NVX80

Quick Start Guide

NVX80-EQ04

PARADOX

Product Description

The Paradox NVX80 motion detector is above and beyond anything in its class. The NVX80 features resilience to extreme outdoor conditions, a series of active infrared anti-masking and microwave proximity technologies to detect if anyone is trying to mask the detection, and unparalleled detection performance using SeeTrue™ (patent pending). The NVX80 is the only detector in the industry offering eight detection channels - 4x forward looking PIR channels (2x quad interlock geometry sensors), 2x microwave channels and 2x standalone creep detector (1quad sensor with interlock geometry).

SeeTrue™ significantly improves the detection of cloaked intruders trying to avoid PIR detection by means of using insulating materials such as heavy coats, cartons, umbrellas, etc.
The combination of advanced technologies found in the NVX80 overcomes technical obstacles that traditional PIR detectors cannot, like the degrading effects of high temperature environments.

For the installer, "Easy Slide" installation, and first-in-industry full-color OLED display with intuitive menus, allows easy programming and installation without any mechanical setting (jumpers). The NVX80 also features diagnostic tools testing its PIR, anti-mask, and microwave settings, as well as SoloTest™ for easy walk test execution.
The sleek, vandal-resistant, and built-tough NVX80 is the detector of choice for commercial, industrial, and residential applications.

Consider the following before you begin installation of the NVX80.

Package Contents

Inspect to make sure you have the following items:

- NVX80 Motion Detector
- All-weather cover (for outdoor use)
- Screws
- Foam pad

Optional items may include:

- Wall anchors
- Additional screws

Mounting Considerations

Recommendations

- Ensure that the unit's detection beams are perpendicular to the anticipated movement (see beam patterns below)
- Keep a minimum distance between adjoining NVX80 detectors to prevent MW cross interference
- The NVX80 can be placed under a roof, awning, or the all-weather cover can be installed for outdoor installations
- Install the detector within the suggested range: installing the unit lower than 2.5 m / 8 ft 2 in may compromise the Pet Immunity capability. Installing over 3.0 m / 9 ft 8 in may require use of our swivel bracket adjusted downward shifting the Pet Immunity beam and neutralizing the creep zone. Installing the unit over 3.0 m / 10 ft does not affect the creep zone.
- If the installation is near heavy traffic or objects beyond the required detection range, adjust the MW sensitivity and/or tilt the detector downward.

Recommended Restrictions

- Don't direct the unit's beams into swaying trees or bushes
- Don't place the detector facing direct sunlight or near a heat source, as it might interfere with the Active IR anti-mask feature
- Don't place any objects, such as shelves, ledges or plants, below the unit
- Don't place any reflective objects within 2 m / 6 ft. 6 in of the unit, as this may interfere with the MW anti-mask capabilities
- Don't use excessive force when handling the NVX80

