

0020508635A

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⚠️ 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.

- This machine must be electrically grounded through the grounding lead in the 3-prong power cord. The cord must be plugged into a properly installed and grounded appliance outlet. If local codes require an additional ground connection, use an 18-gauge or larger wire to connect the washer cabinet to an established ground. In all cases the grounding method must comply with all local codes and ordinances.

⚠️ ADVERTENCIA ⚡ Riesgo de descarga eléctrica

Usted puede morir o sufrir lesiones graves si no sigue 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.

- Esta máquina debe estar conectada a tierra a través de una clavija de conexión a tierra del cable de alimentación de 3 clavijas. El cable debe estar enchufado en un tomacorriente para un aparato electrodoméstico correctamente instalado y conectado a tierra. Si los códigos locales requieren una conexión a tierra adicional, utilice un cable de calibre 18 o mayor para conectar el gabinete de la lavadora a una conexión a tierra establecida. En todos los casos, el método de puesta a tierra debe cumplir con todos los códigos y ordenanzas locales.

⚠️ 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.

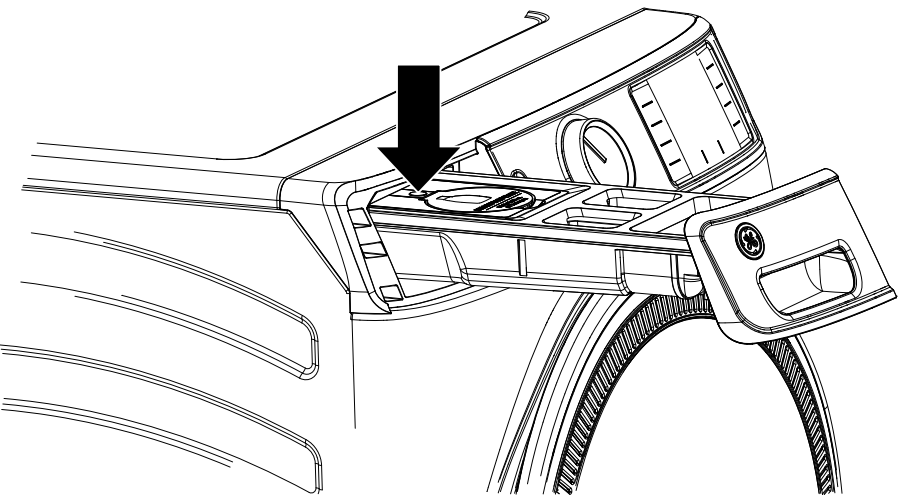
- Cette machine doit être mise à la terre par la broche de mise à la terre du cordon d'alimentation à 3 broches. Le cordon doit être branché dans une prise d'alimentation pour un appareil électroménager correctement installée et mise à la terre. Si les codes locaux demandent une connexion de mise à la terre supplémentaire, utilisez un fil de calibre 18 ou supérieur pour connecter le cabinet de la laveuse à une mise à la terre établie. Dans tous les cas, la méthode de mise à la terre doit être conforme à tous les codes et ordonnances locaux.

IMPORTANT: Electric Static Discharge (ESD) Sensitive Electronics

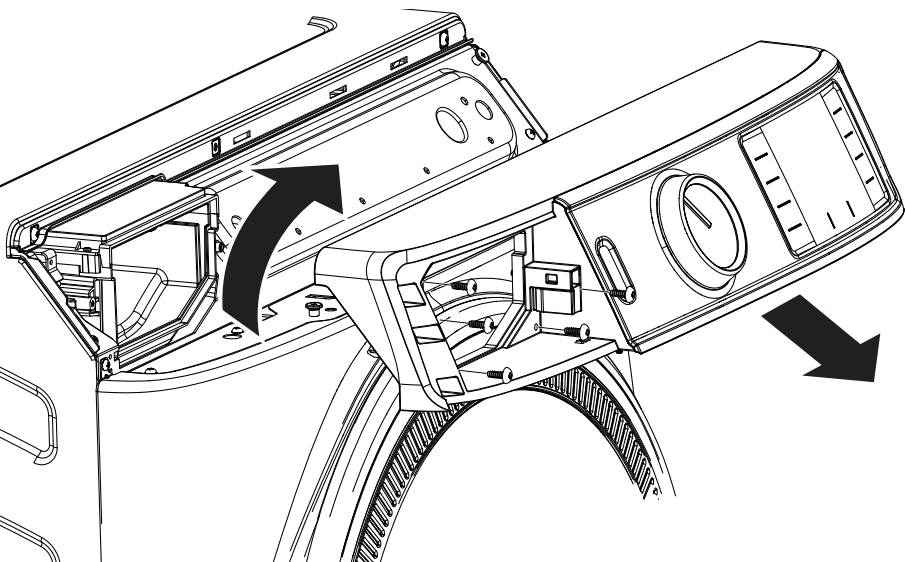
- ESD problems are present everywhere. ESD may damage or weaken the electronic control assembly. The new control assembly may appear to work well after repair is finished, but failure may occur at a later date due to ESD stress.
- Use an anti-static wrist strap. Connect wrist strap to ground connection point or unpainted metal in the appliance.
—OR—
Touch your finger repeatedly to ground connection point or unpainted metal in the appliance.
 - Before removing the part from its package, touch the anti-static bag to a green ground connection point or unpainted metal in the appliance.
 - Avoid touching electronic parts or terminal contact; handle electronic control assembly by edges only.
 - When repackaging failed electronic control assembly in anti-static bag, observe above-mentioned precautions.

