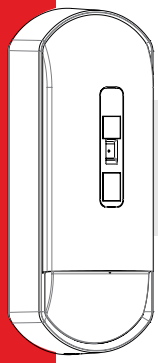
FLEXIBLE RANGE INDOOR DETECTOR

INSTALLATION INSTRUCTIONS



ADVANCED MODELS

	Wide/Narrow area Flip lens	PIR	Anti-masking	Microwave
IR-D-P3E	✓	✓	✓	✓ (10,525 GHz)
IR-D-P3E-UK *1	✓	✓	✓	✓ (10,587 GHz)

*1 Not certified to UL

CONTENTS

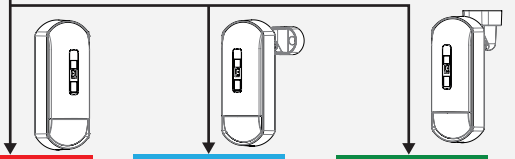
Before installation

Page

- Manufacturer's statement 2
- Parts identification 3
- Anti-masking 3

1 Installation

Disassemble 4



Wall mount without bracket 5

Wall mount with bracket 6

Ceiling mount with bracket 7

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2 Settings

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Volume setting 12

Down zone ON/OFF 12

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- Events and responses 15
- LED indications 15
- Dimensions 15
- Detection area 16
- Angle adjustment 16
  with bracket IR-D-CW-G2/-G3
- Compliance 17

Before installation

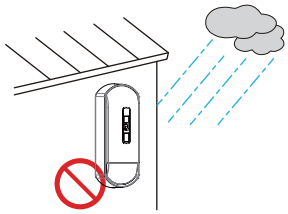
- Manufacturer's statement

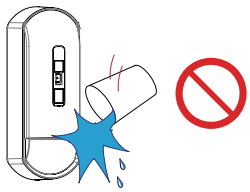
Symbol	Meaning
⚠ Warning	Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.
⚠ Caution	Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.

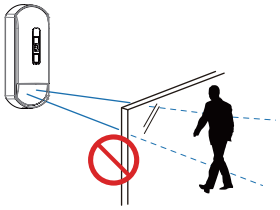
Symbol	Meaning
✓	Check mark indicates recommendation.
⊘	Nix sign indicates prohibition.
NOTE	Special attention is required to the section of this symbol.

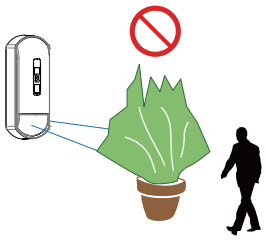
⚠ Warning


Destroy /Modify

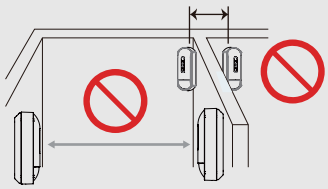

Outdoor installation


Wetting with water


Detection through glass

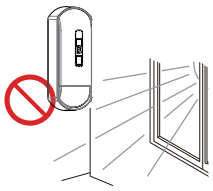

Partial/complete obscuration of the detection area.

[IR-D-P3E only]



Face to face/Back interference

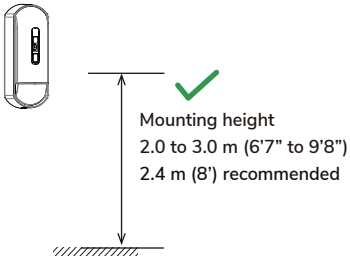
⚠ Caution

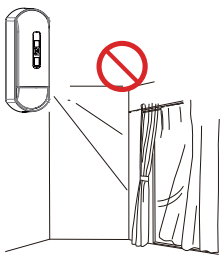


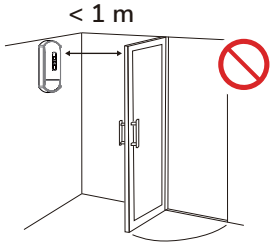


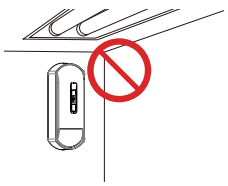






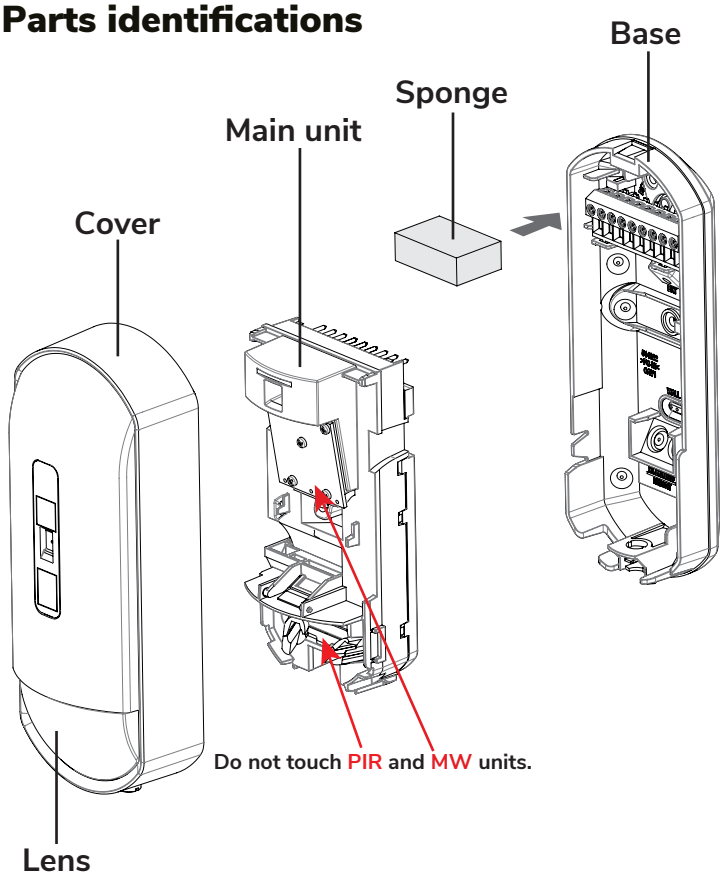







Follow to the regulations

- Parts identifications



Accessories



Mounting screw x 2

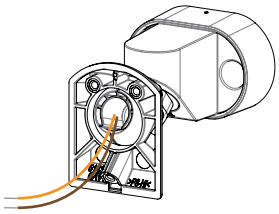


Wall tamper screw x 1

Options

IR-D-CW-G3 *: Bracket for wall/ceiling mount

with tamper switch





Mounting screw x 2

Joint screw x 3

Fixing screw x 2

*** Not certified to EN 50131-2-4**

- Anti-masking

Overview of anti-masking

If the front of the lens is covered with obstacles over 20 seconds, an alarm and trouble will be output.

Sensitivity setting

(Refer to “2-3 Dip switch/Volume settings” - ❹❺ Anti-masking sensitivity”)

Normally, use it in “Middle” .

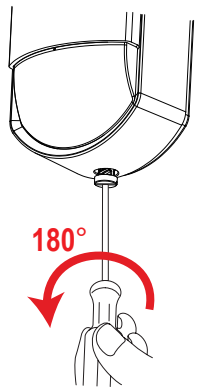
Select the “High” setting if required by any standards or sensitivity is insufficient.

If there are many false alarms, you can use “Low” , but please note that it may not be output depending on the materials and colors of the obstacles.

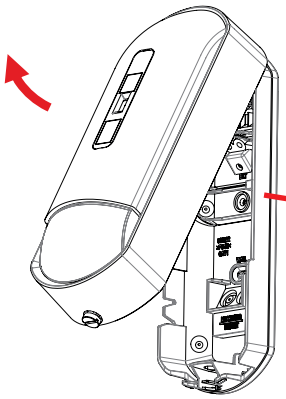
1 Installation

1-1. Disassemble

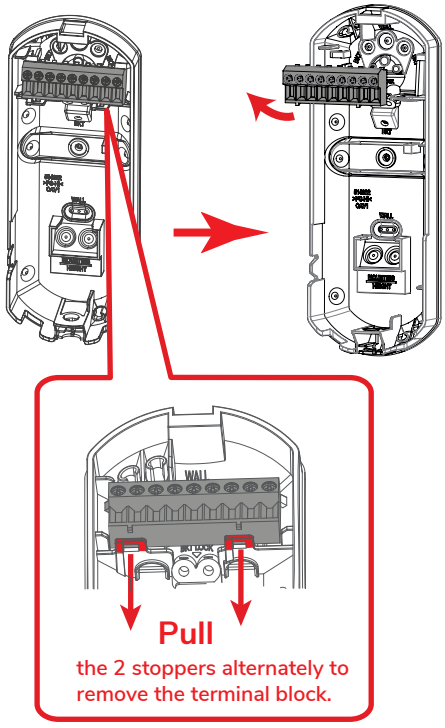
1 Unlock the cover



2 Open the cover



3 Remove the terminal block



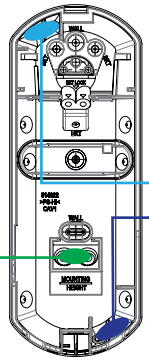
NOTE You do not need to remove the terminal block if it does not interfere with the mounting of the base.

