

**ir** inner range  
**IR-D-P1E IR  
Detector  
Passive PIR  
Technology**



## inner Range IR-D-P1E IR Detector Passive PIR Technology Installation Guide

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inner Range IR-D-P1E IR Detector Passive PIR Technology



## Specifications

- Models: IR-D-P1E, IR-D-P2E, IR-D-P2E-UK
- Technology: PIR, Microwave (10,525 GHz, 10,587 GHz)
- Mounting Options: Wall mount (with/without bracket), Ceiling mount (with bracket)
- Height Range: 2.0 to 3.0 meters (6'7" to 9'8")

	Wide/Narrow area Flip lens	PIR	Microwave
IR-D-P1E	✓	✓	
IR-D-P2E	✓	✓	✓ (10,525 GHz)
IR-D-P2E-UK *1	✓	✓	✓ (10,587 GHz)

\*1 Not certified to UJI

## FAQ

**Q: What is the recommended mounting height for the detector?**

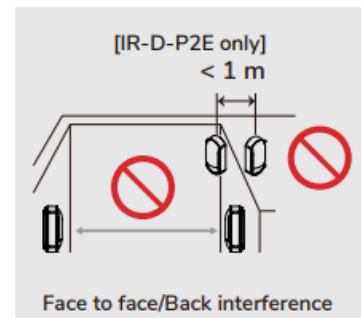
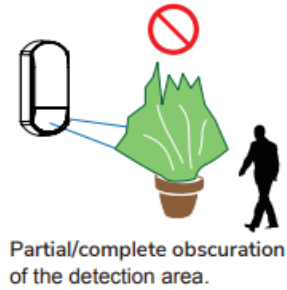
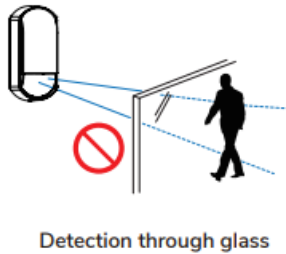
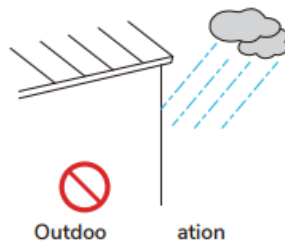
A: The recommended mounting height is between 2.0 to 3.0 meters (6'7" to 9'8"), with 2.4 meters (8') being the ideal height for optimal performance.

## Before installation

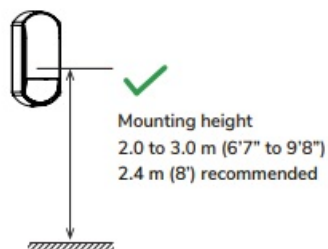
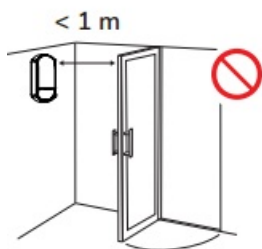
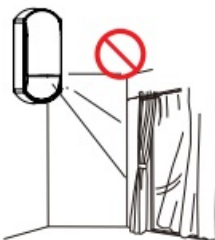
### Manufacturer's statement

Symbol	Meaning	Symbol	Meaning
	<b>Warning</b> Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.		Check mark indicates recommendation.
	<b>Caution</b> Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.		Nix sign indicates prohibition.
		<b>NOTE</b>	Special attention is required to the section of this symbol.

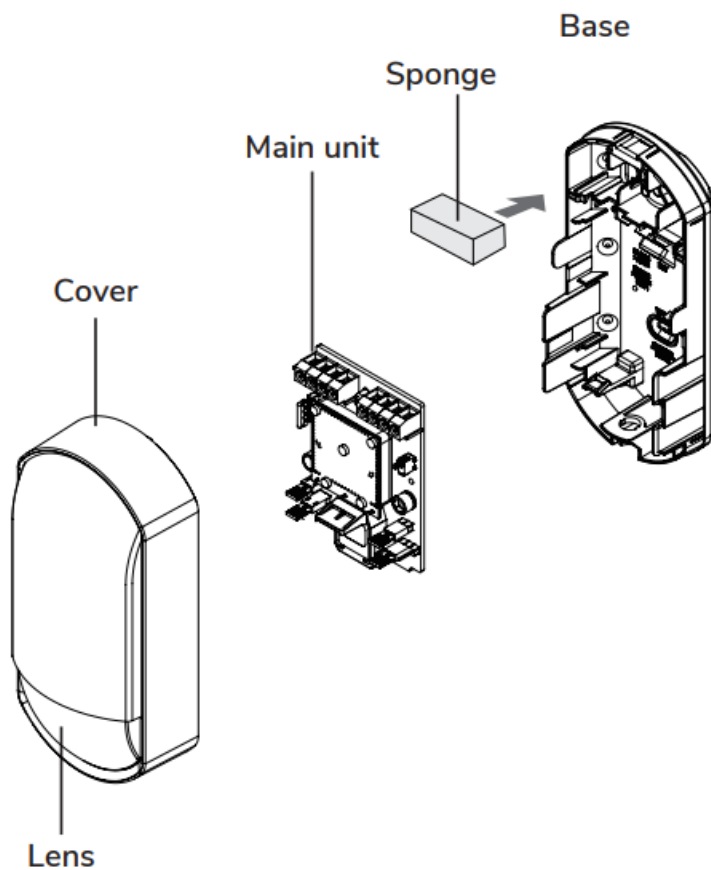
## Warning



## Caution

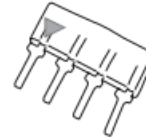


## Parts identifications



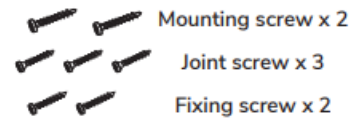
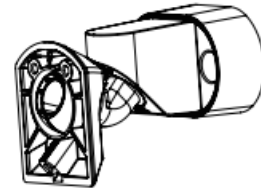
## Accessories

PEU \*\*  
Plug-in EOL Unit



## Option

IR-D-CW-G2 \*  
Bracket for wall/ceiling mount



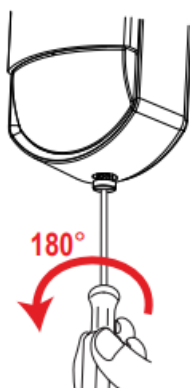
\* Not certified to EN 50131-2-2/4  
\*\* Not evaluated by UL