To remove the Top Panel

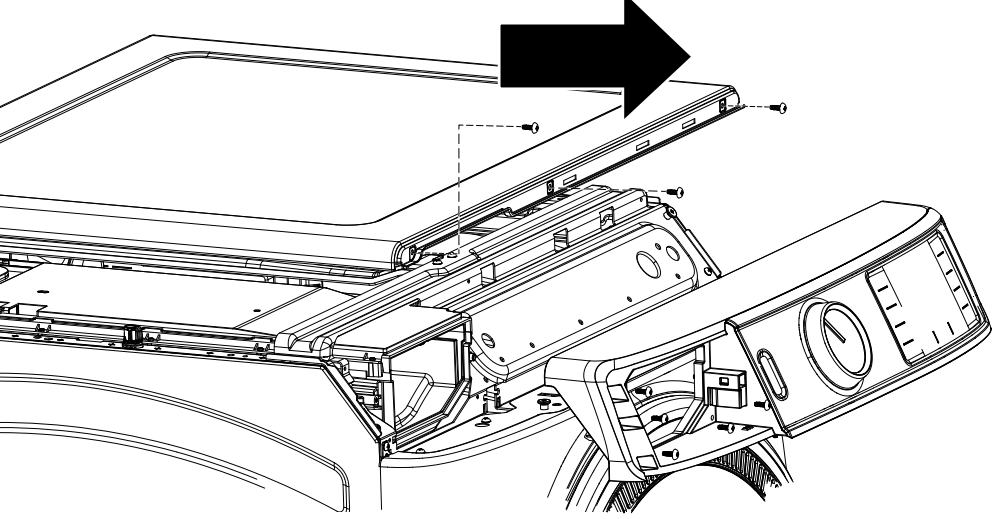
1. Remove the drawer by first pulling it out until it stops.
2. Firmly press down on the lock tab, and pull out the dispenser.



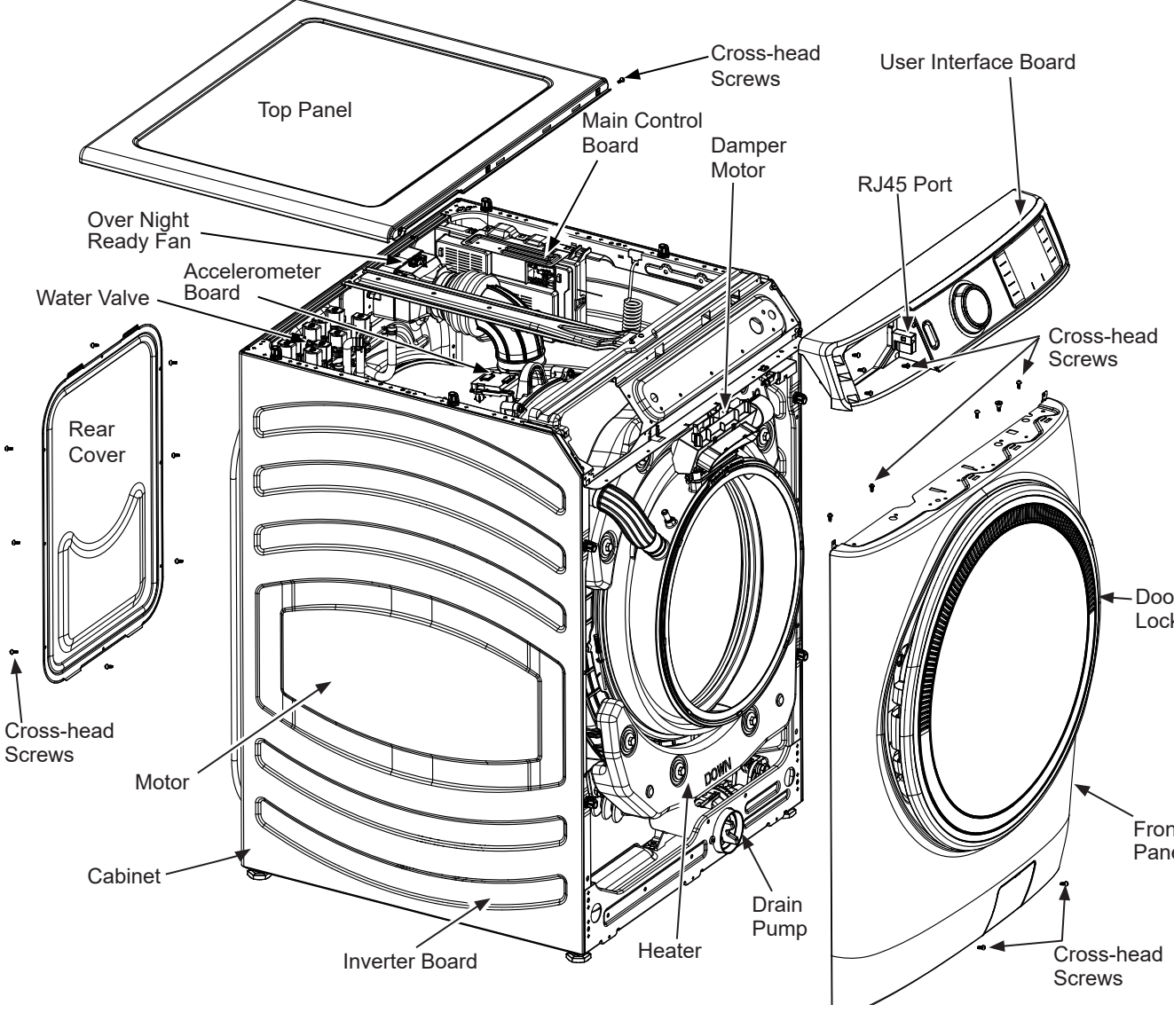
3. Remove the Phillips #2 (5) screws from dispenser box and the control panel.
4. Slightly pull the control panel forward and rotate clockwise.