1-2. Wall mount without bracket

1 Wire through the base

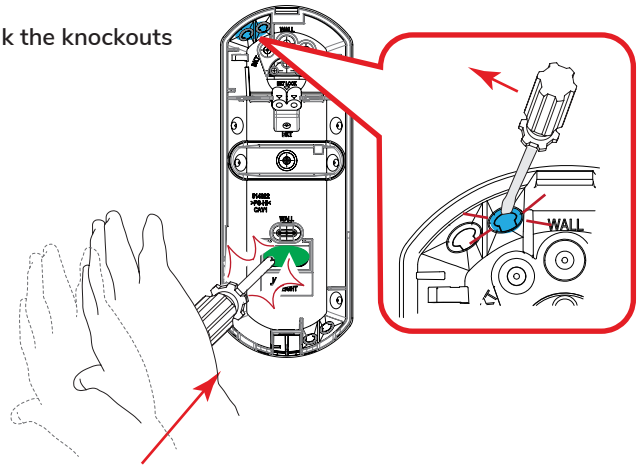
Wiring knockouts

For Wall/ Corner mount
Hidden wiring



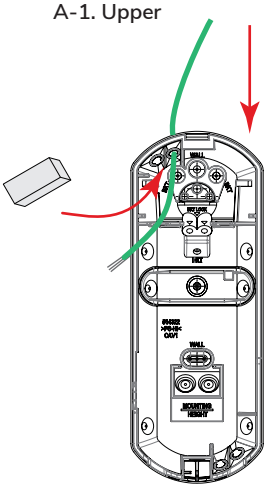
For Wall/ Corner mount
Surface wiring
: Upper
: Lower

How to break the knockouts

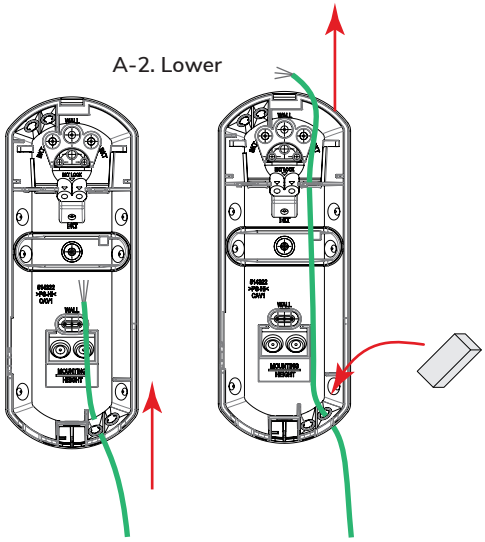


A. Surface wiring

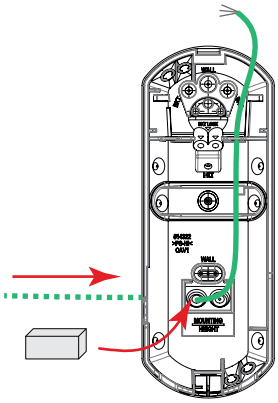
A-1. Upper



A-2. Lower

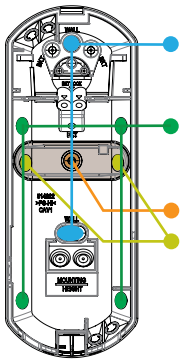


B. Hidden wiring



2 Mount the base

Mounting holes

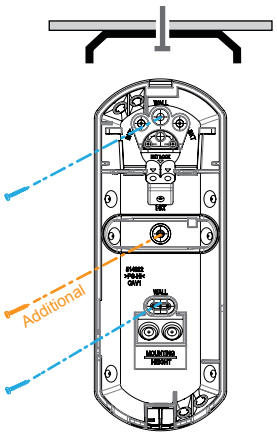


For Wall mount

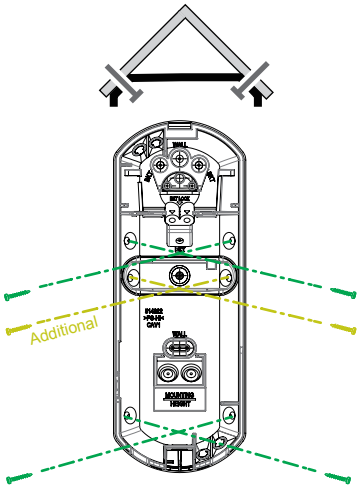
For Corner mount

Additional holes for tamper protect
for wall mount or
for corner mount
If the device is intentionally removed from the mounting position, the brown colored part will be cracked and remained on the wall.
The tamper switch will be operated.

a. Wall mount



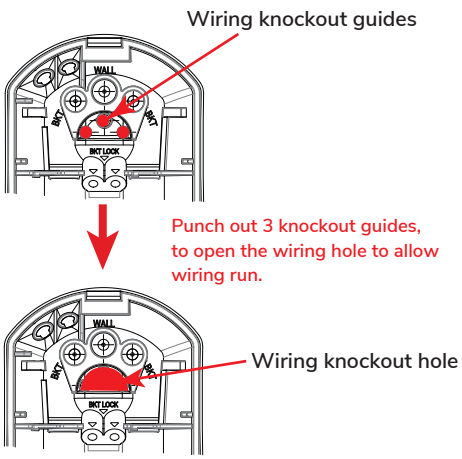
b. Corner mount

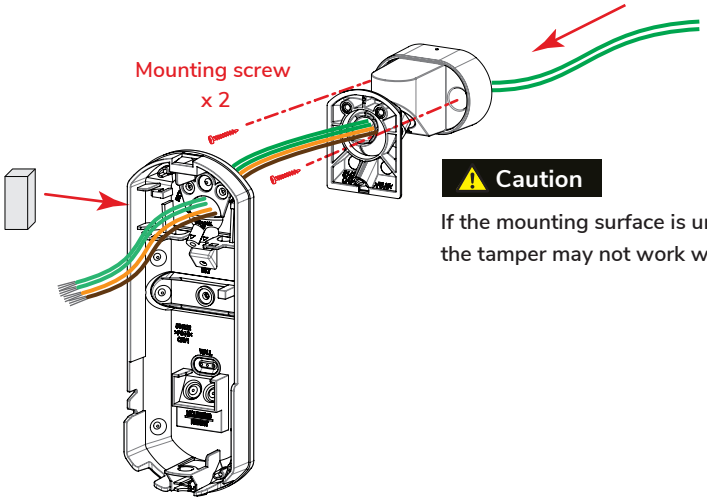


Go to Page 8

1-3. Wall mount with bracket

1 Wire and mount on the wall





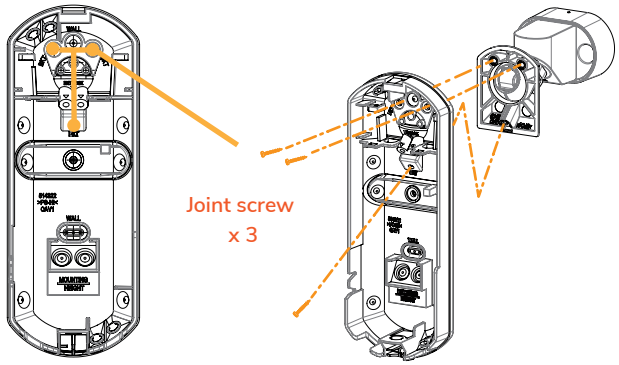
⚠ Caution

If the mounting surface is uneven, the tamper may not work well.

