper pins. If you are replacing the dampers, you'll have to remove both ends. If you are removing the tub for major repair work, disconnect the damper ends at the base and leave the other ends connected until you remove the tub. When putting the tub back into the machine, connect the dampers to the tub first. It is much easier that way.

4. Be careful not to pull the dampers apart while they are disconnected.

WATER LEVEL SWITCH

The water level detector switch monitors the water level and feeds this information to the MICOM. The sensor reads air pressure in an air chamber on the tub. The air pressure changes in relation to the depth of the water, moving a diaphragm in the switch. As the water level fluctuates, it raises or lowers the iron center in the coil, which, in turn, changes the electric resonance of the oscillator circuit of which it is a part. As water level decreases, frequency increases. (e.g. A low water level may read 25.5kHz, while a high water level may read 21.4 kHz. These readings are approximate; washers in the field may vary slightly from these figures.)

Press **DELAY WASH** and **BEEPER** simultaneously. The display will indicate the water level frequency. Multiply by 0.1 to get the frequency in kilohertz. For example, a reading of 255 would be multiplied by 0.1 to get 25.5 as the frequency.



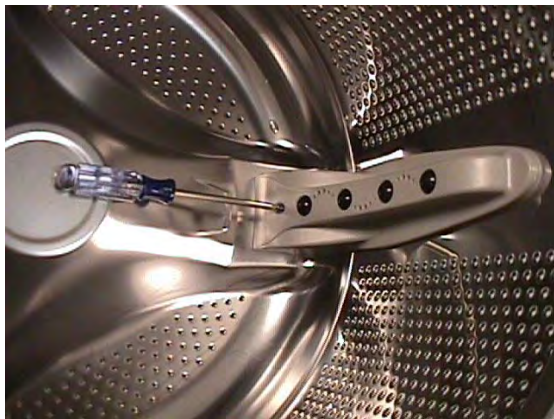
The pressure sensor (water level switch) is mounted on a bracket attached to the main board. Be sure to unplug the machine to service this component, because it is live even when the machine is off.

TIPS and TRICKS



HOSES

When replacing the large hoses, be sure to avoid getting the lip turned under the hose clamp. This will damage the hose and cause a leak. The large hoses have notches on the ends to index them on the connectors. Be sure the notch is pushed down all the way on the index boss.



BAFFLES (LIFTERS)

You can replace the baffle and rollers without having to remove the drum. Unscrew the retaining screw at the back of the baffle. Slide it toward the front of the washer to remove it. You can unscrew the retainer inside the baffle to replace the roller balls.



MUSHROOM VALVE

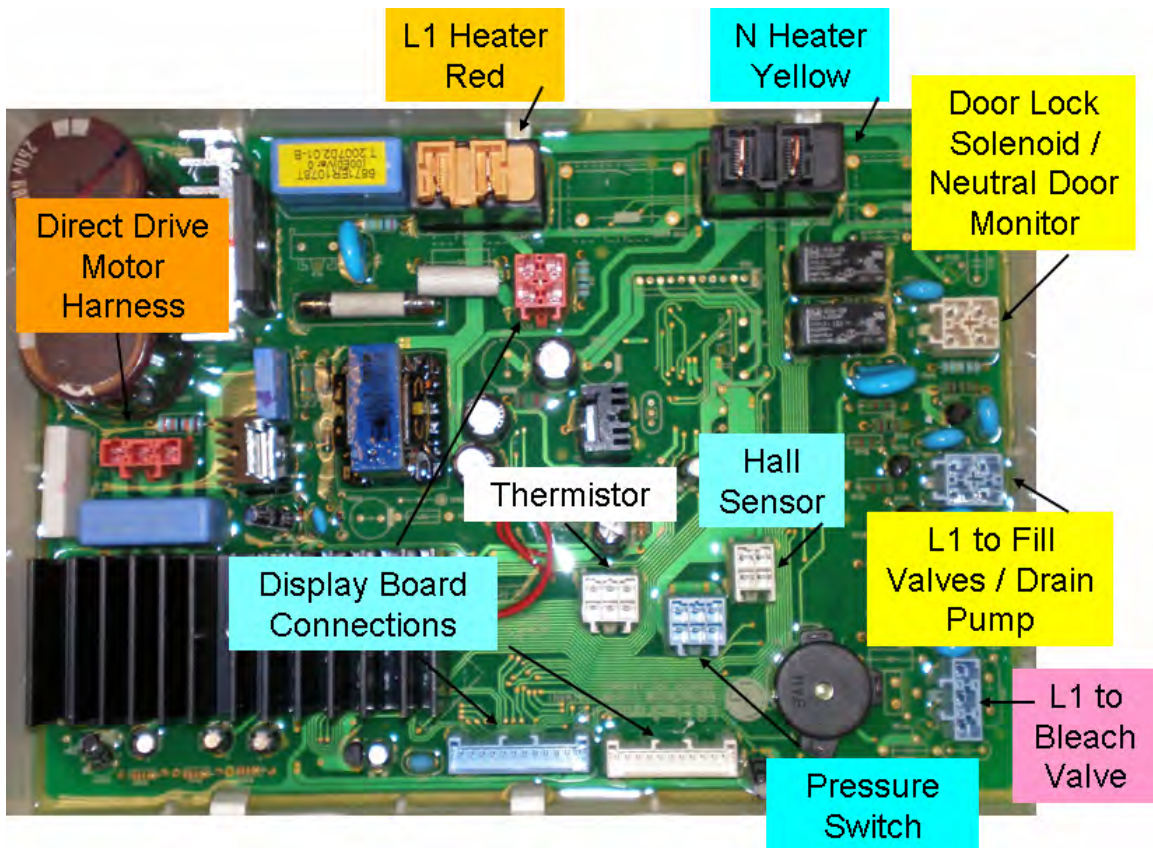
Be sure the mushroom is in place before attaching the hose. If the stem is too long, it will contact the drum and make significant noise when the drum turns.

See the parts list for the correct part numbers for these valves. They are not shown on the exploded view.

