

WT5101HVA/HWA

5.0 cu.ft. Ultra Large Capacity Washer

Available Colors : Graphite Steel (V) , White (W)



NEW FEATURES :

ColdWash™ Option:

“Cold water savings with warm water performance.”

LG's unique ColdWash™ feature saves 60% on energy by providing the cleaning performance of hot water even when using cold water.

WaveForce™ Technology:

LG's WaveForce™ Wash System is gentle on fabrics while providing enhanced washing performance.

SmartRinse™ Jet Spray System :

LG's SmartRinse™ Jet Spray System provides better rinsing performance with better water efficiency.

SlamProof™ Lid:

LG's SlamProof™ lid on the new high efficiency top load washer offers a safe, convenient, and quiet washer lid.

Sanitary Cycle:

NSF-certified Sanitary Cycle removes even the toughest stains and bacteria.

Model Number



Located on Console Rear Panel



Tech Sheet (Wiring Diagram)

Remove Rear Console Panel



This is the WIRING DIAGRAM ONLY

WT5101** Wiring Diagram

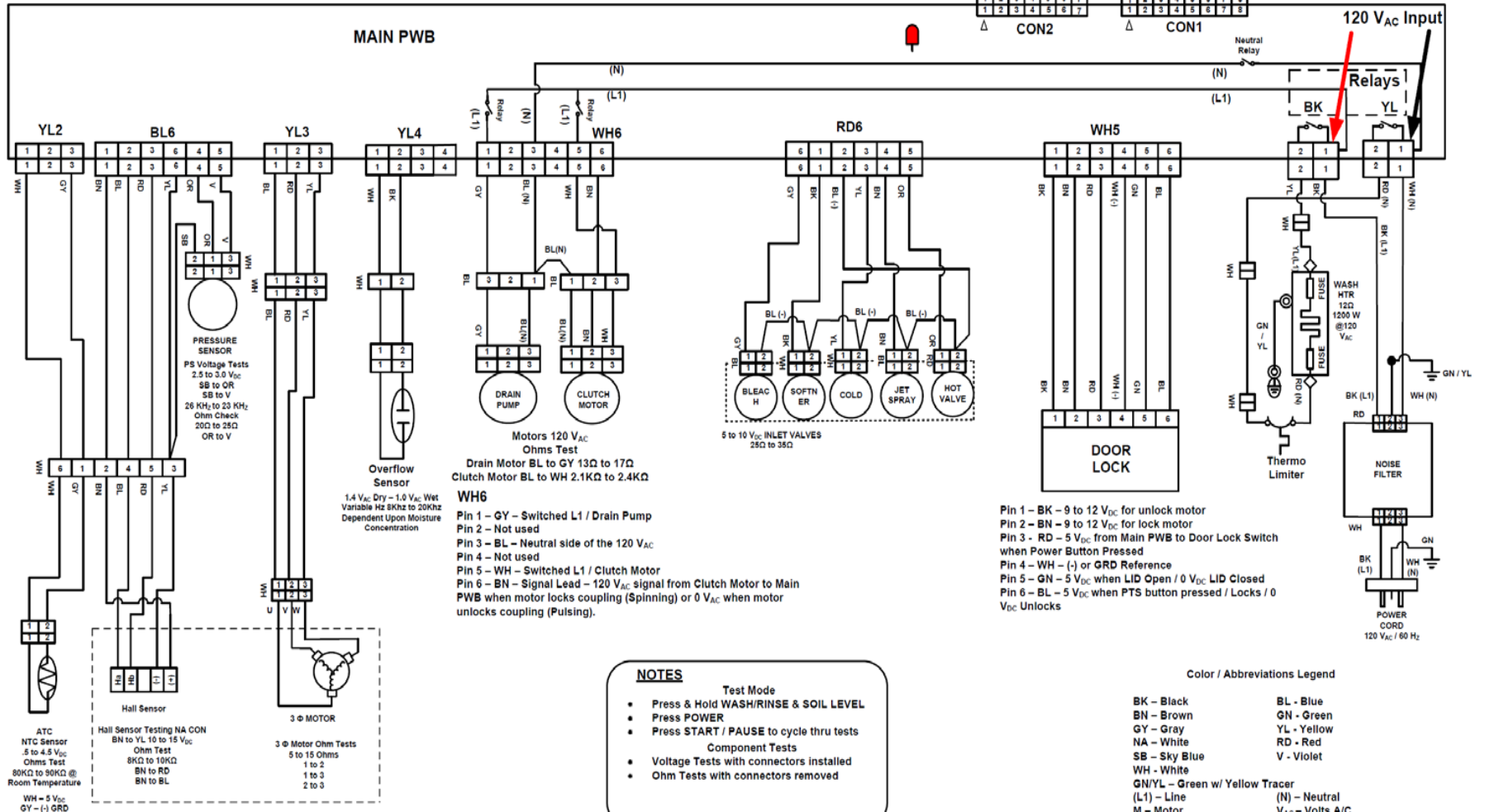
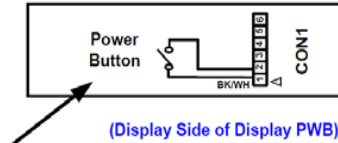
CON 2 Main PWB

5 V_{DC} – Pin 1 to Pins 4, 6, & 7 / Regulated Power
12 V_{DC} – Pin 1 to Pin 5 / Power ON / RED LED ON
2 V_{DC} – Pin 1 to Pin 2 / Power ON / 730Hz to 900Hz

CON 1 Main PWB

2.5 V_{DC} – Pin 1 to Pins 8, 5, & 4
1.8 V_{DC} – Pin 1 to Pin 3
1.3 V_{DC} – Pin 1 to Pin 2

Display Board Power Button is a Normally Open (N.O.) Switch. Test with Ohm meter leads from Pins 1 to 2 in CON1. Press Button and continuity should be seen!



NOTES

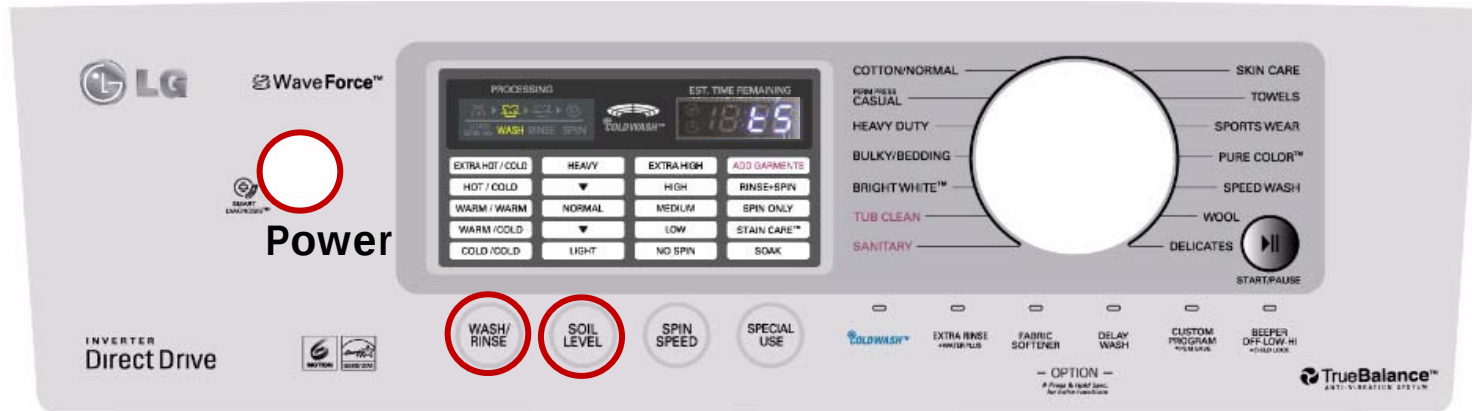
- Test Mode
- Press & Hold WASH/RINSE & SOIL LEVEL
- Press POWER
- Press START / PAUSE to cycle thru tests
- Component Tests
- Voltage Tests with connectors installed
- Ohm Tests with connectors removed

Specifications

Model WT5101H*, WT5001C*	
Description	Top-Loading Washer
Rated Voltage/Frequency	120V AC, 60Hz
Water Pressure	14.5~116 PSI (100~800 kPa)
Dimensions	27"(W) X 28 ³ / ₈ "(D) X 45 ³ / ₈ "(H), 55 ³ / ₄ "(H with lid open) 68.6 cm (W) X 72.1 cm (D) X 115.3 cm (H), 141.7 cm (H with lid open)
Net Weight	145.5 lbs. (66 kg)
Max. Spin Speed	1,100 RPM

Approx. 24 Gallons per Max. Fill 23.3 Frequency 33 Display

How to DEMO WaveForce™ Technology



Operation Key	How to
Power + Wash/ Rinse Temp + soil Level	Press Power + Wash/ Rinse Temp + Soil Level ; you will see t1 on the display. Press Start/pause until you see t5 on the display. •t5 = weighing/distributing •t7 = motion (if there is an LG towel inside, see demo movement) •t8 = Shows RPM ramping to 1100 (add a 0). Tip: add a balloon with an LG towel to show “powerful yet gentle.”

HIDDEN FEATURE

PRESS SOIL LEVEL & CUSTOM = RPMs



Program Chart

CYCLE GUIDE

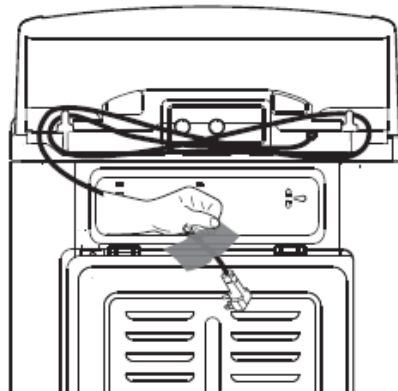
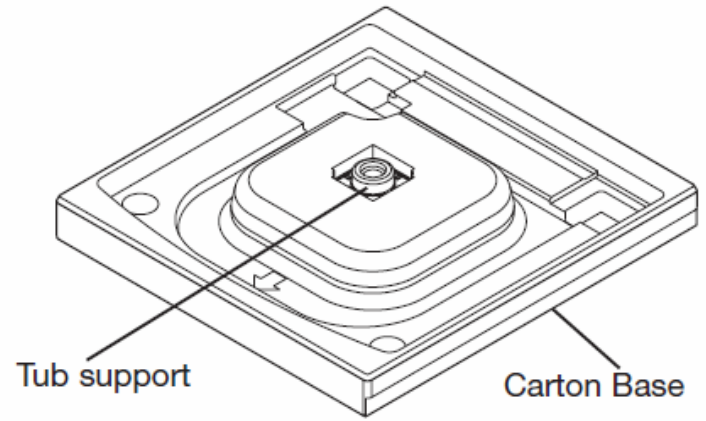
The cycle guide below shows the options and recommended fabric types for each cycle.

■ = Default setting

Cycle	Fabric Type	Wash/Rinse	Soil Level	Spin Speed	Stain Care™	Cold Wash™	Extra Rinse	Fabric Softener	Delay Wash
Sanitary	Heavily soiled underwear, work clothes, diapers, etc. (less than 11 lbs.)	Extra Hot/Cold	Heavy	High					
			Light Normal	Extra High No Spin Low Medium			●	●	●
Tub Clean	Refer to page 24.			High					●
Bright Whites™	White fabrics	Hot/Cold	Heavy	Medium					
		Warm/Cold	Light Normal	High Extra High No Spin Low			●	●	●
Bulky/Bedding	Large items such as blankets and comforters	Warm/Cold	Normal	Medium		●	●	●	●
		Warm/Warm Hot/Cold Cold/Cold	Heavy Light	High Extra High No Spin Low					
* Use the Bulky/Bedding cycle for items such as pillows, comforters and other articles which have difficulty absorbing water. ONLY WASH SMALL LOADS to make sure there is plenty of room for the load to move during washing. Keep like items together; do not mix large bulky items with smaller clothing items. Failure to follow these instructions may result in damage to the clothing or to the washer.									
Heavy Duty	Heavy soiled cotton fabrics	Warm/Cold	Heavy	High					
		Warm/Warm Hot/Cold Cold/Cold	Light Normal	Extra High No Spin Low Medium	●	●	●	●	●
Perm Press Casual	Dress shirts/pants, wrinkle-free clothing, poly/cotton blend clothing, tablecloths	Warm/Cold	Normal	Low					
		Warm/Warm Cold/Cold	Heavy Light	Medium High No Spin		●	●	●	●
Cotton/Normal	Cotton, linen, towels, shirts, sheets, jeans, mixed loads	Warm/Cold	Normal	High					
		Hot/Cold Cold/Cold	Heavy Light	Extra High No Spin Medium	●	●	●	●	●
Baby Wear	Small and lightly soiled loads, specially skin sensitive user.	Warm/Warm	Light	High					
		Hot/Cold Warm/Cold	Normal Heavy	Extra High No Spin Low Medium		●	●	●	●
Towels	Towels, shirts, sheets, jeans, mixed loads	Warm/Cold	Normal	High					
		Warm/Warm Hot/Cold Cold/Cold	Heavy Light	Extra High No Spin Low Medium	●	●	●	●	●
Sports Wear	Active sports, exercise clothing	Warm/Cold	Normal	Medium					
		Warm/Warm Cold/Cold	Heavy Light	High No Spin Low		●	●	●	●
Pure Color™	Lightly soiled and colored clothing	Cold/Cold	Normal	Medium					
		Warm/Cold Warm/Warm	Heavy Light	High Extra High No Spin Low		●	●	●	●
Speed Wash	Lightly soiled and small loads	Warm/Warm	Light	High					
		Cold/Cold Warm/Cold	Normal Heavy	Extra High No Spin Low Medium		●	●	●	●
Wool	Item labeled machine washable wool (less than 8 lbs.)	Warm/Cold	Light	Low					
		Cold/Cold	Normal Heavy	Medium No Spin		●	●	●	●
Delicates	Dress shirts/blouses, nylons, sheer or lacy garments (less than 8 lbs.)	Cold/Cold	Light	Low					
		Warm/Cold Warm/Warm	Normal Heavy	Medium No Spin		●	●	●	●

NOTE: To protect your garments, not every wash/rinse temperature, spin speed, soil level, or option is available with every cycle.

Installation

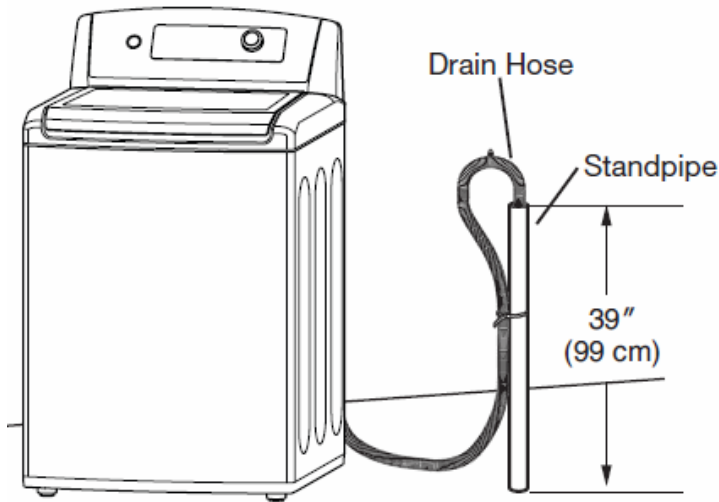


No Shipping Bolts

Installation

Caution:

Never Install or Store in Freezing Temperature
Plug Power Cord into PROPERLY GROUNDED OUTLET
Maximum Inlet Water Temp - 160°F
Water Pressure 14.5 – 116 PSI



NOTE: NO Anti Siphon Device

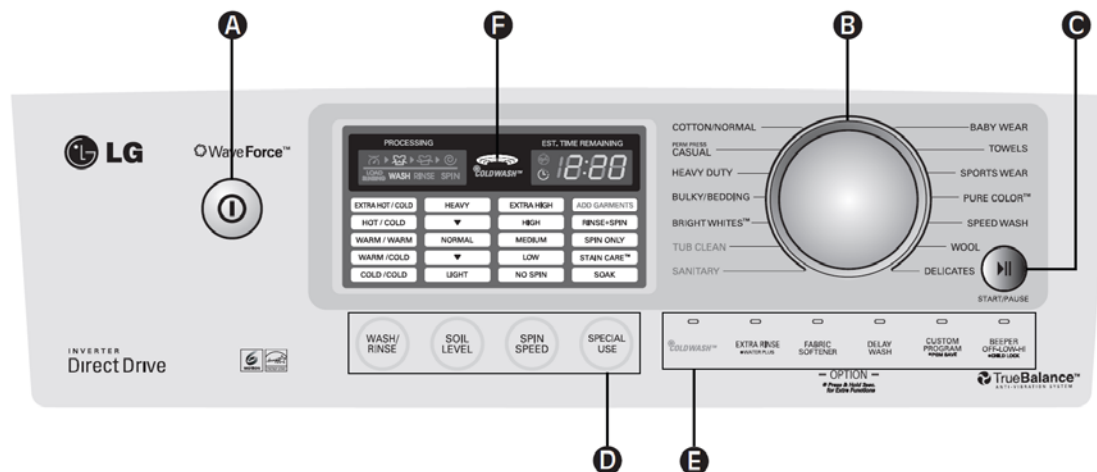
Rear Self Leveling Legs



Owner's Manual

Info

CONTROL PANEL FEATURES



A POWER ON/OFF BUTTON

Press to turn the washer ON. Press again to turn the washer OFF.

NOTE: If the washer remains idle for 4 minutes after turning the washer off, the water in the tub will drain.

NOTE: An alarm will sound 1 minute prior to draining, and 'dr' will appear on the display. You may restart the washer at this time. However, once the washer initiates draining, all functions will be suspended, and 'dr' will be displayed until draining is complete.

B CYCLE SELECTOR KNOB

Turn this knob to select the desired cycle. Once the desired cycle has been selected, the standard presets will be shown in the display. These settings can be adjusted using the cycle setting buttons before starting the cycle.

C START/PAUSE BUTTON

Press this button to START the selected cycle. If the washer is running, use this button to PAUSE the cycle without losing the current settings.

NOTE: If you do not press the START/PAUSE button within 4 minutes of selecting a cycle, the washer automatically turns off.

NOTE: If the washer remains idle for 8 minutes after pausing the cycle, the water in the tub will drain.

D CYCLE MODIFIER BUTTONS

Use these buttons to select the desired cycle options for the selected cycle. Press the button for that setting until the indicator light for the desired value is lit.

E OPTION BUTTONS

The option buttons allow you to select additional cycle options and will light when selected. Certain buttons also allow you to activate special functions by pressing and holding the button for 3 seconds.

For detailed information about the individual options, please see the following pages.

F LED DISPLAY

The display shows the settings, estimated time remaining, options, and status messages for your washer. The display will remain on through the cycle.

Owner's Manual

Info

SELECTING DETERGENT

IMPORTANT: Your washing machine is designed for use with **only** High-Efficiency (HE) detergents, which contain suds-reducing agents. Always look for the HE symbol when purchasing detergent.

HE detergents produce fewer suds, dissolve more efficiently to improve washing and rinsing performance, and help to keep the interior of your washer clean.

Using a regular detergent may cause over sudsing and unsatisfactory performance and could damage the machine or cause expensive maintenance issues.

IMPORTANT: Do not place or store laundry products, such as detergent, bleach, or liquid fabric softener, on top of your washer or dryer. Wipe up any spills immediately. These products can damage the finish and controls.



Designed especially to use only HE (High-Efficiency) detergent

ABOUT THE DISPENSER

The automatic dispenser consists of two compartments which hold:

- Liquid fabric softener.
- Liquid or powdered detergent.

All laundry products can be added at once in their respective dispenser compartments. They will be dispensed at the appropriate time for the most effective cleaning.

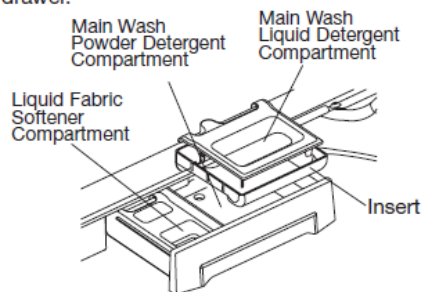
After adding the laundry products to the dispenser, close the dispenser drawer.

To add detergent, and fabric softener to the automatic dispenser:

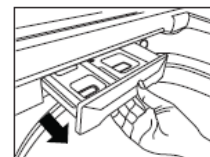
- 1 Open the dispenser drawer.
- 2 Load the laundry products into the appropriate compartments.
- 3 Close the drawer slowly and smoothly to avoid spilling, splashing or premature dispensing of the contents.

NOTE: It is normal for a small amount of water to remain in the dispenser compartments at the end of the cycle.

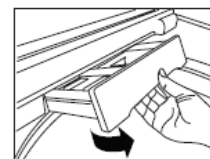
NOTE: Do not use bleach in the dispenser drawer.



Removing the dispenser drawer

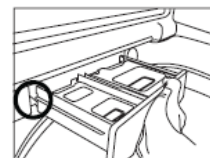


- 1 Pull the dispenser drawer.