NOTE

See page 5 for how to break the knockouts.

2 Join the base on the bracket



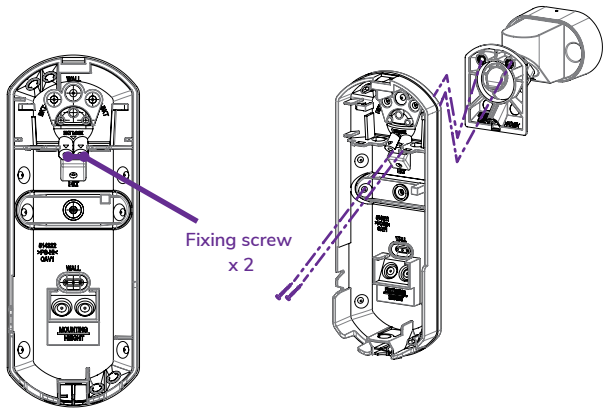
NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

--> Refer to “3-1. Walk test”

3 Fix the base with the fixing screws



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

NOTE

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

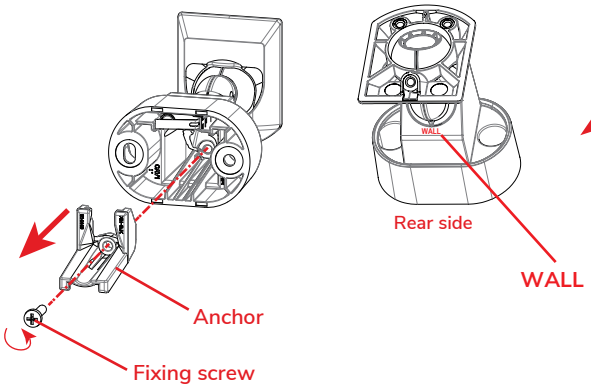
*Grade 2 not evaluated by UL

Go to Page 8

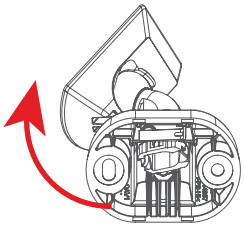
1-4. Ceiling mount with bracket

How to change the bracket to the ceiling mounting

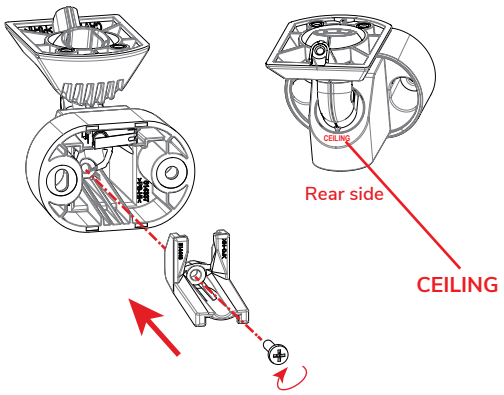
[1] Remove the fixing screw and the anchor.



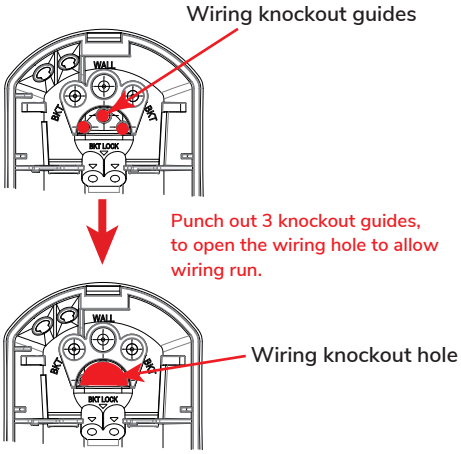
[2] Rotate the body.



[3] Insert the anchor and tighten the fixing screw.



1 Wire and mount on the ceiling

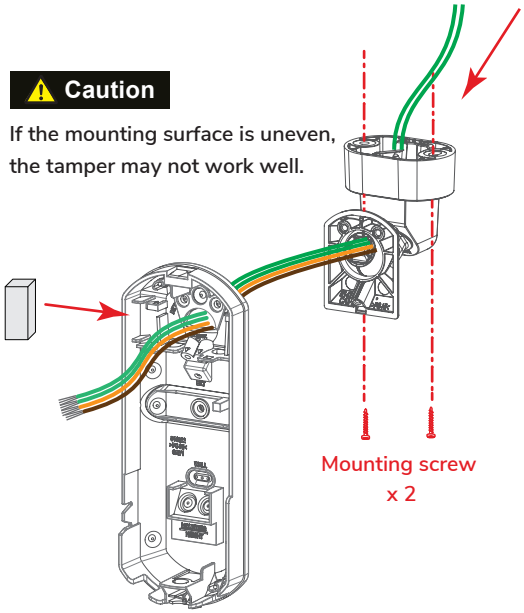


NOTE

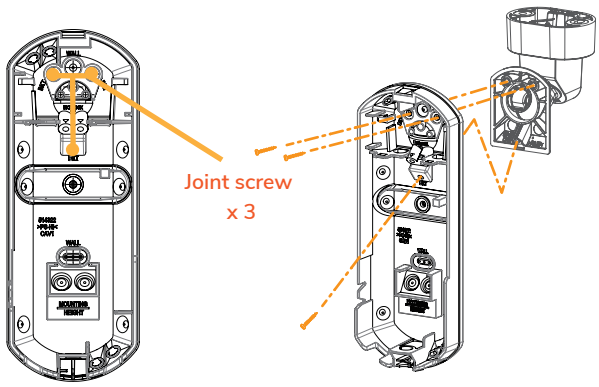
See page 5 for how to break the knockouts.

⚠ Caution

If the mounting surface is uneven, the tamper may not work well.



2 Join the base on the bracket



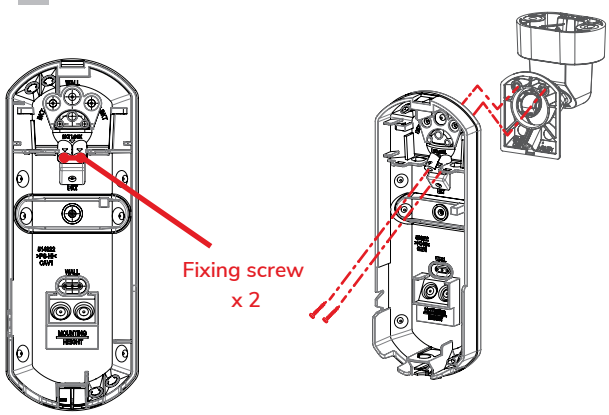
NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

--> Refer to “3-1. Walk test”

3 Fix the base with the fixing screws



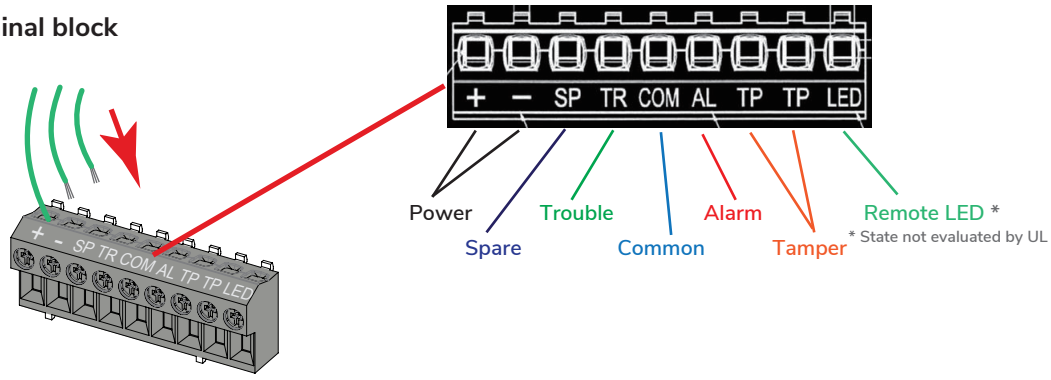
The bracket is basically jointed using 3 holes and 3 joint screws.
Also use 2 additional fixing holes if a stronger fixation is required.