BALL (Off Balance) SENSOR

There isn't one. This function is handled by the microprocessor and the hall sensor.

MAIN BOARD



The main board must be replaced if defective; it is not repairable. This diagram is shown to point you to the various connectors that can be removed or used as test points. Testing at the connectors will allow the servicer to make a more complete diagnosis and eliminate some of the time required to disassemble and check various components. For example, the hall sensor can be tested by removing the connector at the main board and following the procedure on page 26.

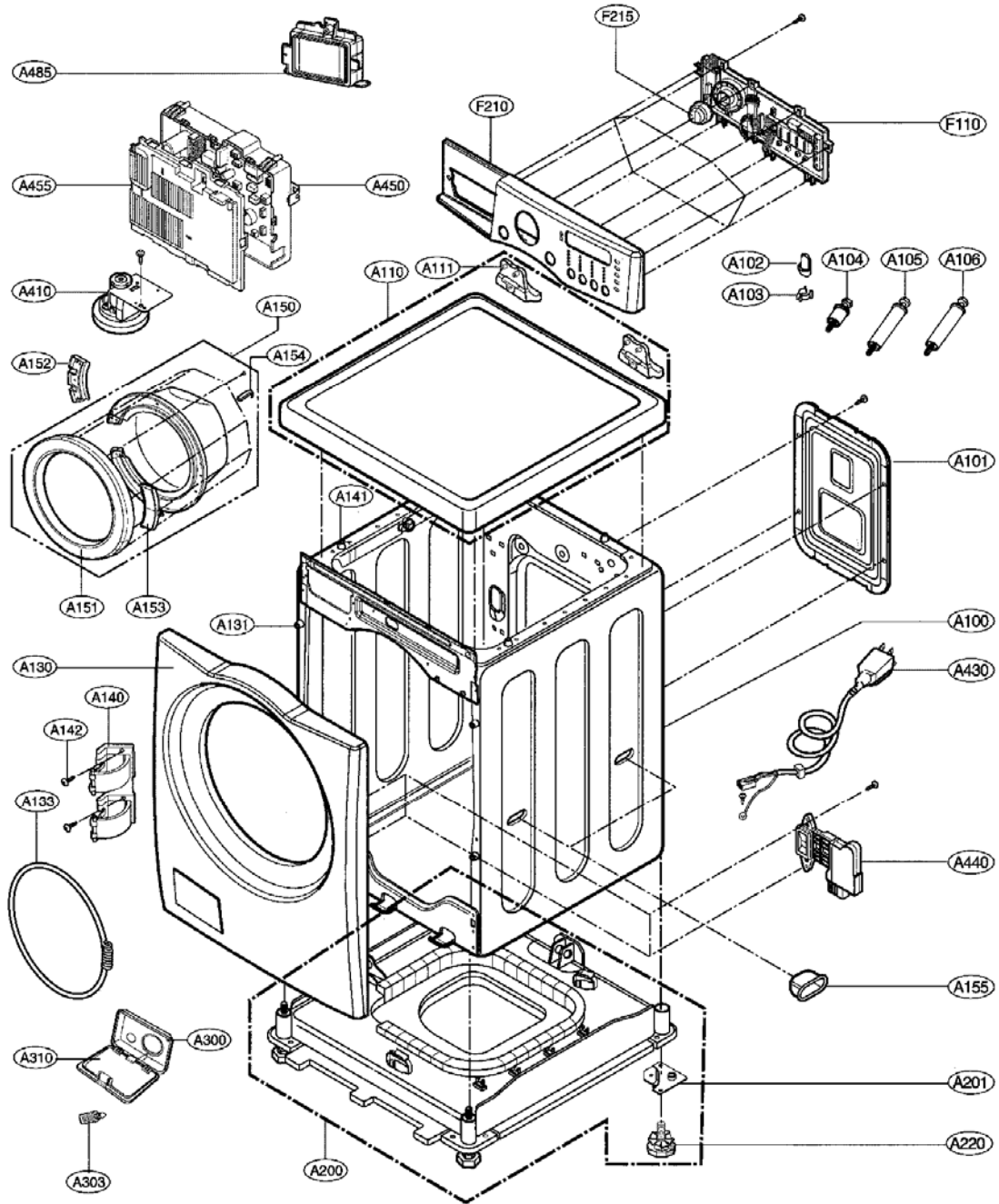
