

# HOW TO TEST THE POWER BOARD ON A THREE PHASE LOGIC 5.0 COMMERCIAL DOOR OPERATOR

## Test if the Logic 5 board is supplying DC voltage to activate the Power Board

Make sure that the leads of the voltmeter can fit in the small pins where the harness from the Logic 5.0 board plugs into the power board. Make sure the leads do not touch each other or short while doing this test. You should read the following voltages when activating the operator. Read each wire to the orange wire (common).

- Purple - 30Vdc when running both directions (redundant relay)
- Yellow - 30Vdc when running both directions (redundant relay)
- Grey - 30Vdc when running close or A relay LED on board is lit
- Black - 30Vdc when running open or B relay LED on board is lit

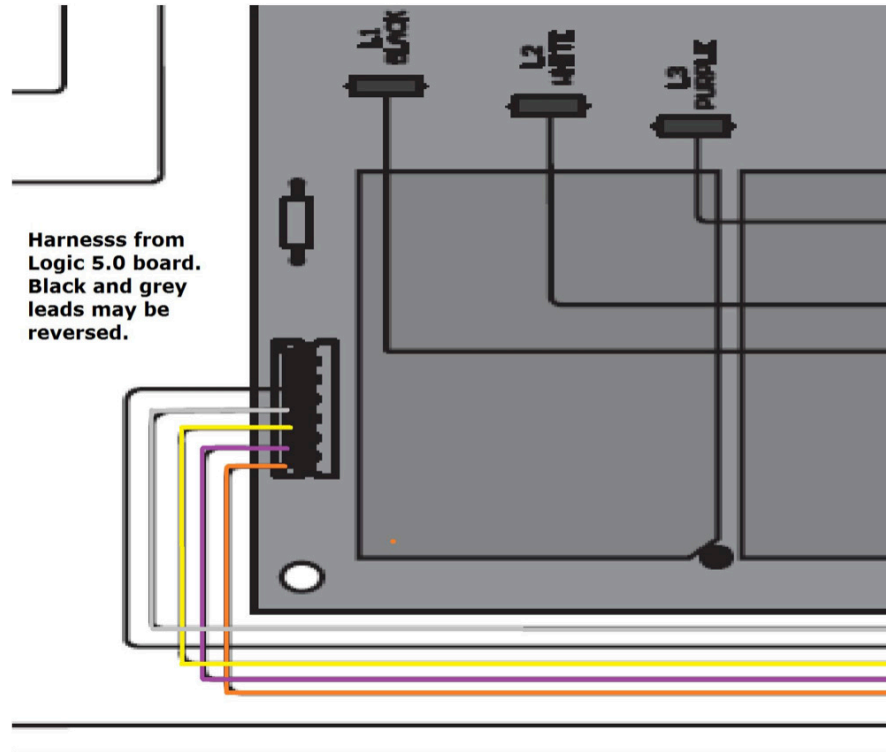
If the voltages are not there, make sure the motor relay harness is fully seated on both boards, and then replace the Logic 5.0 board. If the voltages are there, test the relay coils on the Power Board.

## Testing the power board relays coils

This test reads the coils of the relays on the power board. This measurement is done with power removed from the operator and the low voltage harness plugged in to the Power Board. Set meter to ohms and check:

- Orange to Gray - read 350 ohms
- Orange to Purple - read 640 ohms
- Orange to Black - read 350 ohms
- Orange to Yellow - read 350 ohms

Readings can have a +/- 10% deviation. If the Logic 5.0 board is putting out the correct voltages and the readings on the coils are not correct, replace the Power Board. If the voltages to the Power Board are good and the coil readings are correct, test if the Power Board is switching voltage to the motor and brake.



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## To test if the Power board is activating the motor

Take these readings at the motor plug with it plugged into the Power Board. Make sure the leads do not touch each other or short while doing this test. Activate the operator when performing these readings.

- Read pin 14 (T1) to pin 15 (T2) - Line voltage
- Read pin 15 (T2) to pin 9 (T3) - Line voltage
- Read pin 9 (T3) to pin 14 (T1) - Line voltage

If line voltage is not present on these readings, replace the Power board. If the Power Board is sending the correct voltage, [test the motor leads](#).

## Test if the Power board is activating the brake

For 230 and 460V models, read voltage between 1 and 4 leads on the brake harness. When activating, there should be 230V going to the brake. For 575V, there should be 575V when activating it. If the board is sending the voltage, [test the brake solenoid](#).

## Test if power is being supplied to the Thermal Overload

Measure voltage from L2 or L3 to both thermal overload wires (yellow w/ black) on motor harness.

Should read 230v or 460v (Line voltage).