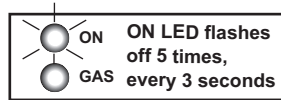


n/no co Fault Code – No cooling detected by the controls

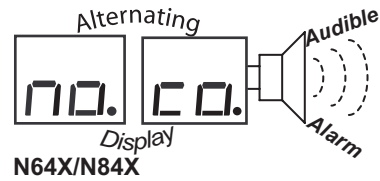
Models and indicator displayed.



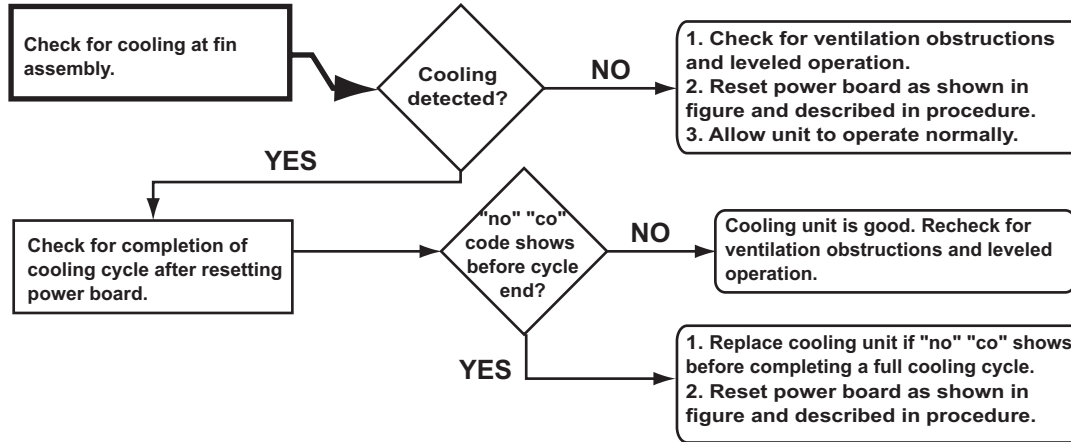
N61X/N81X



N62X/N82X



N64X/N84X



Power Board Reset Procedure 1

The power board can be reset by jumpering pins on the power board on earlier controls of these refrigerators:

Model	Serial No.	Manufacture Date
N61/N81	9056491 and lower	Before 3/23/2006
N621/N821	9126824 and lower	Before 4/11/2006
N623/N823	8970880 and lower	Before 3/1/2006
N64/N84	9044283 and lower	Before 3/22/2006
N64.3/N84.3	8938727 and lower	Before 2/21/2006

- Turn OFF the refrigerator.
- Disconnect the following from power board:
 - 12 Vdc positive and negative wires.
 - AC power cord.
 - Solenoid gas valve wires
 - Spark/sense electrode assembly wires.
- Remove the power board cover.
- Reconnect 12 Vdc positive and negative wire.
- Turn ON the refrigerator.
- Locate Pin 15 on 16-pin connector (P1). Pin 15 is the empty socket to the right of the white/violet wire on the top row. See Figure C.
- Using an insulated jumper wire, short Pin 15 to the power board ground lug for 10-15 seconds. A clicking sound indicates the controls are reset. See Figure C.
- Turn OFF the refrigerator.
- Turn ON the refrigerator. If "n" or "no co" code displays, repeat steps 7-9.
- Turn OFF the refrigerator.
- Disconnect the 12 Vdc power positive and negative wires from the power board.
- Install the power board cover.
- Reconnect the following to the power board:
 - Spark/sense electrode assembly wire.
 - Solenoid gas valve wires
 - AC power cord.
 - 12 Vdc positive and negative wires from the power board.
- Place refrigerator in service.