5. Remove the Phillips #2 (3) screws from the top panel.
6. Pull the top forward and up to remove it from the cabinet.



7. Once the top panel is removed the control board will be on the rear right corner.



Field Service Mode Entry

Press and hold **Start** pad while rotating the cycle selection knob 180 degrees and then release the **Start** pad.

Once the washer is in Service Mode

- Once service mode is entered all LEDs will be flashing.
- 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 numbers in the display.
- Once 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.
- Press and hold (3 second) **Start** pad.
- Press **Power** pad.

Test No.	Test Name	Description
0	All LED's on	All LEDs on the display will blink including "88" on the SSD at a rate of 1Hz
1	Fault Codes	<ul style="list-style-type: none">• Pressing Start pad will blink the first fault code.• Display fault code in SSD.• At end of list, OR if no fault codes are present, unit will flash "-, -".• Use the fault table.• Faults with an ID greater than 100 will not be displayed. These are "engineering faults"
2	Personality ID	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Flash the set personality after pressing Start.• Use SSD to show personality.
3	MC Application Version (Critical)	After selecting this test, press the Start pad to toggle through the software version number as follows: Example: v01.23 • 1st Press - "01" on SSD • 2nd Press - "23" on SSD
4	MC Application Version (Non Critical)	After selecting this test, press the Start pad to toggle through the software version number as follows: Example: v01.23 • 1st Press - "01" on SSD • 2nd Press - "23" on SSD
5	MC Parametric Version (Non Critical)	After selecting this test, press the Start pad to toggle through the software version number as follows: Example: v01.23 1st Press - "01" on SSD 2nd Press - "23" on SSD NOTE: We only show the Non-Critical version number because the Critical parametric version number must match the application Non-Critical version number for the control to boot. If you get to service mode, then the parametric Critical version is correct.
6	Hot Water Valve	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the hot water valve on and off.• Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.
7	Cold Water Valve	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the cold water valve on and off.• Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.
8	Fabric Softener Dispenser	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the fabric softener valve on and off.• Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.
10	Pressure Sensor	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Door will lock while test is active.• Pressure sensor test will have a timeout.• Cold valve will turn on at start of the test.• The test will watch for the following pressure levels: 3", 4", 5", 6", 7"• At start of the test, the following LEDs will start blinking : Extra Light, Light, Normal, Heavy, Extra Heavy.• As each pressure level is crossed, the corresponding LED will stop blinking.
12	Drain Pump	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the drain pump on and off.• Test will have a timeout for how long the drain pump will be on (4 minutes).• The drain pump will turn off when the test is exited.
13	Door Switch	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• When the door is open, the Soil Level "Light" LED will blink.• When the door is closed, the Soil Level "Extra Light" LED will blink.• Closing the door causes another status LED to blink.
14	Spin	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Spin test will perform child safety.• The door must be closed to start the test. If door is open the lock LED will blink.• When started, the mode will shift to spin if required and the door will be locked.• When mode shift is complete, the unit will begin spinning.• Spin test will have a timeout (4 minutes).• No OOB detection during the spin.• The spin will stop when the test is exited.• The door will unlock once the speed reaches 0 after the test is exited.
15	Tumble	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Tumble test should perform child safety.• The tumble will stop when the test is exited.
16	Clear all F Codes	<ul style="list-style-type: none">• Pressing Start/Pause will clear all F codes.
17	Change Personality	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Pressing the Start pad will display the next valid personality.• Pressing and holding the Start pad for the selected personality will write it to NV and reboot.
19	Bulk Detergent Dispense Valve	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the valve on and off.• Test requires door to close before beginning. Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.