NOTE

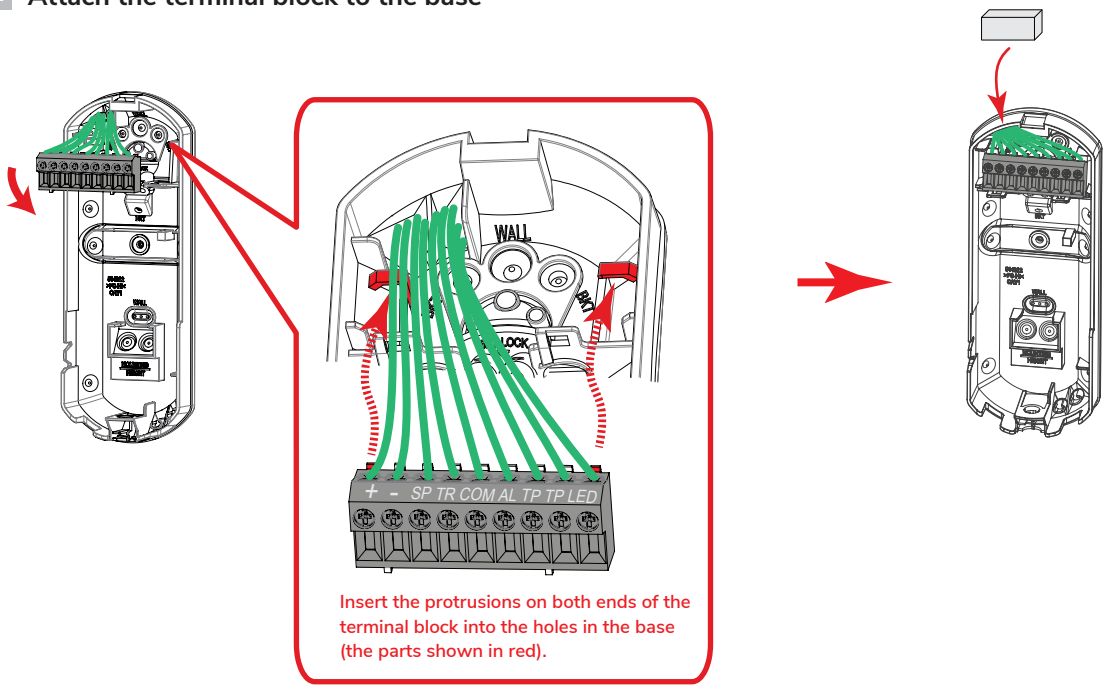
2 fixing screws are required for the Grade 2* and higher grade installation.

*Grade 2 not evaluated by UL

1 Wire to the terminal block



2 Attach the terminal block to the base



Power cable length

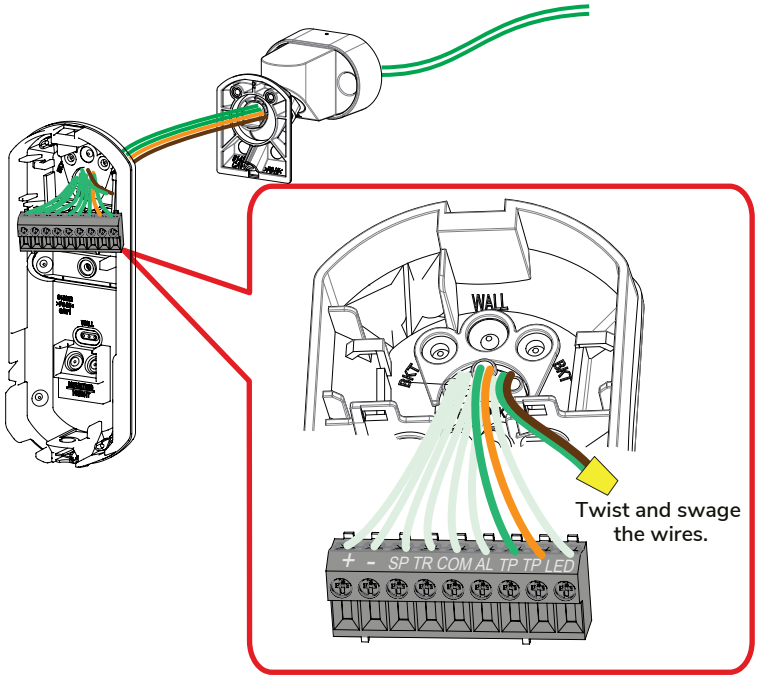
The power cable should be limited to the following length.

IR-D-P3

WIRE GAUGE	12 V DC	14 V DC
AWG 22 (0.33 mm²)	270 m (890 ft.)	590 m (1,940 ft.)
AWG 20 (0.52 mm²)	430 m (1,410 ft.)	940 m (3,080 ft.)
AWG 18 (0.83 mm²)	690 m (2,260 ft.)	1,490 m (4,890 ft.)

NOTE

How to wire to the tamper switch on the IR-D-CW-G3.

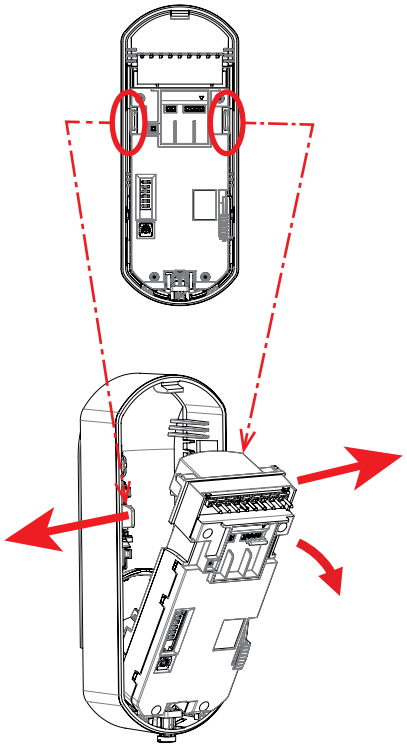


2 Settings

2-1. Wide/Narrow setting

Go to 2-2 on Page 11 to skip 2-1 when using the default “Wide” setting.