DRAINING THE SUMP



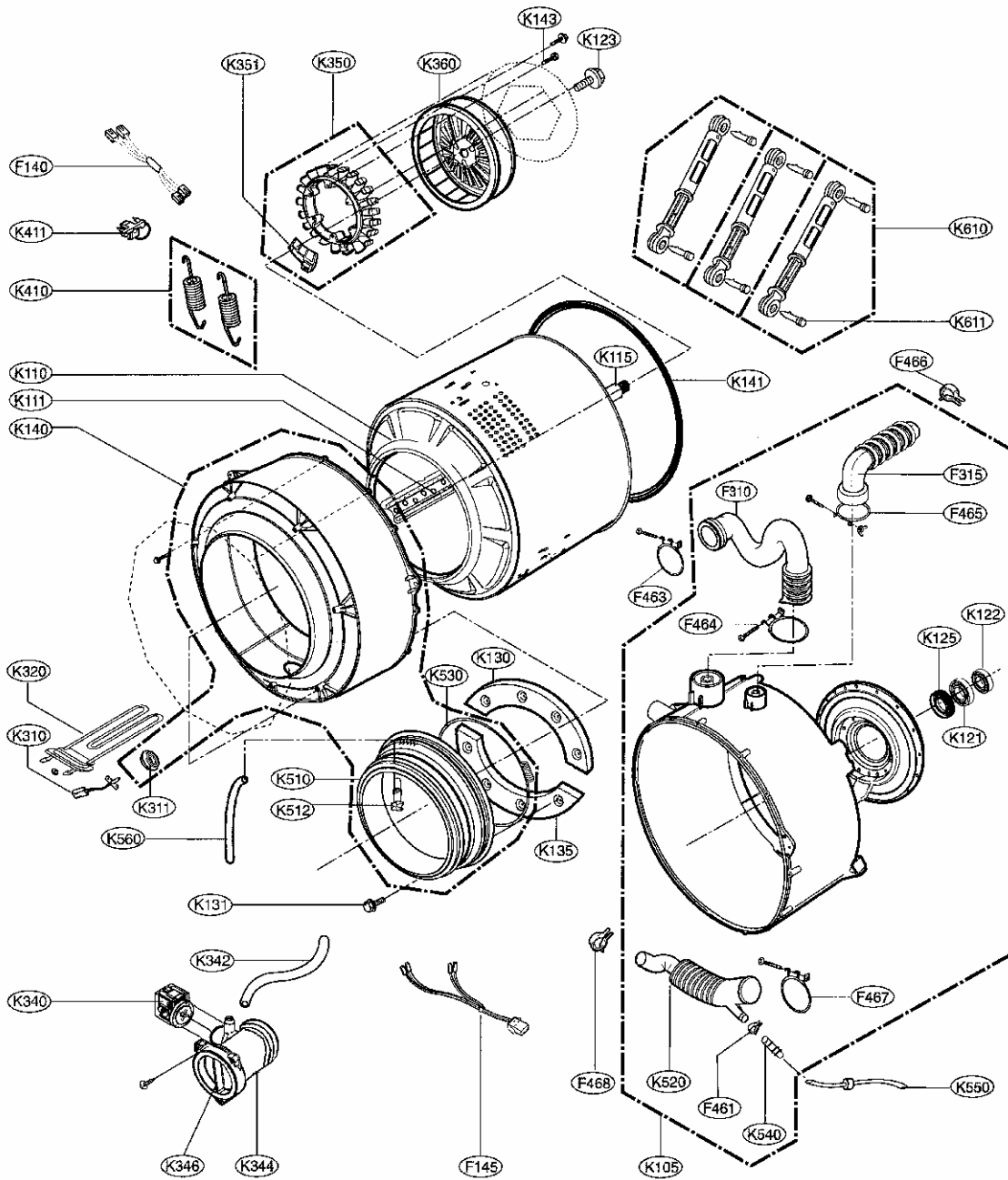
Pull out the little hose and remove the end cap. Allow the water (16 ~ 32 ounces) to run into a shallow pan. Do not pull the hose so far out it kinks or the water will not drain.

Have a towel handy for leaks and spills.

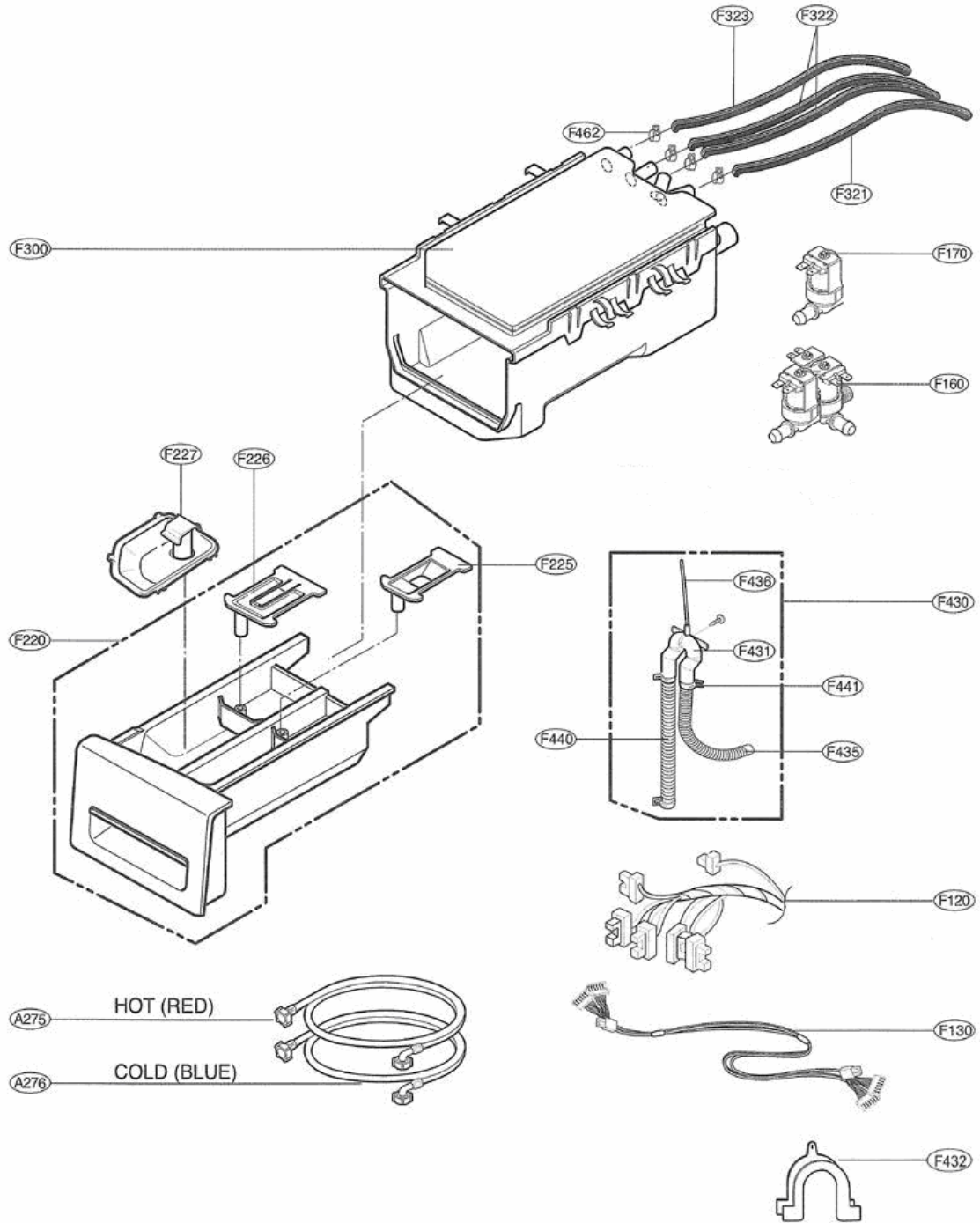
EXPLODED VIEW



EXPLODED VIEW



EXPLODED VIEW



PARTS LIST

This parts list is included with part numbers for the newer (Date Code 608 and later) version of WM2677. For part numbers for the earlier version, see the original service manual and the service bulletins included in this training manual.

