

PASSIVE INFRARED DETECTOR AP2-20N

FEATURES

- Fresnel Lens design
- Novel and elegant appearance
- Double Conductive Shielding Technology(Patented)
- High-Density Detection Zone
- Even Sensitivity

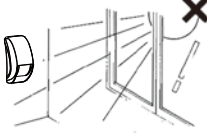
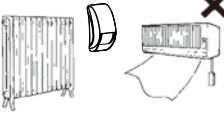

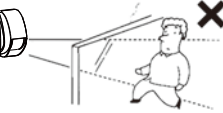
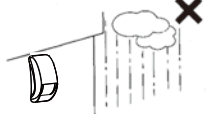
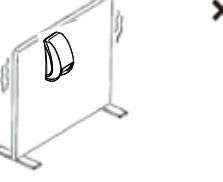
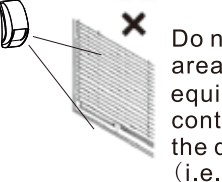
EASY INSTALLATION

- 86-box Mounting
- Combine Wall and Ceiling Mounting
- Easy Wiring Knockouts

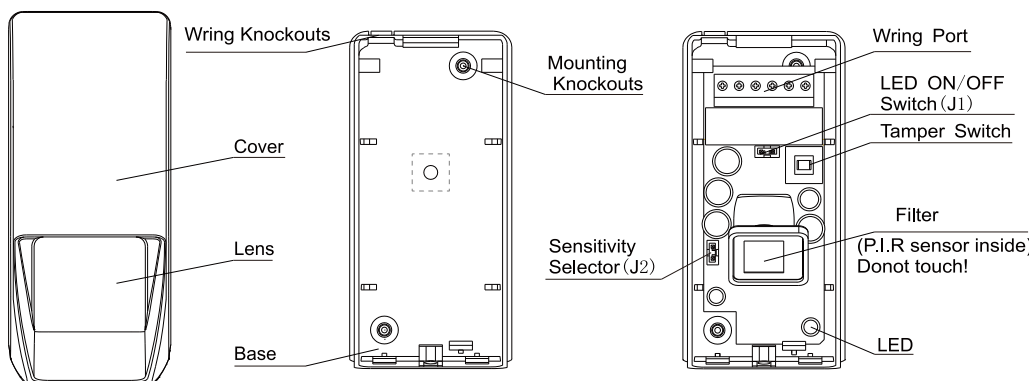
FUNCTIONS

- LED On/Off Switch
- Tamper Switch
- Selectable Sensitivity(H/ L)

1. INSTALLATION HINTS

<p>1. </p> <p>Avoid direct sunlight.</p>	<p>2. </p> <p>Avoid looking directly at air conditioning or heating vents.</p>	<p>3. </p> <p>Avoid vapor or high humidity that can cause condensation.</p>	<p>4. </p> <p>Avoid curtain, screen, etc. blocking detection area.</p>
<p>5. </p> <p>Do not install outdoors.</p>	<p>6. </p> <p>Do not mount in unstable location where vibration or shock may affect the detector.</p>	<p>7. </p> <p>Do not aim detection area towards equipment which continually moves in the detection area (i.e. curtain, blinds).</p>	

2. DESCRIPTION AND OPERATION


LED ON/OFF Switch(J1):

To control switch ON or OFF by adjusting the pin switch.

- ON: LED is on.
- OFF: LED is off.

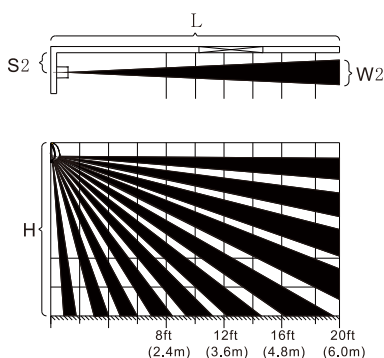

Sensitivity Selector(J2):

Select two kinds of sensitivity by adjusting the pin switch.

- L: Low sensitivity (installation height is less than 3.0m).
- H: High sensitivity (installation height is higher than 3.0m, including 3.0m).



3. DETECTION AREA PATTERNS



Install with the larger value of S1 or S2.
Table of installation parameters.

H	8ft (2.4m)	10ft (3.0m)	12ft (3.6m)
W1	2ft (0.6m)	2.2ft (0.66m)	2.4ft (0.73m)
S1	1.6ft (0.5m)	1.7ft (0.53m)	1.8ft (0.56m)

L	8ft (2.4m)	10ft (3.0m)	12ft (3.6m)	14ft (4.2m)	16ft (4.8m)	18ft (5.5m)	20ft (6.0m)
W2	2ft (0.6m)	2.2ft (0.66m)	2.4ft (0.73m)	2.6ft (0.8m)	2.8ft (0.86m)	3.1ft (0.94m)	3.3ft (1.0m)
S2	1.6ft (0.5m)	1.7ft (0.53m)	1.8ft (0.56m)	2.0ft (0.6m)	2.1ft (0.63m)	2.2ft (0.67m)	2.3ft (0.7m)

H : Installation height
L : Zone length
W1/W2: Zone width
S1/S2 : Distance from the wall-recommend

The area supports both wall mount and ceiling mount.

