OPTEX

WIRELESS OUTDOOR DETECTOR

FTN-RRHW/FTN-RRIX
FTN-RR2G/FTN-RRDS

FTN-RRHW	Honeywell 5800 Series Compatible	FTN-RR2G	2GIG Compatible
FTN-RRIX	Interlogix 319.5MHz Compatible	FTN-RRDS	DSC 433MHz Compatible

Product is not produced by, endorsed by, nor is officially associated with Honeywell, Interlogix, 2GIG or DSC.

FEATURES

• Narrow Angle Detection

• Detection Range Adjustability (2m / 5m)

• Intelligent 'AND' logic

• Horizontal Adjustability

• Tamper Output

CONTENTS

1 INTRODUCTION

1-1 BEFORE INSTALLATION

⚠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.
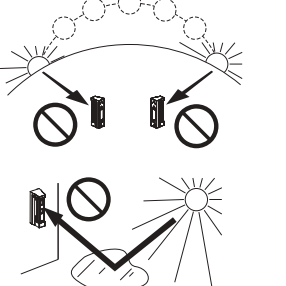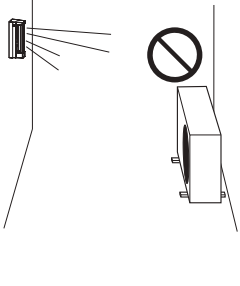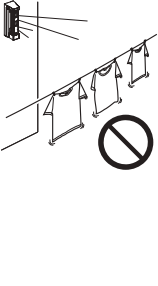
The check ✓ mark indicates recommendation.

The nix ⃠ sign indicates prohibition.

⚠Warning	⚠Caution
Do not remove the PCB.	Do not touch the PCB except for the DIP switch.

Mounting height.	Keep the detector parallel to the ground.	Consider the direction a person is approaching from, as well as the detection area.

0.8 – 1.2 m
(2'7" – 3'11")

Parallel

Tilt

Install the detector in a place where it is free from false alarm factors. For example:

- Direct Sunlight and reflection
- Heat source
- Objects moving in the wind

1-2 ZONE CONFIGURATION SUGGESTIONS

Set up "FITLINK" according to location as desired. Below are zone configurations for typical location types.

Location	Alarm Output			Panel Event	Chime	Report to CMS	
	Disarm	Away	Stay			Alarm	Trouble
Front Porch; Backyard Carport; Gate Entrance; Deck	No	No	No	Yes	Toggle On or Off	No	Yes
Crawl Space; Basement; Storage Shed;	No	Instant Alarm	Instant Alarm	Yes	On during disarm	Yes	Yes
Garage or Sliding Glass Door; Screened in Porch; Sunroom	No	Entry delay 2	Entry delay 2	Yes	On during disarm	Yes	Yes
Driveway; Sidewalk; Public Areas	No	No	No	No	Toggle On or Off	No	Yes

1-3 PARTS IDENTIFICATION

Mounting base

Screw cap

Bracket

Main unit cover

Transmitter compartment

Main unit

Lens

Screw

Fixture
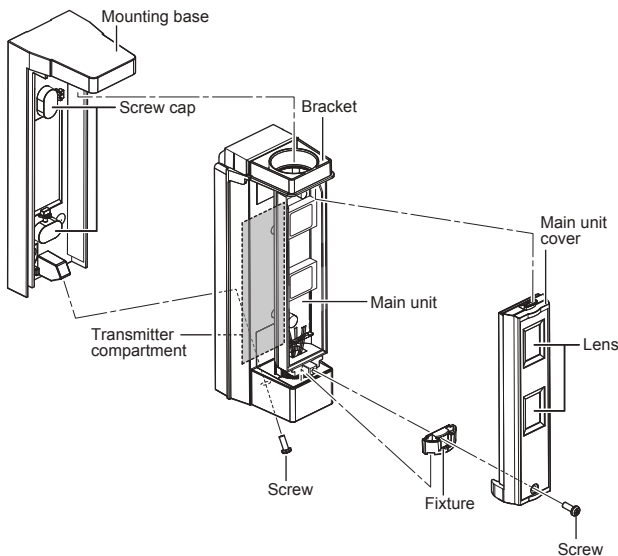
Screw

Accessories>>

Screw kit

For wall mounting
Screw (3 × 20 mm)