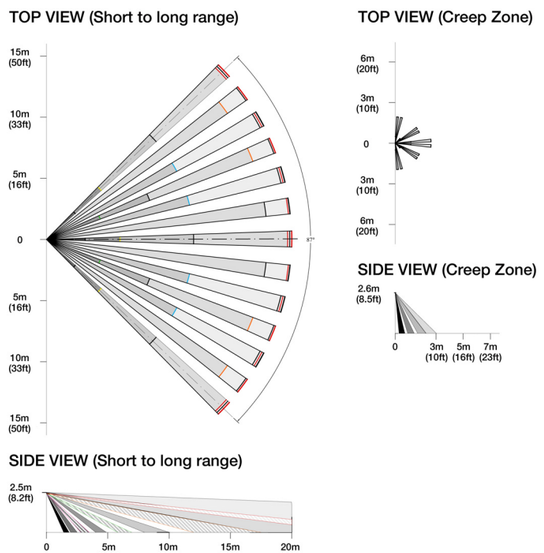

Figure 1: Beam Patterns

Technical Specifications

SeeTrue™ Effective Range	Indoor use, two levels, secure and sterile, up to 12 m (36 ft)
Dual Anti-Mask	Selectable: 1) Active IR: Proximity and blocking comply / surpass EN50131 grade 3 for all materials, liquids, with indoor / outdoor levels. 2) Active Microwave for movement detection.
Creep Zone Area	Up to 3 m (10 ft) 90° downward
Coverage Pattern	16m (52 ft) 90°
Installation Height	2.5 - 3.0m (8 - 10 ft). A bracket may be used for installation requiring higher mounting.
Current Consumption (at 12V)	Typ. 80 mA, max. 100 mA
Outputs	Relay 1: 1A 24 VDC Relay 2 and 3: 150 mA / 24 VDC
Display	OLED, 16-bit, 96 x 64 pixels
Dimensions	9.8 cm x 22.9 cm x 9.2 cm (3.8 in x 9.0 in x 3.6 in)
Tamper	Dual : Cover and Wall
RF Immunity	10 V/m up to 2.7 GHz
Operating Temperature	-35° to 60° C (-31° to 140° F)
Bus Connection	Paradox EVO Series, 4 wires
Certification	EN 50131 Grade 3 Class IV
Construction Materials	ASA UV Resistant
Programming	Interactive 4-button programming with graphic menu display or via EVO bus
Weight	520 g (1.1 lb)
PIR Forward	2X quad sensors with interlock geometry
PIR Creep	1X quad sensor with interlock geometry
Microwave	Dual output 10.5 GHz
Power Up Time	Approximately 30 seconds
Humidity	5 - 95% RH non-condensing
Ingress Protection (IP) Rating	IP54 & IP55 (dust and water protection)
Pet Immunity	Suppress detection of animals: Settings for small and large pets
Languages	English, Portuguese

Patents
One or more of the following US patents may apply: 7046142, 6215399, 6111256, 6104319, 5920259, 5886632, 5721542, 5287111, and RE39406 and other pending patents may apply. Canadian and international patents may also apply. Printed in Canada.

Installing the NVX80

1. Loosen the captive screw located at the bottom of the unit.
2. Separate the back cover from the front of the NVX80 by carefully sliding it up and off.
3. Prepare the back cover for a wall-mount installation by drilling out the appropriate knock-out holes (see Figure 2).
   For Wall Installations: drill holes #1, 2 and 3, and wall tamper 4.
   For Corner Installations: drill holes #5, 6, 7, 8 and wall tamper 9.

   Note: *The wall tamper can be relocated to the left side of the unit, if desired. Simply remove the retaining screw, place the tamper in its corresponding spot on the left, and refasten the retaining screw. Make sure the two black wires remain properly inserted into the (B-) and (TMP) contacts on the power block. For left-sided wall tampers, the following knock out holes are used:*
   For Wall Installations: drill holes #1, 2 and 3, and wall tamper 11.
   For Corner Installations: drill holes #5, 6, 7, 8 and wall tamper 10.

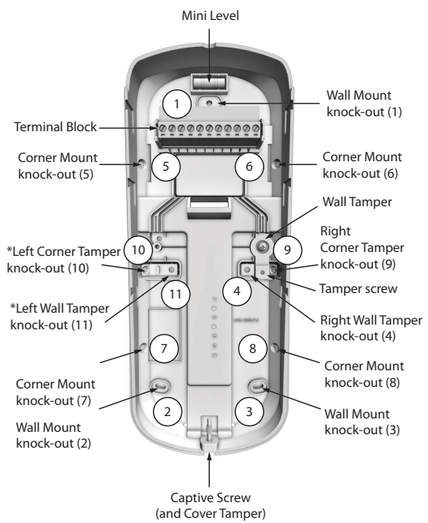

Figure 2: NVX80 Back Cover Components

4. Mark the selected location using the back cover of the unit as a template. With the help from the level on the back cover, align your unit accordingly.
5. Remove the back cover and drill the marked holes into the wall surface.
6. Install wall anchors for added support. (Consider the material being drilled.)
7. Pass electrical wires through the opening on the back cover. Secure the back cover of the unit to the wall surface using the appropriate mounting screws. Re-level if necessary before securing.

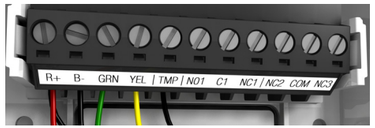

Figure 3: Digiplex Wiring

8. Using a screw, secure the tamper switch to the back cover. (see Figure 2, "Tamper screw")
9. Connect your 12 VDC power input (red and black) to their respective terminals. Connect the Digiplex EVO communication bus into the green and yellow terminals (see Figure 3).
10. Insert the protective foam into the NVX80's opening to prevent element infiltration.

