



Microwave & Passive Infrared Dual-Technology Intrusion Detector (HJ-DT12)

Indoor Passive Infrared Intrusion Detector (HJ-ST12)

HJ Series (Indoor Use)

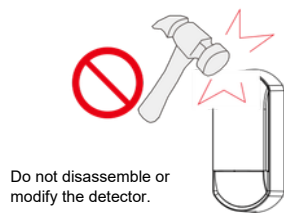
	Wide / Narrow Detection Area Flip Lens	Passive Infrared (PIR)	Microwave (MW)
HJ-ST12	✓	✓	
HJ-DT12	✓	✓	✓ (10.525 GHz)

<< Contents >>

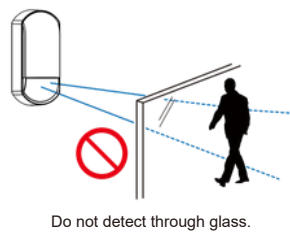
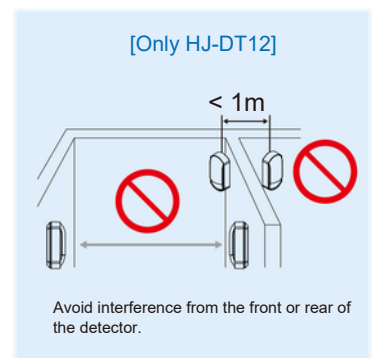
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- Manufacturer's Statement

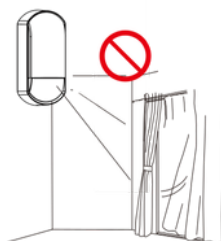
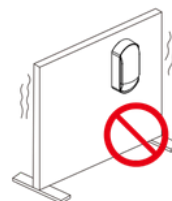
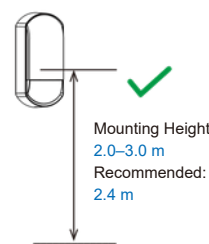
Symbol	Meaning	Symbol	Meaning
 WARNING	Failure to follow the instructions in this manual or improper operation may result in death or serious injury.		A check mark (✓) indicates an action that is permitted.
 CAUTION	Failure to follow the instructions in this manual or improper operation may result in personal injury and/or property damage.		A prohibition symbol (×) indicates an action that is prohibited.
		NOTE	This symbol indicates items that require special attention.



WARNING

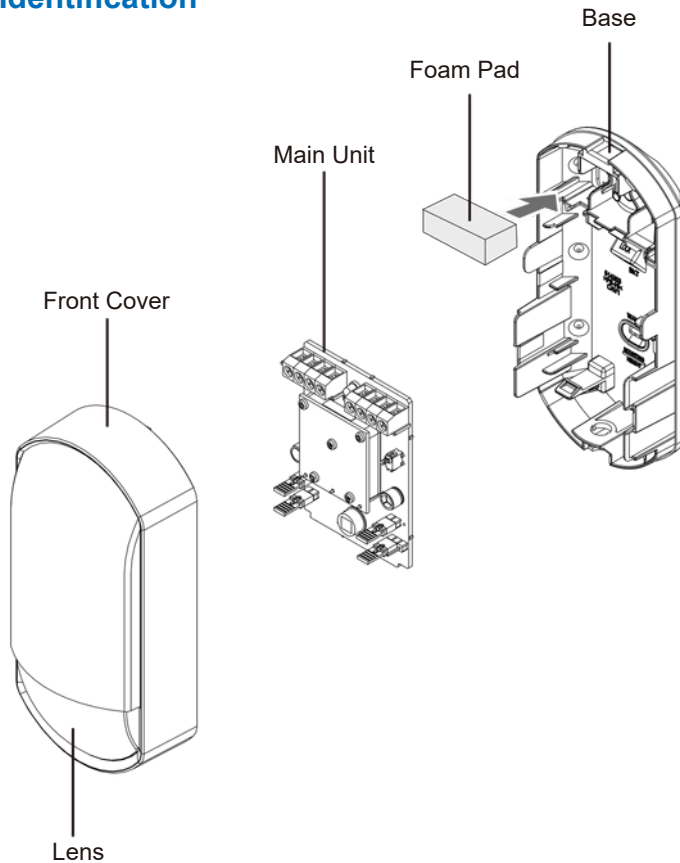
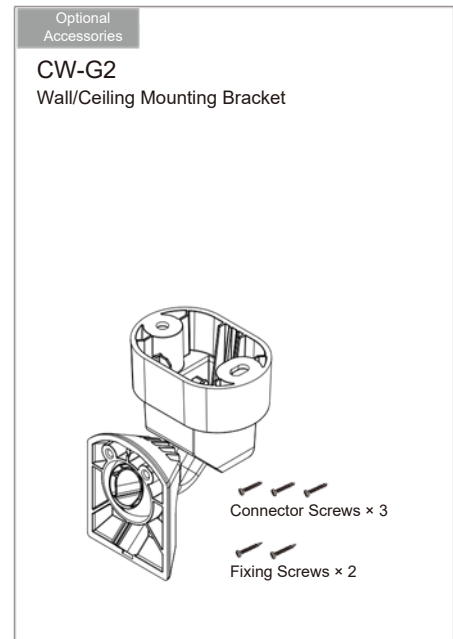


CAUTION



Dispose of the product in accordance with local regulations.