20	Heater & Thermistor	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Heater test should perform child safety.• The door must be closed and locked during the test. If the door is open the lock LED will blink.• When started, a steam fill routine will be performed.• After fill, the heater will turn on and will have a timeout (5 minutes).• The SSD display will show the thermistor temperature.
21	Prewash valve	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the valve on and off.• Test requires door to close before beginning. Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.
22	Sump steam valve	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the valve on and off.• Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.
23	Bleach valve	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the valve on and off.• Door will lock while test is active.• Test will have a timeout for how long valve will be on (1 minute).• The valve will turn off when the test is exited.
24	Damper	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the damper state.• When the damper feedback indicates that the damper is open, the Soil Level "Light" LED will blink.• When the damper feedback indicates that the damper is closed, the Soil Level "Extra Light" LED will blink.
25	ONR fan	<ul style="list-style-type: none">• Pressing Start/Pause will toggle the fan state.• When the fan is on, the Soil Level "Light" LED will blink.• When the fan is off, the Soil Level "Extra Light" LED will blink.• Not all models have a fan (only 850 models have fans).
26	Accelerated Spin Test	<ul style="list-style-type: none">• Pressing Start/Pause will start the test.• Spin test will perform child safety.• The door must be closed to start the test. If the door is open the lock LED will blink.• Damper must be closed to start ramp up.• When started, the mode will shift to spin if required and the door will be locked.• Spin test will have a timeout (approximately 2 minutes).• No OOB detection during the spin.• The spin will stop when the test is exited.• The damper will be open and door will unlock once the speed reaches 0 after the test is exited.• Seven Segment Display will display the current speed. The SSD only has 3 digits so the displayed speed needs to be multiplied by 10. For example, the SSD shows 110 so the speed is 1100 RPM.

Entry into Consumer Fault Code Mode

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

Behaviors While in Consumer Fault Code Mode

- The Pause and Door Lock LEDs should be constantly blinking while in CFCM.
- The first fault, if present, will show on the display.
- Pressing Start pad will display the next fault code.
 - Fault code will blink on the Seven Segment Display.
- At the end of the fault list or if no faults present:
 - Seven Segment Display will blink "—".

Exiting Consumer Fault Code Mode

- Pressing any pad (other than Start) or turning any knob will exit Consumer Fault Code Mode.
- Consumer Fault Code Mode will time out after 10 minutes.

Code	Name	Description	Repair Action
1	Lock Monitor	This fault is set if the motor shaft speed exceeds 45 RPM for 5 seconds while in spin mode and unlocked. This fault can also occur if the basket is manually spun by hand.	<ul style="list-style-type: none">• Check the door lock using service mode spin test 14.• Check door lock harness connectors both at the main board and at the door lock assembly.• Measure the resistance at motor connector between each motor phase winding and ground (green/yellow wire). Ensure that it is an open circuit.
2	Door Monitor	Control did not get Door 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">• Check the door lock using service mode spin test 14.• Check door lock harness connectors both at the main board and at the door lock assembly.• Replace door 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.	<ul style="list-style-type: none">• Physically check the washer for anything preventing motor movement.• Verify hall sensor is connected to the main harness. Put washer in service mode and run test 14 (Spin). 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.• Measure the resistance of each motor phase winding. If TCO is tripped, wait approximately 45 minutes for TCO to reset and make sure motor moves freely and that nothing is jamming it, replace motor if it does not.• Check the door lock using service mode spin test 14.• If unit doesn't spin, replace inverter board or the main board.
6	Critical Flood Level by pressure	Control received an extended period of pressure readings that is nearing over-flow levels. 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.	<ul style="list-style-type: none">• Check pressure tube for pinches where it goes through main board.• Check pressure tube for trapped water.• Check water valve operation and for any leaking water valves.• Use pressure sensor test 10 to ensure correct pressure sensor operation.• 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	Determines if appropriate pressure changes are seen during fill. 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.	<ul style="list-style-type: none">• Check to make sure house water supply valves are turned on.• Check pressure tube for pinches where it goes through top cover grommet.• Use pressure sensor test 10 to ensure correct pressure sensor operation.• 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	Door switch Redundancy	3 cycles have been completed without any door opening.	<ul style="list-style-type: none">• Open and close the door to clear the error.• Check harness and connectors that go to the door switch.• Use test 13 to ensure system can detect the correct door state with the Spin and Rinse LEDs.• Consumer education that 4 cycles cannot be run back-to-back without opening and closing the door.• If the error will not clear, replace the Door lock.
15	Water Temp Sensor Invalid	The thermistor is disconnected, not present, or has failed.	<ul style="list-style-type: none">• Run service mode Heater and thermistor test 20 to verify heater and thermistor.• Check thermistor resistance from connector J701 on the control board. Validate the resistance matches the table in mini-manual.• Check the heater resistance from connector J503 on the control board from pin 4-5.• Check wiring harness and connections.• Replace thermistor or heater if resistance is out of spec.
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 and try cycle again.• Check the basket for excessive friction. Basket should spin freely. If not, find source of friction and remove it.• This can also happen if a cycle is started with wet clothes.• Consumer education to doesn't load the washer with wet clothes.
18	Drain Pump Clearing algorithm failed	Pressure sensor indicates water in the tub after attempting to drain.	<ul style="list-style-type: none">• Fill tub using service mode test 7 and check drain pump operation using service mode test 12.• Check drain hose for blockages.• Confirm standpipe height is within recommended guidelines.• If pump does not operate, check that the resistance of the pump matches resistance table and verify 120VAC while pump is operating at J512.• Check pressure tube for pinches where it goes through top cover grommet.• Use pressure sensor test 10 to ensure correct pressure sensor operation.• 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 for greater than 24 hours or if the pressure sensor reads greater than 0.5" while the machine is off for greater than 24 hours.	<ul style="list-style-type: none">• Check for leaking water valves.• Use pressure sensor test 10 to ensure correct pressure sensor operation.• Consumer education on leaving sopping wet items in basket for more than 24 hours.• Pausing the machine for greater than 24 hours can cause this.• Can be caused by out-of-balance.• Can be caused by starting a cycle with the "no spin" option selected• 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.

