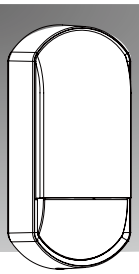
No.59-3043-1 2403-27
UL No.59-3043-0 2104-12

INSTALLATION INSTRUCTIONS

EN



Flexible Range Indoor Detector

FlipX series

STANDARD MODELS

	Wide/Narrow area Flip lens	PIR	Microwave	Mounting bracket
FLX-S-ST	✓	✓		—
FLX-S-ST-BKT *2	✓	✓		✓
FLX-S-DT-X5	✓	✓	✓(10,525 GHz)	—
FLX-S-DT-X5-BKT *2	✓	✓	✓(10,525 GHz)	✓
FLX-S-DT-X8 *1	✓	✓	✓(10,587 GHz)	—
FLX-S-DT-X9 *2	✓	✓	✓ (9,425 GHz)	—

*1 Not certified to SBSC and UL

*2 Not certified to EN 50131-2-2 (FLX-S-ST-BKT)/EN 50131-2-4 (FLX-S-DT-X5-BKT/-X9), INCERT, SBSC and UL

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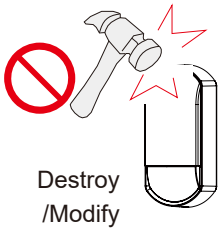
- Manufacturer's statement

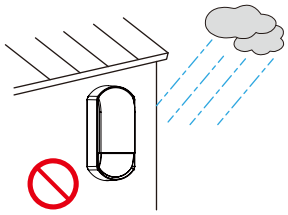
Symbol	Meaning
⚠ Warning	Failure to follow the instructions provided with this indication and improper handling may cause death or serious injury.
⚠ Caution	Failure to follow the instructions provided with this indication and improper handling may cause injury and/or property damage.

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

⚠ Warning

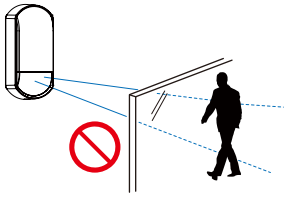


Destroy /Modify

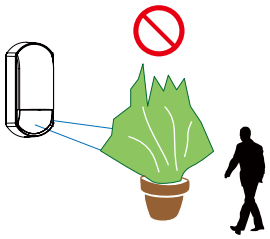


Outdoor installation

Wetting with water

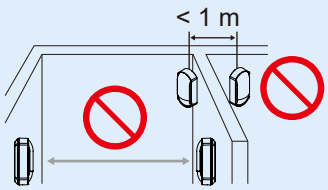


Detection through glass



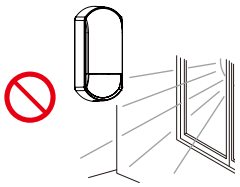
Partial/complete obscuration of the detection area.

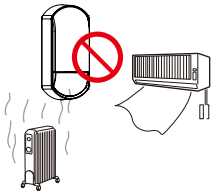
[FLX-S-DT only]

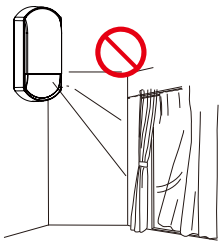


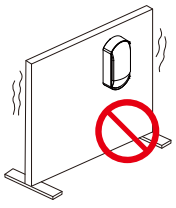
Face to face/Back interference

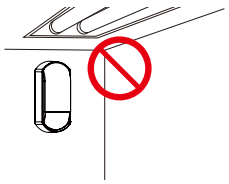
⚠ Caution

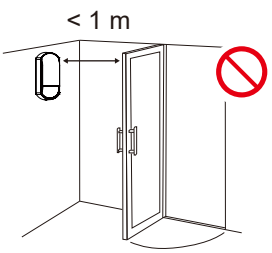


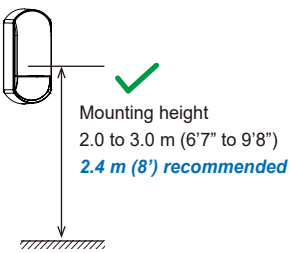






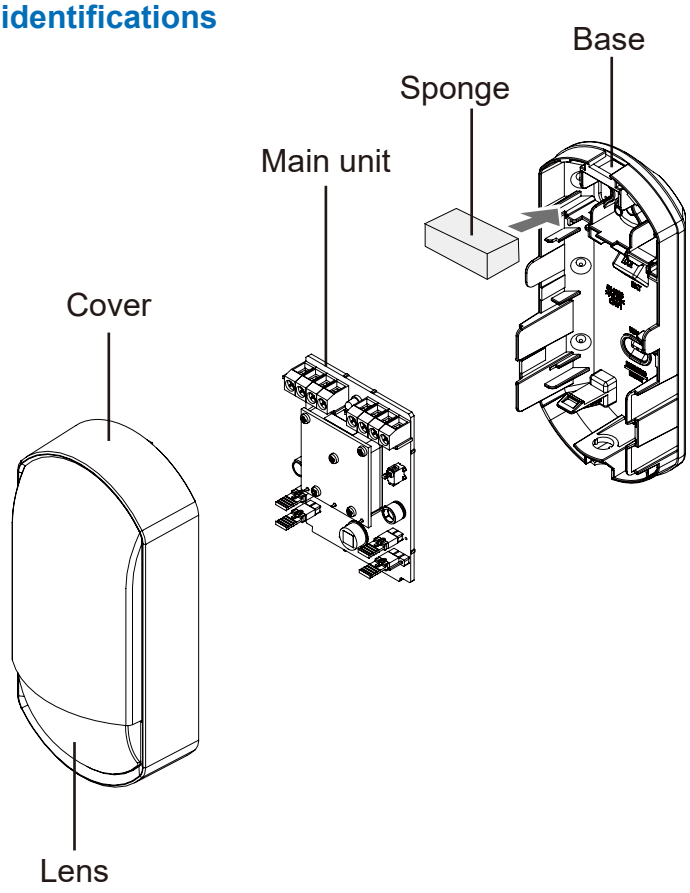






Follow to the Regulations

- Parts identifications

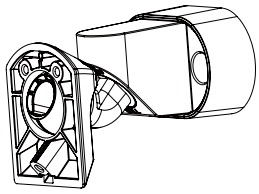


Option

CW-G2 *
Bracket for wall/ceiling mount

NOTE

Models with “-BKT” in the model name include CW-G2.