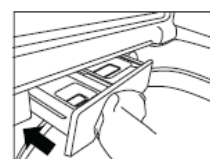


- 2 Tilt the dispenser drawer upward and remove it.

Replacing the dispenser drawer



- 1 Place rail 2 (dispenser drawer rail) on top of rail 1.



- 2 Push the dispenser drawer firmly.

NOTE: Be careful not to pinch your finger.

NOTE: Hot & Cold solenoids energized for Fabric Softener

Owner's Manual

Info

LOADING THE DISPENSER

Using the Liquid Bleach Dispenser

The bleach dispenser automatically dilutes and dispenses liquid chlorine bleach at the proper time in the wash cycle.



- 1 Check clothing care labels for special instructions.
- 2 Measure liquid bleach carefully, following instructions on the bottle.
 - Never pour undiluted liquid chlorine bleach directly onto clothes or into the wash basket.
 - Do not pour powdered bleach into bleach dispenser. Do not place load items on top of the bleach dispenser when loading and unloading the washer.
 - Avoid overfilling or splashing when adding bleach to the dispenser. The maximum capacity of the bleach dispenser is one cup of bleach per wash cycle. Overfilling could result in premature dispensing of bleach.
- 3 Before starting the washer, pour a pre-measured amount of bleach directly into bleach dispenser. If you prefer to use powdered bleach, add it into the wash basket directly before adding clothes.

NOTE: Please flush the bleach dispenser with water after bleach use and then rinse out the residue by use of Rinse & Spin cycle.

⚠ WARNING: Do NOT mix chlorine bleach with ammonia or acids, such as vinegar or rust / scale remover.

Mixing chemicals like these can produce gas which may cause death.

Put the manufacturer's recommended amount of undiluted liquid chlorine bleach into the bleach dispenser. During the final portion of the wash cycle, two sequential flushes of the dispenser put all the bleach into the wash load and completely flush the dispenser to eliminate the carryover of bleach to a subsequent load. Any liquid remaining in the bleach dispenser at the end of the cycle is water, not bleach.

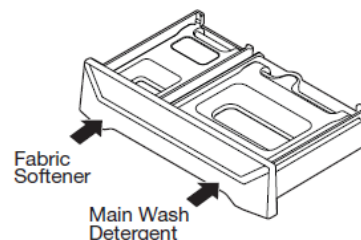
To prevent unintentional self-siphoning of the bleach, never fill the dispenser higher than the maximum fill level marked on the dispenser. When adding bleach to the dispenser, be careful to avoid spilling it into the laundry load or leaving droplets of bleach around the dispenser. These things will damage your laundry items.

Main Wash Detergent Compartment

This compartment holds laundry detergent for the main wash cycle, which is added to the load at the beginning of the cycle. Always use HE (High-Efficiency) detergent with your washing machine.

Never exceed the detergent manufacturer's recommendations when adding detergent. Using too much detergent can result in detergent buildup in clothing and the washer. Either powdered or liquid detergent may be used.

- When using liquid detergent, make sure the liquid detergent cup and insert are in place. Do not exceed the maximum fill line.
- When using powdered detergent, remove the insert and liquid detergent cup from the compartment. Powdered detergent will not dispense with the liquid detergent cup and insert in place.



Fabric Softener Compartment

This compartment holds liquid fabric softener, which will be automatically dispensed during the final rinse cycle.

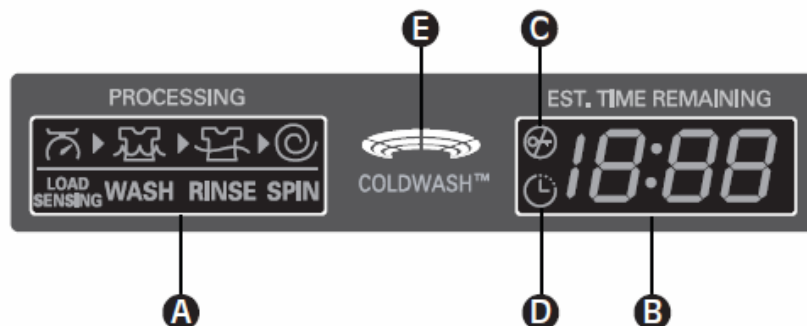
- Always follow the detergent manufacturer's recommendations when adding fabric softener. Do not exceed the maximum fill line. Using too much fabric softener may result in stained clothes.
- Dilute concentrated fabric softeners with warm water. Do not exceed the maximum fill line.
- Never pour fabric softener directly onto the load or into the drum.

Owner's Manual

Info

THE LED DISPLAY

The LED display shows the settings, estimated time remaining, options, and status messages for your washer. When the washer is turned on, the display will illuminate.



A CYCLE STATUS INDICATOR

This portion of the display shows which stage of the wash cycle is currently underway (LOAD SENSING, WASH, RINSE, or SPIN).

B ESTIMATED TIME REMAINING

When the START/PAUSE button is pressed, the washer automatically detects the wash load (weight) and optimizes the washing time based on the selected cycle and options. The display will then indicate the estimated time remaining for the selected wash cycle.

C LID LOCK INDICATOR

Indicates that the lid is locked. The washer lid will lock while the washer is operating. The lid can be unlocked by pressing the START/PAUSE button to stop the washer.

D DELAY WASH INDICATOR

This indicator shows that the washer has been set for DELAY WASH. The washer will start automatically after the set delay time has passed.

E COLDWASH™

This indicator turns on the light in eleven cycles. These cycles save energy by using cold water.

Owner's Manual

Info

CYCLE MODIFIER BUTTONS

Each cycle has preset settings that are selected automatically. You may also customize the settings using the cycle setting buttons. Press the button for that setting until the indicator light for the desired value is lit.

The washer automatically adjusts the water level for the type and size of wash load for best results and maximum efficiency. It may seem there is no water inside the tub in some cycles, but this is normal.

NOTE: To protect your garments, not every wash/rinse temperature, spin speed, soil level, or option is available with every cycle. A beeper will sound and the LED will not light if a selection is not allowed. See the Cycle Guide on page 15 for details.

WASH/RINSE



Adjust to select the proper water temperature for the wash cycle. It is composed of washing temperature/ rinsing temperature.

- Your washer features a heating element to boost the hot water temperature for Extra Hot/Cold or Hot/Cold settings.
- Select the water temperature suitable for the type of load you are washing. Follow the fabric care label for best results.
- Warm rinses leave the loads drier than cold rinses. Warm rinses can increase wrinkling.
- In cold climates, a warm rinse makes the load more comfortable to handle.
- Cold rinses use less energy.
- Use both hot and cold water supply for optimal results.

SOIL LEVEL



Adjusts the selected cycle to allow more faster agitation speed for heavily soiled clothes or less slower agitation speed for lightly soiled clothes during the wash and rinse course.

Press the SOIL LEVEL button until the indicator light for the desired setting is lit. You can choose between Light, Normal or Heavy soil.

- The light will not show on this figure (▼).

SPIN SPEED



The washer drum spins at up to 1,100 RPM. This reduces drying time and saves energy. Press the SPIN SPEED button until the indicator light for the desired setting is lit. You can change maximum spin speed of spin cycle. Some fabrics, such as delicates, require a slower spin speed.

- If you select NO SPIN, the washer turn off without spin cycle after draining. (The cycle time will be reduced by approximately 10 minutes.)

SPECIAL USE



Select any additional option, such as RINSE+SPIN, SPIN ONLY, STAIN CARE™ or SOAK

- If you press SPECIAL USE button without selecting a cycle, COTTON/NORMAL cycle with SOAK is automatically selected.

NOTE: If you press SPECIAL USE button 3 or 4 times, the cycle will reset to COTTON/NORMAL.

ADD GARMENTS

Laundry may be added to the load at the proper time in the wash cycle.

- ADD GARMENTS is automatically turned on and off. You can not select it by pressing SPECIAL USE button.
- If additional items are added during ADD GARMENTS light is off, it may cause unsatisfactory performance.

During ADD GARMENTS indicator light on.

- 1 Press START/PAUSE button to pause the washer.
- 2 Open the lid after unlocked.
- 3 Add your additional items.
- 4 Close the lid.
- 5 Press START/PAUSE button to resume the washer cycle. The washer will start automatically.

NOTE: If the washer remains idle for 8 minutes after pausing the cycle, the water in the tub will drain.

Owner's Manual

Info

› CYCLE MODIFIER BUTTONS (cont.)

RINSE + SPIN

Select this option to rinse and spin a load separately from a regular cycle. This can be helpful in preventing fresh stains from setting in fabrics.

- You can change rinse temperature and spin speed by pressing WASH/RINSE and SPIN SPEED respectively.

- ➊ Press the POWER button to turn on the washer.
- ➋ Press the SPECIAL USE button until the RINSE+SPIN indicator light is lit. (The cycle light will turn off.)
- ➌ Press the START/PAUSE button to start the cycle. The washer will start automatically.

SPIN ONLY

This button activates the Drain & Spin cycle to drain and spin.

- ➊ Press the Power button to turn on the washer.
- ➋ Press the SPECIAL USE button until the SPIN ONLY indicator light is lit.
- ➌ Press the START/PAUSE button to start the cycle. The washer will start automatically.

STAIN CARE™

STAIN CARE™ may be selected as an option with HEAVY DUTY, COTTON/NORMAL and TOWELS cycles.

- Wash only small loads for optimum fabric care. (less than 8 lbs.)

- ➊ Press the POWER button to turn on the washer.
- ➋ Press the SPECIAL USE button until the STAIN CARE™ indicator light is lit.
- ➌ Press the START/PAUSE button to start the cycle. The washer will start automatically.

NOTE: If you select STAIN CARE™, the COLDWASH™ option is not available.

SOAK

Allows the consumer to remove stains more thoroughly by specifying additional time for the clothing to soak during washing. At the end of SOAK, the wash cycle will be started without drain.

- Cycle time will be increased by 30 minutes.
- It is normal that washer do weak agitation during SOAK cycle.

NOTE: You cannot select the SOAK option in the TUB CLEAN cycle.

Owner's Manual

Info

NOTE:
COLDWASH is
TAP COLD

▶ CYCLE OPTION BUTTONS

Your washing machine features several additional cycle options to customize cycles to meet your individual needs. Certain option buttons also feature a special function that can be activated by pressing and holding that option button for 3 seconds.

NOTE: To protect your garments, not every wash/rinse temperature, spin speed, soil level, or option is available with every cycle. See the Cycle Guide for details.

EXTRA RINSE

EXTRA RINSE
●WATER PLUS

This option will add an extra rinse cycle to the selected cycle. Use this option to help ensure the removal of detergent or bleach residue from fabrics. Pressing the EXTRA RINSE button twice will add two additional rinses to the cycle.

- 1 Press the POWER button to turn on the washer.
- 2 Turn the cycle selector knob to select the desired cycle.
- 3 Press the CYCLE MODIFIER buttons to change the desired settings.
- 4 Press the EXTRA RINSE.
 - If you want to delete extra rinse, press the EXTRA RINSE three times.
- 5 Press the START/PAUSE button to start the cycle.

NOTE: You cannot select the EXTRA RINSE option while the spin cycle.

WATER PLUS

EXTRA RINSE
●WATER PLUS

Select this option to add extra water to the wash and rinse cycles for superior results, especially with large or bulky items.

Press and hold the EXTRA RINSE button for 3 seconds to activate or deactivate WATER PLUS.

- 1 Press the START/PAUSE button during wash or rinse cycle.(It is not available in spin cycle)
- 2 Press and hold the EXTRA RINSE.
- 3 Press the START/PAUSE button to start the cycle.
- 4 If you want to use additional water, repeat steps 1 through 3.

NOTE: If the machine reaches its maximum water level, the WATER PLUS button will have no effect.

NOTE: You cannot select the WATER PLUS option in the SANITARY, TUB CLEAN, and BULKY/BEDDING cycle.

COLDWASH™

COLDWASH™

Use this option to eliminate using the built-in water heater booster. For maximum efficiency, wash only small loads. (less than 8 lbs.)

NOTE: If you select STAIN CARE™, the COLDWASH™ option is not available.

- 1 Press the POWER button to turn on the washer.
- 2 Turn the cycle selector knob to select the cycle. (Refer to page 15.)
- 3 Press the COLDWASH™ button.
- 4 Press the START/PAUSE button to start the cycle. The washer will start automatically.

FABRIC SOFTENER

FABRIC
SOFTENER

The fabric softener is dispensed in the final rinse. Select FABRIC SOFTENER button to change final rinse type from spray rinse to deep rinse.

NOTE: LG recommends using FABRIC SOFTENER or EXTRA RINSE options when selecting the COTTON/NORMAL or HEAVY DUTY cycles.

NOTE: If you select EXTRA RINSE instead of FABRIC SOFTENER, the fabric softener will be dispensed during the extra rinse course.

DELAY WASH

DELAY
WASH

Once you have selected the cycle and other settings, press this button to delay the start of the wash cycle. Each press of the button increase the delay time, up to 19 hours.

Owner's Manual

Info

CYCLE OPTION BUTTONS (cont.)

CUSTOM PROGRAM

CUSTOM
PROGRAM
*PGM SAVE

CUSTOM PROGRAM allows you to store a customized wash cycle for future use. It allows you to save favorite temperature, spin speed, soil level, and other options for a cycle, and then recall them at the touch of a button.

NOTE: You may only save one custom program at a time. Pressing and holding the CUSTOM PROGRAM button will overwrite any previously saved custom program.

To save a custom program:

- 1 Press the POWER button to turn on the washer.
- 2 Turn the Cycle Selector Knob to select the desired cycle.
- 3 Press the Cycle Modifier button to change the desired setting.
- 4 Press the Cycle Option button to add the desired options.
- 5 Press and hold the CUSTOM PROGRAM button for 3 seconds.

To recall a custom program:

- 1 Press the POWER button to turn on the washer.
- 2 Press the CUSTOM PROGRAM button. The stored settings will be displayed.
- 3 Press the START/PAUSE button to start the cycle. (If you press any other button, CUSTOM PROGRAM is automatically deselected and indicator light off.)

BEEPER

BEEPER
OFF-LOW-HI
*CHILD LOCK

Adjusts the volume of the end-of-cycle beeper or turns it off.

Removing Console Rear Access Panel

3 Short Phillips Screws



2 Longer Phillips Screws

Popping the TOP



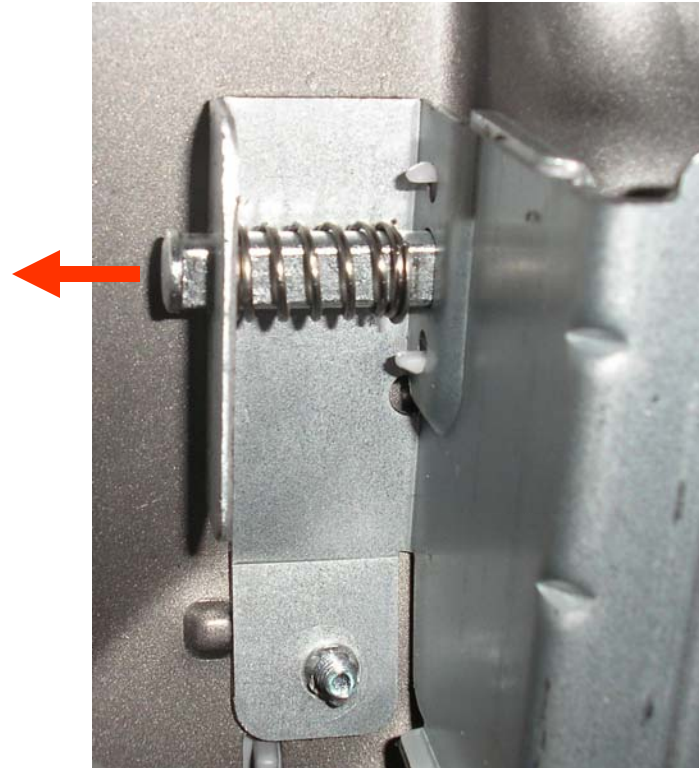
Insert Putty Knife between Top & Cabinet

Removing Lid Only



STRONGLY NOT RECOMMENDED UNLESS NECESSARY

Using putty knife Slide Pin to the Far Left



NOTE: Pin is Flat on two sides

When Pin is Depressed – Lid can be Lifted from Right Hinge



NOTE: Flat sides must align

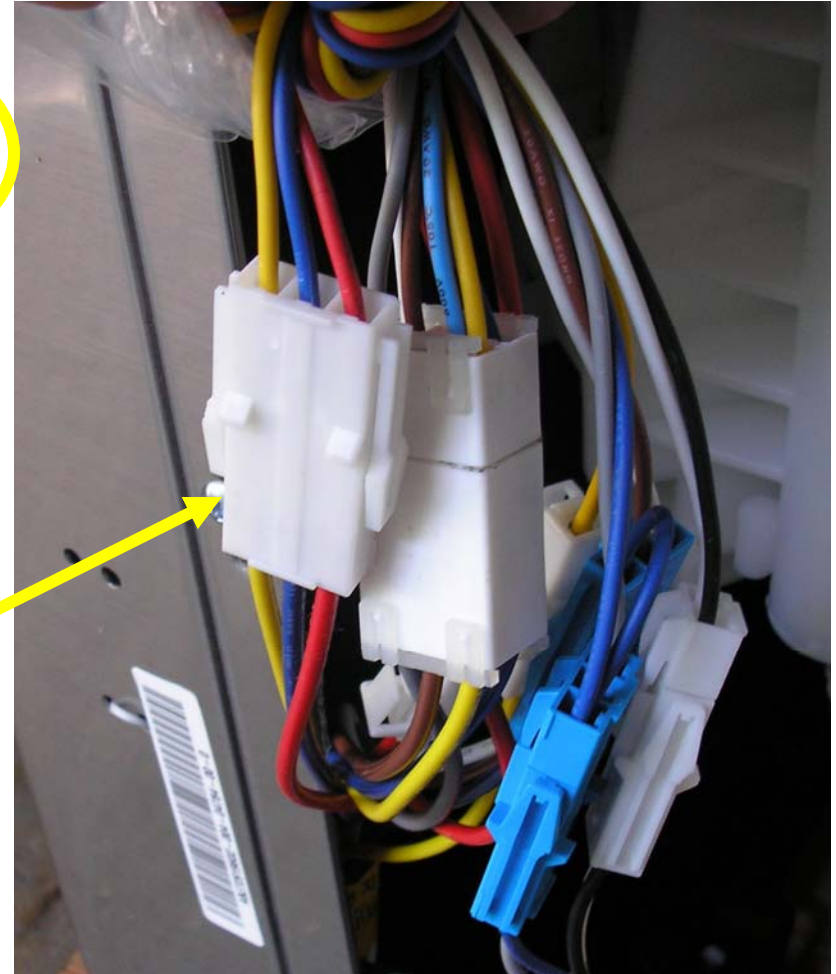
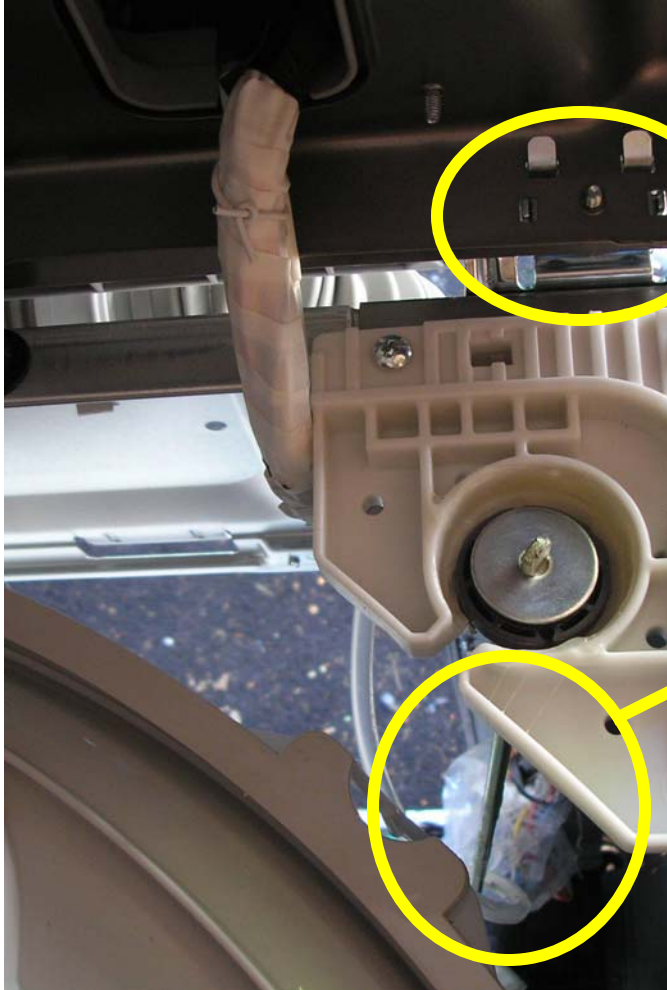
Rear Hinges



Do **NOT** Depend on Hinges to Support TOP

Removing the Top

Disconnect Osillator Air
Hose from Tub



Disconnect All Component Connectors

Now the TOP can be Totally Lifted OFF

No Lint Filter



Dispensers





Main Water Inlet (Detergent & Softener)