## Installation

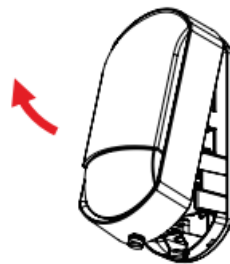
### Disassemble

1. Unlock the cover
2. Open the cover
3. Remove the main unit

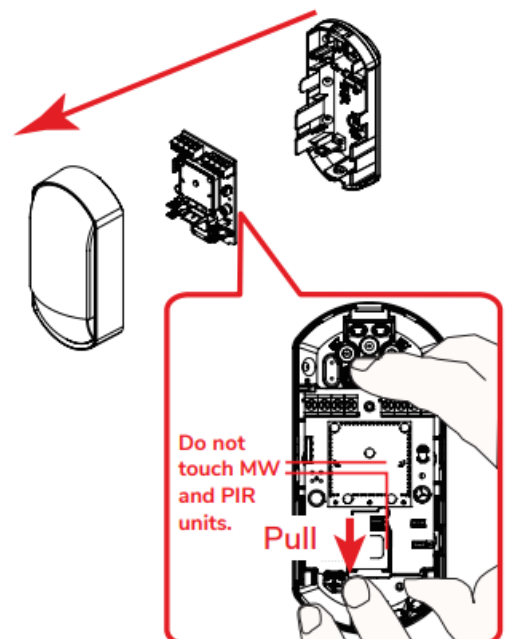
#### 1 Unlock the cover



#### 2 Open the cover

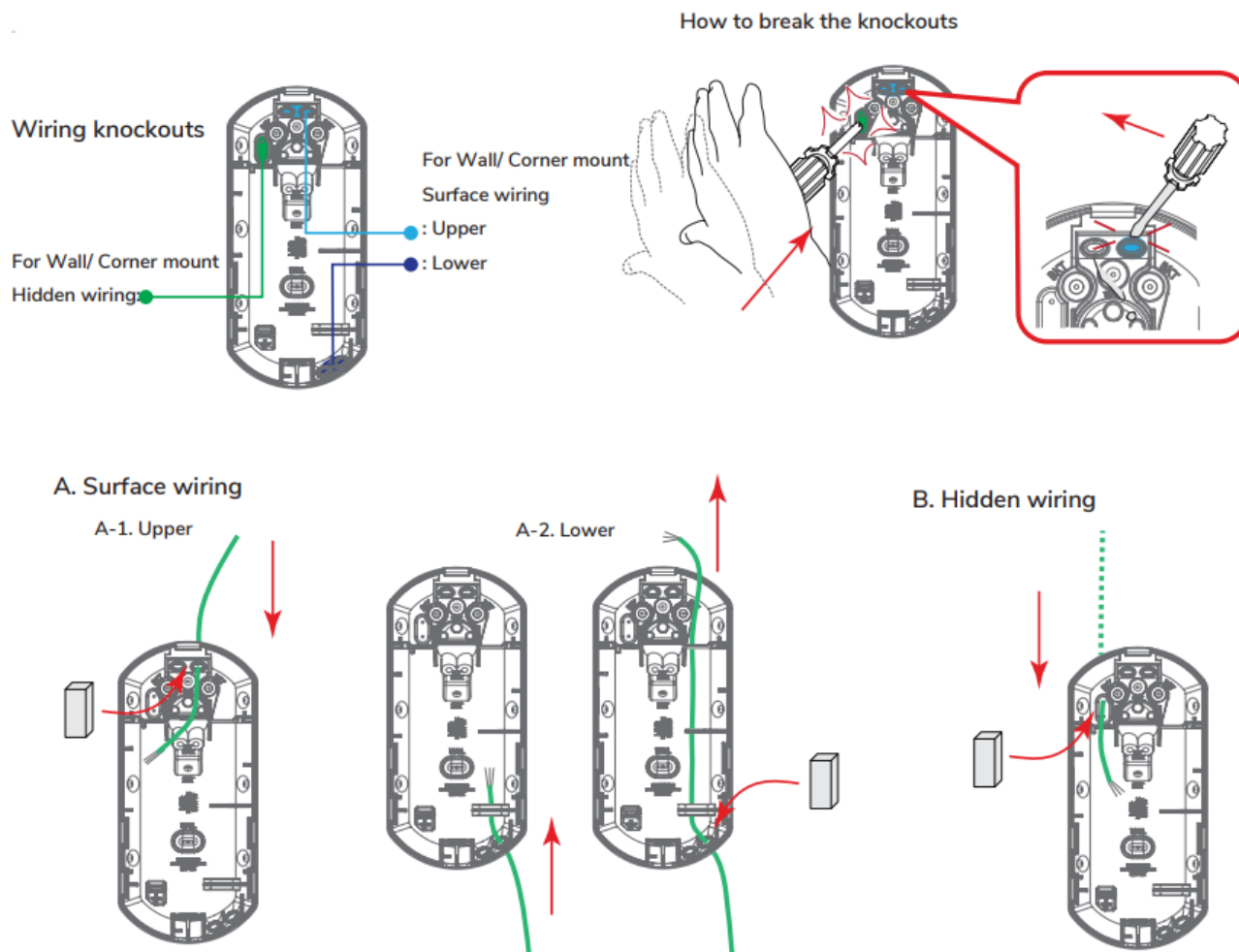


#### 3 Remove the main unit

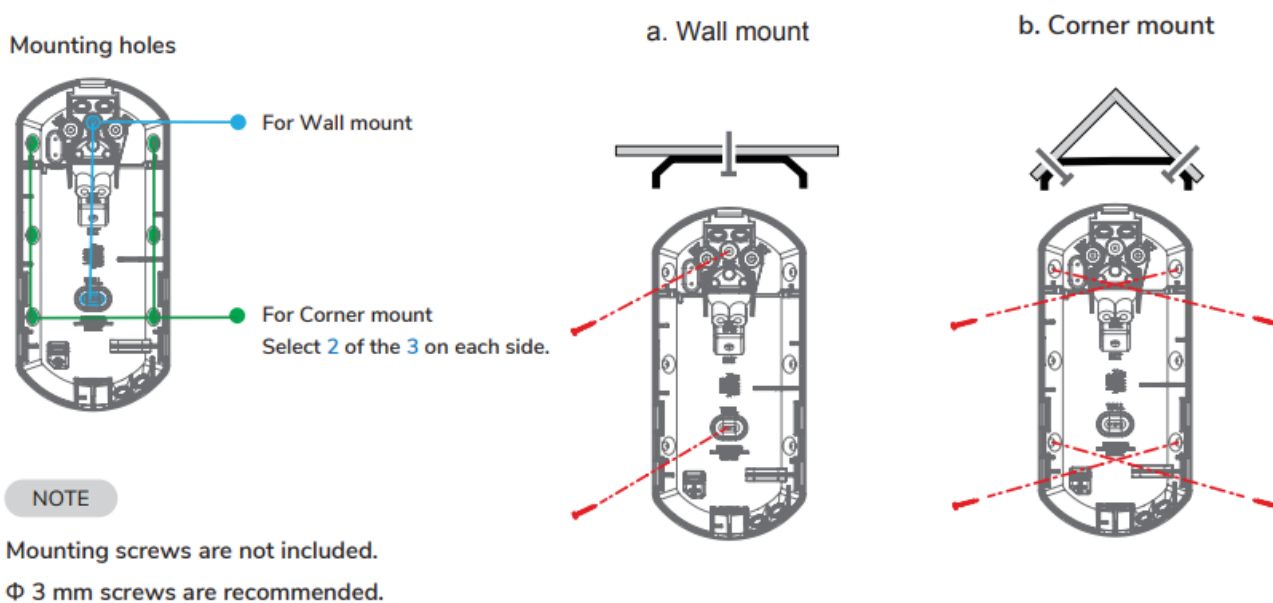


## Wall mount without bracket

### Wire through the base

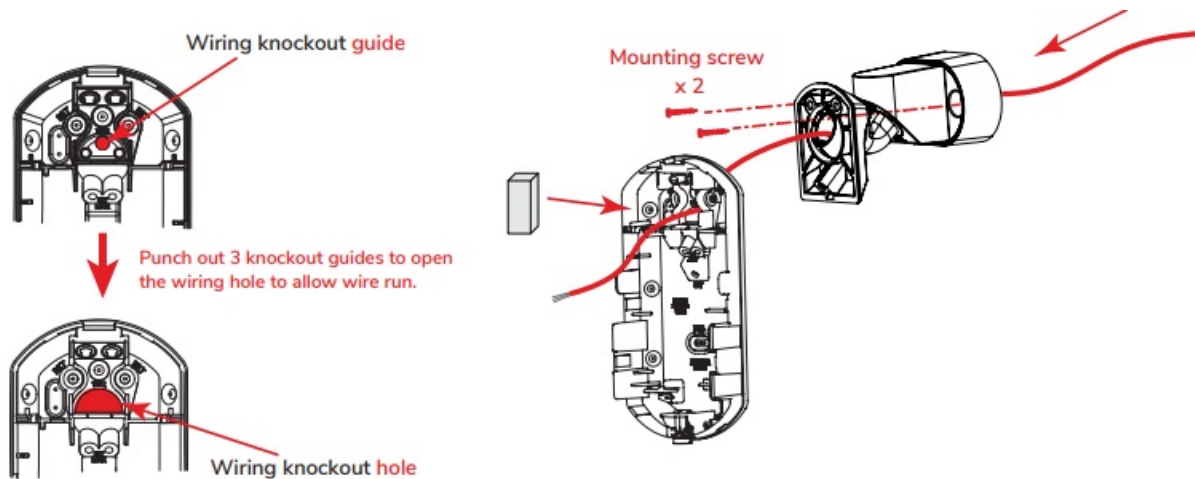


### Mount the base



### Wall mount with bracket

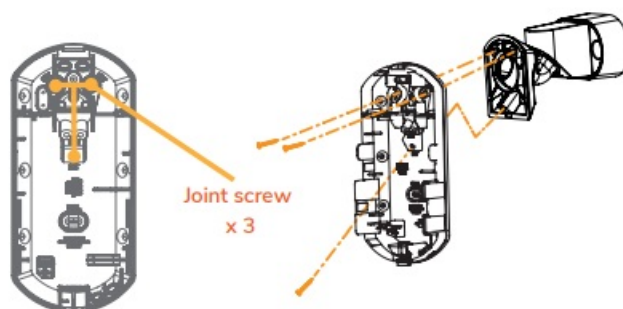
## 1. Wire and mount on the wall



### NOTE

See page 4 for how to break the knockouts.

## 2. Join the base on the bracket

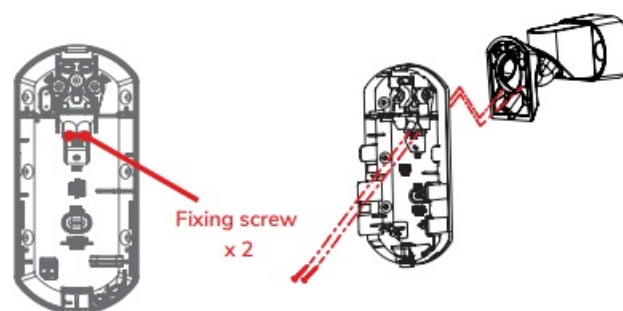


### NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

## 3. Fix the base with the fixing screws (optional)



The bracket is basically jointed using 3 holes and 3 joint screws. Also use 2 additional fixing screws if stronger support is required.

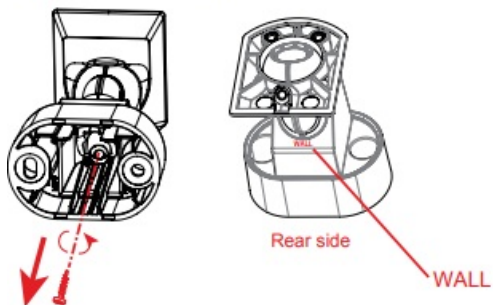
### NOTE

2 fixing screws are required for the Grade 2 and higher grade installation.

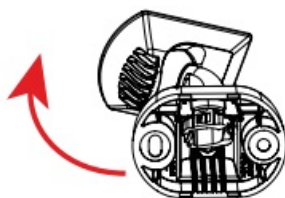
## Ceiling mount with bracket

How to change the bracket to the ceiling mounting

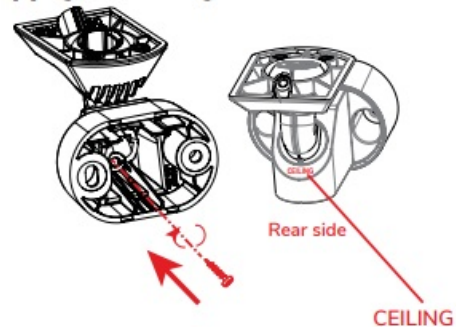
[1] Loosen the fixing screw.



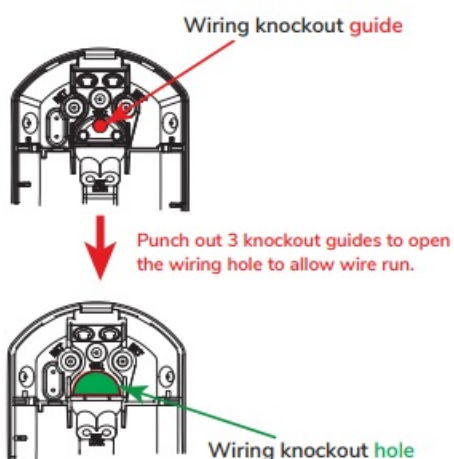
[2] Rotate the body.



[3] Tighten the fixing screw.

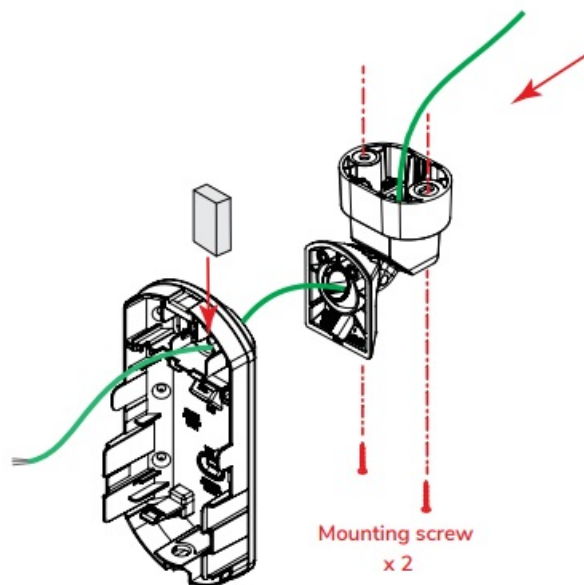


## 1. Wire and mount on the ceiling

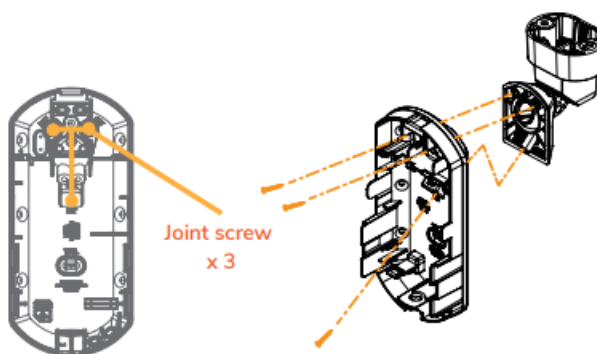


NOTE

See page 4 for how to break the knockouts.



