

Technical Service Guide

January 2018

GE 27 Inch Top Load Washer

GTW750CPLDG
GTW750CSLWS



Safety Information



IMPORTANT SAFETY NOTICE

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

WARNING

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

RECONNECT ALL GROUNDING DEVICES

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

GE Appliances, a Haier Company

Technical Service Guide

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Table of Contents

Safety Information	2
Table of Contents.....	3
Safety Requirements	5
Nomenclature	6
Introduction.....	7
Control Features.....	8
Product Specifications	18
Water Levels.....	18
Component Locator Views	19
Underside Top Cover 750 Model	19
Tub Assembly 750 Model	20
Backsplash Assembly Electronic 750 Model	21
Control Board Electronic 750 Models	21
Bottom View	22
Diagnostics.....	23
Consumer Error Mode (CEM).....	23
Field Service Mode.....	23
Service Mode Tests	24
Fault Codes	27
Personality ID	34
Cabinet and Structure.....	35
Backsplash	35
Glass Lid Assembly	36
Metal Lid Assembly	36
Lid Latch	36
Lid Switch/Lock Assembly	37
Lid Hinge	38
Impeller	38
Top Cover	39
Basket Assembly	39

Table of Contents (continued)

Cabinet/Apron Assembly	40
Leveling Legs	40
Fill System	41
Water Valve	41
Thermistor.....	42
Bleach/Bulk Tank Funnel	42
Dispensers.....	43
Bulk Detergent Tank	46
Aspirator	47
Water Levels.....	48
Pressure Sensor	49
Wash System	50
Recirculation Pump	50
Drain System	51
Drain Pump.....	51
Drain Hose External	52
Drain Hose Internal.....	52
Drive System	53
Drive Belt	53
Drive/Transmission Pulleys	53
Speed/Hall Sensor.....	54
Drive Motor	55
Mode Shifter	56
Platform/Transmission Assembly.....	57
Main Harness Assembly	58
Riser	59
Schematics / Wiring Diagrams	60
Index.....	62

Safety Requirements

GE Factory Service Employees are required to use safety glasses with side shields, safety gloves and steel toe shoes for all repairs.



Steel Toed Work Boot



Electrically Rated Glove and
Dyneema® Cut Resistant
Glove Keeper



Dyneema® Cut Resistant
Glove



Cut Resistant Sleeve(s)



Plano Type Safety Glasses



Brazing Glasses



Prescription Safety Glasses
Safety Glasses must be ANSI
Z87.1-2003 compliant



WARNING

Prior to disassembly of the washer to access components, GE Factory Service technicians are **REQUIRED** to follow the Lockout / Tagout (LOTO) 6 Step Process:

Step 1 Plan and Prepare	Step 4 Apply LOTO device and lock
Step 2 Shut down the appliance	Step 5 Control (discharge) stored energy
Step 3 Isolate the appliance	Step 6 “Try It” verify that the appliance is locked out

Nomenclature

Model Number

G T W 7 5 0 C S L 0 W S

Brand

G: GE
H: Hot Point
M: Moffatt

Configuration

F: Front Load
T: Top Load - Rear Control
N: Top Load - Front Control
U: Unitized

Platform

W: Washer
D: Vented Dryer - Std
V: Vented Dryer - Long
C: Condenser Dryer
H: Heat Pump
Z: Flat Back Dryer - Long
X: Flat Back Dryer - Std

Series 1: 1 - 9

Series 2: 1 - 9

4 = 24" Unitized

7 = 27" Unitized

Series 3: 1 - 9 Washer Only

Color

WS: White with Silver
WW: White with White
DG: Diamond Grey

Engineering Digit:

0 - 99

Model Year:

L: 2018

Partner Type:

P: Premium Cost (color)
H: Home Depot
L: Lowes
S: Standard
C: Contract (Hoses)
M: Mabe

Product Type:

R: Riser
A: 2" Cover Top Load
B: 4" Cover Top Load
C: 4" Cover with Rise
S: Standard/Stationary
P: Portable

Fuel Type Dryer

E: Electric
G: Gas
P: Propane

The nomenclature breaks down and explains what the letters and numbers mean in the model number.

Serial Number

The first two characters of the serial number identify the month and year of manufacture.

Example: LA123456S = June, 2013. The letter designating the year repeats every 12 years.

A – JAN	2024 – Z
D – FEB	2023 – V
F – MAR	2022 – T
G – APR	2021 – S
H – MAY	2020 – R
L – JUN	2019 – M
M – JUL	2018 – L
R – AUG	2017 – H
S – SEP	2016 – G
T – OCT	2015 – F
V – NOV	2014 – D
Z – DEC	2013 – A



The model tag is located at the right bottom edge of the lid.

The mini manual is in a storage bag on the inside bottom left of the cabinet.

Introduction

GE Appliances Top Load Washer Features

The GE Appliances 27 Inch Top Load Washer includes many requested features. With so many sought after features, this product delivers on washability that the consumer has been looking for.

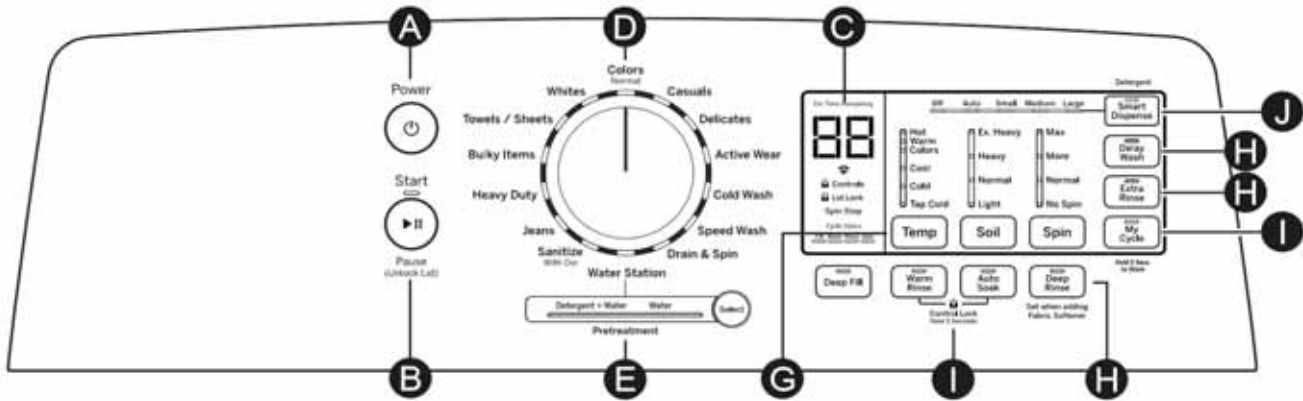
Features include:

- **Deep Fill:** Option to add more water for larger loads.
- **Deep Rinse:** Removes any leftover soap residue.
- **Warm Rinse:** Option to select between a warm or cold rinse.
- **Auto Soak:** Loosens stains by soaking up to 2 hours.
- **Speed Wash:** Provides a quick wash for lightly soiled items that are needed in a hurry.
- **Wi-Fi Connect:** Control and monitor laundry from anywhere with a smart device or Amazon Alexa.
- **Water Station:** Pre-wash clothes easily with a faucet inside the washer that dispenses water and detergent.
- **SmartDispense™ Technology:** Holds up to 75 oz. of detergent and automatically dispenses the right amount for each load.
- **Sanitize with Oxi:** Removes 99.9% of bacteria with a dedicated cycle that uses an Oxi additive to boost detergent cleaning power, while keeping fabrics looking their best.
- **Soft-Close Glass Lid:** Engineered to close gently every time.

Control Features

Throughout this manual, features and appearance may vary by model.

GTW750 Models



A

Power

Press Power to wake up the display. If the display is active, press Power to put the washer into idle mode.

NOTE: Pressing Power does not disconnect the appliance from the power supply.

B

Start/Pause

Press Start to begin the cycle.

NOTE: Unless the Bulky Items cycle is selected, the lid must be closed for the washer to start a cycle.

If the lid is open, "Lid" will scroll across the display. During the load sensing portion of the cycle, the lid will lock and "SEnSing" will scroll across the display. When load sensing is complete, the lid will unlock. Pressing Pause will unlock the lid (if locked at that time), pause the cycle and the Start indicator light will blink. To continue the cycle, press Start again. If water remains in the machine, select the Drain & Spin cycle to drain the basket and spin water out of the washer basket.

NOTE: The machine will automatically cancel and drain when water is present and the lid is left open for 15 minutes or the unit is left in a paused state for 24 hours with the lid closed. Select Cycle and press Start to begin new cycle.

Pressing Pause will unlock the lid (if locked at that time), pause the cycle and the Start indicator light will blink.

To continue the cycle, press Start again. If the machine is paused more than 24 hours, the cycle will be cancelled. If water remains in the machine, select the Drain & Spin cycle to drain the basket and spin water out of the washer basket.



Display and Status Lights

Display: The display shows the approximate time remaining until the end of the cycle.

NOTE: The cycle time is affected by how long it takes the washer to fill. This depends on the water pressure in the home. The size of the load being washed also significantly impacts cycle time, with larger loads taking longer.

In addition, this display will, “scroll” the washer status:

- **bALAnCIng** Start of rebalancing cycle to redistribute clothes. Stops after rebalancing is complete.
- **dELAY** When Delay Wash is initiated. Replaced with estimated time when cycle starts.
- **End** End of current cycle.
- **FILL** For the first 45 seconds of a fill, the estimated end of cycle time is displayed. For the rest of the fill time, “FILL” is scrolled until the fill completes.
- **H2O SUPPLY** Cannot sense water level (valves possibly turned off).
- **Lid** Cycle stopped because lid is open. Close the lid.
- **SEnSing** Sensing load size and type before and during fill (normal).
- **PAUSE** Cycle paused because the Start/Pause button was pressed and the washer was set to Pause. Press the Start button again to restart the cycle.

Cycle status lights: Shows whether the washer is in the Delay, Fill, Soak, Wash, Rinse or Spin portion of the cycle.

If an out-of-balance condition is detected by the washer, the Spin light will blink during the remaining portion of the cycle and will stay illuminated for a short time after cycle completion. When this occurs, the washer is taking actions to correct the out-of-balance condition and complete the cycle normally. In some cases, the washer may not be able to balance the load and spin up to full speed. If the load is more wet than normal at the end of the cycle, redistribute the load evenly in the wash basket and run a Drain & Spin cycle.

Feature status lights indicate (see sections **F** and **G** for more details):

- II Pause** Will display when the washer is paused between cycles.
- 🔒 Controls** The washer is locked; will blink once if any button is pressed or the cycle knob is rotated.
- 🔒 Lid Lock** The lid is locked.
- 📶 WiFi (on some models)** Will display when connected via Wi-Fi. Will blink when attempting to connect to device or to the home Wi-Fi.
- Spin Stop** Indicates wash basket is coasting to a stop following spin. Lid will not unlock until the basket has come to a full stop.

D

Wash Cycles-Cycle Selector Knob

The wash cycle controls the type of washing process. The cycle selector knob can be turned in either direction. Turning the knob after starting a cycle will stop the washer and change the cycle options to the new selection. Press Start to begin the new cycle selection.

The chart below will help match the items to be washed with the best wash cycle settings. For optimal performance, select the cycle that most closely matches the items being washed.

Selections and options shown in bold are default settings for that cycle.

Some cycles and options may not be available on some models.

Items to Wash	Cycle	Wash Temp	Soil Level	Spin Selection	Options Available	Cycle Details
Cycle for normal, regular, or typical use for washing up to a full load of normally soiled cotton clothing.	Colors	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Cycle for normal, regular or typical use for washing up to a full load of normally soiled cotton clothing. Choose the Heavy or Extra Heavy soil level selection and Warm or Hot water temperature selection as appropriate for the clothes load for a higher degree of cleaning. Incorporates multi-stage fills and wash periods to provide optimal fabric care.
Casual clothes, lightly soiled office wear.	Casuals	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Wash cycle tailored to care for casual clothes and office wear items.
Lingerie and special care fabrics with light soil. Water-resistant, bedding and bulky items, such as large coats, mattress pads, and bath mats.	Delicates	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Utilizes a unique "tri-pulse" extra gentle agitate profile to provide special care to delicate fabrics. It is recommended to place small or ultra-delicate items in mesh bags before washing.
Medium to lightly soiled athletic wear items of technical or synthetic fabrics.	Active-wear	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Cycle designed for care of medium to lightly soiled active wear, athletic wear, and technical fabrics. Incorporates a dual stage wash period with soak to effectively treat body soils and odors. Use the Heavy Duty cycle for heavily soiled sports clothing constructed of sturdy fabric.
Dark colored cottons, linens, and mixed loads.	Cold Wash	Hot Warm Colors Cool Cold Tap Cold Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Auto Soak Deep Rinse Delay Wash Extra Rinse	Cycle combines multiple wash agitation periods with soak periods to provide enhanced cleaning performance and energy efficiency with colder water temperatures.

D Wash Cycles-Cycle Selector Knob - Continued

Items to Wash	Cycle	Wash Temp	Soil Level	Spin Selection	Options Available	Cycle Details
Small loads of lightly soiled items that are needed in a hurry. Examples include one casual wear outfit or three soccer uniforms.	Speed Wash	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Utilizes more intense agitation profile, expedited wash period, and time saving continuous spray rinse to clean small lightly soiled loads in the fastest time possible.
Wet load of items. For items that need only to be rinsed, use this cycle with the Deep Rinse option.	Drain & Spin			Max More Normal No Spin	Deep Rinse Extra Rinse	Utilizes a high speed spin to extract water from wet items. For items that need to be rinsed, select the Deep Rinse option when using this cycle.
Cleaning the basket of residue and odor. No clothes to be washed using this cycle.	Basket Clean	Hot	Ex. Heavy	Normal	Deep Fill Deep Rinse	Recommended use of at least once per month. Never load laundry when using this cycle, laundry may become damaged or contaminated. Cycle incorporates a hot deep wash, intense agitation action, a dispenser purge (on some models), and a deep rinse.
Heavily soiled colorfast items.	Sanitize with Oxi*	Hot	Ex. Heavy	Max More	Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Cycle uses an initial lower water fill for super concentrated, high temperature sanitization followed by a heavy wash step. A pump purge and deep rinse is incorporated to remove contaminants. See additional details and certifications in the Sanitize With Oxi section. Smart Dispense not available on this cycle.
Jeans with medium to light soil. For heavily soiled work jeans, use the Heavy Duty Cycle.	Jeans	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Combines higher water levels a, specially designed agitation profile, and multi-step wash and soak periods to care for jeans with medium to light soil. Use the Heavy Duty cycle for heavily soiled work jeans.
Sturdy fabrics with heavy to medium soil.	Heavy Duty	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Incorporates multi-step wash and soak periods combined with extended wash periods to effectively clean heavily to medium soiled sturdy fabrics.

D Wash Cycles-Cycle Selector Knob - Continued

Items to Wash	Cycle	Wash Temp	Soil Level	Spin Selection	Options Available	Cycle Details
Water-resistant, bedding and bulky items, such as large coats, mattress pads, and bath mats	Bulky Items	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Provides a Deep Fill/Max Fill wash water level to wash bulky and waterproof items. Also incorporates a Deep Fill rinse to effectively rinse bulky items and a low spin speed appropriate for these items. Only use this cycle for water-resistant, bedding or bulky items.
Towels Sheets	Towels / Sheets	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Cycle designed washing towels or sheets, using a higher water level and a soak period to effectively clean these items. It is recommended that towels and sheets be washed separately for best care and washing performance. For waterproof bed covers use the Bulky Items cycle.
Whites and household linens	Whites	Hot Warm Colors Cool Cold Tap Cold	Ex. Heavy Heavy Normal Light	Max More Normal No Spin	Stain Removal Guide Deep Fill Warm Rinse Auto Soak Deep Rinse Delay Wash Extra Rinse	Cycle tailored to clean and brighten whites.

CAUTION: Failure to follow these instructions may result in injury or property damage. For Waterproof, Water-Resistant, or Bulky Items:

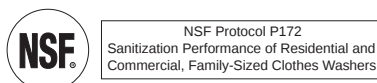
- Only use the Bulky Items (or Delicates) cycle. **NOTE:** Some models only have a Delicates cycle.
- Using other cycles can cause excessive vibration and may result in injury or damage to the washer, walls, or floor.
- Do not mix waterproof and non-waterproof items.
- Read the Use and Care book or Owner's Manual for wash cycle details.

Sanitize with Oxi

The **Sanitize with Oxi** cycle, when using an Oxi additive along with the detergent, is designed to remove 99.9% of bacteria found in home laundry. Measure the detergent and the Oxi products carefully. Using the amounts appropriate for a large heavily soiled load, follow the detergent and the Oxi product label instructions. The detergent should be added using the dispenser instructions as shown on page 9 of the Use and Care book. Place the Oxi product directly in the bottom of the wash basket, before adding the clothes. The washer hot water supply connection must provide a minimum of 120°F to ensure the effectiveness of this cycle.

NOTE: The default **Sanitize With Oxi** cycle water temperature can NOT be changed.

The **Sanitize With Oxi** cycle is certified by NSF International, an independent third party testing and certification organization. The certification verified that the cycle reduced 99.9% of bacteria typically found in residential laundry and that no significant contamination is transferred to subsequent washer loads. Only the **Sanitize With Oxi** cycle has been designed to meet the requirements of NSF Protocol P172 for sanitizing effectiveness.

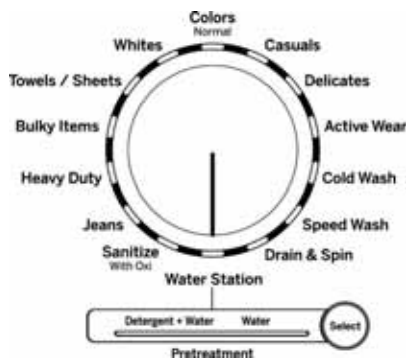


(Continued next page)

E Pretreating or Soaking Using Water Station (on some models)

This feature is for the pretreating of garments only and not intended to serve as an actual wash cycle. When selected, the washer will supply either fresh water or water mixed with detergent from the SmartDispense system for garment hand pre-washing or pretreating use.

The pretreating water will be dispensed from the area located in the back of the main opening of the washer. When selected, any water dispensed into the wash tub during the pretreat will be drained from the machine before any subsequently selected wash cycle can begin.



Alternatively, use this feature to soak garments in the pretreated water for up to 24 hours with the lid closed and the cycle knob remaining on Water Station.

