

# INS-HX-80N

VISUAL VERIFICATION PIR CAMERA

**InSight** series

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Refer to the InSight Camera manual for details on IP address settings.



InSight Camera manual

<https://navi.optex.net/manual/50427/en/?type=cameramannual>

If you do not have a CHeKT account, request a dealer account by visiting the CHeCK dealer site, before Step 3.



CHeKT dealer

[www.chekt.com/registration](http://www.chekt.com/registration)

Refer to the CHeCK support site for more details.







CHeKT support

<https://support.chekt.com>

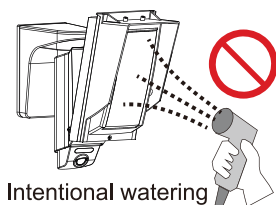
## Before installation

### - Manufacturer's statement

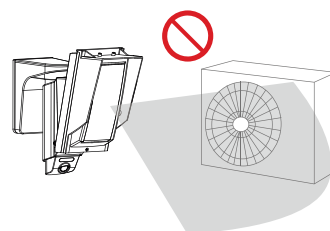
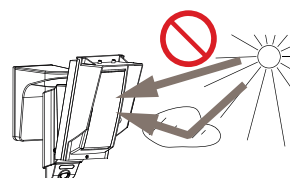
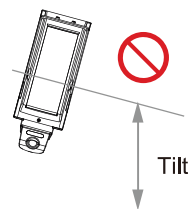
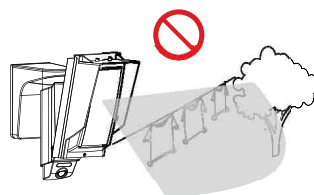
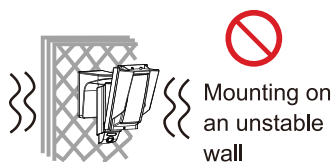
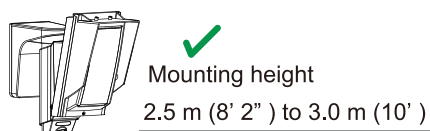
Symbol	Meaning
 <b>Warning</b>	Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.
 <b>Caution</b>	Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.

Symbol	Meaning
	Nix sign indicates prohibition.
	Check mark indicates recommendation.
<b>NOTE</b>	Special attention is required to the section of this symbol.