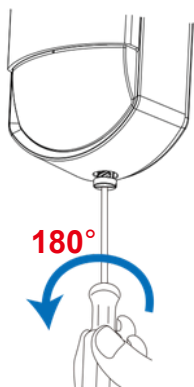
- Parts Identification



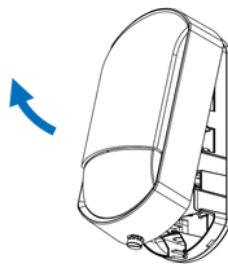
1 Installation

1-1. Disassembly

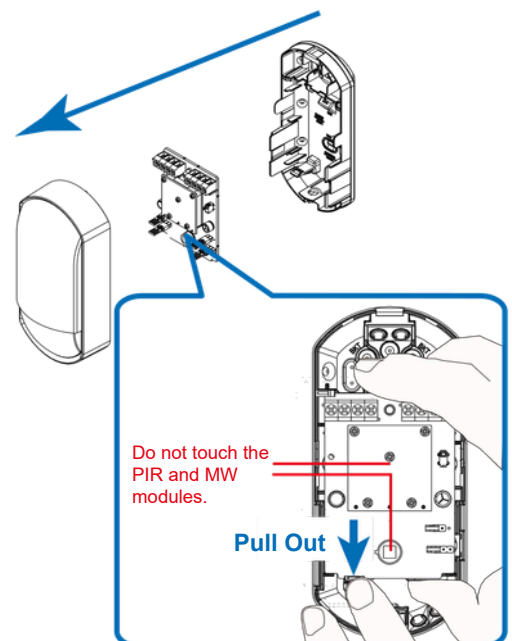
1 Open the Front Cover.



2 Remove the Front Cover.

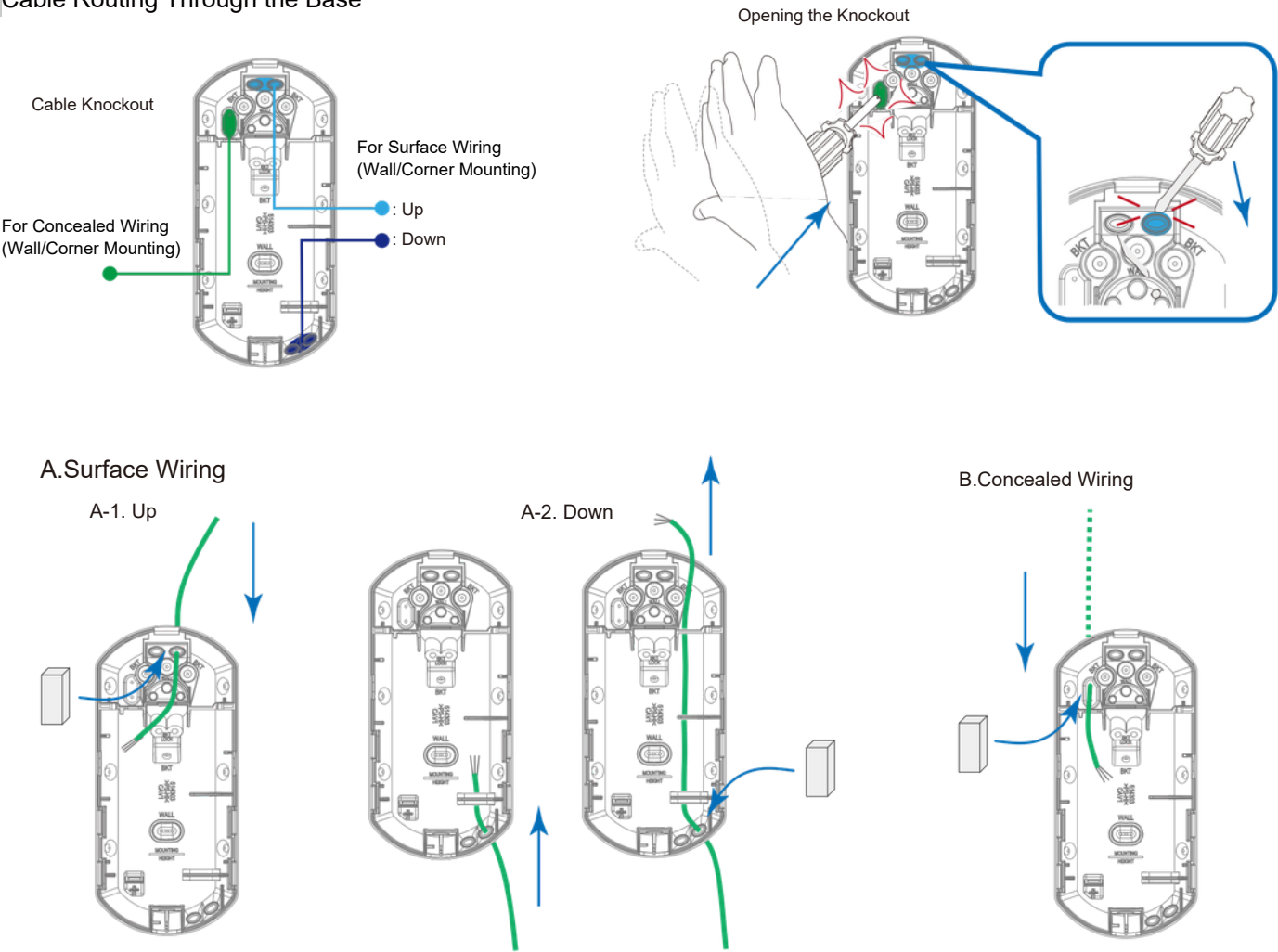


3 Remove the Main Unit.



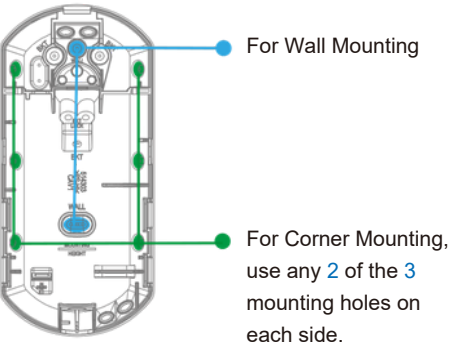
1-2. Wall Mounting (Without Bracket)

