

WARNING	Electrical Shock Hazard
Death or serious injury can result from failure to follow these instructions.	
• Service by a qualified service technician only.	
• Disconnect power before servicing this product.	
• Reconnect all grounding devices after service.	
• Replace all parts and panels before operating.	

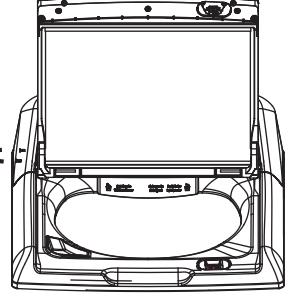
AVERTISSEMENT	Risque de choc électrique
Vous pouvez être tué ou gravement blessé si vous ne suivez pas ces instructions.	
• Réparations seulement par un technicien qualifié.	
• Débranchez l'alimentation électrique avant la réparation.	
• Rebranchez tous les dispositifs de mise à la terre après la réparation.	
• Remettez toutes les pièces et panneaux en place avant d'utiliser l'appareil.	

ADVERTENCIA	Riesgo de Descarga Eléctrica
Usted puede morir o sufrir lesiones graves si no siguen estas instrucciones.	
• El servicio técnico sólo debe ser realizado por un técnico calificado.	
• Desconecte el suministro de corriente antes de realizar el servicio técnico.	
• Luego del servicio técnico, vuelva a conectar todos los dispositivos de conexión a tierra.	
• Reemplace todas las piezas y paneles antes de utilizar.	

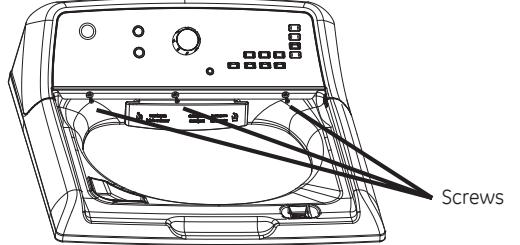
WATER LEVEL SWITCH
BEFORE DISCONNECTING HOSE FROM WATER LEVEL SWITCH, BE SURE WATER LEVEL IN MACHINE IS BELOW BOTTOM OF WASH BASKET. AFTER RECONNECTING HOSE, PUT MACHINE IN SPIN FOR AT LEAST ONE MINUTE BEFORE CHECKING OPERATION OF SWITCH.

① To Remove Control Panel:

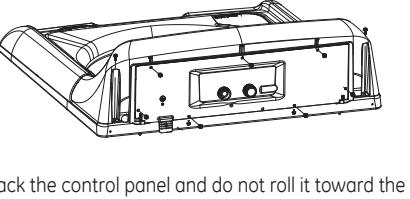
1. Open the lid and remove the two screws from one side of the lid, hold the hinge and slide the lid to pull it out from the washer.



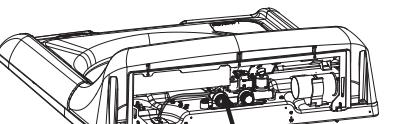
2. Remove the 3 screws from the front of the control panel, be careful do not fall the screws in the basket.



3. Remove the 7 screws from the back side of the cover and remove the back panel. Then remove the two screws from the top rear corners of the control panel.



4. Do not push back the control panel and do not roll it toward the rear to avoid damage, carefully find the pressure sensor tube.

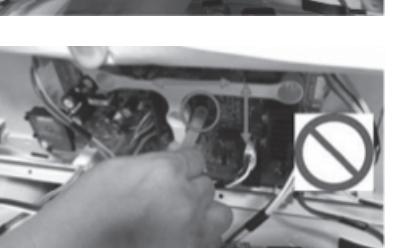


5. With one hand hold the control panel and with the other hand disconnect the pressure sensor tube from the control board turn it to the left and pull it outside.



WARNING:- Pressure switch hose must not be manipulated either vertically or horizontally as there is a risk of damage to the switch, it must move ONLY as indicated in step 6.