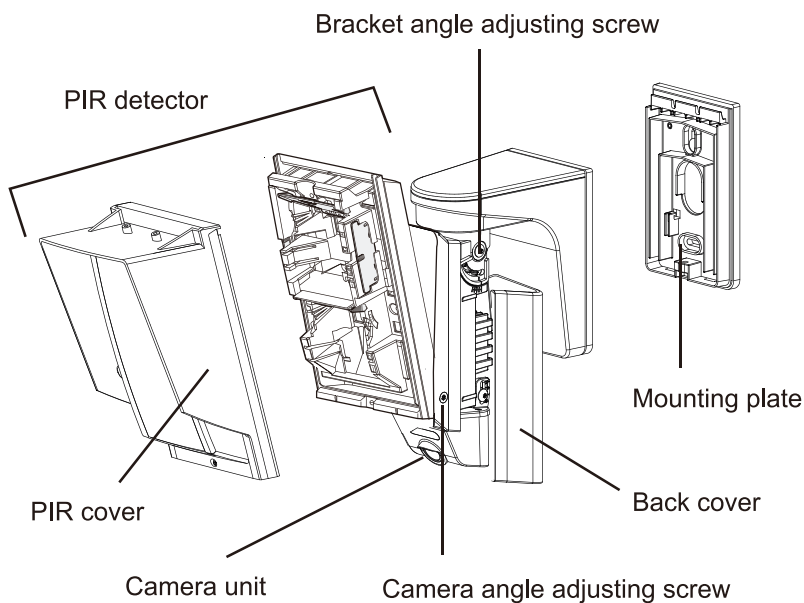
#### Warning



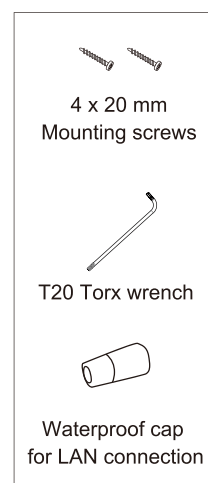
#### Caution



### - Parts identification

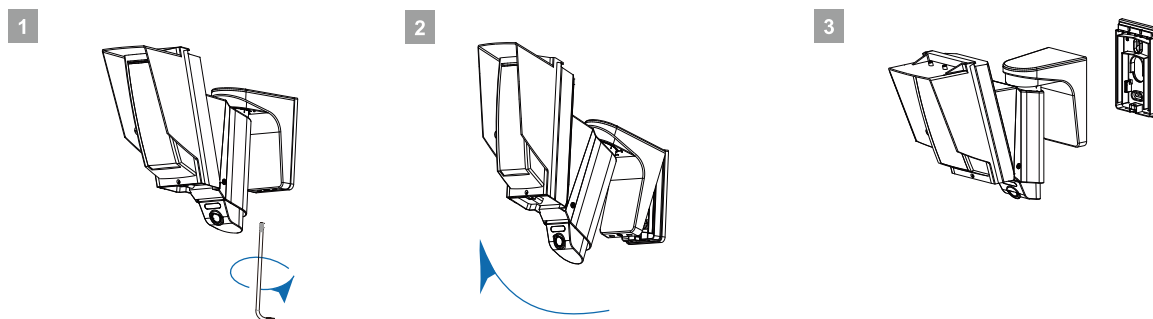


### - Accessories

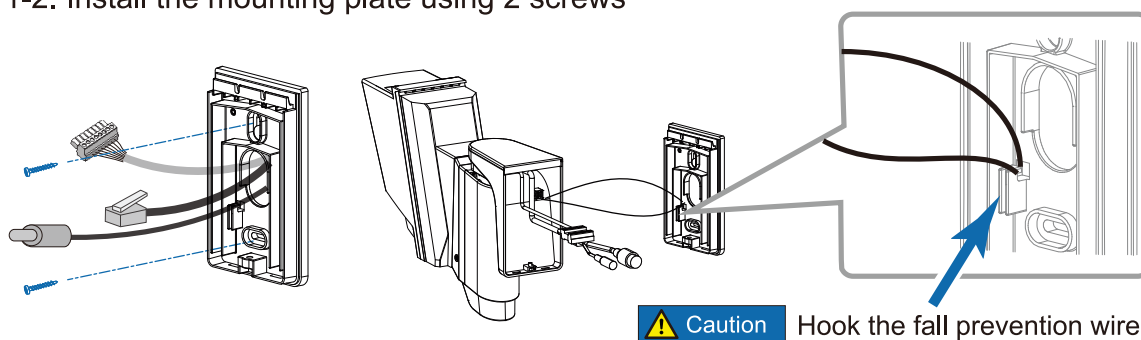


## Step 1 Installation

### 1-1. Remove the mounting plate

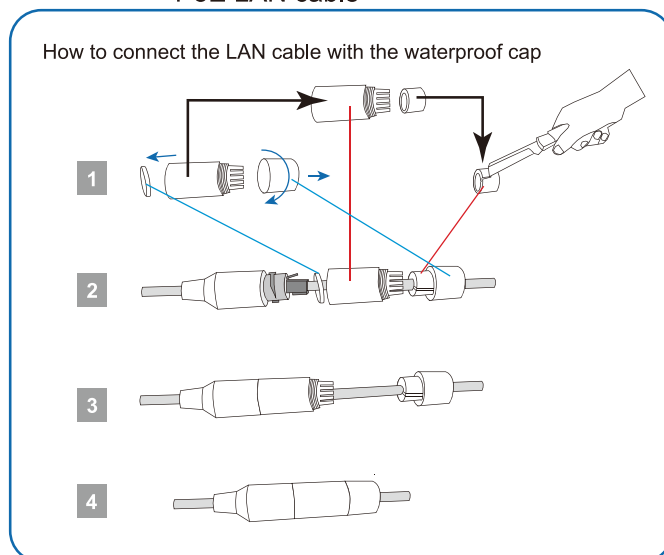
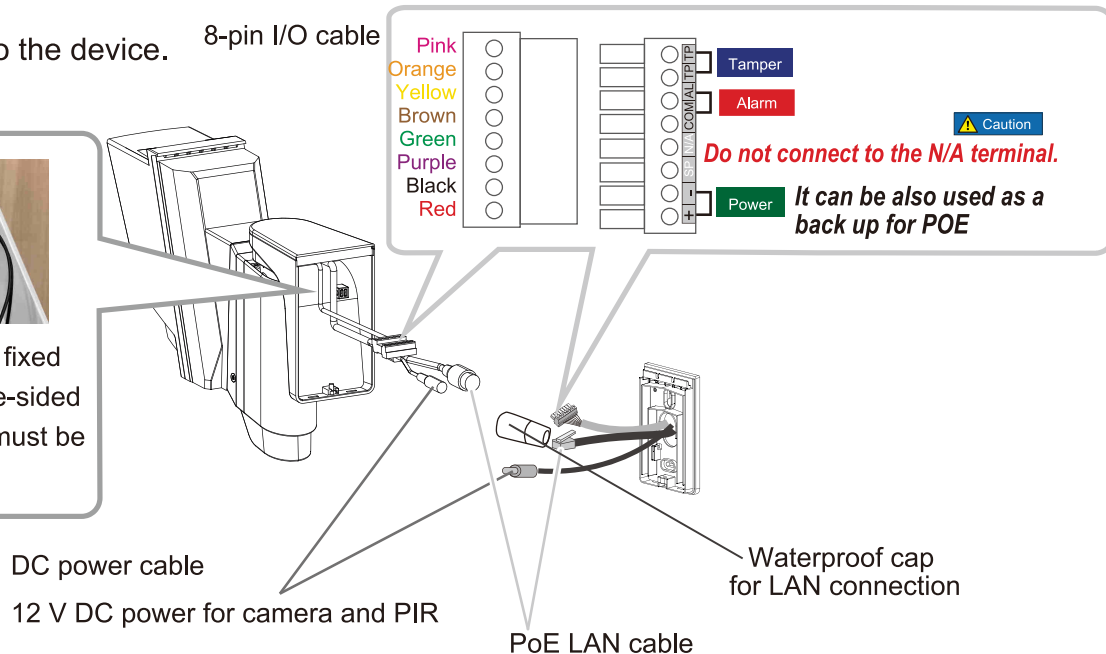


### 1-2. Install the mounting plate using 2 screws



- NOTE**
- To pass cables through the wall, drill a 25 mm (1") or larger hole in the wall.
  - Use a single gang box for exposed wiring.