Note>>

FCC ID
FTN-RRHW: U5X-RE201X
FTN-RR2G: U5X-RE201X
FTN-RRIX: U5X-RE101X
FTN-RRDS: U5X-RE301

IC ID
FTN-RRHW: 8310A-RE201
FTN-RR2G: 8310A-RE201
FTN-RRIX: 8310A-RE101
FTN-RRDS: 8310A-RE301

DETECTION AREA

Top view

(m)

Adjustable range: 95° (by 5° pitch)

Adjustable range: 95° (by 5° pitch)

1 0 1 2 3 4 5 (m)

Side view
5 m detection length

(m)
0
0.8
1.0
1.2
0 1 2 3 4 5
(m)

2 m detection length

(m)
0
0.8
1.0
1.2
0 1 2 3 4 5
(m)
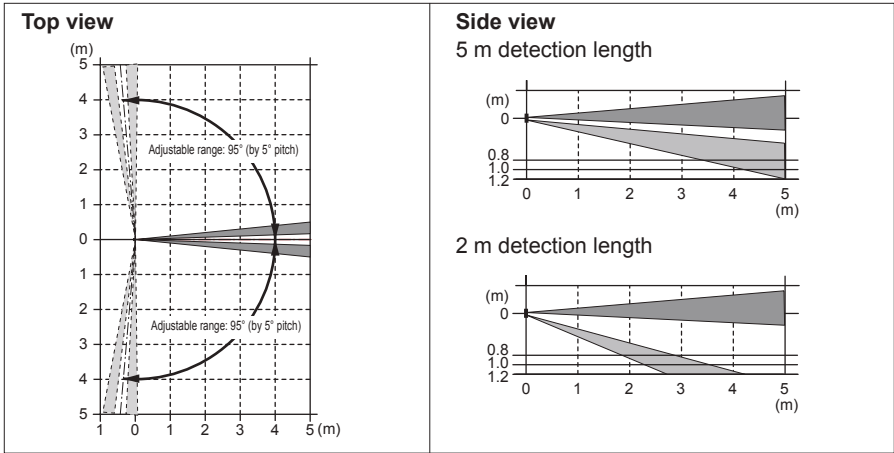
2 INSTALLATION

2-1 WIRING DIAGRAM

- Overall wiring diagram

Transmitter

Bracket

A
GND
B

Red
Black
White
Yellow

Green
Blue

Red: Power input (+)
Black: Power input (-)
White: Alarm
Yellow: Alarm

Green: Tamper
Blue: Tamper

Main unit
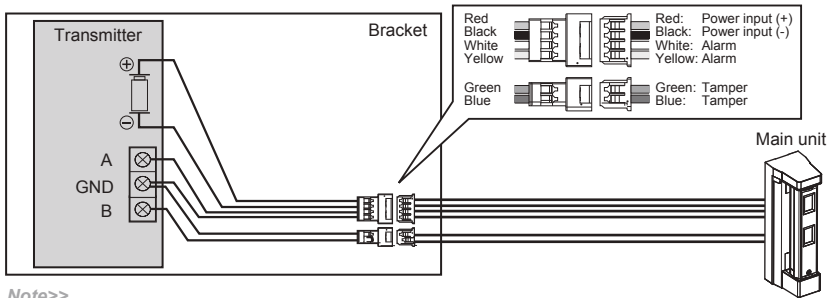
Note>>
• The battery in the transmitter is shared with the detector.
• Connection for TROUBLE is used when monitoring for Tamper.

Enrolling to Honeywell LYNX Touch L5210/L7000 Series

1. Place the panel into wireless enrollment mode and then trip the tamper three times.
2. Set "Loop Number" to 1.
3. Set "Device type" to "Other".
4. Set "Response Type" and "Alarm Report" according to following table.
5. Set "Chime" to your preferred type.
6. Set "Supervision" to "Supervised".