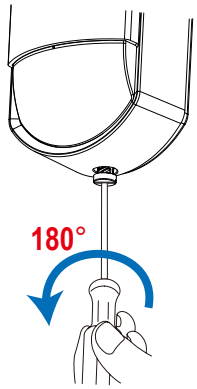
Mounting screw x 2
Joint screw x 3
Fixing screw x 2

∗Not certified to SBSC.

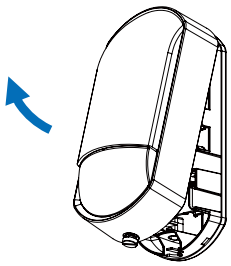
1 Installation

1-1. Disassemble

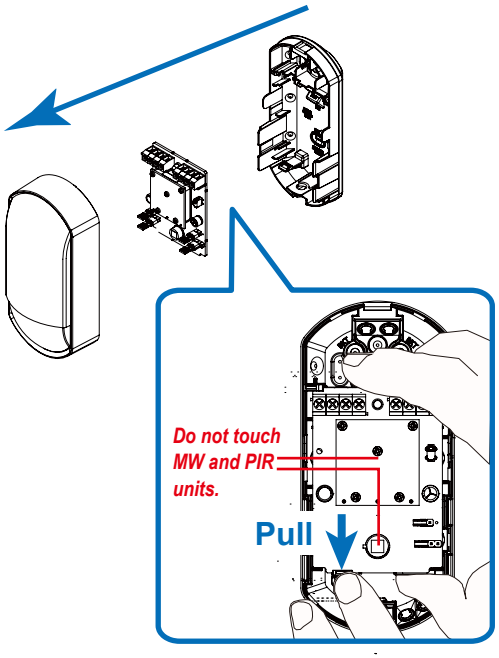
1 Unlock the cover



2 Open the cover



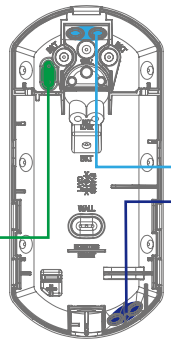
3 Remove the main unit



1-2. Wall mount without bracket

1 Wire through the base

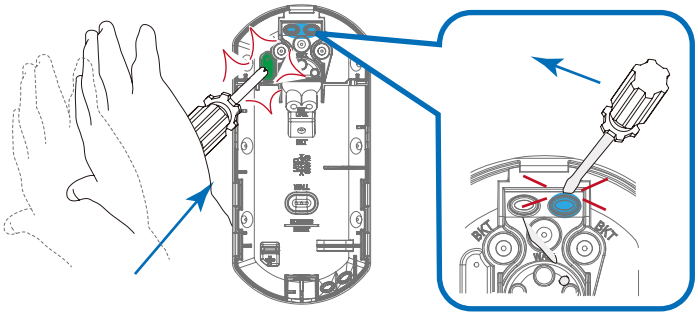
Wiring knockouts



For Wall/ Corner mount
Surface wiring
: Upper
: Lower

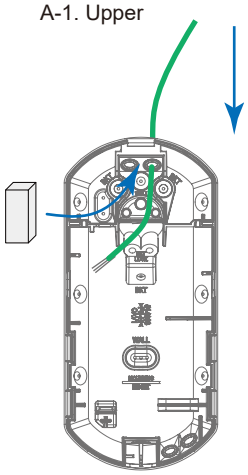
For Wall/ Corner mount
Hidden wiring:

