![OPTEX]

INSTALLATION INSTRUCTIONS

EN

Indoor Recessed Mount PIR Detector

AP-360B(C)

360°/Wired model

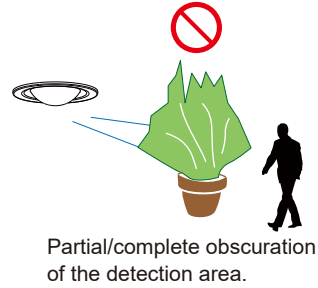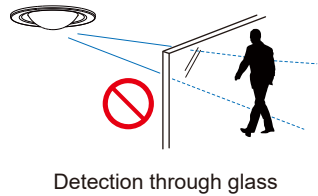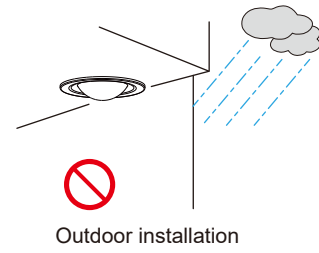360° ø6.0 m (20') detection area *at 4.5 m (14' 9") mounting height*

<< Contents >>

- 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.

⚠ **Caution**

Mounting height
2.5 to 4.5 m (8'2" to 14'9")

Follow to the Regulations

- Parts identifications

Base cover

JP1
Alarm output mode

JP2
PIR sensitivity

SW1
Tamper switch

Top cover

Lens

Accessories

Retaining spring x 2

Fixing screw

Mounting Bezel
for an 86-type box

Screw cap x 2
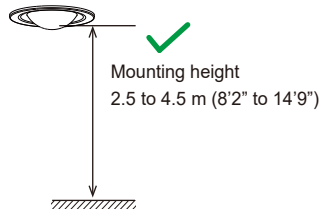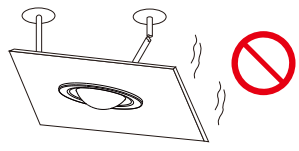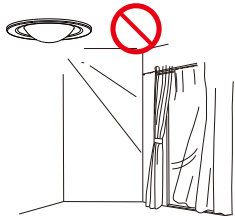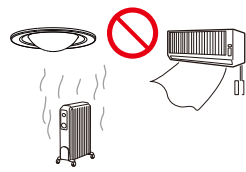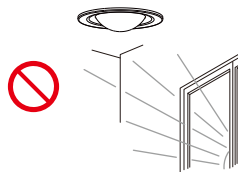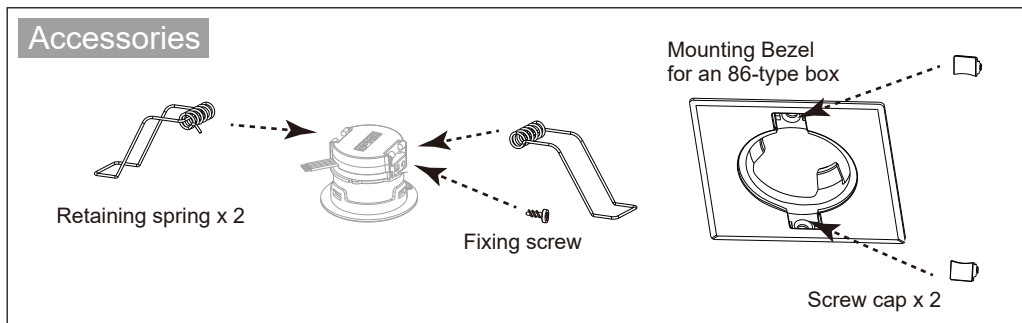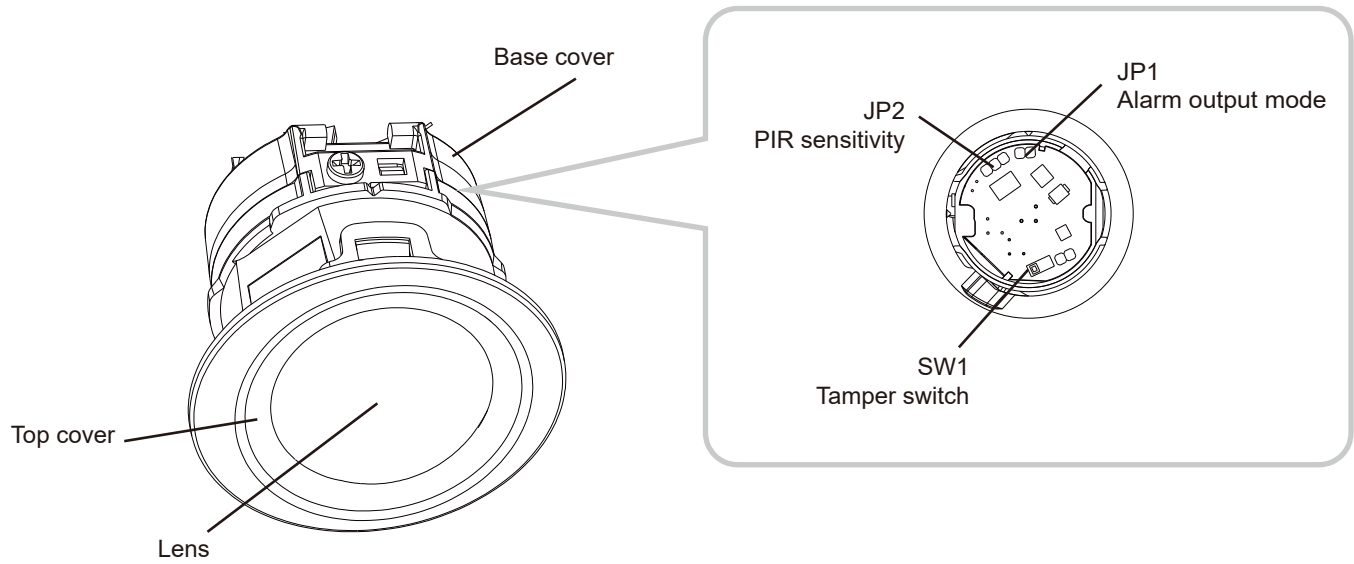
① Settings