### 1-3. Connect cables to the device.



### 1-4. Secure the main body



**Caution** Do not pinch the cables during assembly.

The default network type of InSight is dynamic.  
If you have a DHCP server, it will automatically set the InSight.

Step  
Jump to **3**

Step

## **2** IP address settings

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If you do not have a DHCP server, it will set as follows after one minute.

Initial address: **Refer to the label on the InSight**

User name: **root**

Default password: **OPTEx**

Change your password as appropriate.



InSight Camera manual

Download IP installer;

<https://navi.optex.net/firmware/50427>

<https://navi.optex.net/manual/50427/en/?type=cameramanual/>

Refer to the InSight Camera manual for more details.

Step

## **3** Device registration to CHeKT portal

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Setup your CHeKT Dealer Portal:

1. Go to <http://dealer.chekt.com/> to log in.
2. Select the Customer on the left side of the dashboard.
3. Select the Site Devices tab.
4. Select the bridge device to be associated with the sensor camera.
5. Access the bridge settings using the gear icon to its right.
6. Select the appropriate tab to register the PIR camera.



CHeKT support

Refer to the CHeCK support site for more details.

<https://support.chekt.com>

## Camera angle and PIR area settings

Changing for each item in this step is optional.

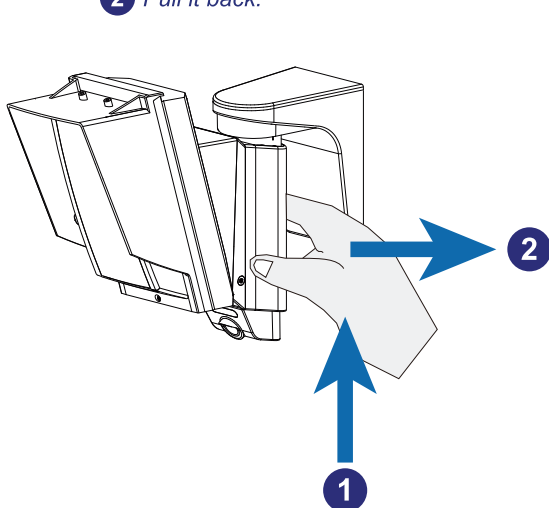
Check the default settings and if no changes are required, proceed to the next item.

### 4-1. Horizontal adjustment

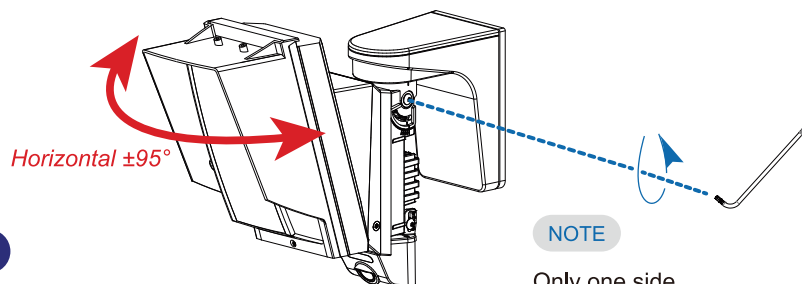
- 1 Remove the Back cover.

1 Raise the Back cover up.

2 Pull it back.



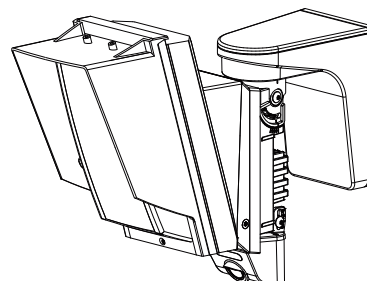
- 2 Adjust PIR area direction



### 4-2. Vertical adjustment

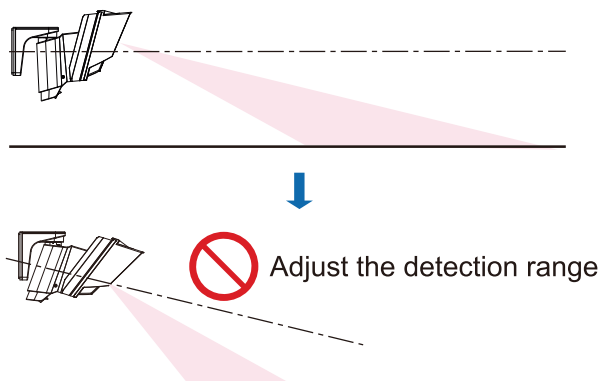
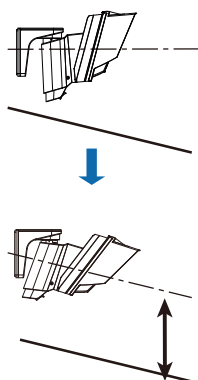
- 1 PIR area adjustment