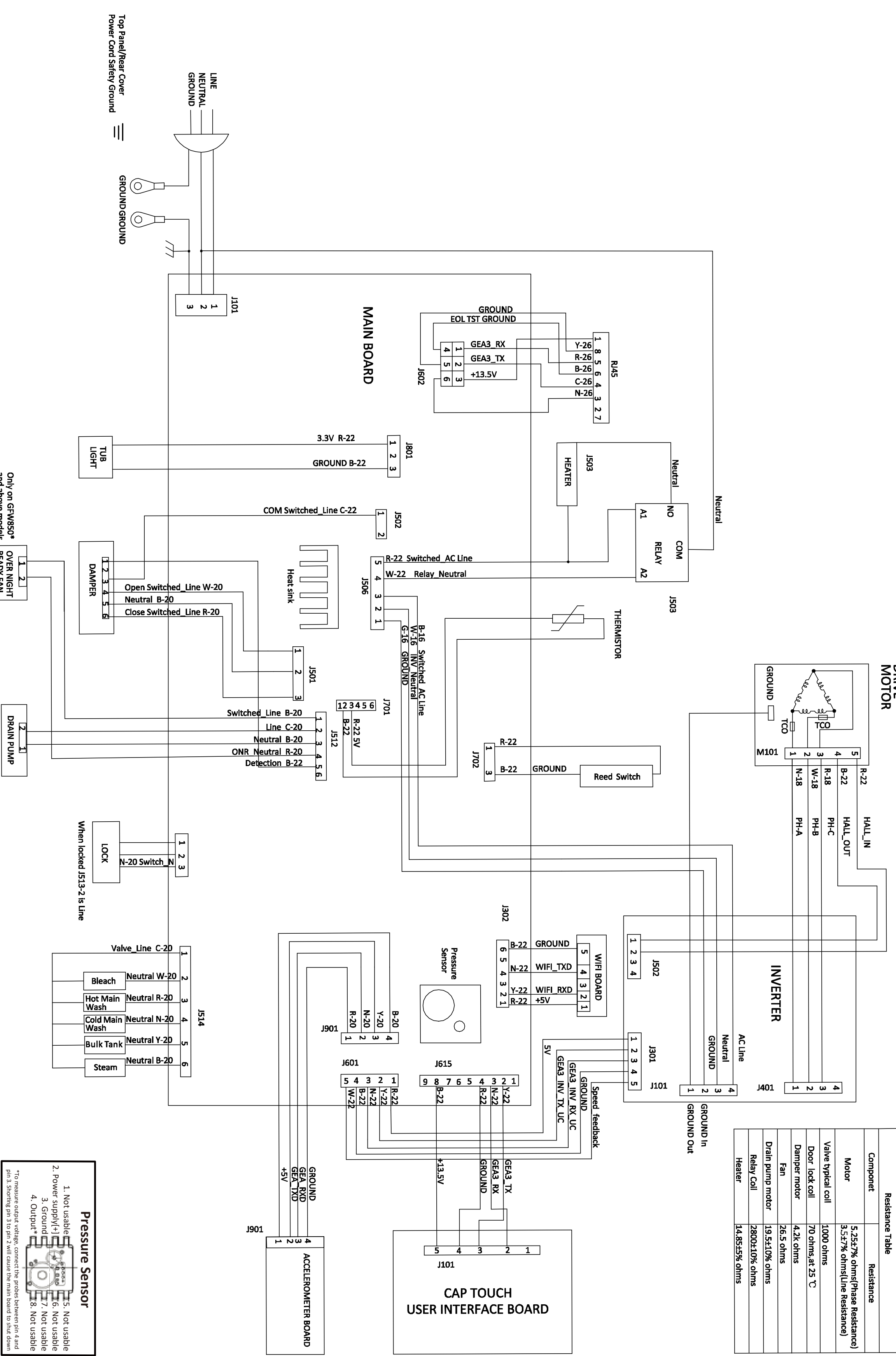
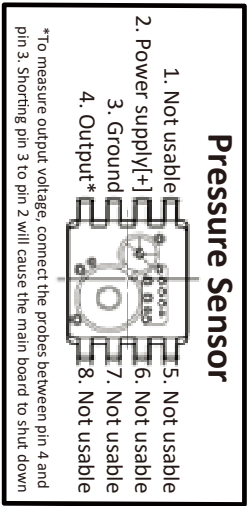
Code	Name	Description	Repair Action
20	Critical Flood Level by Gallons	Water volume into the tub exceeded 41 gallons as calculated by the control. 1. Pressure tube is momentarily pinched, has water in it, partial blockage if Flood fault 12 occurs. 2. Low water pressure/flow or permanent pressure system blockage if NO Flood fault 12 occurs.	<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 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.
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.	<ul style="list-style-type: none">• 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.• Check speed sensor for loose connection to the motor.
23	Critical Door Lock Failure	Cycle canceled due to inability to reach desired door lock state.	<ul style="list-style-type: none">• Verify the door is closed properly, if door is not close freely, lift the door until close free.• Replace door lock and door lock harness then run below actions.• Check the door lock using service mode spin test 14 to ensure door lock operation.• Verify that the door lock is not blocked by any external debris.• Check door switch continuity at J513 on the control.• Check continuity of door lock position. Opened or Closed.• Check for proper operation of door lock. 120VAC while activating.• Check door lock wiring harness from the control to lock assembly.
24	Door Logic Failure	Door lock failure. This fault is set if the system perceives the door to be both OPEN and LOCKED for 5 consecutive seconds	<ul style="list-style-type: none">• Replace door lock and door lock harness then run below actions.• Check the door lock using service mode spin test 14 to ensure door lock operation.• Check harness and connections from the control to the door lock assembly for damage and continuity.• Run a spin cycle. Pull up on the door during spin for more than 5 seconds and see if this fault occurs.
25, 65	Pressure Sensor Dropout, Pressure Sensor Continuous Gallons Monitor	This fault is set when the pressure is above 6" then later drops to less than 1" for 5 seconds without draining.	<ul style="list-style-type: none">• Check to make sure house water supply valves are turned on.• Check water valve operation.• Check for proper drain pipe and stand pipe height.• Check pressure tube for pinches where it goes through control board.• Use pressure sensor test 10 to ensure correct pressure sensor operation.• 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.
26	Out of Balance (OOB) Ended Final Spin	Washer detected an out of balance load and was unable to reach final target spin speed.	<ul style="list-style-type: none">• Run Drain & Spin cycle to ensure basket reaches final spin speed and the Spin LED does not blink (A blinking Spin LED indicates that an out of balance was detected during final spin.)• Check for any basket loose or damage or abnormal noise.• Check to make sure unit is firmly seated on all four legs, doesn't rock, and is leveled.• If washer spins properly, educate consumer on how to properly load and distribute their clothes in the washer basket to prevent an OOB.
27	Water Accessibility	This will happen during a cycle if water is left in the tub with the door open for more than 15 minutes.	<ul style="list-style-type: none">• Check for leaking water valves• Use pressure sensor test 10 to ensure correct pressure sensor operation.• Consumer education on leaving door open for more than 15 minutes during a cycle.• Consumer education on leaving sopping wet items in basket for more than 15 minutes.• Can be caused by starting a cycle with the "no spin" option selected.
29	Suds Lock Abatement Failure	Cycle has terminated due to excessive motor current during spin.	<ul style="list-style-type: none">• Ensure basket is able to rotate freely. Check inner tub sidewalls for anything that can obstruct basket movement.• Use drain pump test 12 to ensure correct pump operation.• Consumer education on correct detergent usage.• Ensure consumer is using the proper amount of HE detergent.
30	Stuck Pad Fault	A pad is detected as being pressed for more than 60 seconds.	<ul style="list-style-type: none">• Check for proper tactile feedback on each pad and check to make sure control responds correctly up each pad activation.• Check for proper alignment in installation of the control board and backslash.• Check the clearance between the foam pad and the control panel.