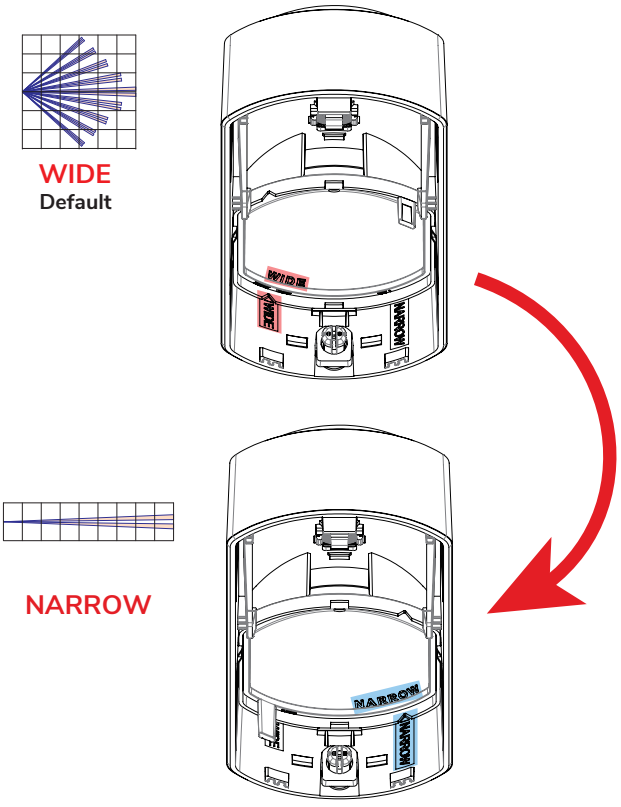
1 Remove the main unit



NOTE

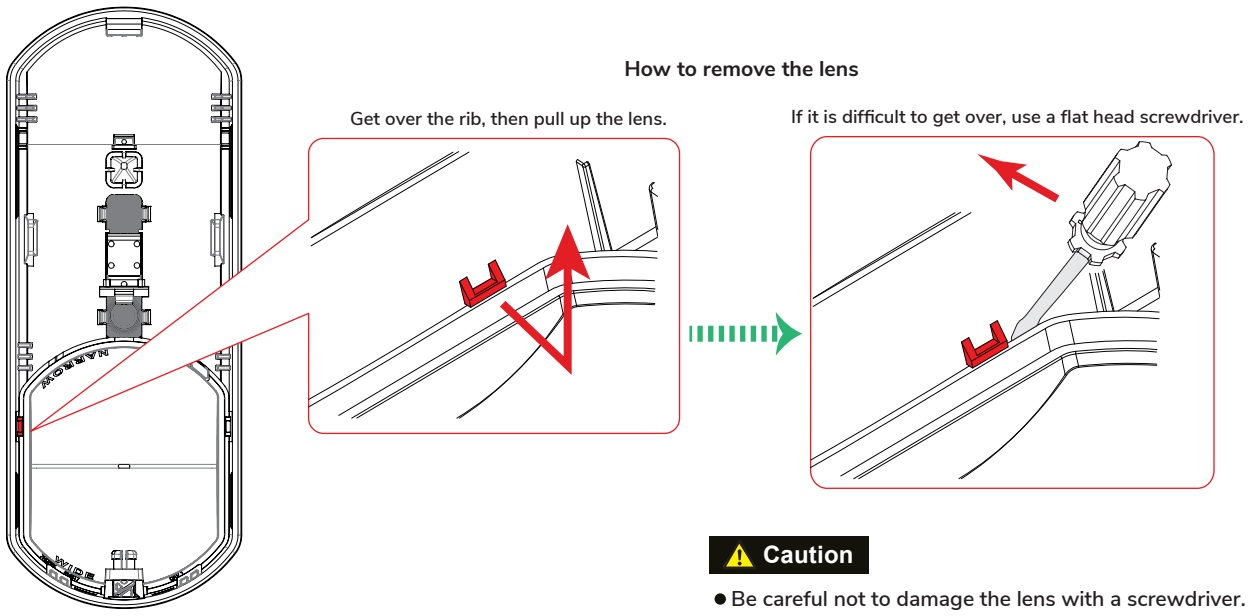
- Opening the hooked part as the red arrows indicate makes it easy to take out the main unit.

2 Change the Flip lens from “Wide” to “Narrow”



NOTE

- Install the lens so that the letters on the cover and on the lens match your intention.
- By changing the lens setting, the internal circuit automatically switches between Narrow and Wide.

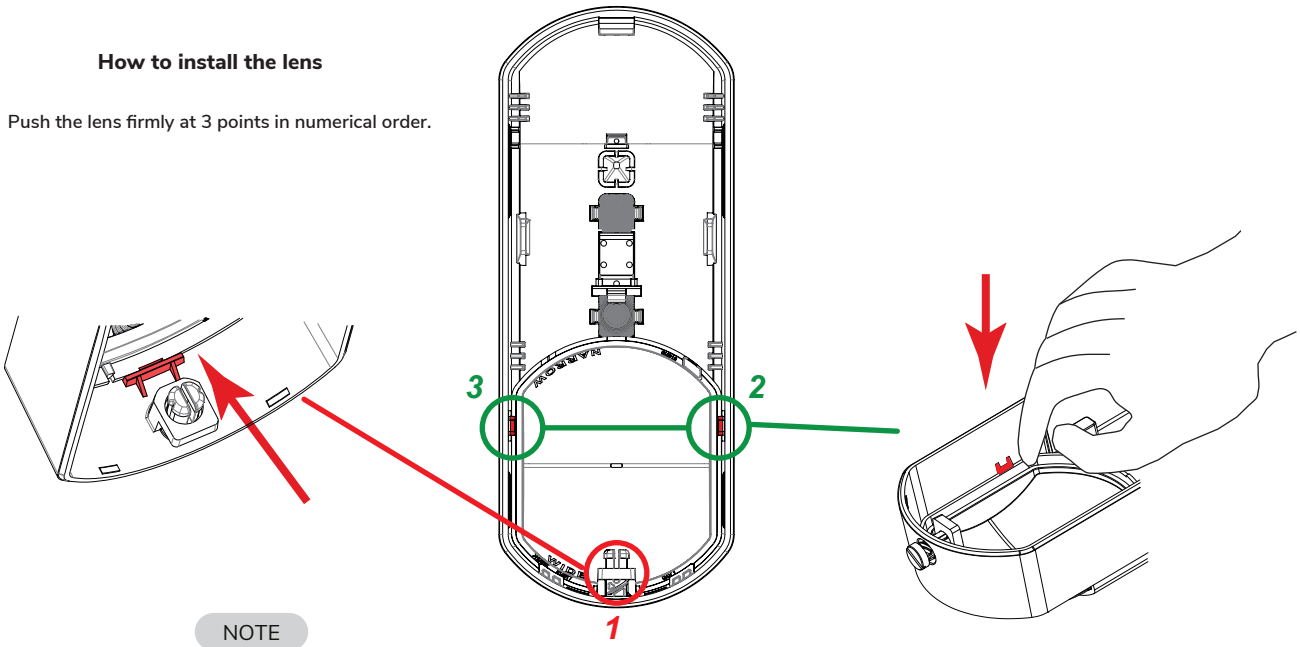


⚠ Caution

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

How to install the lens

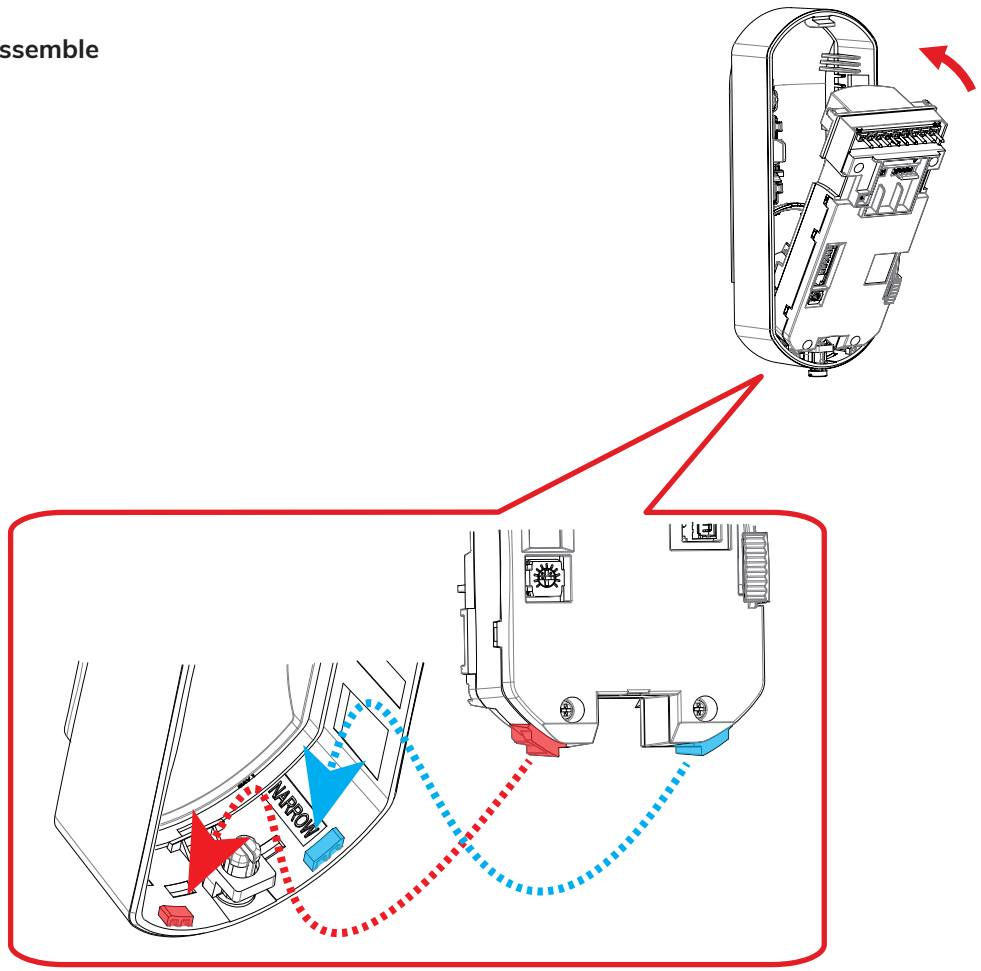
Push the lens firmly at 3 points in numerical order.