In order to use this feature to soak, keep the dial on Water Station and close the lid. Soak can be left for up to 24 hours before the water in the tub will be automatically drained. Rotating the dial, holding the Start button for 3 seconds or leaving the lid open for more than 15 minutes will all automatically drain the water from the tub.

Water Station Only Select this feature:

1. Rotate the cycle selection knob to Water Station.
2. Push the Select button until the LED below Water is illuminated.
3. Select the desired water temperature using the Temp button.
4. Press the Start button to initiate the feature. If the lid is not already open, raise the lid of the washer to start the flow of fresh water from the dispensing area. Water will continue to be dispensed until the lid is closed or the water level in the tub reaches the maximum level.

If the lid is closed before the maximum level in the tub is reached, additional water can be dispensed by opening the lid again. Once the lid is closed, water dispensed using the water on demand feature will remain in the tub until the cycle selection knob is rotated to an actual wash cycle, or the Start button is held in for 3 seconds, at which point the water in the tub will be drained out of the machine.

If the lid is not closed, the water in the tub will automatically be drained after 15 minutes. With the lid closed, if the cycle selection knob is not rotated to an actual wash cycle, or the Start button is not held in for 3 seconds, the water in the tub will automatically be drained after 24 hours.

Water Station with Detergent Select this feature:

1. Rotating the cycle selection knob to the Water Station.
2. Push the Select button until the LED below Detergent + Water is illuminated.
3. Select the desired water temperature using the Temp button.
4. Press the Start button to initiate the detergent feature. If the lid is not already open, raise the lid of the washer to start the flow of soapy water from the dispensing area. Soapy water will continue to be dispensed until the lid is closed or the water level in the tub reaches the maximum level.

If the lid is closed before the maximum level in the tub is reached, additional soapy water can be dispensed by simply opening the lid again. Once the lid is closed, soapy water dispensed will remain in the tub until the cycle selection knob is rotated to an actual wash cycle, or the Start button is held in for 3 seconds, at which point the soapy water in the tub will be drained out of the machine.

If the lid is not closed, the soapy water in the tub will automatically be drained after 15 minutes. With the lid closed, if the cycle selection knob is not rotated to an actual wash cycle, or the Start button is not held in for 3 seconds, the soapy water in the tub will automatically be drained after 24 hours.

(Continued next page)



Settings

Individual settings for agitation (Soil), water temperature (Temp), and spin (Spin) can be set from the minimum (lowest in column) to maximum (highest in column). In general, the higher up the column, the more washer energy will be used.

NOTE: Longer spin times typically reduce dryer time/energy usage (i.e.: reduces total energy when using both a washer and a dryer).



Cycle Options

Deep Fill

Select the Deep Fill feature for loads where extra water is needed. The Deep Fill feature is recommended for special caseloads only, not for typical use.

Press the Deep Fill button once before starting the cycle to add an incremental amount of water to the wash load. Holding the Deep Fill button for 3 seconds will provide the deepest fill level possible; this will increase cycle time due to the additional time it takes to fill the washer.

To cancel the option if desired, press the Deep Fill button again.

NOTE: The Deep Fill button can also be pressed after the washer has completed filling and is in the wash phase if additional water is desired. To stop the extra fill, press the Deep Fill button again and the water will stop.

Warm Rinse

Provides a warm rinse to the wash load. Note that rinsing operations may be different with this operation selected in order to effectively apply the warm rinse water to the load.

Auto Soak

This option begins with a brief agitation, soaks for a specified period of time, then moves through the rest of the cycle automatically. Repeated pressing of the Soak button will scroll through 15 minute, 30 minute, 1 hour and 2 hour selections and then return back to 0 soak minutes.

Deep Rinse

Set this option to provide a deep rinse or when using fabric softener. It may change other settings (e.g.: Spin may go to a higher setting) to maximize performance.

Delay Wash

When the Delay Wash button is repeatedly pressed, the delay time is set from 1 (01H) to 9 (09H) hours and back to clear (00H) hours. Press and hold the Delay Wash button for 3 seconds to immediately reset.

Extra Rinse

When using extra detergent or bleach to clean heavily soiled clothes, use the Extra Rinse option to better remove additional residues. **NOTE:** This option is not allowed for some cycles.



Additional Options

My Cycle Settings

As the cycle selector knob is turned, the Temp, Soil and Spin settings change to automatic pre-set default settings for each cycle. If the user desires different default settings, select the desired options or changes to the cycle settings, then press and hold the My Cycle button for 3 seconds to store them. The My Cycle button will light when active. In the future, when the user turns the selector knob to that cycle, the settings will be automatically recalled. To restore the factory defaults temporarily (i.e.: for this load), press the My Cycle button for 1/2 a second. The My Cycle light will turn off and the factory defaults will load. However, the next time the user selects this cycle, My Cycle settings will load. If the user wishes to permanently restore the factory default settings for the cycle; when the My Cycle is active (button light on) press and hold the My Cycle button for 3 seconds. The factory defaults will load for the selected cycle and the My Cycle light will turn off. The default settings will load when this cycle is selected in the future and the My Cycle light will remain off. **NOTE:** My Cycle saves the following options: Temp, Soil, Spin, Extra Rinse, Deep Fill, Warm Rinse, Auto Soak and Deep Rinse.

Control Lock

Use the control lock before or during a cycle to prevent any selections from being made.

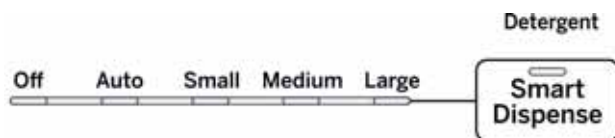
To lock/unlock the washer controls, press and hold the Warm Rinse and Auto Soak buttons for 3 seconds. The control lock icon will light up when it is on. **NOTE:** The Power button can still be used when the machine is locked.

J

SmartDispense™ (GTW750 model only)

When selected, this feature will automatically add detergent to the wash, eliminating the need to add detergent for each load. The tank will hold approximately 75 ounces of liquid detergent. This is enough for about 50 average laundry loads when filled to the maximum level.

The detergent amount selection on the control panel will default to AUTO when first powering up the washing machine. When AUTO is selected, the amount of detergent needed for each laundry load will automatically be determined based on the size of the load the machine senses.



If it is desired to manually select the amount of detergent for a given load, this can be done by pressing the Detergent Dispense button on the control panel to select detergent for a Small, Normal or Large load. Small will provide less detergent than average, Normal will provide an average amount of detergent and Large will provide more detergent than average.

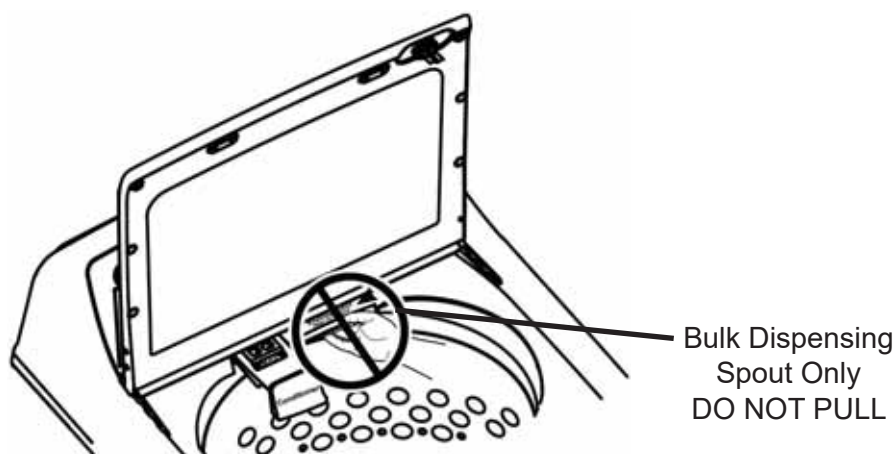
The smart dispense feature can be disabled by pressing the Detergent Dispense button until Off is selected.

NOTE: Not all cycles will allow the use of the SmartDispense feature. If the light is illuminated below the Off position and pressing the Detergent Dispense button results in a beeping tone, then SmartDispense is not allowed for the cycle that has been selected. Detergent will need to be added directly to the wash basket for these cycles.

This model does not have a dispenser drawer for detergent since it has a bulk detergent dispensing system.

NOTE: If it is desired to manually add detergent for a load, that detergent will need to be added directly to the basket, and the smart dispense set to OFF for that particular load.

NOTE: The right side of the dispensing area in the rear of the washer opening does NOT pull out. It is a spout only for water and detergent to flow from the smart dispense system.



NOTE: If it is desired to change detergent type in the detergent tank, it is not required to flush the smart dispense system. The new detergent type can be added to a partially filled tank, however it will not be immediately dispensed until the original detergent is completely dispensed from the system.

NOTE: In the event that excessive chlorine bleach is accidentally spilled or otherwise gets into the detergent tank, please follow the Detergent Tank Clean-Out instructions in the Care and Cleaning section in order to minimize the possibility for clothing damage. If only a few drops of bleach are spilled into the detergent tank, there is no need to flush the tank.

Consumer Help Indicator

The washer is equipped with Consumer Help Indicator (CHI). CHI communicates a simple remedy for some situations that can be performed without the need to call for service. The chart below describes the helpful messages that may scroll on the display when returning to start another load. These messages will provide simple remedies that can be quickly performed.

Spin light blinking	If an out-of-balance condition is detected by the washer, the Spin light will blink during the remaining portion of the cycle and will stay illuminated for a short time after cycle completion. When this occurs, the washer is taking actions to correct the out-of-balance condition and complete the cycle normally. In some cases, the washer may not be able to balance the load and spin up to full speed. If the load is more wet than normal at the end of the cycle, redistribute the load evenly in the wash basket and run a Drain & Spin cycle.
"H2O SUPPLY" (Water not entering washer)	Check the house water supply. Did the user forget to turn on one or both supply valves after installation or coming back from vacation? As soon as the message starts to scroll, the washer will initiate a 4-minute lock-out period. The washer controls won't respond/change during this time. After the 4 minutes, the user can begin the cycle again. If the user tries to bypass the lock-out period by unplugging the washer, the 4-minute timer will start over again.
"CAnCELEd"	"CAnCELEd" may scroll on the display if the machine was paused for longer than 12 hours or if the machine has stopped itself before the cycle completed due to certain errors. As soon as the message starts to scroll, the washer will initiate a 4-minute lock-out period. The washer controls won't respond/change during this time. After the 4-minute period, begin the cycle again. If the user tries to bypass the lock-out period by unplugging the washer, the 4-minute timer will start over again. If the problem persists, call 800.GE.CARES (800.432.2737) for service.
"Lid"	"Lid" will be shown on display if 3 cycles have been started without opening the lid. The washer will not start another cycle until the lid is opened. Try opening, then closing the lid and starting a new cycle. If the problem persists, call 800.GE.CARES (800.432.2737) for service.

Redistribution

If an out of balance condition occurs during final spin, the washer will try to redistribute the clothes evenly to achieve final spin speed. The washer will only attempt to redistribute the clothes one time.

The washer will try to spin up three times (one initial try and two retries before going into redistribution). The redistribution sequence is the washer will fill with 20 gallons of water, agitate, drain and then attempt to spin up to full spin speed. If the washer cannot balance the load past 140 RPM, it will cancel the cycle. If it passes the 140 RPM dwell and cannot spin past 450 RPM, the washer will attempt to reach 450 RPM two more times. If the washer cannot maintain the 450 RPM, the drain pump will turn on, coast to a stop and cancel the cycle. If the redistribution occurs, approximately 15 minutes will be added to the cycle time.

Product Specifications

AC Voltage

- **Main Board:** 120 VAC to the J101
- **Recirculation Pump:** Should read approximately 31.7 ohms - 120 VAC
- **Drain Pump:** Should read approximately 13.2 ohms - 120 VAC
- **Mode Shifter Motor:** Should read approximately 5.7k ohms - 120 VAC
- **Water Valves:** Should read approximately 1.3k ohms – 120 VAC
- **Lid Lock Position Locked:** Locked pin 3 to pin 1 approximately 70 ohms - 120 VAC
- **Lid Switch Position Closed:** Continuity is checked between pins 1 and 2 with the lid closed

DC Voltage

- **UI Logic Board:** 12 VDC / 7.5 VDC
- **Hall Sensor:** 9 VDC pin 3 to pin 2
- **Pressure Sensor:** (See **Pressure Sensor** in the **Fill System** section of this service guide.)

CAUTION

FOR ELECTROSTATICS, be sure to make an earth ground connection before replacing any electronic components to prevent electrostatic damage to them. This is done by touching a good earth ground on the appliance being repaired.

Water Levels

Approximate Minimum Water Levels

Impeller: 7 gallons or 3 in. deep from the bottom of the basket.

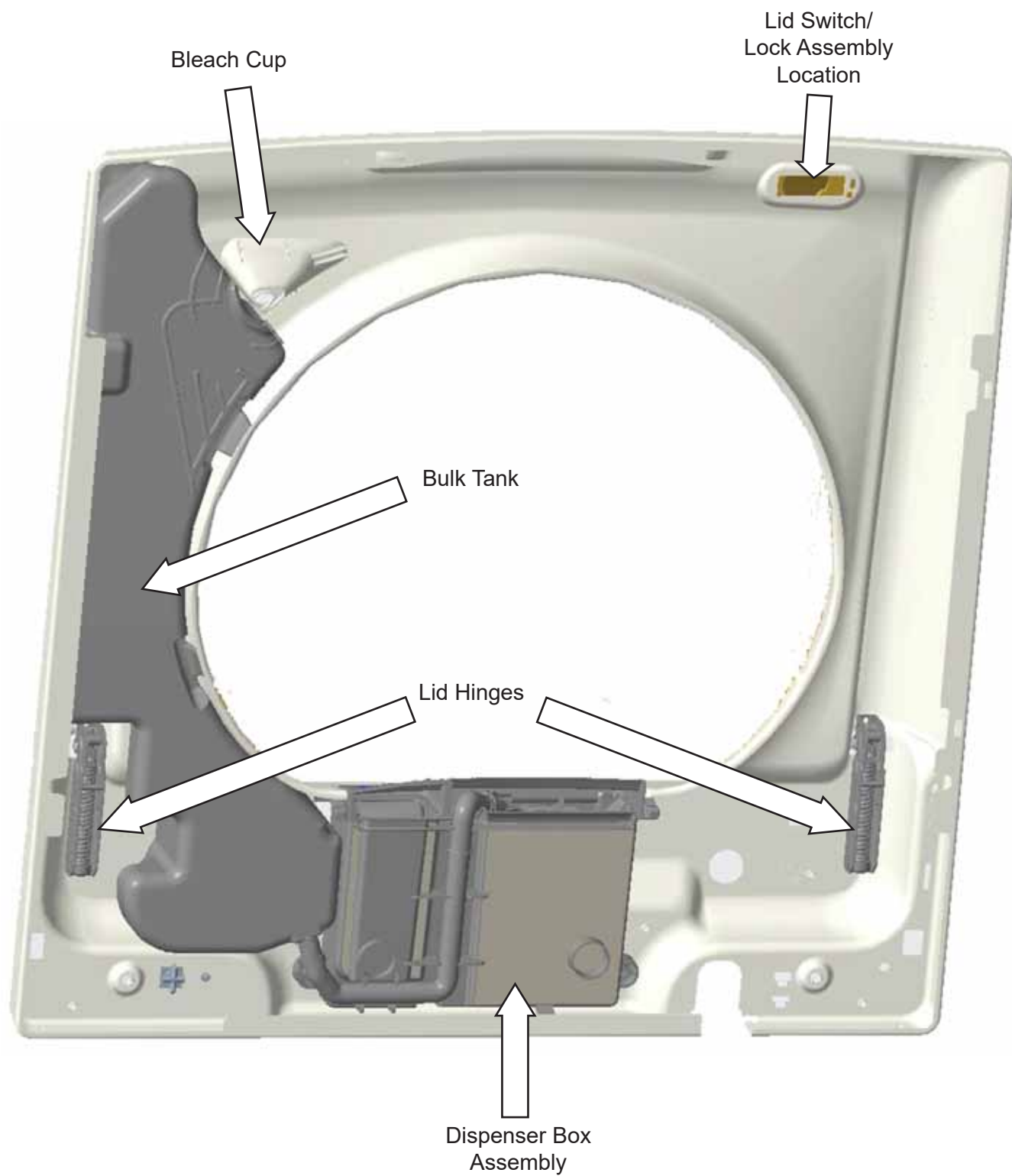
Approximate Maximum Water Levels

Impeller: 26 gallons or 13-1/2 in. deep from the bottom of the basket. Press and hold the **Deep Fill** button for 3 seconds to achieve.

