

This information is intended for Qualified Technicians Only.

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Safety items throughout this manual are labeled with a WARNING or CAUTION based on the risk type as described below:

**WARNING** This symbol alerts you to situations that may cause serious body harm, death or property damage.

**CAUTION** This symbol alerts you to situations that may cause bodily injury or property damage.

### CAUTION

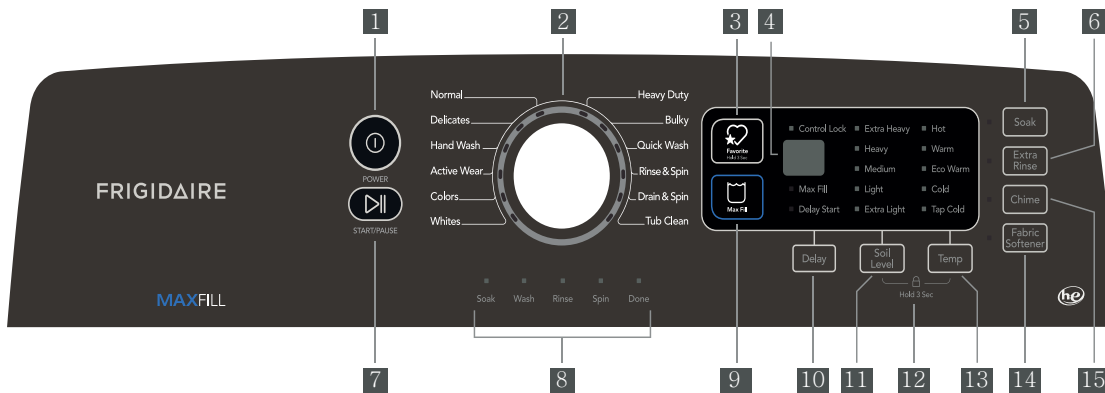
Unless otherwise directed, disconnect electrical current before servicing.

### WARNING

The information within this manual is intended for Qualified Service Technicians Only.

- DO NOT reach into the appliance while the tub or drum is spinning.
- Disconnect power before servicing machine.
- Certain internal parts are intentionally not grounded and may present a risk of electric shock only during servicing.

## Push Button Cycle Select Washer User Interface



1. Power Button
2. Cycle Selector
3. Favorite
4. Digital Display
5. Soak Button
6. Extra Rinse Button
7. Start/Pause Button
8. Cycle Status Indicator Lights
9. Max Fill
10. Delay Button
11. Soil Level Button
12. Control Lock
13. Temp Button
14. Fabric Softener
15. Chime

## Entering Diagnostic Mode:

To enter the test mode, Press Soak button, Extra Rinse button, and Power button simultaneously.

During tests, when the unit is powered ON, you can turn it OFF anytime by pressing the Power button.

### Note:

Before entering the test mode, empty the washer and make sure that there is no water left in the tub. Run a spin cycle or open the service panel from the front side of the unit to drain all the water. Then, make sure that all the parts are in their original position.

## Test Modes

Test 1: Anytime you enter the test mode, all lights and digital display are ON and then flash with 6 beeps.

If any light is not ON, replace the control/display board.

If the display does not show 88, replace the board.

If no beep sound, replace the board.

Test 2: Washing test, to check the motor and rotation directions

Within 5 seconds after entering the test mode, press the Soil Level button to enter the Washing test.

The Normal cycle light and Wash procedure light are ON during the Washing test.

The time display shows 3, indicating that the remaining time is 3 minutes.

The motor and agitator rotate in two-directions in turn.

After 3 minutes, the test mode ends, with 6 beeps and Done light flashing. Once the test is done, all the lights are OFF and the lid is open.

Test 3: Spinning test, to check the clutch and pump

Within 5 seconds after entering the test mode, press the Temp button to enter the Spinning test.

The Normal cycle light and Spin procedure light are ON during the Spinning test.

The time display shows 3, indicating that the remaining time is 3 minutes.

