

November 19, 2019

Hot Surface Ignitor Diagnostics

To test a hot surface ignitor remove the wires from the ignitor and measure the resistance (ohms) across the plug terminals of the ignitor.

- A standard condition ignitor should read between 40 and 90 ohms, at room temperature.
- If you measure above 90 ohms, the ignitor condition is deteriorating and should be either replaced or checked frequently.

If the ignitor measures in normal range, you will want to make sure that the control board is providing the proper voltage to it.

- Measure the ac voltage at L1 and Common, if not within 115-125 AC volts this must be addressed before moving forward.
- With the ignitor plug connected make the system call for heat; after the inducer fan starts and the pressure switches close, measure AC volts across the ignitor terminals at the ignitor plug feeding from the control board (you will need small meter leads to reach the inside of the plug from the backside).
- If the voltage is within 115-125 AC voltage range; the board and wiring harness is functioning properly and the issue is with the ignitor.
 - If the voltage is not within 115-125 AC voltage range, the issue is likely the control board; check the wiring harness for continuity on both leads before condemning the control board.

******Use care when handling the ignitor, they are very delicate and dirt or oil from your skin can damage them. Do not overtighten the mounting screw as you may crack the porcelain base.******