Loc #	Part No	Description
*001	3829ER3025L	Owner's Manual
*002	3890EZ3524A	Box
*003	3W20018B	Wrench (packed in base of shipping container)
*004	3828ER3027G	Service Manual
A100	ABJ30921703	Cabinet Assembly
A101	3550ER1028A	Cover, Rear
A102	4830ER3001A	Bushing, drain hose
A103	4930ER3014A	Holder, drain hose
A104	4011FR3159E	Shipping Bolt Assembly, Short
A105	4011FR3159D	Shipping Bolt Assembly, Long
A106	4011FR3159F	Shipping Bolt Assembly, Long with cord clip
A110	3457ER1006L	Plate Assembly, Top (incl. hinges)
A111	4810ER3021C	Bracket, Hinge (2 required)
A130	3551ER0023C	Cover Assembly, Cabinet
A131	4930ER4005A	Holder (stud)
A133	2W20017E	Clamp Assembly, Outer Gasket
A140	4775ER2002A	Hinge Assembly
A141	4930ER4018A	Holder (stud)
A150	3581ER1008J	Door Assembly
A151	3212ER1023A	Frame, Door (Outer)
A152	3212ER1016A	Frame, Door (Inner)
A153	3650ER2004A	Handle
A154	4026ER4004B	Locker, Hook
A155	3650FA3489A	Handle (handhold) (4 required)
A200	3041ER0001C	Base Assembly, Cabinet
A201	4810ER3006A	Bracket, Base
A220	4779ER3002A	Leg Assembly
A275	5215FD3715J	Hose, Hot Inlet (Red)
A276	5215FD3715K	Hose, Cold Inlet (Blue)
A300	3110ER2003B	Case
A303	5006ER3009A	Cap, Drain Hose
A310	5006ER2003H	Cap, Cover
A410	6601ER1006E	Switch Assembly, Pressure

Loc #	Part No	Description
A430	6411ER1005K	Power Cord Assembly
A440	6601ER1004C	Switch Assembly, Locker
A450	6871ER1078T	PCB Assembly, Main
A455	3550ER1032A	Cover, Protective (Main Board)
A485	6201EC1006A	Filter Assembly, Noise
F110	6871ER2078A	PCB Assembly, Display
F120	6877ER1044G	Harness, Multi
F130	6850ER2003B	Wire, Flat
F140	6877ER1016B	Harness, Multi
F145	6877ER3003C	Harness, Single
F160	5221ER1003A	Valve Assembly, Inlet (triple valve, cold)
F170	5220FR2006H	Valve Assembly, Inlet (single valve, hot)
F210	AGL30906707	Panel Assembly, Control
F215	4941ER3002A	Knob Assembly
F220	3721ER1187H	Panel Assembly, Drawer (Dispenser)
F225	5006ER3014B	Siphon Cap, Softener
F226	5006ER3018A	Siphon Cap, Bleach
F227	3891ER2003A	Siphon Box, Detergent
F300	4925ER1015B	Dispenser Assembly
F310	4738ER1004B	Bellows
F315	4738ER2002A	Bellows
F321	5214ER4001A	Hose, Inlet (Main Wash)
F322	5214ER4001B	Hose, Inlet (Pre-Wash and Hot) (2 required)
F323	5214ER4001J	Hose, Inlet (Bleach)
F430	5215ER2002G	Hose Assembly, Drain
F431	4932FR3156A	Connector, Drain Hose
F432	3W50712A	Hanger Assembly, Pivot
F435	5214FD3663E	Hose, Drain
F436	5214FR4125S	Hose, Inlet
F440	5214FR3188K	Hose, Pump
F441	4861FR3068C	Clamp
F461	4861FR3068E	Clamp
F462	4861FR3068A	Clamp
F463	4860FR3092D	Clamp
F464	4860FR3092C	Clamp
-----	4769ER4002A	Mushroom valve (fill tube) (not pictured)
F465	4860FR3092D	Clamp
-----	4769ER4001A	Mushroom valve (vent tube) (not pictured)

Loc #	Part No	Description
F466	-----	Clamp (local hardware item)
F467	4860FR3092C	Clamp
F468	-----	Clamp (local hardware item)
K105	3045ER0008N	Tub Assembly, Outer (Back half)
K110	3045ER1006E	Drum Assembly (Inner)
K111	4433ER1003A	Lifter Assembly (Baffle)
K115	4434ER0002A	Spider
K121	4280FR4048L	Bearing, Ball
K122	4280FR4048E	Bearing, Ball
K123	4040FR4051C	Main Bolt Assembly (1 required)
K125	4036ER2004A	Seal
K130	4866ER0007A	Balance Weight, Top (Gray)
K131	1SZZER4002A	Screw, Custom
K135	4866ER0004A	Balance Weight, Bottom (Black)
K140	3551ER0003R	Cover Assembly, Tub (Front half)
K141	4036ER4001B	Gasket (between the tub halves)
K143	4011FA4353B	Bolt, Stator (6 required)
K310	6322FR2046F	Thermistor, NTC
K311	4036FR4050A	Gasket
K320	5301FR1158J	Heater Assembly
K340	4681EA2001D	Drain Pump Motor Assembly, AC
K342	5214FR4006L	Hose, Connector
K344	3108ER1001B	Casing, Pump
K345	4681EA2001C	Recirculating pump (earlier models)
K346	383EER2001A	Parts Assembly
K350	4417FA1994G	Stator Assembly
K351	6501KW2002A	Sensor Assembly
K360	4413EA1002B	Rotor Assembly
K410	4970FR2084P	Spring, Hinge (2 required)
K411	4930FR3040A	Holder, Tub Support Spring (2 required)
K510	4986ER0004B	Gasket
K512	4932ER3007A	Recirculating pump shower head (earlier models)
K520	4738ER1002A	Bellows
K530	4861ER2001D	Clamp Assembly, Inner Gasket
K531	4861FR3068E	Clamp
K540	3504ER3002A	Chamber, Air
K550	5214FR4125N	Hose, Inlet
K610	383EER3001E	Damper Assembly (incl. pins) (3 required)
K611	4774FR3118B	Hinge pin (6 required)