1 Cable Routing Through the Base



2 Mount the Base

Cable Entry Hole

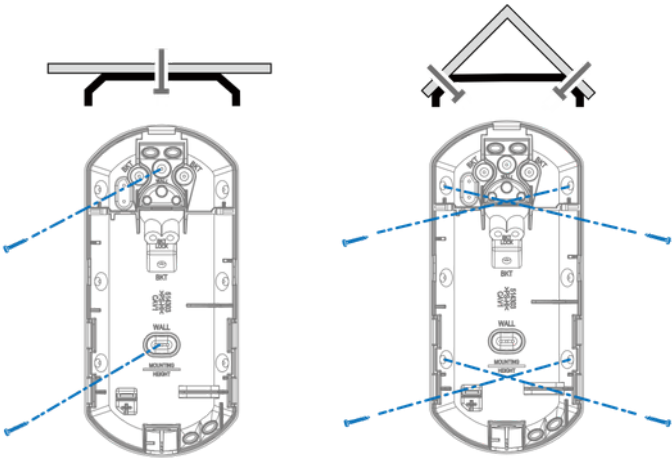


NOTE

Mounting screws are not supplied. Use Ø4 mm screws.

a. Wall Mounting

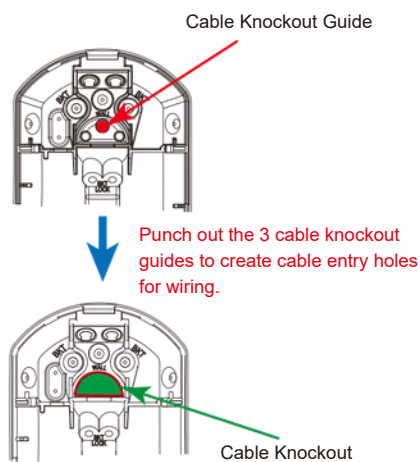
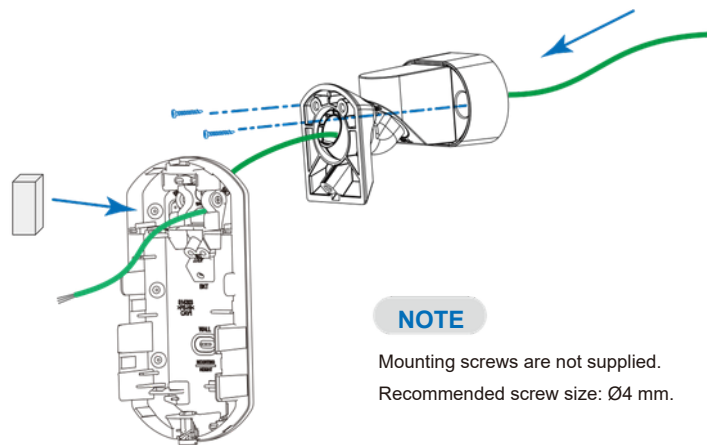
b. Corner Mounting



Go to page 7

1-3. Wall Mounting (With Bracket)

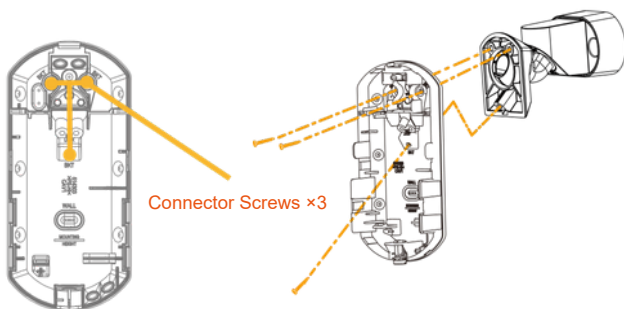
1 Wall Wiring and Mounting



NOTE

For instructions on opening the cable knockout, refer to page 4.

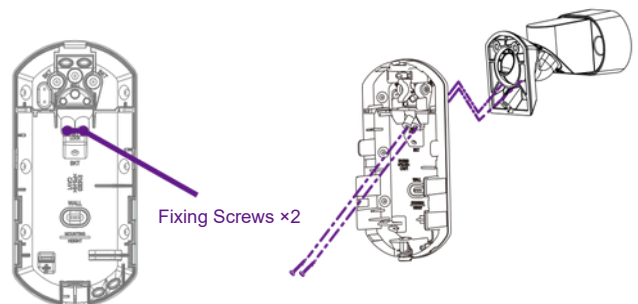
2 Attach the Base to the Bracket.



NOTE

Adjust the detection direction while attaching the detector.
A walk test must be performed to verify proper operation.
--> Refer to Section 3-1, "Walk Test".