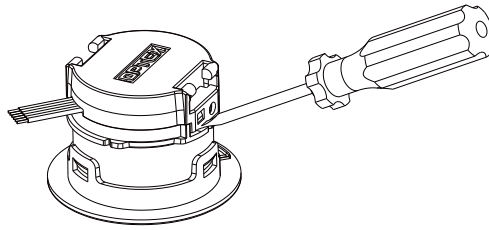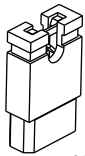## 1 Disassemble

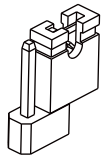Open the base cover, and to set the detector.

2 Jumper pin settings

JP1
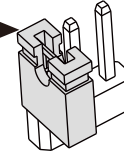Alarm output mode

N.C. (default)   N.O.

JP2
PIR sensitivity

Turn the jumper PIN by 90 degrees to prevent interference with the casing.
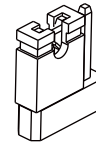
H (recommended)	M (default)	L
Mounting height: > 3.5 m (11'6")	3.0 to 3.5 m (9'10" to 11'6")	< 3.0 m (9'10")
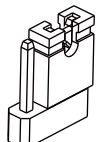
3 Light control mode settings

30
2   120 ℂ
Time(s)   LUX
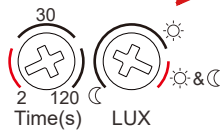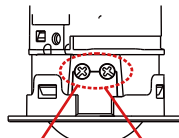
Security mode (default)

30
2   120 ℂ
Time(s)   LUX
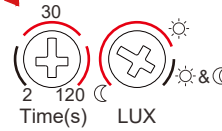
Light control mode