## 2. Join the base on the bracket



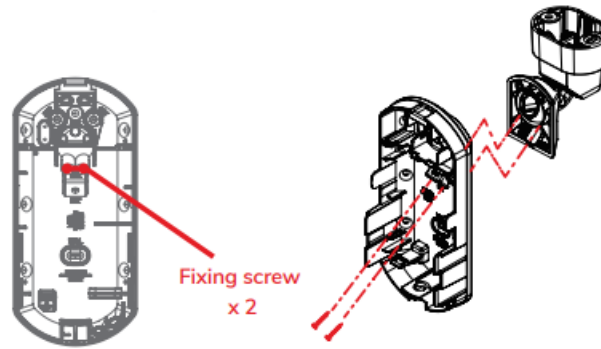
NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

## 3. Fix the base with the fixing screws (optional)





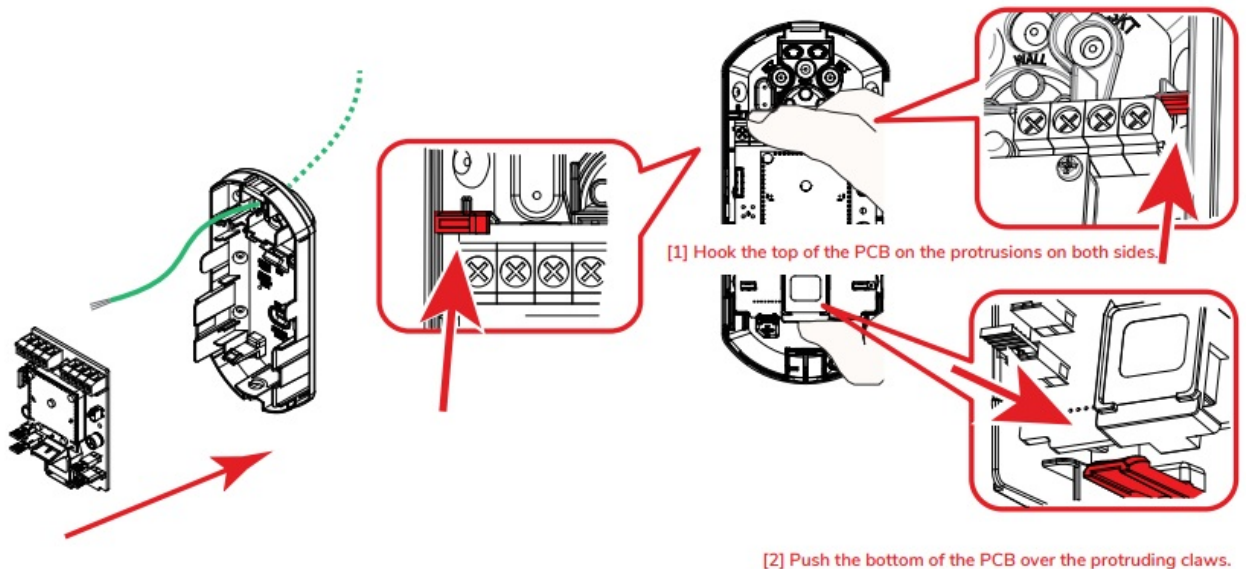
The bracket is basically jointed using 3 holes and 3 joint screws.  
Also use 2 additional fixing screws if stronger support is required.

## NOTE

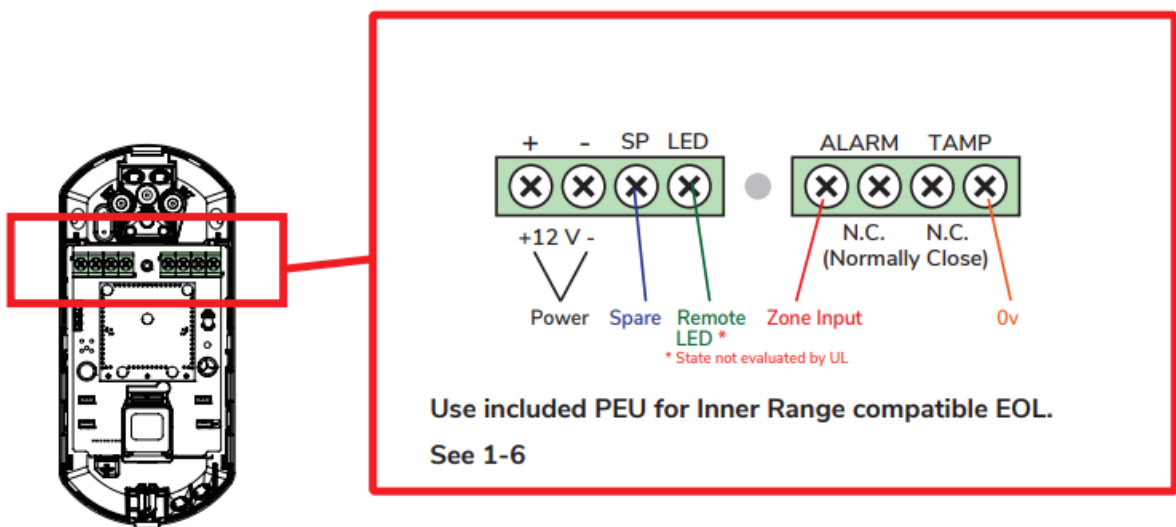
2 fixing screws are required for the Grade 2 and higher grade installation.

## Assemble and connect

1. Attach the main unit to the base



2. Connect wires to the terminal



## Power cable length

The power cable should be limited to the following length.



IR-D-P1E

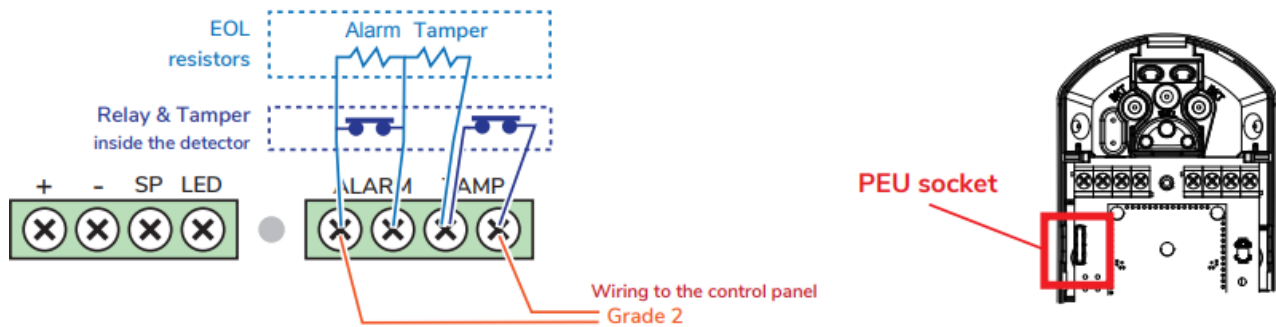
WIRE GAUGE	12 V DC	14 V DC
AWG 22 (0.33 mm²)	520 m	1,130 m
	(1,710 ft.)	(3, 718 ft.)
AWG 20 (0.52 mm²)	820 m	1,790 m
	(2,690 ft.)	(5,870 ft.)
AWG 18 (0.83 mm²)	1,320 m	2,850 m
	(4,330 ft.)	(9,350 ft.)