Vertical 0° to -20°

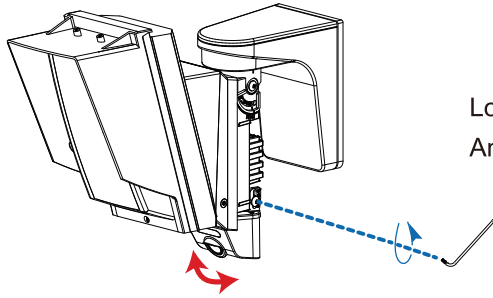


**Caution**

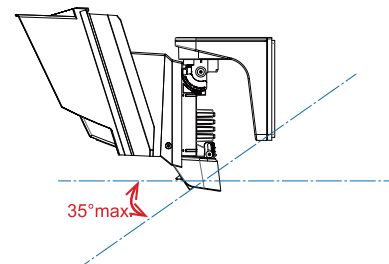
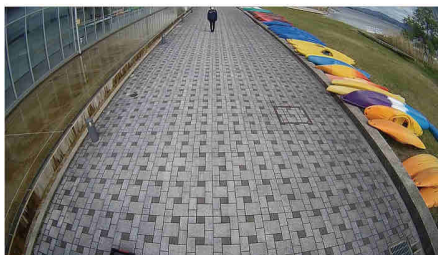
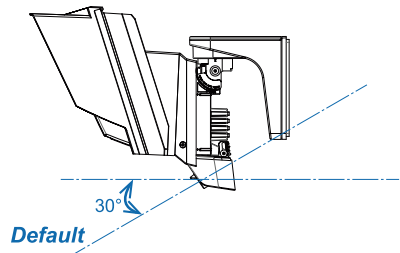
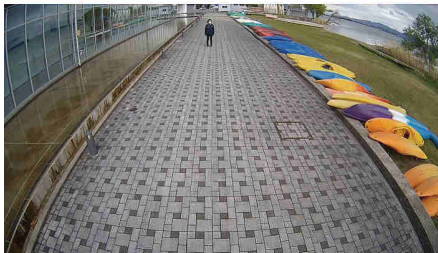
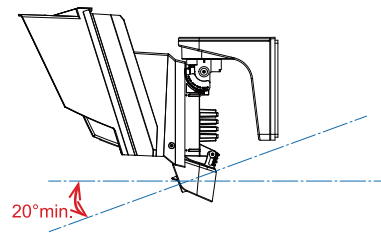
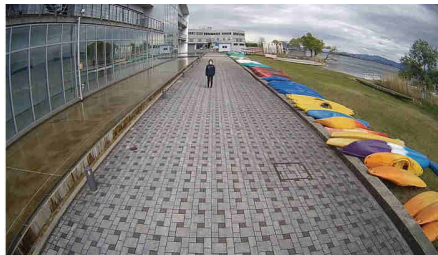
Do not use the vertical angle adjustment of the main unit other than adjusting the detection area surface to be parallel to the ground inclination.



2 Adjust the camera angle to view the detection area



Loosen screws to adjust camera angle  
Angle can be adjusted by sliding the camera vertically.



### 4-3. PIR/VCA settings

Refer to the InSight VCA manual for details on PIR and VCA area settings.



<https://navi.optex.net/manual/50426/en/?type=VCManual>

Administrator Tool - Google Chrome  
172.16.15.3/cgi-bin/admin/setup\_main.cgi

- > VIDEO
- > CAMERA
- > NETWORK
- > EVENTS
- > PIR/VCA
  - DETECTION/OUTPUT
  - AREA CONFIGURATION
  - VCA ADVANCED SETTINGS
  - VCA OVERLAY
  - CAMERA SCENE CHANGE
  - VCA LICENSE
- > SECURITY
- > SYSTEM

#### AREA CONFIGURATION

VCA:  
PIR:

**Camera angle adjustment**  
Value:  + 30.0(deg)  
If the vertical angle of the camera is adjusted, adjustment of this section must match to ensure best performance of the sensor.

**VCA area settings**  
VCA setting type: ☒ Basic ☐ Advanced (Go to VCA advanced settings)  
Detection rule:  Polygon  
Distance:  Near  Far

**VCA sensitivity**  
Sensitivity:  High  
Minimum Object Size:  10 Blob pixels [ 1 - 100 ]  
Object tracker threshold:  5 Blob pixels [ 3 - 16 ]



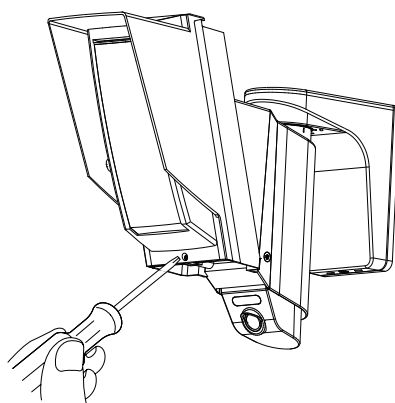
If the vertical angle of the camera is to be adjusted, adjustment of this sections must be matched to ensure the best performance of the sensor.