Loc #	Part No	Description
-----	3W20018B	Wrench
-----	383EER4001A	Gasket Pliers, Outer (SPECIAL TOOL)
-----	383EER4003A	Damper Pliers (SPECIAL TOOL)
-----	383EER4004A	Gasket Pliers, Inner (SPECIAL TOOL)
-----	5241FR3018D	Drain Hose Extension (5 FEET)
-----	4769ER4002A	Mushroom valve (fill tube) (not pictured)
-----	4769ER4001A	Mushroom valve (vent tube) (not pictured)

Special tool set for front-loader washers. The putty knife is used only on models with the controls on the top at the back of the machine.

The stamped wrench is included with the washer.



SERVICE BULLETINS

LG issues service bulletins as products are improved and for many other reasons. The bulletins available at the time this manual was printed are included. Updated materials, including this training manual, service manuals, owner's manuals, specifications, and other items are available online at LG's GCSC (Global Cyber Service Center) and via LGCSAcademy. We suggest you check for bulletins before servicing a product to get all the latest information.

These bulletins are of particular significance in that they cross-reference parts that are used in one version or the other. For instance, control panel is different. Although it may appear identical, the options have changed. Similarly, the main board has changed to accommodate these options. The pump housing is different because the older version has a pump on each side and these pumps were not identical. The newer version has no recirculation pump. The pump housings cannot be modified to fit another application.

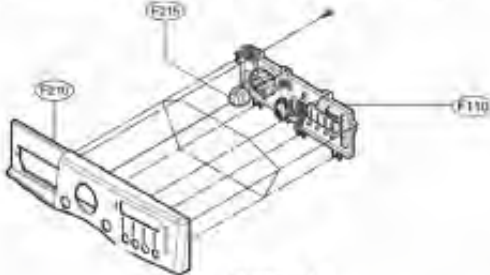
SERVICE BULLETIN

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WASHER

LG Electronics Inc.

Date of issue: 25 August 2006

Buyer Model: WM2277H*																																															
LGE Model: WD-1227*BD																																															
Buyer Name: EUS	Effective Date: 24 August 2006																																														
Applicable Serial No: 608KW##00001																																															
SUBJECT: Panel Assembly, Control and PCB Assembly, Display																																															
PHENOMENON	TUB CLEAN, SPINSENSE™, and WATER PLUS are options that have been added to WM2277H* washers manufactured after August 1, 2006 (Serial numbers 608KW##00001 and higher).																																														
 <p>Figure 1</p>																																															
<table border="1"> <thead> <tr> <th rowspan="2">Loc.</th> <th rowspan="2">DESC</th> <th colspan="2">WM2277HW</th> <th colspan="2">WM2277HB</th> <th colspan="2">WM2277HS</th> </tr> <tr> <th>Before_P/No.</th> <th>After_P/No.</th> <th>Before_P/No.</th> <th>After_P/No.</th> <th>Before_P/No.</th> <th>After_P/No.</th> </tr> </thead> <tbody> <tr> <td></td> <td>Panel Assembly,Control</td> <td>3721ER1127A</td> <td>3721ER1127Z</td> <td>3721ER1127G</td> <td>AGL31037801</td> <td>3721ER1127N</td> <td>AGL31037802</td> </tr> <tr> <td>F110</td> <td>PCB Assembly,Display</td> <td>6871BC1116A</td> <td>6871ER2075A</td> <td>6871BC1116A</td> <td>6871ER2075A</td> <td>6871BC1116A</td> <td>6871ER2075A</td> </tr> <tr> <td>F210</td> <td>Panel Assembly,Control</td> <td>4GL30906702</td> <td>4GL30906701</td> <td>4GL30906704</td> <td>4GL30906706</td> <td>4GL30906705</td> <td>4GL30906707</td> </tr> <tr> <td>F215</td> <td>Knob Assembly</td> <td>4941ER3002A</td> <td>4941ER3002A</td> <td>4941ER3002A</td> <td>4941ER3002A</td> <td>4941ER3002A</td> <td>4941ER3002A</td> </tr> </tbody> </table> <p>Table 1</p> <p>(See the next page for pictures of the old and new control panels.)</p>		Loc.	DESC	WM2277HW		WM2277HB		WM2277HS		Before_P/No.	After_P/No.	Before_P/No.	After_P/No.	Before_P/No.	After_P/No.		Panel Assembly,Control	3721ER1127A	3721ER1127Z	3721ER1127G	AGL31037801	3721ER1127N	AGL31037802	F110	PCB Assembly,Display	6871BC1116A	6871ER2075A	6871BC1116A	6871ER2075A	6871BC1116A	6871ER2075A	F210	Panel Assembly,Control	4GL30906702	4GL30906701	4GL30906704	4GL30906706	4GL30906705	4GL30906707	F215	Knob Assembly	4941ER3002A	4941ER3002A	4941ER3002A	4941ER3002A	4941ER3002A	4941ER3002A
Loc.	DESC			WM2277HW		WM2277HB		WM2277HS																																							
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F110	PCB Assembly,Display	6871BC1116A	6871ER2075A	6871BC1116A	6871ER2075A	6871BC1116A	6871ER2075A																																								
F210	Panel Assembly,Control	4GL30906702	4GL30906701	4GL30906704	4GL30906706	4GL30906705	4GL30906707																																								
F215	Knob Assembly	4941ER3002A	4941ER3002A	4941ER3002A	4941ER3002A	4941ER3002A	4941ER3002A																																								

* Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
	B	Old parts can be substituted for new : Old parts can be used in products regardless of manufacture date, New parts can be used in new products only.	2	To improve productivity
	C	New parts can be substituted for old parts : Only new parts can be used in products regardless of manufacture date.	3	To improve reliability
D	Not interchangeable : New parts can be used in new products only.	4	Change of material or dimension	
		5	Addition	
		6	Deletion	
		7	Correction	

Hyojin Kim
Research Engineer
Washing Machine Lab
LG Electronics EMC

SERVICE BULLETIN

WASHER

LG Electronics Inc.