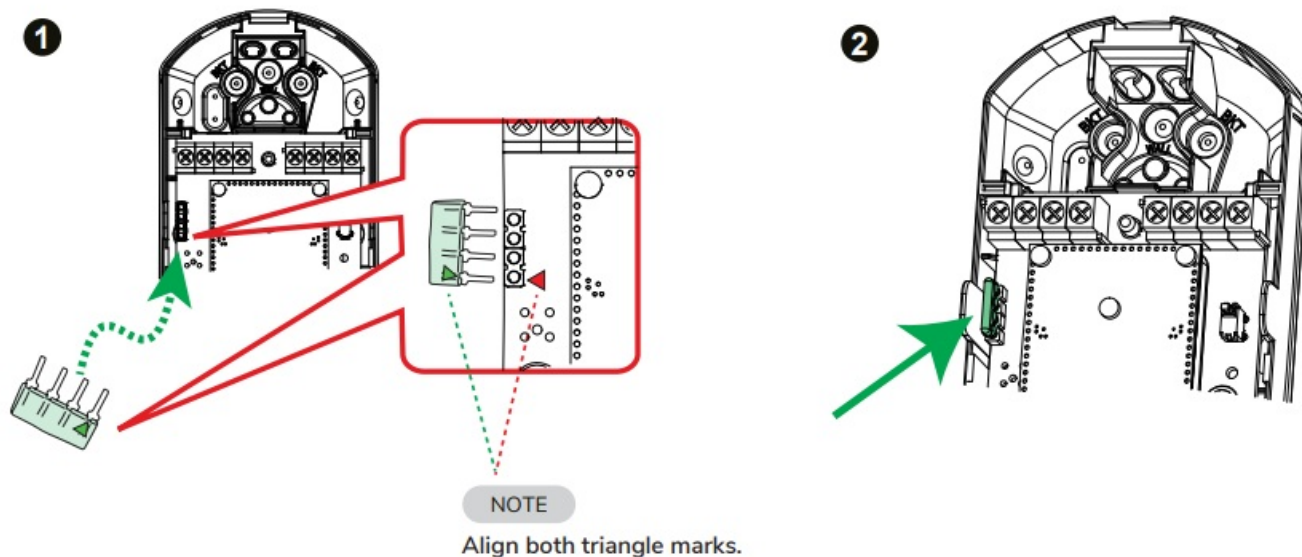
IR-D-P2E

WIRE GAUGE	12 V DC	14 V DC
AWG 22 (0.33 mm²)	410 m	890 m
	(1,350 ft.)	(2,920 ft.)
AWG 20 (0.52 mm²)	650 m	1,400 m
	(2,130 ft.)	(4,590 ft.)
AWG 18 (0.83 mm²)	1,030 m	2,240 m
	(3,380 ft.)	(7,350 ft.)

PEU settings

When using a PEU (Plug-in End of line Unit), no resistors need to be fitted.  
The PEU packaged with this detector is designed for Inner Range systems.



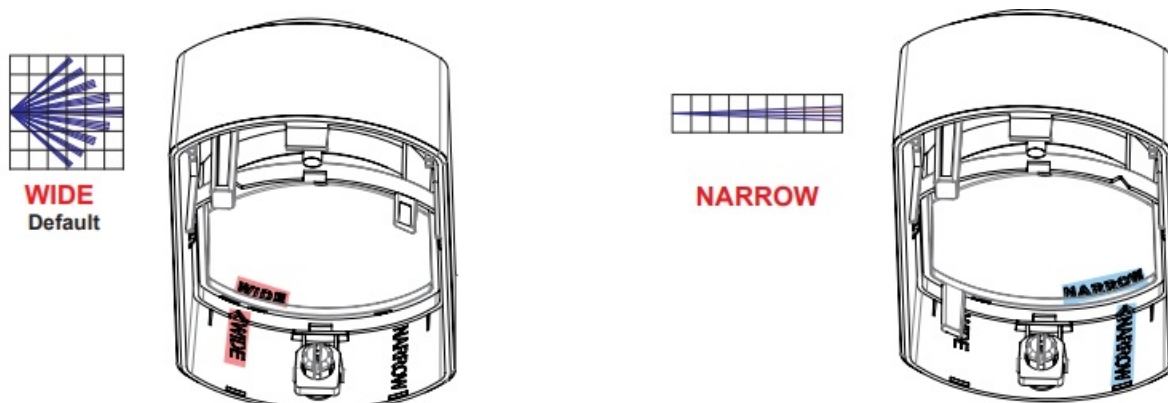


## Settings

### 2-1 Wide/Narrow setting

Set the Flip lens to “Wide” or “Narrow”

Go to 2-2 on to skip 2-1 when using the default “Wide” setting.

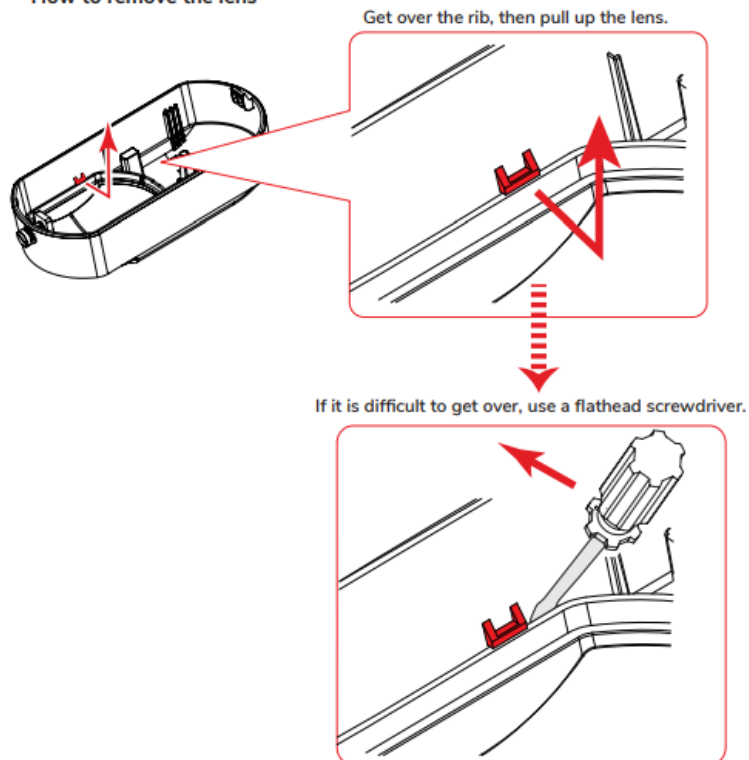


### NOTE

Install the lens so that the letters on the cover and on the lens match your intention.