3 Secure the Base with the Fixing Screws (Optional)



The bracket is normally secured using the 3 mounting holes and 3 connector screws. For additional support, two fixing screws may also be used.

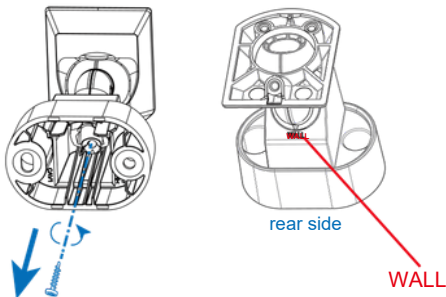


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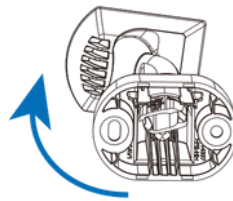
1-4. Ceiling Mounting (With Bracket)

Adjusting the Bracket for Ceiling Mounting

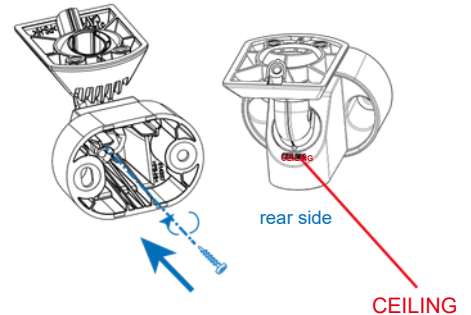
[1] Loosen the fixing screw.



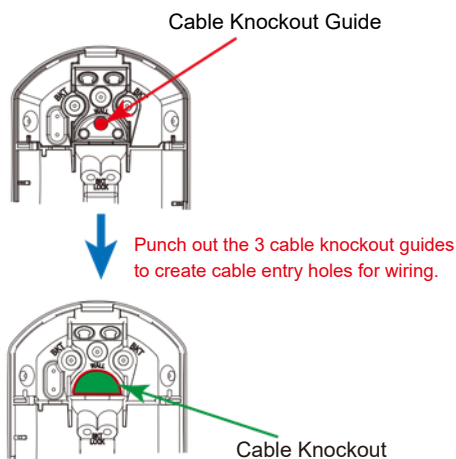
[2] Rotate the main unit.



[3] Tighten the fixing screw.

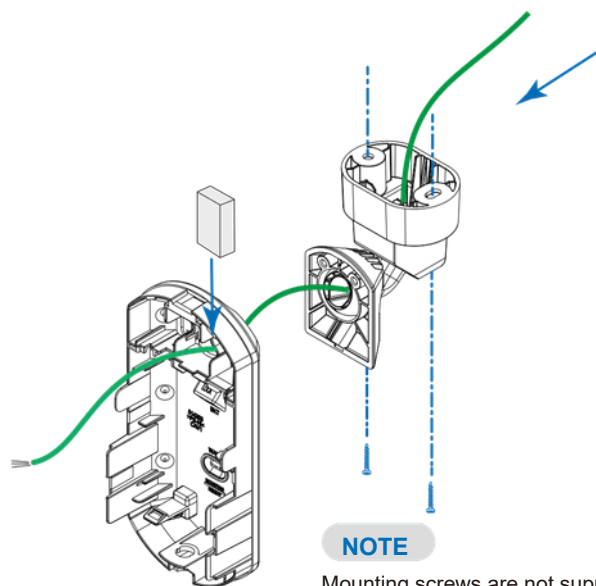


1 Ceiling Wiring and Mounting



NOTE

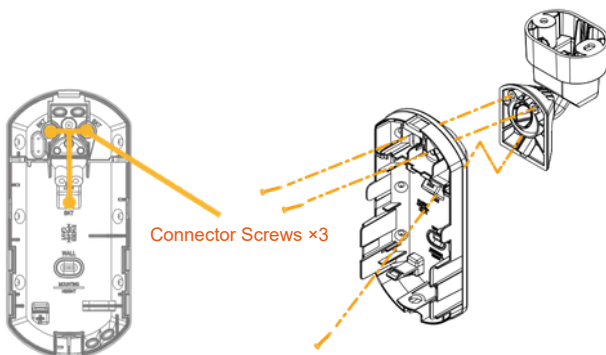
For instructions on opening the cable knockout, refer to page 4.



NOTE

Mounting screws are not supplied.
Recommended screw size: Ø4 mm.

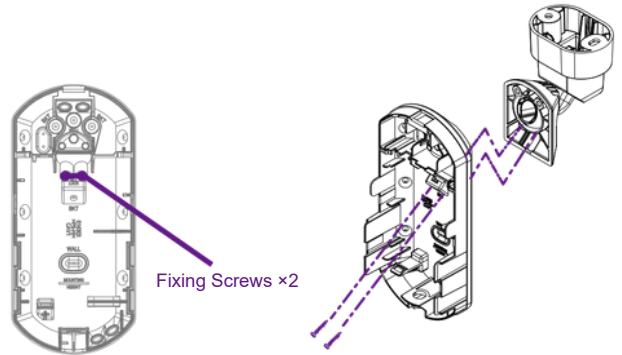
2 Attach the base to the bracket



NOTE

Adjust the detection direction while attaching the detector.
A walk test must be performed to verify proper operation.
--> Refer to Section 3-1, "Walk Test".

