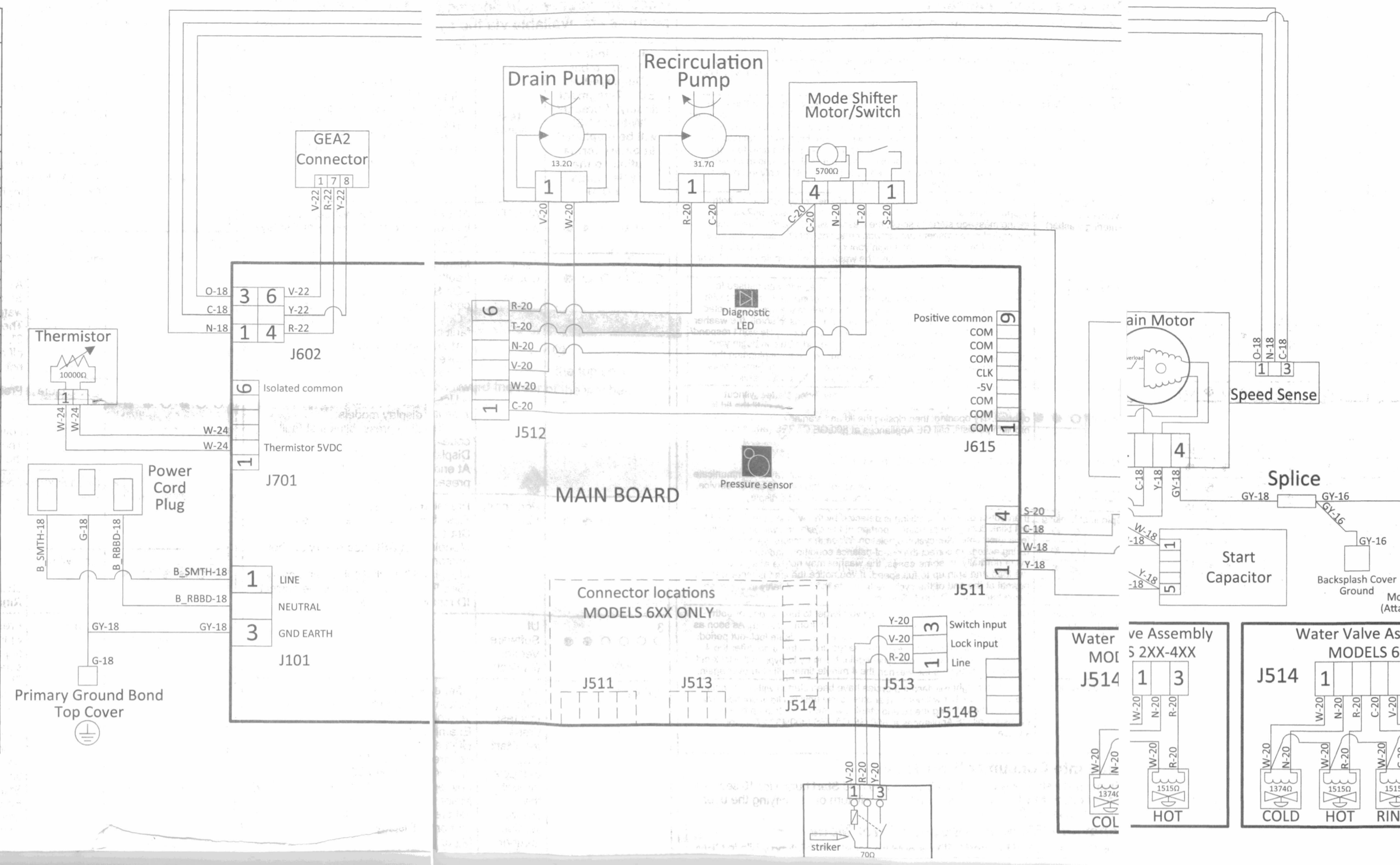


Binary Display Fault Chart

Fault # displayed on 7-segment display	Fault # displayed in binary format using cycle status lights
0	●●●●●●●
1	○●●●●●●
2	○●●●●○●
3	○●●●○●●
4	○●●○●●●
5	○●○●●●●
6	○●○●●○●
7	○●○●○●●
8	○●○●○●○
9	○●○●○●●
10	○●○●○●○
11	○●○●○●●
12	○●○●○●○
13	○●○●○●●
14	○●○●○●○
15	○●○●○●●
16	○●○●○●○
17	○●○●○●●
18	○●○●○●○
19	○●○●○●●
20	○●○●○●○
21	○●○●○●●
22	○●○●○●○
23	○●○●○●●
24	○●○●○●○
25	○●○●○●●
26	○●○●○●○
27	○●○●○●●
28	○●○●○●○
29	○●○●○●●
30	○●○●○●○
31	○●○●○●●
32	○●○●○●○



Pressure Sensor

1. Not usable
2. Power supply(+) 3. Ground 4. Output 5. Not usable 6. Not usable 7. Not usable 8. Not usable

*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

Wire Color Key
XX-YY
XX:Wire color
YY:Wire gauge

W:White C:Brown
B:Black R:Red
S:Grey P:Pink
N:Blue V:Purple
G:Green T:Tan
GY:Green with Yellow

Rotary Switch Resistance Table

Position	Resistance(kΩ)	Voltage
1	0.8	0.7
2	1.9	1.5
3	3.7	2.2
4	6.7	2.9
5	13.5	3.7
6	40.5	4.5

Position 1 is to the left. Turn towards the right to advance position.

