Training Bulletin

June 2010

Refrigerator
All LED Interior Lighting

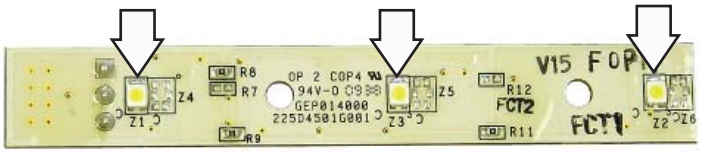
INTRODUCTION

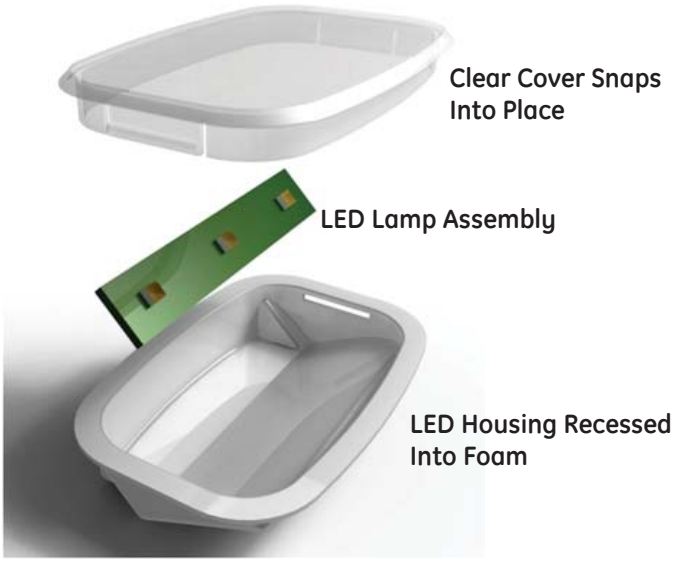
GE introduces all LED lighting in the new Profile refrigerators. By eliminating incandescent bulbs, the refrigerator is more energy efficient and the interior lighting provides a more uniform and diffused white light.

LED CIRCUIT BOARD AND LAMP ASSEMBLIES

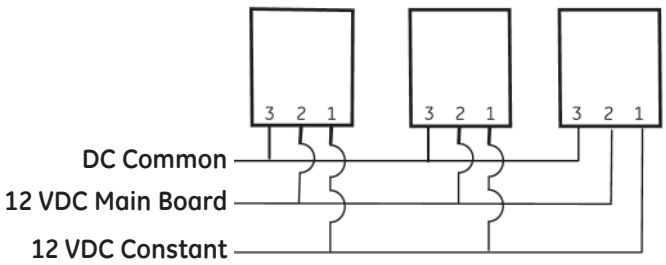
Depending on the model, there can be up to 9 LED lamp assemblies in the fresh food section and 3 in the freezer section.

Each LED lamp assembly consists of a small circuit board with 3 LEDs. Each board operates on 12 VDC supplied by the main board.





The LED boards are all wired in a parallel circuit and operate simultaneously. There is a momentary delay in brightness as the LEDs come on. This is normal.



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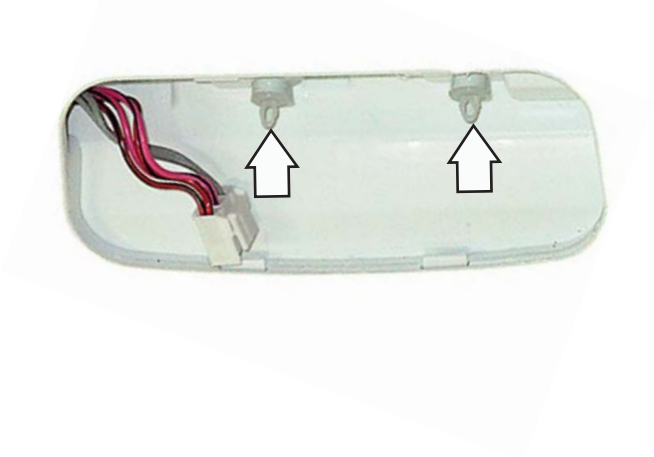
ACCESSING THE LED BOARDS

To access the LED board, use a putty knife to release the cover locking tabs, taking care to not scratch the liner.

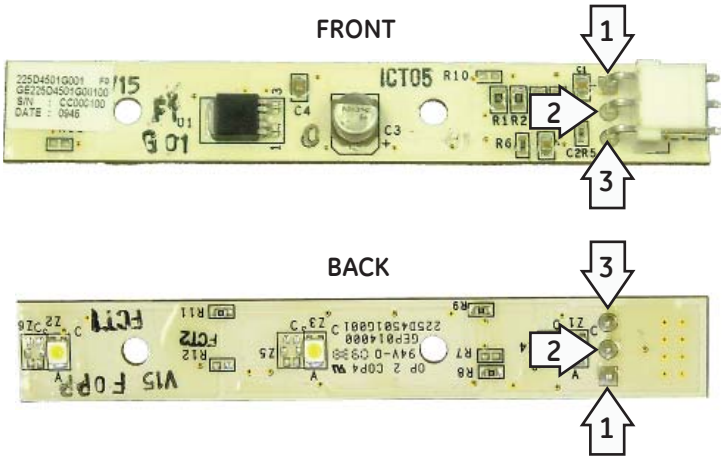
The LED board is held in place with 2 standoffs or 4 snap clips, depending on the model. Remove the LED board from the recess.



