EMX NIR-50-325 PhotoEye

INSTALLATION AND PROGRAMMING INSTRUCTIONS

The NIR-50-325 retroreflective photoeye (Nice P/N MX4257) has an operating range up to 50 feet, operates over a voltage range of 12-30VDC and 24-30VAC, and is capable of normally closed (NC) or 10k monitoring by the operator.

WARNING!
REMOVE POWER FROM OPERATOR DURING WIRING AND ENSURE GATE WILL NOT MOVE DURING PROCEDURE!

EMX NIR-50-325 WIRE LEGEND (DEFAULT)

COLOR	FUNCTION	1050 BOARD
BROWN	Power Input (+)*	PIN 20 (V+)
BLUE	Ground (-)*	PIN 21 (GND)
GRAY	Normally Open Contact (10K Terminate): Relay output shown in energized state (power on, aligned with reflector, no obstruction	PIN 28 (EDGE) (for Analog Open or Analog Close) OPERATION)
WHITE	Common (COM) Contact	PIN 29 (GND)

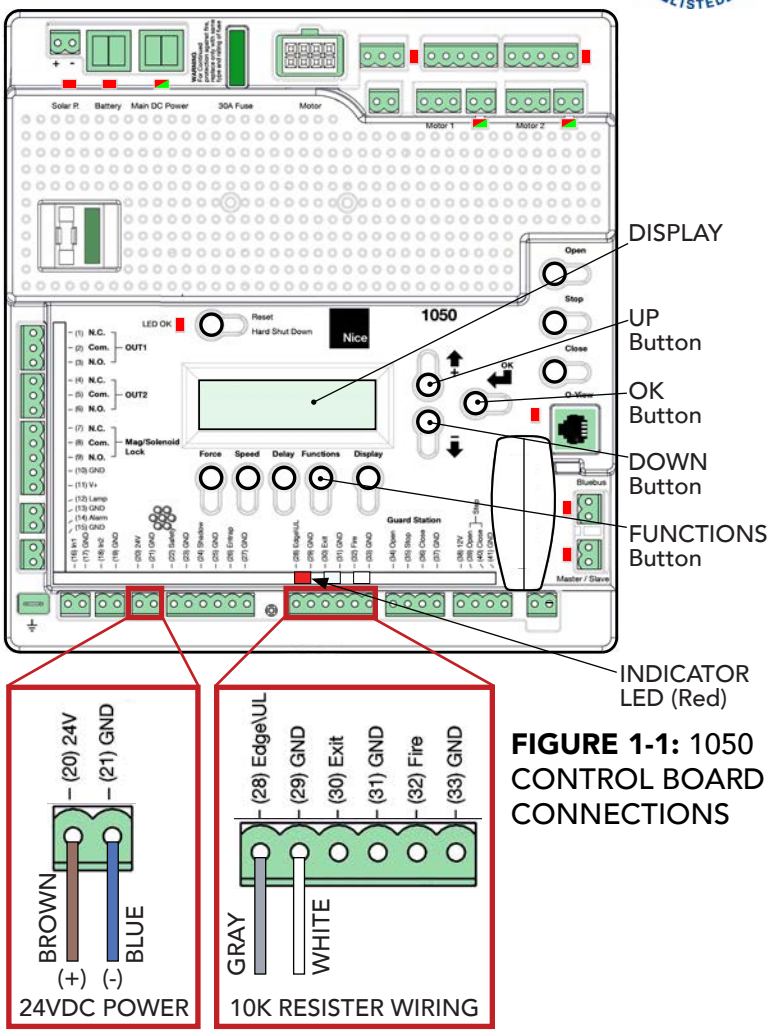


FIGURE 1-1: 1050 CONTROL BOARD CONNECTIONS

1. Mount NIR-50-325 at desired location within 6 feet of the control box (do not mount reflector yet).
2. Wire the photoeye cable to the 1050 control board as shown at right.
3. Adjust sensivity on top of unit to maximum (FIGURE 1-2). Decrease sensitivity later if there are too many false trips preventing reliable gate operation.
4. Apply power to the gate operator.
5. Program the 1050 control board as follows (FIGURE 1-1):

   a) Press the **Functions** button.

   b) Press **Down** button eight times until "9. Adv. Settings" menu is displayed and press **OK** button.

   c) Press **Down** button nine times until "UL Input" menu is displayed and press **OK** button.

   d) Press **Up/Down** buttons to select "Analog" and press **OK** button.

   e) Use **Up/Down** to select "Open" (open direction) or "Close" (close direction) and press **OK**.