Location	Response Type	Alarm Report
Front Porch; Backyard Carport; Gate Entrance; Deck	Silent Burglary	No
Crawl Space; Basement; Storage Shed	Perimeter	Yes
Garage or Sliding Glass Door; Screened in Porch; Sunroom	Entry Exit 2	Yes
Driveway; Sidewalk; Public Areas	Silent Burglary	No

Enrolling to Honeywell Residential Vista Panels

1. While in program mode, press *56 to enter Zone Programming Menu Mode.
2. Select 0 or 1 to determine if you will "confirm" the sensor after learning it.
3. Enter the zone number that you wish to program (or 00 to exit zone programming). Press [*] to continue.
4. A summary display appears, press [*] to continue.
5. Enter "Zone Type" according to table.
6. Enter "Partition No."
7. Enter "Report codes" according to table.
8. Enter "Input Type" to "3" = RF (supervised RF transmitter).
9. Learn or input transmitters serial number. (To learn FITLINK, trip the tamper three times.)
10. Change "Loop Number" to 1.

Location	Zone Type	Report Codes
Front Porch; Backyard Carport; Gate Entrance; Deck	Type 24 Silent Burglary	00
Crawl Space; Basement; Storage Shed	Type 03 Perimeter Burglary	Other than 00
Garage or Sliding Glass Door; Screened in Porch; Sunroom	Type 02 Entry Exit 2	Other than 00
Driveway; Sidewalk; Public Areas	Type 24 Silent Burglary	00

2-2 ENROLLING TO CONTROL PANEL

Enrolling to 2GIG GC2/GC3

1. Select "RF Sensor #" (01 to 48).
2. Select "Sensor Type" according the following table.
3. Select "Sensor Equipment Code" as "[0000] Other or [0609] Existing Motion Detector".
4. Select "Sensor Other Equip code as "[0]" (this menu only appears if [0000] Other was selected in the previous menu.
5. At the "Sensor Serial Number" menu, press shift, then press Learn, and then trip detector tamper switch.
6. Select "Equipment Age" as "New".
7. Select "Loop Number " as "Loop 1".
8. Select "Dialer Delay" as "Enabled".
9. Edit "Voice Descriptor" according to location.
10. Select "Sensor Reports" according to following table.
11. Select "Sensor Supervised" to "Enabled".
12. Select the desired chime.

Location	Sensor Type	Sensor Reports
Front Porch; Backyard Carport; Gate Entrance; Deck	(23) No Response Type	No
Crawl Space; Basement; Storage Shed	(03) Perimeter	Yes
Garage or Sliding Glass Door; Screened in Porch; Sunroom	(02) Exit/Entry 2	Yes
Driveway; Sidewalk; Public Areas	(23) No Response Type	No

2-2　ENROLLING TO CONTROL PANEL

Enrolling to DSC PowerSeries
1. Put control panel into learn sensor mode.
2. Push tamper switch to enroll FITLINK.
3. Press [*] key to confirm ID.
4. Enter [zone #].
5. Enter [zone type] according to the following table.
6. Press the tamper again to "Activate the Device for Test".
7. Set "Zone Attributes" according to following table.

Location	Zone Types	Zone Attributes
Front Porch; Backyard Carport; Gate Entrance; Deck	24-hour Non-Alarm	Set "Chime" ON or OFF
Crawl Space; Basement; Storage Shed	Instant	Keep as defaults
Garage or Sliding Glass Door; Screened in Porch; Sunroom	Delay 2	Keep as defaults
Driveway; Sidewalk; Public Areas	24-Hour Non-Alarm	Set "Chime" ON or OFF

Enrolling to Interlogix Simon XTi

1. Put control panel in learn sensor mode.
2. Push tamper switch to enroll FITLINK.
3. Enter "Sensor Number"
4. Select "Sensor group" according to following table.
5. Change "Sensor Name" of Item 1 to the correct name from the list.
6. Press save to save the changes.