How to break the knockouts

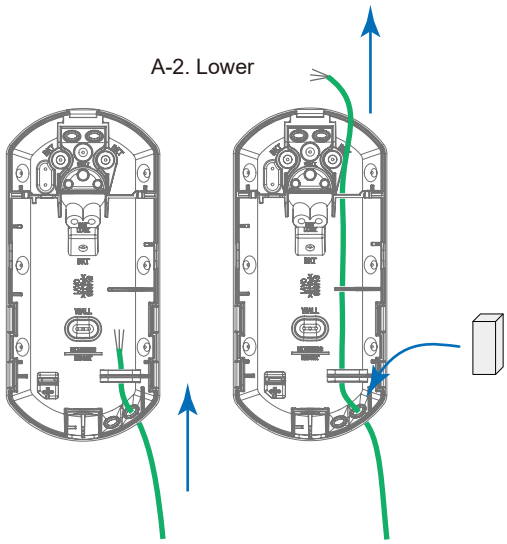


A. Surface wiring

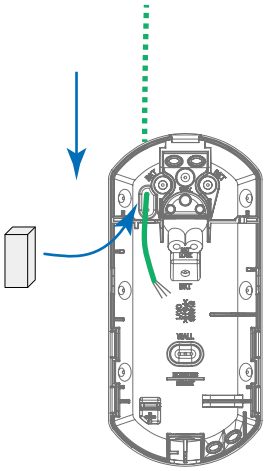
A-1. Upper



A-2. Lower

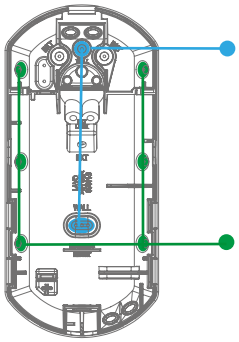


B. Hidden wiring



2 Mount the base

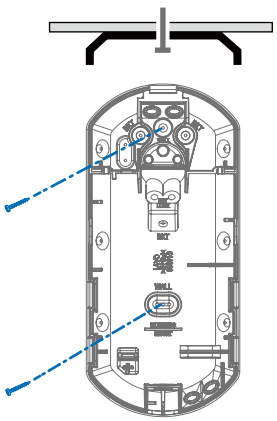
Mounting holes



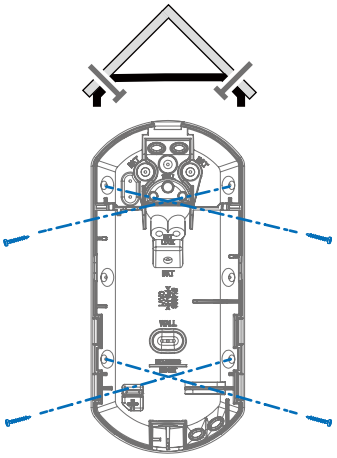
For Wall mount

For Corner mount
Select 2 of the 3 on each side.

a. Wall mount



b. Corner mount



NOTE

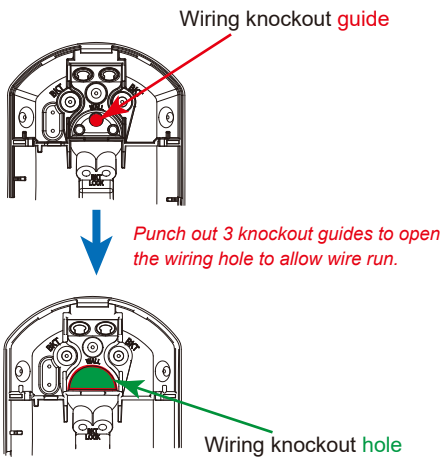
Mounting screws are not included.

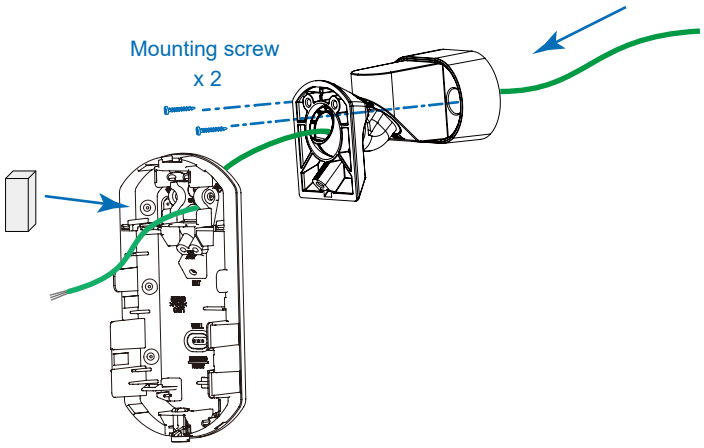
Φ 3 mm screws are recommended.

Go to Page 7

1-3. Wall mount with bracket

1 Wire and mount on the wall

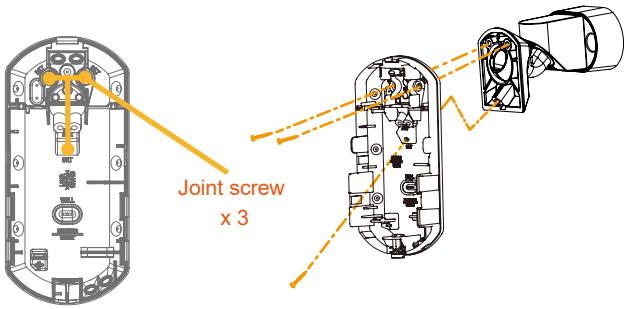




NOTE

See page 4 for how to break the knockouts.

2 Join the base on the bracket



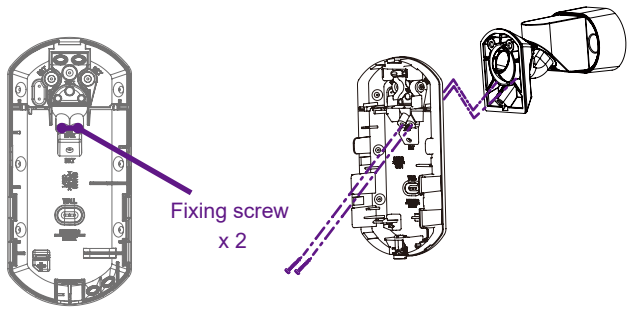
NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

--> Refer to “3-1. Walk test”

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.

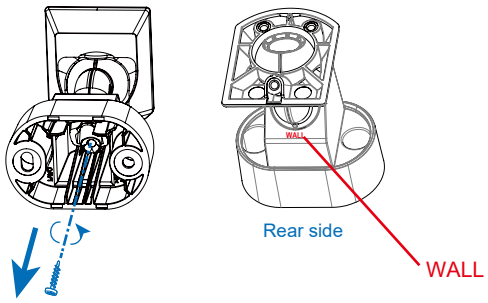
* Not evaluated by UL.