Dispensers

BLEACH - Front Left



Water is added near end of Wash Cycle
Bleach Inlet Water Solenoid BL – GY 10 VDC

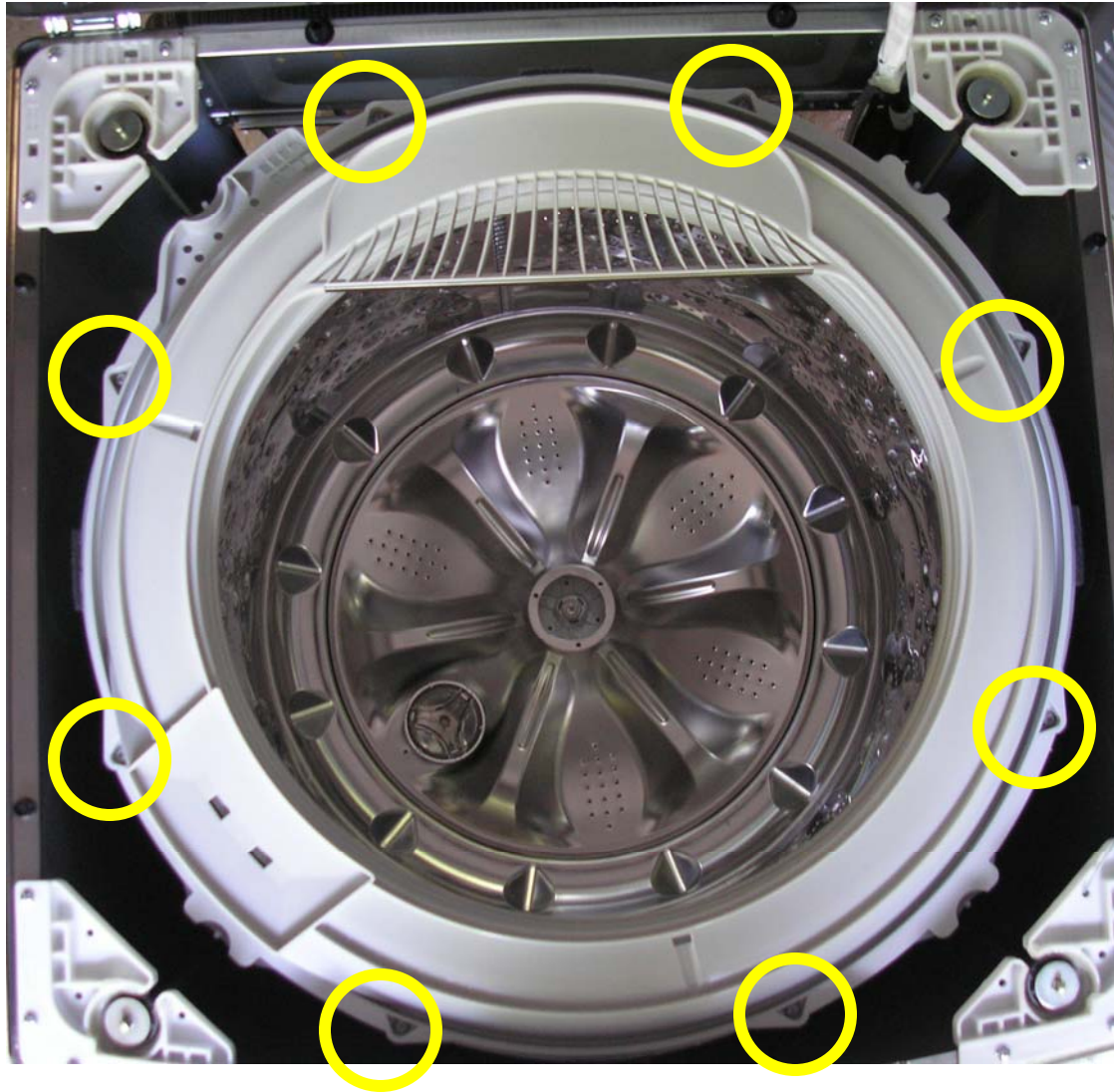
Removing Basket

Removing TUB RING

REMOVE

8

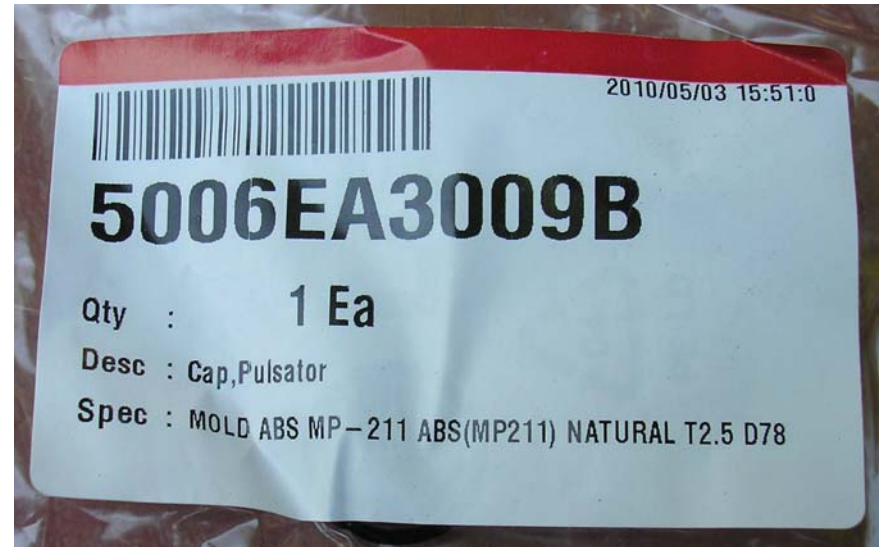
**Phillips
Screws**



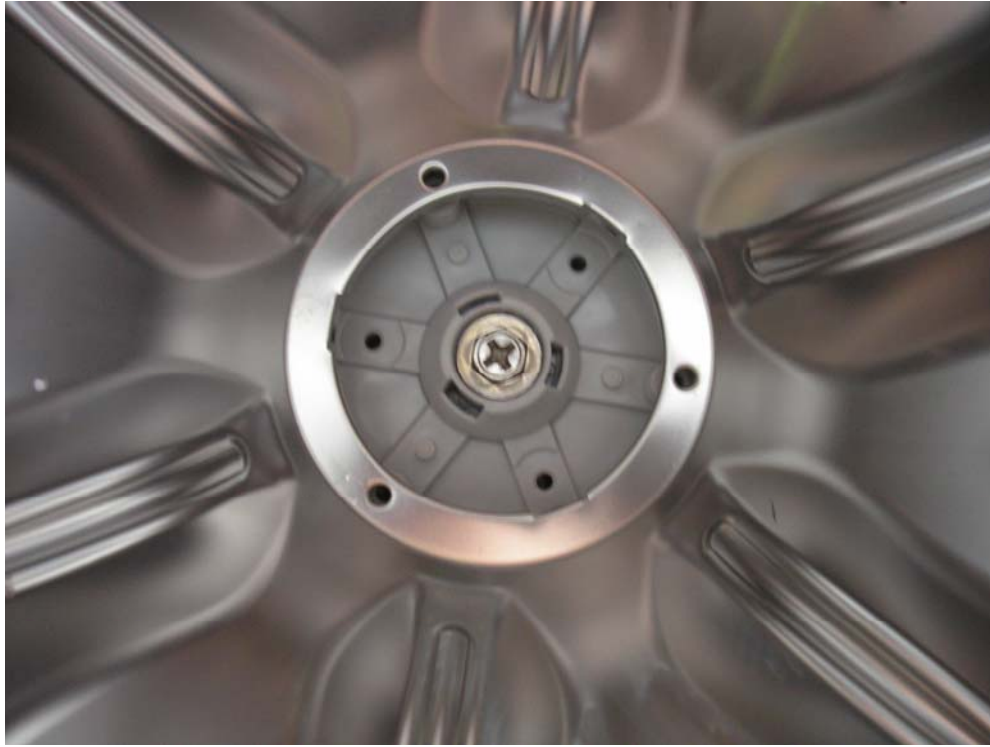
Removing Basket



Carefully PRY OFF Pulsator Cap



Removing PULSATOR



#3 Phillips OR 10mm

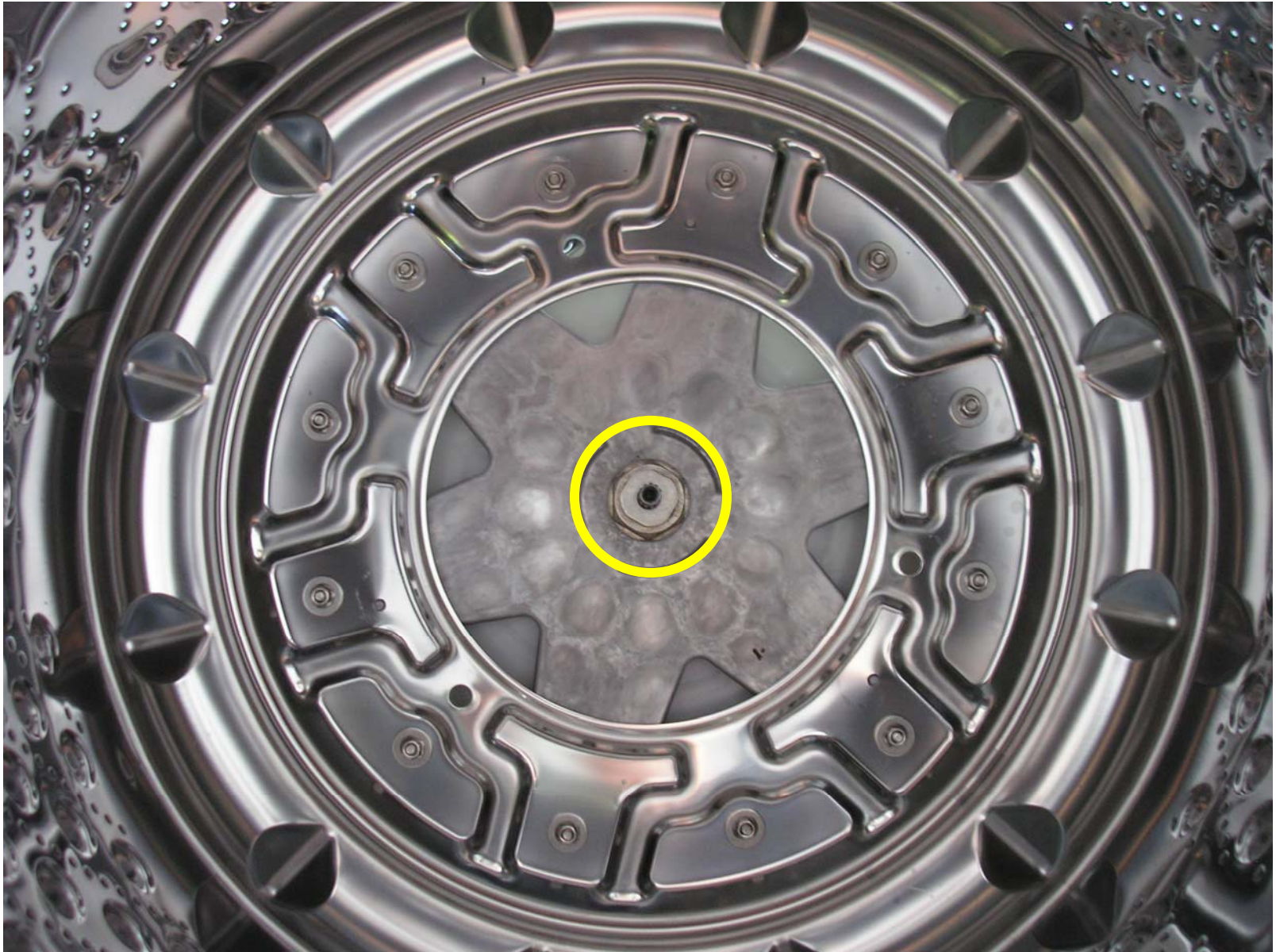
Removing Basket



DO NOT REMOVE 12 10mm nuts & bolts

Removing Basket

After Removing Pulsator – Remove 38mm Nut- **Extremely Tight**





Removing Basket

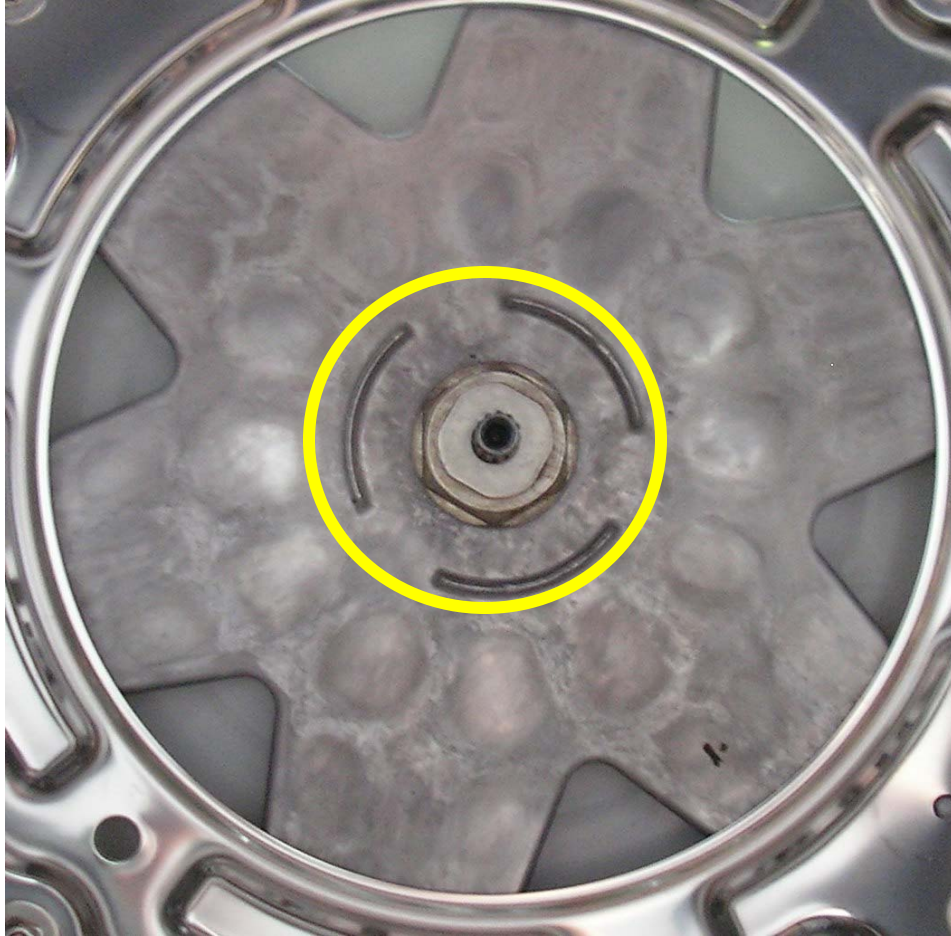
Suggestions: 38mm or 1 1/2" Deep Socket is recommended

Extremely Tight initially - Impact Gun was used

Care must be taken not to mar top of mechanism shaft



Removing Basket



38mm Nut



WT5101** Wiring Diagram

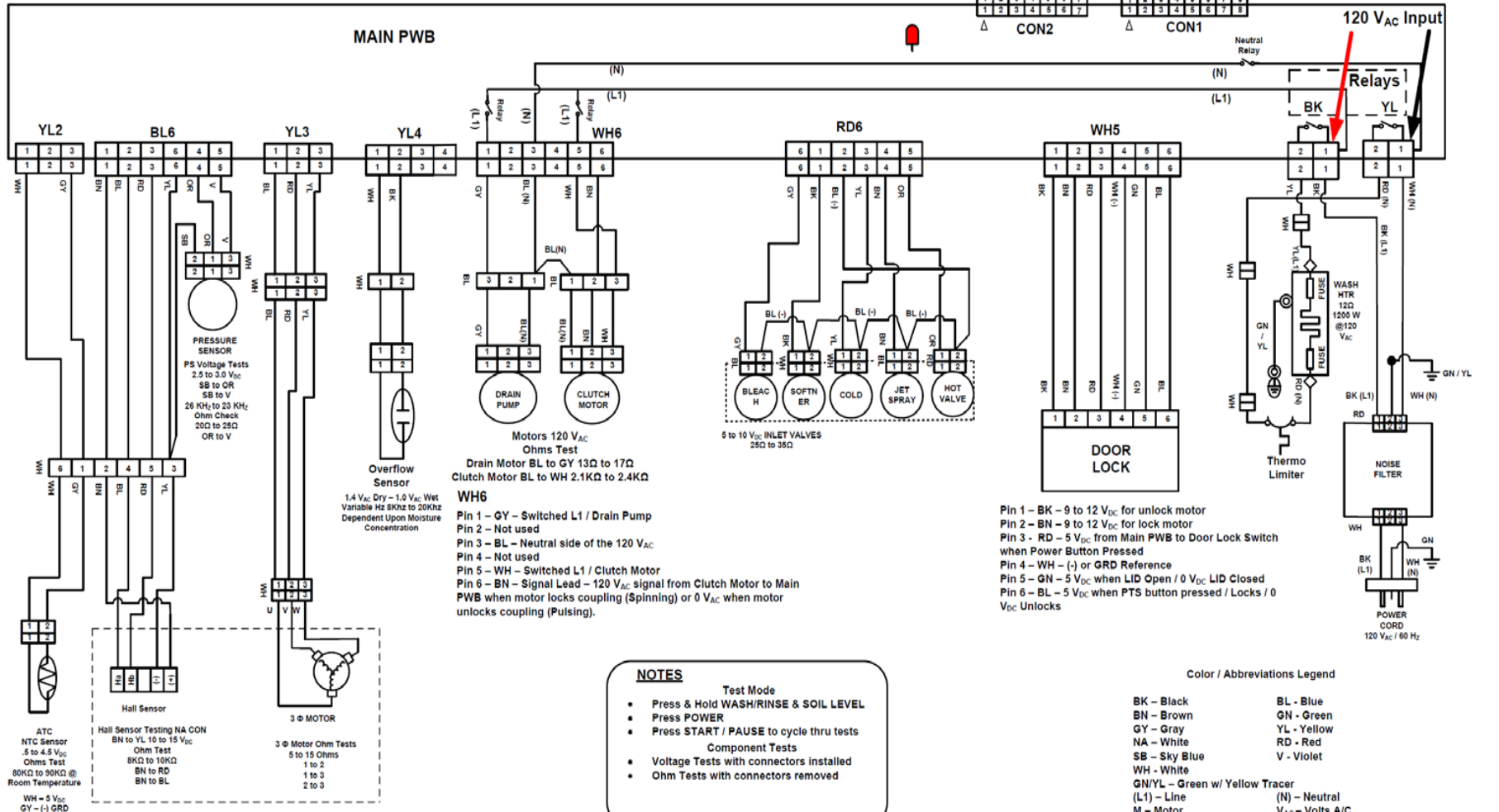
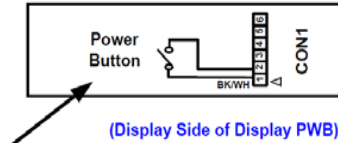
CON 2 Main PWB

5 V_{DC} – Pin 1 to Pins 4, 6, & 7 / Regulated Power
12 V_{DC} – Pin 1 to Pin 5 / Power ON / RED LED ON
2 V_{DC} – Pin 1 to Pin 2 / Power ON / 730Hz to 900Hz

CON 1 Main PWB

2.5 V_{DC} – Pin 1 to Pins 8, 5, & 4
1.8 V_{DC} – Pin 1 to Pin 3
1.3 V_{DC} – Pin 1 to Pin 2

Display Board Power Button is a Normally Open (N.O.) Switch. Test with Ohm meter leads from Pins 1 to 2 in CON1. Press Button and continuity should be seen!