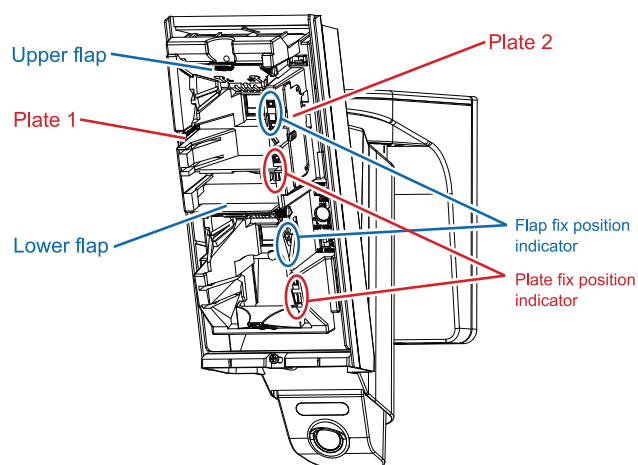
#### 4-4. Detection range limit

The default settings are 18 m (60') at 2.5 m (8'2") mounting height.  
If no changes are required, proceed to the next item.

##### 1 Open the PIR cover



##### 2 Locate the masking flaps and plates

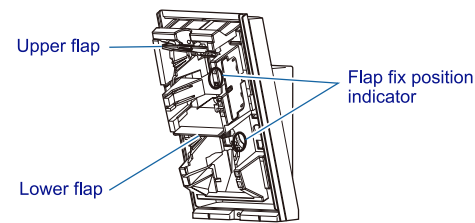


3

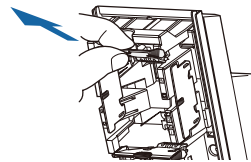
Adjust the long range settings to set the maximum distance

HOW TO CHANGE THE LONG RANGE DETECTION AREA

Set the upper and lower flaps as follows:

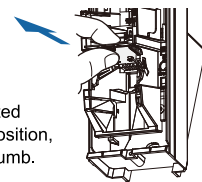


1 Pull out the flap.

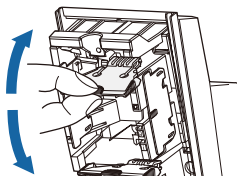


NOTE

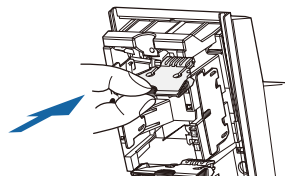
If the lower flap is located at the factory default position, slide it out with your thumb.



2 Move the flap to the position that corresponds with the desired detection distance, see table below.



3 Push the flap until it clicks into the position.

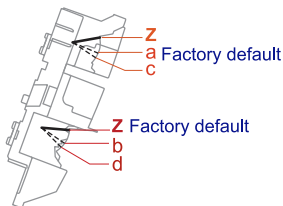


PIR long range detection area masking

The detection distance in the following table can be limited by combining the positions of the flap. Use the following table to determine the positions of the upper and lower flaps that set the required max. detection distance.

NOTE

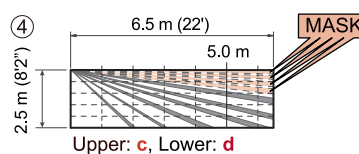
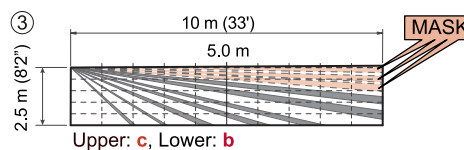
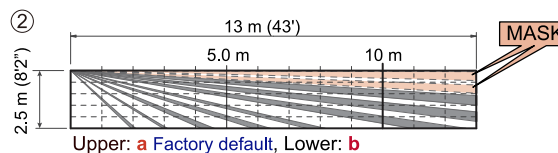
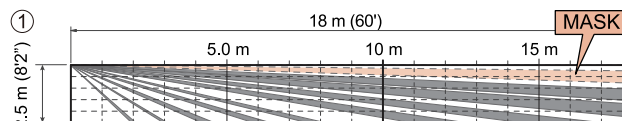
1. The distance may vary due to environmental conditions.
2. Always walk test the detector to confirm the detection distance.



NOTE

Use only the following combinations for the flap settings.

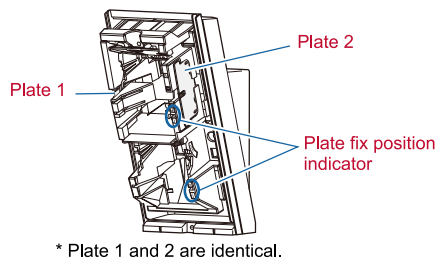
Lower Upper	Z Factory default	b	d
Z	24 m (80')	N.A.	N.A.
a Factory default	① 18 m (60')	② 13 m (43')	N.A.
c	N.A.	③ 10 m (33')	④ 6.5 m (22')



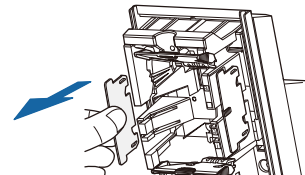
#### 4 Adjust the short range settings to set the minimum distance

##### HOW TO CHANGE THE SHORT RANGE DETECTION AREA

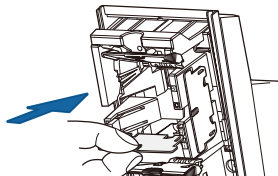
Set the upper and lower plates follows:



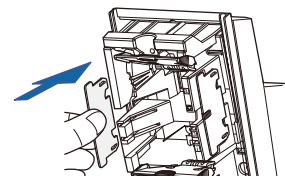
1 Remove the plate.