Go to Page 7

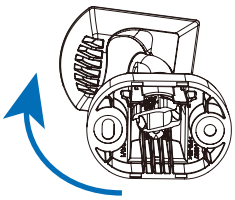
1-4. Ceiling mount with bracket

How to change the bracket to the ceiling mounting

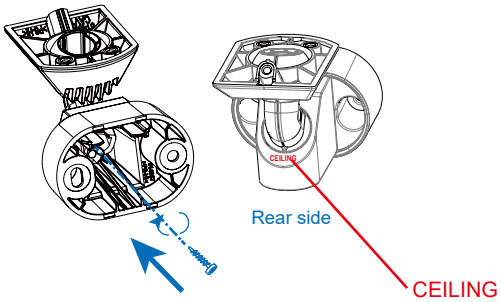
[1] Loosen the fixing screw.



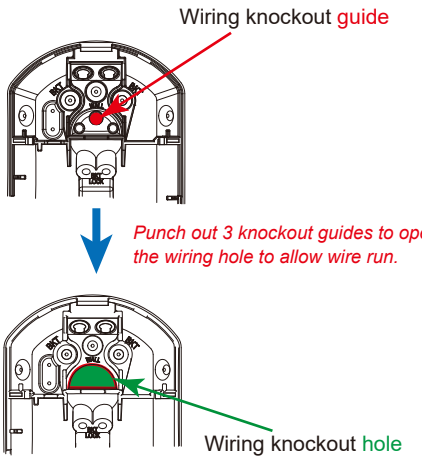
[2] Rotate the body.

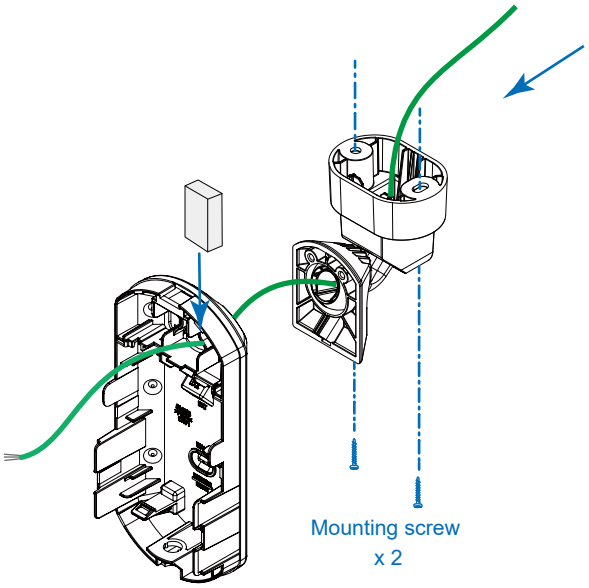


[3] Tighten the fixing screw.



1 Wire and mount on the ceiling

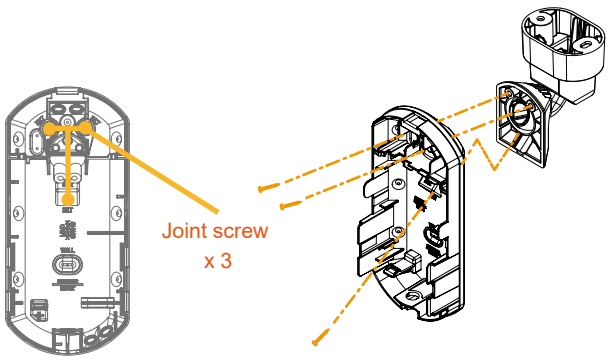




NOTE

See page 4 for how to break the knockouts.

2 Join the base on the bracket



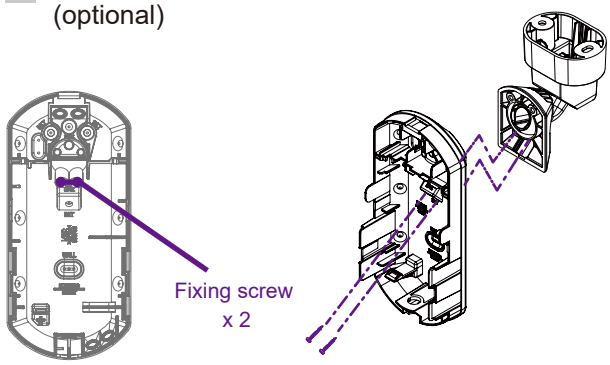
NOTE

Adjust the detection direction while jointing.

Confirming with a walk test is required.

--> Refer to “3-1. Walk test”

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.