31	Out of Balance (OOB) Failback in Final Spin	This fault is set if machine is unable to reach terminal speed and the cycle was completed at a lower spin speed during final spin due to OOB.	<ul style="list-style-type: none">• Run Drain & Spin cycle to ensure basket reaches final spin speed and the Spin LED does not blink (A blinking Spin LED indicates that an out of balance was detected during final spin.)• Check for tub damage, basket damage, dampers and springs are properly seated, speed sensor is firmly mounted to the motor and doesn't have excess play.• Check to make sure unit is firmly seated on all four legs, doesn't rock, and is leveled.• If washer spins properly, educate consumer on how to properly load and distribute their clothes in the washer basket to prevent an OOB.
32, 77	Critical Door Lock Failure: Can't Unlock Door	Cycle canceled due to inability to unlock door.	<ul style="list-style-type: none">• Verify the door is closed properly, if door is not close freely, lift the door until close free.• Replace door lock and door lock harness then run below actions.• Check the door lock using service mode spin test 14 to ensure door lock operation.• Verify that the door lock is not blocked by any external debris.• Check door switch continuity at J513 on the control.• Check continuity of door lock position. Opened or Closed.• Check for proper operation of door lock. 120VAC while activating.• Check door lock wiring harness from the control to lock assembly.
33, 34, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 66, 67, 68, 69, 71, 72, 73, 74, 83, 92	Inverter Fault	Any of these faults can be set if the inverter board reports a fault	<ul style="list-style-type: none">• Run service mode spin test 14 to full completion. If cycle fully completes, no further action required.• Check line voltage for 102VAC-132VAC.• Check all inverter board harness connections.• Check motor TCO continuity at J502 (inverter board). If open, should reset after 45 minutes.• Check for continuity through each pair of motor phase windings. If any windings found open, replace motor.• If the above repair actions don't clear the fault, replace inverter board.
35, 59, 60, 61, 63, 64, 87, 88, 89, 90	Accelerometer Fault	Any of these faults can be set if the accelerometer board reports a fault	<ul style="list-style-type: none">• Run service mode spin test 14 to full completion. If cycle fully completes, no further action required.• Check accelerometer board harness connections.• If the above repair actions don't clear the fault, replace accelerometer board.
37	Heater	Fault is set if the thermistor doesn't see at least 3 degrees Fahrenheit heat rise after the heater has been on for 5 minutes	<ul style="list-style-type: none">• Run service mode Heater and thermistor test 20 to verify heater and thermistor.• Check thermistor resistance from connector J701 on the control board. Validate the resistance matches the table in mini-manual.• Check the heater resistance from connector J503 on the control board from pin 4-5.• Check wiring harness and connections.• Replace thermistor or heater if resistance is out of spec.
38, 39, 40, 84	Vent Damper	Fault is set if close/open feedback is not falls after 5 seconds	<ul style="list-style-type: none">• Run service mode Damper test 24 to verify feedback open/close.• Check wiring harness and connections.• Replace Damper if Damper feedback open/close is not detected.
57	Door lock fault water above door by pressure	This fault is set when door is unlock while water level detected by pressure sensor is above than threshold.	<ul style="list-style-type: none">• Check pressure tube for trapped water.• Check each valves operation. (Replace water valve and send back to GE Appliances.)• Use pressure sensor test 10 to ensure correct pressure sensor operation.• 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.
58, 93	Main Board Component Failure	A main board component has failed.	<ul style="list-style-type: none">• Replace main board.
62	Inverter Power And Door Lock Monitor	The fault is set when the system requires inverter power full and the door is unlocked for more than 5 seconds	<ul style="list-style-type: none">• See fault code 2
70	Inverter volt/hertz start up	Inverter volt hertz star up 135 is set 5 times in one cycle	<ul style="list-style-type: none">• Review voltage and frequency at supply line.• Replace the inverter.
77	See fault code 32	See fault code 32	<ul style="list-style-type: none">• See fault code 32
78	Board Communication API Mismatch	The Main Board detects that it doesn't have the same API version as another board.	<ul style="list-style-type: none">• Use a SUM module to update unit software
85	Voltage detected by MC	Voltage detected by MC is outside acceptable window.	<ul style="list-style-type: none">• Review voltage and frequency at supply line.• Replace the Main Control board.
91	UI - Main Board Heartbeat Timeout	No communication between UI and Main Board for 10 seconds.	<ul style="list-style-type: none">• Check UI harness connections.• Check Main Board to UI voltages.

