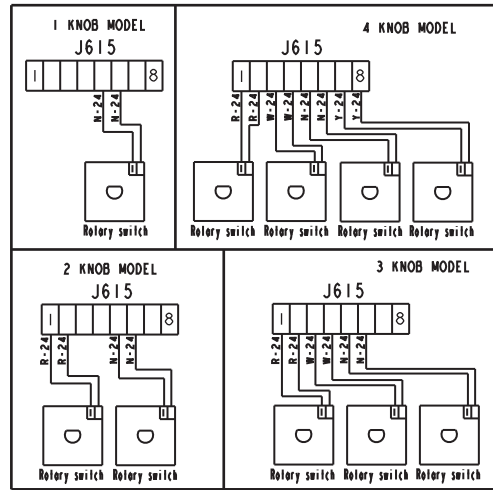
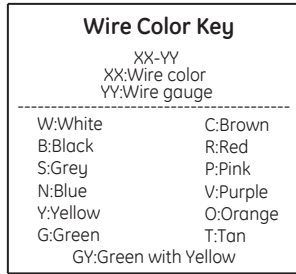
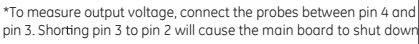


			Binary Format
Model	Personality Number	Service Part Number	Filled Circles Indicate light on
MTW201	5	WW01F02068	○ ○ ○ ● ○
GTW223	4	WW01F02068	○ ○ ○ ○ ○
GTW302	6	WW01F01907	○ ○ ○ ● ○ ○
GTW331	3	WW01F02068	○ ○ ○ ○ ● ●
GTW334	3	WW01F02068	○ ○ ○ ○ ● ●
GTW451	2	WW01F02067	○ ○ ○ ● ○ ○
GTW465	3	WW01F01906	○ ○ ○ ○ ● ●
GTW490	0	WW01F02067	○ ○ ○ ○ ○ ○
GTW491	0	WW01F02067	○ ○ ○ ○ ○ ○
GTW495	1	WW01F01906	○ ○ ○ ○ ● ●
GTW550	7	WW01F02067	○ ○ ○ ● ● ●
GTW580	6	WW01F02072	○ ○ ○ ● ● ○
GTW680	0	WW01F02073	N/A
GTW681	0	WW01F02073	N/A
GTW685	1	WW01F02073	N/A
GTW690	10	WW01F02088	N/A



W:White
B:Black
S:Grey
N:Blue
Y:Yellow
G:Green
GY:Green with Yellow

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

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

*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

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.	- 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.	- Check for water in the bottom of the tub. If so drain and try cycle again - 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. If it does not, the control will need to be replaced as the pressure sensor is mounted directly to the control. - 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 not present, replace IMC Interface Machine Control.
19	UI State Timeout	Washer was paused for over 12 hours	This is a normal operation. This will happen if the consumer and/or control switched cycle to a paused state.
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 6, 7, or 12 occurs. 2. Low water pressure/flow or permanent pressure system blockage if NO Flood fault 12, 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.
21	Flood Warning Level by Gallons.	Water volume into the tub exceeded 36.3 gallons as calculated by the control. Steps filing 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 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 was 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.	- Check for excessively OoB load. Customer Education on how to distribute load. - 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 failure. 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. 120VAC while activating - Check lid lock wiring harness from the control to lock assembly. - If lid lock assembly and harness are OK, replace control board.
24	Lid Logic Failure	Lid switch failure. This fault is set if the system perceives the lid to be both OPEN and LOCKED for 5 consecutive seconds	- Check harness and connections from the control to the lid lock assembly, for damage and continuity. - 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. - If above does not correct the fault, replace the control.
25	Pressure Sensor Dropout	1. Disconnected pressure hose. 2. Pressure tube is pinched or has water in it. 3. Pressure sensor failure.	- 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.

<i>*Resistance values are read from the leads while disconnected from the control circuit.</i>		
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