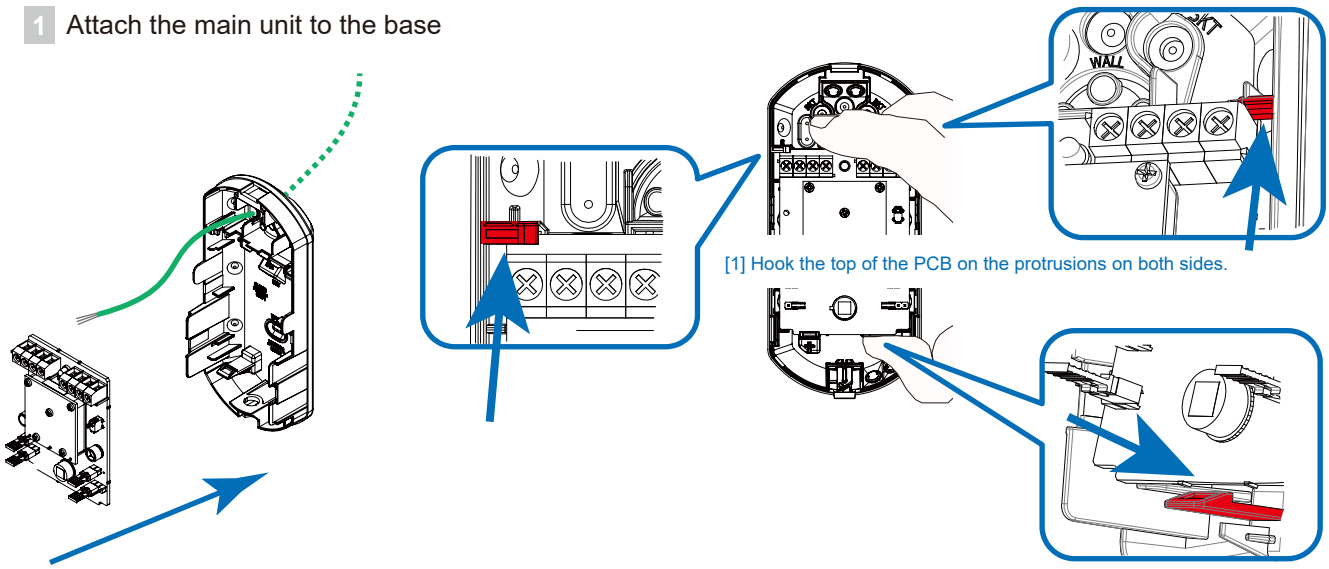
NOTE

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

* Not evaluated by UL.

1-5. Assemble and connect

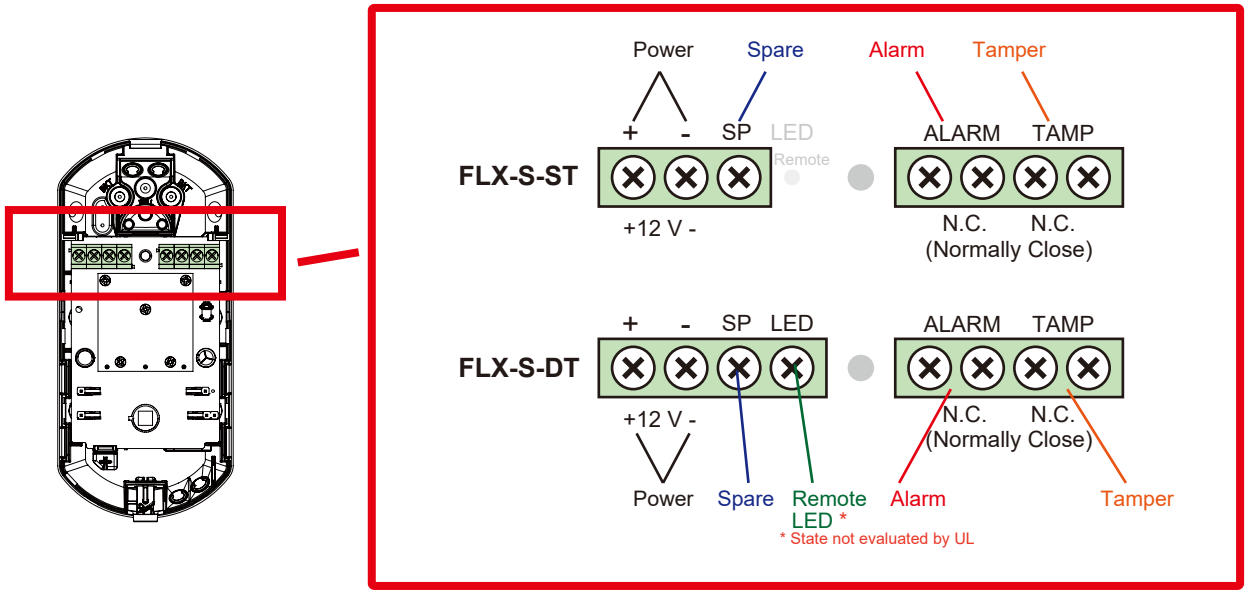
1 Attach the main unit to the base



[1] Hook the top of the PCB on the protrusions on both sides.

[2] Push the bottom of the PCB over the protruding claws.

2 Connect wires to the terminal



Power cable length

The power cable should be limited to the following length.

FLX-S-ST

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

FLX-S-DT

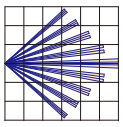
WIRE GAUGE	12 V DC	14 V DC
AWG 22 (0.33 mm^2)	410 m (1,350 ft.)	890 m (2,920 ft.)
AWG 20 (0.52 mm^2)	650 m (2,130 ft.)	1,400 m (4,590 ft.)
AWG 18 (0.83 mm^2)	1,030 m (3,380 ft.)	2,240 m (7,350 ft.)

2 Settings

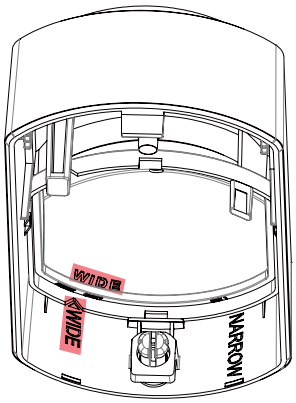
2-1. Wide/Narrow setting

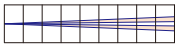
1 Set the Flip lens to “Wide” or “Narrow”

Go to 2-2 on Page 9 to skip 2-1 when using the default “Wide” setting.