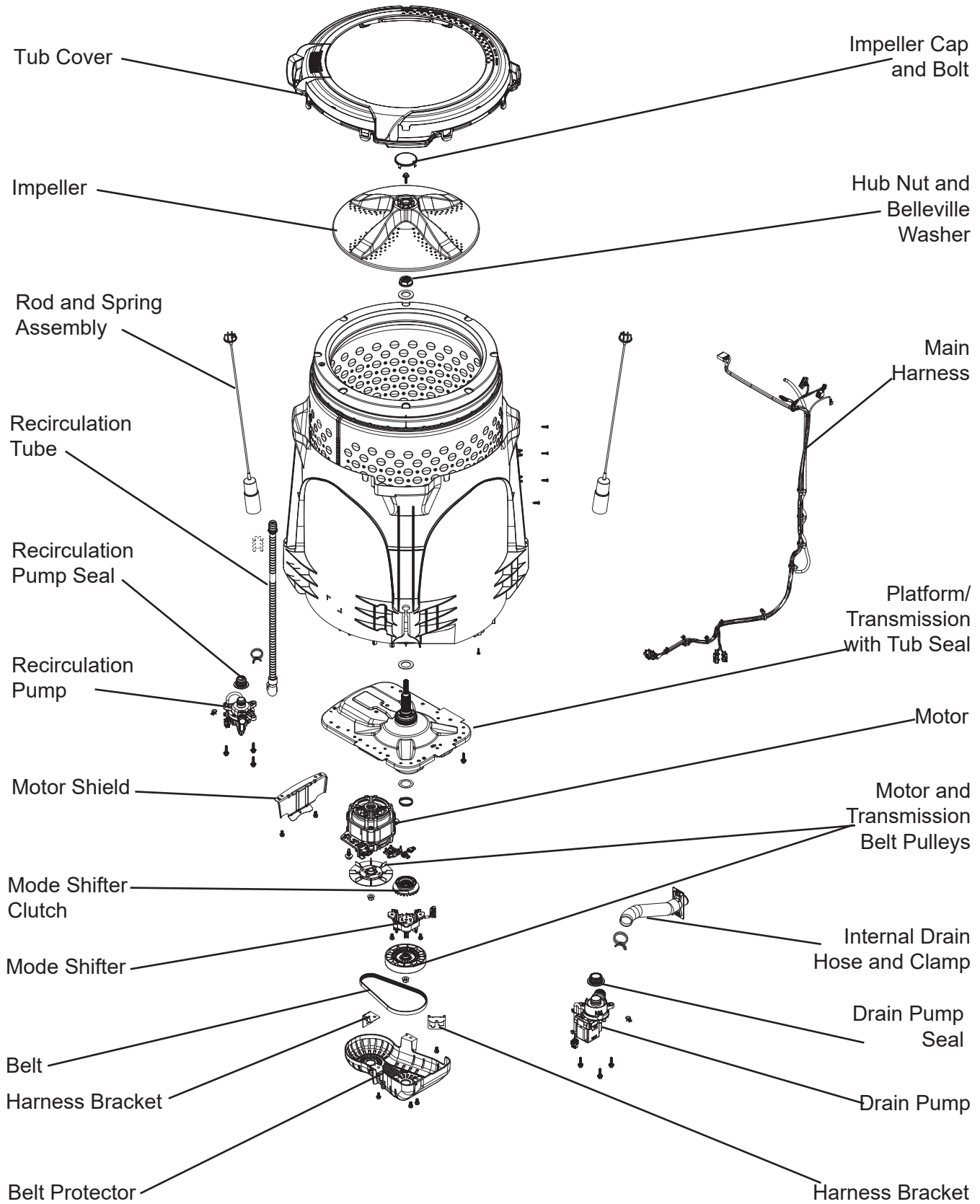
Impeller **Bulky** setting water level is 26 gallons or 12-3/4 in. deep from the bottom of the basket.

Component Locator Views

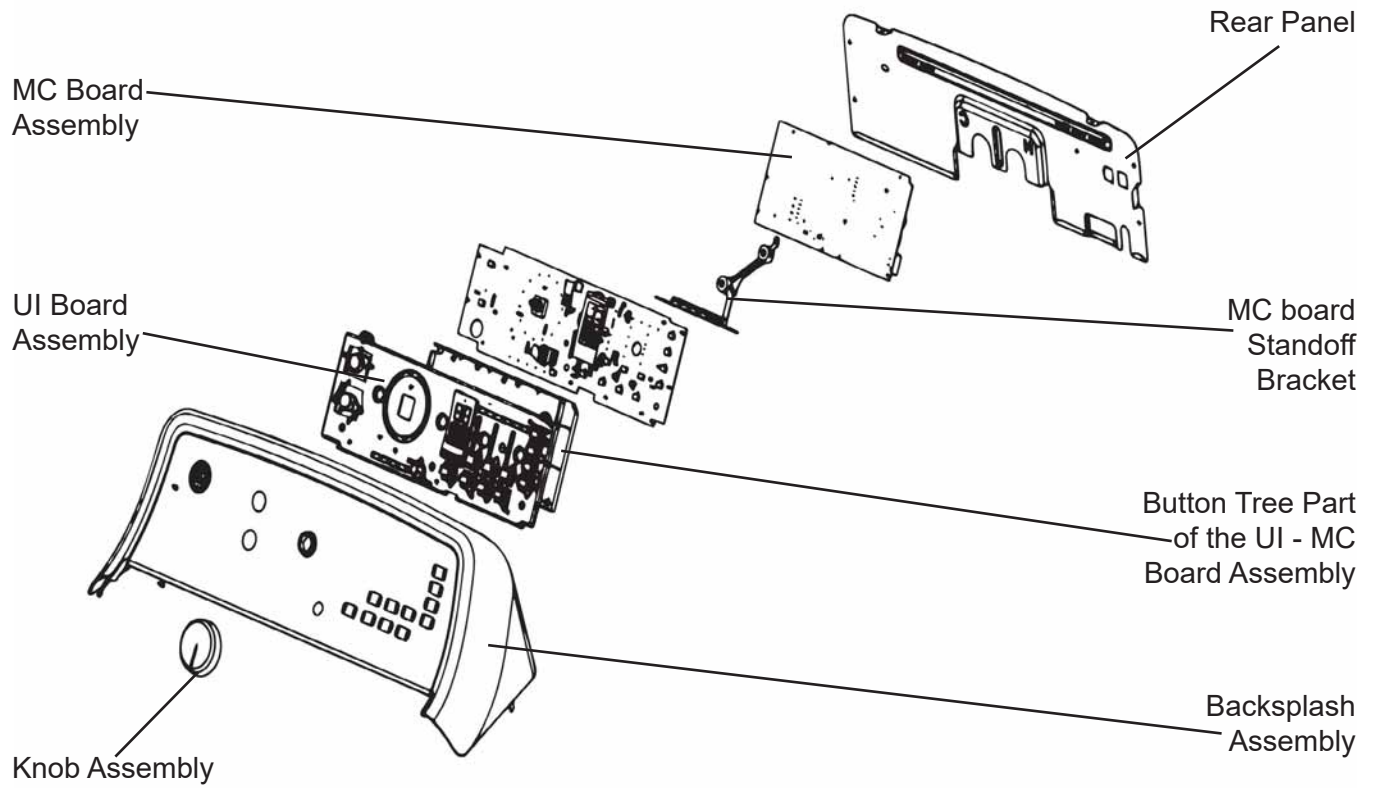
Underside Top Cover 750 Model



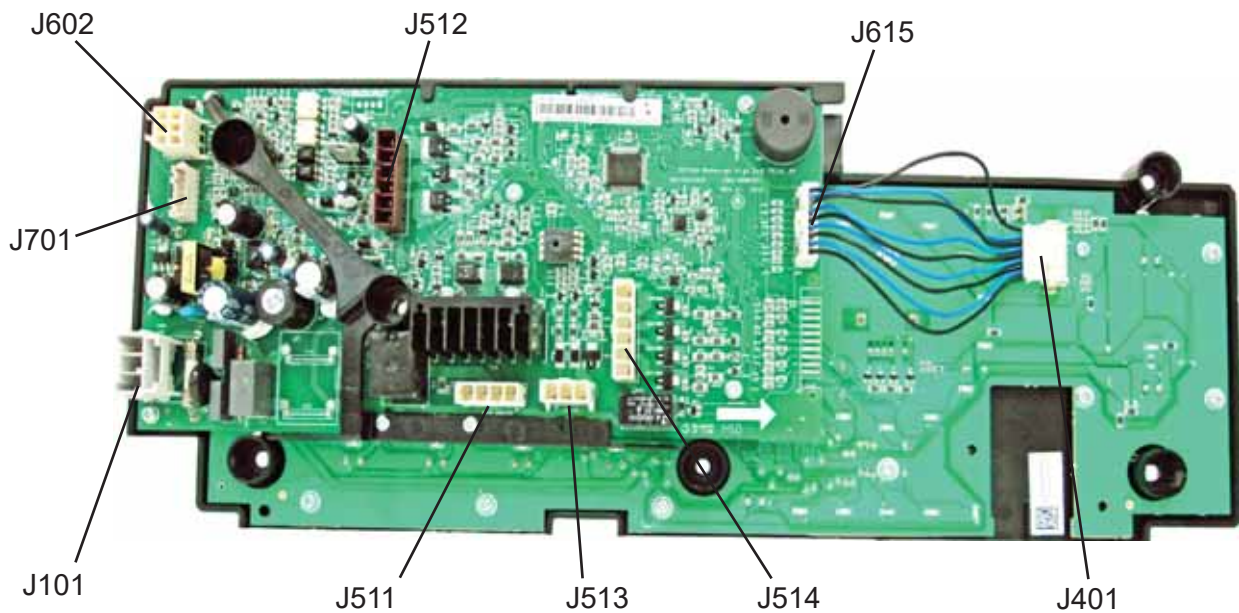
Tub Assembly 750 Model



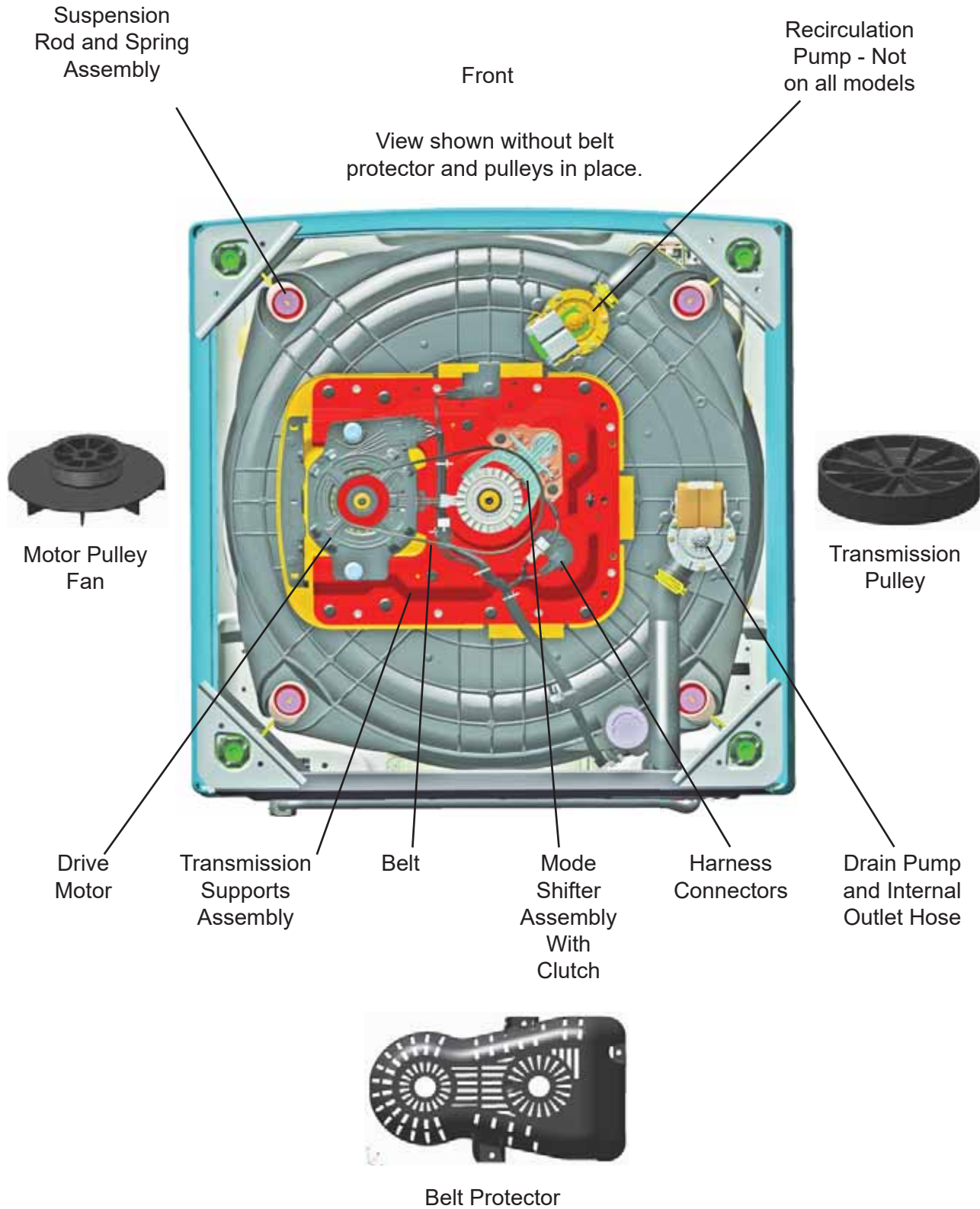
Backsplash Assembly Electronic 750 Model



Control Board Electronic 750 Models



Bottom View



Diagnostics

Consumer Error Mode (CEM)

Entry into Consumer Error Mode

Consumer Error Mode allows the consumer to retrieve the fault codes to assist with diagnosis at the time the consumer calls for service to their machine. The consumer cannot delete any of the codes or run any components.

1. From an idle state (all LEDs off), press and hold the Start button for 10 seconds.
2. After holding Start for 10 seconds, all LEDs will turn on signifying to the user to release the Start button.

Behaviors While in Consumer Error Mode

- The Pause and Lid Locked LEDs should be constantly blinking while in CEM.
- The first fault, if present, will show on the display.
- Pressing Start will display the next fault.
 - Models with a 7-segment display will blink the fault number in the display.
- At the end of the fault list or if no faults are present:
 - Models with a 7-segment display will display "- -".

Exiting Consumer Error Mode

- Pressing any button (other than Start), or turning any knob will exit the Consumer Error Mode.
- Consumer Error Mode will time out after 10 minutes.

Field Service Mode

Entry into Field Service Mode

- From an idle state (all LEDs off), press and hold the Start button for 10 seconds while rotating the cycle selection knob 180 degrees (seven clicks) and then release the Start button.
- Once Field Service Mode is entered, all LEDs will go off for approximately 3 seconds, and then all will start blinking to signify that Field Service Mode has been entered.
- 7-segment display models (0) will be displayed for Test 0.
- Use the cycle selection knob to control the test selection menu.
- Rotating the knob clockwise will increment the test numbers in the display.
- Rotating the cycle select knob counter-clockwise will decrement the test numbers in the display.
- Once the test number is selected, pressing the Start button will begin the selected test.
- Turning the cycle select knob while in a selected test shall cancel that test and move to the next test for selection.

Exiting Field Service Mode

- Field Service Mode will time out after 30 minutes if there is no user activity.
- On models with a 7-segment display, press the Power button.

Service Mode Tests

Explaining Service Mode Tests

There are 19 different tests that can be performed on the washer while in Service Mode.

Once in the Service Mode, rotate the Cycle Select knob to advance to the desired test.

Knob Index / Test number Displayed on 7-segment display (SSD)	Test Name	Description of test Turning the cycle knob will index to the next or prior test.
0	All LED's on	All LEDs on the display will be blink including "88" at a rate of 1Hz.
1	Fault Codes	On Start button press, blink first fault code. Display fault code in SSD. At end of list OR if no fault codes are present, washer will flash "- _".
2	Personality ID	Pressing Start will start the test. Flash the set personality after pressing Start . (See Personality ID Numbers , under Personality ID in the Diagnostics section of this service guide for the correct ID for the model being checked.)
3	UI Software Version (Critical)	
(Critical)	After entering this test, press the Start button to toggle through the software version number as follows:	After entering this test, press the Start button to toggle through the software version number as follows: Example: v01.23 - First press: "01" on 7SD - Second press: "23" on 7SD
4	UI Software Version (Non-critical)	After entering this test, press the Start button to toggle through the software version number as follows: Example: v01.23 - First press: "01" on SSD - Second press: "23" on SSD
5	XML Version (Non-critical)	Example: v01.23 - First press: "01" on SSD - Second press: "23" on SSD NOTE: Only the non-critical version number is shown because the critical XML version number must match the application non-critical version number for the control to boot. If service mode is attained, then the XML critical version is correct. If not, update the software.
6	Hot Water Valve	Pressing Start will toggle the hot water valve on and off. Test will have a time-out for how long valve will be on (1 minute). The valve will turn off when the test is exited.
7	Cold Water Valve	Pressing Start will toggle the cold water valve on and off. Test will have a time-out for how long valve will be on (1 minute). The valve will turn off when the test is exited.

Knob Index / Test number Displayed on 7-segment display (SSD)	Test Name	Description of test Turning the cycle knob will index to the next or prior test.
8	Fabric Softener Dispenser	Pressing Start will toggle the fabric softener valve on and off. Test will have a time-out for how long valve will be on (1 minute). The valve will turn off when the test is exited.
9	Spray Rinse Valve Check	Pressing Start will toggle the spray rinse valve on and off. Test will have a time-out for how long valve will be on (1 minute). The valve will turn off when the test is exited.
10	Pressure Sensor	Pressing Start will start the test. Pressure sensor test will have a time-out. All valves will turn on. All LEDs will blink at start of test. Stop blinking LEDs as approximate water levels are crossed. The approximate levels are: • 2" • 3" • 4" • 5" • 6" • 7" - Water valves shuts off at this level.
11	Recirculate Pump	Pressing Start will toggle the recirculation pump on and off. Test will have a (1 minute) time-out for how long recirculation pump will be on. The recirculation pump will turn off when the test is exited.
12	Drain Pump	Pressing Start will toggle the drain pump on and off. Test will have a (4 minute) time-out for how long drain pump will be on. The drain pump will turn off when the test is exited.
13	Lid Switch	Pressing Start will start the test. When the lid is open, the Spin status LED will blink. When the lid is closed, the Rinse status LED will blink.
14	Spin	Pressing Start will start the test. Spin test will perform child safety algorithm before it starts to spin. (Two sprays of water before locking the lid.) The lid must be closed to start the test. If lid is open, the Locked LED will blink. When started, the mode shift to spin will occur if required and the lid will be locked. When mode shift is complete, the washer will begin spinning to max spin speed for the model being tested. Spin test will have a (4 minute) time-out. Be sure to only run this test with an empty basket as there is no OOB detection during this test. The spin will stop when the test is exited. The lid will unlock once the speed reaches 0 after the test is exited.
15	Agitate	Pressing Start will start the test. Agitate test will perform child safety algorithm before it starts to agitate. The lid must be closed to start the test. If lid is open, the Locked LED will blink. When started, the mode shifts to agitate will occur if required. When mode shift is complete, the washer will begin agitating. The test will pause if the lid is opened after starting. The test will resume on lid close if it was running when opened. The test will stop when the test is exited.
16	Clear all Fault Codes	Pressing Start will clear all fault codes.

Knob Index / Test number Displayed on 7-segment display (SSD)	Test Name	Description of test Turning the cycle knob will index to the next or prior test.
17	Change Personality	Pressing Start will start the test. Press Start button again and the next valid personality should be displayed. Press and hold the Start button to select the correct personality.
18	Analog Knob	Pressing Start will start the test. Each options knob is represented by a specific corresponding status LED. (Far left options knob to the far left status LED) When knob position changes, the LED for the specific knob blinks. With each click to the right, the LED for the specific knob blinks faster. With each click to the left, the LED for the specific knob blinks slower.
19	Bulk Detergent Dispense Valve	Pressing Start will toggle the bulk valve on and off. Test will time out after 1 minute turning the valve off.