Date of issue: 25 August 2006

PHENOMENON TUB CLEAN, SPINSENSE™, and WATER PLUS are options that have been added to WM2277H* washers manufactured after August 1, 2006 (Serial numbers 608KW##00001 and higher).

SOLUTION :

When replacing Panel Assembly, Control (F210) and PCB Assembly, Display (F110) on WM2277H* models, be sure to order the correct part number (see Table 1, page 1). Do not interchange the control panels.



Applied Model	LG Model	Suffix	Buyer Model	Applied Serial No.
Mayflower Plus_Better	WD-1227*BD	A**EEUS	WM2277H*	608KW # #00001~

Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
	B	Old parts can be substituted for new : Old parts can be used in products regardless of manufacture date. New parts can be used in new products only.	2	To improve productivity
	C	New parts can be substituted for old parts : Only new parts can be used in products regardless of manufacture date.	3	To improve reliability
		4	Change of material or dimension	
		5	Addition	
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		7	Correction	
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Hyojin Kim
Research Engineer
Washing Machine Lab
LG Electronics DAC

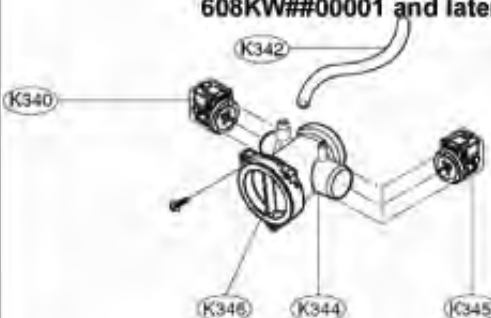
SERVICE BULLETIN

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WASHER

LG Electronics Inc.

Date of issue: 25 August 2006

Buyer Model : WM2277H*																																
LGE Model: WD-1227*BD																																
Buyer Name: EUS			Effective Date: 24 August 2006																													
Applicable Serial No: 608KW##00001																																
SUBJECT: Pump Assembly, Drain																																
PHENOMENON The circulation function has been removed from model WM2277H*, so the Drain Pump Assembly is different on machines with Serial No. 608KW##00001 and later.																																
		<table border="1"> <thead> <tr> <th>Loc.</th> <th>DESC</th> <th>Before P/No.</th> <th>After P/No.</th> </tr> </thead> <tbody> <tr> <td></td> <td>Pump Assembly,Drain</td> <td>5859ER1002B</td> <td>5859ER1002C</td> </tr> <tr> <td>K340</td> <td>Motor Assembly,AC</td> <td>4681EA2001D</td> <td>4681EA2001D</td> </tr> <tr> <td>K342</td> <td>Hose,Connector</td> <td>5214FR4006L</td> <td>5214FR4006L</td> </tr> <tr> <td>K344</td> <td>Casing,Pump</td> <td>3108ER1001A</td> <td>3108ER3001B</td> </tr> <tr> <td>K345</td> <td>Motor Assembly,AC</td> <td>4681EA2001C</td> <td>none</td> </tr> <tr> <td>K346</td> <td>Filter</td> <td>5230ER3002A</td> <td>5230ER3002A</td> </tr> </tbody> </table>			Loc.	DESC	Before P/No.	After P/No.		Pump Assembly,Drain	5859ER1002B	5859ER1002C	K340	Motor Assembly,AC	4681EA2001D	4681EA2001D	K342	Hose,Connector	5214FR4006L	5214FR4006L	K344	Casing,Pump	3108ER1001A	3108ER3001B	K345	Motor Assembly,AC	4681EA2001C	none	K346	Filter	5230ER3002A	5230ER3002A
Loc.	DESC	Before P/No.	After P/No.																													
	Pump Assembly,Drain	5859ER1002B	5859ER1002C																													
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K345	Motor Assembly,AC	4681EA2001C	none																													
K346	Filter	5230ER3002A	5230ER3002A																													
Figure 1.		Table 1.																														
SOLUTION :																																
When replacing Pump Assembly, Drain, on washing machines with Serial No. 608KW##00001 and later, use pump 5859ER1002C, not 5859ER1002B. See Table 1, above for component part numbers.																																
Applied Model																																
	LG Model	Suffix	Buyer Model	Applied Serial No.																												
Mayflower Plus_Better	WD-1227*BD	A**EEUS	WM2277H*	608KW # #00001~																												

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
	B	Old parts can be substituted for new : Old parts can be used in products regardless of manufacture date. New parts can be used in new products only.	2	To improve productivity
	C	New parts can be substituted for old parts : Only new parts can be used in products regardless of manufacture date.	3	To improve reliability
D	Not interchangeable : New parts can be used in new products only.	4	Change of material or dimension	
		5	Addition	
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		7	Correction	

Hyojin Kim
Research Engineer
Washing Machine Lab
LG Electronics DAC

SERVICE BULLETIN

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WASHER

LG Electronics Inc.