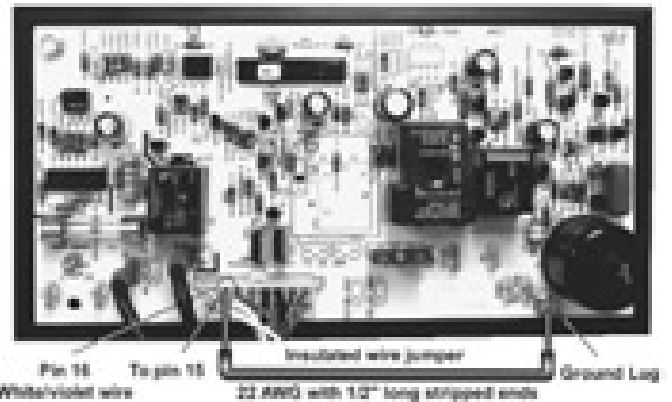


Figure C – Reset Procedure 1.

NOTE

A jumper wire to short Pin 15 to ground can be made from a six inch long insulated 22 AWG wire with a 1/2 inch of insulation stripped from each end.

Power Board Reset Procedure 2

The power board can be reset through the optical display using Procedure 2 on these refrigerators:

Model	Serial No.	Manufacture Date
N61/N81	Not applicable	Not applicable
N621/N821	9126824 and higher	After 4/11/2006
N623/N823	8970880 and higher	After 3/1/2006
N64/N84	9044283 and higher	After 3/22/2006
N64.3/N84.3	8938727 and higher	After 2/21/2006

Entering the diagnostic mode of operation and then **clearing fault history screen 6** resets the no cool error. This procedure is found on page 66.

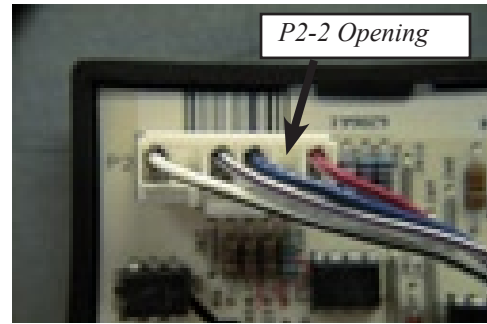


Figure D – Reset Procedure 3.

Power Board Reset Procedure 3

Procedure 3 pertains to these refrigerators:

Model	Serial No.	Manufacture Date
N61/N81	9056492 and higher	After 3/23/2006
N621/N821	9126825 and higher	After 4/11/2006
N623/N823	8970881 and higher	After 3/1/2006
N64/N84	9044284 and higher	After 3/22/2006
N64.3/N84.3	8938728 and higher	After 2/21/2006

1. Turn OFF the refrigerator.
2. Disconnect the following from power board:
 - a. 12 Vdc positive and negative wires.
 - b. AC power cord.
 - c. Spark/sense electrode assembly wires.
3. Remove the power board cover.
4. Reconnect 12 Vdc positive and negative wire.
5. Turn ON the refrigerator. It should be operating in the Manual AC mode (AC power cord disconnected from the power board).
6. Insert one end of a piece of multi-stranded wire (10 gauge works well) whose insulation is stripped 1/2" on both ends, into the P2-2 opening and hold into place.
7. Place the other end of the multi-stranded wire to ground (metal back panel) and hold it in place for a minimum of 10 seconds.
8. Turn OFF the refrigerator.
9. Turn ON the refrigerator. If "n" or "no co" code displays, repeat steps 7-9.
10. Turn OFF the refrigerator.
11. Disconnect the 12 Vdc power positive and negative wires from the power board.
12. Install the power board cover.
13. Reconnect the following to the power board:
 - a. Spark/sense electrode assembly wire.
 - b. AC power cord.
 - c. 12 Vdc positive and negative wires from the power board.
14. Place refrigerator in service.