NOTES

- Test Mode
- Press & Hold WASH/RINSE & SOIL LEVEL
- Press POWER
- Press START / PAUSE to cycle thru tests
- Component Tests
- Voltage Tests with connectors installed
- Ohm Tests with connectors removed

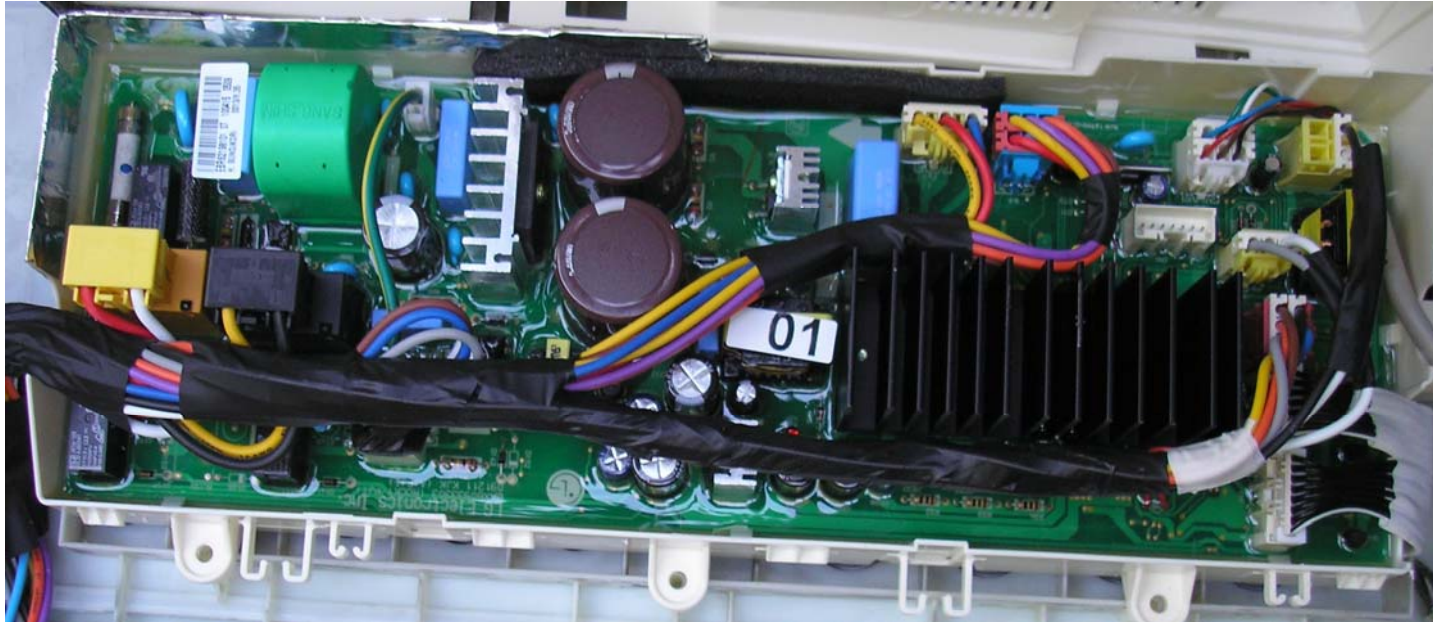
A photograph showing the interior of a microwave oven's main compartment. The central component is a large, circular magnetron with numerous copper-colored coils. To its left is a white waveguide. Below the waveguide is a cylindrical component, likely a thermal fuse or a small motor. The entire assembly is housed within a white plastic enclosure. A green label with a white arrow and a circular logo is visible on the right side of the enclosure.



BK – L1
WH - Neutral

COMPONENTS

Main PCB

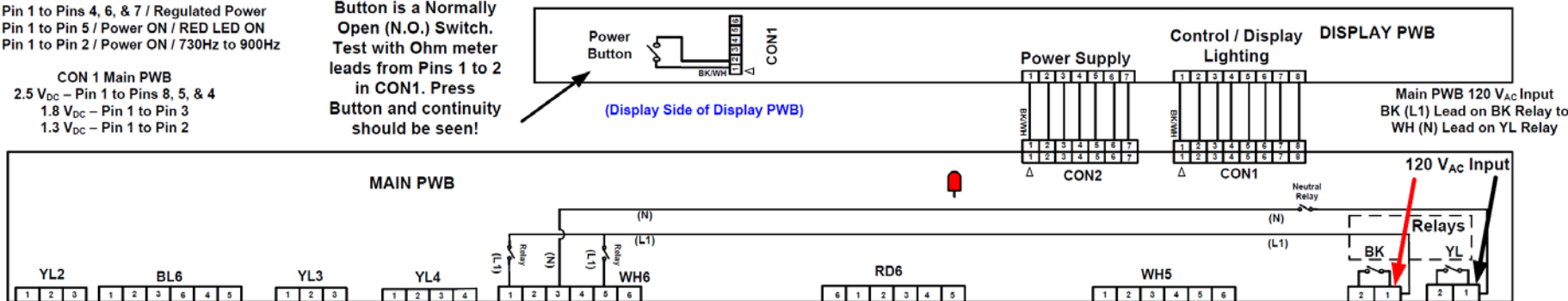


CON 2 Main PWB
 5 V_{DC} – Pin 1 to Pins 4, 6, & 7 / Regulated Power
 12 V_{DC} – Pin 1 to Pin 5 / Power ON / RED LED ON
 2 V_{DC} – Pin 1 to Pin 2 / Power ON / 730Hz to 900Hz

CON 1 Main PWB
 2.5 V_{DC} – Pin 1 to Pins 8, 5, & 4
 1.8 V_{DC} – Pin 1 to Pin 3
 1.3 V_{DC} – Pin 1 to Pin 2

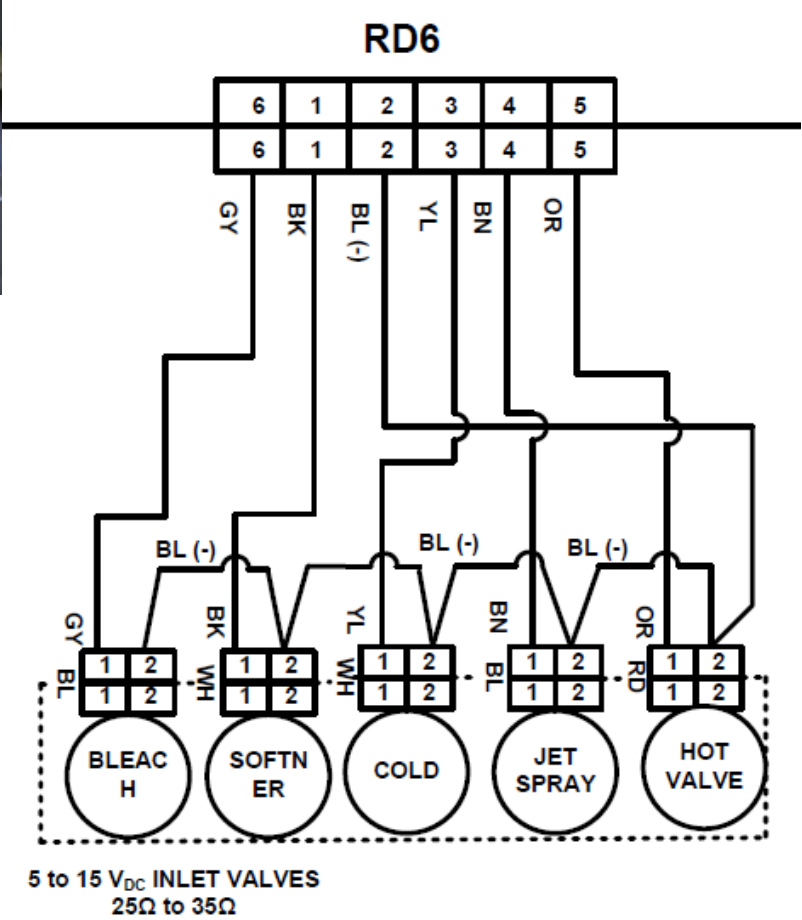
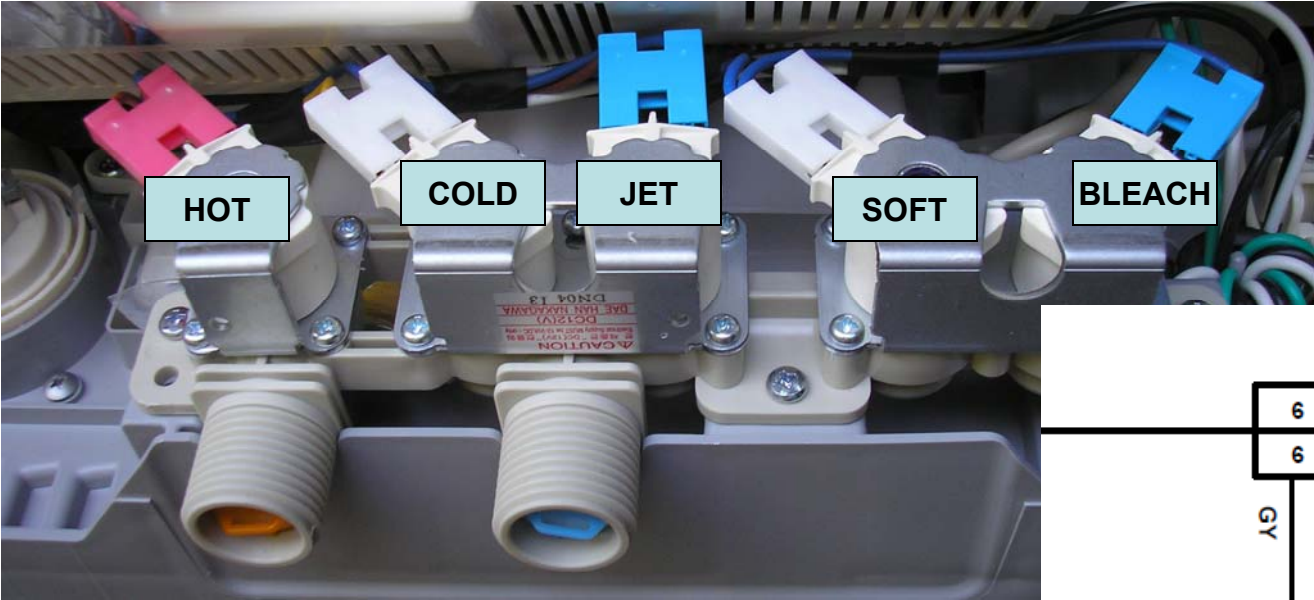
Display Board Power Button is a Normally Open (N.O.) Switch. Test with Ohm meter leads from Pins 1 to 2 in CON1. Press Button and continuity should be seen!

WT5101** Wiring Diagram



COMPONENTS

Water Valve Solenoids



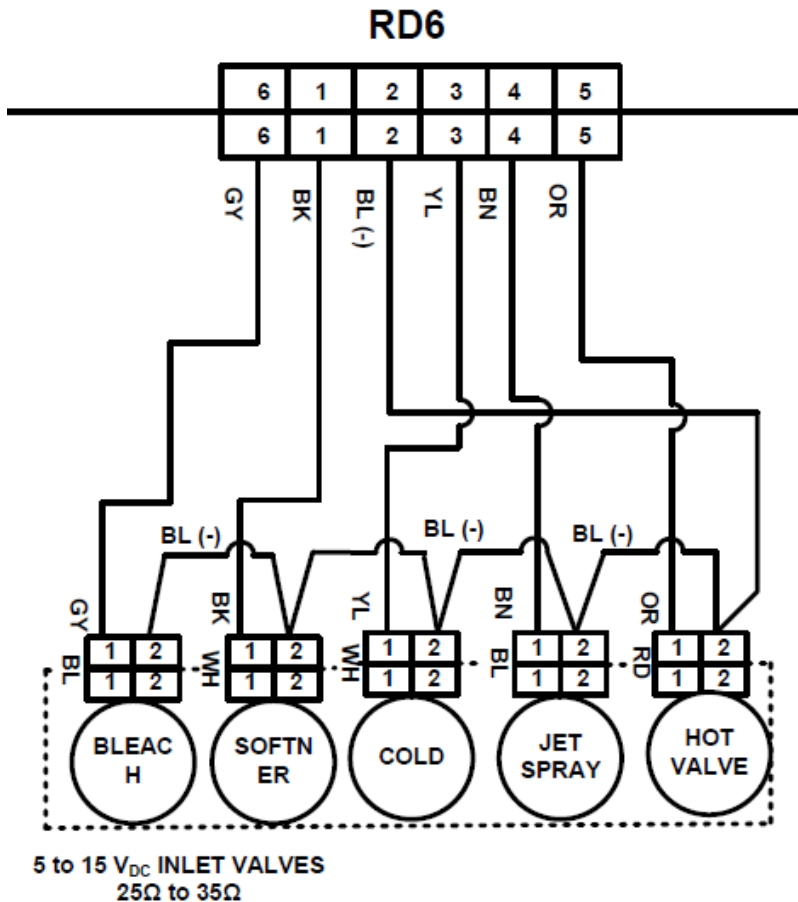
COMPONENTS

Water Valve Solenoids

BL – OR 5V_{DC} Hot
BL – BN 5 V_{DC} Jet Spray
BL – YL 5 V_{DC} Cold
BL – BK 5 V_{DC} Softener

BL – GY 10V_{DC} Bleach

All Solenoids 32Ω



COMPONENTS

Oscillator



OR – PR Frequency (Hz)
26.9 Empty --- 23.3 Full
TEST MODE Display 69 -- 33

SB – OR 2.9 V_{DC}
SB – VL 2.9 V_{DC}
OR – VL 23Ω

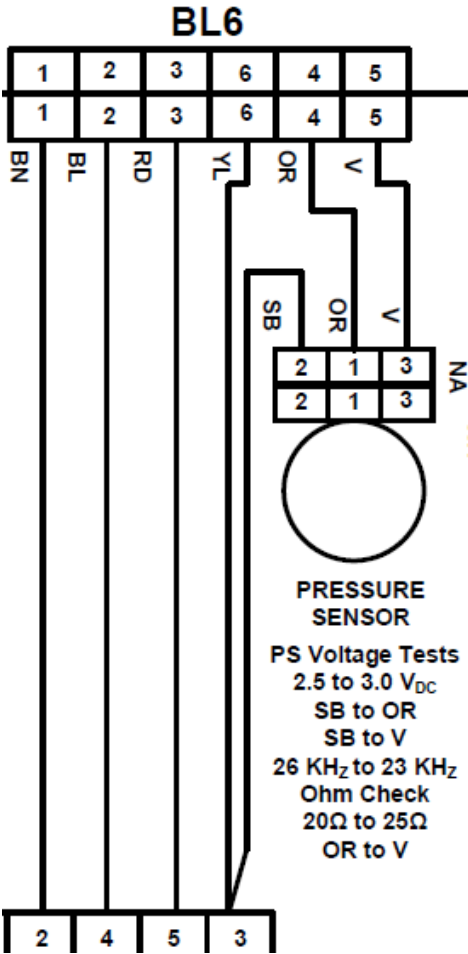
COMPONENTS

Oscillator

FREQUENCY KHz



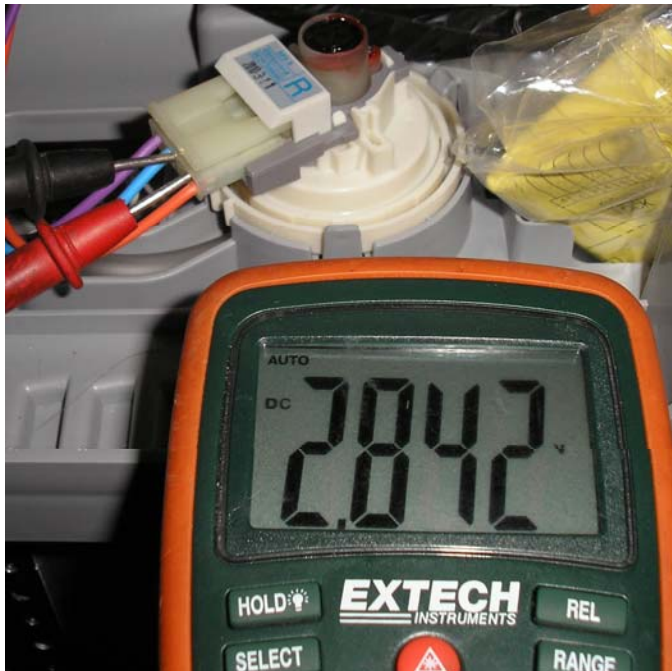
EMPTY



COTTONS

SB – V 2.8 VDC

SB – OR 2.8 VDC



V – OR – 10.4 VDC



COMPONENTS

Lid Switch



Magnet

WH5 / Door Lock

Pin 1 – BK – 9 to 12 V_{DC} for unlock motor

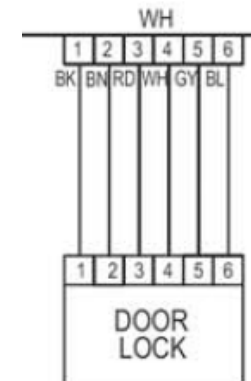
Pin 2 – BN – 9 to 12 V_{DC} for lock motor

Pin 3 - RD – 5 V_{DC} from Main PWB to Door Lock Switch when Power Button Pressed

Pin 4 – WH – (-) or GRD Reference

Pin 5 – GN – 5 V_{DC} when LID Open

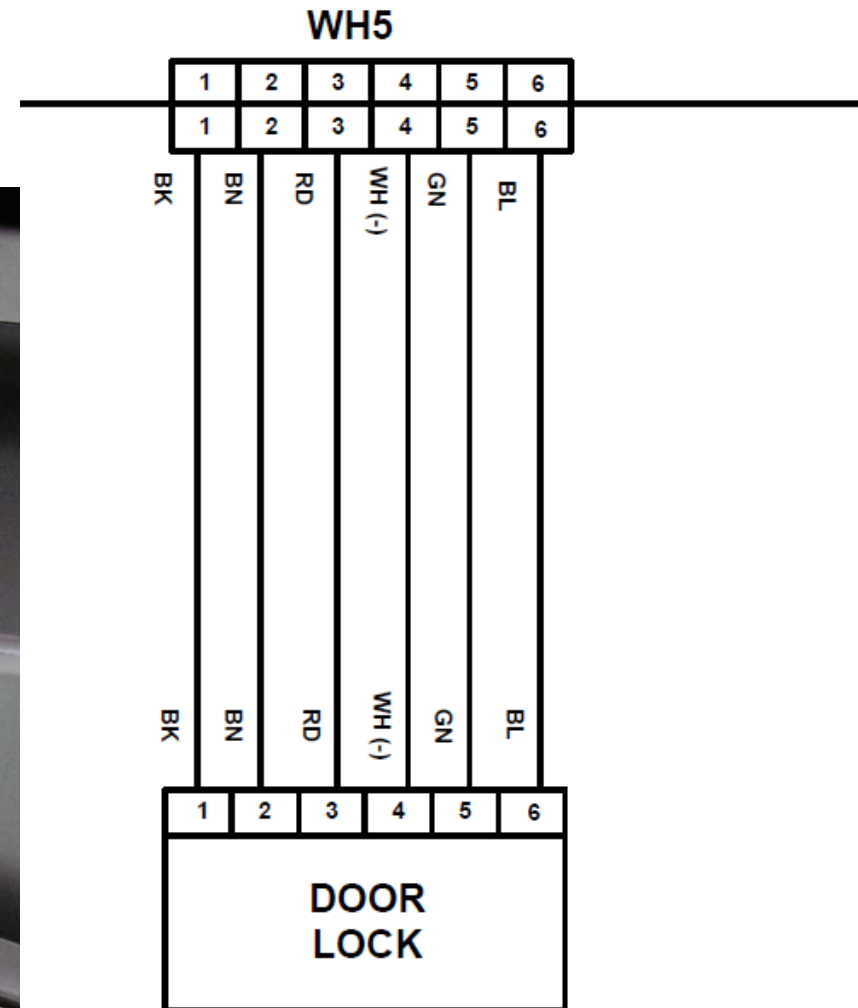
Pin 6 – BL – 5 V_{DC} when PTS button pressed / Locks / 0 VDC Unlocks



COMPONENTS Lid Switch



WH to RD – 5 V_{DC} when Power Button is Pressed ON
 WH to GN – 5 V_{DC} when LID is Open / 0 V_{DC} LID is Closed
 WH to BL – 5 V_{DC} when PTS Pushed ON / LID Locks
 WH to BN – 9 V_{DC} momentary to energize LOCK motor
 WH to BK – 9 V_{DC} momentary to energize UNLOCK motor
 WH to BL – 0 V_{DC} when PTS Pushed Standby / LID UNLOCK

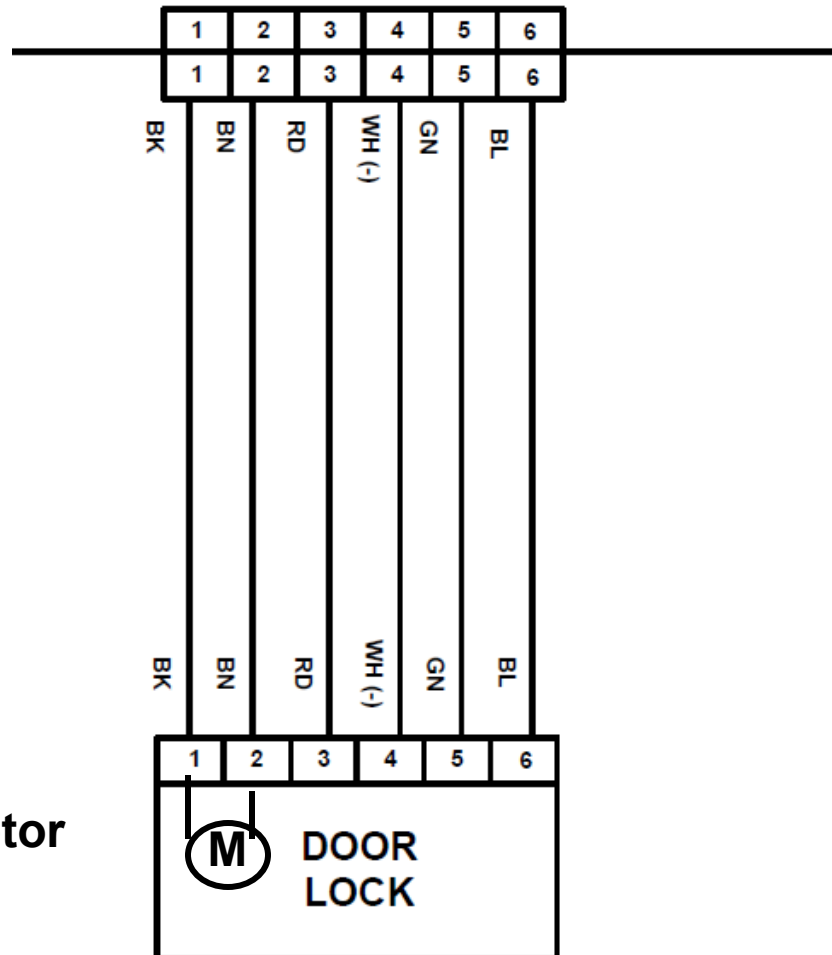


Pin 1 – BK – 9 to 12 V_{DC} for unlock motor
 Pin 2 – BN – 9 to 12 V_{DC} for lock motor
 Pin 3 - RD – 5 V_{DC} from Main PWB to Door Lock Switch when Power Button Pressed
 Pin 4 – WH – (-) or GRD Reference
 Pin 5 – GN – 5 V_{DC} when LID Open / 0 V_{DC} LID Closed
 Pin 6 – BL – 5 V_{DC} when PTS button pressed / Locks / 0 V_{DC} Unlocks