2 Insert the plate into the position determined by the required masking distance until it clicks, see table below.



3 If any plate is not used, place it in the storage position.

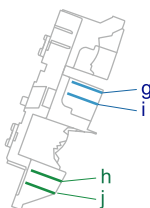


##### NOTE

Be careful not to lose the plates.

##### PIR short range detection area masking

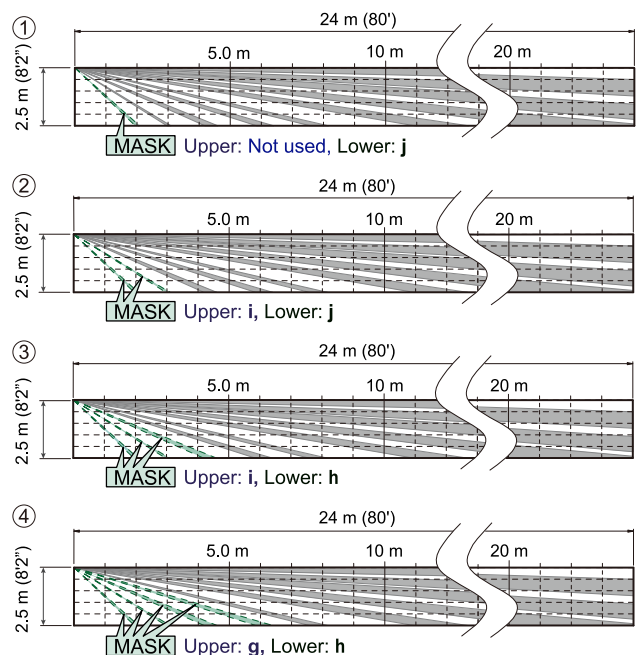
Use the following table to determine the positions of the plates that set the required masked area.



##### NOTE

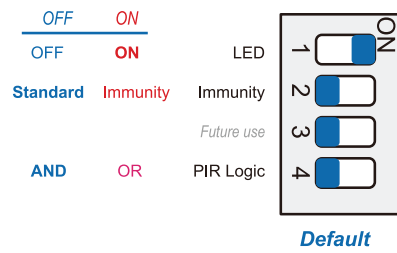
Use only the following combinations for the plate settings.

Lower \ Upper	Not used	j	h
Upper	Not used	j	h
Not used	Factory default	①	N.A.
i	N.A.	②	③
g	N.A.	N.A.	④

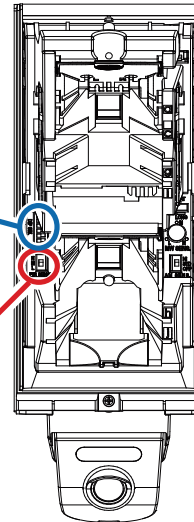
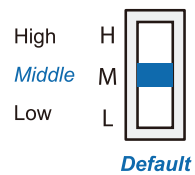


## 4-5. Switch settings

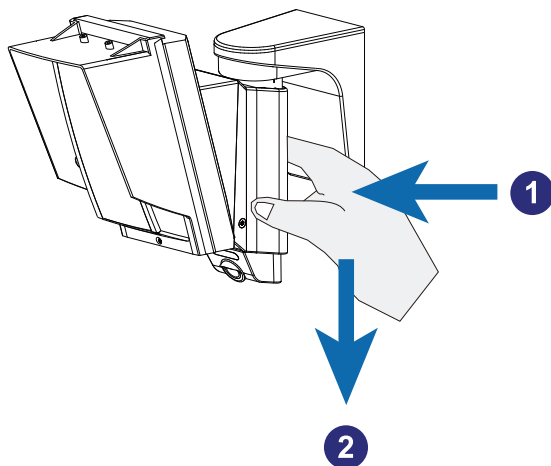
- 1 Change DIP switch settings as needed



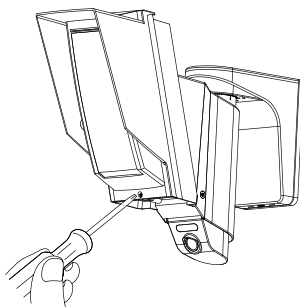
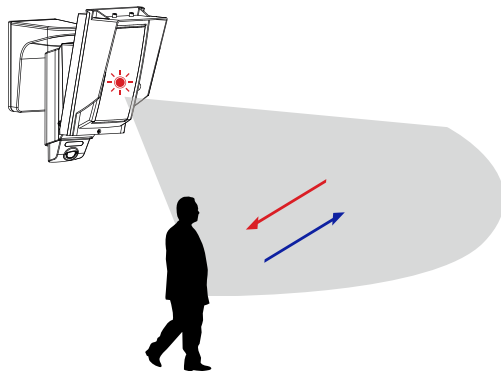
- 2 Change PIR sensitivity setting as needed



## 4-6. Put on the back cover



### 5-1. Walk test



- 1 Turn LED back ON, if it was turned OFF (**DIP switch No. 1**, Default ON).
- 2 Close the PIR cover.
- 3 Walk around the detection area to make sure it is set as intended.
- 4 If necessary, turn LED OFF again.
- 5 Fix the PIR cover with the cover lock screw after completion.