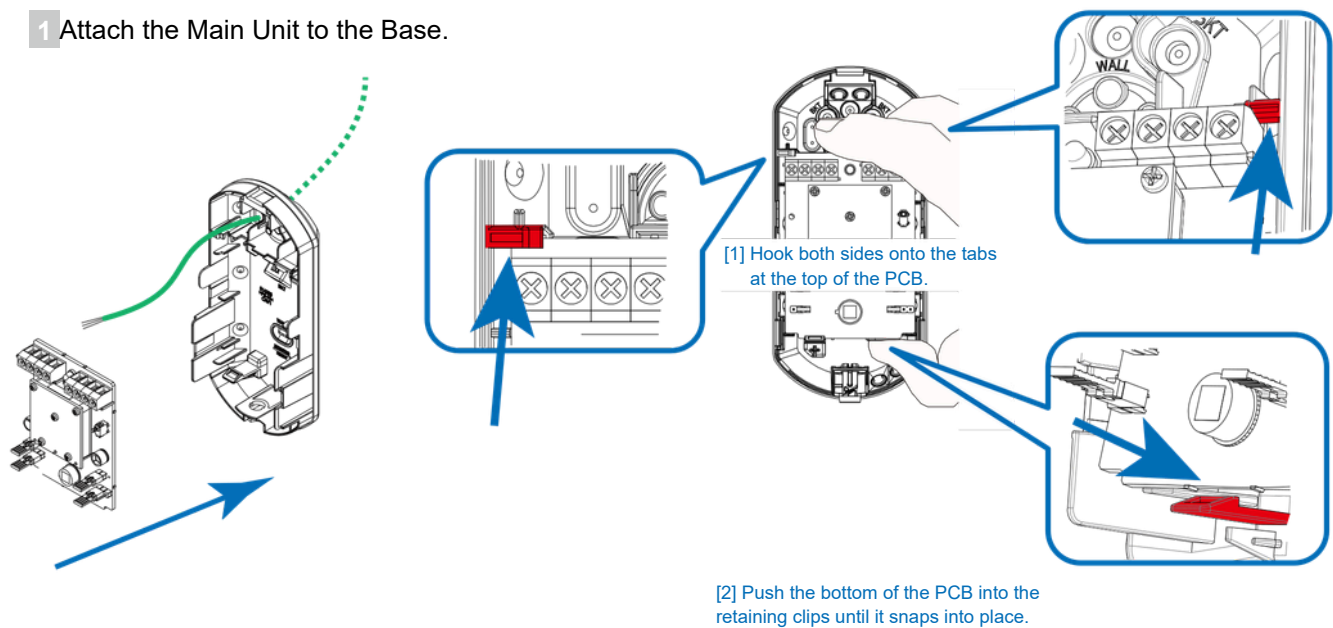
3 Secure the base with the fixing screws (optional).



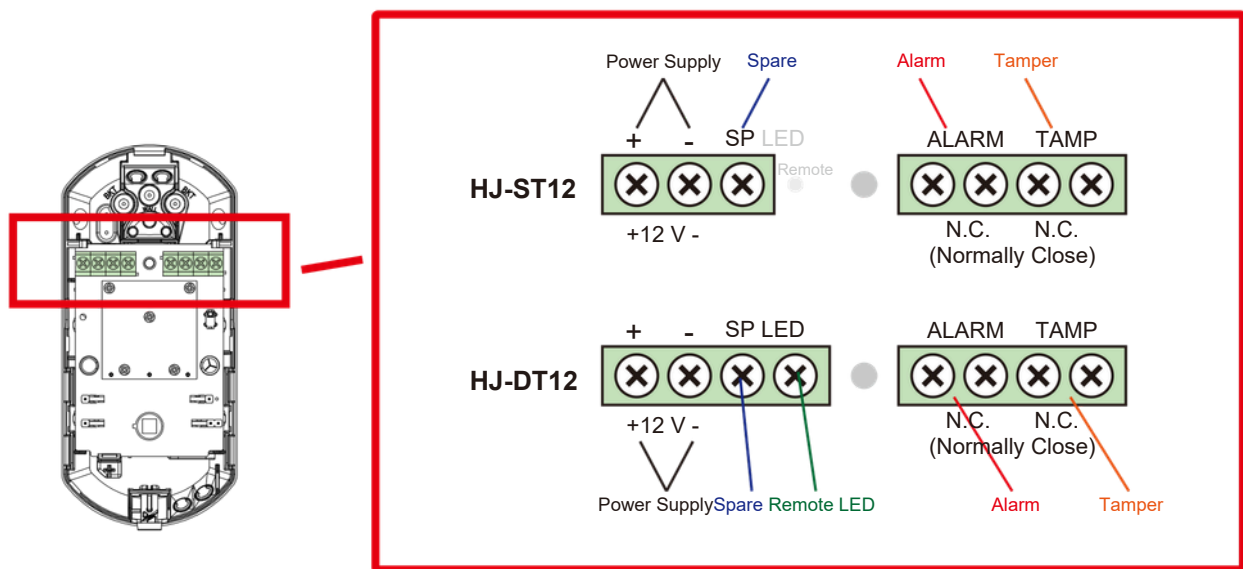
The bracket is normally secured using 3 mounting holes and 3 connector screws. For additional support, 2 fixing screws may also be used.

1-5. Assembly & Wiring

1 Attach the Main Unit to the Base.



2 Connect the wires to the terminal block.



Power Cable Length

The power cable length should not exceed the values shown below.

