YieldKing YK100A & YK200 Diagnostic Instructions

YieldKing
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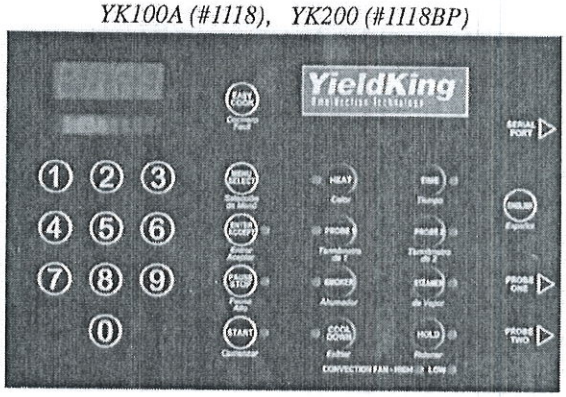
The YieldKing has a diagnostic feature to test each of the major components individually without the need to verify through use of a cooking menu. This feature tests the unit component and wiring.

To access the diagnostic mode the following steps are provided.
The Led display must be in the idle mode to start.

YK100A (#1118), YK200 (#1118BP)



1. Press and hold the Start/Stop button until the display reads "IDLE".
2. Press and hold the #2 and 8 simultaneously, the led display will change to "THERL" in about 5 sec.
3. Press the pause button twice to display Diagnose.
4. Press the Enter/Accept button 1 time to gain access to the diagnoses parameters
5. Press the Pause Button (7) times till the LED display reads DIG OUT 0.
6. Press the Enter/Accept button.
7. Press the pause button the display will change to DIG OUT 1.

Note: **SEE THE TABLE BELOW FOR THE TYPE OF TEST AND DETAILED INSTRUCTIONS THAT FOLLOW BELOW THE TABLE.**

DIG OUT 1 - Starts Main Element
DIG OUT 2 - Starts Convection Fan Motor Low Speed
DIG OUT 3 - Starts Convection Fan Motor High Speed (Model YK200 only)
DIG OUT 4 - Not Used
DIG OUT 5 - Starts Smoker Element
DIG OUT 6 - Starts Steamer Element
DIG OUT 7 - Starts EVAC Fan and Damper motor opens for Flue and EVAC
DIG OUT 8 - Not Used

Detailed instructions: Press the Pause/Stop button to rotate through the DIG OUT items to get to the desired test needed.

DIG OUT 1 Testing the Main Element requires additional steps to actually energize the main element. The main element is interlocked so it will not turn on unless the Fan Motor is running in either low or high speed. The circuit is also interlocked with the high limit to prevent the main element from energizing if the temperature in the oven exceeds the high limit rating of 450 degrees F.

- The main Element can be tested here if the mechanical relay is manually closed using a non-conductive push stick closing the contacts, this will complete the 208-240v input to the main element Solid State Relay (SSR) on terminal #1, if the mechanical relay is kept closed the main element should start heating. Current draw can be verified by placing an amp meter on one of the two black wires on the Phoenix Connector, amp draw should be about 21.6 amps @ 208v and 18.8v@ 240v.

If the element amp draw is zero or the element fails to heat, check for 5v DC at the 40 amp SSR between terminals 3 and 4. If 5vdc is not present at terminals 3 and 4 a possible cause is a bad connection from the controller or a bad controller. If ok, check voltage between terminals 1 and 2, the expected voltage is zero. If the SSR is open the voltage will read either 208v or 240v AC. If a reading of 110-120v is

indicated check the input to the SSR at terminal 1 to ground and terminal 2 to ground to determine which voltage is missing, expected voltage is 110-120v at both points .

Replace SSR or Element depending on failed part. Ensure Red Terminal Line voltage is available to Power Cord Terminal block before replacing element.

DIG OUT 2 turns on the **Convection Fan Motor** low speed. If Low Speed LED lights and Fan Motor starts circuit is OK if not,

A : Check for 5v DC between terminals 3 and 4, If 5vdc is not present at terminals 3 and 4, the possible cause is a bad connection from the controller or a bad controller. If OK, check the voltage between terminals 1 and 2. The expected voltage reading is zero volts. If at zero volts and motor does not run check for a bad motor or a loose or broken wire to the motor.

B: If reading is 120v or lower the SSR is faulty and needs to be replaced.

DIG OUT 3 turns on the **Convection Fan Motor** High speed. If high speed LED lights and fan motor starts then the circuit is OK if not,

A : Check for 5v DC between terminals 3 and 4. If 5vdc is not present at terminals 3 and 4, the possible cause is a bad connection from the controller or a bad controller, if OK, check the voltage between terminals 1 and 2. The expected voltage reading is zero volts. If at zero volts and the motor does not run, check for a bad motor or loose or a broken wire to the motor.

B: If the reading is 120v or lower the SSR is faulty and needs to be replaced

DIG OUT 5 turns on the **Smoker Element**. If the smoker element starts, the circuit is OK. Expected amp draw is 2.9 amps @208v and 2.5 amps@240v. If the element fails to heat,

A : Check for 5v DC between terminals 3 and 4. If 5vdc is not present at terminals 3 and 4 the possible cause is a bad connection from the controller or a bad controller. Check voltage between terminals 1 and 2. Expected voltage reading is zero volts. If at zero Volts and the element does not heat, check for a bad element or a loose or broken wire to element.

B: If reading is 120v or lower the SSR is faulty and needs to be replaced

DIG OUT 6 turns on the **Steamer Element**. If the steamer element starts then the circuit is OK. Expected amp draw is 8.7 amps @208v and 7.5 amps @240v . If the element fails to heat,

A : Check for 5v DC between terminals 3 and 4, If 5vdc is not present at terminals 3 and 4, the possible cause is a bad connection from the controller or a bad controller. If OK, check the voltage between terminals 1 and 2. Expected voltage reading is zero volts. If at zero volts and the element does not heat, check for a bad element or a loose or broken wire to the element.

B: If the reading is 120v or lower the SSR is faulty and needs to be replaced.

DIG OUT 7 turns on the **EVAC Motor** and both the Flue and Evac motor dampers. If the Evac Motor starts and both dampers operate the Circuit is OK. If the motor or dampers fail to operate,

A : Check for 5v DC between terminals 3 and 4, If 5vdc is not present at terminals 3 and 4, the possible cause is a bad connection from the controller or a bad controller. If OK, check the voltage between terminals 1 and 2. Expected voltage reading is zero volts. If at zero volts and damper and motor do not operate check for bad Evac Motor, or Damper Motors.

B: If the reading is 120v or lower the SSR is faulty and needs to be replaced.

To exit diagnostic mode push the Menu Select button once.