Location	Sensor Type
Front Porch; Backyard Carport; Gate Entrance; Deck	25: Local special chime
Crawl Space; Basement; Storage Shed	13: Instant perimeter
Garage or Sliding Glass Door; Screened in Porch; Sunroom	10: Entry/exit delay
Driveway; Sidewalk; Public Areas	25: Local special chime

Enrolling to Interlogix Concord 4/Concord Express

1. Put control panel in learn sensor mode.
2. Select partition.
3. Enter the sensor group according to following table.
4. Push tamper switch to enroll FITLINK.
5. Exit learn sensor mode

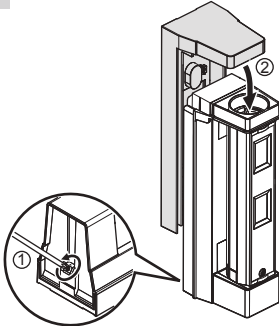### Enrolling to Interlogix AdvisorOne

1. From the Sensors screen, press LEARN RF.
2. Select the sensor group according to following table.
3. Push tamper switch to enroll FITLINK.
4. Press CLOSE.
5. Press EDIT to edit the options.
6. Select "Chime Mode" as desired.
7. Press SAVE and CLOSE.

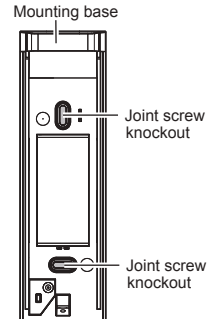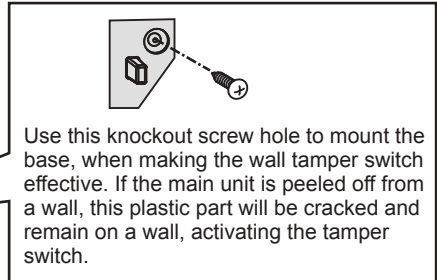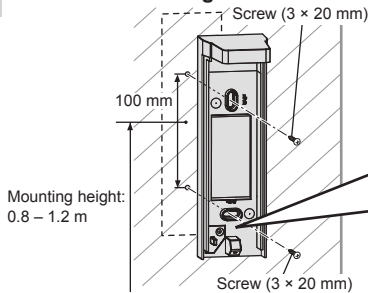| Location	Sensor Type
Front Porch; Backyard Carport; Gate Entrance; Deck	25: Local special chime
Crawl Space; Basement; Storage Shed	13: Instant perimeter
Garage or Sliding Glass Door; Screened in Porch; Sunroom	11: Supplementary Extended Delay
Driveway; Sidewalk; Public Areas	25: Local special chime

2-3 MOUNTING

1 **Remove the mounting base.**

2 **Open the knockout.**

Mounting base

Joint screw knockout

Joint screw knockout

3 **Mount the mounting base on the wall.**

Screw (3 × 20 mm)

100 mm

Mounting height: 0.8 – 1.2 m

Screw (3 × 20 mm)

Use this knockout screw hole to mount the base, when making the wall tamper switch effective. If the main unit is peeled off from a wall, this plastic part will be cracked and remain on a wall, activating the tamper switch.

Note>>
• Transmitter needs to be enrolled to reciever before installing the detector.

4 **Attach the bracket and main section.**
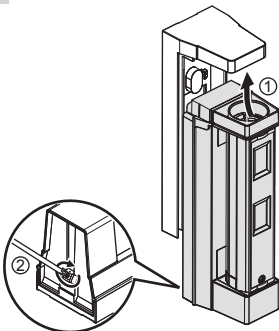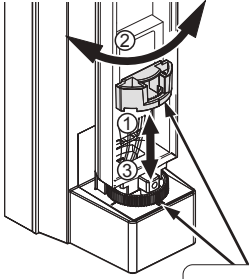

5 **Open the main unit cover**
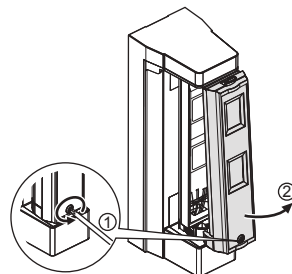
Note>>
• Be sure to set the screw cap after installing the mounting base.