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. This chart 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.

	Water Level		
	Inch H2O	mm H2O	Voltage
Normal Wash	1.86	47.24	0.81
Normal Rinse	2.4	60.96	0.9
Quick Wash Wash	1.86	47.24	0.81
Quick Wash Rinse	2.4	60.96	0.9
Bulky Bedding Wash	2.75	69.85	0.96
Bulky Bedding Rinse	3	76.2	1
Rinse Spin Rinse	2.4	60.96	0.9
Self Clean Wash	4	101.6	1.16
Self Clean Rinse	4	101.6	1.16
Door Open	7.25	184.15	1.7
Empty	0	0	0.5
Overflow	11	279.4	2.32
Basket Lowest Corner	0.8	20.32	0.63

COMPONENT RESISTANCE	
Component	Resistance (Ω)
Drain Pump	19.5±10%
Door Lock Coil	70 @25°C
Water Valves	1K
Motor	5.25±7% (Phase)
Heater	14.85±A5%
Damper Motor CW	4.2K
Damper Motor CCW	4.2K
Relay Coil	2.8K
ONR Fan	26.5

Temp (C)	Temp (F)	Resistance Ω
-10	14	548722
-5	23	45778
0	32	35975
5	41	28516
10	50	22763
15	59	18279
20	68	14772
25	77	11981
30	86	9786
35	95	8047
40	104	6653
45	113	5523
50	122	4608
55	131	3856
60	140	3243
65	149	2744
70	158	2332
75	167	1990
80	176	1704
85	185	1464
90	194	1262
95	203	1093
100	212	949.9