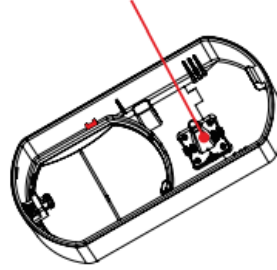
### How to remove the lens

### How to remove the lens



#### ⚠ Caution

- Be careful not to damage the light path of the LED.
- Also, be careful not to allow the light path to pinch the wiring when closing the cover.



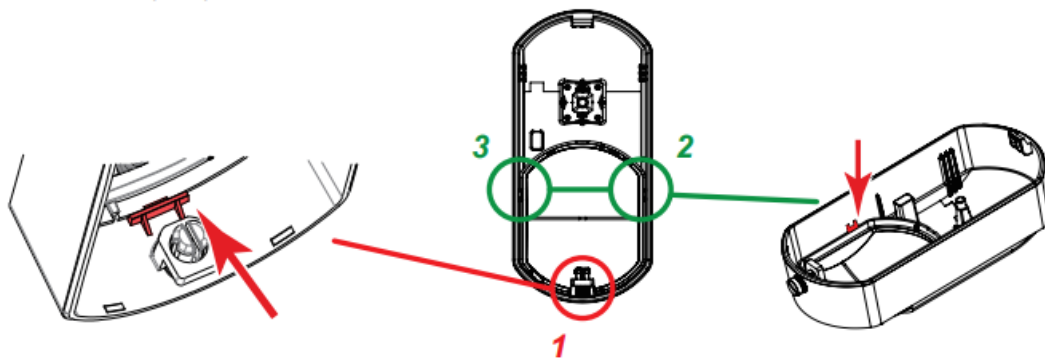
#### ⚠ Caution

- Be careful not to damage the lens with a screwdriver.

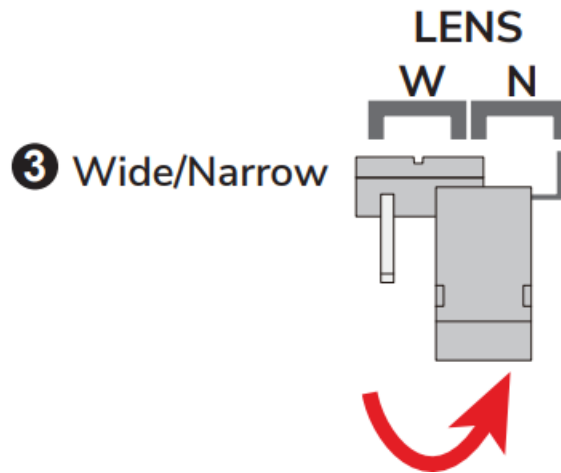
### How to install the lens

#### How to install the lens

Push the lens firmly at 3 points in **numerical order**.



Set the jumper pin to "Wide" or "Narrow"



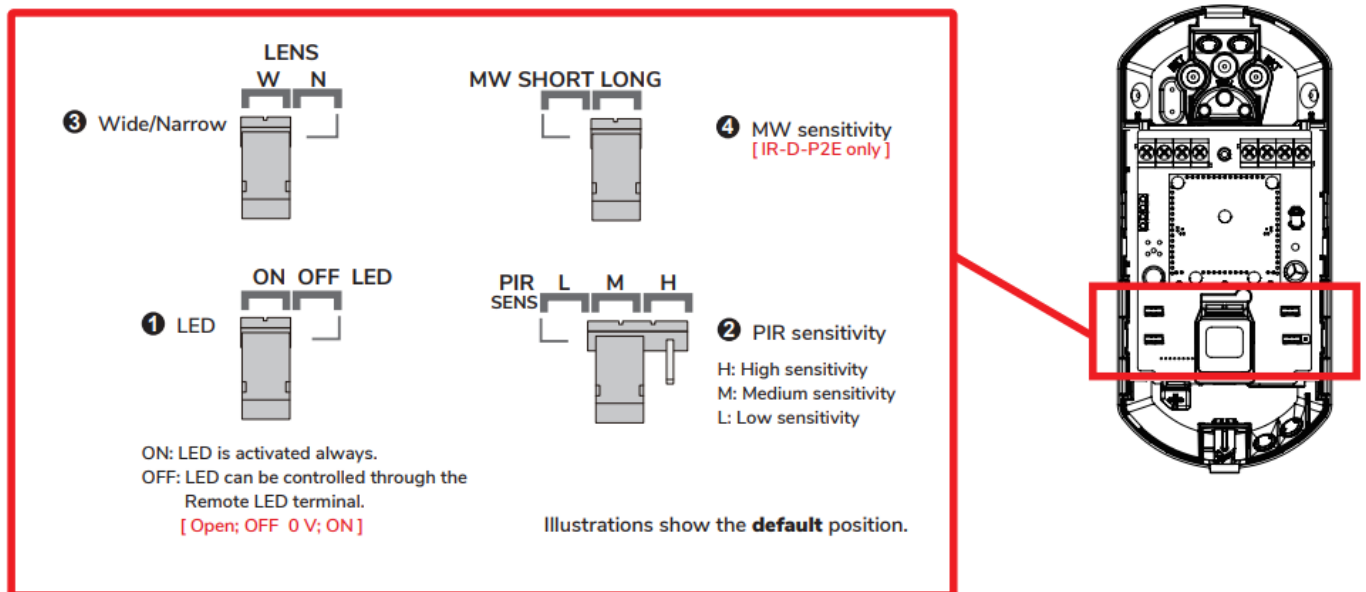
### Caution

The jumper pin must be “Narrow”, when the lens is set to “Narrow”.

### NOTE

- Default setting is “Wide”.
- When “Narrow” is selected, MW detection will be disabled.

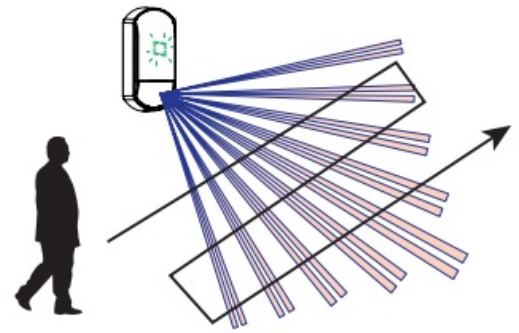
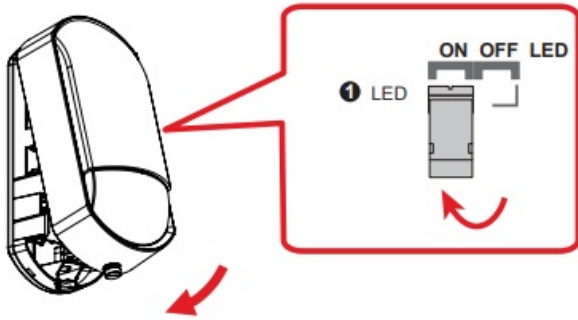
## 2-2. Jumper pin settings



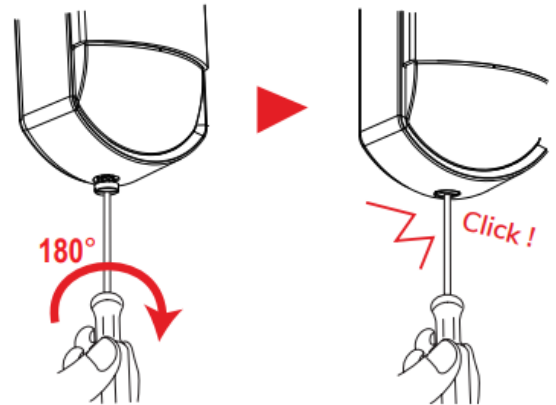
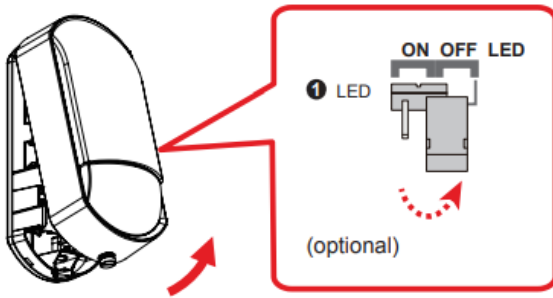
## Checking

### Walk test

1. Confirm that the LED pin is “ON” , then close the cover.
2. Walk in the detection area to check the detecting performance via LED indication.