NOTE

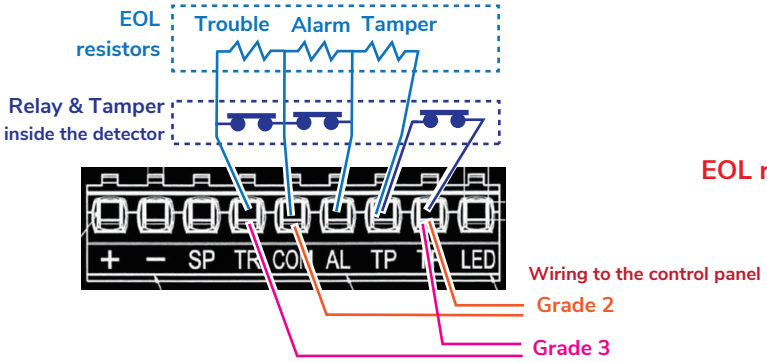
- By changing the lens, the internal settings of “Wide” and “Narrow” are automatically switched. It is not necessary to change the settings such as DIP switches.
- When the lens is set to the “Narrow” position, MW detection will be disabled automatically.

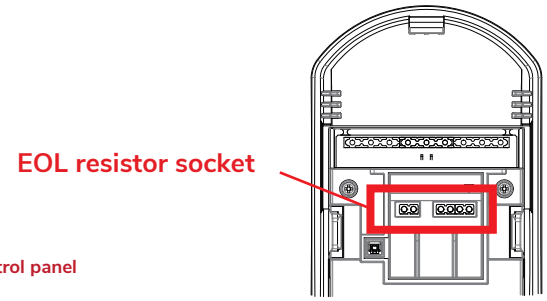
3 Assemble



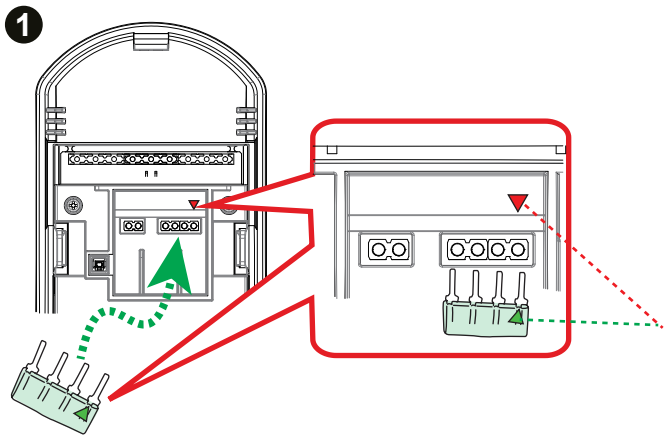
2-3. EOL settings

The Detector comes pre-fitted with a PEU (Plug-in End of line Unit) suitable for Inner Range systems. This means that no resistors need to be installed.

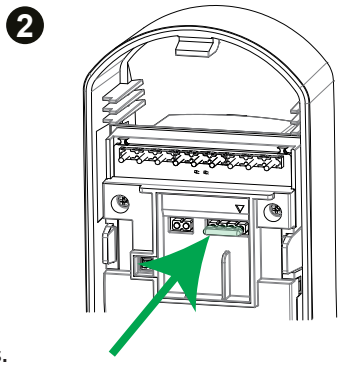




[1] The following shows how to re-insert the PEU (Plug-in End of line Unit) if it has been removed.

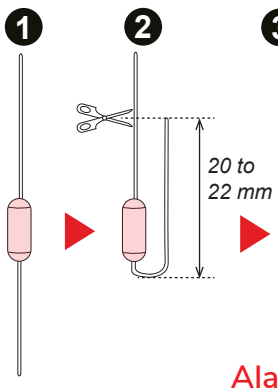


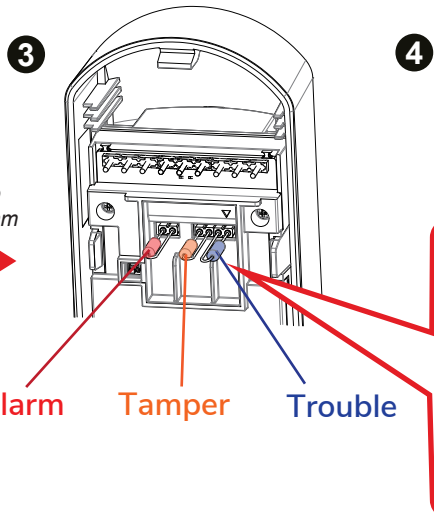
NOTE
Align both triangle marks.



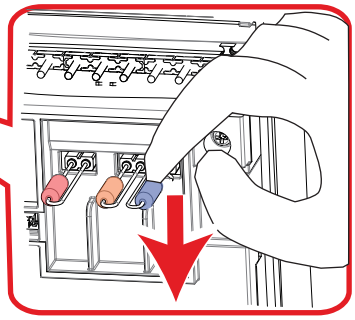
[2] To use this detector on a non-Inner Range system, remove the PEU and follow the below instructions to insert resistors (not included) that are required by that system

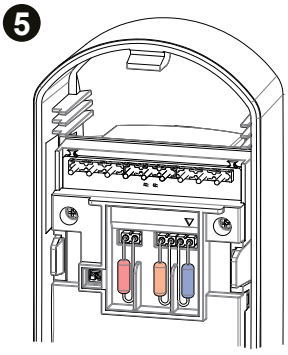
Not evaluated by UL in case of using EOL resistors





4 Push and bend the lead wire by hand so that the resistors fit in the case.





2-3. DIP switch settings

❶ LED — OFF / ON

ON: LED is activated always.
OFF*: LED can be controlled through the Remote LED terminal.
[Open; OFF 0 V; ON]
* Certified to EN when set to "OFF"

❷ ❸ PIR sensitivity

Low	Middle*	High*	Super High*
2 OFF, 3 OFF	2 ON, 3 OFF	2 OFF, 3 ON	2 ON, 3 ON

* certified to EN

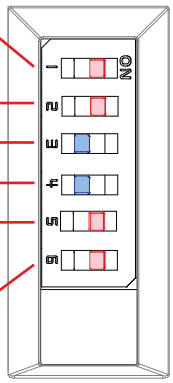
❹ ❺ Anti-masking sensitivity

OFF	Low	Middle	High*
4 OFF, 5 OFF	4 ON, 5 OFF	4 OFF, 5 ON	4 ON, 5 ON

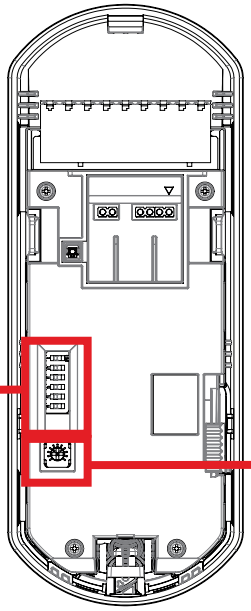
* certified to EN

❻ PIR MW LED — OFF* / ON

* IR-D-P3E complies EN50131-2-4 when set to "OFF"



NOTE
Above Illustration shows the **default** position.



2-4. Volume setting

Microwave sensitivity

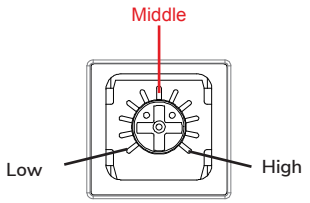
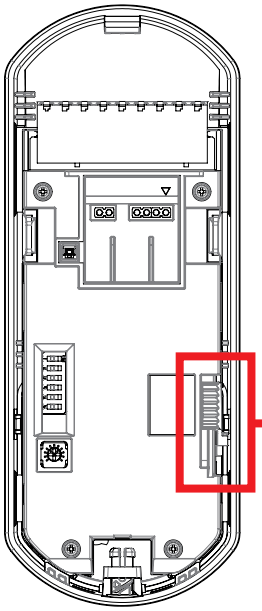
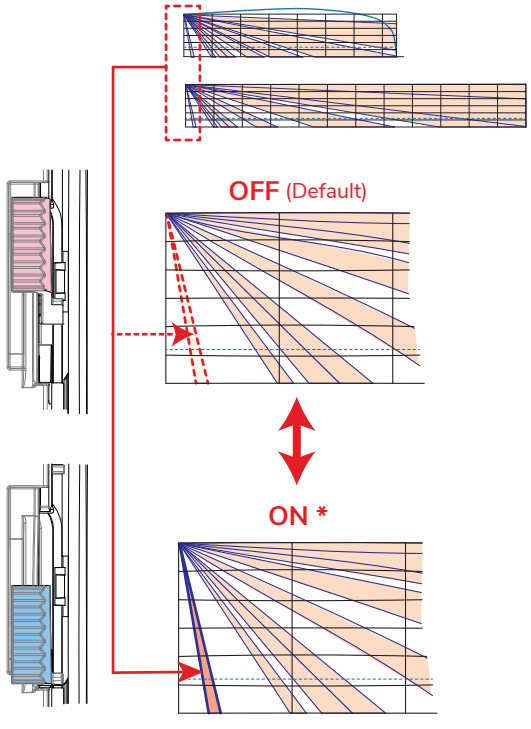


Illustration shows the default position.