HJ-ST12

Wire Gauge	12 V DC	14 V DC
AWG 22 (0,33 mm ²)	520 m	1,130 m
AWG 20 (0,52 mm ²)	820 m	1,790 m
AWG 18 (0,83 mm ²)	1,320 m	2.850 m

HJ-DT12

Wire Gauge	12 V DC	14 V DC
AWG 22 (0,33 mm ²)	410 m	890 m
AWG 20 (0,52 mm ²)	650 m	1.400 m
AWG 18 (0,83 mm ²)	1,030 m	2.240 m

2 Settings

2-1. Jumper Settings

LENS

● Wide / Narrow area

MW SHORT LONG

ON OFF LED

● LED

ON: The LED remains illuminated.
OFF: The LED is controlled via the remote LED terminal. (only HJ-DT12)
[Open; OFF, 0 V; ON]

PIR SENS

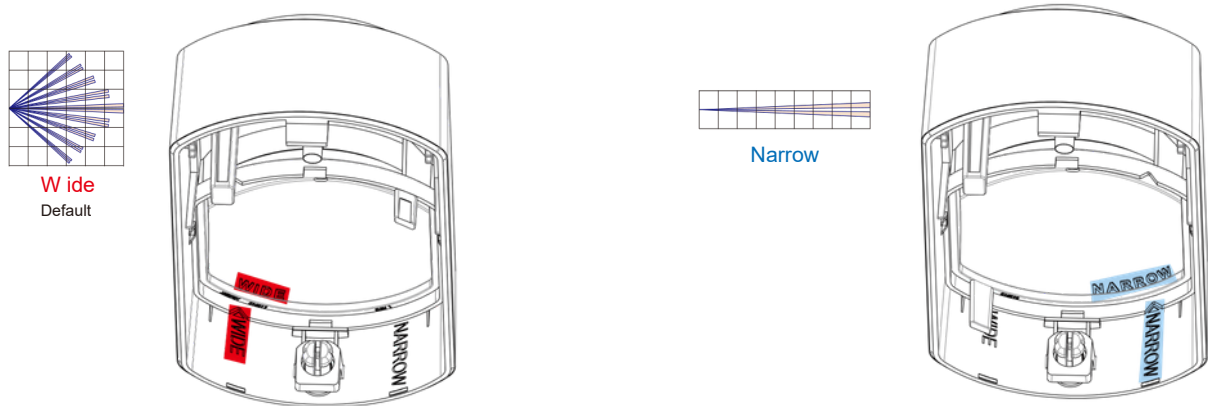
● PIR Sensitivity

H: High Sensitivity
M: Medium Sensitivity
L: Low Sensitivity (Pet Immunity Mode)

The illustration shows the factory default settings.

2-2. Wide/Narrow Detection Area Settings

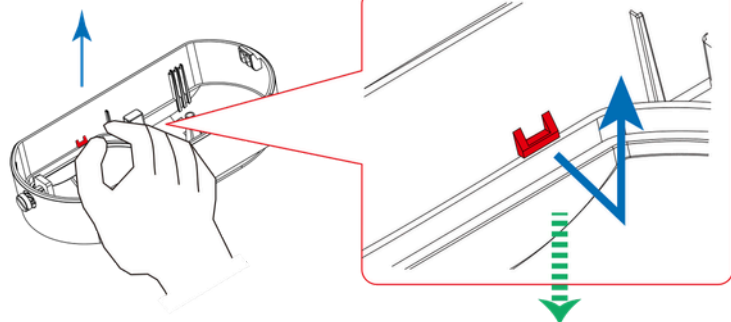
- 1 Flip the lens to select either the Wide or Narrow detection area.



NOTE

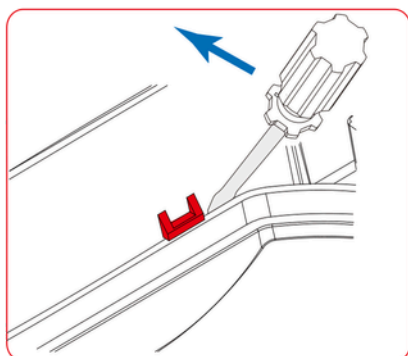
Install the lens, ensuring that the markings on the front cover and the lens correspond to the desired detection area.

Removing the Lens



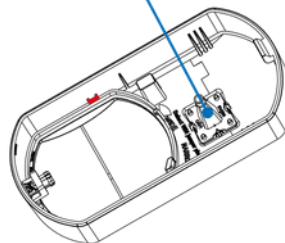
Remove the retainer, then lift the lens upward.

If the lens cannot be removed by hand, use a flat-blade screwdriver.



CAUTION

- Take care not to damage the LED light guide.
- When reinstalling the front cover, ensure that the light guide does not pinch the wiring.

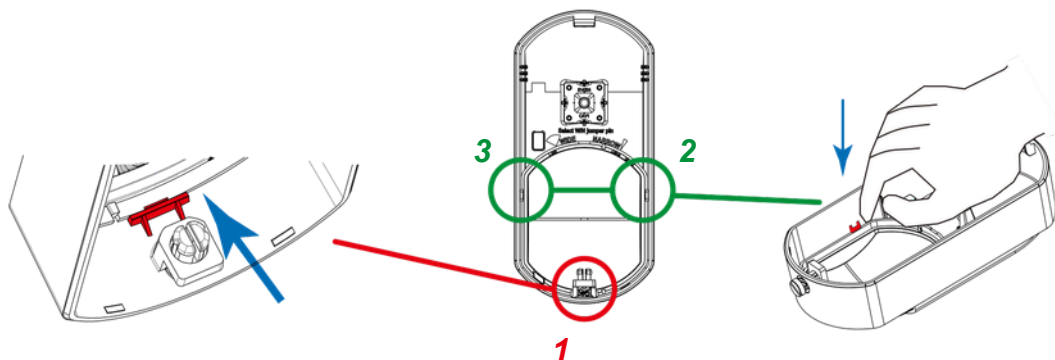


CAUTION

- Take care not to damage the lens with the screwdriver.