3. Return the LED pin to “OFF” after the walk test, if necessary. 4 Lock the cover



## NOTE

Conduct a walk test at least once a year.

## Other

## Specifications

Model		IR-D-P1E	IR-D-P2E / UK
Installation			
Detection method		Passive infrared	Passive infrared and Microwave
Coverage		Wide 15 m (50 ft.) 85°/ Narrow 24 m (80 ft.) 5° ( No MW detection at “Narrow” setting )	
Detection zones		Wide: 78 zones/ Narrow: 18 zones	
Mounting height		2.0 to 3.0 m (6’7” to 9’8”)	
Alarm period		2.0 ± 0.5 s	
Warm-up period		Approx. 60 s (LED blinks)	
LED indicator		Switchable ON/OFF Green: [1] Warm-up [2] Alarm	
Electrical			
Power input		9.5 to 16 V DC UL *	
Current draw		8 mA (normal) 11 mA (max.) at 12 V DC	11 mA (normal) 14 mA (max.) at 12 V DC
Relay output	Alarm	N.C. 24 V DC 0.1 A max. (Resistive load)	
	Tamper	N.C. 24 V DC 0.1 A max. (Resistive load) (Open when the cover is removed.)	
Remote LED		Terminal: open = OFF 0 V = ON	
Environmental			
Operation temperature		-20°C to +50°C(-4°F to +122°F)	-20°C to +45°C(-4°F to +113°F)
Temperature compensation		Digital (SMDA)	
Environmental humidity		95% max.	
RF interference		No alarm 10 V/m	
Mechanical			
Dimension		H: 129.2 x W: 61.5 x D: 50.9 mm (H: 5.09” x W: 2.42” x D: 2.00”)	
Weight		Approx. 95 g (3.35 oz) (with Bracket : Approx. 125 g (4.41 oz))	Approx. 110 g (3.88 oz) (with Bracket : Approx. 140 g (4.94 oz))
Mounting		Wall, Corner (Indoor) (with Bracket : Wall, Corner, Ceiling)	

- Specifications and designs are subject to change without prior notice.

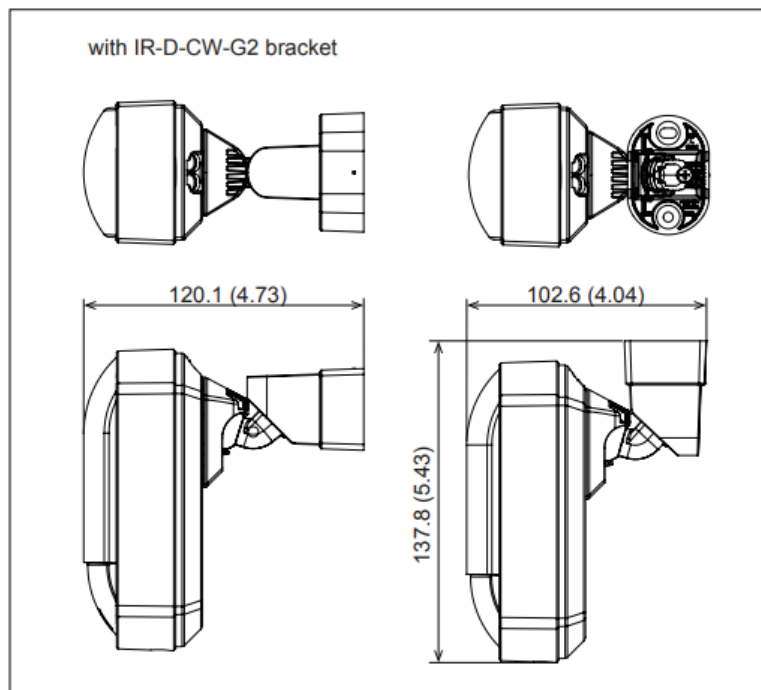
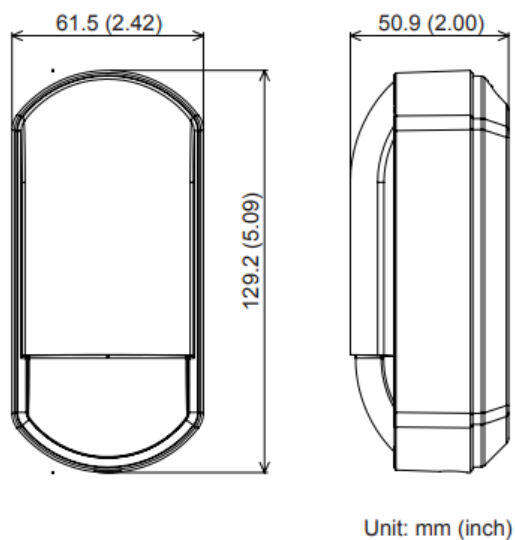


- These units are designed to detect an intruder and activate an alarm control panel.

Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.

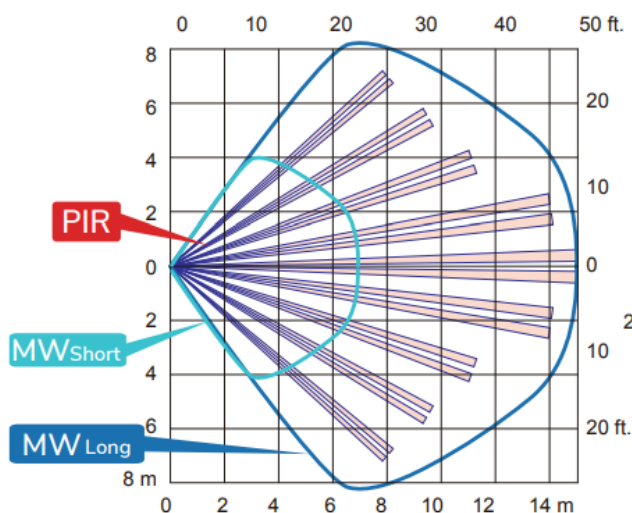
UL \* Shall be powered via a UL listed burglar alarm class 2 output power limited power supply that has a min standby power of 4 hrs.