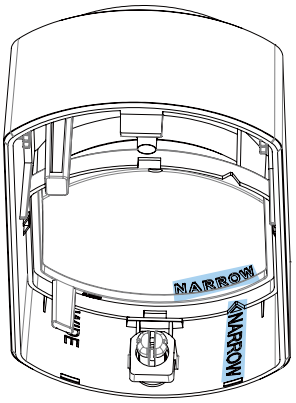


WIDE
Default





NARROW

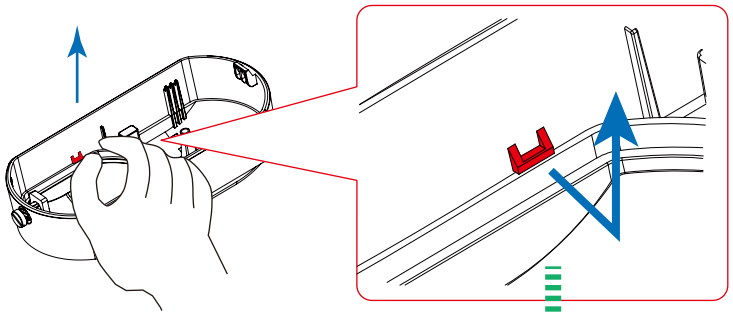


NOTE

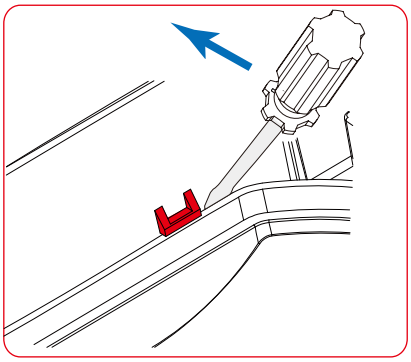
Install the lens so that the letters on the cover and on the lens match your intention.

How to remove the lens

Get over the rib, then pull up the lens.

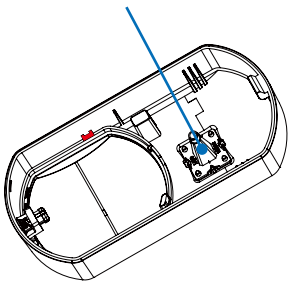


If it is difficult to get over, use a flathead screwdriver.



⚠ 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.

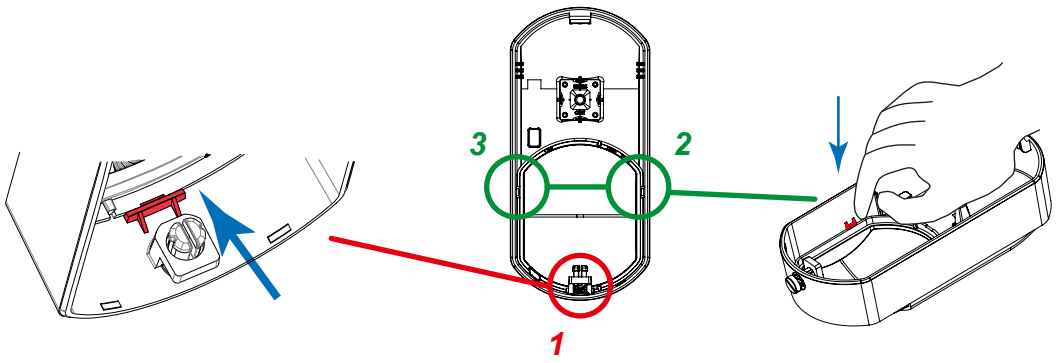


⚠ Caution

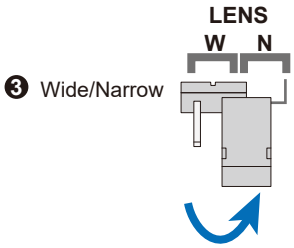
- Be careful not to damage the lens with a screwdriver.

How to install the lens

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



2 Set the jumper pin to “Wide” or “Narrow”



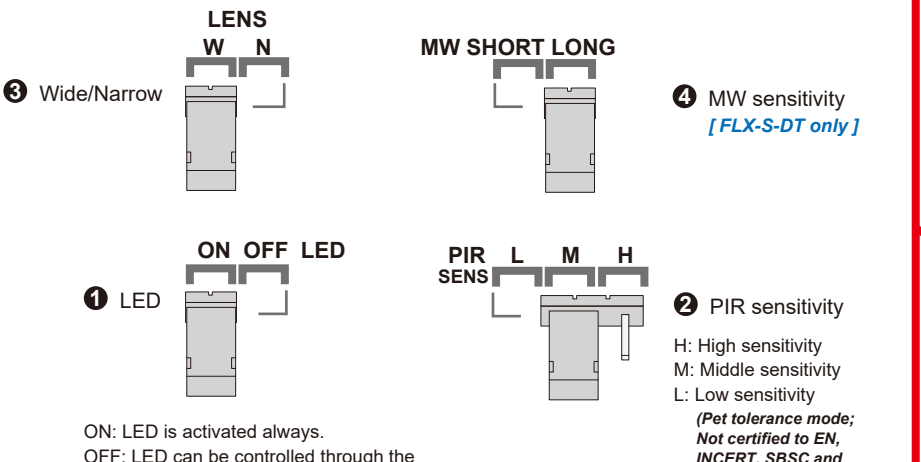
⚠ Caution

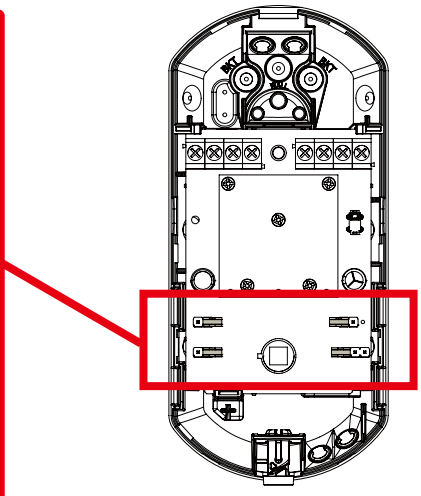
- The jumper pin must be “Narrow", when the lens is set to “Narrow".