WH5

BK to BN
35Ω to 40Ω

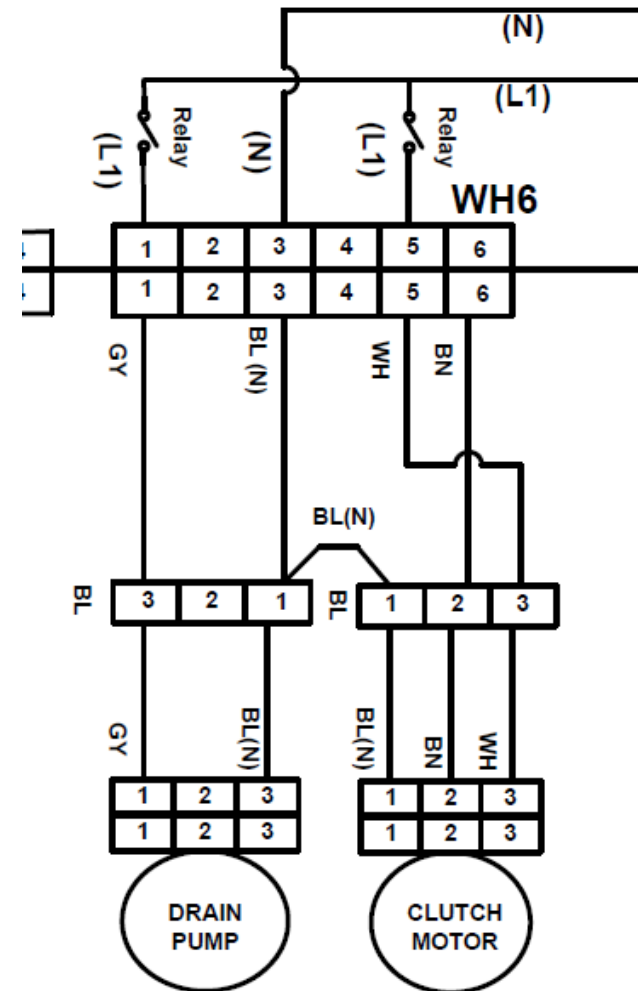
Lock / Unlock Motor



- Pin 1 – BK – 9 to 12 V_{DC} for unlock motor
- Pin 2 – BN – 9 to 12 V_{DC} for lock motor
- Pin 3 - RD – 5 V_{DC} from Main PWB to Door Lock Switch when Power Button Pressed
- Pin 4 – WH – (-) or GRD Reference
- Pin 5 – GN – 5 V_{DC} when LID Open / 0 V_{DC} LID Closed
- Pin 6 – BL – 5 V_{DC} when PTS button pressed / Locks / 0 V_{DC} Unlocks

COMPONENTS

Drain Pump



BL – GY 120 V_{AC} BL – GY 10 - 15 Ω

WH6

Pin 1 – GY – Switched L1 / Drain Pump
 Pin 2 – Not used
 Pin 3 – BL – Neutral side of the 120 V_{AC}
 Pin 4 – Not used
 Pin 5 – WH – Switched L1 / Clutch Motor
 Pin 6 – BN – Signal Lead – 120 V_{AC} signal from Clutch Motor to Main PWB when motor locks coupling (Spinning) or 0 V_{AC} when motor unlocks coupling (Pulsing).

**Motors 120 V_{AC}
 Ohms Test**

**Drain Motor BL to GY 13Ω to 17Ω
 Clutch Motor BL to WH 2.1KΩ to 2.4KΩ**



SPECIAL DRAIN FEATURE

This washer is equipped with a special feature that is designed to make your washer as safe as possible. If the washer is paused or shut off while there is still water in the tub, the water will drain after four minutes. This helps keep children safe by reducing the possibility of water remaining in the tub. If the washer is shut off for three minutes, while there is still water in the tub, an alarm will sound to notify you that the washer is about to drain the water from the tub. The washer can be restarted any time before the drain begins. If the washer is paused for four minutes, the display will shut off and all cycle settings will be lost. Three minutes after the control shuts off, the alarm will sound to notify you that the washer is about to drain the water from the tub. The washer can be turned on and another cycle may be started before the drain begins.

If no action is taken, the *dr* error code will display and the water will drain from the tub. Once the washer begins draining the water, the controls are disabled and the drain process cannot be interrupted. Once the water is completely drained, the washer will shut off.

NOTE: In the unlikely event that the washer experiences a problem that causes an error code to be displayed, the washer will still sound the alarm after three minutes and drain after four minutes. However, only the original error code will be displayed.

When Washer is 'OFF' (plugged into Voltage)

**IF Water Level Reaches 241
dr will Flash**



**Drain Pump will Energize until
261 is reached(268 is Empty)**



**This will also occur IF POWER PAD is Pressed
with water in Tub. After 4 Minutes *dr* will appear.**

**NOTE: 0 Watts are noticed on Meter in 'OFF' until
PCB LED illuminates then 3 Watts are seen**

***dr* Feature**



Washer 'OFF'

Water Level reaches 241

***dr* illuminates**

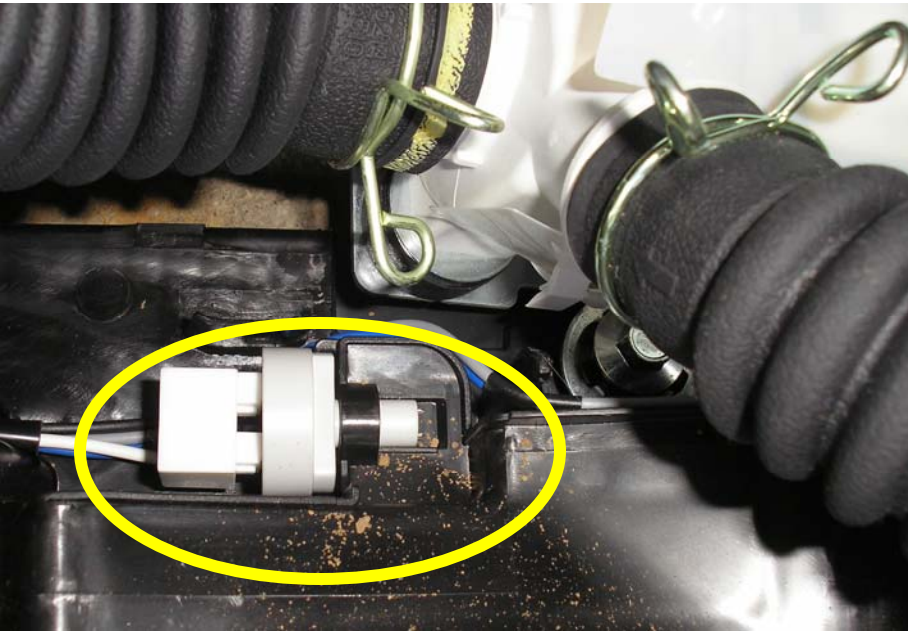
Drain Pump Energized until water level 261 is reached

IF NO MORE WATER FILLS *dr* will turn off

LED on Main PCB

COMPONENTS

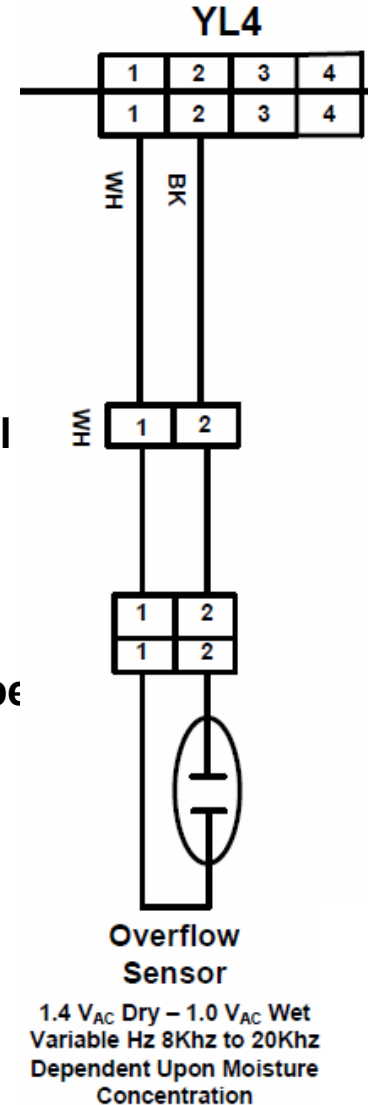
OverFill Sensor



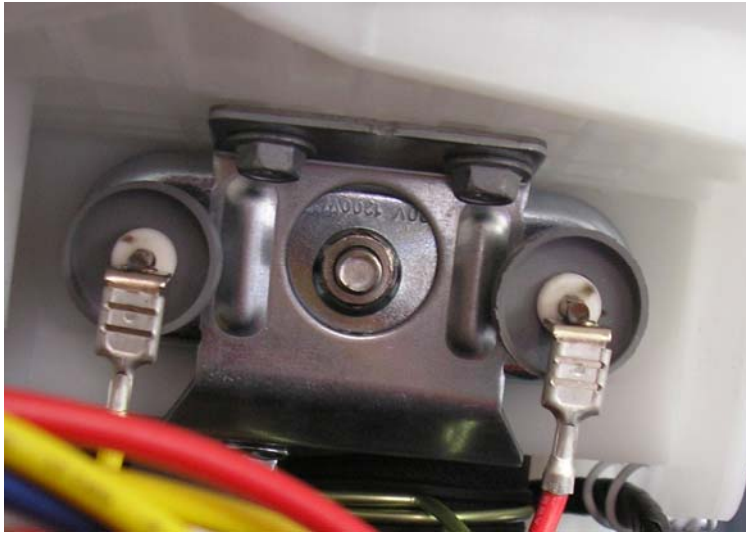
This Sensor is **ALMOST** transparent. **NO ERROR CODE** will appear if failed. During **FILL** if water is sensed, the tub will stop rotating. If sensed in **WAVEFORCE** the RPMs will decrease to reduce splashing or leaking.

Operation change will not be noticed – no complaints.

Dry 1.4 V_{DC} 20K Frequency
Full 1.0 V_{DC} 9K Frequency



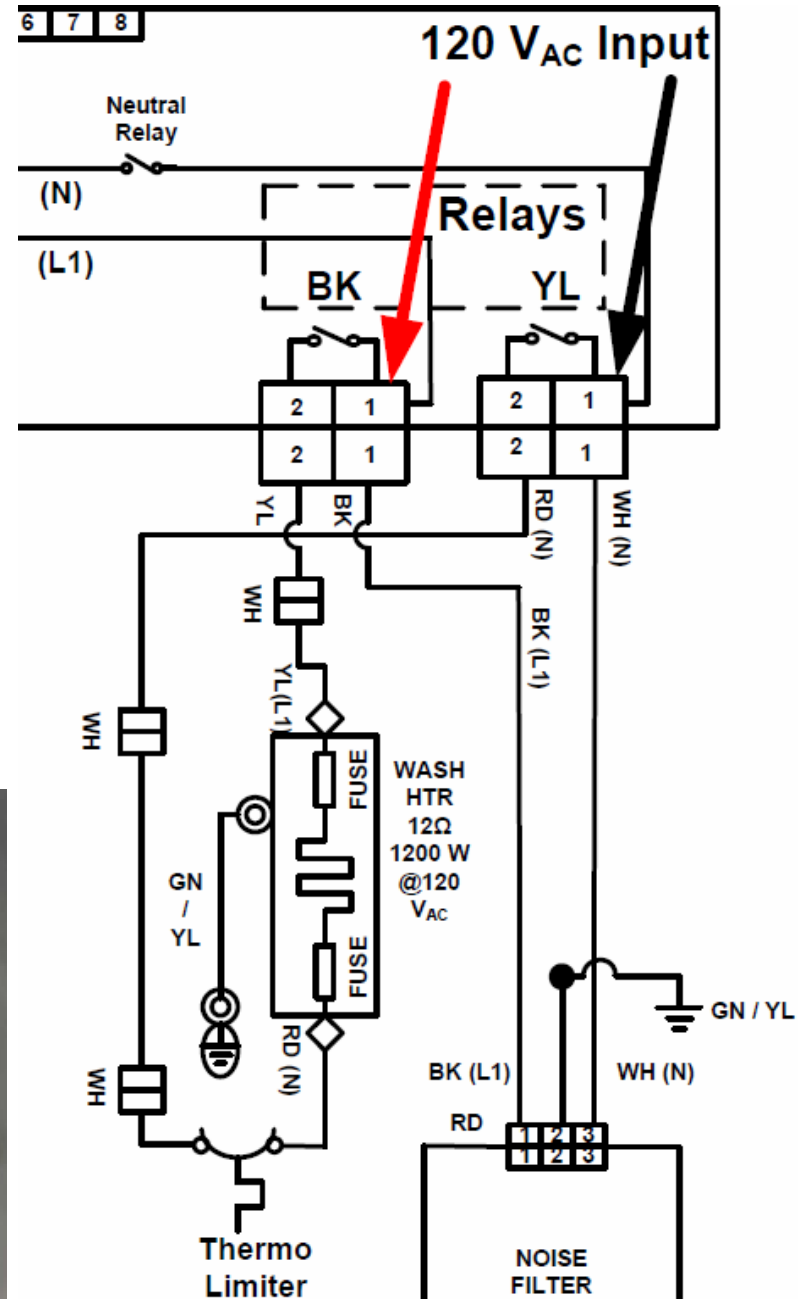
COMPONENTS Tub Heater



120 V_{AC}

1200
Watts

12Ω

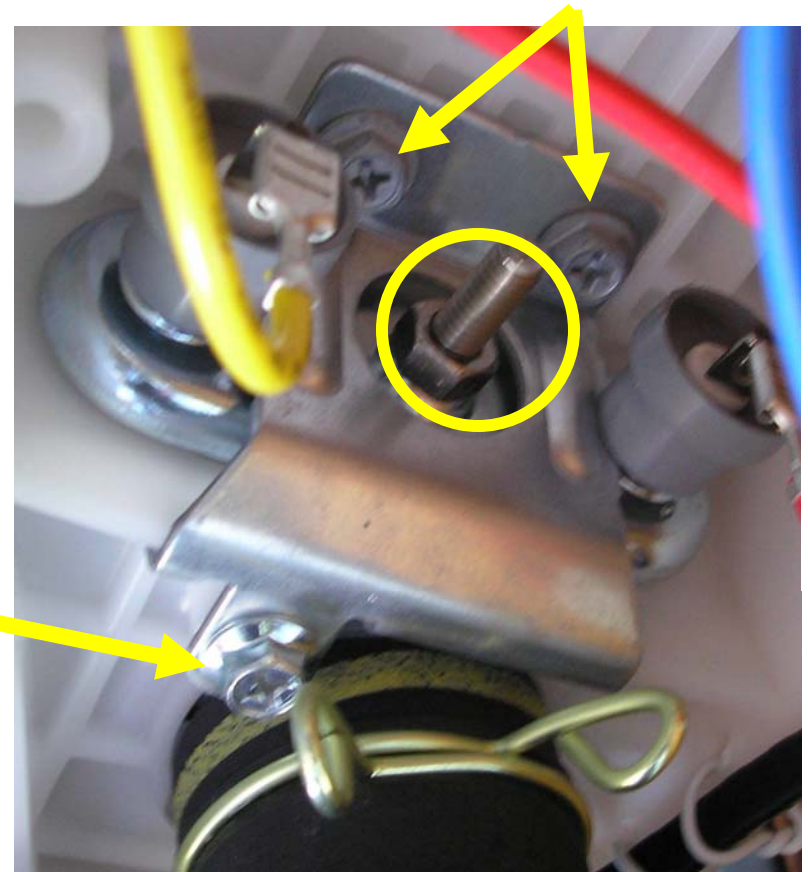


Removing Tub Heater

Loosen 10mm Center Nut

Remove 3 8mm Screws

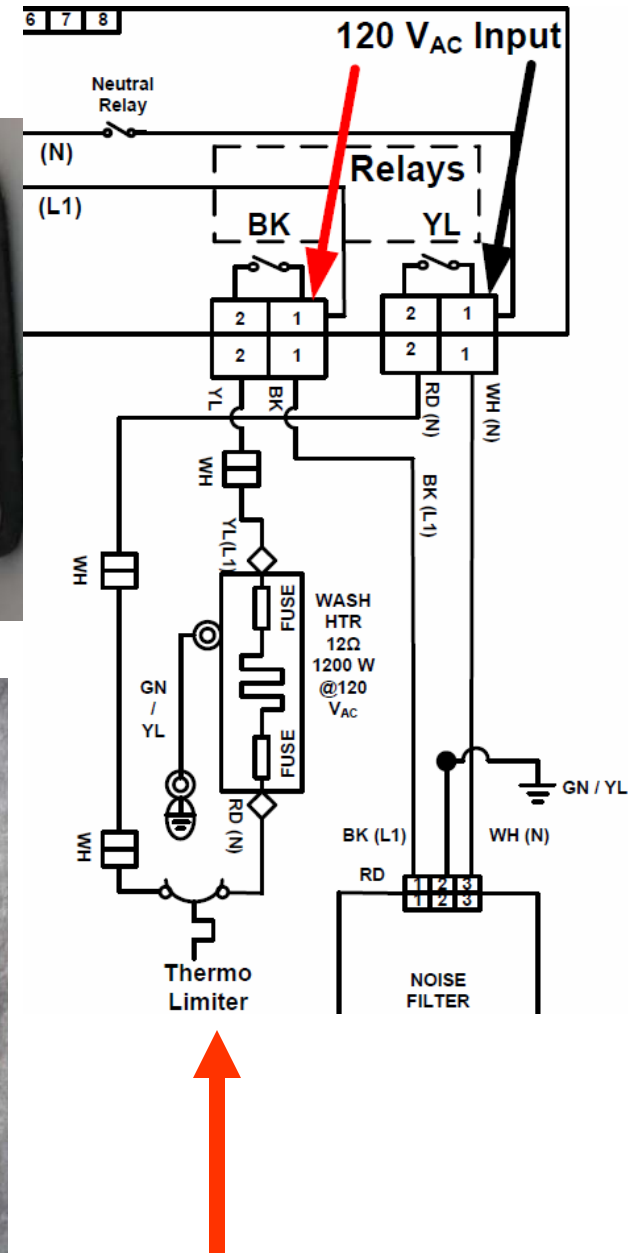
Note: Must be installed Properly



COMPONENTS TUB HEATER LIMITER

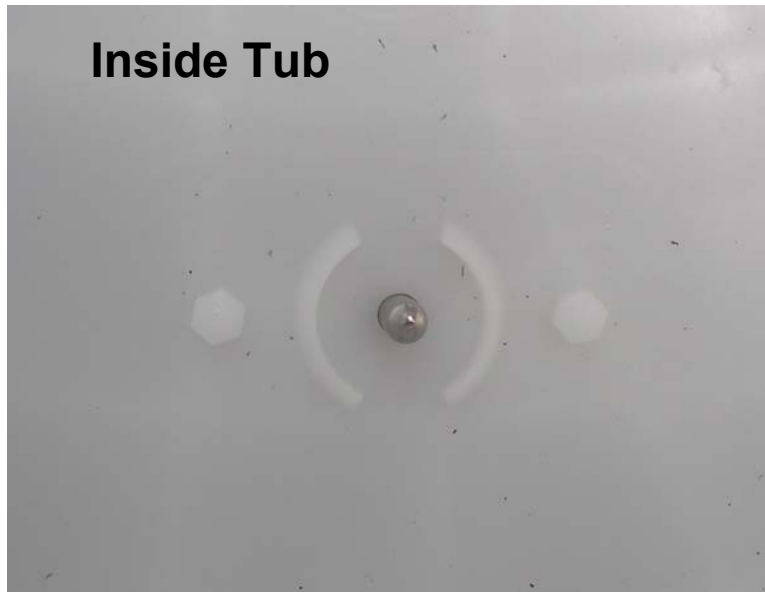


Cut In “UNAVAILABLE”
Cut Out



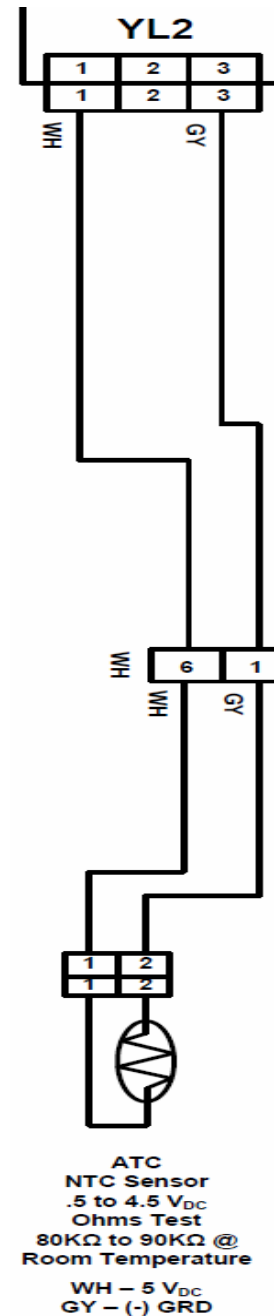
COMPONENTS

Thermistor



NTC: Temp $\uparrow$ Resistance $\downarrow$
Temp $\uparrow$ Voltage $\downarrow$

