NV5 Installation Instructions

High-Performance Digital Infrared Motion Detector

- SB100 bracket mounting (optional)
- Mirror (optional)
- Five adjustable sensitivity levels
- Four pre-programmed jumper profiles
- Jumper settings for LED On/Off

Installation Instructions

Please read all installation instructions before installing the unit.

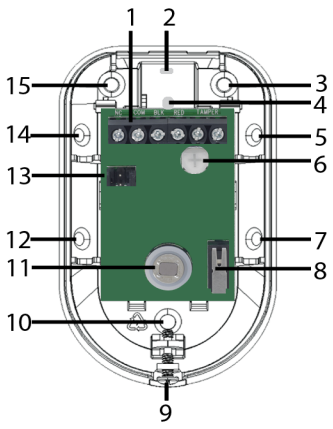
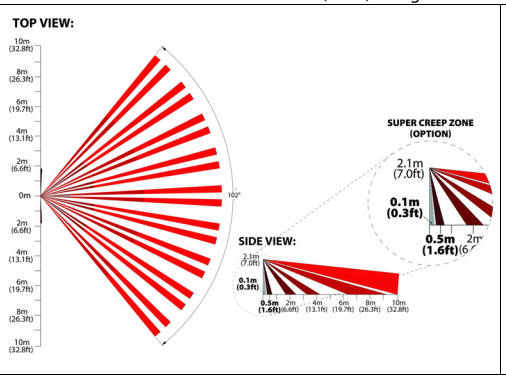


Figure 1: NV5 back plate

Callout	Description
1	Terminal board
2	Wire pass-thru
3	Wall mount (knockout)
4	Bracket mount (knockout)
5	Corner mount (knockout)
6	Trimpot (sensitivity 1-5)
7	Corner mount (knockout)
8	Tamper switch
9	Locking screw
10	Wall mount (knockout)
11	Sensor
12	Corner mount (knockout)
13	Jumpers (profile/LED)
14	Corner mount (knockout)
15	Wall mount (knockout)

Step 1: Select detector location using the Figure 2 as a guide.
The detector must be installed at 2.1m (7.0 ft) or higher.



Do not install in areas with large temperature fluctuations as caused by direct sunlight, or heating/cooling equipment.

Do not install where airflow changes can cause objects to move into the detector path.

Do not install where dust or residue can accumulate onto the detector.

Do not install in areas with pets weighing more than 16 kg (35 lbs).

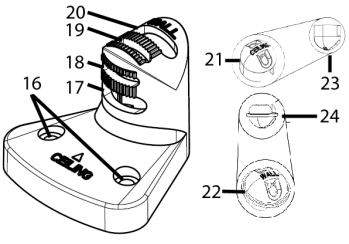
Figure 2: Beam Pattern

Step 2: Loosen the locking screw (9), located at the bottom of the unit.

Step 3: Separate the front cover from the back plate.
Separate the PCB Board from the back plate.

Step 4: On the back plate drill holes for the wire pass-thru (2) and appropriate knockout holes.
For wall mount drill holes (3), (10) and (15).
For corner mount drill holes (5), (7), (12) and (14).
For bracket mount drill hole (4).

Step 5: Secure back plate to surface.
For wall mount, pass wires through hole (2) of the back plate and secure with screws at (3), (10) and (15).



Callout	Description
16	Bracket mounting holes
17	Wire pass-thru (ceiling)
18	Ceiling mount
19	Wall mount
20	Wire pass-thru (wall)
21	Ceiling Accessory
22	Wall Accessory
23	Ceiling Accessory Orientation
24	Wall Accessory Orientation

Figure 3: SB100 Bracket Assembly Installation

For corner mount pass wires through hole (2) of the back plate and secure with screws at (5), (7), (12) and (14).