Fault Codes

Finding Fault Codes

There are 32 different fault codes that can be sensed (refer to the Fault Code table below). The control will hold up to 10 faults.

Once in the service mode, rotate the cycle select knob to advance to test number 1, Fault Codes. The most recent fault, if any are logged, will be displayed.

Fault Code	Fault Name	Description	Repair Action
1	Lock Monitor	Lid lock didn't occur or lid lock signal not seen by control due to lack of connection.	- Check the resistance of the lid lock assembly. - Check the harness for open wires and or connectors from the board to the lock assembly. - If lock assembly and harness prove good at the time of service, replace the lid lock assembly.
2	Lid Monitor	Control did not get lid closed signal from switch while motor was moving. Could mean the switch didn't close or control didn't get the signal because of lack of connection.	Replace control if this fault happens repeatedly.
3	Locked Rotor Monitor	For 5 straight seconds control not seeing signal changes indicating the motor is turning while trying to spin. Could mean the motor isn't rotating or Control didn't get the signal because of lack of connection.	- Physically check the washer for anything preventing motor movement. - Check harness and harness connectors from the control to the motor. - Verify hall sensor is connected to the main harness. Put washer in Service Mode and run TEST 14, Spin Test. If hall sensor is bad or disconnected, the basket will start to spin normally and then stop spinning after approximately 5 seconds. Ensure hall sensor is properly connected and positioned on the motor. If basket spins for approximately 15 seconds, the hall sensor is most likely NOT the cause. - TCO should reset in approximately 45 minutes. If TCO is tripped, make sure motor moves freely and that nothing is jamming it. Replace motor if it does not.
4	Reset Monitor	Control is resetting the software by itself due to criteria it believes could resolve itself upon reset.	- Check for loose connections at the control. Reconnect if any are loose. - Check for recommended house line voltage to the washer.

Fault Code	Fault Name	Description	Repair Action
5	Mode Shifter	Control didn't see the transition from Agitate to Spin or vice-versa in the time required. Could mean the shift didn't occur or Control didn't get the signal because of lack of connection.	• Check mode shifter coupler for damage and the ability to slide in and out freely. • Using an ohm meter, check to ensure mode shifter switch is in the open position. • Check resistance of mode shifter motor (approximately 5.7k ohms). • Check for 120 VAC to the mode shifter motor at the control J512 connector. • If voltage is present, replace the mode shifter.
6	Critical Flood Level by Pressure. Pressure level exceeds 17.5 inches above pressure port.	Control received an extended period of pressure readings that is nearing over-flow levels. Pressure 17.5". Voltage output must be present. Could mean water did get that high due to briefly stuck water valve. Voltage output of sensor too high for actual water level because of sensor or water in pressure tube increasing pressure.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check for any leaking water valves. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. If it does not, the control will need to be replaced as the pressure sensor is mounted directly to the control.
7	Flood Warning Level by Pressure. Pressure level exceeds 16.5 inches above pressure port.	Main micro received and extended period of pressure readings that is greater than maximum allowable fill volume. Pressure 16.5". Voltage output must be present. Could mean water did get that high due to briefly stuck water valve. Voltage output of sensor too high for actual water level because of sensor or water in pressure tube increasing pressure.	• This can happen if a large wet load is placed in the washer. • Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check for any leaking water valves. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart.
8	Pressure Sensor Loss	This determines if there has been a too great of a difference in the pressure sensor reading and the expected pressure sensor reading for the amount of water the control calculated it has put in. It assumes there is a pressure leak, a clog in the pressure hose/system delaying the increase in pressure, or a significant amount water leaking out.	• Check house water supply vales are turned on. • Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check water valve operation. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart.
9	Lid Switch Redundancy	Start attempted for a fourth cycle when the previous three cycles have completed with backup micro seeing lid open. Could mean the switches didn't occur or backup processor didn't get the signal because of lack of connection. See Fault Code 2 as well.	• Open and close the lid to clear the fault. • Check harness and connectors that go to the lid switch. • If the fault will not clear, replace the lid switch.

Fault Code	Fault Name	Description	Repair Action
10	Mode Shift Feedback Monitor	Signal feedback state from the mode shifter (agitate or spin) and the state requested by the control are not the same and the basket or agitator is rotating faster than 3 - 4 RPM. Agitate mode feedback signal is no voltage.	• Check mode shifter coupler for damage and the ability to slide in and out freely. • Use ohm meter to ensure harness shows continuity to the mode shifter from the control. • Check resistance of mode shifter motor (approximately 5.7K ohms). • Check for 120 VAC to the mode shifter motor at the control J512 connector. • If voltage is present and no operation, replace the mode shifter.
11	Clock Monitor	1. AC power line frequency is not 60Hz. 2. Software failure.	1. Check the frequency of the AC power outlet. If it is more than a few Hz off of 60Hz, notify utility company. 2. If house frequency is good, update software.
12	Redundant Flood Condition	Backup Processor received an extended period of pressure readings that is nearing over-flow levels. Pressure 18.0" Voltage Output must be present. Could mean water did get that high due to briefly stuck water valve. Voltage output of Sensor too high for actual water level because of Sensor or water in Pressure tube increasing pressure.	• Check pressure tube for trapped water. • Check Each Valves Operation; (Replace Water Valve and send back to GE). • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart.
13	Redundant Lid Unlocked	In spin mode, the lid switch feedback has voltage (lid closed), for more than 5 seconds the motor speed feedback assumes the basket is spinning > 4 - 5 RPM when the lid lock feedback has no voltage (Lid Unlocked). Lid Switch Feedback has no Voltage when the BRPM is > 4 - 5 RPM.	• Check lid switch continuity at J513 on the control. • Check continuity of lid lock position. Opened or Closed. • Check for proper operation of lid lock. 120 VAC while activating. • Check lid lock wiring harness from the control to lock assembly.
14	Lid Lock Fault	Signal received by control is indicating the lock will not lock or unlock when requested or the lid switch is indicating open when the signal received indicated locked.	• Verify that the lid lock is not blocked by any external debris. • Check lid switch continuity at J513 on the control. • Check continuity of lid lock position. Opened or Closed. • Check for proper operation of lid lock. 120 VAC while activating. • Check lid lock wiring harness from the control to lock assembly. • If lid lock assembly and harness are OK, update the software.
15	Water Temp Sensor Invalid	1. Thermistor disconnected/not present. 2. Failed thermistor	• Check thermistor resistance from connector J701 on the control board. Validate the resistance matches the table in mini-manual. • Check wiring harness and connections. • Replace thermistor.

Fault Code	Fault Name	Description	Repair Action
16	Adaptive Drain/Slow Drain	The total number of times during machine life that the actual amount of time the pressure sensor indicated the wash water had drained to empty exceeded the calculated time by the software.	• This fault is set when adaptive drain cycle occurs to try to remove the rest of water in tub. • If the adaptive drain cycle times out, the control will run a Drain Pump Clearing algorithm to free the pump impeller of debris. Then it will finish draining. If drain clearing algorithm fails look for Fault 18. • If Fault 16 is 100 and Fault 18 never occurs there is no problem. If Fault 16 and Fault 18 equal each other in faults, then look for drain blockages including house standpipe.
17	Dry Load Sense Timeout	Dry load sense times out and moves to the next part of the cycle selected. This occurs when the washer is not reaching the target speed within a defined time limit for the load type selected.	1. Check for water in the bottom of the tub. If so, drain and try cycle again. 2. Check the basket for excessive friction. Basket should spin freely. If not, find source of friction and remove it.
18	Drain Pump Clearing algorithm failed.	While draining, the pressure sensor value for water level did not indicate the washer was empty before the Max Continuous Drain ON time was reached.	• This fault is set and will be seen with Fault 16 when Drain Pump Clearing Algorithm failed to remove the blockage and the rest of water in tub. • Check the drain pump for blockage. • Check installation instructions for proper standpipe height. • Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. • Check resistance of the pump (13.5 ohms) from J512 connector on the control. • If open circuit, check wiring harness to the pump and pump motor. • Check for 120 VAC to the drain pump. • If voltage is present and pump does not operate, replace pump. • If voltage is not present, replace IMC (Interface Machine Control).
19	UI State Time-out	Washer was paused for over 12 hours.	• This is normal operation. This will happen if the consumer and or control switched cycle to a paused state.

Fault Code	Fault Name	Description	Repair Action
20	Critical Flood Level by Gallons	Water volume into the tub exceeded 41 gallons as calculated by the control. 1. Pressure tube is momentarily pinched, has water in it, partial blockage if flood Fault 12 occurs. 2. Low water pressure/flow or permanent pressure system blockage if NO flood Fault 12 occurs.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check for any leaking water valves. • Check home water pressure. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart.
21	Flood Warning Level by Gallons.	Water volume into the tub exceeded 36.3 gallons as calculated by the control. Stops filling 1. Pressure tube is momentarily pinched or has water in it, partial blockage if Flood fault 6, 7, or 12 occurs. 2. Low water pressure/flow or permanent pressure system blockage if NO flood Fault 6, 7, or 12 occurs.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check for any leaking water valves. • Check home water pressure. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart. If it does not, the control will need to be replaced as the pressure sensor is mounted directly to the control.
22	Out of Balance (OOB) during Dry Load Sense.	Large wet/OOB load being washed. This is set if OOB condition is detected during dry load sense algorithm. Dry load sense will be abandoned and wet load sense will be started.	1. Check for excessively OOB load. Customer Education on how to distribute load. 2. Check the basket for excessive friction or for being excessively out of round. Basket should spin freely and without wobble. If friction is found, remove it. If basket is bad, replace it.
23	Critical Lid Lock	1. Lock blockage 2. Lid Lock fault. Will not lock or unlock or is locked while lid is opened.	• Verify that the lid lock is not blocked by any external debris. • Check lid switch continuity at J513 on the control. • Check continuity of lid lock position. Opened or Closed. • Check for proper operation of lid lock. 120 VAC while activating. • Check lid lock wiring harness from the control to lock assembly.
24	Lid Logic Failure	Lid switch fault. This fault is set if the system perceives the lid to be both OPEN and LOCKED for 5 consecutive seconds	1. Check harness and connections from the control to the lid lock assembly for damage and continuity. 2. Run a spin cycle. Pull up on the lid during spin for more than 5 seconds and see if this fault occurs. Replace lid lock assembly.

Fault Code	Fault Name	Description	Repair Action
25	Pressure Sensor Dropout	1. Disconnected pressure hose. 2. Pressure tube is pinched or has water in it. 3. Pressure sensor fault.	• Check pressure tube for pinches where it goes through top cover grommet. • Check pressure tube for trapped water. • Check for any leaking water valves. • Check home water pressure. • Check the output voltage from the pressure sensor to ensure it matches the water level in the basket according to the pressure sensor chart.
26	Out of Balance (OOB) Ended Final Spin	Washer could not redistribute load to eliminate OOB condition to achieve final targeted spin speed.	• Manually rebalance the load, check basket for damage, and run a Drain & Spin cycle. • If washer spins properly, talk with consumer about loading. • If the washer will not spin properly, check the balance ring, the rod and spring assemblies, the speed sensor, and the speed sensor harness for proper operation.
27	Water Accessibility	This will happen during a cycle if water is left in the tub with the lid open more than 15 minutes.	• Check for leaking water valves. • Use pressure sensor test 10 to ensure correct sensor operation. • Consumer education on leaving the lid open for more than 15 minutes during a cycle. • Can be caused by selecting the no spin option.
28	Option Knob Feedback Invalid	This fault is set if a cycle is running and an invalid knob position is detected.	• Make sure knobs are in a valid position. • Ensure connector J615 is fully seated and not routed under the knob assembly.
29	Suds Lock Abatement Failure	Cycle terminated due to excessive motor current during spin.	• Ensure basket is able to rotate freely. • Check for anything that can obstruct basket movement. • Consumer education on correct detergent (HE) and amount usage.
30	Stuck Button	A button is detected as being pressed for more than 60 seconds.	• Ensure proper operation of all buttons. • Check for proper alignment of the control board and backsplash. • Check the clearance between the button and backsplash hole.

Fault Code	Fault Name	Description	Repair Action
31	Out of balance in final spin.	This fault is set if the machine is unable to reach target spin speed and cycle completes at a lower spin speed due to out of balance (OOB).	• Run a drain and spin cycle to ensure basket reaches final spin speed and the spin LED does not blink. (A blinking spin LED indicates an out of balance was detected during final spin. • Check balanced ring, tub and basket for damage. • Check that rod and spring assemblies are properly seated. • Check speed sensor is firmly mounted to the drive motor. • Ensure the washer is firmly seated on all four level legs and is level. • If the washer spins properly, educate consumer on how to properly load and distribute clothes in the washer to prevent an OOB load.
32	Lid Lock Failure	Cycle cancelled due to inability to unlock lid.	• Check the lid lock by running Spin Test 14 to ensure lid lock operation. • Ensure that lid lock is not blocked by any external debris. • Check lid switch and lock continuity at J513 on the control. • Ensure proper 120 VAC (while activating) to the lock assembly. • Replace lid lock • Check harness from the control to the lid lock assembly for proper connection and or damage. Replace as necessary.

Personality ID

Personality ID Numbers

To change the personality, the Service Mode must be entered first (see the **Entry into Field Service Mode** section under **Diagnostics** in this service guide).

7-segment display models will display the number programmed into the control.

1. Once Service Mode has been entered, rotate the cycle knob to Test 17.
2. Press Start to enter the test.
3. The correct personality ID that has been programmed into the control will be displayed.
4. If the personality is incorrect, press the Start button again and the next valid personality will be displayed.
5. When the desired personality is reached, press and hold the Start button to select that personality.

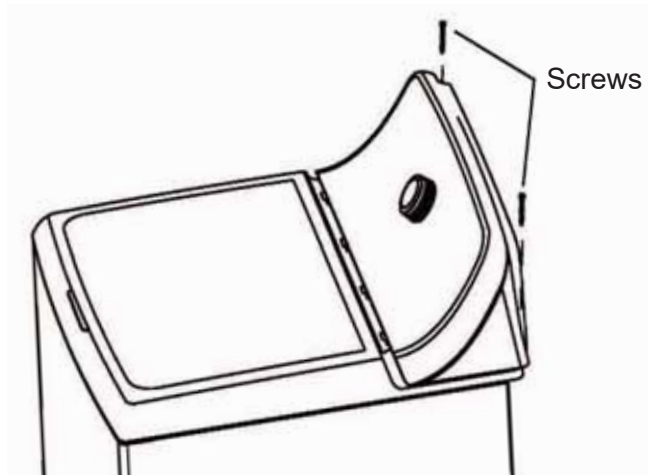
Personality Table	
Model Number	Personality Number
MTW200**K0	7
HTW200**K0 & K1	7
HTW200**K2	9
HTW200**K3 & higher	0
GTW220**K0, K1 & K2	0
GTW220**K3	10
GTW220**K4 & higher	1
HTW240**K0 & K1	0
HTW240**K2	10
HTW240**K3 & higher	1
GTW330**K0 & K1	8
GTW330**K2	11
GTW330**K3 & higher	2
GTW460**J0 & J2	6
GTW460**J3, J4, J5 & J6	11
GTW460**J7	12
GTW460**J8 & higher	3
GTW485**J0 & J1	10
GTW485**J2 & J3	14
GTW485**J4 & higher	4
GTW490**J0 & J1	1
GTW490**J2 & higher	5
GTW680**J0, J1 & J2	2
GTW680**J3 & J4	3
GTW680**J5 & higher	6
GTW680**L0 & higher	6
GTW685**L0 & higher	7
GTW750**L0 & higher	8

Cabinet and Structure

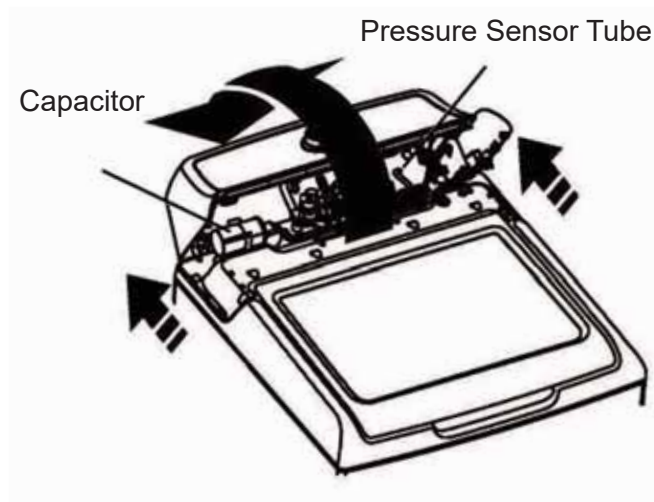
Backsplash

Before removing the backsplash assembly, be sure to protect the lid and top cover with a towel or material to keep the lid from being damaged.

1. Remove the two 1/4 in. hex head screws that secure the backsplash to the top cover.

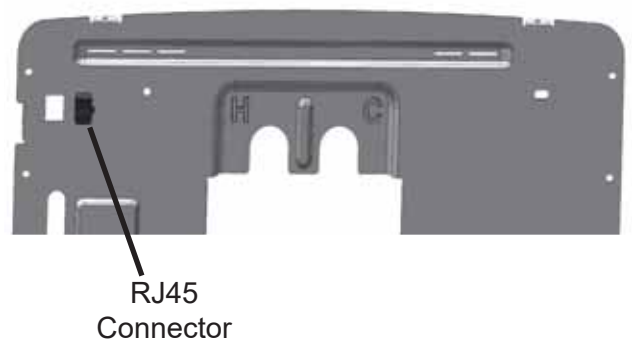
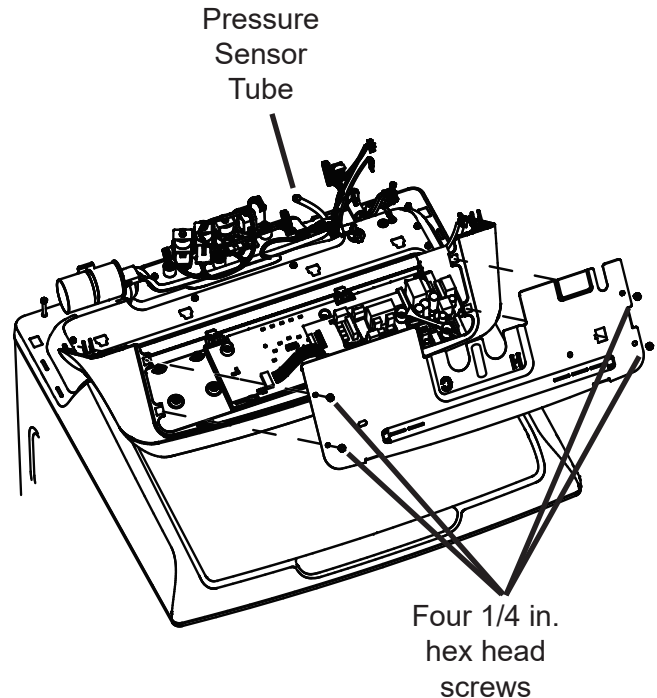


2. Grasp the backsplash sides, push it back. Then rotate it toward the rear of the washer so that the pressure tube can be seen and disconnected from the pressure sensor, mounted on the control board.