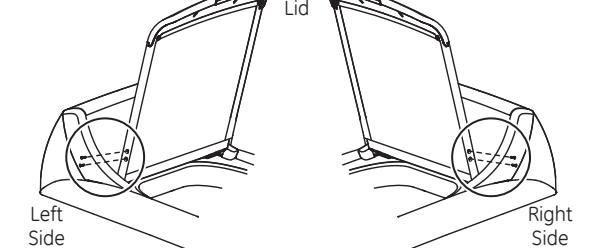
6. With one hand holding the backplash, with the other holding the hose pressure switch with your thumb and forefinger and turn it to the left and out.



WARNING:- Pressure switch hose must not be manipulated either vertically or horizontally as there is a risk of damage to the switch, it must move ONLY as indicated in step 6.

② To Remove Lid:

- Open the lid, remove the four screws (two each side) and lift the lid up to remove.



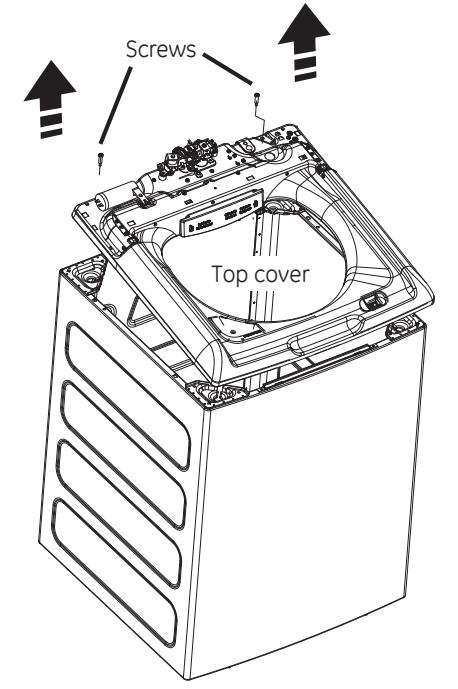
Left Side
Right Side

Left Side
Right Side

- 4. Disconnect the internal drain hose assembly from the cabinet.
- 5. Disconnect the rod and spring assemblies from the tub by leaning the washer over enough to slide prop blocks under the belt protector. Bring the washer to the upright position. This will cause the tub assembly to raise up high enough to disengage the rod and spring assemblies from the tub.

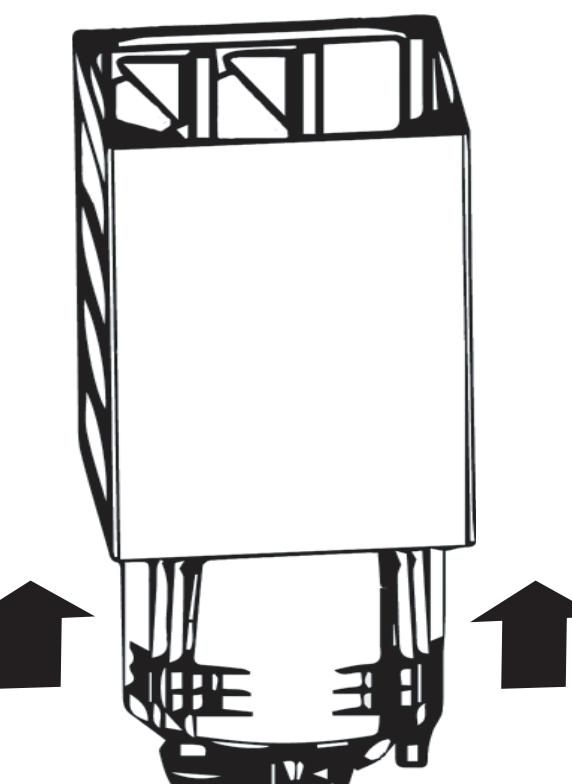
③ To Remove Top Cover:

1. Complete previous component removals ① and ②.
2. Remove two 1/4" hex head screws at the rear of the top cover.
3. Slide the harness grommet out toward the rear of the washer.
4. Disengage the power cord from the top cover by lifting up on the front part of the cord and then slide forward to remove.
5. Raise the rear of the top cover up and pull forward slightly to disengage the top cover.