6 **Determine the horizontal detection angle and attach the fixture.**
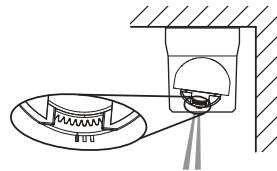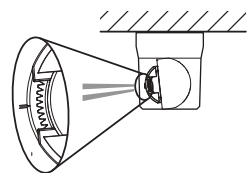
Notes>>
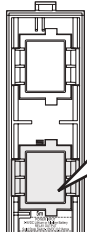• Align the detection area parallel to the wall to reduce interference with the wall.
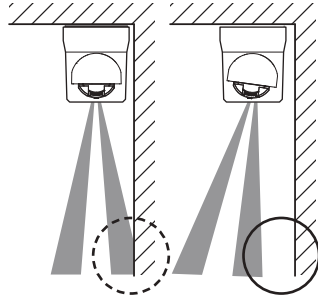
• When the unit is mounted on the corner to look ahead along the wall, choose the guide-mark located on the opposite side ofthe wall.

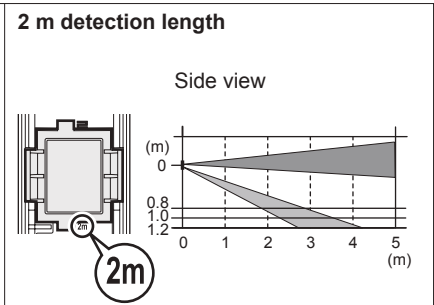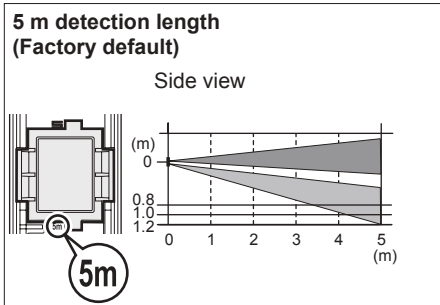• When the unit is mounted on the wall to look transversely, choose the guide-mark engraved.

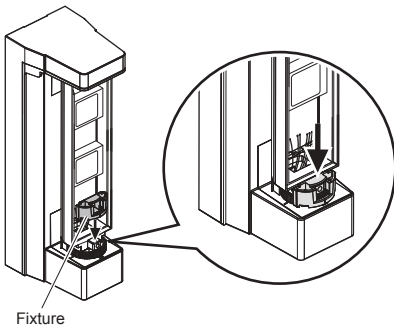**8** Determine the detection length. (2 m or 5 m)

If 2 m is required, rotate the lower lens 180 degrees.

Note>>
• Do not remove the upper lens.
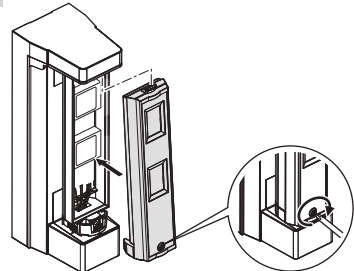
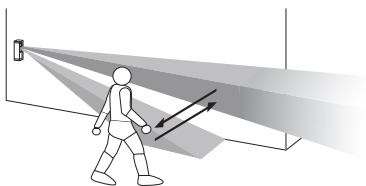| 5 m detection length (Factory default)	2 m detection length
Side view	Side view

9 Attach the fixture.

Fixture

10 Attach the main unit cover.

Note>>
• To prepare for walk test, check that DIPswitch 1 (WALKTEST MODE) is set to "ON (TEST)" before attaching main unit cover.