Thermistor Resistance Table

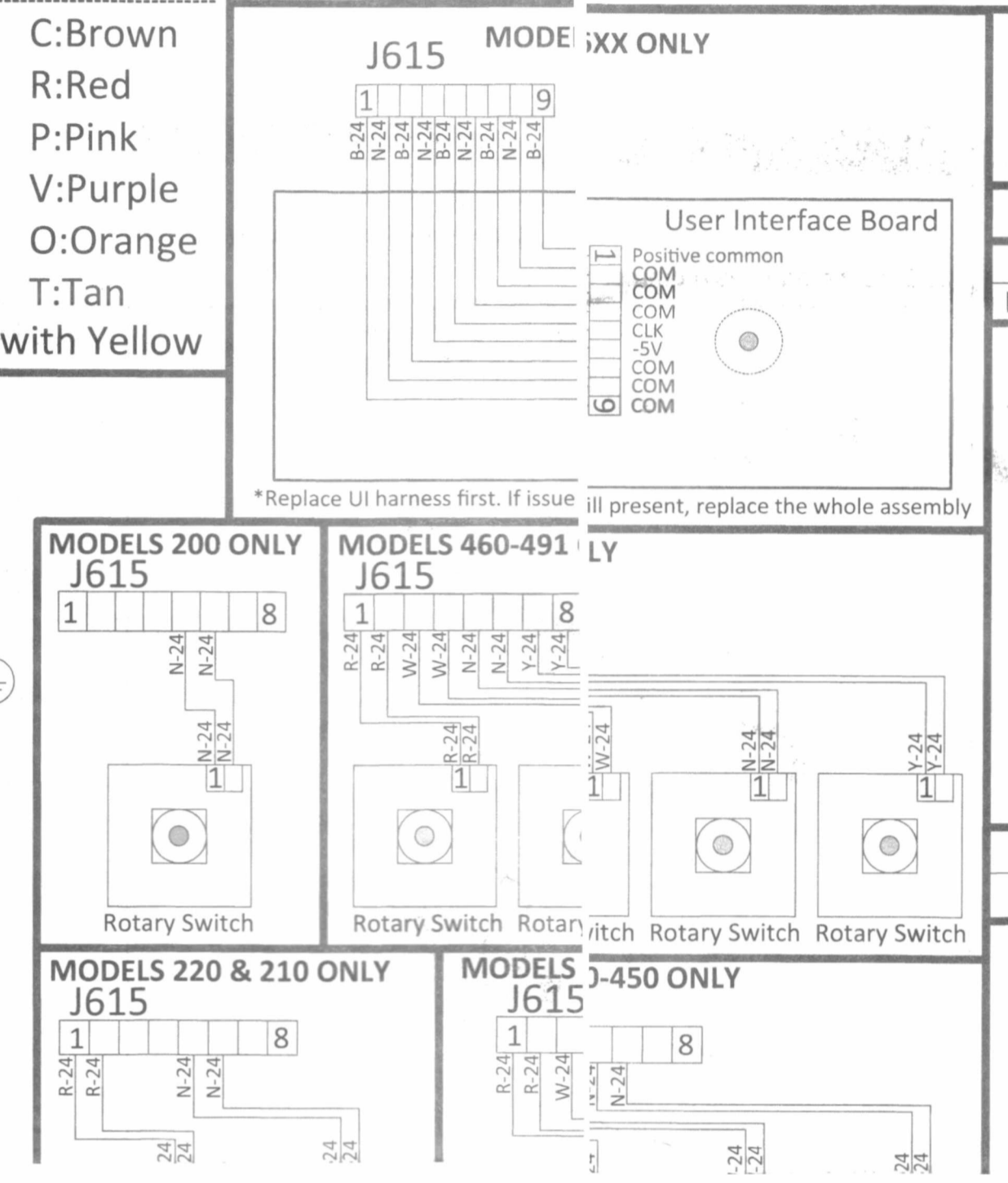
Temp(C)	Temp(F)	Resistance(Ω)
10	50	19901
15	59	15713
20	68	12493
28	82.4	8833
32	90	7446
38	100	5807
44	111	4558
50	122	3601
54	130	3108
66	150	2016
76	169	1435