The pump starts in 8 seconds. After 2 seconds, the unit starts Spinning test.

After 3 minutes, the test mode ends, with 6 beeps and Done light flashing. Once the test is done, all the lights are OFF and the lid is open.

Test 4: Inlet valve test, software version check

Within 5 seconds after entering the test mode, press the Fabric Softener button to enter the Inlet valve test.

The inlet valve test starts. All the valves are ON and water enters the unit. Check the detergent compartment, the fabric softener compartment, and the water filling basket to verify each valve.

Close the cold water faucet to see if the hot water valve is working or not.

At the same time, the digital display shows the software version. There are two software version displays:

For control/display board showing a "U-" followed by two digits indicating the software version.

For main PCB shows a "B-" followed by two digits indicating the software version.

After 1 minute, the test mode ends, with 6 beeps and Done light flashing. Once the test is done, all the lights are OFF and the lid is open.

Test 5: Auto-sensing check

Within 5 seconds after entering the test mode, press the Delay button to enter the auto-sensing test.

The unit checks the auto-sensing function in this test mode.

The digital display shows the test result if this function is right.

If there is no display on the digital display 3 seconds after the test, replace the main PCB.

The test mode ends with 6 beeps and Done light flashing. Once the test is done, all the lights are OFF and the lid is open.

## Washer Error Codes, continued

Fault Code	Possible Issue	Corrective Action
E1	Water not entering or slow water fill	<p>Check if the lid is open.</p> <p>Turn both the faucets on fully.</p> <p>Check if the water pressure is in the required range.</p> <p>Straighten the water inlet hoses.</p> <p>Hose filter screens may be clogged. Disconnect hoses and clean the screens.</p>
E2	Water not draining	<p>Check the fuse or reset the circuit breaker.</p> <p>Straighten the drain hoses. Eliminate twisted hoses. If there is a drain restriction, call for service.</p> <p>Close the lid and press the Start/Pause button. For safety, the washer will not spin unless the lid is closed.</p> <p>Check the height of drain hose end.</p>
E3	Lid is open.	<p>Close the lid.</p> <p>The lid lock or PCB is failed.</p> <p>Refer to Troubleshooting.</p>
E4	The unit is out of balance in spin operation.	<p>Make sure that the washer is set on a level surface. If the surface is not level, adjust the washer's feet to level the appliance.</p> <p>Make sure that the washer is not placed on any other object.</p> <p>Make sure that the laundry load is balanced. During the spin process, if clothes are piled up at one side of the basket, it will stop due out of balance. The unit will try to solve the problem automatically. If the washer cannot solve the problem in three attempts, redistribute the clothes. If E4 continues after several different loads, there be an issue with suspension assembly or balance ring.</p>
E5	Washer is not level	<p>Make sure the unit is level and not leaned back. If the unit is not level, adjust the leveling legs to level unit.</p> <p>Refer to troubleshooting.</p>
F2	PCB failure	<p>Check wiring. If wiring test open, replace the wiring harness.</p> <p>If the wiring is correct, replace PCB.</p>
F8	Water level sensor failure	Refer to Troubleshooting.
Fd	Lid lock failure	Refer to Troubleshooting.
C9	PCB failure	<p>Check wiring. If wiring test open, replace the wiring harness.</p> <p>If the wiring is correct, replace PCB.</p>
CL	The lid opened for more than 20 minutes with Control Lock function activated.	<p>Power off the unit.</p> <p>Deactivate the Control Lock function.</p> <p>Call service center.</p>