2-5. Down zone ON/OFF

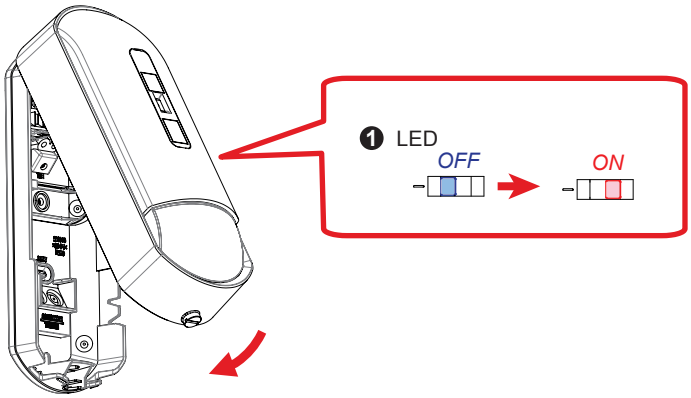


* It must be set ON for Grade 3 (Not evaluated by UL).

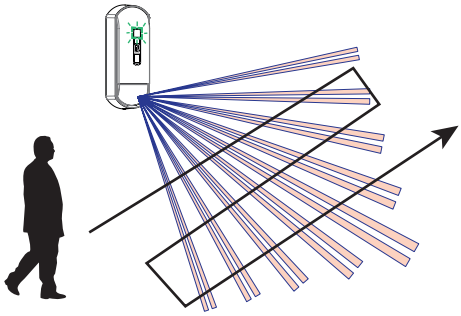
3 Checking

3-1. Walk test

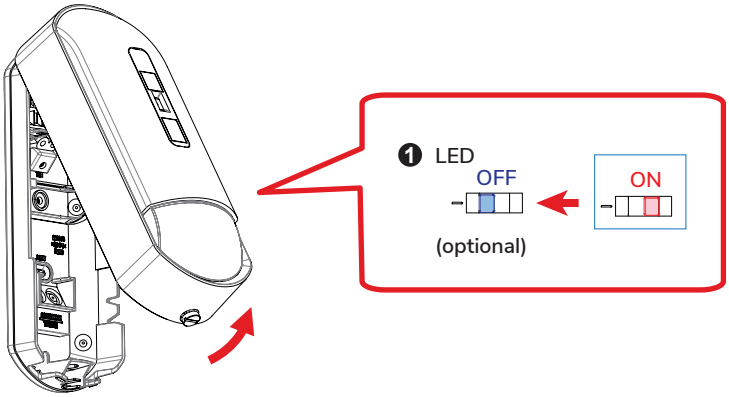
1 Confirm that the LED switch is “ON” , then close the cover.



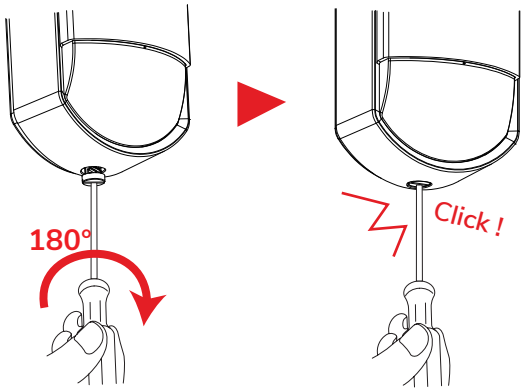
2 Walk in the detection area to check the detecting performance via LED indication.



3 Return the LED switch to “OFF” after the walk test, if necessary.



4 Lock the cover



NOTE

Conduct a walk test at least once a year.

- Specifications

Models		IR-D-P3E / UK
Installation		
Detection method		Passive infrared and Microwave UL ***
Coverage		Wide：15 m (50 ft.) 85°, Narrow：24 m (80 ft.) 5° (No MW detection at "Narrow" setting)
Detection zones		Wide: 80 zones/ Narrow: 20 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 UL **		Switchable ON/OFF Multiple: Warm-up Green: Alarm and Masking detection Purple: PIR detection Yellow: Microwave detection and self test error Red: Low voltage
Electrical		
Power input		9.5 to 16 V DC UL *
Current draw		16 mA (normal) 21 mA (max.) at 12 V DC
Relay output	Trouble	N.C. 24 V DC 0.1 A max. (Resistive load)
	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℃ to +45℃(-4°F to +113°F)
Temperature compensation		Digital (SMDA)
Environmental humidity		95% max.
RF interference		No alarm 10 V/m
Mechanical		
Dimension		H: 159.1 x W: 62.2 x D: 55.7 mm (H: 6.26" x W: 2.45" x D: 2.19")
Weight		Approx. 200 g (7.05 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

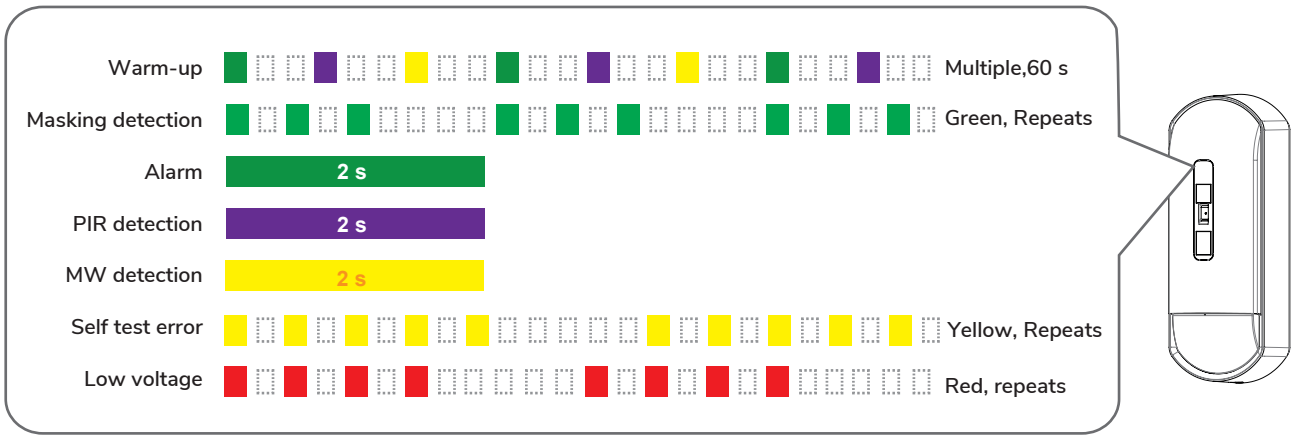
**When DIP Switch 1 is turned off, all LED indications except Warm-up period are turned off. When DIP Switch 6 is turned off, LED indications for PIR and MW detections are turned off (Others, includes Self test error, stay ON).

*** When Microwave is enabled for UL compliance, it shall be set to high sensitivity. Setting to a lower sensitivity may impact and lessen range of the unit.