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"	3.2	12"	3.0

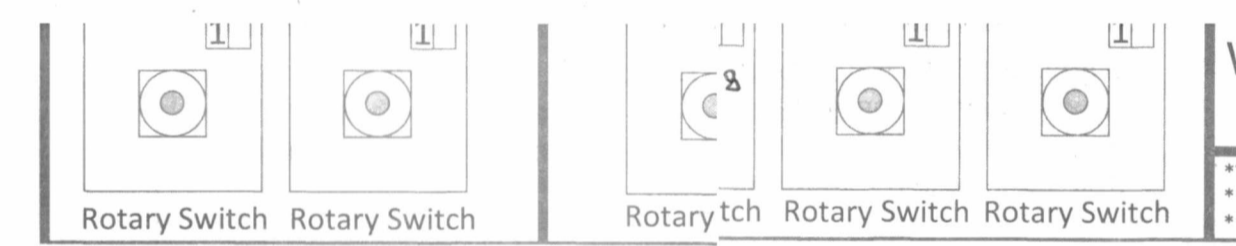
Resistance Table

Component	Resistance(Ω)
Drain pump	13.2
Lid Lock	70
Mode Shifter Motor(1/2HP)	5700
Motor(1/3HP)	3.1
Motor(1/3HP)	3.8



Fault Code (Dec)	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 on 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 lid lock if this happens frequently.
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 rotor movement. • Check harness and connectors from the board to the motor. • Verify hall sensor is connected to the main harness in Service Mode and run TEST 13. Spin Test. If hall sensor is bad or disconnected, the motor will start to spin normally and then stop spinning after approximately 5 seconds. Ensure hall sensor properly connected and positioned on the motor. If basket spins for approximately 15 seconds, the motor is most likely NOT the cause. • TOC should reset in approximately 45 minutes. If 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. Rec, if any. • Check for recommended house line voltage to tisher.
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 motor to slide in and out freely. • Using an ohm meter, check to ensure mode shifter is in the open position. • Check resistance of mode shifter motor (approx 5.7k ohms). • Check for 120VAC to the mode shifter motor at J512 connector. • If voltage is present and no operation, replace the mode shifter. • If voltage is present, replace the mode shifter.
6	Critical Flood Level by Pressure. Pressure level exceeds 17.5" above pressure port.	Control received an extended period of pressure readings that is nearing over-flow levels. Pressure level exceeds 17.5" above pressure port. 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 water valve operation and for any leaking 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. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
7	Max Fill - Pressure. Pressure level exceeds 16.5" above pressure port.	Main micro received an 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 could happen during normal operation.	• This can happen if a large wet load is placed in the tub. • 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. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
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 to make sure house water supply valves are closed on. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • 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 pressure tube for trapped water. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
9	Lid Switch Redundancy	Start 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.	• Open and close the lid to clear the error. • Check harness and connectors that go to the lid. • 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 no voltage.	• Check mode shifter coupler for damage and the motor to slide in and out freely. • Use ohm meter to ensure harness shows continuity from the mode shifter from the control. • Check resistance of mode shifter motor (approx 5.7k ohms). • Check for 120VAC to the mode shifter motor at J512 connector. • If voltage is present and no operation, replace the mode shifter. • If voltage is present and operation, replace the mode shifter more than a few Hz off of 60Hz, notify utility company.
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 not 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 valve operation. (Replace water valve send back to GE Appliances.) • 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 pressure tube for pinches where it goes through top cover grommet. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.

Fault Code (Dec)	Name	Description	Repair Action
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-RPM when the lid lock feedback has no voltage (Lid Unlocked). Lid Switch Feedback has no Voltage when the SRPM is > 4-RPM.	• Check continuity at J513 on the control. • Check lid switch operation of lid lock. Opened or Closed. • Check for proper operation of lid lock. 120VAC while activating wiring harness from the control to lock assembly. • Check lid lock wiring harness from the control to lock assembly.
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.	• Verify that 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 wiring harness from the control to lock assembly. • Check lid lock wiring harness and harness are OK, update the software. • If lid lock assembly resistance from connector J701 on the control board. Validate the resistance matches the table in the manual. • Check wiring harness and connections. • Replace the motor.
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 the manual. • Check wiring harness and connections. • Replace the motor.
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.	• This fault is set when adaptive drain cycle occurs to try to remove the rest of the water in the tub. • If the adaptive drain cycle times out, the control will run a drain pump clearing algorithm to free the pump impeller and fault 18 never occurs there is no problem. If fault 16 and fault 18 equal each other in fault count, then look for drain blockages including house standpipe. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • 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 pressure tube for trapped water. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
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 air 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 the water in the tub. Also this fault may occur due to possible issue with the pressure sensor system. If drain pump system is working correctly, refer to the last four steps of fault 8. • Check the drain pump for blockage. • 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 120VAC to the drain pump. • If voltage is present and pump does not operate, replace pump. • If voltage is live operation. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • 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 pressure tube for trapped water. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.
19	UI State Timeout	This will happen if a cycle is paused or canceled and water is left in the tub for more than 24 hours.	• This is non-operation. This will happen if the consumer and/or control switched cycle to a paused state. • Check water valve operation. • Check pressure tube for pinches where it goes through top cover grommet. • 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 pressure tube for pinches where it goes through top cover grommet. • Ensure pressure chamber port is free from obstruction using drill bit size 1/16" by hand so as not to drill through the inner wall.



Water Valves(Cold,Fab_Soft) 1374
Water Valves(Hot, Rinse) 1515

*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