11 Perform walk test.
For details, refer to 3-1.

12 After walk test is complete, set DIP switch 1 (WALK TEST MODE) from "ON" to "OFF".
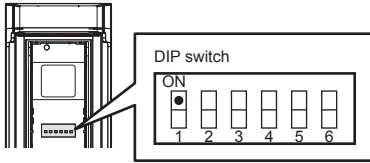
Note>>
• The battery life will be shortened unless the DIP switch 1 is set to "OFF".
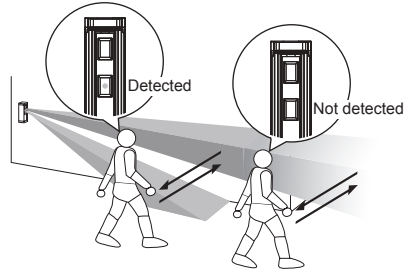
3 WALK TEST

3-1 WALK TEST

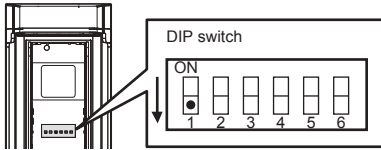**1** Set the DIP switch 1 (WALK TEST MODE) to "ON (TEST)".

DIP switch

Note>>
• The switch is set to "ON (TEST)" by factory default.

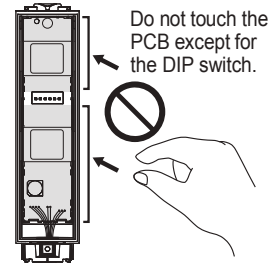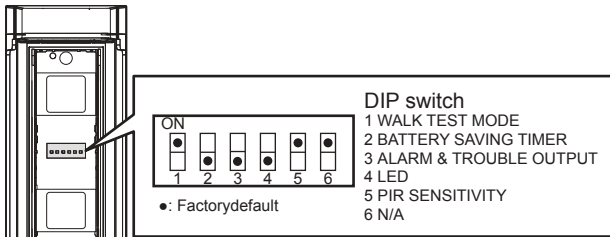**2** Check that LED lights for 2 seconds when the intended object is detected.

Detected

Not detected

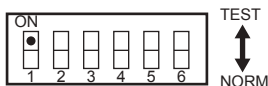**3** Set the DIP switch 1 (WALK TEST MODE) to "OFF (NORM)".

DIP switch

Notes>>
• The battery life will be shortened unless the DIP switch 1 is set to "OFF".
• To use the LED in normal operating condition, set the DIP switch 4 to "ON".

# 4 DIP SWITCH SETTING

DIP switch
1 WALK TEST MODE
2 BATTERY SAVING TIMER
3 ALARM & TROUBLE OUTPUT
4 LED
5 PIR SENSITIVITY
6 N/A

●: Factory default

Do not touch the PCB except for the DIP switch.

4-1 WALK TEST MODE   DIP switch 1

TEST

NORM

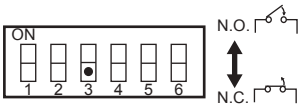| Position	Function
TEST (Factory default)	• The LED lights irrespective of the DIP switch 4 (LED) setting. • The DIP switch 2 (BATTERY SAVING TIMER) setting is inactive.
NORM	• The LED lights depending on the DIP switch 4 (LED) setting. • The DIP switch 2 (BATTERY SAVING TIMER) setting is active.

4-2   **BATTERY SAVING TIMER**   DIP switch 2

5S ↕ 120S
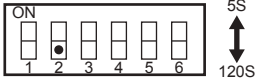
Note>>
• The detector will not generate alarms at intervals shorter than the specified time.

Position	Function
5S	5 sec.
120S (Factory default)	120 sec.

4-3   **ALARM & TROUBLE OUTPUT**   DIP switch 3

N.O. ↕ N.C.

Position	Function
N.O.	N.O. output
N.C. (Factory default)	N.C. output

4-4   **LED**   DIP switch 4
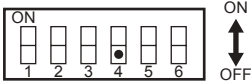
ON ↕ OFF

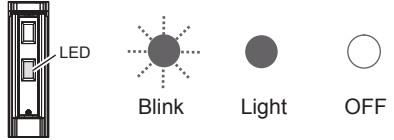| Position	Function
ON	LED ON
OFF (Factory default)	LED OFF **Note>>** • If the LED lights, check the DIP switch 1 (WALKTEST MODE) setting.

4-5   **PIR SENSITIVITY**   DIP switch 5

STD ↕ LOW
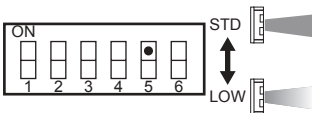
Position	Function
STD (Factory default)	Normal sensitivity
LOW	Low sensitivity

5 OTHERS

5-1 LED LIGHT PATTERN

The following explains the LED light pattern.