3. Carefully disconnect the pressure tube from the control board. Twisting the pressure tube while pulling will help it slip off of the pressure sensor.
4. Rotate the backsplash assembly forward and carefully lay it face down.

5. Remove the four 1/4 in. hex head screws that secure the rear cover to the backsplash, and lift it off carefully. There is a ground wire and the RJ45 connector connected to the rear cover that will need to be disconnected.



6. Disconnect the RJ45 connector by pressing down on the release tab and push through the opening.

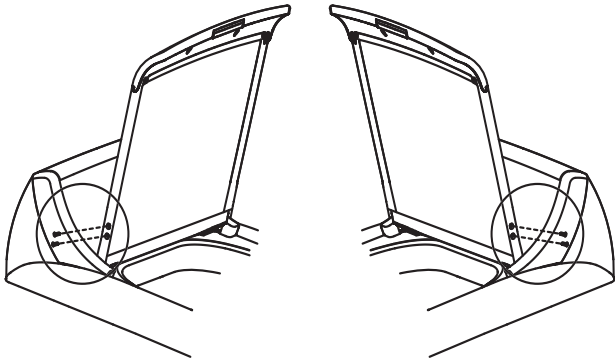
When reinstalling the RJ45, the stationary lip of the connector needs to be inserted into the opening first.

NOTE: Be sure to reconnect and test all ground wires.

Glass Lid Assembly

Glass Lid Assembly Removal

1. Slide the backsplash assembly toward the rear of the washer. This will allow the molded-in hinge cover on the lid assembly to be cleared.
2. Remove four Phillips head screws (two on each side of the lid assembly) that secure the lid to the lid lever arm.



3. Grasp the lid on each side and slide upwards.

Metal Lid Assembly

Metal Lid Assembly Removal

On models with metal lids, the backsplash assembly does not need to be loosened.

1. Remove two Phillips head screws securing one of the wire form lid hinges to the lid.
2. While holding the lid, slide the loose hinge to the inside of the lid.
3. Lift up slightly on the lid and slide the other lid hinge out of the bushing with the lid.

Lid Latch

The lid latch is located on the underside of the lid. When the lid is closed, the latch closes the contacts of the lid switch. During the spin portion of a cycle it secures the lid from being opened.

Lid latch Removal

1. Insert a small shank screwdriver into the hole below the latch.



2. Push inward gently to release the locking tab.
3. Twist the latch to the left and pull out.

To reinstall, angle the latch to the left. Slide the locking tab in first, then seat the latch in the lid and turn to the right. This will lock the latch in place.



Lid Switch/Lock Assembly

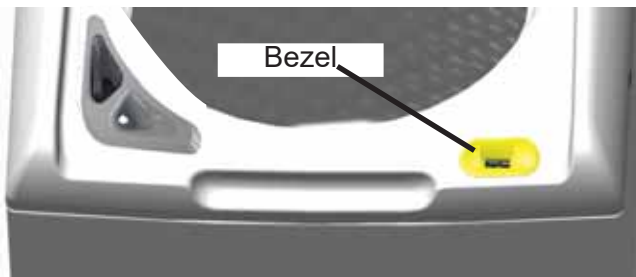
The lid switch and the lid lock are both together in one part.

Lid Lock Assembly Diagnosis

The Lid Switch requires 120 VAC to activate the locking mechanism. The approximate resistance of the lock coil is 70 ohms from **red** to **yellow** at the J513 board connector. Check the lid switch continuity of the lid switch between **red** and **violet** at the same connector.

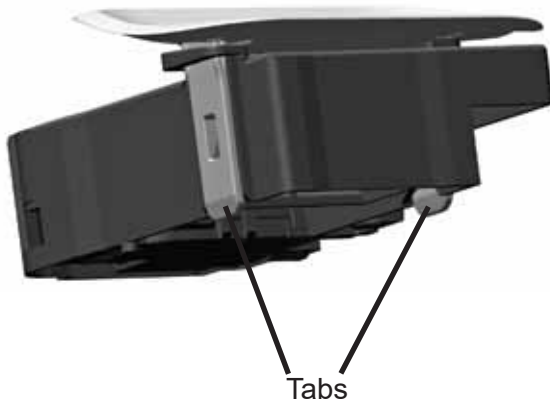
Lid Switch/Lock Assembly Removal

To remove the lid switch/lock assembly, the bezel will need to be removed first.



The bezel is held in place by the tabs that extend through the body of the lock assembly.

1. Reach under the top cover to release the tabs. Push out and up on the tabs.



2. Using a small screwdriver, push down gently on the tab that prevents the lock assembly from moving.



3. Slide the lock assembly to the left first to disengage the right lock body tab. Then slide to the right, allowing the lock assembly to disengage from the top cover.
4. Slide the lock assembly from under the top cover and disconnect the harness connector from the lock assembly.



Lid Switch/Lock Assembly Reinstallation

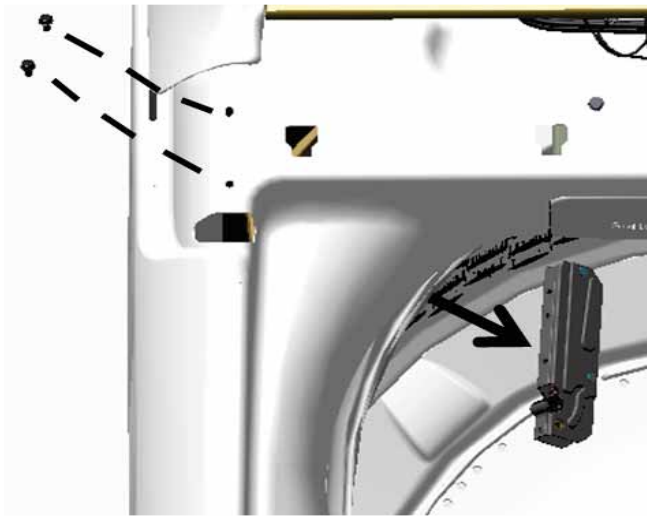
1. Reconnect the harness connector and slide the lock assembly into position under the top cover.
2. Bring the left side tab of the lock assembly up through the top cover opening first.
3. Push up on the lock assembly and slide to the right. This will clip in place.
4. Push the bezel through the top cover securing the lid switch/lock assembly in position. The bezel can only go on in one direction. If forced into position incorrectly, it can damage the lock assembly.

Lid Hinge

After the lid is removed, the lid lever arms can be slid out from the hinge assemblies. They are the same, so they cannot be mixed up.

The hinges can be removed without removing the top cover.

1. Slide the backsplash toward the rear of the washer to access the hinge mounting screws.
2. Slide a hand between the top cover and the tub cover and grasp the hinge being removed.
3. Remove two 1/4 in. hex head screws that secure the hinge to the top cover and slide the hinge out.



Impeller

The impeller moves clothes around in the basket. It takes the place of a tall agitator. Impellers are designed to work best with moving material around in the basket with low water levels.

Impeller Removal

1. Carefully remove the center cap from the impeller. This can be done with a pocket screwdriver or putty knife.



2. Remove the 7/16 hex bolt and slide the impeller off of the shaft. The splined coupler is part of the impeller.

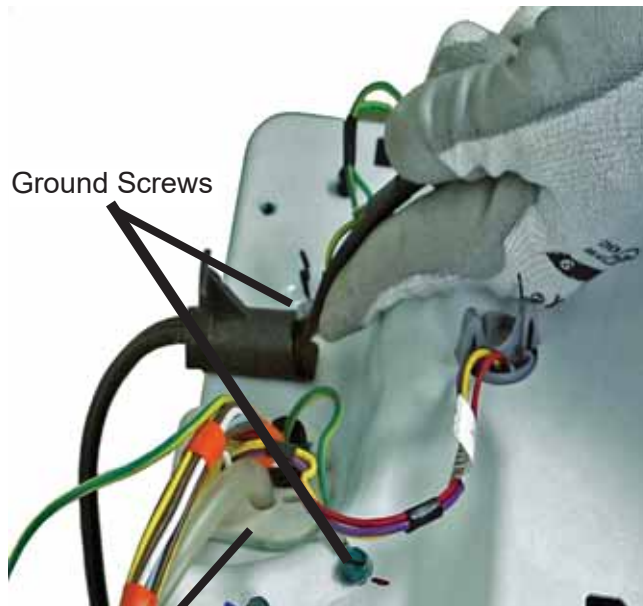


Important: The impeller bolt (**Part #:** WH02X24374) should be replaced any time it is removed for service and torqued to 100 in. pounds.

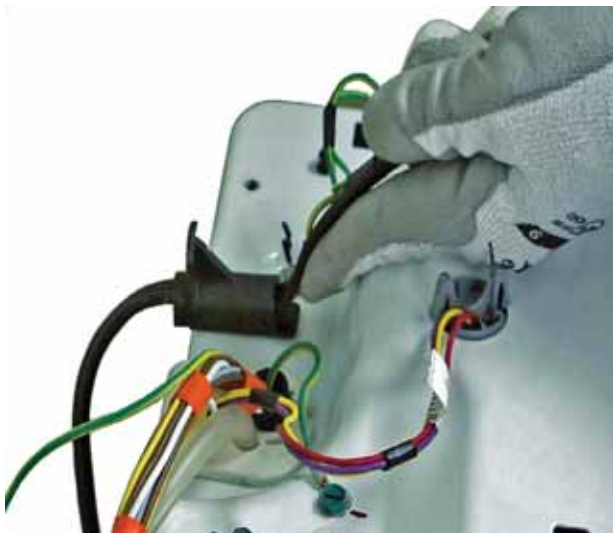
Top Cover

If the top cover is being replaced, the control panel assembly and the water valve will need to be removed. If the top cover is not being replaced, the water valve does not have to be removed.

1. Remove the two 5/16 hex head screws that secure the harness and power cord ground screws to the top cover.



2. Slide the main harness grommet toward the rear of the washer.
3. Remove the power cord by applying upward pressure to the cord in front of the grommet. Slide the grommet forward to release it from the top cover.

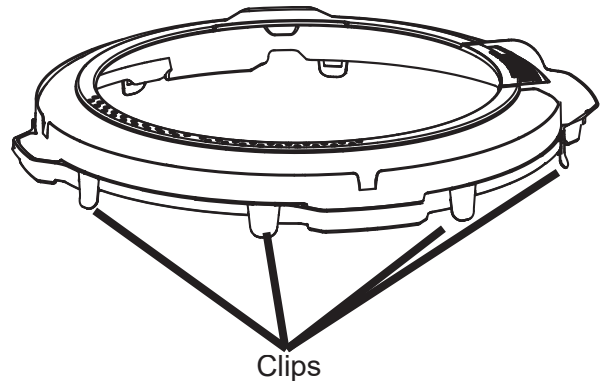


Basket Assembly

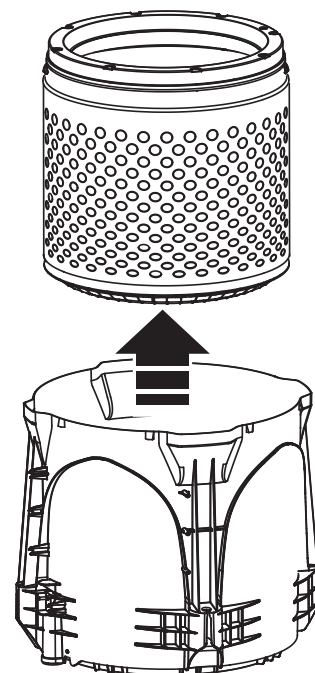
The basket assembly consists of the balance ring, basket side wall and the basket bottom. The hub is molded into the basket bottom.

Basket Removal

1. Remove the backsplash and top cover assemblies.
2. Remove the tub cover by unclipping eight clips around the edge and lift it off.



3. Remove the hub nut and conical washer. The hub nut is reverse threads. It will need to be turned to the right to loosen.
4. Lift the basket out from the tub. The basket assembly weight is approximately 21 pounds.



A torque limiter (**Part #:** WX05X10028) should be used when removing or installing the hub nut with an impact gun.

Cabinet/Apron Assembly

The cabinet/apron assembly consists of the cabinet, top corner brackets, and bottom corner brackets. The leveling legs can be ordered separately if needed. If the legs are replaced, ensure that the washer has been leveled according to the Installation Instructions.

Cabinet/Apron Removal

To remove the cabinet/apron assembly, two technicians will be needed because of the bulkiness of the cabinet/apron assembly. The weight of the cabinet/apron assembly is approximately 30 pounds. A height of at least 70 in. will also be needed to lift the cabinet/apron assembly up and over the top of the tub assembly.

1. Remove the backsplash and top cover assembly.
2. Disengage the rod and spring assembly from the tub. One technician will lift up on the tub assembly while the second technician disengages the rod and spring assembly.

The tub assembly will sit on the floor on the belt protector.

3. Lift the cabinet/apron assembly up and over the tub assembly and set it aside.

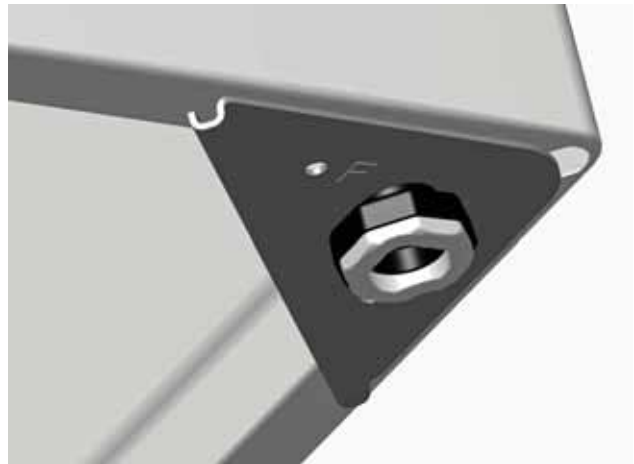


Leveling Legs

Keeping the washer level is critical because the clearance of the tub to the cabinet/apron assembly is minimal. It also assists with preventing the washer from rocking and moving out of position.

Leg Adjustment

1. Move the washer into its final position.
2. Place a level on a flat top side edge of the washer.
3. Adjust all four leveling legs by screwing them into or out of the four brackets until the washer is level, right to left and back to front.
4. Replace any of the leveling legs if they show signs of damage.



Fill System

Water Valve

The water valve is located inside the backsplash assembly.

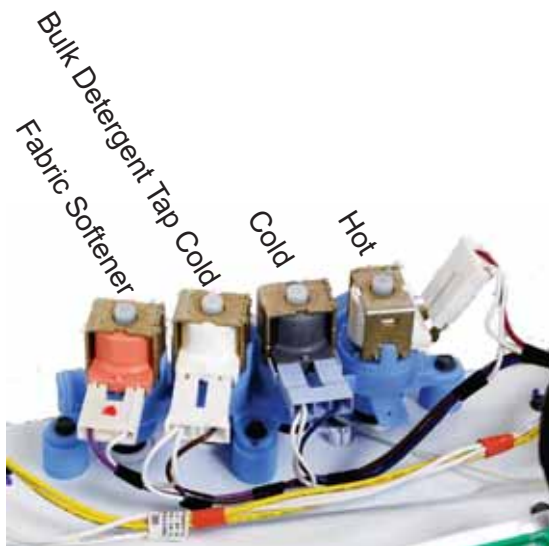
- A four solenoid valve flows into a detergent dispenser box.

The water valves are located and accessed from inside the backsplash.

Water Valve Diagnosing

The four solenoid valve requires 120 VAC to activate the coils. The resistance of the four coil valve can be check from the J514 connector on the control. They are approximately:

- 1374 ohms for cold and fabric softener
- 1515 ohms for hot and rinse



Four Coil Water Valve Removal

1. Turn the house water supply off to the washer and disconnect power to the washer.
2. Remove the two 1/4 in. hex head screws securing the backsplash to the top cover to access the water valves.
3. Disconnect the harness from the valve.
4. Remove three 1/4 in. hex head screws securing the valve to the top cover and pull the valve up. The thermistor can now be removed by prying up from under the metal lip of the thermistor. Be sure the O-ring seal comes out as well.

There are four replaceable rubber seals on the water valve where it connects to the dispenser box. They come with new valves, but can be ordered separately (**Part #:** WH13X24094).



Thermistor

The thermistor and harness comes as one assembly that connects to the control board. The thermistor also comes with an O-ring that creates a water tight seal around the probe. When reinstalling the thermistor, ensure that the thermistor is seated properly. If it bulges, it will not seal properly.



Thermistor Resistance Table

Temp (°C)	Temp (°F)	Resistance (Ω)
10	50	19901
15	59	15713
20	68	12493
28	82.4	8833
32	90	7446
38	100	5807
44	111	4558
50	122	3601
54	130	3108
66	150	2016
76	169	1435

Bleach/Bulk Tank Funnel

The bleach portion of the funnel directs the liquid bleach to the top cover, dispensing it between the outer tub and the basket. There is no water valve to rinse the funnel after use. The bulk tank portion of the funnel directs the liquid detergent into the bulk tank.

Bleach/Bulk Tank Funnel Removal

1. To remove the bleach/bulk tank funnel, reach between the top cover and tub cover and push up on the bottom of the funnel.



2. Removing the funnel gives access to the bulk tanks 3/8 in. mounting bolt.



3. To install the funnel onto the top cover, push down on the funnel to seat it into position.

Dispensers

Dispenser Box

The dispenser box only has one drawer that slides out. It is for the fabric softener. There is no drawer for detergent. **DO NOT TRY TO PULL THE WATER STATION SIDE OF THE DISPENSER BOX OUT.** If the bulk tank is not being utilized, detergent will need to be added directly into the basket before adding clothing.