4 Assemble
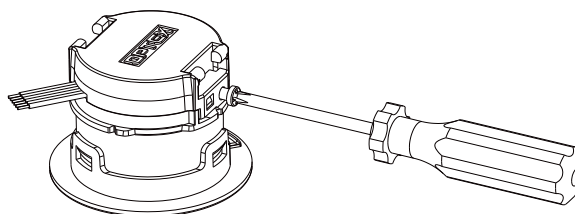
Close the base cover, and fasten the screw to fix the cover.

2-1. Ceiling mount *without switch box*

Accessories
used in this installation

Retaining spring x 2
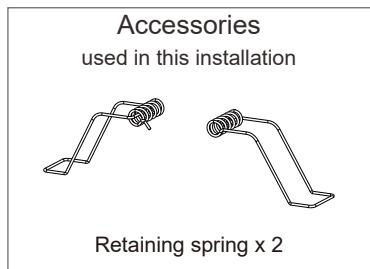
1 Install a retaining spring on both sides.
(follow the illustrated arrow steps to complete the assembly of the retaining spring.)
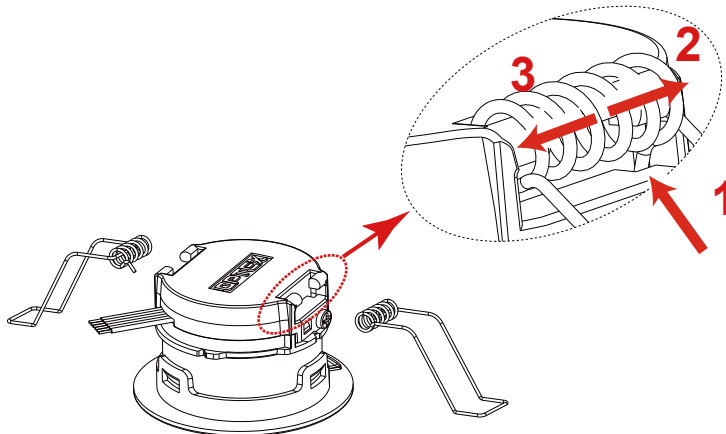
2 Make a ø45 mm (1.77") hole in the ceiling for mounting.

ø45 mm
(1.77")
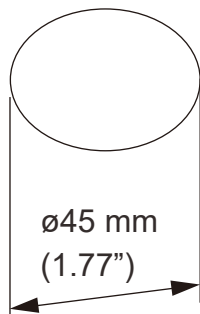
3 Insert the detector into the hole with the retaining spring facing up.
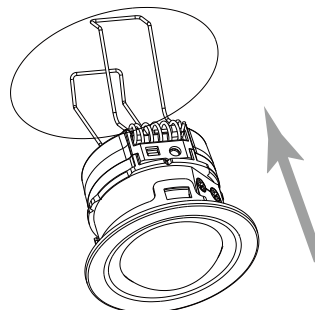
4 Mount the detector on the ceiling.
(Be sure to arrange the wires with a downward slope to prevent water igress into the detector.)
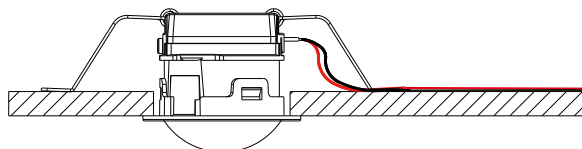
2-2. Ceiling mount *with 86-type box*