LED
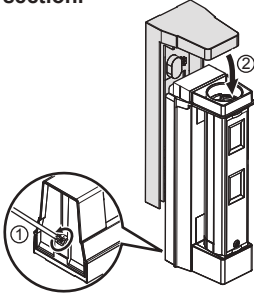
Blink   Light   OFF

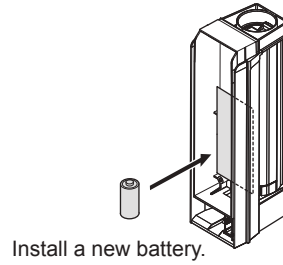| Detector condition	LED indicator
Warm-up **Note>>** • The LED blinks even if the DIP switch 4 (LED) is set to "OFF".	 Blinks for approx. 120 seconds.
Alarm	 Lights for 2 seconds.

6 BATTERY

The detector shares the battery with the transmitter.
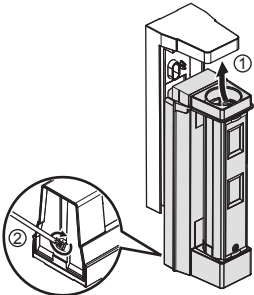
6-1 HOW TO REPLACE BATTERY

1 **Remove the bracket and main section.**

2 **Replace the battery.**

Install a new battery.

3 **Attach the bracket and main section.**

6-2 BATTERY LIFE

The values indicated are only for reference on each condition.

CR123A (3 V, 1300 mAh)

| Alarm trigger per day	Battery Life
150	Approx. 5 years
500	Approx. 2 years

7-1 SPECIFICATIONS

Model	FTN-RRHW	FTN-RRIX	FTN-RR2G	FTN-RRDS
Detection method	Passive infrared			
PIR coverage	5 × 1 m (16'5" × 3'3")			
Detection length limit	2 m, 5 m (6'7", 16'5")			
Detection width	3'3" wide at 16'5" / 24" wide at 6'7"			
Detectable speed	0.3 – 1.5 m/s (1' – 4'11"/s)			
Sensitivity	2.0°C (at 0.6 m/s) (3.6°F (at 2'/s))			
Power source	CR123A Lithium battery			
Current draw	11.2µA standby / 23mA max. at 3 V DC			
Alarm period	2.0 ±1.0 sec.			
Warm-up period	Approx. 120 sec. (LED blinks)			
Alarm output	N.C./N.O. Selectable-Solid State Switch 10 V DC 0.01 A (max.)			
Trouble output	N.C./N.O. Selectable-Solid State Switch 10 V DC 0.01 A (max.)			
LED indicator	Enable: During DIP switch 1 (WALK TEST MODE) or DIP switch 4 (LED) ON Disable: During normal operation Light/Blink: Warm-up, alarm, masking detection (FTN-RAM-PT only)			
RF Interference	No alarm 10 V/m			
Operation temperature	-20 – +60°C (-4 – +140°F)			
Environment humidity	95% max.			
Weatherproof	IP55			
Mounting	Wall (Outdoor, Indoor)			
Mounting height	0.8 – 1.2 m (2'7" – 3'11")			
Weight	180 g (6.4 oz.) without wireless transmitter and battery			
Accessories	screw (3 × 20 mm) × 2			

Specifications and design are subject to change without prior notice.

7-2 DEMENSIONS

Unit: mm

176.4

52.6   67.5
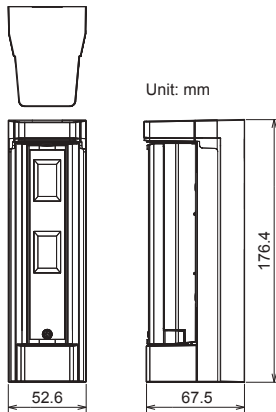
NOTE

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.

For technical / sales support:
800-966-7839
support@optexamerica.com
www.optexamerica.com

OPTEX