Dispenser Removal

To remove the dispenser; the backsplash, water valve and top cover will need to be removed first.

Before raising the top cover, if there is detergent in the bulk tank, reach under the dispenser box and feel for the rubber tube. Pull the tube downwards to disengage it from the dispenser box.



IMPORTANT: Top Cover Support While Servicing

To support the top cover while servicing, this method of support has proven to be helpful.

1. Tape the lid securely to the top cover. The lid will come open while servicing if not taped in place or removed.
2. Remove the two 1/4 in. hex head screws that secures the backsplash assembly from the top cover. Set these screws within reach as they will be used in this application.



Existing Hole At Rear Of Top Cover

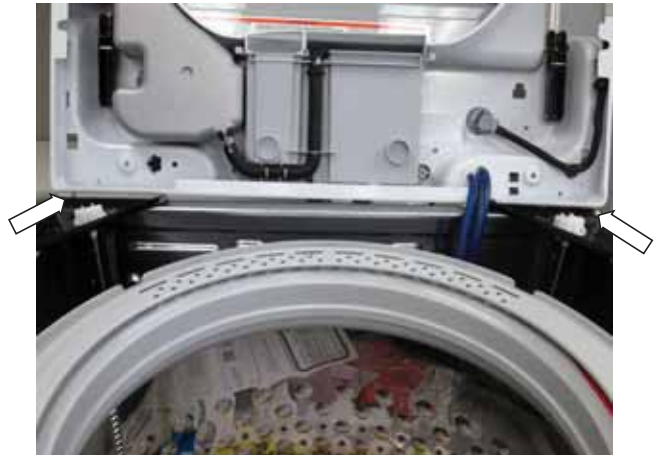
3. After removing the backsplash assembly, remove the two 1/4 in. hex head screws at the rear of the top cover that secures the top cover to the cabinet.
4. Disengage the top cover from the front clips that secures the top cover to the front of the cabinet.

IMPORTANT: Top Cover Support While Servicing

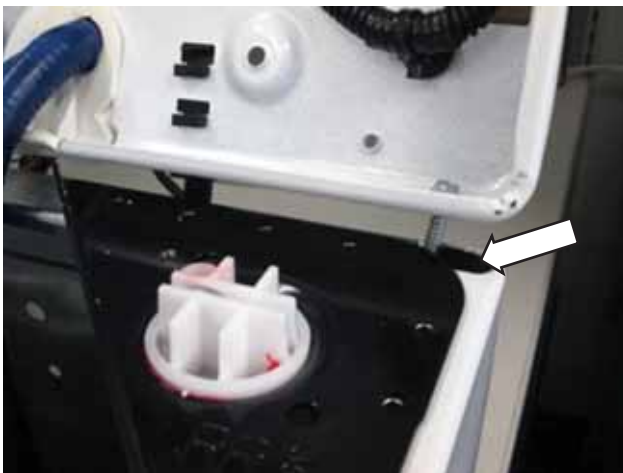
5. Holding the top cover securely, raise the top cover up and rest the rear of the top cover on the cabinet.



8. Lean the top cover back against the wall. Screws will prevent the top cover from slipping off the cabinet.



6. Using the backsplash screws, push the screws through the existing holes in the rear of the top cover.
7. Then insert the screws into the open space between the rear corner brackets and the cabinet corner.



Dispenser Removal Continued

Using a pair of pinch pliers, clamp the tube so the detergent does not flow from the bulk tank into the dispenser box. The tube is pretty flexible and does not take much pressure to clamp it closed. Drain hose and/or air-conditioning pinch off pliers both work well.



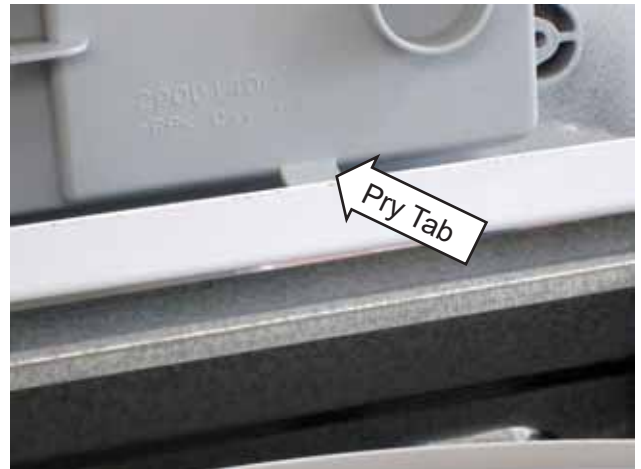
NOTE: Because the tank does not seal closed, a sponge or Mr. Clean Magic Eraser can be inserted into the tank opening to prevent detergent from spilling out while servicing or removing the washer from a drain pan.

If the tank is being removed or replaced, draining the bulk tank is recommended.



1. Remove the fabric softener tray from the dispenser body.
2. As shown earlier, remove the bleach funnel to access and remove the 3/8 in. hex bolt that helps to secure the bulk tank to the top cover.
3. Remove three 1/4 in. hex head screws securing the dispenser body to the top cover.

4. Raise the top cover to access the dispenser box.
5. Using a flat blade screwdriver, pry the tab at the bottom of the dispenser box out from the metal lip of the top cover first. **NOTE:** Be careful not to pry too hard against the metal. It can be bent. Also removing the dispenser box first makes it easier to get the bulk detergent tank out.



6. Pull outward at the bottom of the box to disengage the front of it from the top cover.



7. When the dispense box is reinstalled, the front of the box needs to be inserted first.

Bulk Detergent Tank

The bulk detergent tank will hold up to 75 ounces of detergent. Depending on the load size detected or selected, a specific amount of detergent will automatically be dispensed for that load. The following are the amounts dispensed:

- **Small:** 1 oz
- **Medium:** 2 oz
- **Large:** 3 oz

Bulk Tank Removal

1. Remove the bleach/bulk tank funnel first to expose the 3/8 in. hex bolt securing the bulk tank to the top cover.



2. Pry the tabs of the bulk tank out from under the lip of the top cover. Again, be careful not to pry too hard against the top cover lip. It can be bent.



3. Lift the bulk tank out from the top cover.

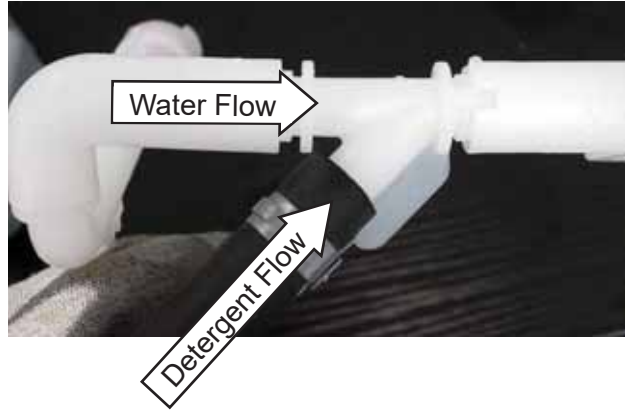


NOTE: It helps to remove the dispenser box along with the bulk tank as they are connected together.

Caution: If detergent was not drained from the bulk tank, be careful not to let it spill out from either the tank and/or the dispenser.

Aspirator

The Aspirator is basically a "Y" tube. When water flows from the water valve through the straight portion of the aspirator, going by the offset or "Y" portion of the aspirator, it creates a suction. This suction then draws the detergent from the bulk tank.



4. Separate the dispensing tube from the aspirator.

NOTE: If the rubber tube is being replaced, the clamps that secure it to the aspirator will need to be replaced. Use the small Click Clamps in kit number WH49X20000 and Click Clamp pliers WX05X10025.



Aspirator Removal

1. Remove the dispenser box from the top cover.
2. Slide the aspirator mounting bracket out from the dispenser.



3. Unclip the dispensing tube from the mounting bracket.



Water Levels

Approximate Minimum Wash Water Levels:

- **Impeller Models:** 7 Gallons or 3 inches deep from the bottom of the basket.

Approximate Maximum Wash Water Levels:

- **Impeller Models:** 26 Gallons or 13-1/2 in. deep from the bottom of the basket.

Press and hold the **Deep Fill** button for 3 seconds to achieve.

- **Precise Fill Super Plus:** When precise fill is selected and a large absorbent load is being washed, Super Plus water level is invoked in the board software. Instead of the normal 26 gallons of water, an additional 1 to 1.5 gallons will be added.

Impeller **Bulky** setting water level is 25 gallons or 12-3/4 in. deep from the bottom of the basket.

NOTE: These levels are measured starting from an empty tub.

Water Saver Rinse

The GTW750 model does not have a spray rinse. A water saver rinse is used. So it is normal to have water levels less than main wash water levels.

The water saver rinse algorithm is as follows:

- Washer fills for wash and completes wash agitation portion of the cycle like usual.
- Washer drains wash water but does not perform a wash spin. This is done for a few reasons:
 - Some carryover wash water retained in the clothing items allows for a higher water level in the basket, working with the water available for rinse while still meeting government mandated water usage requirements.
 - Clothing items are left in an orientation which facilitates faster, lower water level rinsing.
 - Addition of cycle time is prevented through not spinning.

- Washer then fills with a quasi-deep fill rinse, called Water Saver Rinse.
 - Water level is lower than that of the wash water level but is still a deep-fill style rinse (as opposed to a spray rinse).
- Washer then performs a brief period of rinse agitation to move the fresh water through the clothes.
- Washer then pumps out rinse water and completes the rinse spin portion of the cycle as usual.

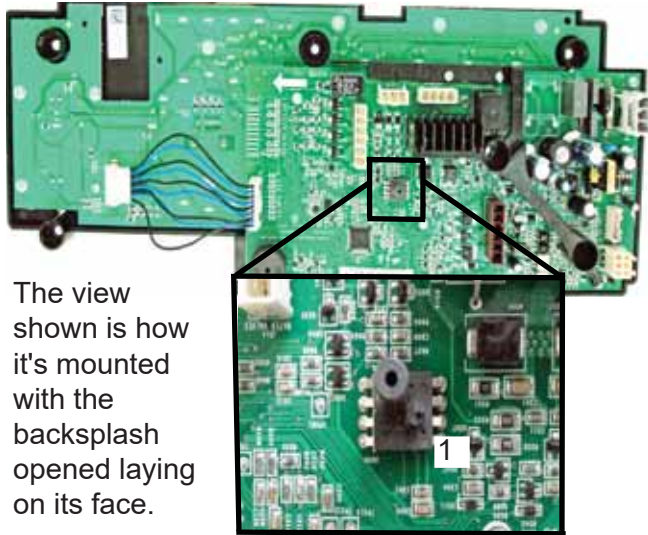
NOTE: Users should still select “Deep Rinse” if they are using liquid fabric softener.

Load Type	Detected Load Weight (0.00 - 30.00)					
	0 to 5 lbs	5 to 8.9 lbs	8.9 to 14.9 lbs	14.9 to 19.7 lbs	18.7 to 22.7 lbs	22.7+ lbs
	Water Saver Rinse Gallons 0.00 - 30.00					
Wet	6	8	8	10	10	12
Synth	6	8	8	10	10	12
Mixed	6	8	8	10	10	12
Cotton	8	8	10	10	12	12

Pressure Sensor

The pressure sensors purpose is to sense the level of water in the tub when a cycle is being run, or if the washer is sitting idle.

The pressure sensor cannot be replaced by itself if it malfunctions or is damaged. The complete control board will need to be replaced, as the sensor is mounted directly to it.



The view shown is how it's mounted with the backsplash opened laying on its face.

Depending on how much water is in the basket will determine what output DC voltage will be read according to the chart.

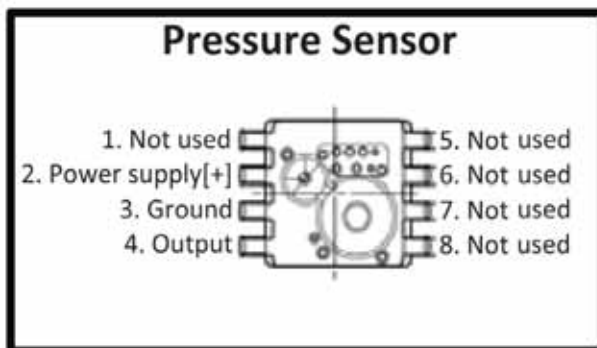
Tub Water Level Pressure Sensor			
MODELS 200-491 ONLY		MODELS 680 ONLY	
Inches of Water	Voltage	Inches of Water	Voltage
Empty	0.4	Empty	0.4
1"	0.7	1"	0.8
2"	1.0	2"	1.0
3"	1.4	3"	1.2
4"	1.6	4"	1.4
5"	1.8	5"	1.6
6"	2.0	6"	1.8
7"	2.2	7"	2.0
8"	2.4	8"	2.2
9"	2.6	9"	2.4
10"	2.8	10"	2.6
11"	3.0	11"	2.8
12"	2.2	12"	3.0

Accidentally shorting between pin 2 and pin 3 will cause the board to shut down, but it will not be damaged.

Pressure Sensor Diagnosing

The pressure sensor can be tested by either using Test 10 in the Service Mode, or by checking the output DC voltage of the pressure sensor at the control board.

To measure the output DC voltage, connect the meter probes between pin 3 and pin 4.



Wash System

Recirculation Pump

The recirculation pump is located on the bottom front of the tub and is mounted directly to the bottom of the tub. The recirculation pump is a 120 VAC pump used to recirculate water from the tub assembly, up through a tube to the top of the basket. The recirculation pump utilizes the tub cover to spray water over the clothes.

Recirculation Pump Diagnostics

1. Disconnect power to the washer and access the control board.
2. Disconnect the J512 connector from the board.
3. Check resistance from pin 1 (**brown** wire) to pin 6 (**red** wire). The resistance should read approximately 31.7 ohms. If the resistance is within range, ensure that the pump has 120 VAC at the pump harness connector.

Recirculation Pump and Tube Removal

Before removing the drain or recirculation pump, any water in the basket must be removed. If the drain pump is inoperable, water can be removed by using a transfer pump shown on the following page.

Lean the washer back using ergo-assisting prop blocks or lay the washer on its side to access the bottom of the tub.

1. Disconnect the recirculation tube from the recirculation pump.
2. Pull downward on the tube to disengage it from the tub.

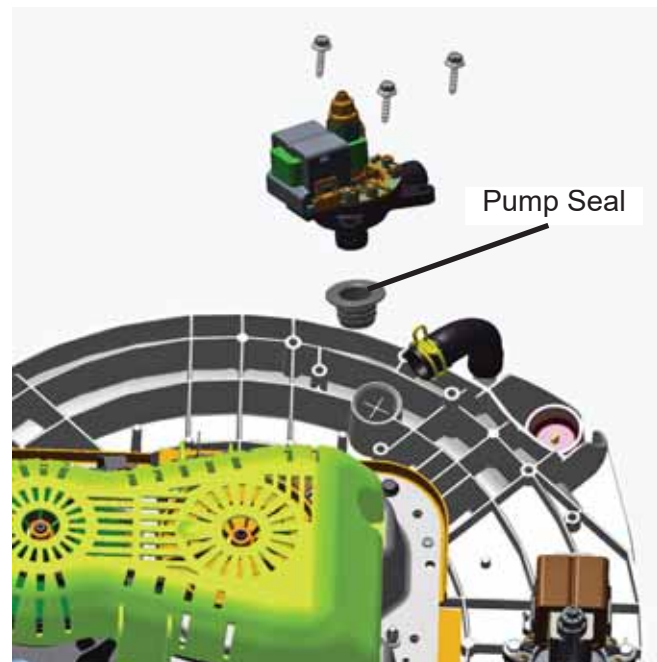


3. Disconnect the harness connector for the recirculation pump.
4. Disconnect the wire tie securing the harness to the platform assembly. A new wire tie comes attached to the drain pump harness.



5. Remove three 3/8 hex head bolts securing the pump to the tub.
6. Pull the pump away from the tub. Be sure the seal comes off with the pump.

The seal comes with a new pump but can be ordered separately.



Drain System

Drain Pump

The drain pump is located on the bottom right side of the tub. It is mounted directly to the bottom of the tub. The drain pump is a 120 VAC pump used to remove water from the tub assembly to the house drain. The maximum drain height that it will pump out to is 8 feet.

Drain Pump Diagnostics

1. Disconnect power to the washer and access the control board.
2. Disconnect the J512 connector from the board.
3. Check resistance from pin 2 (**white** wire) to pin 3 (**violet** wire). The resistance should read approximately 13.2 ohms. If the resistance is within range, ensure that the pump has 120 VAC at the pump harness connector.

Drain Pump Removal

Before removing the drain or recirculation pump, any water in the basket must be removed. This is done by using a transfer pump (**Part #:** WX05X23817).



The transfer pump only comes with one (1) hose. A standard washer hose can be used for the outlet side of the pump (**Part #:** WH41X10207).

Pump out as much of the standing water in the basket as possible.

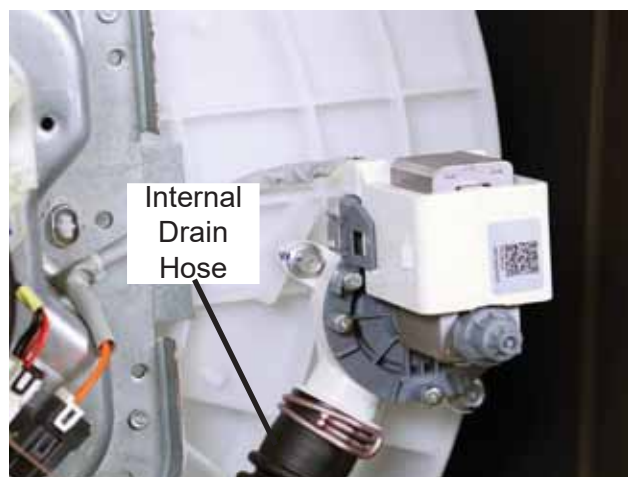
Lean the washer back and pump out the water seen in the basket.

When the drain pump is removed, approximately 1 to 2 cups of water will drain out of the drain pump opening in the tub. Have something ready to catch the excess water left in the tub.

1. Lean the washer back using ergo-assisting prop blocks (**Part #:** WX05X10027), or lay the washer on its side to access the bottom of the tub.