Accessories
used in this installation

Mounting Bezel
for an 86-type box

Screw cap x 2

Options
to procure in the market

86-type box x 1
Screw x 2
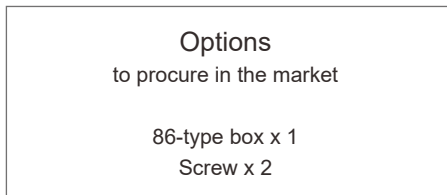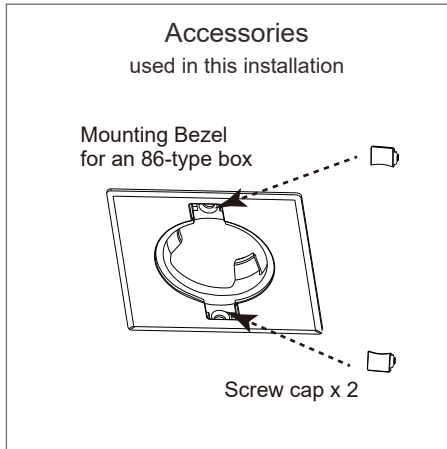
1 Prepare an 86-type box on the ceiling.
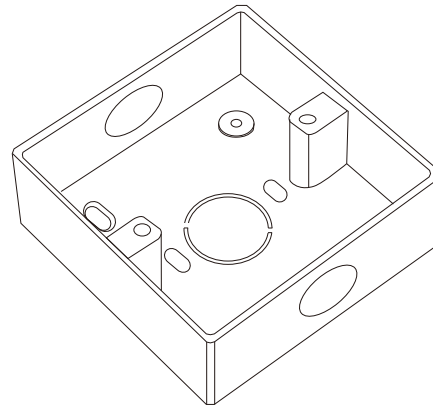
2 Install the detector into the 86-type box.
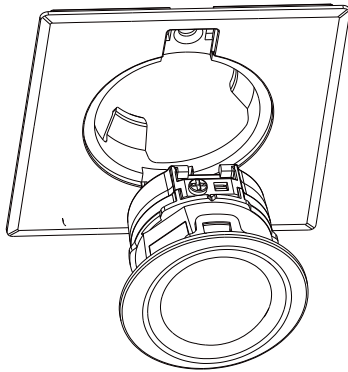
NOTE

Align the bump with the triangle recess as illustrated in the figure.
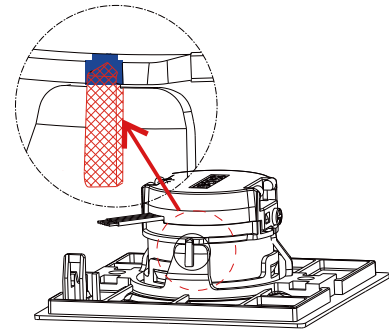
3 Fix the detector with two screws and cover their heads with two caps.
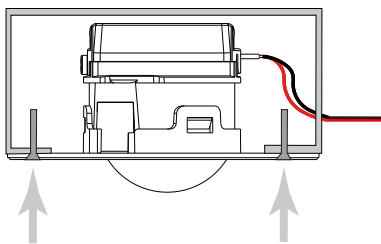
NOTE — Be sure to arrange the wires with a downward slope to prevent water igress into the detector.
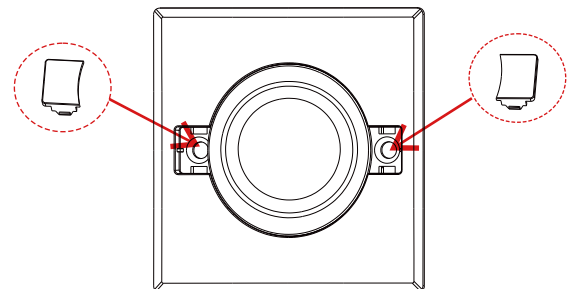
2-3. Wiring

▬▬▬▬	[1] Red Power supply: Positice
▬▬▬▬	[2] Black Power supply: Negative
▬▬▬▬	[3] White Alarm output
▬▬▬▬	[4] Yellow Alarm output
▬▬▬▬	[5] Green Tamper output
▬▬▬▬	[6] Blue Tamper output

Power cable length

The power cable should be limited to the following length.