Installing the Lens

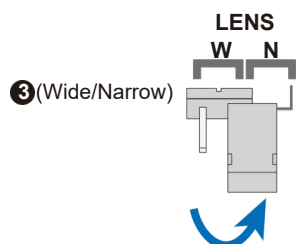
Press firmly on the three indicated points in numerical order until the lens is securely installed.



2 Set the jumper to either "Wide" or "Narrow".

CAUTION

- If the lens is set to "Narrow", the jumper must also be set to "Narrow".



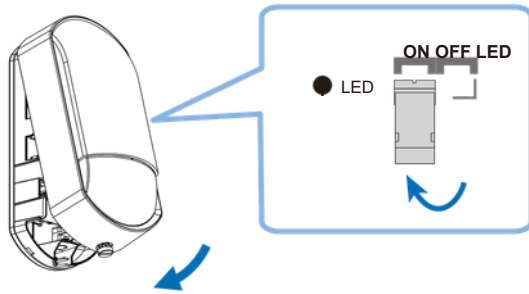
NOTE

- The factory default setting is "Wide".
- When "Narrow" is selected, the MW detection function is disabled.

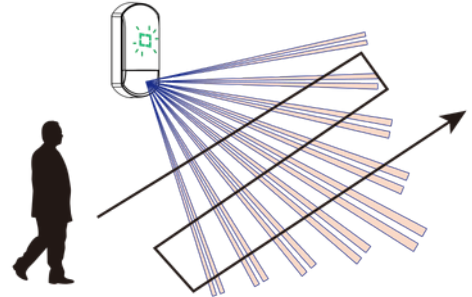
3 Inspection

3-1. Walk Test

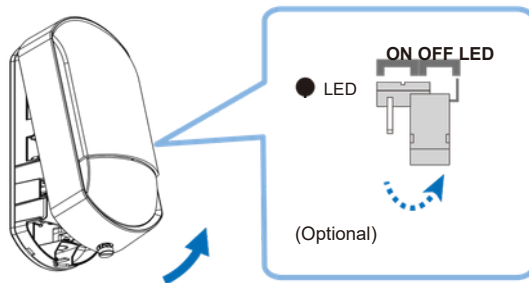
- 1 Ensure the LED jumper is set to "ON", then close the front cover.



- 2 Walk through the detection area and verify the detection performance by observing the LED indicator.



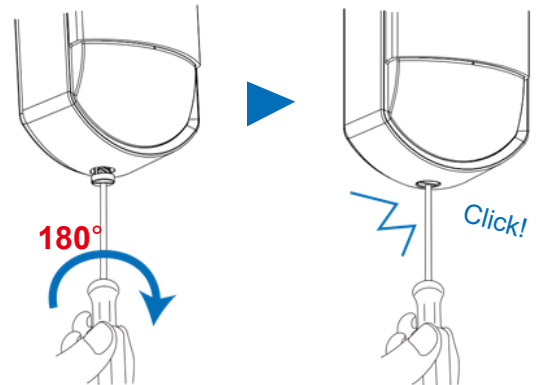
- 3 If required, reset the LED jumper to "OFF" after completing the walk test.



Note

Perform a walk test at least once a year.

- 4 Lock the Front Cover

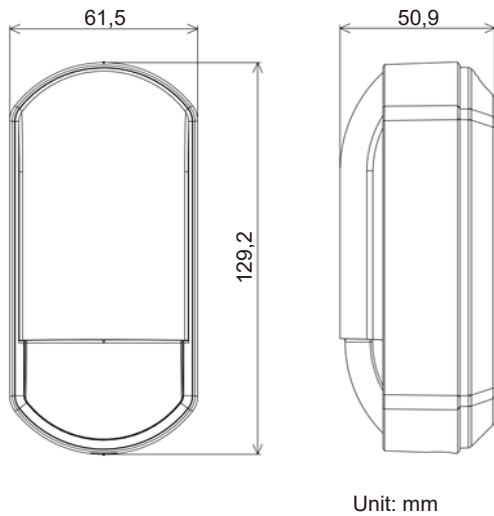
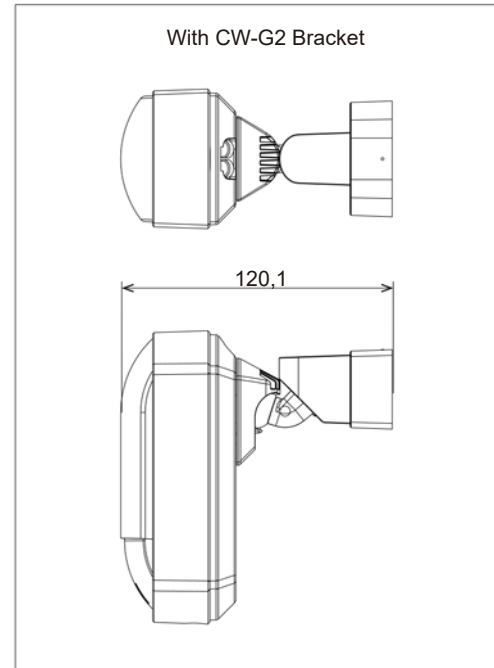