Date of issue: 25 August 2006

Buyer Model: WM2277H*																	
LGE Model: WD-1227*BD																	
Buyer Name: EUS	Effective Date: 24 August 2006																
Applicable Serial No: 608KW##00001																	
SUBJECT: Safety Cover, PCB Assembly, Main																	
PHENOMENON	The Main PCB (A450) and Safety Cover (A455) have been changed on model WM2277H*, on units with serial number 608KWxx00001 and later. Old and new parts are <u>not interchangeable</u> .																
<p>Fig. 1</p>																	
<table border="1"> <thead> <tr> <th>Loc.</th> <th>DESC</th> <th>Before_P/No.</th> <th>After_P/No.</th> </tr> </thead> <tbody> <tr> <td></td> <td>PCB Assembly,Main</td> <td>6871ER1052C</td> <td>6871ER1075J</td> </tr> <tr> <td>A450</td> <td>PCB Assembly,Main</td> <td>6871ER1003C</td> <td>6871ER1078Y</td> </tr> <tr> <td>A455</td> <td>Cover,Protect</td> <td>3550ER1020A</td> <td>3550ER1032A</td> </tr> </tbody> </table> <p>Table 1</p>		Loc.	DESC	Before_P/No.	After_P/No.		PCB Assembly,Main	6871ER1052C	6871ER1075J	A450	PCB Assembly,Main	6871ER1003C	6871ER1078Y	A455	Cover,Protect	3550ER1020A	3550ER1032A
Loc.	DESC	Before_P/No.	After_P/No.														
	PCB Assembly,Main	6871ER1052C	6871ER1075J														
A450	PCB Assembly,Main	6871ER1003C	6871ER1078Y														
A455	Cover,Protect	3550ER1020A	3550ER1032A														
SOLUTION :																	
When replacing the Main PCB and Safety Cover on washing machine (Serial No. 608KW##00001 and later), refer to Table 1 above to order the correct parts.																	

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable: Old and new parts can be used in products as the bulletin, regardless of manufacturing date.	1	To improve performance
	B	Old parts can be substituted for new: Old parts can be used in products regardless of manufacture date. New parts can be used in new products only.	2	To improve productivity
	C	New parts can be substituted for old parts: Only new parts can be used in products regardless of manufacture date.	3	To improve reliability
D	Not interchangeable: New parts can be used in new products only.	4	Change of material or dimension	
		5	Addition	
		6	Deletion	
		7	Correction	

Hyojin Kim
Research Engineer
Washing Machine Lab
LG Electronics DAC

SERVICE BULLETIN

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WASHER

LG Electronics Inc.

Date of issue: 25. August, 2006

Applied Model				
	LG Model	Suffix	Buyer Model	Applied Serial No.
Mayflower Plus_Better	WD-1227*BD	A**EEUS	WM2277H*	608KW # #00001~

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin, regardless of manufacturing date.	1	To improve performance
	B	Old parts can be substituted for new : Old parts can be used in products regardless of manufacture date. New parts can be used in new products only.	2	To improve productivity
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		4	Change of material or dimension	
		5	Addition	
		6	Deletion	
	Not interchangeable : New parts can be used in new products only.	7	Correction	

Hyojin Kim
Research Engineer
Washing Machine Lab
LG Electronics DAC

SERVICE BULLETIN

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WASHER

LG Electronics Inc.

Date of issue: 26 August 2006

Buyer Model: WM2277H*	
LGE Model: WD-1227*BD	
Buyer Name: EUS, ECI	Effective Date: 26 August 2006
Applicable Serial No: 608KW##00001	
SUBJECT: Tub Assembly, Drum	

PHENOMENON

WM2277H* now has no circulation function and the capacity (3.72 cu. ft. *iec*) is increased to 3.83 cu. ft. *iec*. Components of the Tub Assembly that were changed, effective with the production of Serial No. 608KW##00001, are shown below.

Note that old and new parts are not interchangeable.

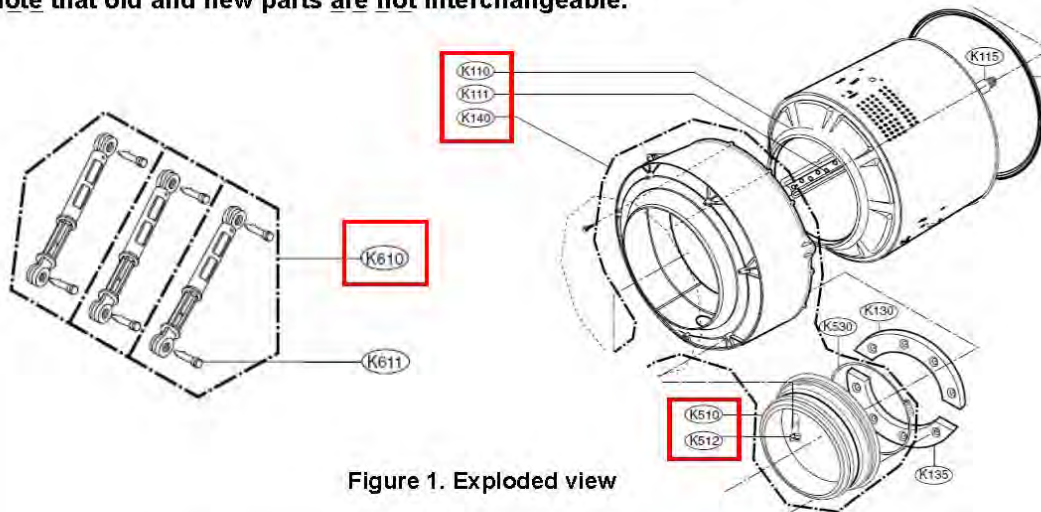


Figure 1. Exploded view

Loc.	DESC	WM2277H*	
		Before P/No.	After P/No.
	Tub Assembly,Drum	3045ER0044M	3045ER0049D
K140	Tub Assembly,Outer	3045ER0008F	3045ER0008N
K110	Tub Assembly,Drum (Inner)	3045ER1005A	3045ER1005B
K111	Lifter Assembly	4433ER1001A	4433ER1003A
K510	Gasket	4986ER0004A	4986ER0004B
K610	Damper Assembly,Friction	4901ER2002B	4901ER2003B
K512	Nozzle	4932ER4002A	none

Table 1. List of changed parts

SERVICE BULLETIN

WASHER

LG Electronics Inc.

