GE Appliances

Training Bulletin

TB09-16

June 2016

2012 and Later Plastic Tub and Stainless Steel Tub Dishwashers

Diagnosing UI (User Interface) Controls

Properly diagnosing a UI (User Interface Controls) for models ADT, CDT, DDT, GDF, GDT, PDF, PDT and ZDT (except GDF510) include 3 components. The machine control, door harness and UI. Some consumer complaints may include (but not limited to) UI is dead (no lights), buttons will not respond, control LED's go out when *Start* button is pressed and the buttons function but there is no display.

If there is no operation, display or LED's will not light.

• Check for 120 VAC entering the machine control. If no voltage is found, or voltage disappears when *Start* button is pressed, a house electrical fault is suspected.

• Check the Service LED on the machine control for a flash pattern. Use the table below to translate and repair (using the Service LED as a reliable diagnostic tool).

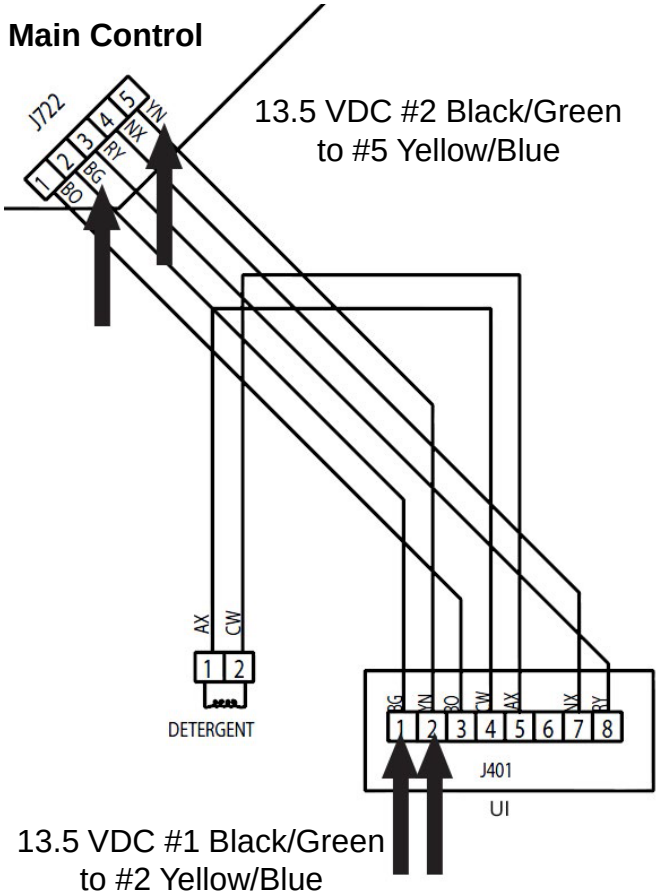
Blink Pattern	Description	Action
1x per 3 seconds	Dishwasher in not running a cycle	Select a cycle and press **Start**
2x per 3 seconds	Dishwasher is in Delay Start	The cycle will begin once the door is sensed closed and the delay expires.
3x per 3 seconds	Dishwasher is running a cycle	No action required
4x per 3 seconds	Dishwasher is paused	Close the door and press **Start** to resume the cycle
5x per 3 seconds	Dishwasher has completed a cycle	Clean Light is on (door has not been opened).
6x per 3 seconds	Dishwasher is in Demo Mode	To exit Demo Mode, press and hold **Start** and **Heated Dry** for 5 seconds.
7x per 3 seconds	Current Sense Module is tripped	See page 3 of this training bulletin
1x per second	Communications lost between control boards	Check connections, replace Harness. UI or MC as needed.
Flashing rapidly (4x per second)	Software error	Replace Machine Control
Steady off	Dishwasher is not powered	check supply voltage, replace MC as needed
Steady on	UI personality not set	communications lost between UI and MC

If the service LED on the machine control has a steady on or one time per second flash, check the door harness and follow the below DCV checks.

• Check the door harness connections.

• For all models, the UI operational voltage is output from the main control on connector J722 pin 2 **black**/**green** to pin 5 **yellow**/**black**. If 13.5 VDC is not found here, replace the main control.

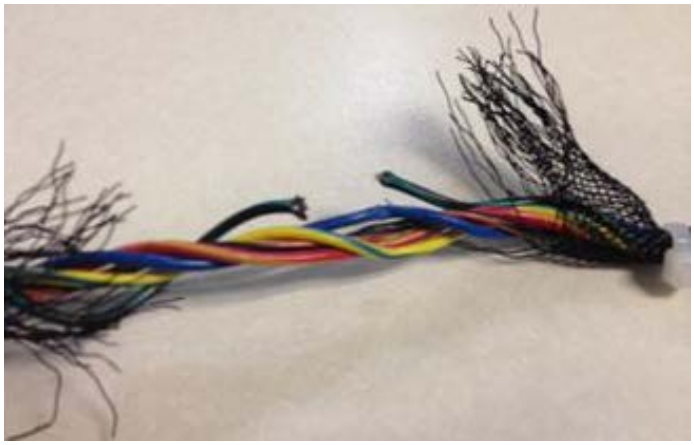
Main Control



UI operational voltage is located at connector J401 pin 1 **black**/**green** to pin 2 **yellow**/ **blue**. If voltage is not found here, but was found in the previous test, check connections or replace the door harness (if needed). If 13.5 VDC is found and the control does not function in consumer error mode, replace the UI.

A door harness may become pinched and damaged within the door or at the tub lip where the harness exits the inner door assembly. Sleeving may cover the damaged area and make a visible check not viable. The harness must be checked by using an ohm meter and checking continuity of each wire at each end of the harness at the connectors. Moving the harness in various directions may be helpful in diagnosing the harness.

Hidden damage to wire harness



If buttons function properly but the LCD display is not functional, check for proper voltage at the UI. If volts are correct, replace the UI

If the service LED flashes 7 times in 3 seconds attempt entering Consumer Error Mode. If LED's or display now operate, the CSM is tripped. The cause of tripping is likely external to the board itself. The board should only be replaced after all other diagnostic tests have been completed and all other potential causes have been ruled out. Potential causes of current leakage to ground could be due to water leaking onto a live component, a component malfunction, or a fault within the wiring harness. If water caused the CSM to trip, the leak must be repaired. The dishwasher may run until a leak causes the trip to re-occur. Resetting the CSM without fixing the underlying issue, will likely result in a repeat call. Always perform a visual inspection of the exposed heating element, looking specifically for cracks, splits, or swelling of the sheath. The below flow chart may be used to diagnose a tripped CSM.

CSM Diagnostic Flow Chart