- Specifications

Model		HJ-ST12	HJ-DT12
Installation			
Detection Method		Passive Infrared (PIR)	Passive Infrared (PIR) and Microwave (MW)
Coverage		Wide: 12 m, 85° / Narrow: 18 m, 5° [MW detection is disabled when "Narrow" mode is selected.]	
Detection Area		Wide: 76 detection zones / Narrow: 12 detection zones	
Mounting Height		2.0 to 3.0 m	
Alarm Period		2.0 ± 0.5 s	
Warm-up Time		Approx. 60 s (LED flashes)	
LED Indicator		Selectable ON/OFF	
Electrical		Green: [1] Warm-up [2] Alarm	
Power Input			
		9.5 to 16 VDC	
Current Consumption		8mA (Normal) 11 mA (Maximum , 12 V DC	11 mA (Normal) 14 mA (Maximum) , 12 V DC
Relay Output	Alarm	Normally Closed (N.C.) 24 V DC 0.1 A (Maximum)	
	Tamper	Normally Closed (N.C.) 24 V DC 0.1 A (Maximum) (Opens when the front cover is removed.)	
Remote LED Control		_____	Terminal: Open = OFF, 0 V = ON
Environmental			
Operating Temperature		-20°C to +50°C	-20°C to +50°C
Temperature Compensation		Super Multidimensional Analysis (SMDA)	
Operating Humidity		95% (max.)	
RFI Immunity		No alarm at 10 V/m	
Mechanical			
Dimensions		H: 129.2 × W: 61.5 × D: 50.9 mm	
Weight		Approx. 90 g	Approx. 105 g
Installation		Wall or Corner Mounting (Indoor) (With Bracket: Wall, Corner or Ceiling Mounting)	

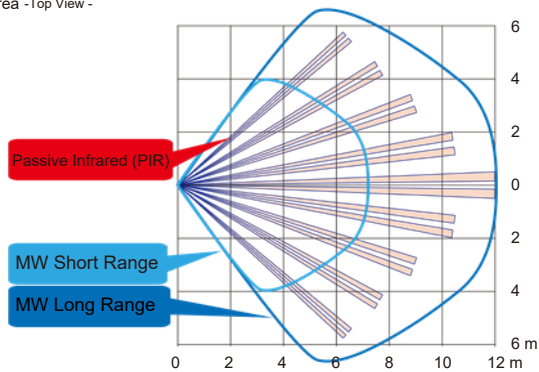
- Specifications and design are subject to change without prior notice.
- This product is designed to detect intruders and trigger an alarm control panel. As only one component of a complete security system, we accept no liability for any damage, losses, or other consequences resulting from intrusion.

- Dimensions

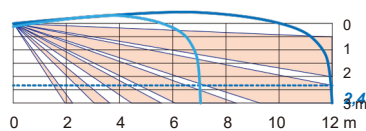


- Detection Area

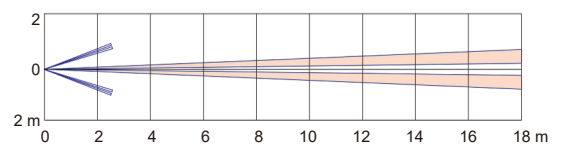
Wide Detection Area - Top View -



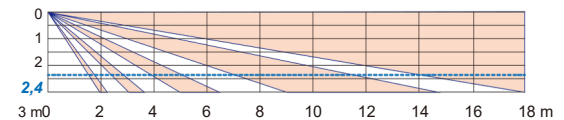
Wide Detection Area - Side View -



Narrow Detection Area - Top View -



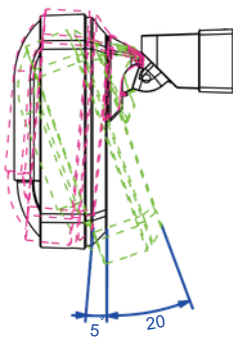
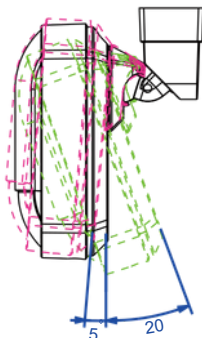
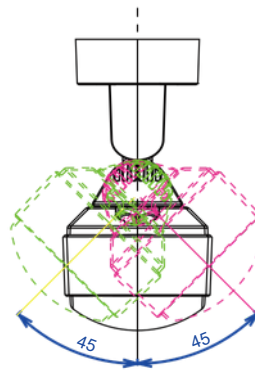
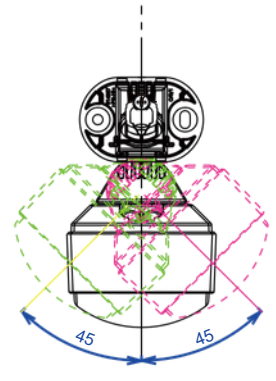
Narrow Detection Area - Side View -



NOTE

- The dashed line indicates the recommended mounting height.
- When the jumper is set to "Narrow", the MW detection function is disabled.

- Angle Adjustment Using the CW-G2 Bracket



NOTE

If the detector's front cover does not contact the ceiling, the detector can be tilted upward by up to +5°.