    Note: *Slide the front section of the NVX80 onto the back cover of the unit. The power up sequence will automatically start (if power is being supplied) and takes about 30 seconds.*

    Note: *excessive force can damage pin connectors to the power block. Please always use caution when separating the front and back panels.*
    Ensure the back panel and front cover are properly joined.
11. While the captive screw at the bottom of the unit is open, begin the power up process, and access the menus for configuration settings (see Figure 5). For more information about these settings, please see the NVX80 Programming Guide (document NVX80-EP00).
12. Carefully tighten the captive screw found at the bottom of unit, stopping when the green "Tamper Closed" message appears on the OLED screen. Once the screw is properly fastened, it makes a connection which acts as the cover tamper.
13. Slide the all-weather cover on (optional, for outdoor installations).

Installation Using the Swivel Bracket

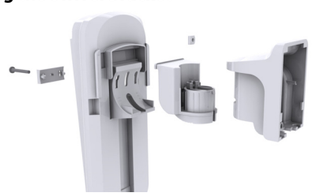

Figure 4:Exploded view of Swivel Bracket

1. Loosen the captive screw located at the bottom of the unit.
2. Separate the Module from the back cover of the NVX80 by carefully sliding it up and off.
3. Remove the screw below the bus bar. The swivel section comes off.

   Note: *Be careful not to drop the metal washer.*
4. Separate the swivel section by pulling down on one section while holding back the other section.
5. Unscrew the screw.
6. Remove the back plate from the swivel section.

   Note: *You will need to mount the wall back plate at least 9 cm(3.5 in.) from the ceiling.*
7. Put the wires (4-wire combus) through the wire hole, set the back plate on the wall and mark the wall for the screws.

   Note: *Mount this bracket level.*
8. Drill the holes and insert the anchors.

   Note: *You will need ~ 20cm (8 in.) of wire to connect through the swivel bracket.*
9. Pull the 4-wire cable through the wire hole and screw the back plate to the wall.
10. Measure the height from the floor to the back plate.
11. Put the larger section of the swivel.
12. Insert the 4-wire cable through the larger section of the swivel and mount the swivel on the back plate.
13. Attach in the screw from the larger swivel section to the back plate.
14. Insert both the 4-wire cable and the two tamper wires through the smaller section of the swivel and mount it on the larger section by pushing the two pieces together.
15. Insert the 4-wire cable and the two tamper wires through the module back.
16. Attach the screw that tightens the module back to the swivel.
17. Set the height from the floor by using the markings on the module back and tighten the set screw.
18. Connect your 12 VDC power input (red and black) to their respective terminals. Connect the EVO communication bus into the green and yellow terminals. The black wire from the tamper switch goes to the B- terminal along with the black wire from the 12VDC power. The blue wire from the tamper switch goes to the TMP terminal on the bus connector.
19. Insert the protective foam into the NVX80's opening to prevent element infiltration to the serial connector.
20. Slide the front section of the NVX80 onto the back cover of the unit. The power up sequence will automatically start (if power is being supplied) and takes about 30 seconds.

    Note: *Excessive force can damage pin connectors to the power block. Please always use caution when separating the front and back panels.*
21. Ensure the back panel and front cover are properly joined.
22. While the captive screw at the bottom of the unit is open, begin the power up process, and access the menus for configuration settings (see Figure 8). For more information about these settings, please see the NVX80 User Guide (document NVX80-EU00).
23. Carefully tighten the captive screw found at the bottom of unit, stopping when the green "Tamper Closed" message appears on the OLED screen. Once the screw is properly fastened, it makes a connection which acts as the cover tamper.
24. Slide the all-weather cover on (optional, for outdoor installations).
25. While the captive screw at the bottom of the unit is open, begin the power up process, and access the menus for configuration settings (see Figure 9). For more information about these settings, please see the NVX80 User Guide (document NVX80-EU00).
26. Carefully tighten the captive screw found at the bottom of unit, stopping when the green "Tamper Closed" message appears on the OLED screen. Once the screw is properly fastened, it makes a connection which acts as the cover tamper.
27. Slide the all-weather cover on (optional, for outdoor installations).

    Note: *For full directions go to the NVX80 Installation Guide.*

OLED Screen and Menu

The NVX80 has a 4-button interface and 16-bit OLED display screen. The NVX80 is completely menu-driven, making programming and configuration simple. The full menu tree is detailed below, and for further instruction on configuring the NVX80, please refer to (document NVX80-EP00).

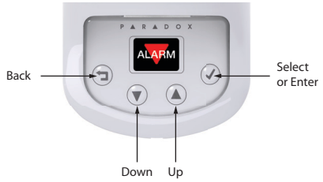

Figure 5: NVX80 OLED Screen and Buttons

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