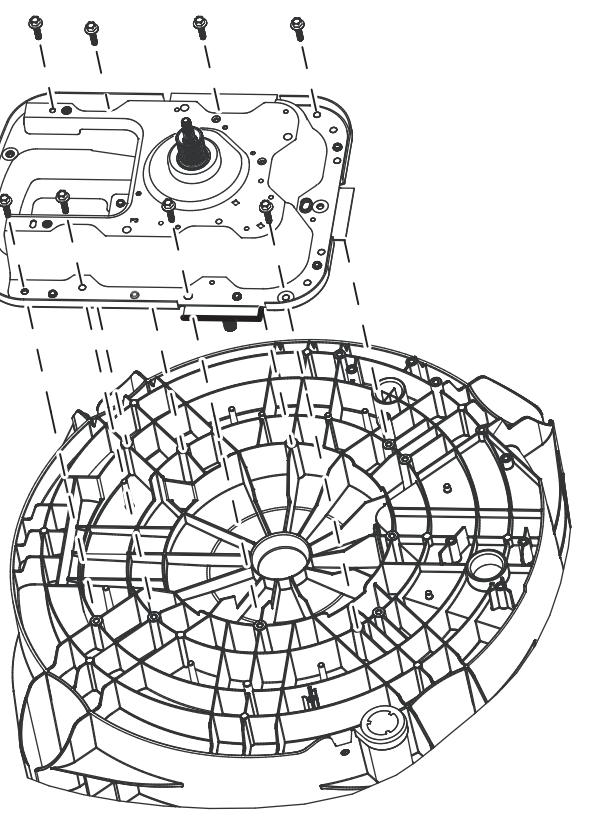
⑤ To Remove Tub and Basket Assembly (Continued):

6. Raise the cabinet up and over the tub assembly.



⑥ To Remove and Install Platform and Transmission Assembly (Continued):

4. Remove eight 3/8th hex bolts that secure the platform transmission assembly to the tub bottom.



Entry into Consumer Error Mode

- From an idle state only (all LEDs off), press and hold **Start** button for 10 seconds.
- After holding **Start** for 10 seconds, all LEDs will turn on, signifying the user may 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 code.

- Models without 7-segment display: Fault code will blink in binary - the consumer will report which LEDs are blinking and which are not. See **Binary Display Fault Chart**.
- Models with 7-segment display: Fault code will blink on the 7-segment display.
- At the end of the fault list or if no faults present:
 - Models without 7-segment display: All status LEDs will blink.
 - Models with 7-segment display: 7-segment display will blink “-”.

Exiting Consumer Error Mode

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

Field Service Mode Entry

- From an idle state only (all LEDs off), press and hold **Start** button while rotating the cycle selection knob 180 degrees (7 clicks) and then release the **Start** button.

- Once service mode is entered all LEDs will be flashing.

- On 7-segment display models: (0) will be displayed for Test (0).

- On models without a 7-segment display: All of the status LEDs above the cycle knob will be lit.

- The cycle selection Knob is now used to control the test selection menu.

- Rotating the knob clockwise will increment the test numbers in the display.

- Rotating the knob counter clockwise will decrement the test number in the display.

- Models without 7-segment display: Will display tests using the status lights above the cycle knob in a binary format. (See **Binary Chart**)

- Turning the knob to go to a different test will terminate any current active state.

- Once the test number is selected, pressing **Start** will begin the selected test.

Exit Field Service Mode

- Field service mode will time out after 30 minutes if there is no user activity.