4.1 V_{DC} 53°F

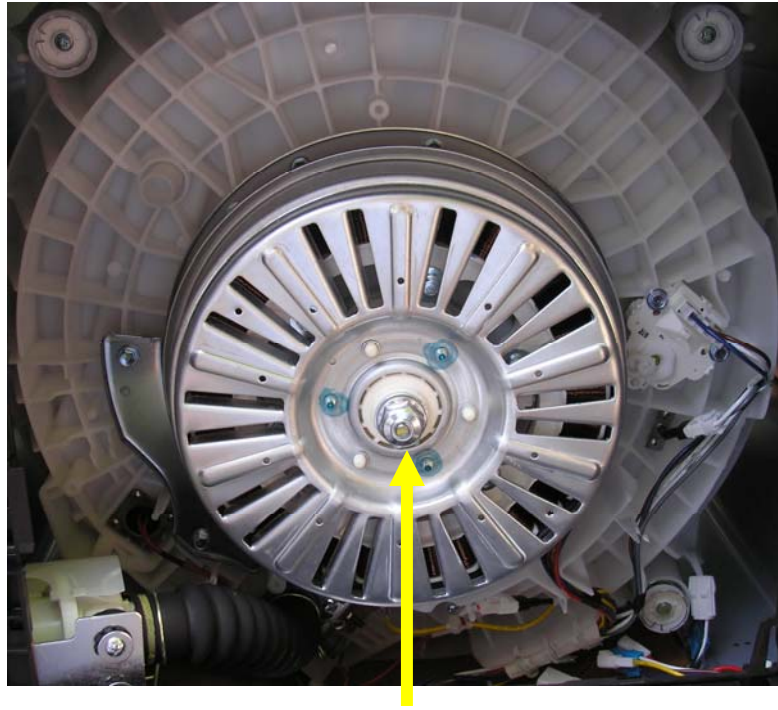


(1) Sensor failure

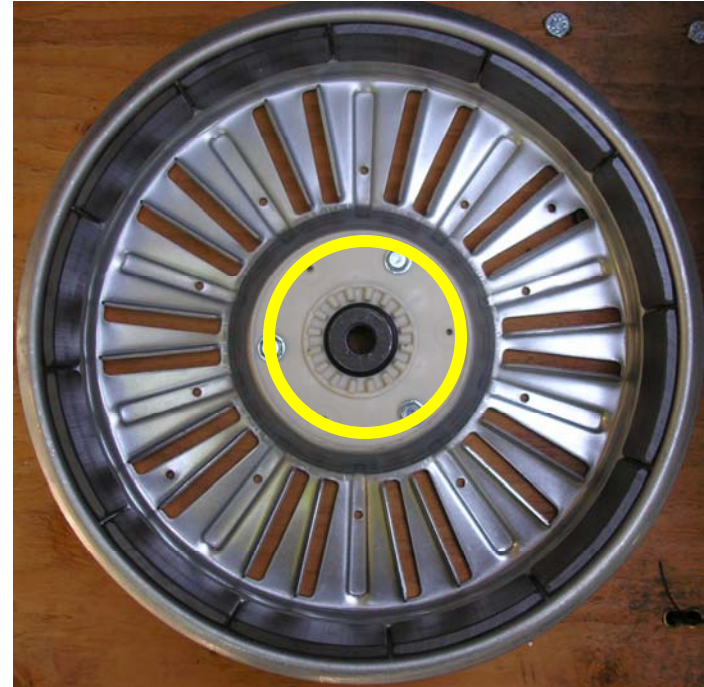
Problems	Result of Check	Possible Cause
① Installation of a non-calibrated main board.	If the value is not within 1~26 by checking the controller group.	Recalibrate or replace the controller.
② Short	Check the value of the sensor electrode by using TEST MODE during the operation of a normal operation *washing, rinsing, spinning, etc.) If the value shows no change, the sensor is defective.	One of these should repair this. Clean the electrode of the sensor. Reset the sensor by entering and exiting the test mode. Check the wiring harness and connectors to the sensor.
③ The sensor is contaminated with a film of detergent, laundry additives, hard water scale, etc.	The difference between the sensing value measured from the supplied water by a jig and the sensor value of the product is 5 or more.	One of these should repair this. Clean the electrode of the sensor. Reset the sensor by entering and exiting the test mode. Replace the sensor.
④ Sensor is out of order	tE - Temperature Sensor Fault Verify the operation of the temperature sensor in the QC test mode.	Check the wiring harness. Replace the sensor. Replace the main board.
※ Stop or reset the sensor by entering and exiting the TEST MODE.		

COMPONENTS

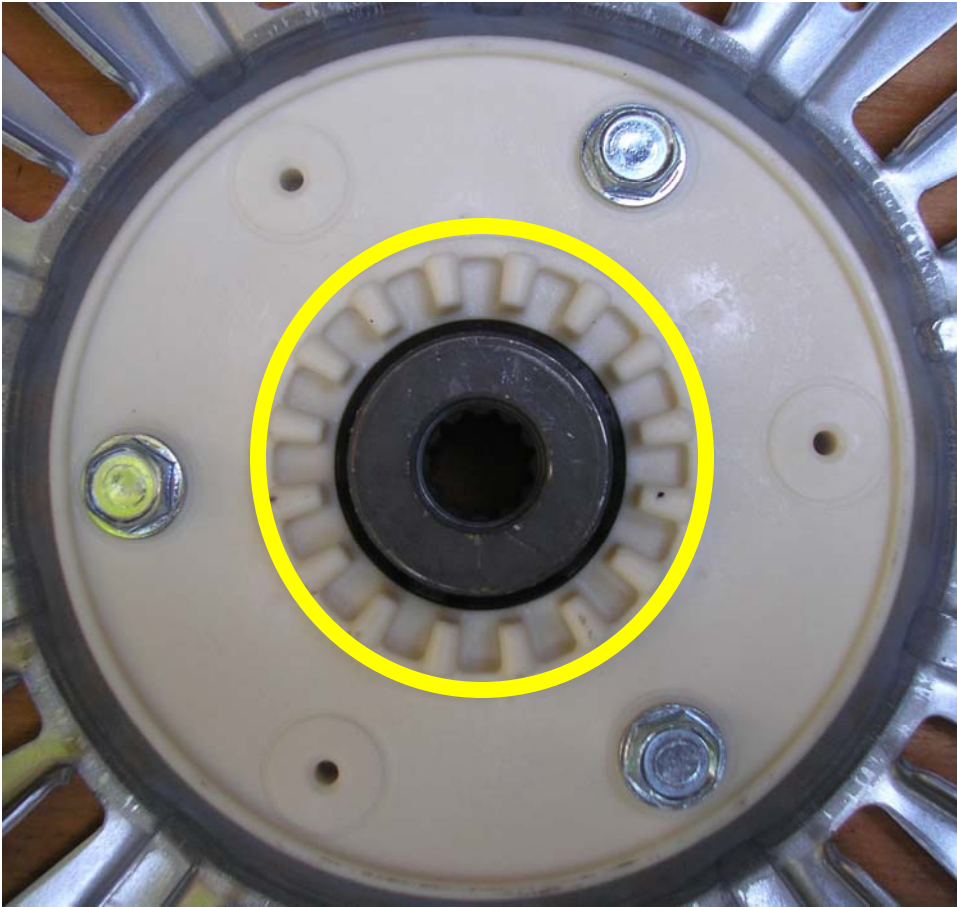
Rotor



24 mm



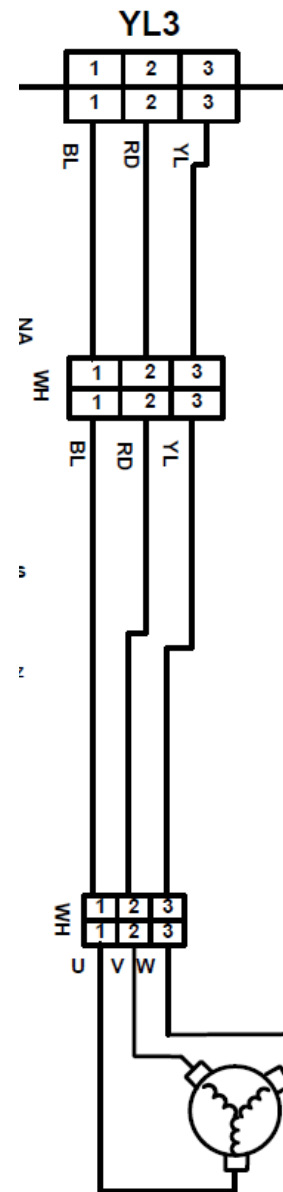
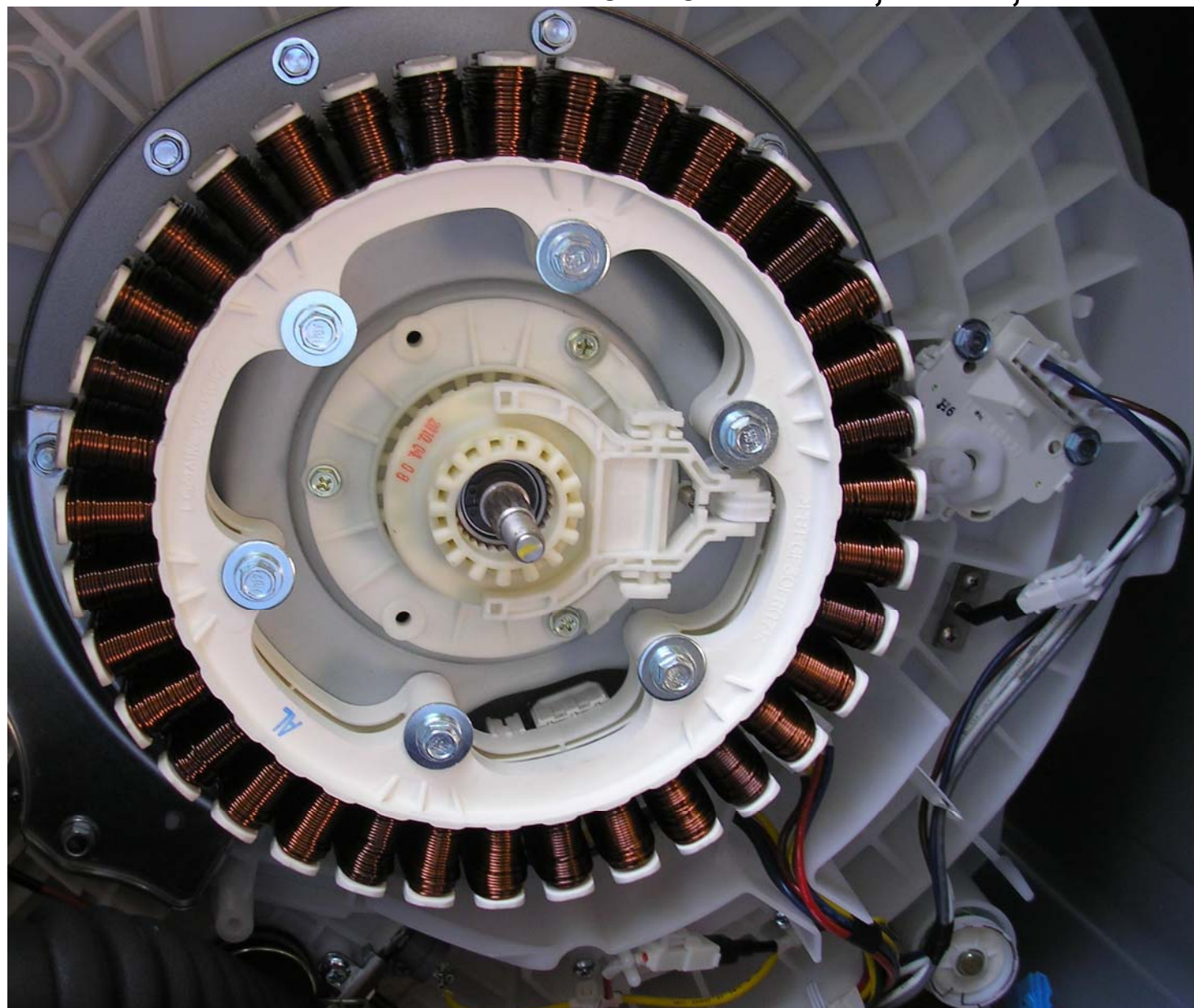
These Gears will mate to Lock & Spin



COMPONENTS

STATOR

5 - 15Ω RD-BL, BL-YL, YL - RD

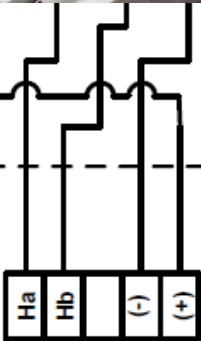
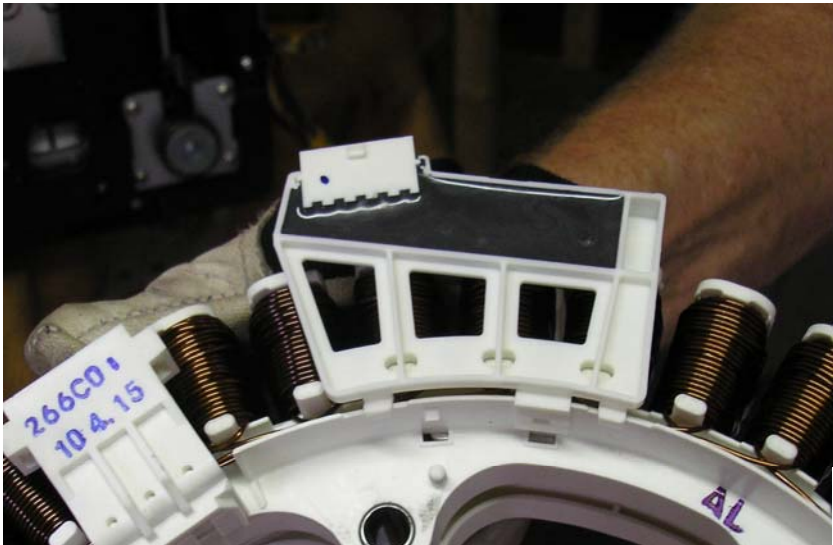


3 Φ MOTOR

3 Φ Motor Ohm Tests
5 to 15 Ohms
1 to 2
1 to 3
2 to 3

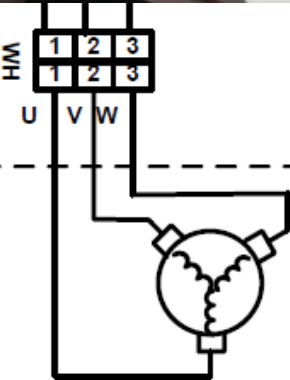
COMPONENTS

Hall Sensor



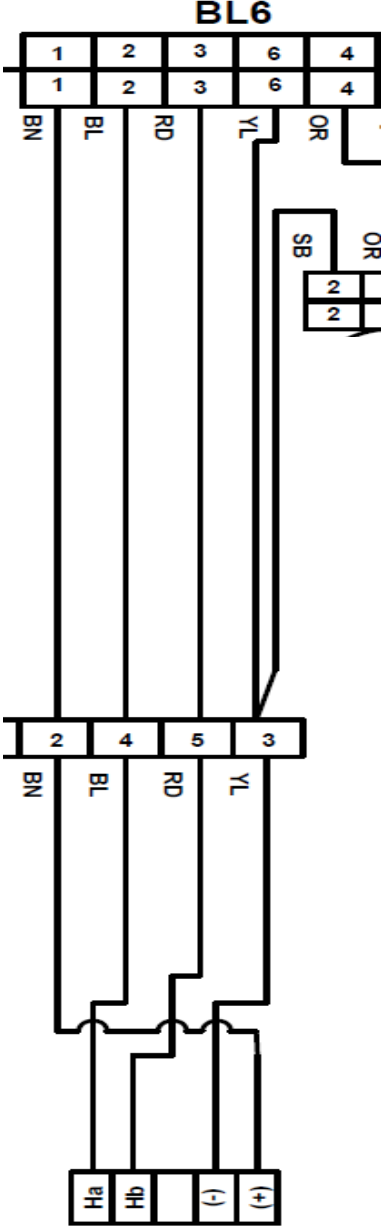
Hall Sensor

Hall Sensor Testing NA CON
BN to YL 10 to 15 V_{DC}
Ohm Test
8K Ω to 10K Ω
BN to RD
BN to BL



3 Φ MOTOR

3 Φ Motor Ohm Tests
5 to 15 Ohms
1 to 2
1 to 3
2 to 3



Hall Sensor

Hall Sensor Testing NA CON
BN to YL 10 to 15 V_{DC}
Ohm Test
8K Ω to 10K Ω
BN to RD
BN to BL

COMPONENTS

Coupling Motor



BL – WH 120 VAC
(2.1K – 2.3KΩ)

BR = Signal

COMPONENTS

Coupling Motor

BL – WH 120 VAC energizes Motor –
Motor Rotates until BR (Signal) – BL sees 120 VAC or 0 VAC

Locked to Unlock = 0 VAC (BL – BR)

Unlock to Locked = 120 VAC (BL – BR)

LOCKED = Coupling DOWN – Basket & Pulsator engaged
UNLOCKED = Coupling UP – ONLY Pulsator engaged

WH6

Pin 1 – GY – Switched L1 / Drain Pump

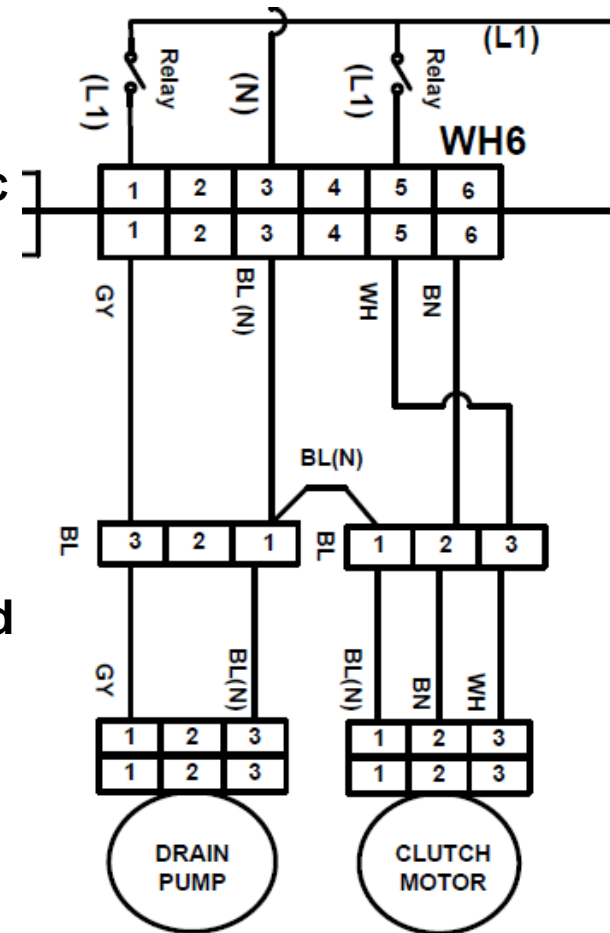
Pin 2 – Not used

Pin 3 – BL – Neutral side of the 120 V_{AC}

Pin 4 – Not used

Pin 5 – WH – Switched L1 / Clutch Motor

Pin 6 – BN – Signal Lead – 120 V_{AC} signal from Clutch Motor to Main PWB when motor locks coupling (Spinning) or 0 V_{AC} when motor unlocks coupling (Pulsing).