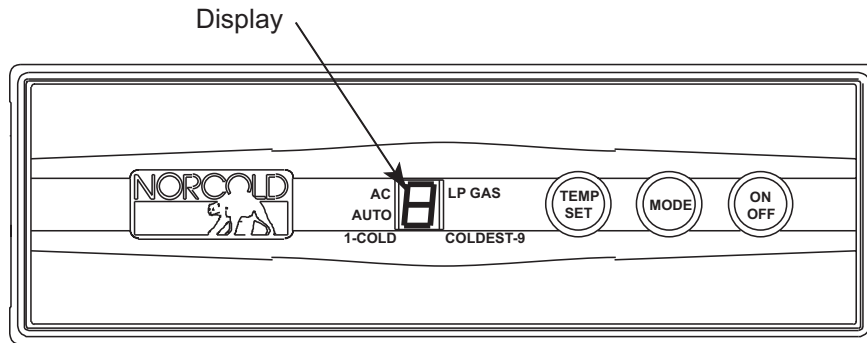


Figure 45. N62X0/N82X Optical Control Assembly.

Diagnostic Mode

The Diagnostic Mode uses nine diagnostic channels, commonly known as "screens", to display "live" inputs, outputs, and fault history. Each screen is identified by a number, which shows in the optical control assembly display. See Figure 45.

The N62X/N82X optical control display uses a single 7-segment LED module to display diagnostic information. Information made up of two letter or numbers display in an alternating sequence. Fault history information, "live" inputs, and outputs, are presented using lighted LED segments. The diagnostic LED segments, if present, displays after the screen number turns off. Diagnostic LED segments identification numbers. See Figure 46.

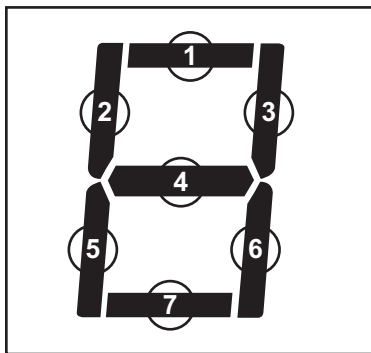








Figure 46. Diagnostic LEDs Segments Identification.

Accessing the Diagnostic Mode

To access the Diagnostic Mode:





1. **Press and hold both** the  and  buttons **at the same time.**
2. **Release** the  and  as soon as screen  displays.
3. A few seconds later,  displays.

Changing Screens

To change screens, **Press**  the button until the next screen displays.

Exiting the Diagnostic Mode

To exit the Diagnostic Mode:

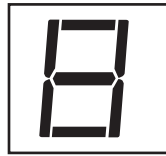
1. **Press and hold** the  and  buttons **at the same time.**
2. **Release** the  and  buttons as soon as the LED segment that represents the selected operation mode appears on the display (AUTO, AC, or LP GAS).

Turning the refrigerator OFF then back ON also exits the Diagnostic Mode

Screens and Diagnostic Segments Information


Screen 1 Diagnostic Mode Active

Screen 1 confirms that the Diagnostic Mode is active. A few seconds after the number displays, all LED segments light. See illustration



If the LED segments do not match the illustration, the fault is in the optical control display.

Replacing the optical control assembly should resolve this fault.

Press the  button to bring up screen 2.


Screen 2 LED Segments Reliability Check

Screen 2 continues to confirm the reliability of the display. The screen should go completely blank after the screen number is displayed.



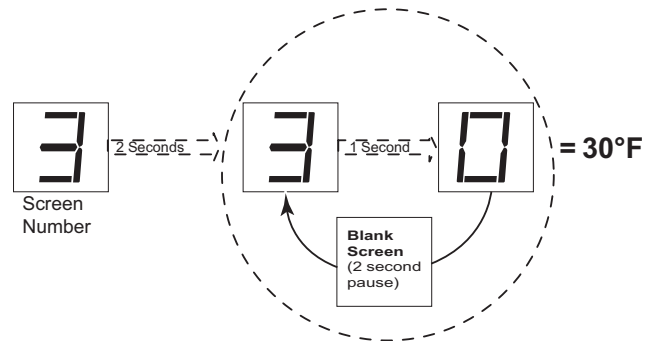
If an LED segment displays, the fault is in the optical control assembly.


Replacing the optical control assembly should resolve this fault.

Press the  button to bring up screen 3.