DIAGNOSING THE LED BOARDS

The main board controls the LED lamps. Each LED board is supplied a constant 12 VDC on pins 1 and 3. When the door is opened, a 12 VDC wake up voltage is sent from the main board to pin 2.

Pin 1 is identified on the plug side of the LED board by the number 1 designation or by the square solder terminal on the back of the board. Pin 3 is DC common for both voltages.

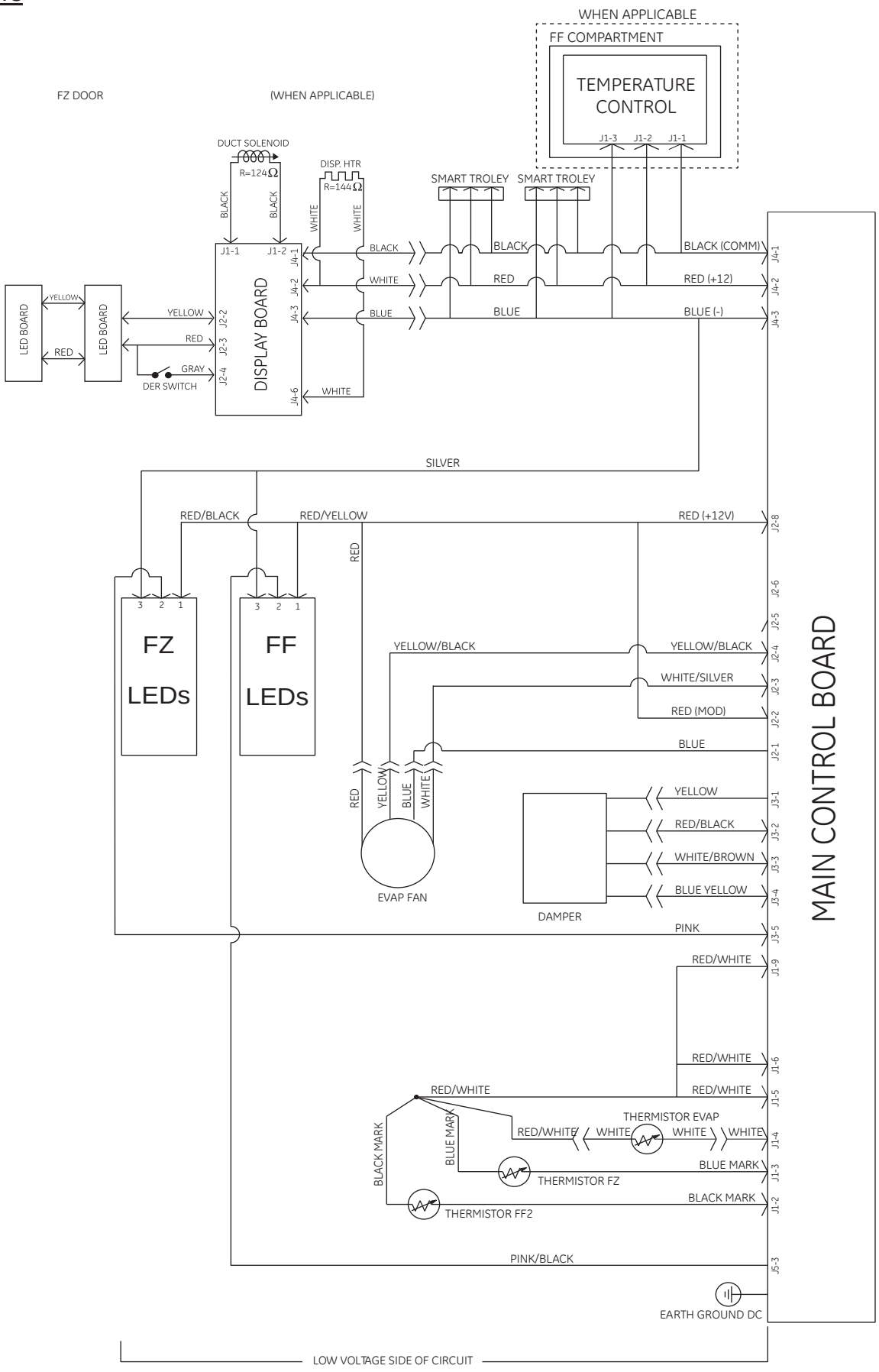


The LED board is defective if both DC voltages are present and the LEDs are not lighting. These boards can also be swapped for testing.

If all of the LED boards are not lit in either side of the unit, check the door switch inputs, wiring connections, and DC voltages at the main board.

If an LED board in the series will not light, check for poor wiring connections between operating and nonoperating LED boards.

SCHEMATIC



Wire colors and terminals can vary, check the schematic with the unit.