- Models without 7-segment display: Press and hold the **Start** button for 3 seconds

- Models with a 7-segment display: Press **Power** button

Once the washer is in Service Mode, the following service features are available via the cycle knob (on some models):

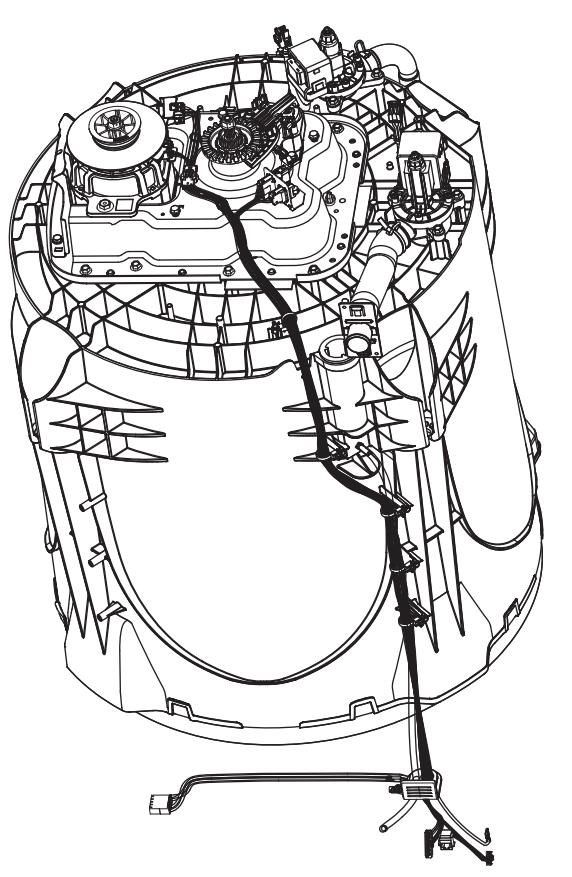
Knob Index / Test number (Displayed on SSD, 7-segment display, if present) (Without SSD will be displayed in binary format. See Binary Chart)	Test Name	Description of test
0	All LED's on	If tests call for numbers to be shown it will: Display on SSD, 7-segment display, if present. (Without SSD will be displayed in binary format. (See Binary Chart) Turning the cycle knob will index to the next or prior test.
1	Fault Codes	Models without 7-segment display: Faults will be shown: - On Start button press, blink first fault code in binary. (See Binary Chart) - On next Start button press, blink next fault code. - At end of list OR if no fault codes are present, blink all LEDs. - Pressing Start at the end of the fault list will wrap back around. - Use the fault sequence. 7-segment display models: 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 . Models without SSD use binary to show personality. Model with SSD will display personality. (See Personality ID Chart 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: Example: v01.23 High end UI 1st press - "01" on 7SD 2nd press - "23" on 7SD Low end UI (See Version Diagram below) Major version (Pause LED ON) 1st press - Display 0 in binary (all LEDs off) 2nd press - Display 1 in binary Minor version (Lid Locked LED ON) 3rd press - Display 2 in binary 4th press - Display 3 in binary
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 High end UI 1st press - "01" on SSD 2nd press - "23" on SSD Low end UI (See Version Diagram below) Major version (Pause LED ON) 1st press - Display 0 in binary (all LEDs off) 2nd press - Display 1 in binary Minor version (Lid Locked LED ON) 3rd press - Display 2 in binary 4th press - Display 3 in binary

⑥ To Remove and Install Platform and Transmission Assembly:

1. Complete previous component removal ④ and step 2 of previous component removal ⑤.

2. Lean washer back and prop with prop blocks to stabilize or if there is room, lay the washer on its side.

3. Remove all components, brackets and harnesses from the platform assembly.



⑦ To Remove the Hall Sensor:

1. Remove belt protector, belt and motor pulley.

2. Unclip the hall sensor from the motor and disconnect from the main harness.

Consumer Help Indicators

• Models with a display on the control panel

Your washer is equipped with Consumer Help Indicator (CHI). CHI is our way to communicate a simple remedy for some situations that you can perform without the need to call for service. The chart below describes the helpful messages you may notice scrolling on your display when you return to start another load. These messages will provide simple remedies you can quickly perform. To ensure that you see the message, the washer will scroll the message continually until you interact in some way with the controls.

balAnCING	After the wash cycle, the clothing wasn't evenly distributed enough to spin out the water. Redistribute the clothes more evenly in the washer and then run a Drain & Spin cycle.
Re (Water took too long to Pump Out)	Resume cycle or enter Drain & Spin . If water pumps out, then the clog has likely cleared. If water remains in the washer, check for clogged or pinched drain hose. This situation could be more likely to appear, over time, if the external drain hose has been extended or restricted.