NOTE

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

2-2. Jumper pin settings

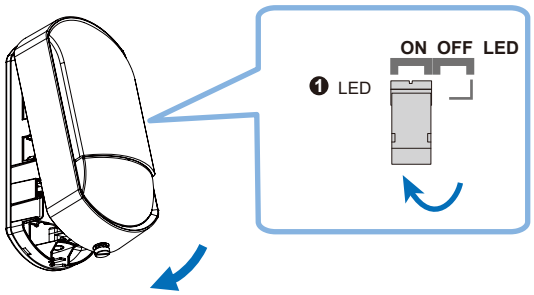




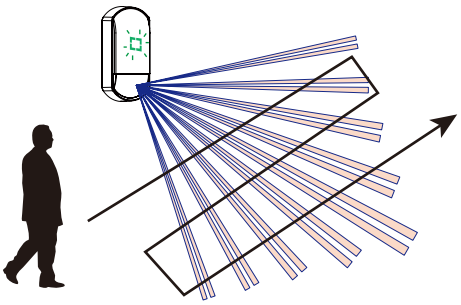
3 Checking

3-1. Walk test

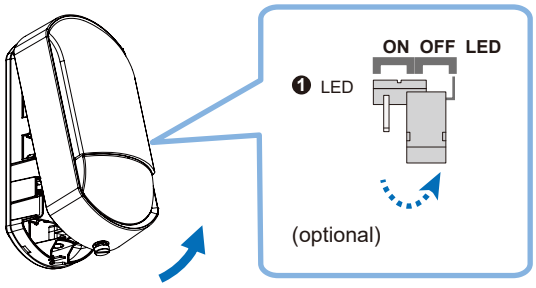
1 Confirm that the LED pin is “ON" , then close the cover.



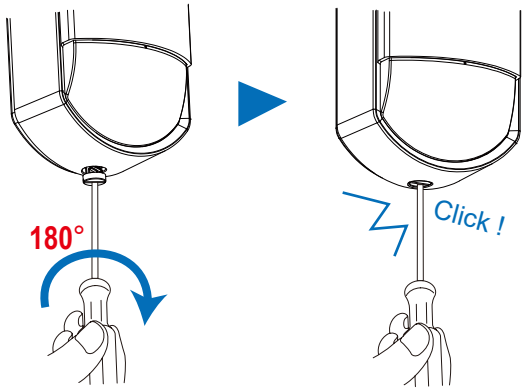
2 Walk in the detection area to check the detecting performance via LED indication.



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.

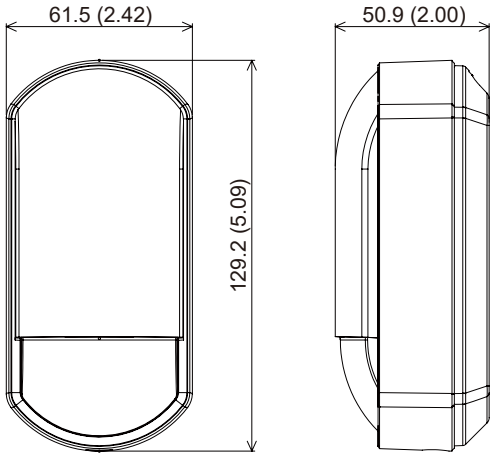
- Specifications

Model		FLX-S-ST (-BKT)	FLX-S-DT-X5(-BKT)/-X8/-X9
Installation			
Detection method		Passive infrared	Passive infrared and Microwave
Coverage		Wide：12 m (40 ft.) 85°/ Narrow：18 m (60 ft.) 5° *(No MW detection at "Narrow" setting)*	
Detection zones		Wide: 76 zones/ Narrow: 12 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℃ to +50℃(-4°F to +122°F)	-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: 129.2 x W: 61.5 x D: 50.9 mm (H: 5.09" x W: 2.42" x D: 2.00")	
Weight		Approx. 90 g (3.17 oz) *(with Bracket : Approx. 120 g (4.23 oz))*	Approx. 105g (3.7 oz) *(with Bracket : Approx. 135 g (4.76 oz))*
Mounting		Wall, Corner (Indoor) (with Bracket : Wall, Corner, Ceiling)	

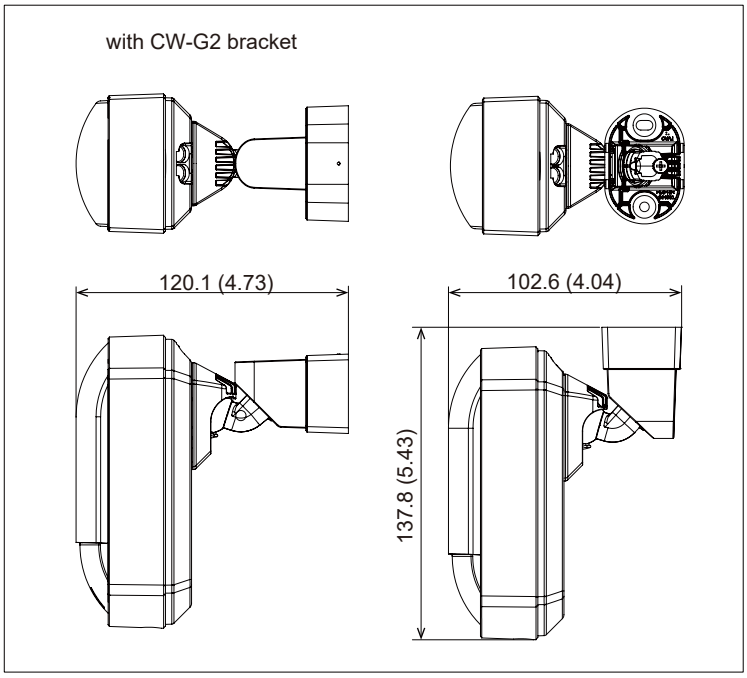
- Specifications and designs are subject to change without prior notice.
- These units are designed to detect an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.