Screen 3 Thermistor Fin Temperature

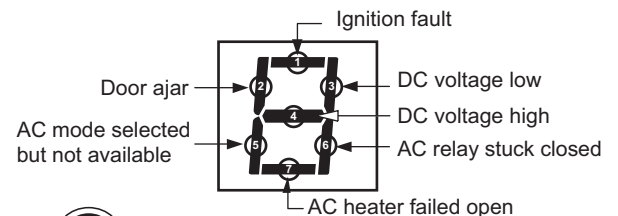
Screen 3 shows the actual fin temperature being sensed by the thermistor. ***This is not the fresh food cabinet air temperature.*** The illustration shows 30°F fin temperature as displayed in screen 3.




Press the  button to bring up screen 4.

Screen 4 Stored Fault History

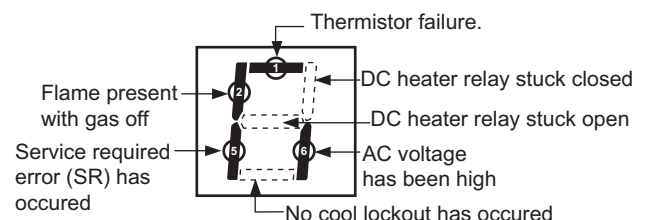
Screen 4 displays stored fault history using lighted LED segments. The illustration provides fault history information and assigned LED segments. ***If a fault occurred, its assigned LED will light.***




Press the  button to bring up screen 5.

Screen 5 Stored Fault History










Screen 5 also displays stored fault history using lighted LED segments. The illustration provides fault history information and assigned LED segments. ***If a fault occurred, its assigned LED will light.***




Press the  button to bring up screen 6.

Screen 6 Erase Fault History Data

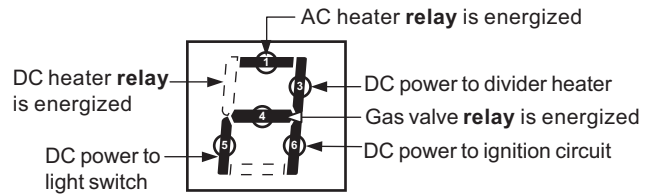
Screen 6 provides a way to erase stored fault history from memory. To erase stored fault history:


1. Press and hold the  button when  and  display.
2. Release the  button when  and  display.
3. Wait five seconds.
4. Press and hold the  button until  and  display again.

Press the  button to bring up screen 7.

Screen 8 Power Board Outputs

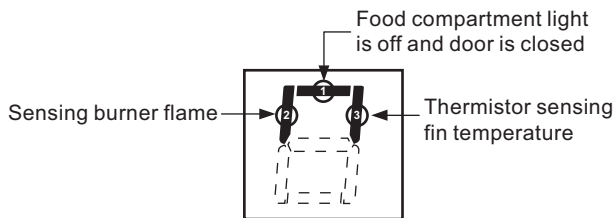
Screen 8 display "live" power board outputs using lighted LED segments. The illustration below provides "live" outputs information and assigned LED segments. **If the power board output is active or "live," the assigned LED will light.**




Press the  button to bring up screen 9.

Screen 7 Power Board Inputs

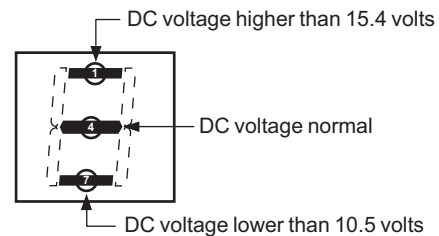
Screen 7 displays "live" power board inputs using lighted LED segments. The illustration below provides "live" inputs information and assigned LED segments. **If a power board input is active or "live", its assigned LED will light.**




Press the  button to bring up screen 8.

Screen 9 Power Board DC Voltage Status

Screen 9 display power board DC voltage status using lighted LED segments. The illustration below provides DC voltage status and assigned LED segments. **If DC voltage at the power board within normal range (10.5 to 15.4 Vdc), LED segment 4 will be on.**



Press the  button to return to screen 1.