- Wall mount
- Ceiling mount.

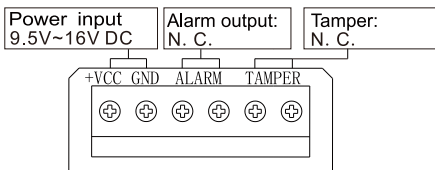


4. INSTALLATION

1. Open the cover and remove it.
2. Loosen the hook at forepart of base, and then remove the PCB.
3. Put the point of screw-driver in wiring knockouts of base, and hit the top of driver to crack into knockouts. Mount base with supplied two screws.
4. Wire according to Section 5. And then fix PCB unit with hook.
5. Fit cover (first buckle up top side, then press down bottom side) and lock screws as required.

Note. To remove cover in installation state, first remove the screw which fits cover, and then pry off according to direction shown in the figure by using screwdriver which can be inserted into either hole on both sides.

5. WIRING



Power wires should not exceed the following lengths.

WIRE GAUGE	12V DC	14V DC
AWG22(0.33mm ²)	1575ft(480m)	3379ft(1030m)
AWG20(0.52mm ²)	2460ft(750m)	5438ft(1630m)
AWG18(0.83mm ²)	3937ft(1200m)	8530ft(2600m)

- The wiring length between power supply and detector should not be longer than the length listed in the left table.
- When using two or more units on one wire, the maximum length is obtained by dividing the maximum wire length listed by the number of detectors used.
- Only use the wire which diameter is under $\Phi 4.5\text{mm}$ (including $\Phi 4.5\text{mm}$) during mounting.

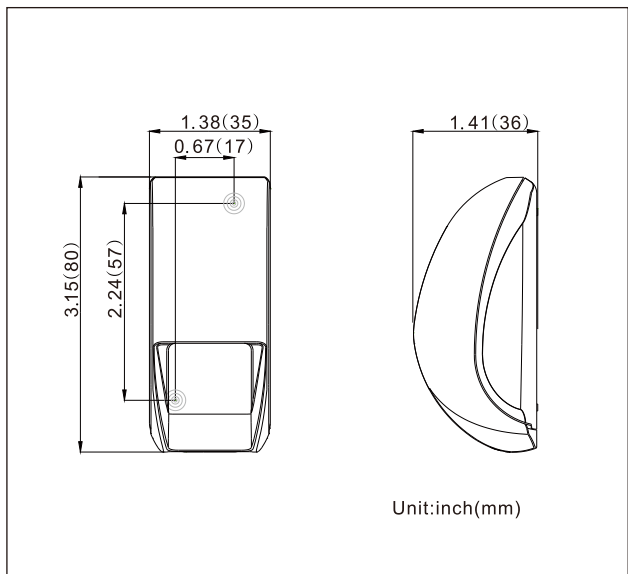
6. TROUBLE SHOOTING AND MAINTENANCE

PROBLEM	PROBABLE CAUSE	REMEDY
LED does not light.	Incorrect power supply voltage. (disconnection, low voltage)	Correct the voltage supply to 9.5V~16V DC.
	Incorrect detection area.	See Section 3.
	LED switch OFF.	Turn on the switch (See Section 2).
LED lights even though no person within area.	Moving object within area (curtain, wall hanging, plants, etc.)	Remove object from detection area, or change location of detector.
	Rapid temperature changes within area (heater, air-conditioner, etc.)	Remove the heat sources from detection area, or change location of detector.
LED lights but signal is not sent.	Relay contact is stuck or damaged due to overloading.	Check load of output.
		The unit needs repair or replacement.
	Faulty wiring.	Wire correctly.

7. SPECIFICATIONS

MODEL	AP2-20N
Detection Method	Passive Infrared
Coverage	20ftx3.3ft(6.0mx1.0m)-Mounting height 12ft(3.6m)
Mounting	Ceiling and wall
Mounting Height	8ft~12ft(2.4m~3.6m)
Zone Width	0.33ft(1.0m)max-Mounting height at 20ft(3.6m)
Sensitivity	35.6°F(2°C) at 2ft (0.6m/s)
Detectable Speed	1ft~10ft(0.3~3.0m/s)
LED Indicator	Switchable ON/OFF
Sensitivity Adjustment	H/L
Alarm Output	Approx. 2.5sec, normally N.C., 28VDC, 200mA max
Tamper Switch	N.C., Opens when cover is removed N.C., 28V DC, 100mA(max)
Warm up Period	Approx. 60 sec
Power Input	9.5~16 V DC
Current Draw	12mA(max)
Weight	Approx. 1.75oz(50g)
Operating Temperature	-4°F~-122°F(-20°C ~+50°C)
Environmental Humidity	95%(max)
RF Interference	No alarm 10V/m at 80MHz~1GHz
Using Occasions	Indoor

8. DIMENSIONS



* Specifications and design are subject to change without prior notice.

EU & UK contact information



<https://navi.optex.net/cert/contact/>



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