   DISPLAY: UL Input Analog Open OR UL Input Analog Close

   f) Press **Learn** button, then select slide or swing, then select light, medium, or heavy. Board will scan for sensor and then open and close gate during learn cycle. If board displays F1 error, refer to troubleshooting table. Board will not operate without at least one active entrapment sensor connected.

www.LinearGateOpeners.com | (800) 878-7829 | Sales@LinearGateOpeners.com

6. Hold reflector 3 feet in front of photoeye lens and verify both red and yellow LEDs on photoeye (FIGURE 1-2) light up. While moving backward to the reflector mounting location, ensure the reflector is continually aligned (red and yellow LEDs on). Move reflector up, down, left or right to keep reflector in center of the signal path.

> **NOTES:** Signal pattern is 2 feet in diameter.

7. Verify the NIR-50-325 and reflector are in line of sight, confirm the red LED and yellow LED are ON (indicating correct alignment), then mount reflector in ideal position.

8. Block the beam with your hand, or another object, and ensure the sensor's yellow and red LEDs turn off. Check the operator control board input LED (FIGURE 1-1) and verify that the UL/Edge input is properly actuated. When the beam is not blocked, the red input LED will be dimly lit and when blocked, it will be brighter.

9. Unblock the beam and the photoeye yellow and red LEDs should light at full brightness.

LED INDICATION		
LED COLOR	**ON**	**OFF**
YELLOW LED	Energized, aligned, and stable	Unit off or unstable
RED LED	Energized and alignment correct	Beam obstructed or reflector not aligned

CAUTION!
Passing vehicles may act as a reflector and cause a false reading allowing a gate to close on a vehicle. Nice/HySecurity assumes no responsibility in these cases, and all risk falls to the installer, designer, and users of the gate system.

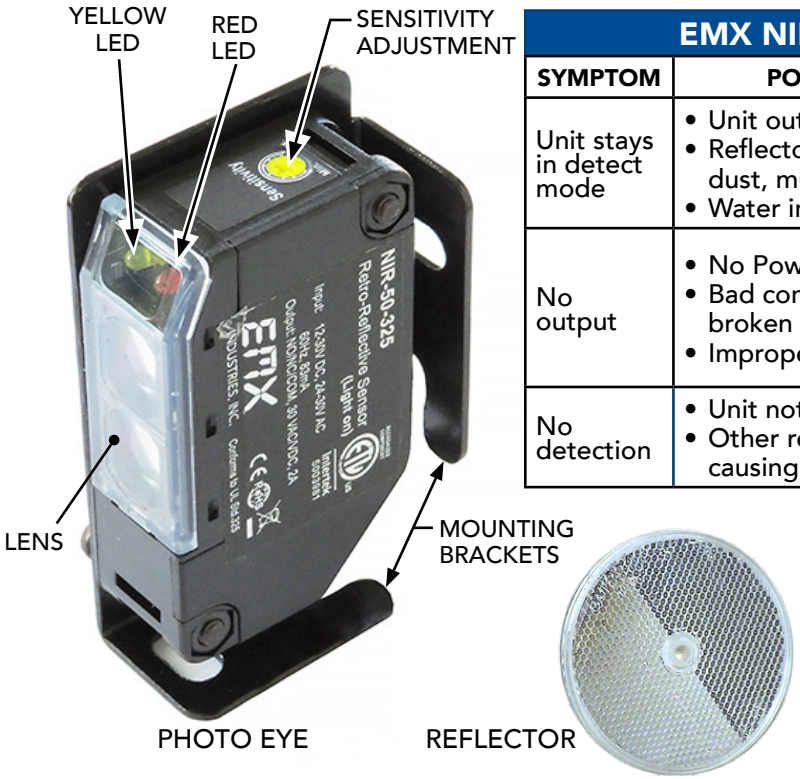


FIGURE 1-2: EMX NIR-50 325 FEATURES

EMX NIR-50-325 TROUBLESHOOTING		
SYMPTOM	**POSSIBLE CAUSE**	**SOLUTION**
Unit stays in detect mode	• Unit out of alignment • Reflector covered with dirt, dust, mud, snow or water • Water inside reflector	• Verify alignment • Clean reflector surface of contaminants • Replace reflector
No output	• No Power • Bad connection, wires broken • Improper wiring	• Check power and wiring as per instructions • Check connections • verify wiring to control board
No detection	• Unit not powered • Other reflective surface causing signal return	• Check power • Check surrounding area for reflective surfaces