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

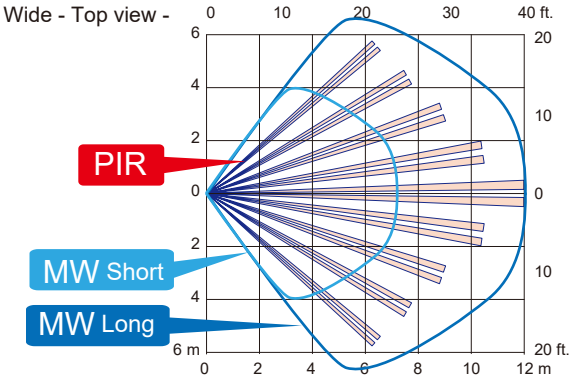


Unit: mm (inch)

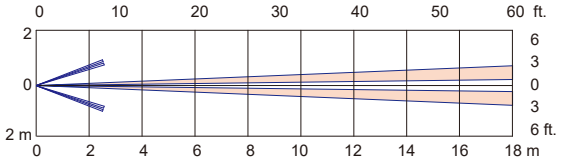


- Detection area

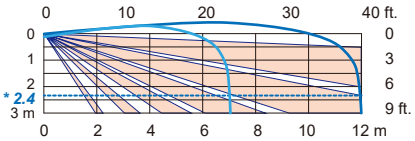
Wide - Top view -



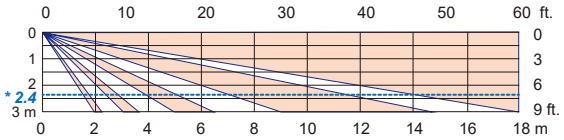
Narrow - Top view -



Wide - Side view -



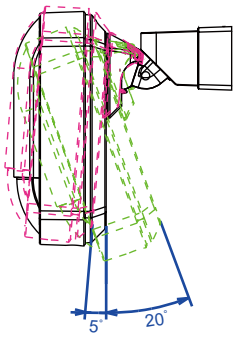
Narrow - Side view -

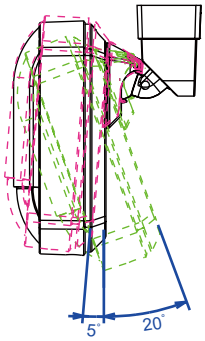


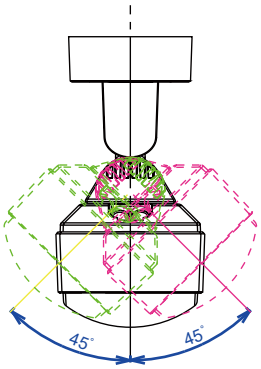
NOTE

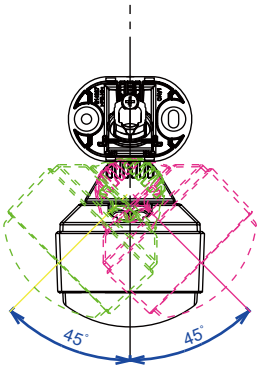
- The **** 2.4 m*** dotted line indicates the recommended mounting height.
- When “Narrow” is selected at the jumper pin, MW detection will be stopped.
- Narrow area settings are not certified to the following standards.
  EN 50131-2-2 (FLX-S-ST)/EN 50131-2-4 (FLX-S-DT), INCERT and SBSC.

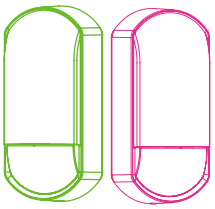
- Angle adjustment with bracket CW-G2

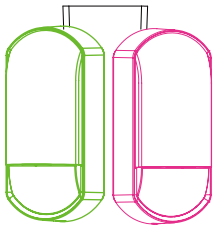












NOTE

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

- Compliance

RE Directive 2014/53/EU

- OPTEX declares that FLX-S-DT-X5, FLX-S-DT-X5-BKT, FLX-S-DT-X8, and FLX-S-DT-X9 comply with RE Directive 2014/53/EU.
  Doc documents can be found on our website; **www.optex.net**
- Microwave emission Frequency and Power

FLX-S-DT-X5:	10.525 GHz	15.78 mW e.i.r.p
FLX-S-DT-X5-BKT:	10.525 GHz	15.78 mW e.i.r.p
FLX-S-DT-X8:	10.587 GHz	8.93 mW e.i.r.p
FLX-S-DT-X9:	9.425 GHz	14.50 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
  9.425 GHz: Austria, Czechia, Estonia, Germany, Slovakia, Turkey, Russia

- FLX-S-DT-X5, FLX-S-DT-X5-BKT, FLX-S-DT-X8, and FLX-S-DT-X9 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.

- EN 50131-1 Grades and Environmental Class; Security Grade 2, Environmental Class II
  Applied Standards; EN 50131-2-2 (FLX-S-ST), EN 50131-2-4 (FLX-S-DT-X5 and FLX-S-DT-X8)
  Tested and certified by Kiwa
- larm klass 2, miljö klass II, SSF 1014
- PD6662:2017
- UL/c-UL listed (FLX-S-ST and FLX-S-DT-X5)

■ **EU & UK contact information**

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

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