#### NOTE

- For the walk test, walk at least 1.0 m (3'3") away from the detector.
- Conduct a walk test at least once a year.

### 5-2. System check

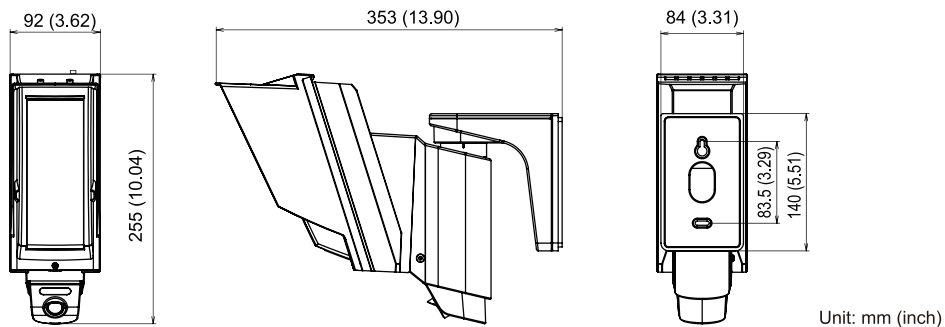
Check the image at the time of detection on the monitoring portal.

## - Specifications

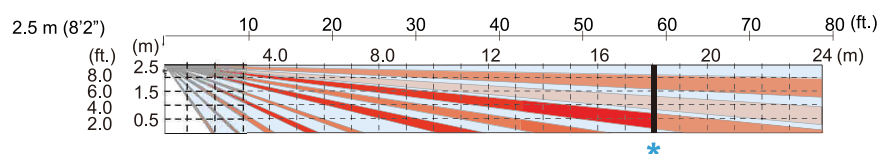
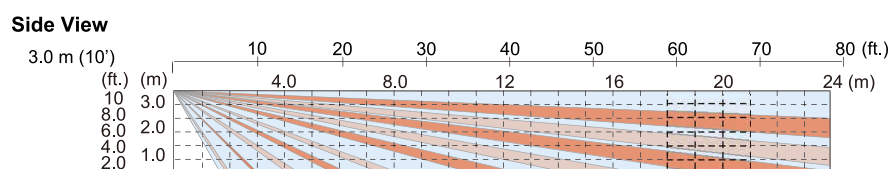
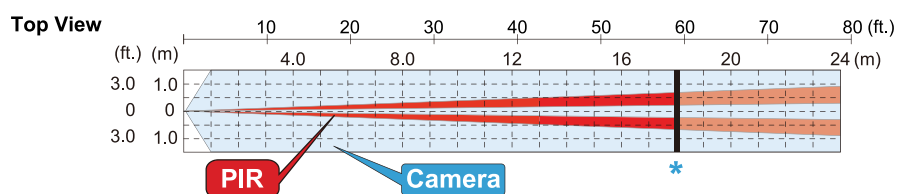
Model	INS-HX-80N
Detection method	Passive infrared
PIR coverage	24 m x 2.0 m (80' x 6'7") narrow
PIR zones	20 zones
PIR distance	6.5 m (22'), 10 m (33'), 13 m (43'), <b>Default: 18 m (60')</b> , 24 m (80')
Detectable speed	0.3 to 1.5 m/s (1' to 5'/s)
Sensitivity	2.0°C ( 3.6°F) at 0.6 m/s
Power input	PoE (IEEE 802.3af compliant) Mini-jack 12 V DC 420 mA max. Terminal 9.5 to 18 V DC/ 35 mA max. at 12 V DC
Alarm period	2.0 ± 1 s
Warm-up period	Approx. 60 s (LED blinks)
Alarm output	N.O./N.C. switchable, 28 V DC 0.1 A max.
Tamper output	N.C. 28 V DC 0.1 A max. Open when the cover is opened
LED indicator	[1] Warm-up [2] Alarm
Image sensor	1/2.8" CMOS
Viewing angle	H: 114° V: 61°
Minimum illumination	Color: 0.02 lux. 0 lux. with IR
IR illumination	Visible up to 12 m
Night vision	Day & Night Automatic/Manual switching
Image compression	H.264, H.265, MJPEG
Resolution/ frame rate	1080/ 30 fps, D1 (704 x 480 or 704 x 576)
Network protocol	IPv4: TCP/IP, UDP, RTP(UDP/TCP), RTSP, NTP, HTTP, HTTPS, SSL, DHCP, SNMPv1/v2/v3(MIB-2), ONVIF
Security	HTTPS(SSL), IP filtering, 802.1x, Digest authentication (ID/PW)
Operation temperature	-30°C to +50°C (-22°F to +122°F)
Environment humidity	95% max.
International protection	IP 55
Mounting	Wall (Outdoor, Indoor)/Gang box
Mounting height	2.5 to 3.0 m (8'2" to 10')
Weight	1.2 kg (42.3 oz)
Accessories	[1] Mounting screw (4 x 20 mm) x 2 [2] T20 Torx wrench x 1 [3] Waterproof cap for LAN connector x 1

- Specifications and designs are subject to change without prior notice.
- These units are designed to detect an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.