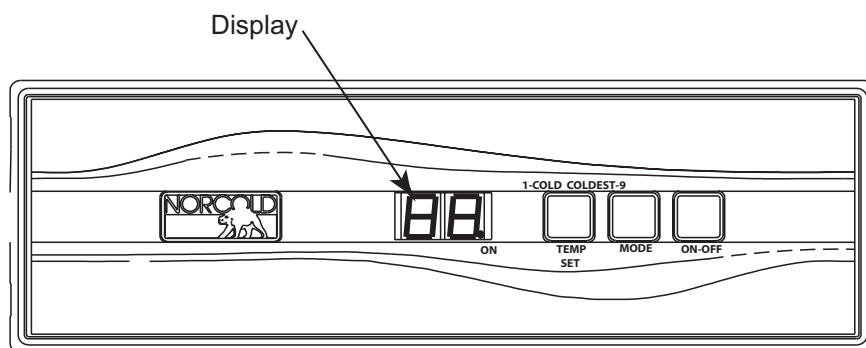


Figure 47. Models N64X/N84X Optical Control Assembly.

Diagnostic Mode

The Diagnostic Mode uses ten diagnostic channels, commonly known as "screens", to display "live" inputs, outputs, and fault history. Each screen is identified by a number, which shows in the optical control assembly display. See Figure 47.

The N64X/N84X optical control display uses a dual 7-segment LED module to display the screen number and diagnostic information. Information made up of four letters or digits displays in an alternating sequence. Fault history, "live" inputs, and outputs is presented using LED segments. The diagnostic LED segments, if present, display to the right of the screen number. Diagnostic LED segments identification numbers. See Figure 48.

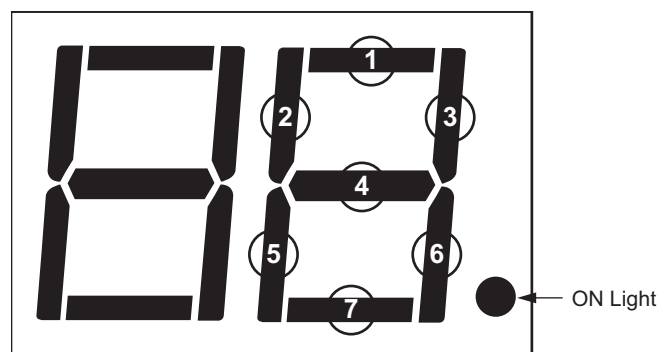









Figure 48. Diagnostic LEDs Segments Identification.

Accessing the Diagnostic Mode

To access the Diagnostic Mode:






1. Press and hold both the  and  buttons **at the same time**.
2. Release the  and  as soon as screen  displays.
3. A few seconds later,  displays.

Changing Screens

To change screens, **press and hold** the  button until the next screen displays.

Exiting the Diagnostic Mode

To exit the Diagnostic Mode:

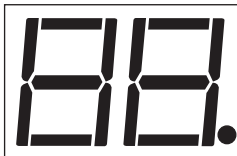
1. Press and hold  and  buttons **at the same time**.
2. Release the  and  buttons as soon as the display shows .

Turning the refrigerator OFF then back ON also exits the Diagnostic Mode.


Screens and Diagnostic Segments Information

Screen Diagnostic Mode Active

Screen 1 confirms that the Diagnostic Mode is active. A few seconds after the screen number appears, all LED segments light. See illustration.

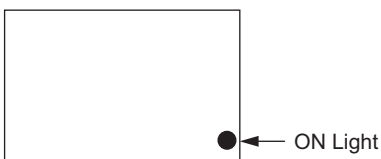


If the screen segments do not match the ones shown in the illustration, the fault is in the optical control assembly. Replacing the optical control should resolve the fault.


Press the  button to bring up screen 2.

Screen LED Segments Reliability Check

Screen 2 diagnostics continue to confirm the reliability of the display. After a few seconds only the ON light displays. All other LED segments should be off. See illustration.




The ON light should be the only LED displayed. If any other LED displays, the fault is in the optical control assembly. Replacing the optical control should resolve the fault.

Press the  button to bring up screen 3.