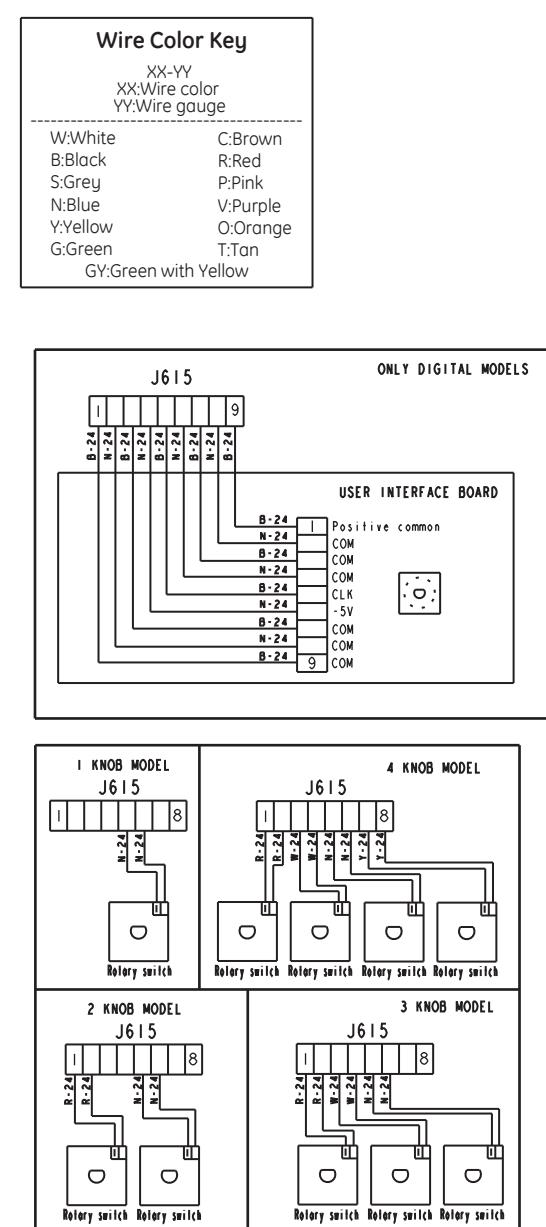
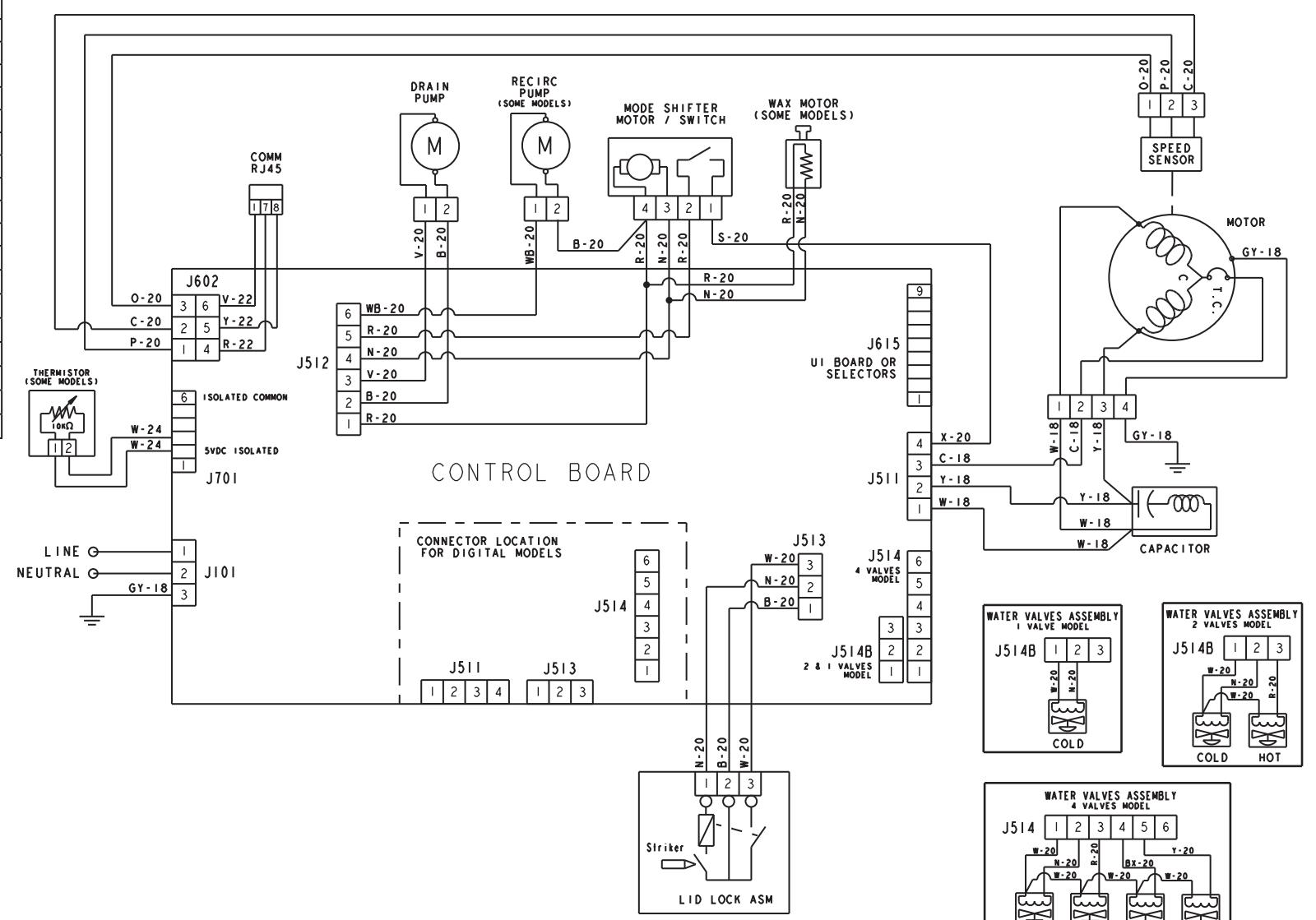
H2O SUPPLY (Water not entering washer)	Check your house water supply. Did you forget to turn on one or both supply valves after installation or coming back from vacation? As soon as the message starts to scroll, the washer will initiate a 3 minute lock-out period. The washer controls won't respond/change during this time. After the 3 minutes, you can begin your cycle again. If you try to bypass the lock-out period by unplugging the washer, the 3 minute timer will start over again.
CaNCELED	If your machine has stopped itself before the cycle completed, CaNCELED will appear on the display. Some models without a display, the two furthest right LED lights will flash. This indicates that an error has occurred. Try to run a Drain & Spin cycle to see if it will clear. If it does not clear, call 800.GE.CARES (800.432.2371) for service.