## Dimensions

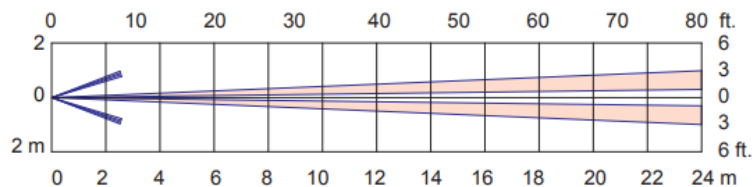


## Detection area

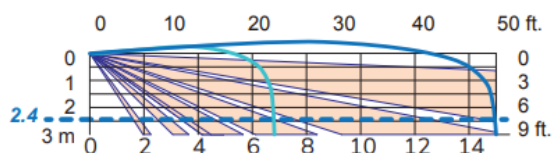
Wide - Top view -



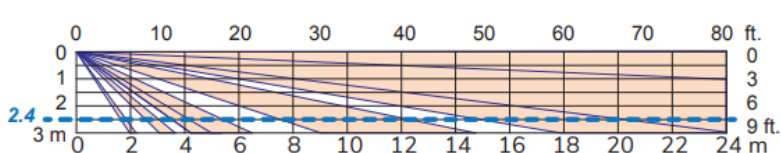
Narrow - Top view -



Wide - Side view -



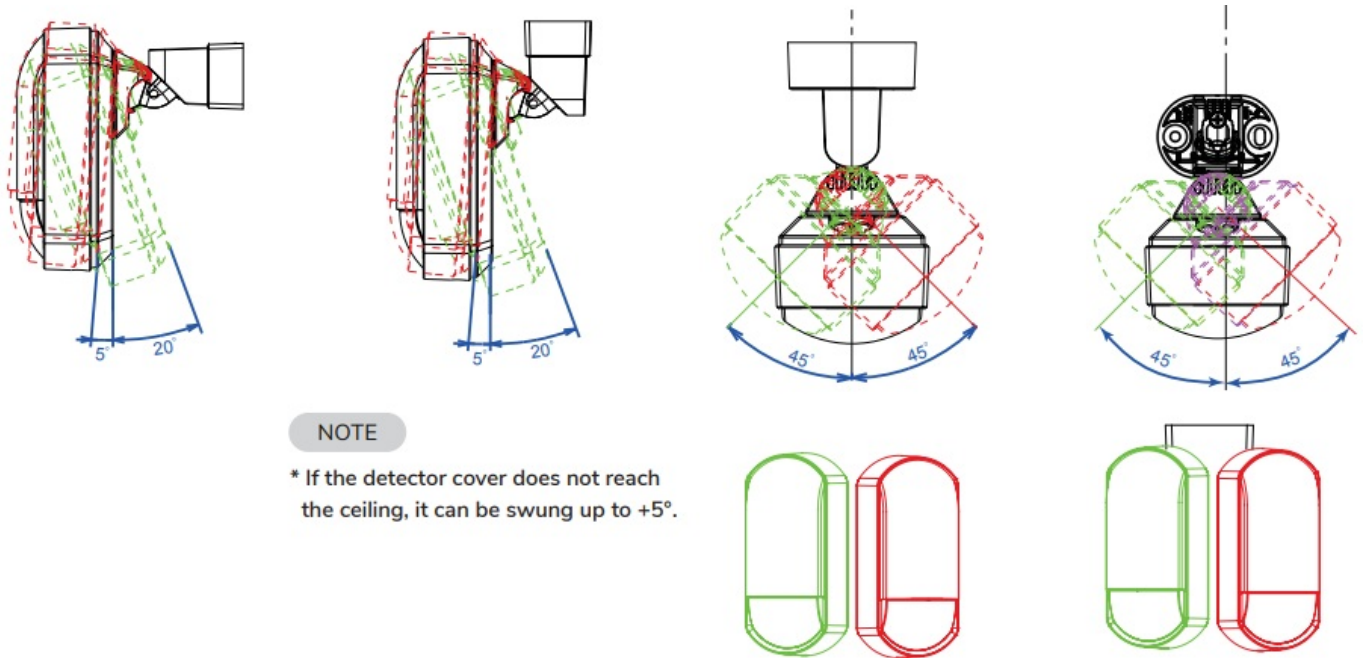
Narrow - Side view -



## NOTE

- The \* 2.4 m dotted line indicates the recommended mounting height.
- When “Narrow” is selected at the jumper pin, MW detection will be stopped.

### Angle adjustment with bracket IR-D-CW-G2



## Compliance

### RE Directive 2014/53/EU

- IR-D-P2E and IR-D-P2E-UK comply with RE Directive 2014/53/EU.
- Microwave emission Frequency and Power
  - IR-D-P2E: 10.525 GHz 15.78 mW e.i.r.p
  - IR-D-P2E-UK: 10.587 GHz 8.93 mW e.i.r.p
- The following list indicates the areas of intended use of the equipment and any known restrictions.  
For countries not included in this list, please consult the responsible Spectrum Management Agency.
  - 10.525 GHz: Belgium, Denmark, Finland, Germany, Greece, Italy, Luxembourg, The Netherlands, Spain, Sweden, Iceland, Norway, Switzerland
  - 10.587 GHz: Belgium, France, Germany, Ireland, Luxembourg, The Netherlands, United Kingdom
- IR-D-P2E and IR-D-P2E-UK also comply with EU radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.

### UK Radio Equipment Regulations 2017

- IR-D-P2E-UK also comply with UK radiation exposure limits set forth for an uncontrolled environment.  
This equipment should be installed and operated with minimum distance 20 cm between the radiator & your body.
- The radio equipment type IR-D-P2E-UK is in compliance with Radio Equipment Regulations 2017.

## **FCC/IC**

- This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
  - This device may not cause harmful interference, and
  - This device must accept any interference received, including interference that may cause undesired operation.
- This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:
  - This device may not cause interference.
  - This device must accept any interference, including interference that may cause undesired operation of the device
- The end user has to also be informed that any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate this equipment.

EN 50131-1 Grades and Environmental Class; Security Grade 2, Environmental Class II Applied Standards; EN 50131-2-2 (IR-D-P1E), EN 50131-2-4 (IR-D-P2E and IR-D-P2E-UK ) Tested and certified by Kiwa PD6662:2017

### **Global Headquarters**

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1 Millennium Court, Knoxfield, Victoria, 3180, Australia

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Plot No S20141, PO Box 16854  
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2301 Patriot Blvd  
Glenview, IL 60026

### **Inner Range Canada**

200 Foster Crescent Mississauga, Ontario, Canada L5R-3Y5

### **Inner Range United Kingdom**

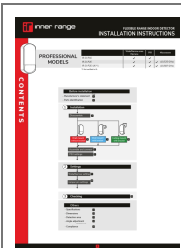
Units 10-11 Theal Lakes Business Park Moulden Way, Reading, Berkshire RG74GB

### **Inner Range India**

National Sales Office 95 Brigade Road, Bangalore, 560 025 India

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## **Documents / Resources**



[inner Range IR-D-P1E IR Detector Passive PIR Technology](#) [pdf] Installation Guide  
IR-D-P1E, IR-D-P2E, IR-D-P2E-UK, IR-D-P1E IR Detector Passive PIR Technology, IR-D-P1E,  
IR Detector Passive PIR Technology, Passive PIR Technology, PIR Technology, Technology

References

- [User Manual](#)

Manuals+, Privacy Policy

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