Screen Thermistor Fin Temperature

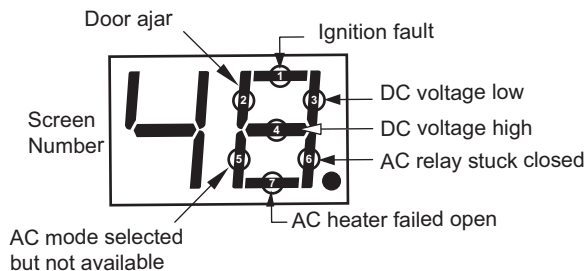
Screen 3 displays the actual fin temperature being sensed by the thermistor. **This is not the fresh food cabinet air temperature.** The illustration shows 32°F fin temperature as displayed in screen 3.




Press the  button to bring up screen 4.

Screen Stored Fault History

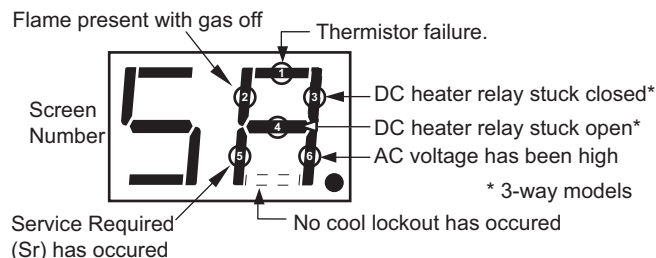
Screen 4 displays stored fault history using lighted LED segments. The illustration provides fault history information and assigned LED segments. ***If a fault occurred, its assigned fault history LED will be on.***




Press the  button to bring up screen 5.

Screen Stored Fault History






Screen 5 also displays stored fault history using lighted LED segments. The illustration provides fault history information and assigned LED segments. ***If a fault occurred, its assigned fault history LED will be on.***




Press the  button to bring up screen 6.

Screen Erase Fault History

Screen 6 provides a way to erase fault history from memory. To erase fault history:

1. Press and hold the  button when  shows on the screen.
2. Release the  button when  shows on the screen.
3. Wait five seconds.
4. Press and hold the button until  show on the screen.

Press the  button to bring up screen 7.

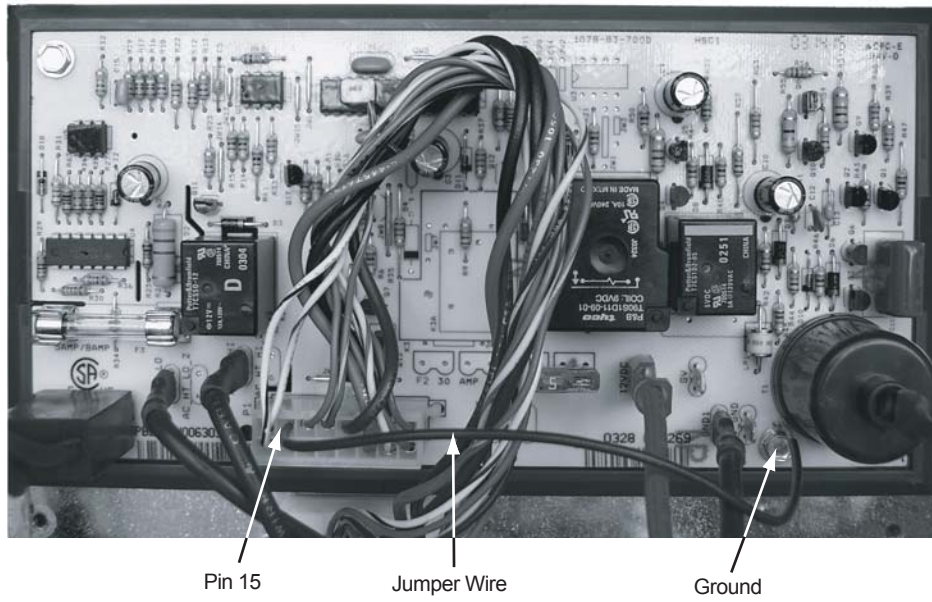


Figure 2. Resetting the power board (model N109X power board shown)