AP-360B(C)

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

3-1. Walk test

1 Power on.
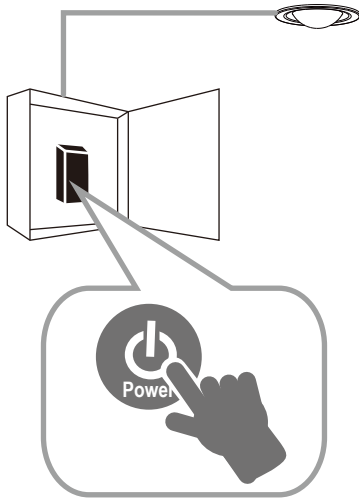
2 Wait for 60 seconds to complete the warm-up time.

Power

60 sec.
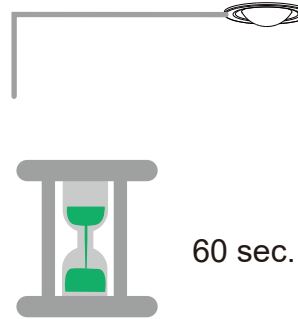
3 Walk in the detection area to check the detecting performance.
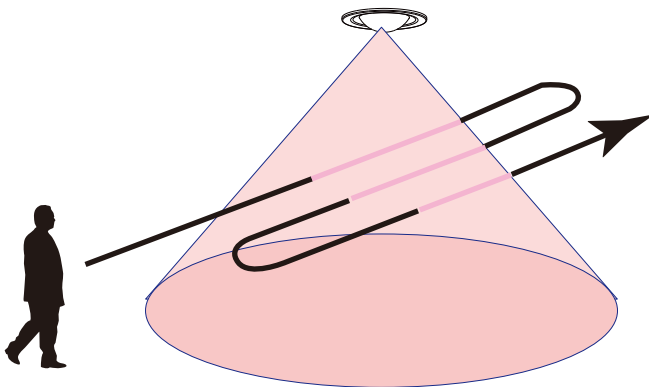
4 Start operation.
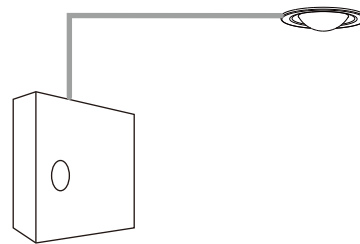
- Specifications

Model	AP-360B(C)
Detection method	Passive infrared
Detection area	ø6 m (ø20') at mounting height 4.5 m (14'9")
Mounting height	2.5 to 4.5 m (8'2" to 14'9")
Mounting type	Recessed ceiling mount/86-type box mount
Sensitivity	2.0℃ at 0.6 m/s (3.6°F at 2'/s)
Detection speed	0.3 to 3.0 m/s (1'/s to 9'10"/s)
LED indicator	Warm-up upon power on: blinking Stand-by: off Alarm: solid on
Alarm cycle	2 s to 120 s (variable)
Illuminance	20 to 320 lux (variable/not detected)
Alarm output	N.O./N.C., 28 V DC 200 mA max.
Tamper switch	N.C. 28 V DC 100 mA max. The contact opens once the casing is detached.
Warm-up time	Approx. 60 s
Power supply	9.5 to 16 V DC
Current	12 V DC Stand-by: 11mA, Max.: 13 mA
PIR sensitivity	H/ M/ L
Weight	50 g (1.76 oz)
Operation temprature	-20 to +50℃ (-4°F to +122°F)
Operation humidity	< 95%
Location	Indoors
Dimensions	ø52 x 42.5 mm (ø2.05 in. x 1.67 in.): without switch box mount
	86 x 86 x 42.5 mm (3.39 x 3.39 x 1.67 in.): with 86-type box mount

• 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.

- Dimensions

Without switch box mount

102 (4.02)

42.5 (1.67)

ø52 (2.05)

With 86-type box mount

42.5 (1.67)

86 (3.39)