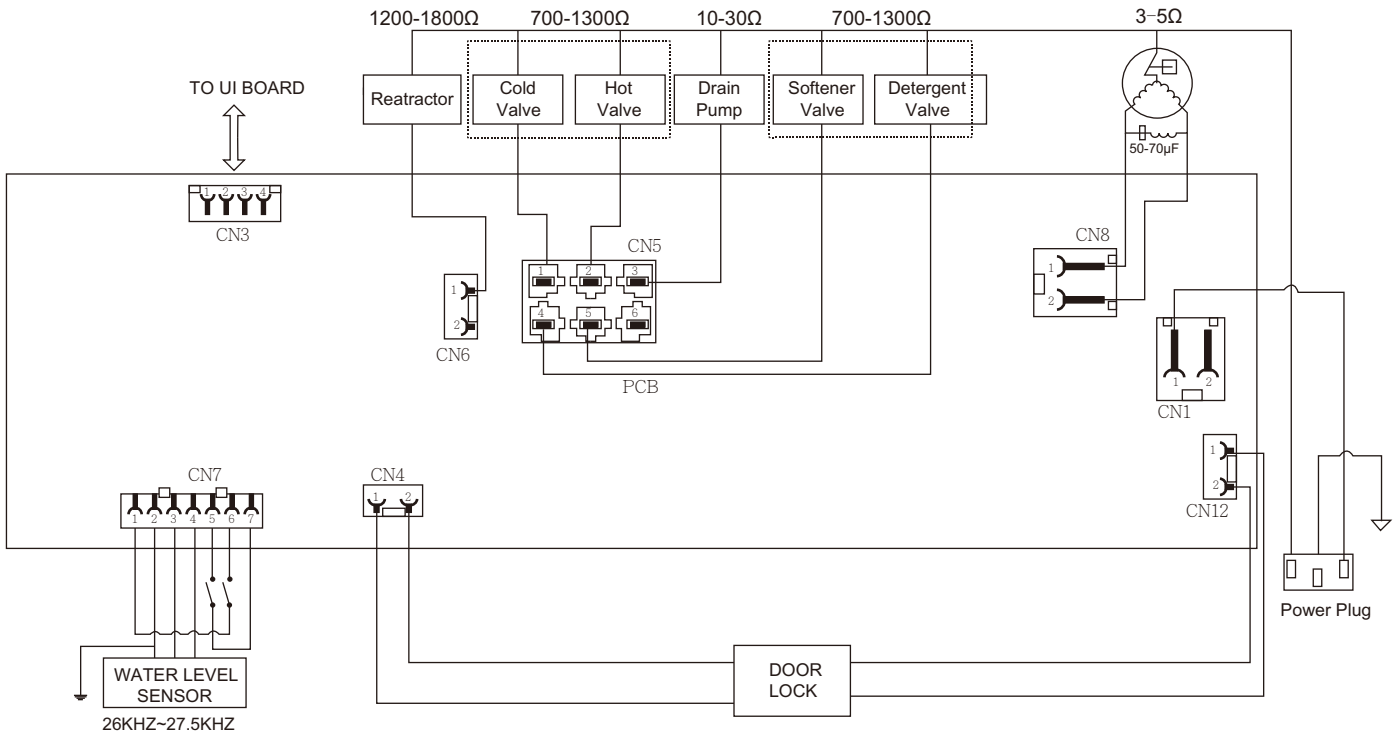
## Washer Troubleshooting Tests, continued