Date of issue: 25 August 2006

PHENOMENON				
SOLUTION:				
When replacing an Outer Tub Assembly (K140), Inner Tub Assembly (K110), Lifter Assembly (K111), Gasket (K510) and/or Friction Damper Assembly (K610) on washing machines with Serial No. 608KW##00001 or newer, refer to the Parts List in Table 1, on page 1. Never interchange <i>before</i> and <i>after</i> parts.				
Applied Model				
	LG Model	Suffix	Buyer Model	Applied Serial No.
Mayflower Plus_Better	WD-1227*BD	A**EEUS	WM2277H*	608KW # #00001~

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable: Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
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		4	Change of material or dimension	
		5	Addition	
		6	Deletion	
D	Not interchangeable: New parts can be used in new products only.	7	Correction	

Dongmin Kim
 Research Engineer
 Washing Machine Lab
 LG Electronics DAC


SERVICE BULLETIN

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WASHER

LG Electronics Inc.

Date of issue: 25. AUG. 2006

Buyer Model : WM2277H*			
LGE Model : WD-1227*BD			
Buyer Name : EUS, ECI		Effective Date : . AUG. 2006	
Applicable Serial No. : 608KW##00001~			
SUBJECT : Harness, PWB			
PHENOMENON Not interchangeable between 6850EC2001D and 6850ER2003B			
			
		WM2277H*	
Loc.	DESC	Before_P/No.	After_P/No.
F120	Harness, PWB	4901ER2002B	4901ER2003B
<p>SOLUTION :</p> <ol style="list-style-type: none"> 1. You can lot out new model by LG Model and manufacturing date. 2. When replacing Multi Harness of New Model, you must use the P/No. 6877ER1023C, not 6877ER1044G. 			

*Interchangeability Code	Alphabetic Code	Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1
B	Old parts can be substituted for new : Old parts can be used in products regardless of manufacture date. New parts can be used in new products only.	2	To improve productivity
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		5	Addition
		6	Deletion
		7	Correction

Dongmin Kim
Research Engineer
Washing Machine Lab
LG Electronics DAC

SERVICE BULLETIN

WASHER

LG Electronics Inc.

Date of issue: 25. August. 2006

Applied Model				
	LG Model	Suffix	Buyer Model	Applied Serial No.
Mayflower Plus_Better	WD-1227*BD	A**EEUS	WM2277H*	608KW # #00001~

Buyer Model	LG Model	Suffix	
WM2277HW	WD-11270BD	ABWEEUS	ABWEECI
WM2277HB	WD-11275BD	ABPEEUS	ABPEECI
WM2277HS	WD-11276BD	ATTEEUS	-

➔ New Model Change

Buyer Model	LG Model	Suffix	
WM2277HW	WD-12272BD	ABWEEUS	ABWEECI
WM2277HB	WD-12275BD	ABPEEUS	-
WM2277HS	WD-12276BD	ATTEEUS	ATTEECI

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
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D	Not interchangeable : New parts can be used in new products only	4	Change of material or dimension	
		5	Addition	
		6	Deletion	
		7	Correction	

Dongmin Kim
 Research Engineer
 Washing Machine Lab
 LG Electronics DAC


SERVICE BULLETIN

Page:1/2

WASHER

LG Electronics Inc.

Date of issue: 25 AUG. 2006

Buyer Model: WM2277H*											
LGE Model: WD-1227*BD											
Buyer Name: EUS, ECI	Effective Date: August, 2006										
Applicable Serial No: 608KW##00001											
SUBJECT: Cable, Flat											
PHENOMENON	Flat cables 6850EC2001D and 6850ER2003B are not interchangeable.										
											
<table border="1"> <thead> <tr> <th rowspan="2">Loc.</th> <th rowspan="2">Description</th> <th colspan="2">WM2277H*</th> </tr> <tr> <th>Before P/No.</th> <th>After P/No.</th> </tr> </thead> <tbody> <tr> <td>F130</td> <td>Cable, Flat</td> <td>6850EC2001D</td> <td>6850ER2003B</td> </tr> </tbody> </table>		Loc.	Description	WM2277H*		Before P/No.	After P/No.	F130	Cable, Flat	6850EC2001D	6850ER2003B
Loc.	Description			WM2277H*							
		Before P/No.	After P/No.								
F130	Cable, Flat	6850EC2001D	6850ER2003B								
<p>SOLUTION:</p> <ol style="list-style-type: none"> To determine if a washer is a new or old model, check the LG (factory) model number (see chart on next page) and the manufacturing date (The first 3 digits of the serial no. indicate year and month – 608xxxxx = 2006, August). When replacing the flat cable of a new model, you must use Part No. 6850ER2003B, not 6850EC2001D. 											

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
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		7	Correction	

Dongmin Kim
Research Engineer
Washing Machine Lab
LG Electronics DAC

SERVICE BULLETIN

WASHER

LG Electronics Inc.

Date of issue: 25 August 2006

Applied Model				
	LG Model	Suffix	Buyer Model	Applied Serial No.
Mayflower Plus_Better	WD-1227*BD	A**EEUS	WM2277H*	608KW # #00001~

Sales Model	LG Model	Suffix	
WM2277HW	WD-11270BD	ABWEEUS	ABWEECI
WM2277HB	WD-11275BD	ABPEEUS	ABPEECI
WM2277HS	WD-11276BD	ATTEEUS	-

➔ New Model Change

Sales Model	LG Model	Suffix	
WM2277HW	WD-12272BD	ABWEEUS	ABWEECI
WM2277HB	WD-12275BD	ABPEEUS	-
WM2277HS	WD-12276BD	ATTEEUS	ATTEECI

*Interchangeability Code	Alphabetic Code		Numeral Code	
	A	Interchangeable : Old and new parts can be used in products as the bulletin regardless of manufacturing date.	1	To improve performance
	B	Old parts can be substituted for new : Old parts can be used in products regardless of manufacture date. New parts can be used in new products only.	2	To improve productivity
	C	New parts can be substituted for old parts : Only new parts can be used in products regardless of manufacture date.	3	To improve reliability
D	Not interchangeable : New parts can be used in new products only	4	Change of material or dimension	
		5	Addition	
		6	Deletion	
		7	Correction	

Dongmin Kim
 Research Engineer
 Washing Machine Lab
 LG Electronics DAC

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