• Models without a display on the control panel

Your washer is equipped with Consumer Help Indicator (CHI). CHI is our way to communicate a simple remedy for some situations that you can perform without the need to call for service. The chart below describes the helpful lights you may notice flashing when you return to the washer.

Binary Display Fault Chart		
Fault/Test # displayed on 7-segment display	When entered into service mode	Fault/Test # displayed in binary format using cycle status lights
0	All LEDs on	●●●●●●●
1	Fault Codes	○○○○○●●
2	Personality ID	○○○○○●○
3	UI Software Version (Critical)	○○○○●●●
4	UI Software Version (Non-critical)	○○○○●○○
5	XML Version (Non-critical)	○○○○●●○
6	Hot Water Valve	○○○○●●○
7	Cold Water Valve	○○○○●●○
8	Fabric Softener Dispenser	○○○○●●○
9	Spray Rinse Valve	○○○○●●○
10	Pressure Sensor	○○○○●●○
11	Recirculate Pump	○○○○●●○
12	Drain Pump	○○○○●●○
13	Lid Switch	○○○○●●○
14	Spin	○○○○●●○
15	Agitate	○○○○●●○
16	Clear all F Codes	○○○○●●○
17	Change Personality	○○○○●●○
18	Analog Knob	○○○○●●○
19		○○○○●●○
20		○○○○●●○
21		○○○○●●○
22		○○○○●●○
23		○○○○●●○
24		○○○○●●○
25		○○○○●●○