For bracketed ceiling mount (with SB100), insert ceiling accessory (21) and orient as per (23). Pass wire through (17) and through hole (2) of the back plate. Secure bracket to ceiling with screws at (16). Secure back plate with a screw at (4) onto bracket at (18).
For bracketed wall mount (with SB100), insert wall accessory (22) and orient as per (24). Pass wire through (20) and through hole (2) of the back plate. Secure bracket to wall with screws at (16). Secure back plate with a screw at (4) onto bracket at (19).

Step 6: Install the PCB board onto the back plate.
Connect wires to terminal board (1) as per Figure 4.

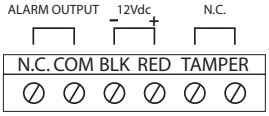


Figure 4: Terminal Board Wiring

Step 7: Adjust jumpers (13) for profiles (1-4) and LED ON/OFF (of an alarm) using this table:

Profile # (LED Flashes)	Profile Name	Interference Level (APSP)	Processing Type (EDGE)	JUMPER SETTINGS LED ON	JUMPER SETTINGS LED OFF
1	Normal	Normal*	Single*	*	
2	Moderate	Normal	Dual		
3	Pet Resistent	High	Single		
4	Harsh	High	Dual		

The NV5 features 4 pre-programmed profile settings. The number associated with the profile (1 to 4) depicts the number of LED flashes when changing jumper settings.

APSP: Set for the expected interference level of the environment (normal/high).

EDGE: The detector can be set to process for partially crossing the beam (single) or for fully crossing the beam (dual) for increased detection performance.

NORMAL: Use for normal environments that have minimal interference.

MODERATE: This profile provides better false alarm rejection.

PET RESISTENT: Set the Pet Resistent profile for pets that weigh up to 16 kg (35 lbs).

HARSH: Use the Harsh profile when the detector is installed in high-risk environments (potential interference) and to provide greatly increased false alarm immunity.

* Default Jumper Settings (APSP = Normal, EDGE = Single, LED = ON)

Step 8: Configure sensitivity via trimpot (6), default setting = 3.
Adjust from 1 (8m/26.3 ft), 2 (9m/29.5 ft), 3 (10m/32.8 ft),4 (11m/36.1 ft),5 (12m/39.4 ft).
Turn the trimpot clockwise to increase sensitivity.
Turn the trimpot counterclockwise to decrease sensitivity.
Warning: The sensitivity trimpot is fragile. Do not over torque.

Step 9: Install front cover onto back plate.

Step 10: Secure front cover to back plate with locking screw (9).

Step 11: Perform power up sequence.
LED and relay will toggle on/off for 4 seconds.
Sensitivity level indication: The LED flashes 1 to 5 times to indicate trimpot position.
Jumper setting indication: The LED flashes 1 to 4 times to indicate jumper setting.
Total power-up sequence = 10 seconds.
Detector is ready for alarm detection. During alarm the LED is ON for 3 seconds (if set).

Notes

The mirror option is pre-installed when ordered (no installation is necessary).
The SB100 bracket assembly is optional and can be installed for a ceiling or wall mount.
The sensor (11) does not require maintenance.
The tamper switch (8) is pressed down when the front cover is attached and closed.

Technical Specifications	
Installation height	2.1m – 3.1m (7.0ft – 11.0ft)
Current consumption	10.5mA @ Standby / 11.3mA @ Alarm
Power input	10Vdc to 15Vdc
Coverage	10m (32.8ft) x 90°, 0.1 to 0.5m (0.3 to 1.6ft) creep zone
Alarm output	Solid State, N.C. 150mA
Anti-tamper switch	N.C. 28Vdc, 0.15A
Operating temperature	-10°C to 50°C (14°F to 122 °F) @ 95% max. humidity
Dimensions	9.1x 5.5 x 4cm (3.5 x 2.2 x 1.6 in.)
RF Immunity	EN 50130-4: 10V/m 80MHz to 2GHz
Standards	EN 50131-2-2 Security Grade 2 / Environmental Class I

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