Test Number	Problem	Solution
Test 1	The unit doesn't start.	<ul style="list-style-type: none"> <li>- Check the fuse or reset the circuit breaker.</li> <li>- Make sure your washer is plugged in.</li> <li>- Make sure the lid is closed.</li> <li>- Make sure the water source faucets are open.</li> <li>- Make sure to press the Start/Pause button to start your washer.</li> <li>- Make sure Control Lock is not activated.</li> <li>- Check if a Delay Start is set.</li> <li>- Before your washer starts to fill, it will make a series of clicking noises to check the lid lock and go a quick drain.</li> </ul>
Test 2	No water or not enough water. Detergent / Softener remains in its box after the wash cycle is completed.	<ul style="list-style-type: none"> <li>- Turn both faucets on fully.</li> <li>- Check if the water pressure is in required range.</li> <li>- Straighten the water inlet hoses.</li> <li>- Disconnect hoses and clean the screens. Hose filter screens may be clogged.</li> </ul>
Test 3	Vibrates or is too noisy.	<ul style="list-style-type: none"> <li>- Make sure your washer is set on a level surface. If the surface is not level, adjust your washer's feet to level the appliance.</li> <li>- Make sure your washer is not touching any other object.</li> <li>- Make sure the laundry load is balanced. During the spin cycle if clothes are piled to one side of the basket, it will stop due to a out of balance condition. The unit will try to solve the problem automatically. If the washer can't solve the problem in three attempts, you should redistribute the clothes and make them as even as possible manually</li> </ul>
Test 4	Stops	<ul style="list-style-type: none"> <li>- Plug the power cord into a live electrical outlet.</li> <li>- Check the fuse or reset the circuit breaker.</li> <li>- Close the lid and press the Start/Pause button to start your washer. For your safety, your washer will not spin unless the lid is closed.</li> <li>- Before your washer starts to fill, it will make a series of clicking noises to check the lid lock and do a quick drain.</li> <li>- There may be a pause or sock period in the cycle. Wait and it may start.</li> <li>- Check the screens on the inlet hoses at the faucets for obstructions. Clean the screens periodically.</li> </ul>
Test 5	Lid locked or not opening .	<ul style="list-style-type: none"> <li>- Press the Start/Pause button to stop the washer. It may take a few moments for the lid lock to disengage.</li> </ul>
Test 6	Does not drain or spin.	<ul style="list-style-type: none"> <li>- Straighten the drain hoses. Eliminate kinked hoses. If there is a drain restriction, call for service.</li> <li>- Close the lid and press the Start/Pause button. For your safety, your washer will not spin unless the lid is closed.</li> <li>- Check the height of drain hose end.</li> </ul>

## Washer Troubleshooting Tests, continued

Test Number	Problem	Solution
Test 7	Fills with wrong temperature water.	<ul style="list-style-type: none"> <li>- Turn both faucets fully.</li> <li>- Make sure the temperature selection is correct.</li> <li>- Make sure the hoses are connected to the correct faucets. Flush water lines.</li> <li>- Disconnect the hoses and clean the screens. The hose filter screens may be clogged.</li> </ul>
Test 8	Load is too wet at the end of the cycle.	<ul style="list-style-type: none"> <li>- Use high efficiency detergent to reduce over-sudsing.</li> <li>- The load is too small. Very small loads (one or two items) may cause imbalance and incomplete spin.</li> </ul>
Test 9	Leaks water.	<ul style="list-style-type: none"> <li>- Make sure that all the hose connections are tight.</li> <li>- Make sure that the end of the drain hose is correctly inserted and secured to the drainage system.</li> <li>- Avoid overloading.</li> <li>- Use high efficiency detergent to prevent over-sudsing.</li> </ul>
Test 10	Has excessive suds.	<ul style="list-style-type: none"> <li>- Use high efficiency detergent to prevent over-sudsing.</li> <li>- Reduce the detergent amount for soft water, small or lightly soiled loads.</li> <li>- Non-HE detergent is NOT recommended.</li> </ul>
Test 11	Has an odor.	<ul style="list-style-type: none"> <li>- Run a Tub Clean cycle to clean the tub and basket periodically.</li> <li>- Check the detergent. Excessive suds collect in nooks and crannies and cause mold.</li> <li>- Dry the interior of the washer after the total cycle has finished.</li> </ul>

## Wiring Diagram



### Water level sensor frequency combine water level

Frequency(KHz)	Level(inch)
21.05	19.8±0.7
21.42	17.5±0.4
21.90	15.7±0.5
22.35	13.7±0.3
23.20	11±0.5
23.86	9±0.5
24.35	7.9±0.5
24.98	6.3±0.6
26.20	<b>Empty</b>
20.87	<b>Max Fill</b>

How to check the frequency on the screen:

1. hold Soak and Extra Rinse button, and press power to enter the test mode,
2. Press Temp, the normal and spin signals on, the display will show the middle number of the current frequency.

e.g. 21.42KHz shows 14