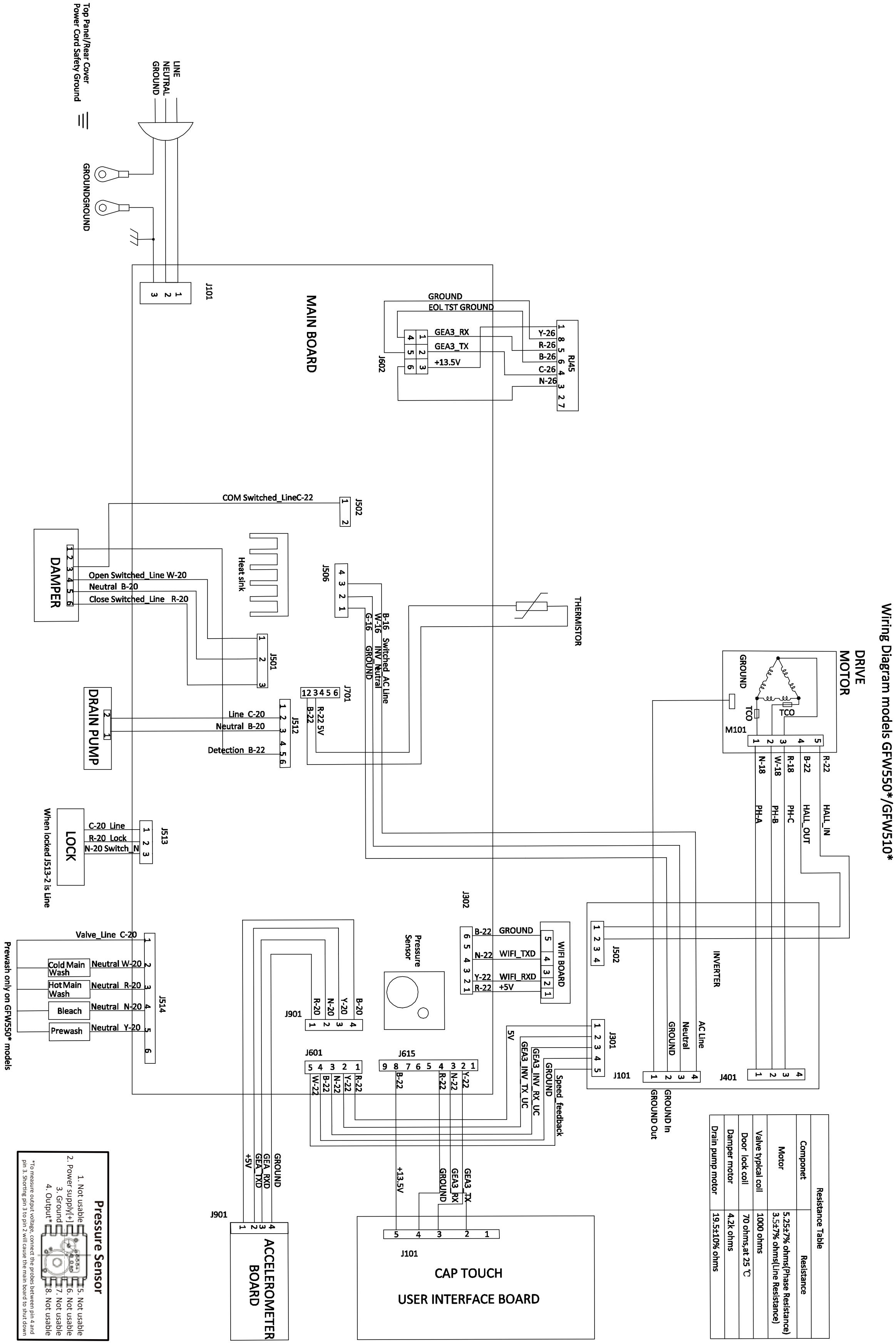
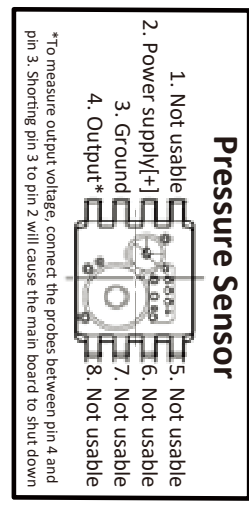
Before testing washer operation, check the following:

- Is the power cord firmly plugged into a live circuit?
- Has a household fuse blown or circuit breaker tripped? Time delay fuse?
- Are both hot and cold water faucets open and water supply hoses unobstructed?
- Before opening the unit, make sure the washer is unplugged from the power outlet.
- Check all connections before replacing components. Look for broken or loose wires, failed terminals or wires not pressed into connections far enough.
- The most common cause for control failure is corrosion on connectors. Therefore, disconnecting and reconnecting wires will be necessary throughout test procedures.
- Connectors: Look at top of connector. Check for broken or loose wires. Check for wires not pressed into connector far enough to engage metal bars.
- Resistance check must be made with power cord unplugged from outlet, and with wiring harness or connectors disconnected.

XX-YY	
XX: Wire Color	
YY: Wire Gauge	
W	White
B	Black
S	Grey
N	Blue
Y	Yellow
G	Green
GY	Green/ Yellow
C	Brown
R	Red
P	Pink
V	Purple
O	Orange
T	Tan

Wiring Diagram models GFW850*/GFW650*

Resistance Table	
Component	Resistance
Motor	5.25±7% ohms/phase (Resistance) 3.5±5% ohms/line (Resistance)
Valve typical coil	1000 ohms
Door lock coil	70 ohms at 23 °C
Dampster motor	4.2± ohms
Fan	26.5 ohms
Drain pump motor	15.5±10% ohms
Relay Coil	2800±10% ohms
Heater	14.85±5% ohms



Wiring Diagram models GFW550*/GFW510*

Resistance Table	
Component	Resistance
Motor	5.25±7% ohms(Phase Resistance) 3.5±7% ohms(Line Resistance)
Valve typical coil	1000 ohms
Door lock coil	70 ohms, at 25 °C
Damper motor	4.2k ohms
Drain pump motor	15±10% ohms