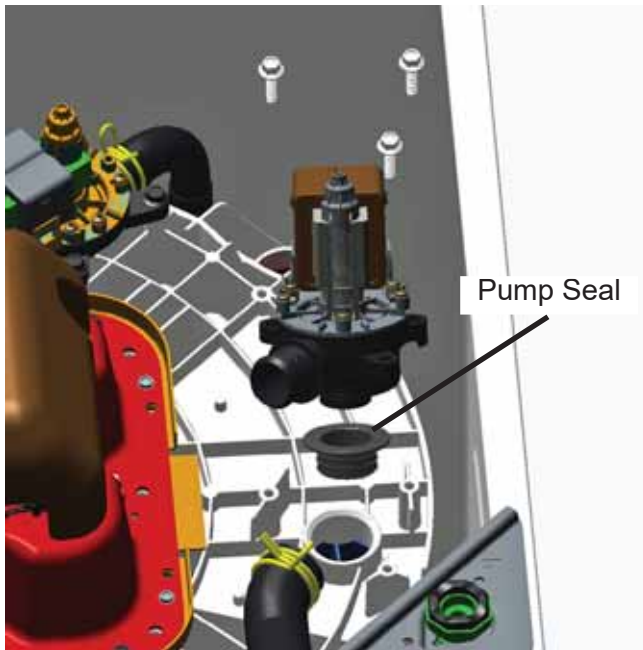
2. Disconnect the harness connector for the drain pump.
3. Disconnect the wire tie securing the harness to the platform assembly. A new wire tie comes attached to the drain pump harness.



4. Disconnect the internal drain hose from the drain pump.
5. Remove three 3/8 hex head bolts securing the pump to the tub.

6. Pull the pump away from the tub. Be sure the seal comes off with the pump.

The seal comes with a new pump, but can be ordered separately (**Part #:** WH08X24179).



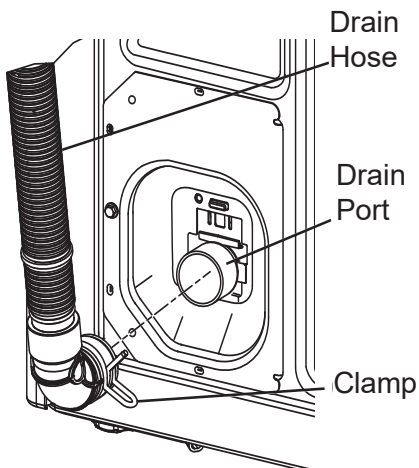
Drain Hose External

The drain hose is used to direct the water being expelled from the tub by the drain pump to the house drain or standpipe.

Drain Hose Removal

Ensure that the washer tub is empty before removing the drain hose.

1. Squeeze the spring clamp and slide it up onto the drain hose part where it clamps to the drain port and then remove the hose.



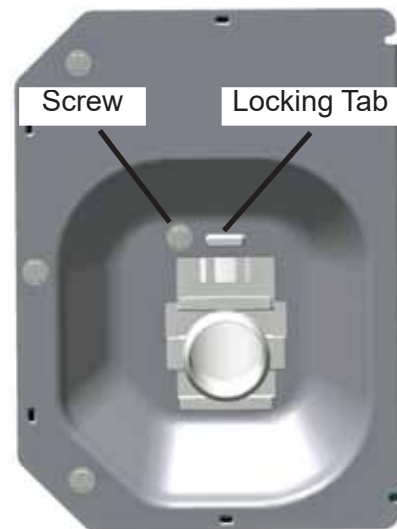
Drain Hose Internal

The internal drain hose is used to direct the water being removed by the drain pump to the external drain hose.

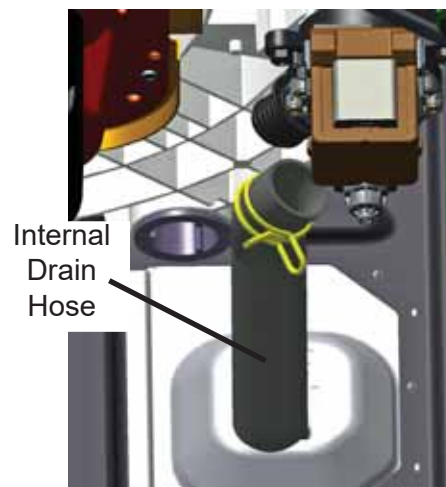
Internal Drain Hose Removal

Ensure the washer tub is empty before removing the drain hose. The internal drain hose clamp can be reached two ways; either through the rear access panel, or by leaning the washer back.

1. Access the rear of the washer and remove the external drain hose. Have a towel or small pan ready to catch excess water from the hose and tub.
2. Remove the 1/4 in. hex head screw securing the drain port to the access panel.



3. Push in on the locking tab and slide the drain port up and to the inside of the cabinet.
4. Squeeze the spring clamp and slide onto the drain hose where it clamps to the drain pump, then remove the hose.



Drive System

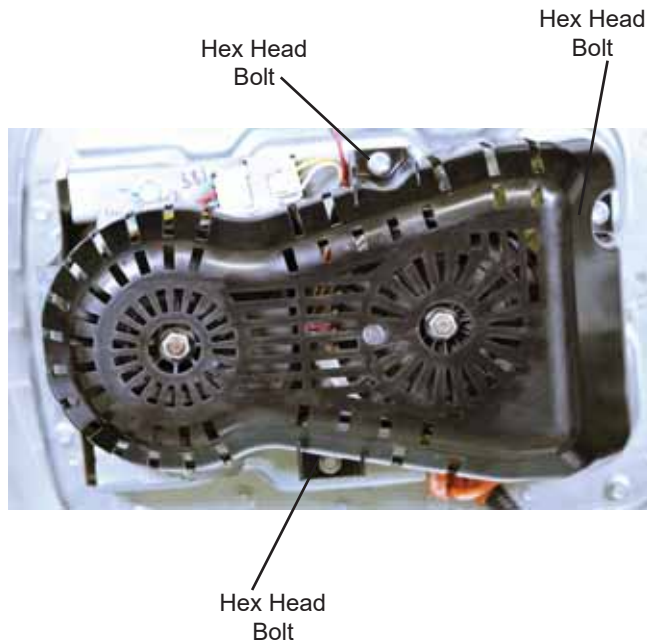
The drive system consists of the belt, pulleys, drive motor, mode shifter, speed/hall sensor and transmission. They all operate together to agitate and/or spin the load in the basket.

Drive Belt

The drive belt has six ribs and can be removed easily. To access the belt, the belt protector needs to be removed first.

Belt Protector Removal

1. Remove three 3/8 hex head bolts securing the belt protector to the platform assembly and set the platform assembly aside.



Belt Removal

1. Rotate the pulley by hand while walking the belt off of the pulley.

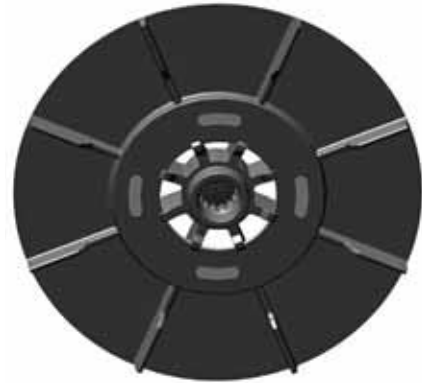


Belt Installation

1. Put the belt on the motor pulley.
2. Stretch the belt around the transmission pulley as far as it will go.
3. Rotate the pulley until the belt is centered on the transmission pulley. Ensure all of the belt ribs are properly located on the drive motor pulley.

Drive/Transmission Pulleys

The drive pulley is mounted to the drive motor. It has fins on the motor side to help keep the motor cool during operation.



The transmission pulley doubles as a gear for the mode shifter to lock into during agitation.

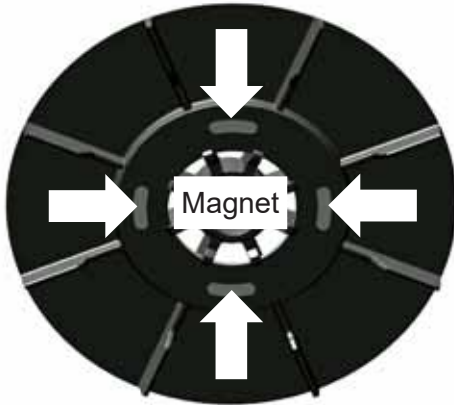


Pulley Removal

1. Remove the two 9/16 nuts (one for each pulley), securing them to the motor and transmission shafts.
2. Slide the pulleys off the motor and transmission shafts. Torque the new pulley nut to 110 in. lb. when reinstalling.

Speed/Hall Sensor

The speed/hall sensor is mounted to the drive motor and sends a pulse signal back to the control board. This is done when the magnet that is mounted in the drive motor pulley passes over the sensor.



If the control does not read any signal from the sensor from the movement of the motor, the washer cycle will stop.

Speed/Hall Sensor Diagnosing

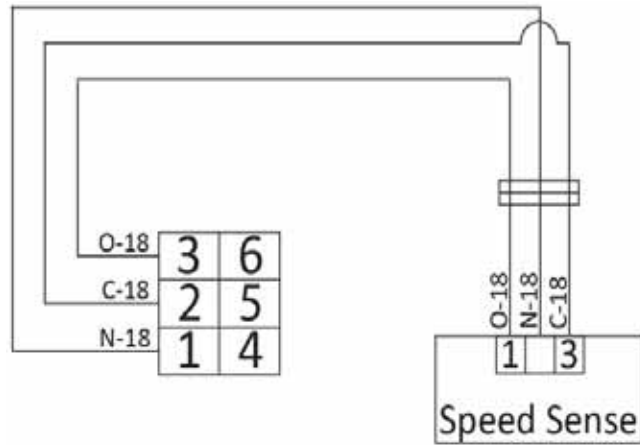
The speed/hall sensor can be diagnosed two different ways.

- **Enter the Service Mode and Run the Spin Test**

If the speed/hall sensor is bad or disconnected, the basket will start to spin normally, at first. After 5 seconds, motor power will be stopped and a locked rotor fault will be set. If the washer continues to spin for at least 15 seconds, the speed/hall sensor is good.

- **Test the Voltage**

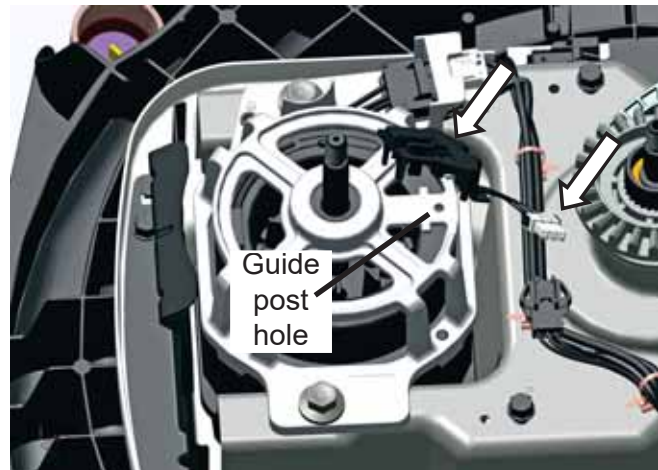
From connector pins 3 to 5 on the J602 should read approximately 9 VDC.



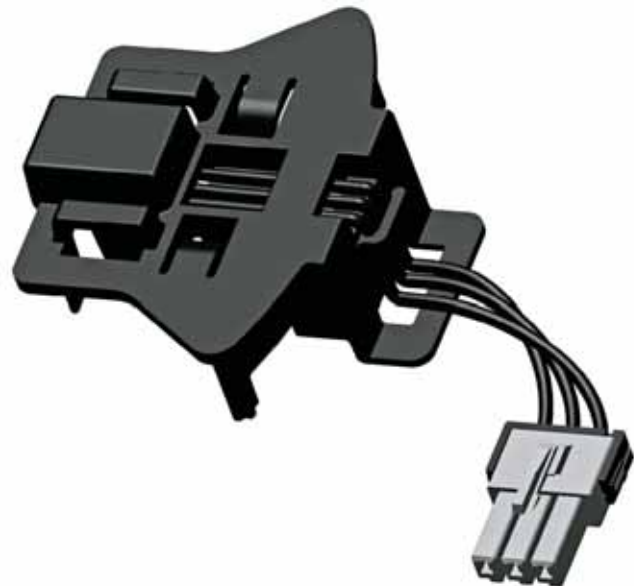
Pin 1 to pin 5 should read approximately 4.5 VDC while rotating the basket by hand.

Speed/Hall Sensor Removal

Disconnect the speed/hall sensor from the drive motor and disconnect from the main harness.



There is a locating post on the bottom of the sensor that is pushed into an existing hole in the motor housing, when reinstalling.



Drive Motor

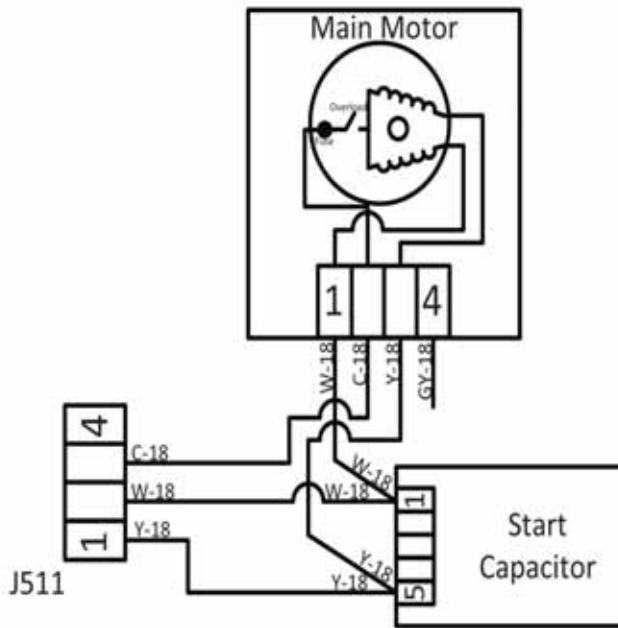
The drive motor is a 1/2 horsepower motor. They are model specific and have a specific drive belt. The drive belt letter color for this model is white. This allows the machine to spin up to 800 RPM.

Drive Motors Diagnosing

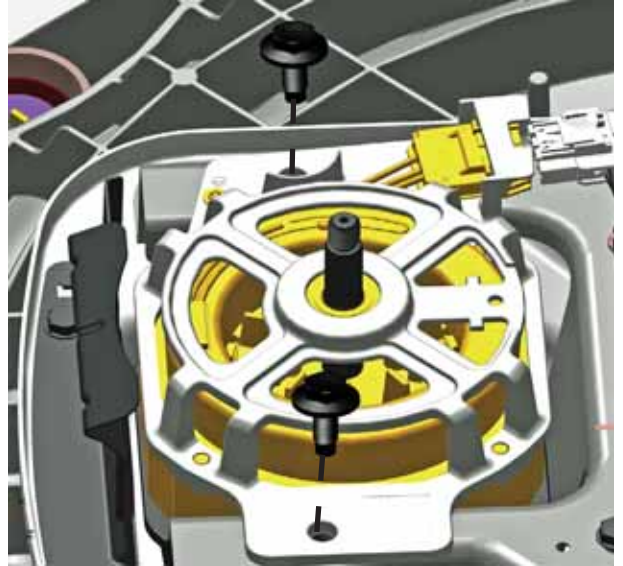
The motor requires 120 VAC.

Resistance value from board connector J511 are:

- **1/2 horsepower motor: brown/white and brown/yellow** should read approximately 3.1 ohms.



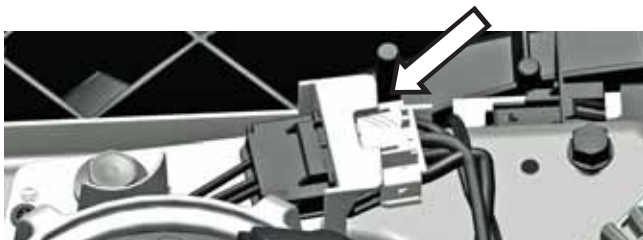
3. Remove the two 1/2 in. hex bolts that secures the motor to the platform. When reinstalling the bolts, torque to 170 in. pounds.



Important: If removing the motor with the washer leaning back, be sure to support the weight of the motor, as it will drop away from the platform once the second bolt is removed.

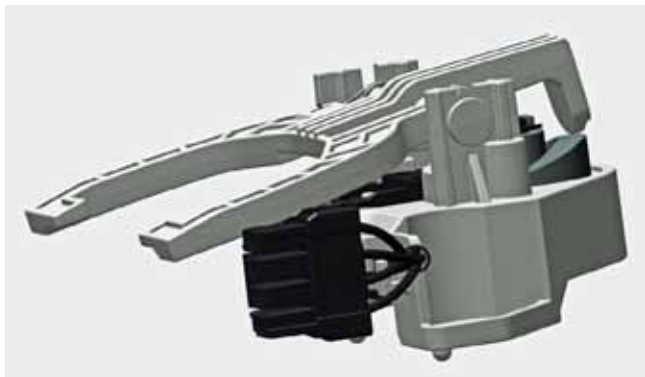
Motor Removal

1. Unclip the hall sensor from the motor.
2. Unclip the main harness from the motor connector by pushing down on the connector clip. The clip is large enough that it can be done with one hand. The motor side of the harness is secured in place.



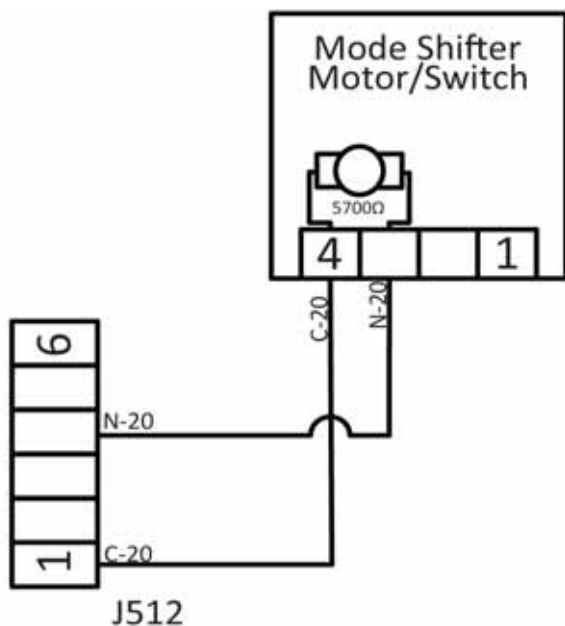
Mode Shifter

The mode shifter consists of a motor that operates by receiving 120 VAC from the control board, a micro switch, and a spring and clutch. It engages or disengages the clutch with the transmission pulley, depending on whether the cycle is in spin or agitate.