Personality Number	Model
0	GTW680
1	GTW495
1	GTW485
2	GTW470
3	GTW460
3	GTW465
3	LGA77115
4	GTW330
4	GTW210
5	GTW220
6	HTW200
6	MTW200
7	GTW575
8	GTW560



Wire Color Key		Thermistor Resistance Table	
XX-YY XX:Wire color YY:Wire gauge		Temp(C)	Temp(F)
W:White	C:Brown	10	50
B:Black	R:Red	15	59
S:Grey	P:Pink	20	68
N:Blue	V:Purple	28	82.4
Y:Yellow	O:Orange	32	90
G:Green	T:Tan	38	100
GY:Green with Yellow		44	111
GY:Green with Yellow		50	122
GY:Green with Yellow		54	130
GY:Green with Yellow		66	150
GY:Green with Yellow		76	169
GY:Green with Yellow		1435	

Pressure Sensor		Tub Water Level Pressure Sensor	
1. Not usable	5. Not usable	MODELS 200-491 ONLY	MODELS 680 ONLY
2. Power supply(+)	6. Not usable	Inches of Water	Voltage
3. Ground	7. Not usable	Empty	Empty
4. Output	8. Not usable	1"	0.4
		2"	0.7
		3"	1.0
		4"	1.4
		5"	1.6
		6"	2.0
		7"	2.2
		8"	2.4
		9"	2.6
		10"	2.8
		11"	3.0
		12"	3.2

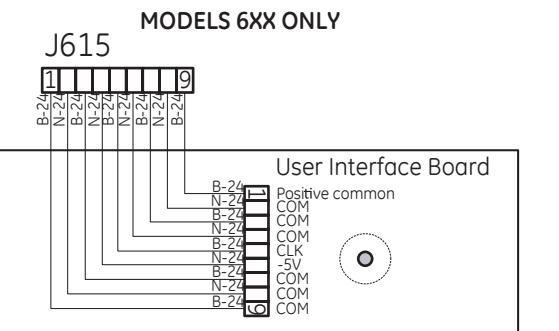
Resistance Table	
Component	Resistance (Ω)
Drain pump	13.2
Lid Lock	70
Mode Shifter	5700
Motor (1/2HP)	3.1
Recirculation pump	31.7
Water Valves (Cold,Fab_Soft)	1374
Water Valves (Hot, Rinse)	1515

*To measure output voltage, connect the probes between pin 4 and pin 3. Shorting pin 3 to pin 2 will cause the main board to shut down.

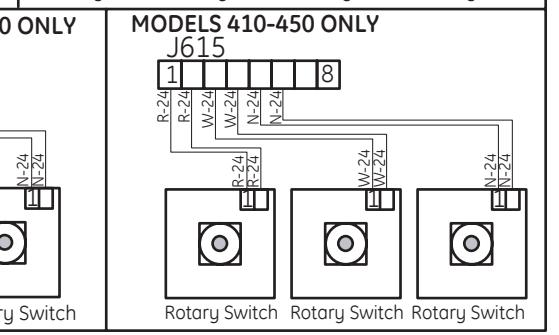
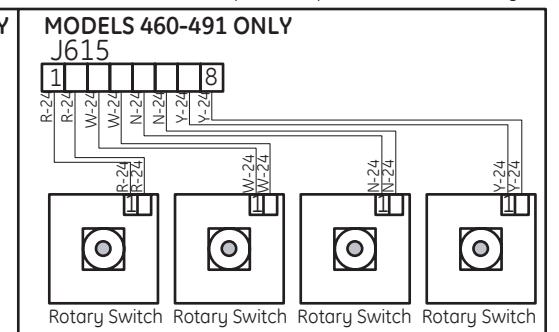
**These values are read from the leads while disconnected from the control PCB

