Whirlpool and Maytag TOP LOAD WASHERS – HE and Classic

MODELS: High Efficiency Washers

WTW4950 WTW5500 WTW5600 WTW5700 MVWC400 MVWX500 MVWX600 MVWX700

Classic Washers

WTW4800 WTW4850 MVWC200 MVWC300

SERIAL NUMBERS: Any

SUBJECT: Diagnostic LED, Diagnostic Test Mode and Error Code summary sheet

Replacement of the Main Control/CCU without proper Diagnostic LED analysis on the

main control and Diagnostic Mode Error Code analysis.

Verify that the Diagnostic LED – main control is ON. Then enter the Diagnostic Test

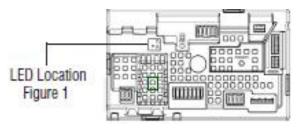
CORRECTION: Mode to get the error codes for troubleshooting the washer.

DIAGNOSTIC LED – MAIN CONTROL

A troubleshooting tool has been implemented onto the main control board—a diagnostic LED.

LED ON – The Control is detecting correct incoming line voltage and the processor is functioning. The LED light is **solid**

LED OFF – Control malfunction. Perform TEST #1: Main Control, on page 12 of the tech sheet, to verify main control functionality.



Green

DIAGNOSTIC TEST MODES

These tests allow factory or service personnel to test and verify all inputs to the main control board. You may want to do a quick and overall checkup of the washer with these tests before going to specific troubleshooting tests. To activate the Service Diagnostic Test Mode, please see the next page.

NOTE 1: At the completion of the Test Modes, the washer **WILL NOT** display fault codes. Enter the fault code display mode to display the fault codes.

<u>NOTE 2:</u> The washer **WILL NOT** enter the diagnostic mode unless the washer is in stand-by-mode (Plugged in and console blank) or if **ONLY** the Lid Locked LED is flashing. If the lid is locked you can unplug the washer for 10 seconds plug it back in and press the power button and the Lid Locked LED will stop flashing and the lid will unlock. In all cases the lid lock **WILL NOT** unlock if the basket is still spinning.

<u>NOTE 3:</u> If the Fill or Sensing light is on; you will need to either press the power button which will cause the fill or sensing light to go off but the Lid Locked LED will remain on and then you can go into the diagnostic mode. Or if you unplug the washer for 10 seconds then plug the washer back in the Lid Locked LED will be on and flashing. Then press the power button and all of the LED's should go off and the lid will unlock. In all cases the lid lock **WILL NOT** unlock if the basket is still spinning.

<u>NOTE 4:</u> If the Mode Shifter/Optical Sensor is faulty, or the washer does not see the lid locked it will turn off the motor triac operation so you will not get power out of the machine control to the motor. This is normal and **NOT** a reason to replace the Main Control/CCU.

ACTIVATING THE SERVICE DIAGNOSTIC TEST

- Be sure the washer is in standby mode (plugged in with all indicators off).
- Perform the following sequence of movement using the cycle selector knob.
 NOTE: AFTER RESET, sequence "a" through "e" must be completed within 6 seconds.



RESET - Rotate cycle selector knob counterclockwise one or more clicks to clear sequence.



 Rotate cycle selector knob clockwise one click and wait ½ second.



 Rotate cycle selector knob clockwise one click and wait ½ second.



 Rotate cycle selector knob clockwise one click and wait ½ second.



 d. Rotate cycle selector knob counterclockwise one click and wait ½ second.



Legend:

- e. Rotate cycle selector knob clockwise one click.
- Successful activation of Diagnostic Test Modes will be indicated by all status LEDs (except for Lid Locked) flashing ON and OFF in half-second intervals. NOTE: LED names may vary between makes and models.

0.5 Seconds ON

Sensing Soak Wash Rinse Spin Done

0.5 Seconds OFF

Figure 2 - Status LEDs flashing ON and OFF

= 0N

 \bigcirc = 0FF

If the status LEDs do not display as described above, the sequence may not have been completed within 6 seconds. Repeat step 2 to ensure this was not the cause. If still unsuccessful, see Unsuccessful Entry, page 3. To access fault/error codes, perform steps 1 and 2 of Activating the Service Diagnostic Test Modes. Turn the cycle selector knob until the status LEDs or display correspond as follows:

■ "Done" LED On, "## Displayed on 7-segment

Sensing Soak Wash Rinse Spin Done

Press the **START** button to enter Fault Code Display Mode. The status LEDs will flash ON and OFF and "*CL*" is displayed on the 7-segment (if display exists).

- 1. To view last 4 fault codes:
 - Turn cycle selector knob clockwise to view fault codes in the order of most recent to oldest. (Refer to Fault/Error Code charts on pages 6 & 7.)

NOTE: A fault/error code will be removed from memory if it does not reoccur after 10 consecutive wash cycles.

MODE

The above is located in the Service Tech Sheet inside the unit front top corner.

ERROR CODE SUMMARY SHEET (Reference Only)

Service tech sheet supplied with the washing machine has full detail

Service tech sheet supplied with the washing machine has full detail		
Error Code	Error Code Description	What to Check
F0-E0	No Error	
50.50	00	Instruct customer to use HE detergent and
F0-E2	Over Suds	follow detergent manufactures recommended amount
F0-E5	Off Balance	1-Instruct Customer on even around basket side, not over loading
		2-Inspect basket attachment to spin tube
F1-E1	Main Control Fault	See Tech Sheet - run test #1
F1-E2	Motor Control Fault	See Tech Sheet - run test #3b
F2-E1	Stuck Key	Inspect keys on user interface
F2-E3	Mismatch of Main Control & UI	Inspect the control board and user interface for
		the correct part number
F3-E1	Pressure Sensor	1-Inspect for pressure hose
		2-kink, blocked or leaking air
		3-tub port blocked
		4-water supply
F3-E2	Inlet water temp	1-Inspect thermistor resistance
		2-replace thermistor if open or shorted
F5-E1	Lid up when start pushed	Lid must be closed when start button is pushed
F5-E2	Lid Lock	1-Inspect lid lock
		2-control board - See Tech Sheet - run test #8
		3-lid latch asy on lid
F5-E3	Unlock Fault	1-Inspect splutch asy
F3-E3	Officer Fault	2-control board - See Tech Sheet - run text #8
F5-E4	Lid not opened btwn cycles	Lid must be opened between cycles for washer to operate
F7-E1	Basket speed sensor	1-Inspect actuator
		2-main motor
		3-capacitor connector
		4-capacitor
		5-lid lock
		6-splutch asy
F7-E5	Shifter Fault	1-Inspect actuator
		2-splutch asy
		3-control board - See Tech Sheet - run test #3a
		4-lid lock
F7-E6	Motor Fault	1-Motor connector
		2-motor, lid lock
F7-E7	Motor not reaching target speed	1-Inspect actuator
		2-motor, capacitor connector
F8-E1	No fill / long fill	1-Inspect Valve
		2-pressure hose
		3-kink, blocked or leaking air
		4-tub port blocked
		5-water supply
F8-E4	Overflow	Inspect inlet valves stuck open
F8-E5	Hot/Cold Reversed	Inspect hot and cold inlet hoses are connected to the
	-	correct inlet valve
F9-E1	Long drain	1-red drain plug left on drain port
		2-pressure hose kinked
		3-oversuds
		4-Inspect pump