## - Dimensions

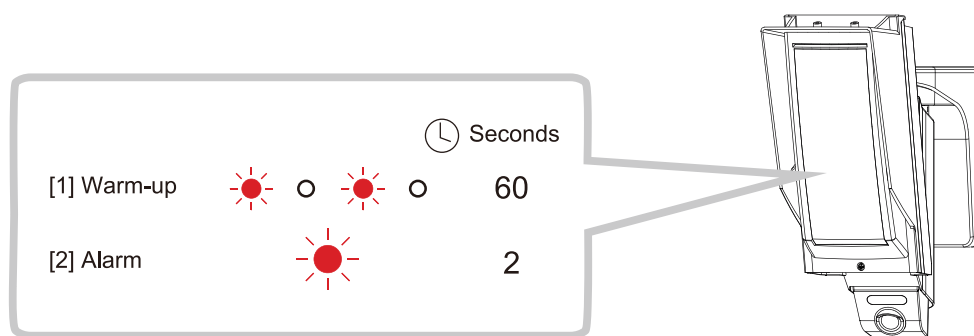


## - Detection area



\* = Default PIR distance limit 18 m (60')

## - LED indicator



## **- Compliance**

### ***Personal Information***

This product is equipped with the function to produce moving image of the designated area and its surrounding, but not equipped with the function to store or register such image.

Prior to the installation of this product, the compliance to local laws and regulations needs to be confirmed by the user of this product for the lawful installation and use of this product, and signage and notification when using this product. User of this product is deemed to be responsible for the compliance of any laws and regulations relating to personal information, privacy protection and rights of portrait upon use of this product. Image taken by this product is required to be treated appropriately under the responsibility of the user of this product.

Installation of this product, producing image, monitoring, recording with camera and handling of personal information or data shall all be performed under discretion and responsibility of user of this product, and OPTEX shall not be held liable for any dispute between a user and a third party.

### ***FCC notification***

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment.

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

### ***About distribution of source code for open source software***

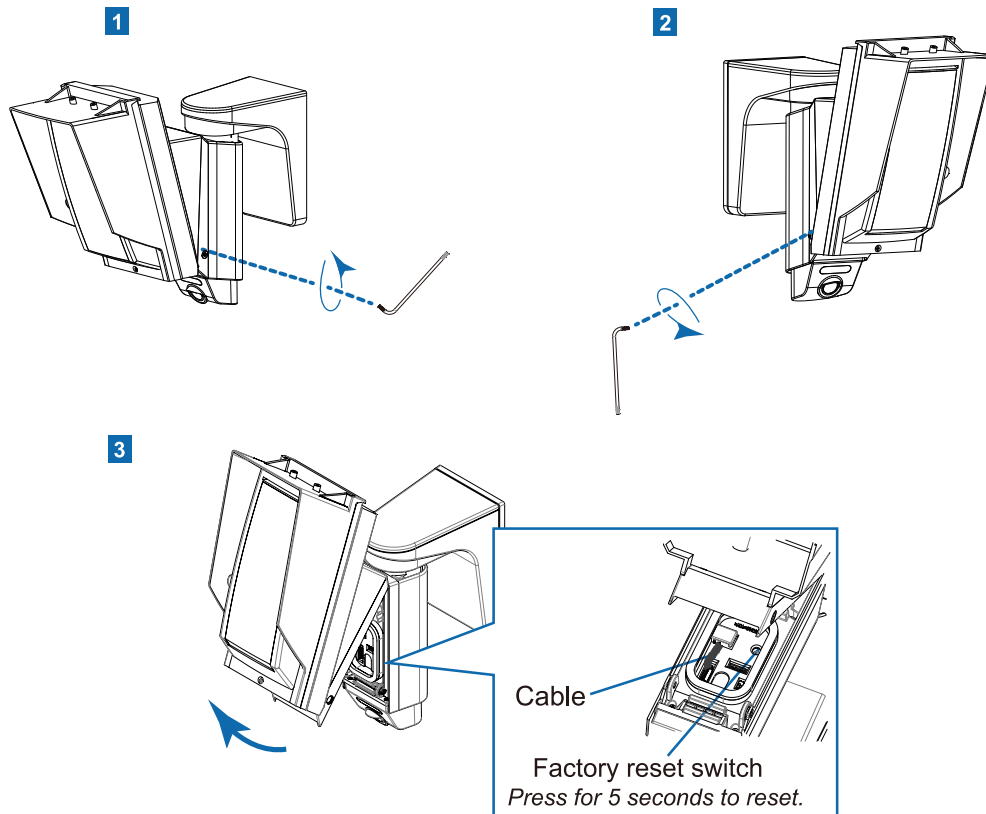
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## - How to reset to the factory default

Follow the steps below to perform a factory reset (for example, forget the password).

The IP address, ID, password and camera settings will be initialized.



### Caution

Do not pinch the cables during assembly.

#### ■ EU & UK contact information



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



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