***The values are approximate

****Measure lid lock resistance between pins 2 and 3 and pins 1 and 3 while lid is closed



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



Fault Code (Hex)	Name	Description	Repair / Action
1	Lock Monitor	Lid lock didn't occur or lid lock signal not seen by control due to lock assembly.	<ul style="list-style-type: none">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.	<ul style="list-style-type: none">Physically check the washer for anything preventing motor movement.Check harness and harness connectors from the control to the motor.If hall sensor is bad or disconnected, the basket will start to spin normally and then stop spinning after approximately 15 seconds. Ensure hall sensor is properly connected and positioned on the motor. If basket spins for approximately 5 seconds, then turn off the motor.TCO should reset in approximately 45 minute. If TCO is tripped, make sure motor moves freely and that nothing is jamming it. Replace motor if it does not.
3	Locked Rotor Monitor	For some reason the control is seeing signal changes indicating the motor is turning while trying to spin.	<ul style="list-style-type: none">Check mode shifter coupler for damage and the ability to slide in and out freely.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 13. 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 5 seconds, then turn off the motor.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.	<ul style="list-style-type: none">Check for loose connections at the control. Reconnect if any.Check for recommended house line voltage to the washer.
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.	<ul style="list-style-type: none">Check mode shifter coupler for damage and the ability to slide in and out freely.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 13. 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 5 seconds, then turn off the motor.If TCO is tripped, make sure motor moves freely and that nothing is jamming it. Replace motor if it does not.
6	Critical Flood Level by Pressure	Pressure: Pressure level exceeds 17.5 inches above pressure part.	<ul style="list-style-type: none">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: Pressure level exceeds 16.5 inches above pressure part.	<ul style="list-style-type: none">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. If it does not, the control will need to be replaced as the pressure sensor is mounted directly to the control.
8	Pressure Sensor Loss	The control has sensed 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 was 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 has been added to the tub.	<ul style="list-style-type: none">Check for loose connections at the control.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. If it does not, the control will need to be replaced as the pressure sensor is mounted directly to the control.
9	Lid Switch Redundancy	Control attempted for a 4th cycle when the previous 3 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 #2 as well.	<ul style="list-style-type: none">Open and close the lid to clear the error.Check harness and connectors that go to the lid switch.If the error will not clear, replace the lid switch.
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 not voltage.	<ul style="list-style-type: none">Check mode shifter coupler for damage and the ability to slide in and out freely.Check harness and harness connectors from the control to the motor.Verify resistance of mode shifter motor is approximately 5.7K ohms.Check for 120VAC to the mode shifter motor at the control J512 connector.If voltage is present and no operation, replace mode shifter.If voltage is not present at the control, replace control.
11	Clock Monitor	1. AC power line frequency is not 60Hz. 2. Software failure.	<ul style="list-style-type: none">Check the frequency of the AC power outlet. If it is more than a few Hz off of 60Hz, notify utility company.Check software for any errors.
12	Redundant Flood Condition	Backup Processor received an extended period of pressure readings that is nearing over-flow levels. Pressure 18.0" water level must be present. Could mean water did not 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	<ul style="list-style-type: none">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. If it does not, the control will need to be replaced as the pressure sensor is mounted directly to the control.
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 >4SPM when the lid lock feedback has no voltage (lid Unlocked). Lid Switch Feedback has no Voltage when the RPM is >4-5RPM.	<ul style="list-style-type: none">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. 120VAC while activating.Check lid lock wiring harness from the control to lock assembly.If lid lock assembly and harness are OK, update the software.
14	Lid Lock Failure	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.	<ul style="list-style-type: none">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. 120VAC 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	<ul style="list-style-type: none">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 (Hex)	Name	Description	Repair / Action
16	Adaptive Drain/Slow Drain	The total number of times during machine life the actual amount of time the pressure sensor indicated the wash water had drained to empty exceeded the calculated time by the software.	<ul style="list-style-type: none">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 10 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.	<ul style="list-style-type: none">Check for water in the bottom of the tub. If so drain