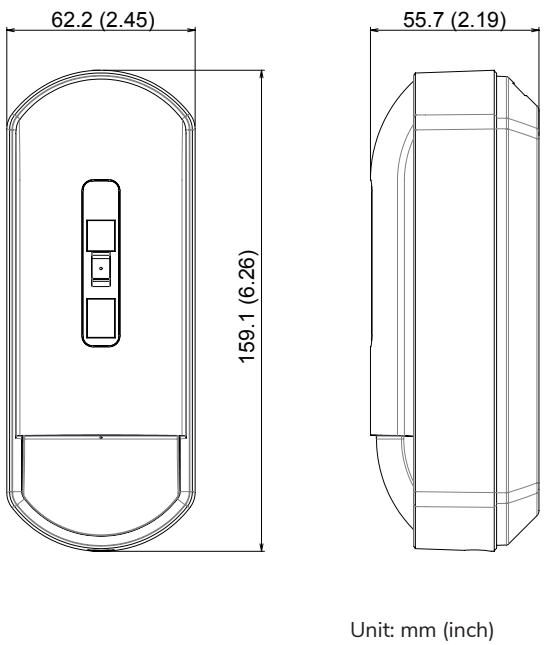
- Events and responses

Events	Triggered by	Output & Remarks
Anti-masking detection	Objects close to the lens surface over 20 sec.	Alarm and Trouble signals.
Local self test	Controlled by detector' s circuit periodically. (PIR and Microwave are tested at the same time.)	Fail; Trouble signal. (Detector doesn't work for about 10 seconds during local self test.)
Walk test	Conduct a walk test at least once a year.	Keep at least 1 meter from the detector and clear of any objects.
Low voltage detection	Voltage drop.	Trouble signal

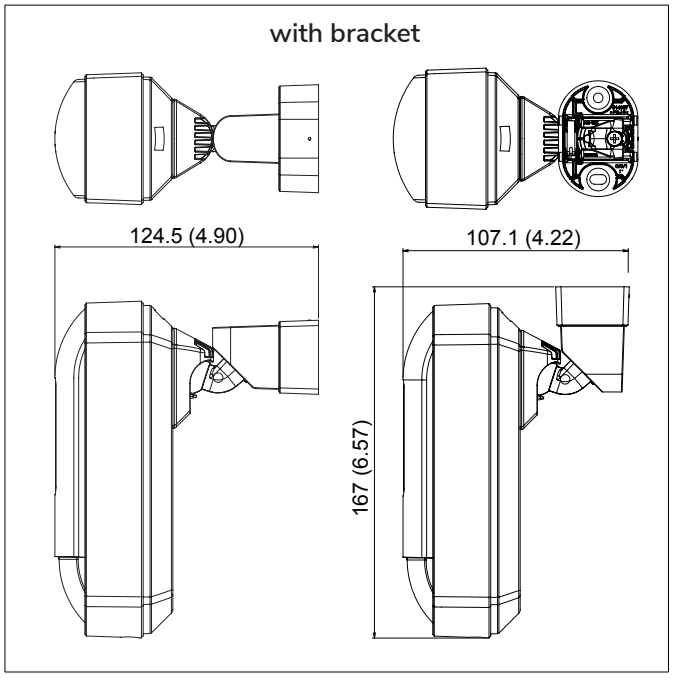
- LED indications



- Dimensions

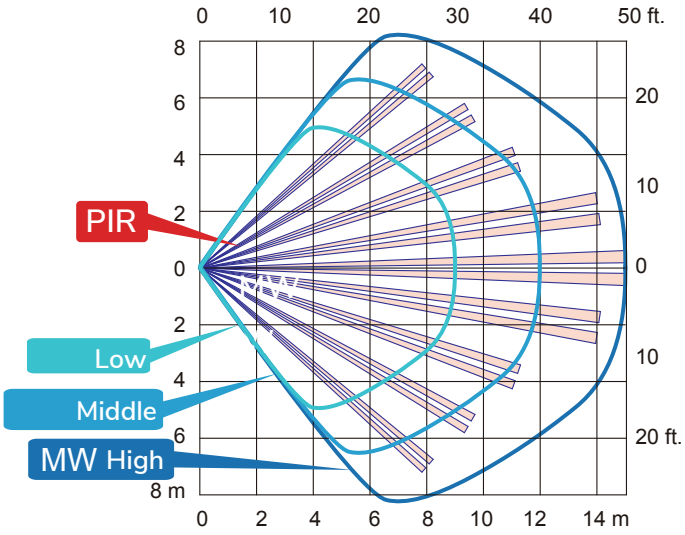


Unit: mm (inch)

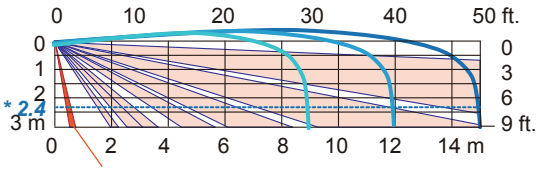


- Detection area

Wide - Top view -

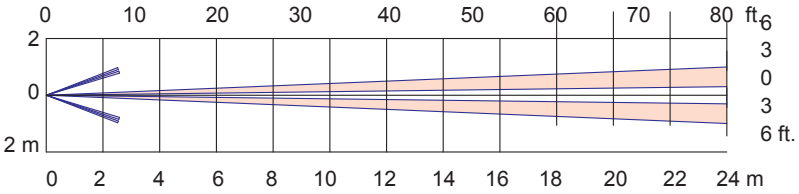


Wide - Side view -

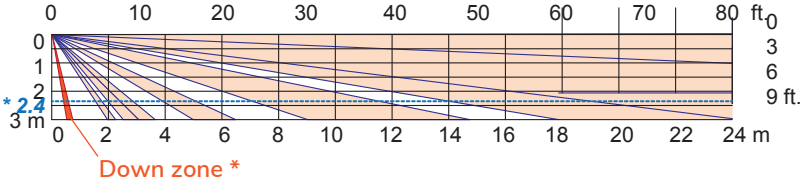


Down zone *

Narrow - Top view -



Narrow - Side view -

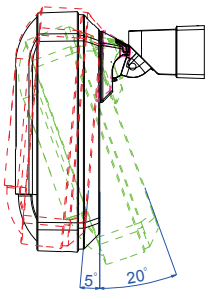


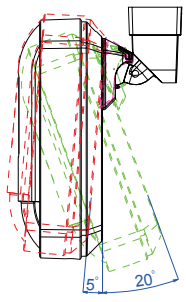
Down zone *

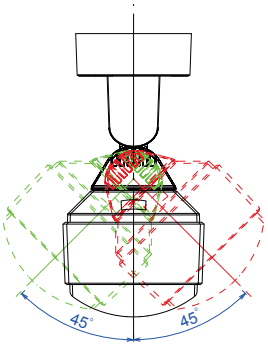
NOTE

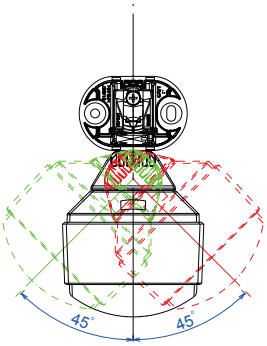
- The * 2.4 dotted line indicates the recommended mounting height.
- When “Narrow” is selected in the lens setting, MW detection will be stopped.
- Down zone * can be deleted by switch setting (See 2-5).

- Angle adjustment with bracket



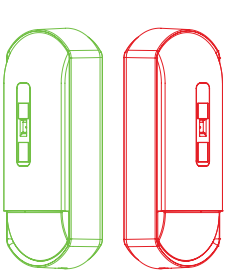


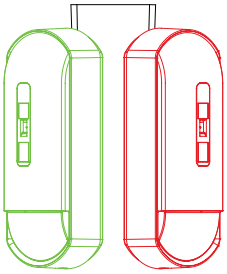




NOTE

* If the detector cover does not reach the ceiling, it can be swung up to +5°.





- Compliance

RE Directive 2014/53/EU

- The radio equipment type IR-D-P3E and IR-D-P3E-UK are in compliance with Directive 2014/53/EU.
- Microwave emission Frequency and Power
  IR-D-P3E: 10.525 GHz 15.78 mW e.i.r.p
  IR-D-P3E-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-P3E and IR-D-P3E-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-P3E-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-P3E-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:
  (1) This device may not cause harmful interference, and
  (2) 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:
  (1) This device may not cause interference.
  (2) 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 3, Environmental Class II
  Applied Standards; EN 50131-2-4 (IR-D-P3E and IR-D-P3E-UK)
  Tested and certified by Kiwa
- PD6662:2017

inner range

INNERRANGE.COM

Global Headquarters
Inner Range Australia
1 Millennium Court, Knoxfield, Victoria, 3180, Australia

Inner Range United States
2301 Patriot Blvd
Glenview, IL 60026

Inner Range United Kingdom
Units 10-11 Theal Lakes Business Park
Moulden Way, Reading, Berkshire RG74GB

Inner Range Middle East
Plot No S20141, PO Box 16854
Jebel Ali Free Zone - South, Dubai, UAE

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

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

IR INSTALL MANUAL: 63PIR-OA-IM 202310-31

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