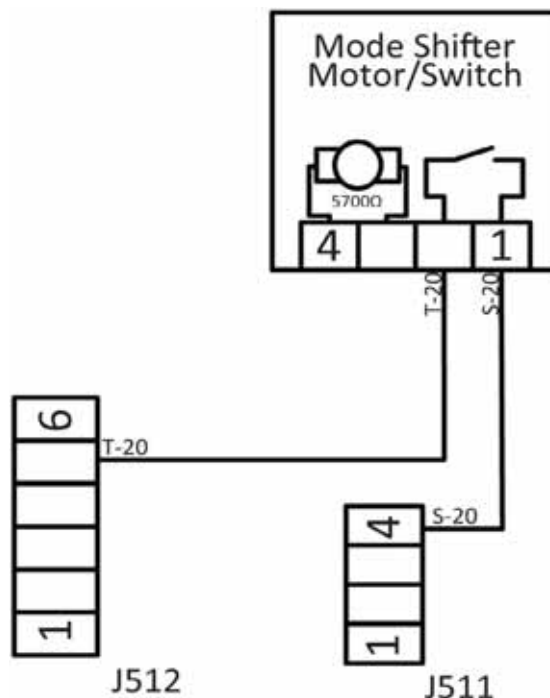
Mode Shifter Motor Diagnosing

From the J512 connector on the control board, pin 1 (**brown** wire) to pin 4 (**blue** wire) should read approximately 5700 ohms. 120 VAC can be applied to the motor two **black** wires on the mode shifter to manually check mode shifter operation.



Mode Shifter Switch Diagnosing

The Mode Shifter Switch's home position is open, ready for a spin cycle. When agitating, the switch should be closed. From the J512 connector on the control board, the **tan** wire pin 5 to the J511 connector pin 4 (**gray** wire).



Mode Shifter Removal

The belt protector, belt and transmission pulley need to be removed to access the mode shifter.

1. Disconnect the mode shifter motor harness connector.

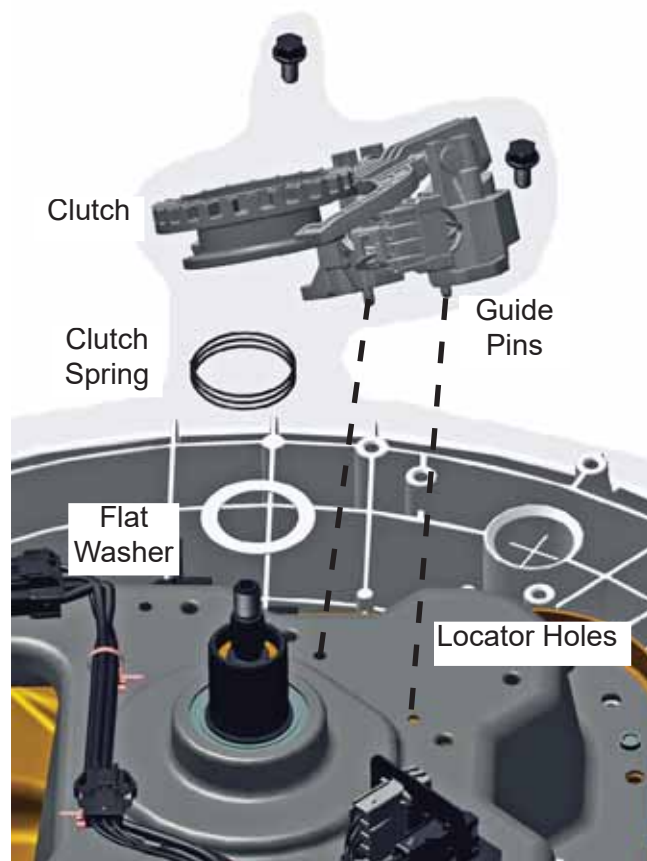


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2. Remove two 3/8 hex bolts securing the mode shifter to the platform. The mode shifter, clutch, clutch spring and flat washer will pull away from the platform.

Mode Shifter Reinstallation

1. Install the flat washer onto the lower transmission shaft.
2. Install the clutch spring.
3. Slide the clutch into the clutch level of the mode shifter and slide the clutch onto the shaft. There are guide pins on the bottom of the mode shifter that go into locator holes on the platform.
4. Install the two 3/8 hex bolts and torque to 60 in. pounds.



Platform/Transmission Assembly

The platform assembly not only houses the transmission, but is used to mount the drive motor and mode shifter. The transmission has planetary gears inside to assist with the agitation and spin cycles of the washer. It is one complete part with the exception of the two harness mounting brackets (some models have one harness mounting bracket) and a motor splash guard.

Platform/Transmission Removal

1. Remove the impeller or agitator to access the hub nut.
2. Remove the hub nut and Belleville washer. The hub nut has reverse threads, and needs to be turned clockwise to loosen.
3. Lean the washer back or lay the washer on its side to access the bottom.

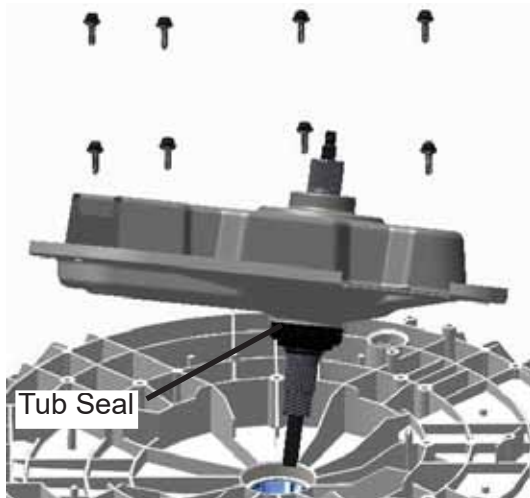
After all other components have been removed from the platform assembly:

4. Cut the wire ties that support the main harness to the platform assembly.
5. Remove the 3/8 hex bolts securing the motor shield and the harness brackets to the platform.



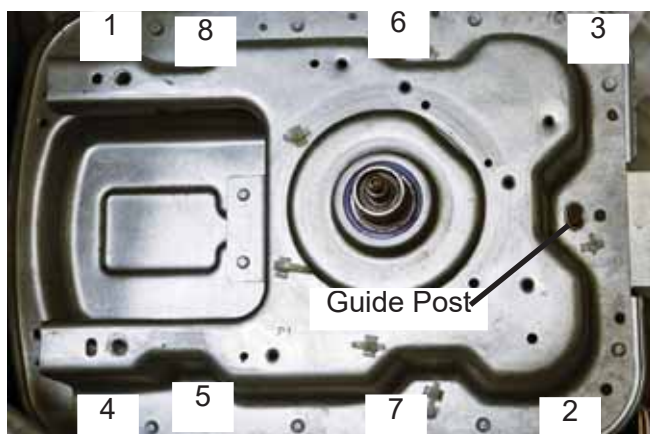
6. Remove the eight 3/8 hex bolts securing the platform to the bottom of the tub.
7. Pry the platform assembly away from the tub.

The tub seal is pressed onto the shaft. Prying against the tub bottom to remove the platform assembly may be necessary.



Reinstalling the Platform/Transmission Assembly

1. Slide the shaft of the transmission into the opening on the bottom of the tub.
2. Line the guide post with the opening in the platform.
3. Press down on the platform to get the seal in position.
4. Tighten the eight hex bolts in a crisscross pattern (about 1/4 of the way in at a time) so that the tub seal is pulled into the tub evenly.
5. Once all of the bolts are in, torque to 65 in. pounds.
6. Reinstall the basket assembly.
7. Reinstall the Belleville washer and hub nut. The hub nut has reverse threads, and needs to be turned counter-clockwise to tighten. Torque to 100 ft. pounds.



Main Harness Assembly

The main harness assembly supplies AC and DC voltage to all components on the washer. If a wire or connector should fail, it will need to be repaired or replaced.

If replacing the complete harness assembly, two technicians will be needed to complete this repair. The main harness is secured to the side of the tub using five 1/4 hex head screws that go through specifically placed wire ties with eyelets.

Main Harness Removal

1. Remove the backsplash, top cover and cabinet/apron assembly.
2. Remove the five 1/4 in. hex head screws (four down the side of the tub and one on the bottom) that secure the harness to the tub assembly.



(Continued next page)

3. Remove the harness connectors from the connector brackets on the bottom of the tub.
4. Disengage the wire ties securing the harness to the platform assembly and set the harness aside. New wire ties are already positioned on the new harness.



Riser

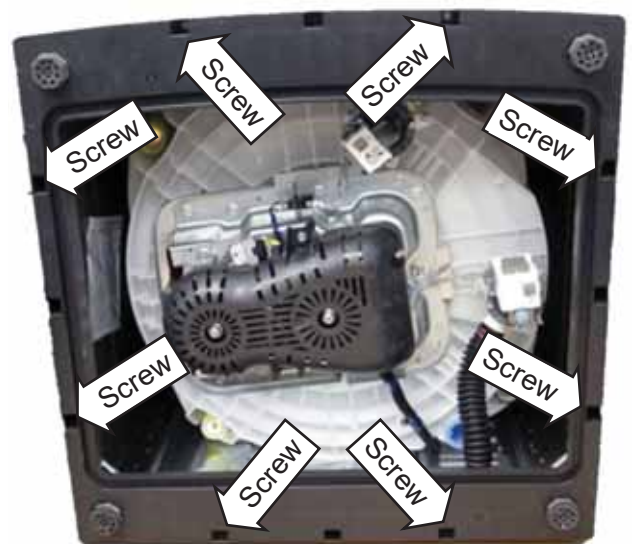
The riser is a plastic frame that attaches to the bottom of the cabinet.



The riser was designed to lift the cabinet so the increased capacity can be accommodated. The leveling legs have been redesigned to fit into the riser.

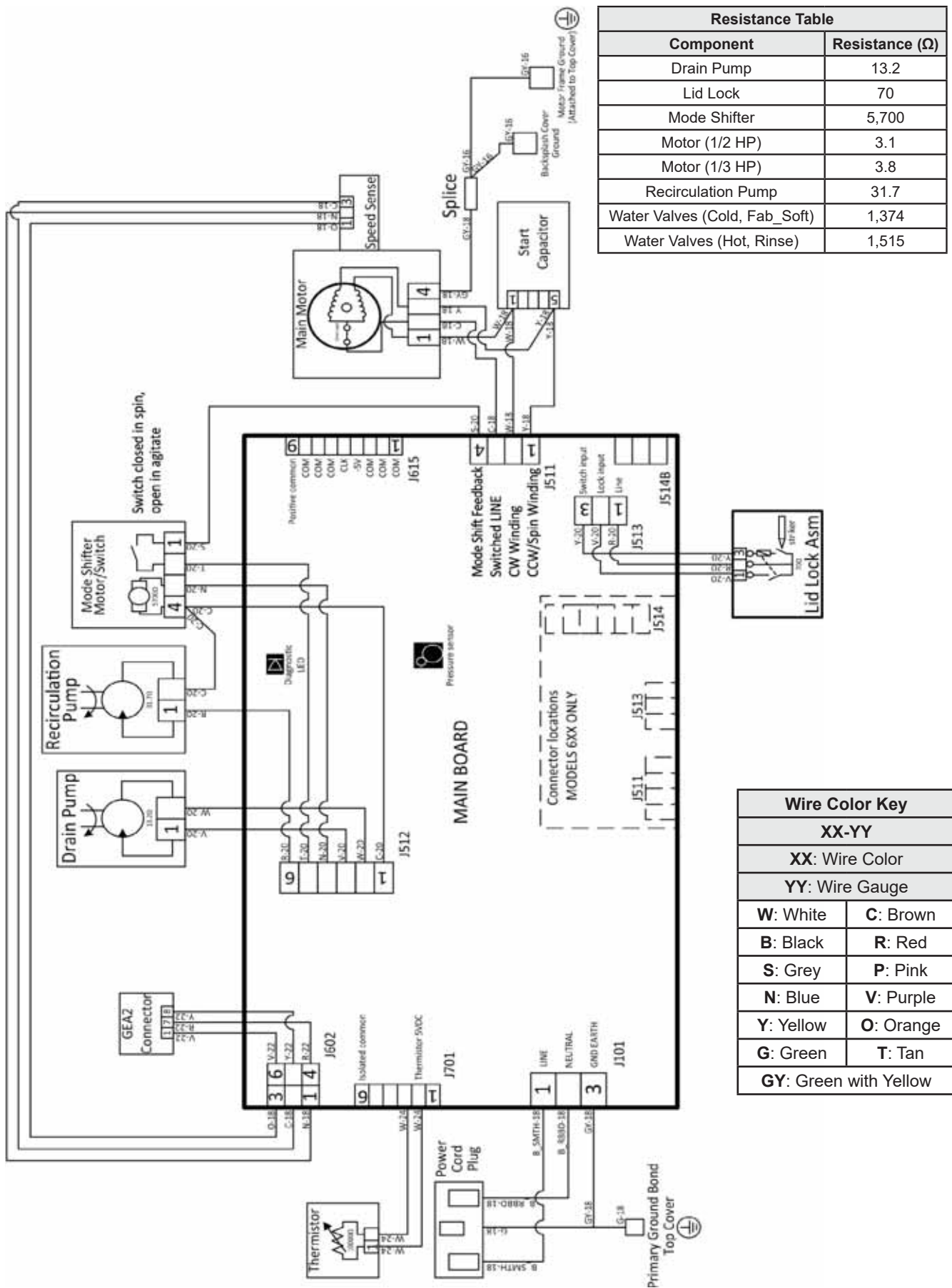
Riser Removal

1. To remove/replace the riser, the washer will need to be laid on its back side.
2. Remove eight 1/4 in. hex head screws that secures the riser to the bottom of the cabinet.

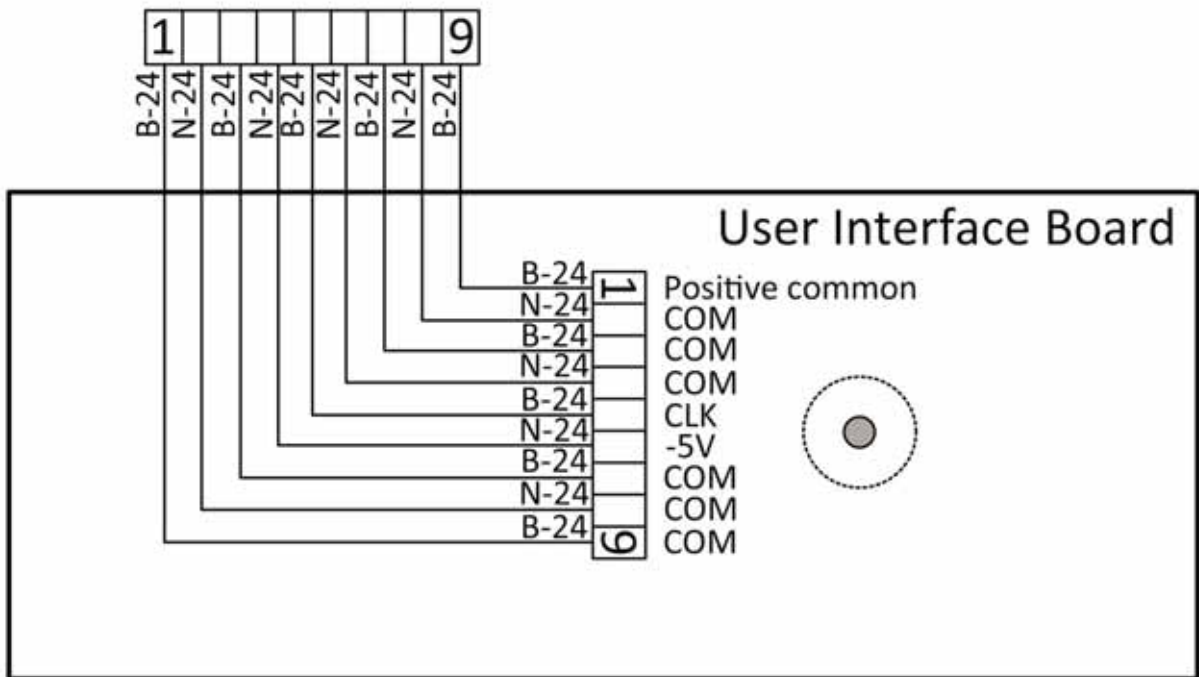


3. Lift the riser from the cabinet.

Schematics / Wiring Diagrams



J615 MODELS 680 AND UP



*Replace UI harness first. If issue is still present, replace the whole assembly

Index

B

Backsplash 21, 35
Basket Assembly 39
Bleach/ Bulk Tank Funnel 42
Bleach Funnel 42
Bulk Detergent Tank 46

C

Cabinet and Structure 35
Cabinet/Apron Assembly 40
Component Locator Views 19
Consumer Help Indicator 17
Control Board Electronic 680 Models 21
Control Features 8

D

Deep Fill 7, 10, 11, 12, 14, 15, 18, 48
Diagnostics 23, 34, 50, 51
Dispensers 43
Drain Hose External 52
Drain Hose Internal 52
Drain Pump 18, 20, 22, 25, 30, 51
Drain System 51
Drive Belt 53
Drive Motor 22, 55
Drive System 53
Drive/Transmission Pulleys 53

F

Fabric Softener 25, 41, 43
Fill System 41

I

Impeller 18, 20, 38, 48
Introduction 7

L

Lid 17, 18, 19, 25, 27, 28, 29, 31, 36, 37, 38
Lid Latch 36
Lid Switch/Lock Assembly 19, 37

M

Main Harness Assembly 58, 59
Mode Shifter 18, 20, 22, 28, 56

N

Nomenclature 6

P

Platform/Transmission Assembly 57, 58
Pressure Sensor 18, 25, 28, 32, 35, 49
Pretreating 13
Product Specifications 18

R

Recirculation Pump 18, 20, 22, 50
Redistribution 17
Riser 59

S

Safety Requirements 5
Schematics / Wiring Diagrams 60, 61
Speed/Hall Sensor 54

T

Table of Contents 3
Thermistor 29, 42

W

Wash Cycles-Cycle Selector Knob 10, 11, 12
Wash System 50
Water Levels 18, 46, 48
Water Saver Rinse 48
Water Station 7, 13
Water Valves 18, 41