Motors 120 V_{AC}
Ohms Test

Drain Motor BL to GY 13Ω to 17Ω

Clutch Motor BL to WH 2.1KΩ to 2.4KΩ

COMPONENTS

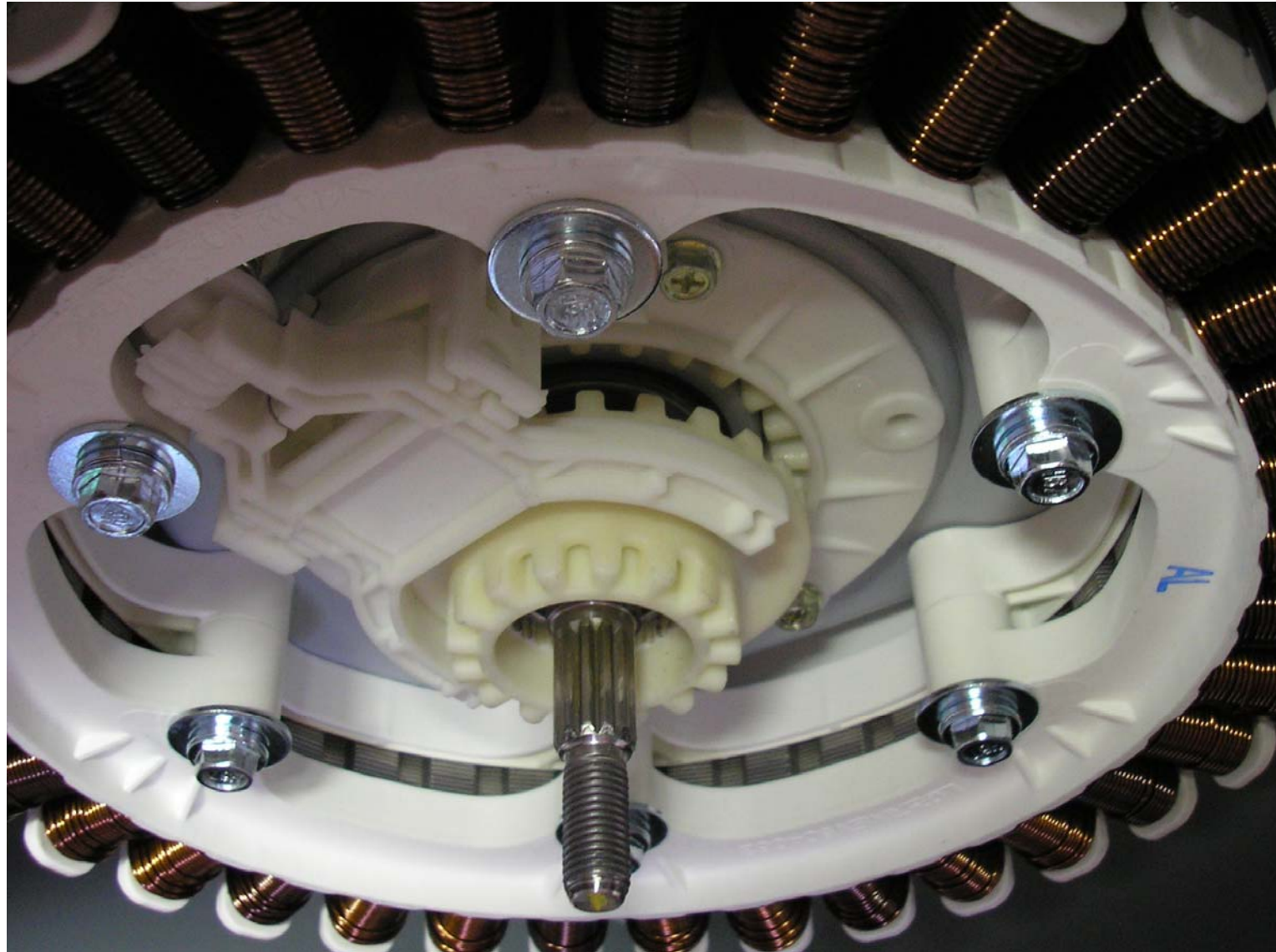
Coupling



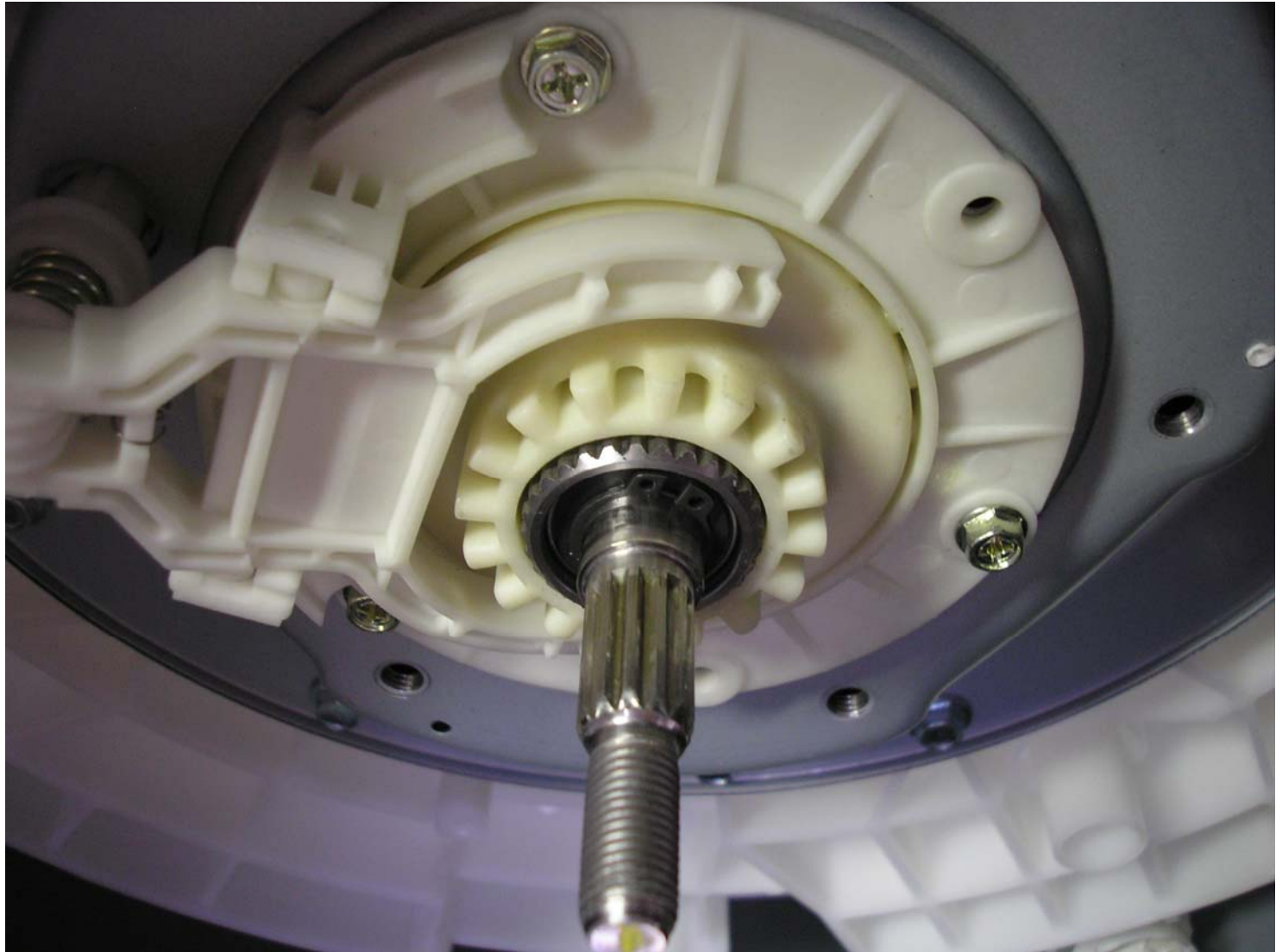
Default Position is 'Down' - Both Basket & Pulsator are Engaged
In 'UP' Position - ONLY Pulsator is Activated

**NOTE: Coupling is part of the Mechanism or
CAN be ordered/replaced separately**

Coupling in the 'DOWN' Position - BOTH Pulsator & Basket Engaged

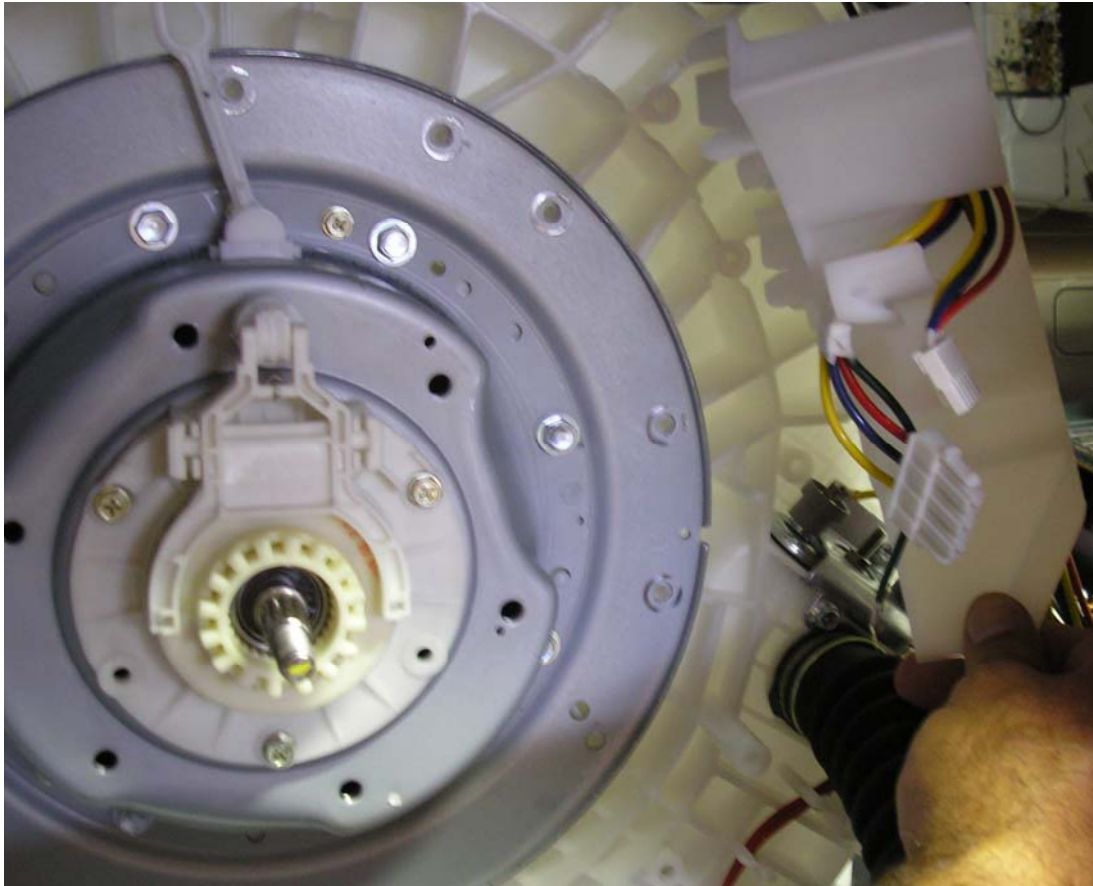


**Coupling in 'UP' position
ONLY the Pulsator Engaged**



COMPONENTS

Removing/Replacing Mechanism From the Bottom



**Remove Plastic Shield
NOW**

Do Not Try to Remove Mechanism without removing Plastic Shield

COMPONENTS

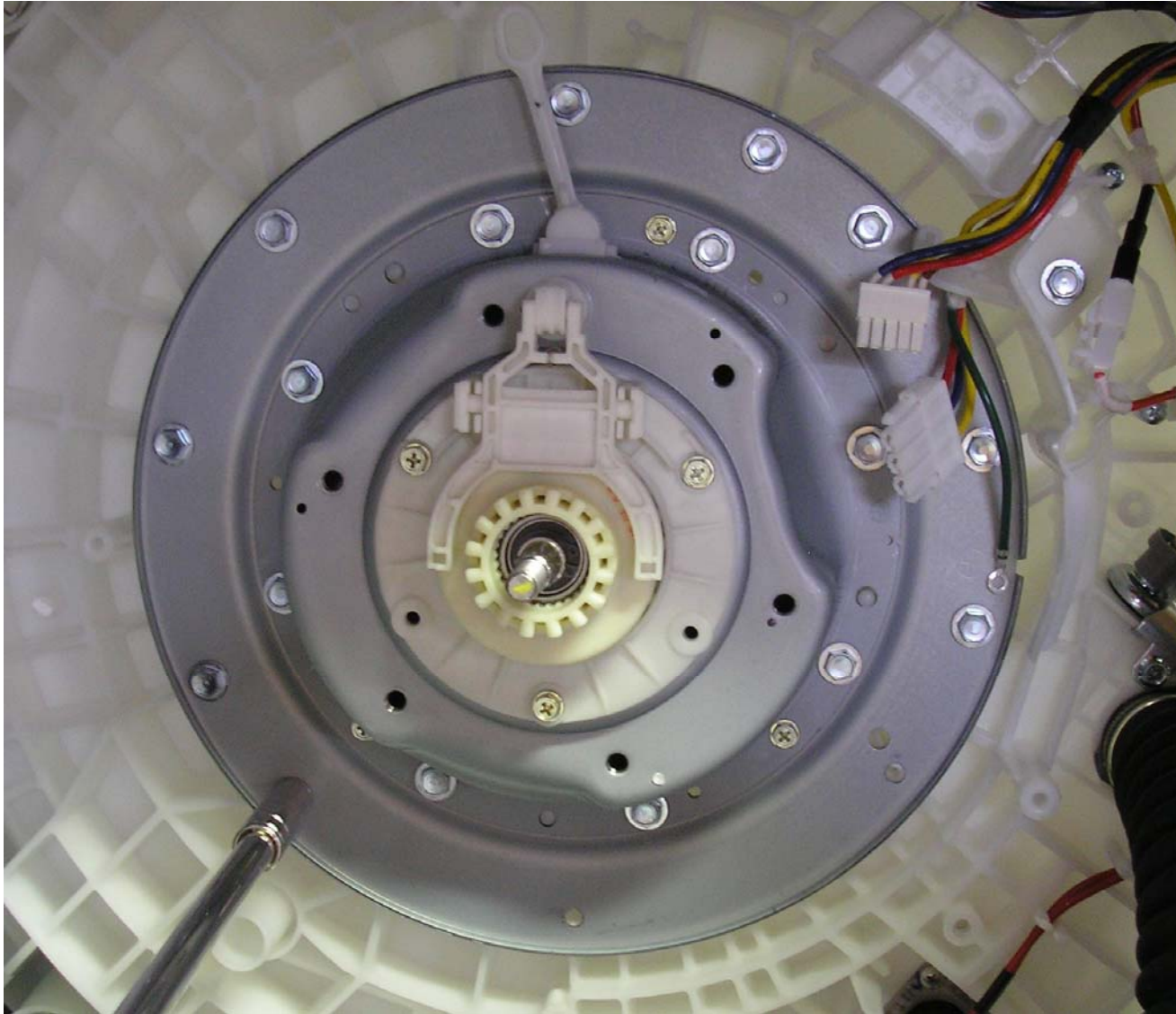
Removing/Replacing Mechanism From the Bottom



Remove Tub Heater Plate

COMPONENTS

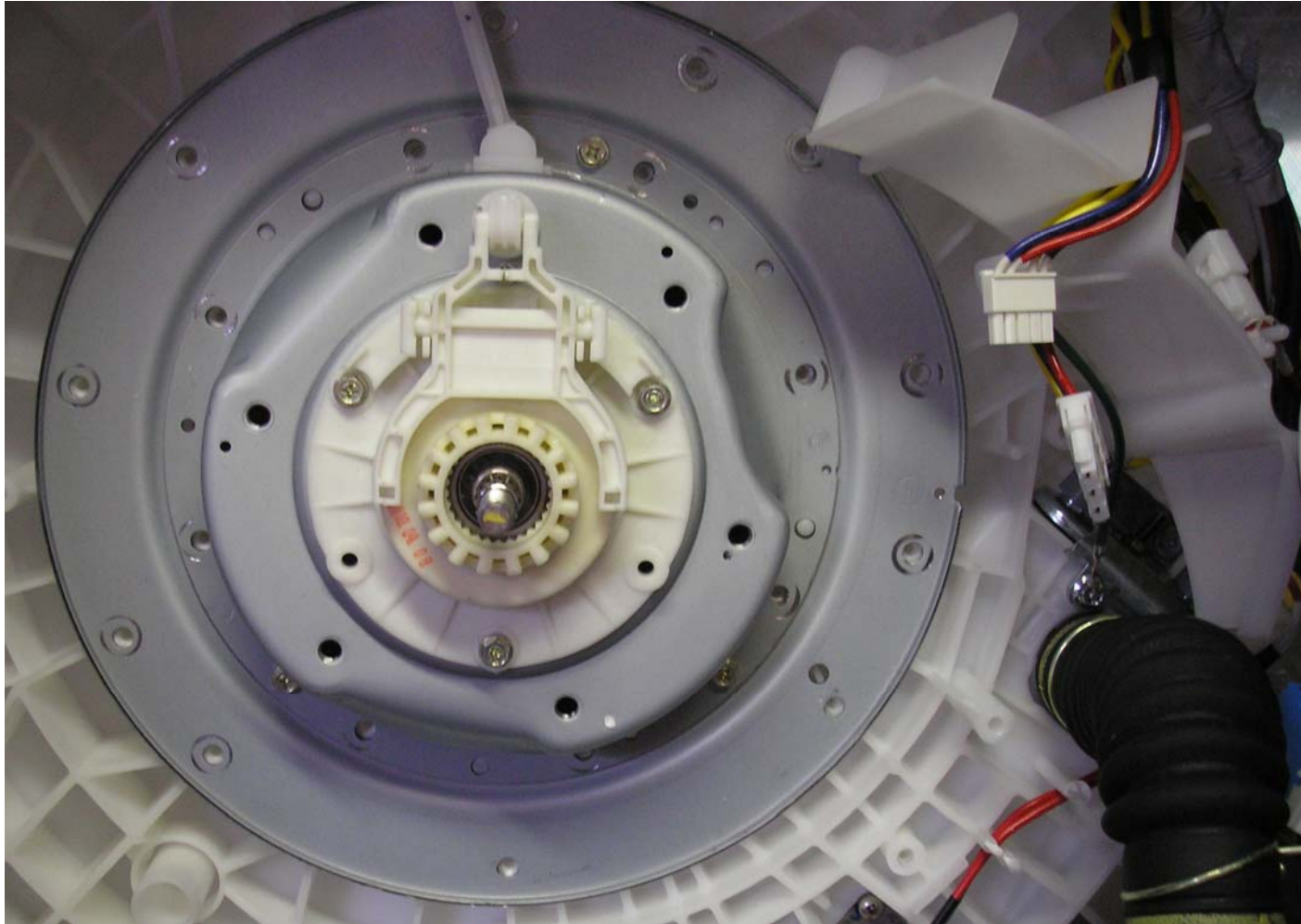
Removing/Replacing Mechanism From the Bottom



Remove 15 10mm Bolts

COMPONENTS

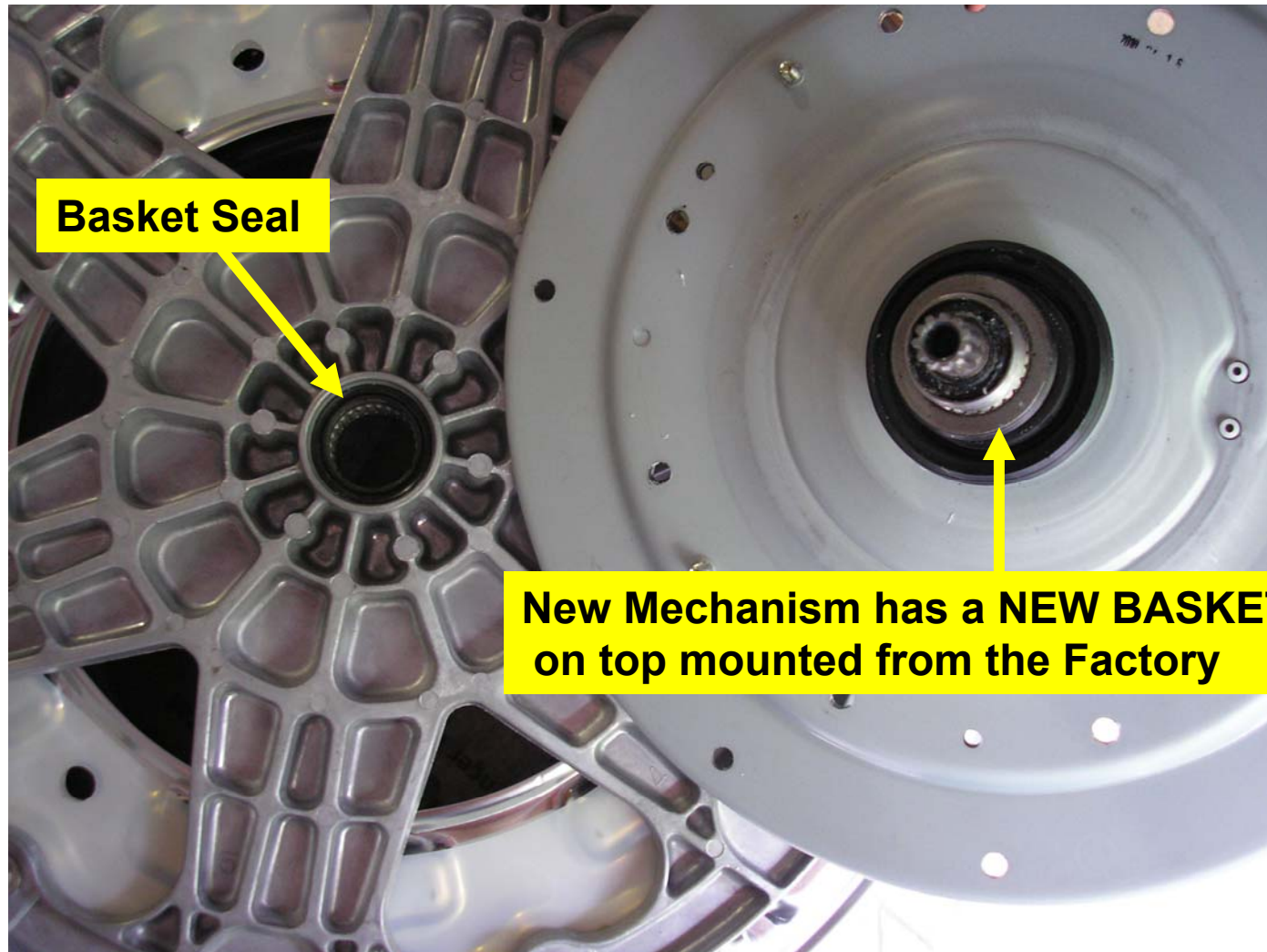
Removing/Replacing Mechanism



After Removing All Bolts – Mechanism can be removed Downward

COMPONENTS

Removing/Replacing Mechanism



Basket Seal

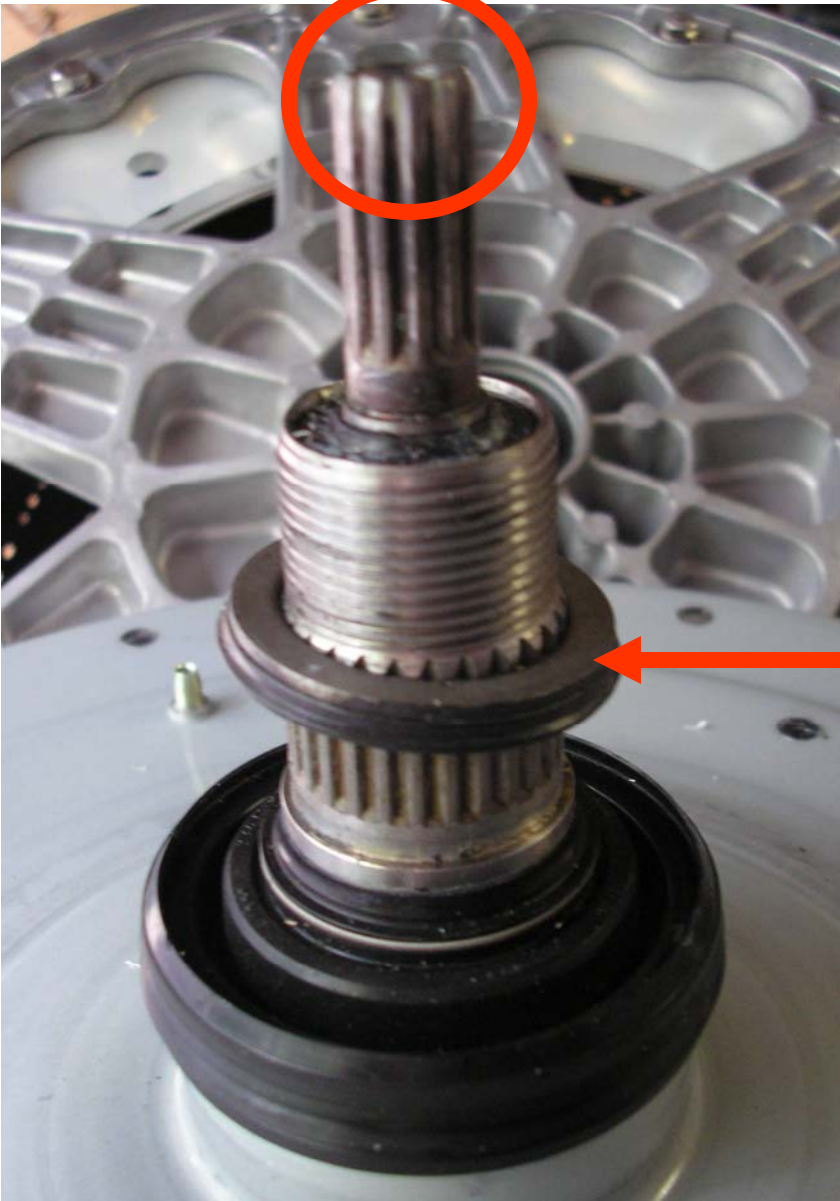
**New Mechanism has a NEW BASKET SEAL
on top mounted from the Factory**

IMPORTANT NOTE:

**Be sure to remove 'old' Basket Seal Before installing
New Mechanism**

**If Reassembled with TWO Basket Seals –
Basket will Rub TUB RING**

Immediate Rubbing Sound during Operation



Marred by shallow socket

'OLD' Basket Seal

COMPONENTS

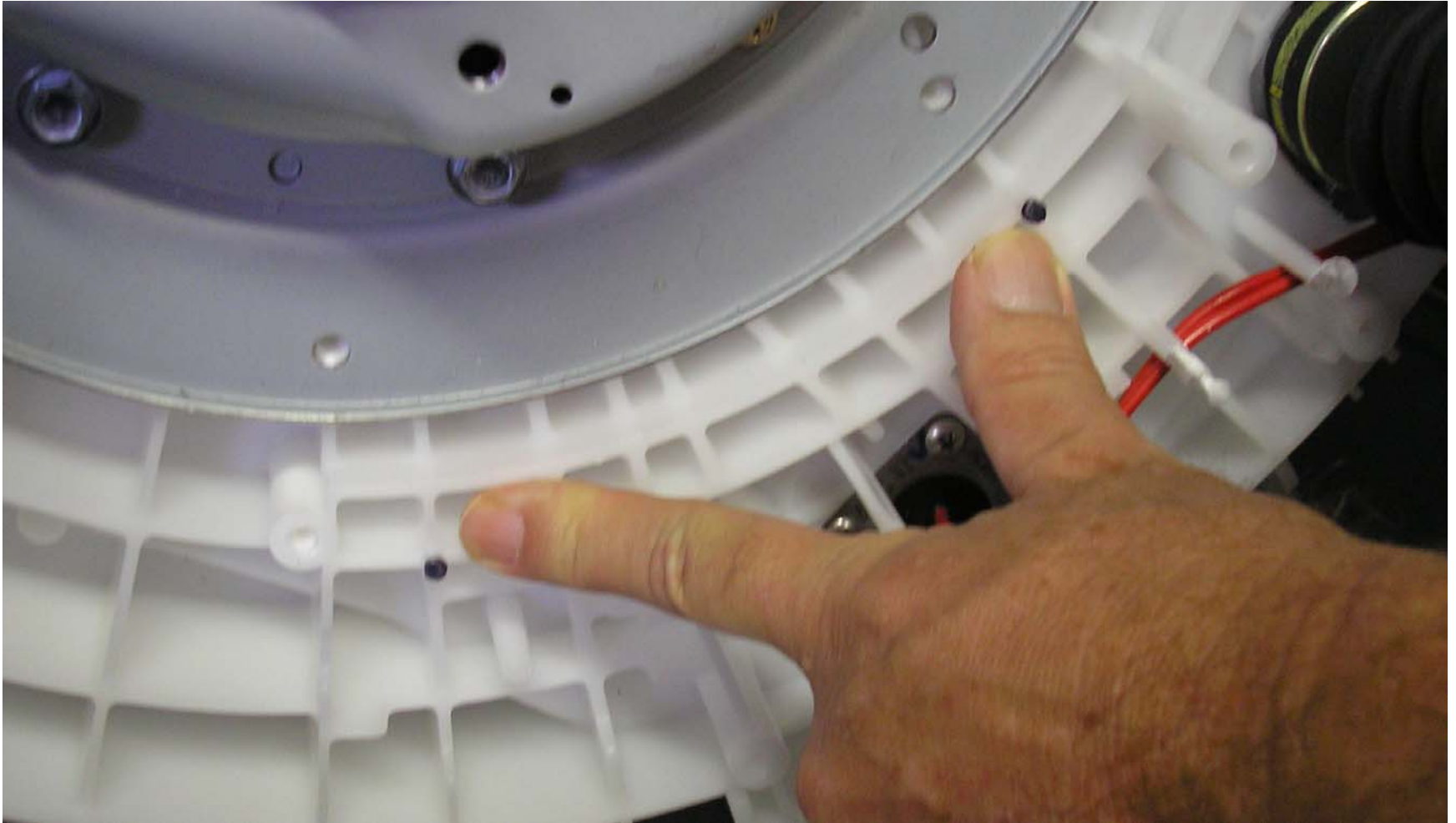
Reinstalling Mechanism



Align Mechanism with Locater Pins

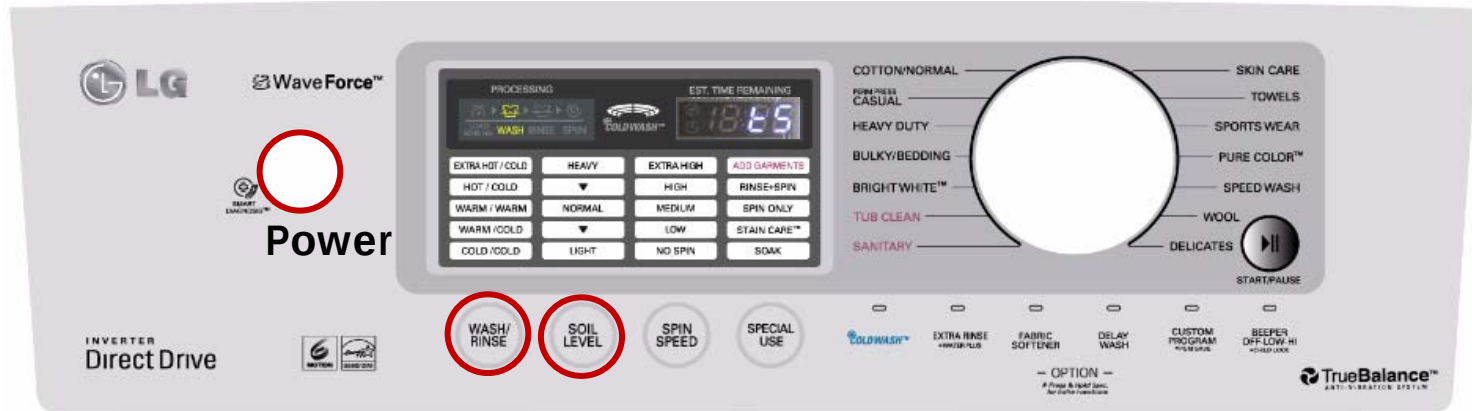
COMPONENTS

Reinstalling Shield



Realign Tub Heater Plate with Locater Pins

How to DEMO WaveForce™ Technology



Operation Key	How to
Power + Wash/ Rinse Temp + soil Level	Press Power + Wash/ Rinse Temp + Soil Level ; you will see t1 on the display. Press Start/pause until you see t5 on the display. •t5 = weighing/distributing •t7 = motion (if there is an LG towel inside, see demo movement) •t8 = Shows RPM ramping to 1100 (add a 0). Tip: add a balloon with an LG towel to show “powerful yet gentle.”

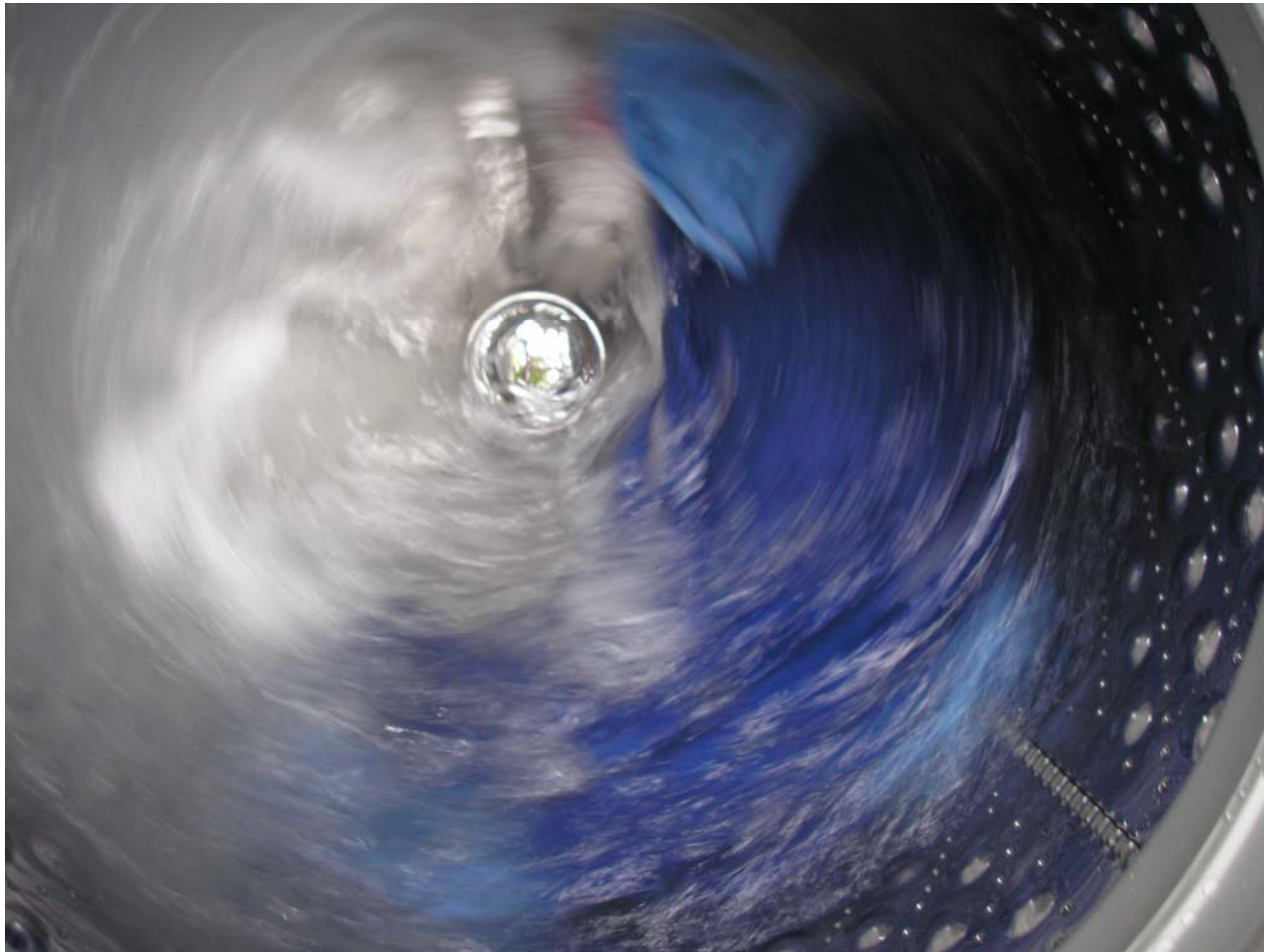
WAVE FORCE



WAVE FORCE



SPIN WASH



SPIN WASH



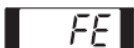
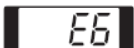
SPIN



TEST MODE

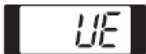
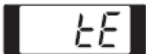
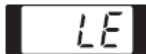
- Press and hold the WASH / RINSE and SOIL LEVEL buttons; then press the POWER button. The buzzer will sound twice.
- Press the Start/Pause button to advance to the subsequent test mode step.

Number of times the START/PAUSE button is pressed	Check Pont	Display Status
None	Turns on all LED	T1 and Main Program Version
1 time	Button Check	T2 and Display Program Version
2 time	None	T3
3 time	Inlet valve for Bleach Detergent turns on. (Cold Water)	A and Water level frequency (1~10 Level)
4 time	※ On :67~33(26.7kHz~23.3kHz) Inlet valve for Softener Dispenser turns on. (Hot Water)	※ The meaning of 67~33 number is 26.7kHz~23.3kHz really B and Water level frequency (1~10Level)
5 time	Inlet valve for J-Dispenser turns on. (Cold Water)	C and Water level frequency (1~10Level)
6 time	Heater check	T4 and the coefficient of flood sensing
7 time	Wave force check	T5 and the coefficient of load sensing
8 time	Drain pump check	T6 and Water level frequency
9 time	Pulsator operates for 3 minutes.	T7 and the coefficient of load sensing
10 time	High speed spin	T8 and RPM
11 time	Off . Unlocks the door . Turns off all LED	None

Problem	Possible Causes	Solutions
Water in the washer drains slowly or not at all, or the display shows: 	• Drain hose is bent, pinched, or clogged.	• Make sure the drain hose is free of clogs, kinks, etc., and is not pinched behind or under the washer. • Clean the drain filter. See the <i>Care and Cleaning</i> section.
Washer fills with water slowly or not at all, or the display shows: 	• Water supply taps are not open fully. • Water line hoses are kinked, pinched, or bent. • Water inlet filters are clogged. • Water pressure to tap or house is too low.	• Make sure that the water taps are open fully. • Make sure the hoses are not kinked or pinched. Be careful when moving the washer. • Clean the inlet filters. See the <i>Care and Cleaning</i> section. • Check another faucet in the house to make sure that household water pressure is adequate.
Washer will not turn on	• Power cord is not properly plugged in. • House fuse is blown, circuit breaker has tripped, or power outage has occurred.	• Make sure that the plug is plugged securely into a grounded, 3-prong, 120-VAC, 60-Hz. outlet. • Reset circuit breaker or replace fuse. Do not increase fuse capacity. If the problem is a circuit overload, have it corrected by a qualified electrician.
The display shows: 	• The lid is not closed properly.	• Make sure that the lid is closed properly and press the START/PAUSE button. After starting a cycle, it may take a few moments before the drum begins to turn or spin. The washer will not spin unless the lid is locked (LID LOCK will appear in the display). • If the lid is closed and locked and the open lid error message is displayed, call for service. • If you press the START button while the lid is open, dE error message will be displayed.
The display shows: 	• Lid lock switch error	• Make sure that the lid is closed properly and press the START/PAUSE button. The washer will not spin unless the lid is locked (LID LOCK will appear in the display). • If the lid is closed and the lid lock error message is displayed, call for service.
Wash cycle time is longer than usual	• The washer automatically adjusts the wash time for the amount of laundry, water pressure, water temperature, and other operating conditions.	• This is normal. The washer adjusts cycle time automatically to provide optimal results for the selected cycle. • If you press the START button while the lid is open, dE error message will be displayed.
The display shows: 	• Water level is too high due to a faulty water valve.	• Close the water taps, unplug the washer, and call for service.
The display shows: 	• Clutch error	• Unplug the washer, and call for service.



dr Feature

Problem	Possible Causes	Solutions
The display shows: 	• Load is too small. • Load is out of balance. • The washer has an imbalance detection and correction system. If individual heavy articles are loaded (bath mat, bath robe, etc.) and the imbalance is too great, the washer will make several attempts to restart the spin cycle. If an imbalance is still detected, the washer will stop and the error code will be displayed.	• Add 1 or 2 similar items to help balance the load. • Rearrange items to help balance the load.
The display shows: 	• Thermistor error	• Unplug the washer and call for service.
The display shows: 	• The water level sensor is not working correctly.	• Close the water taps, unplug the washer, and call for service.
The display shows: 	• Thermal overload protection circuit in the motor has been tripped.	• Allow the washer to stand for 30 minutes to allow the motor to cool; then restart the cycle. If the LE error code still appears, unplug the washer and call for service.
Staining	• Add laundry products to the washer drum. • Washer not unloaded promptly. • Does not properly sort the clothes.	• Load the laundry products into the dispenser. • Always remove items from the washer as soon as the cycle is completed. • Always wash dark colors separately from light colors and whites to prevent discoloration. If possible, do not wash heavily soiled items with lightly soiled ones.
Wrinkling	• Washer not unloaded promptly. • Washer overloaded. • Hot and cold water inlet hoses are reversed.	• Always remove items from the washer as soon as the cycle is completed. • The washer can be fully loaded, but the drum should not be tightly packed with items. The lid of the washer should close easily. • Hot water rinse can set wrinkles in garments. Check the inlet hose connections.

NOTE: If an error message is displayed for 4 minutes, the water in the tub will automatically drain. An alarm will sound 1 minute prior to draining, and 'dr' will appear on the display. You may restart the washer at this time. However, once the washer initiates draining, all functions will be suspended, and 'dr' will be displayed until draining is complete.