86 (3.39)
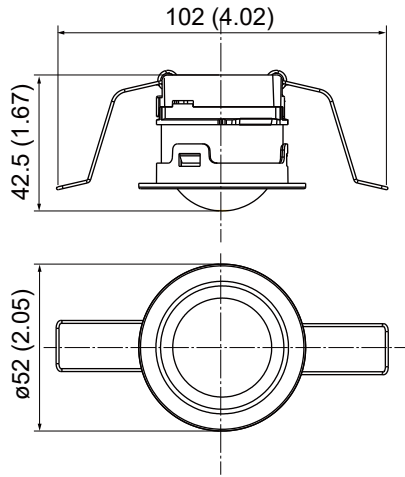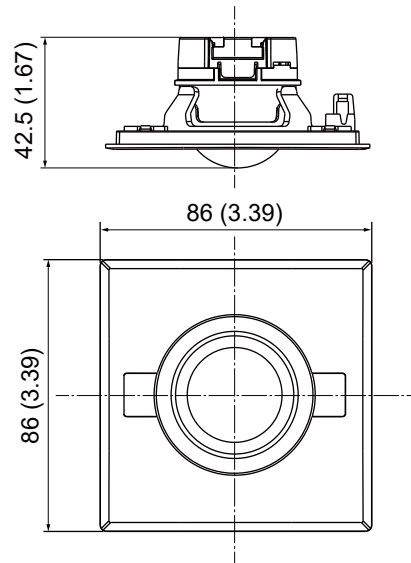
Unit: mm (inch)

- Detection area

Top view

3.0 (9'10")
2.0 (6'7")
1.0 (3'3")
0
1.0 (3'3")
2.0 (6'7")
3.0 (9'10")

3   2   1   0   1   2   3
(9'10"   6'7"   3'3"   0   3'3"   6'7"   9'10")

Side view

0
2.0 (6'7")
2.5 (8'2")
3.0 (9'10")
3.5 (11'6")
4.0 (13'1")
4.5 (14'9")

3   2   1   0   1   2   3
(9'10"   6'7"   3'3"   0   3'3"   6'7"   9'10")
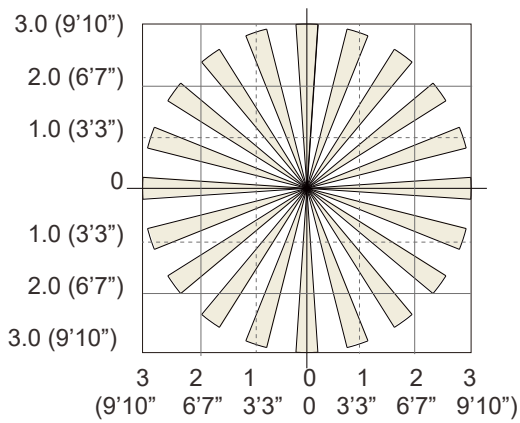
Maximum detection area

Mounting height	2.5 (8' 2')	3.0 (9' 10")	3.5 (11' 6")	4.0 (13' 1")	4.5 (14' 9')
Detection area	ø3.3 (ø10' 10")	ø4.0 (ø13' 1")	ø4.6 (ø15' 1")	ø5.4 (ø17' 8")	ø6.0 (ø20')

Unit: m (ft., in.)
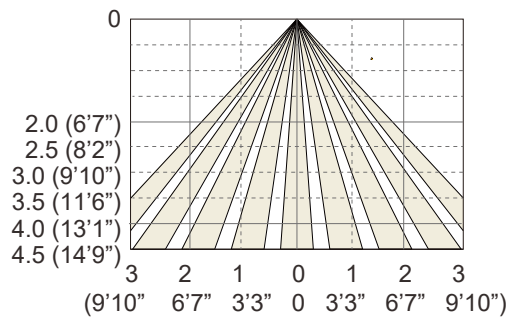
- Troubleshooting

Problem	Cause	Solution
The LED is off.	The power supply voltage does not meet the requirement due to disconnection from the power supply or low voltage.	Check the power supply of the detector. Refer to "Specifications" on the page 9 for the power supply voltage.
	Incorrect detection area.	Adjust the detection area. Refer to "Detection area" on the page 10.
The LED is on even there is no person in the detection area.	A moving object exsts in the detection area, such as a fluttering curtain or a swinging wall-mounted pendant.	Remove the moving object from the detection area or change the detector location.
	The temperature changes rapidly in the detection area due to a heat source, such as a radiator or air conditioner.	Remove the heat source fron the detection area or change the detector location.
The LED is on but the detector does not transmit signals.	Relay contact abhesion or damage occurs due to overload.	Check the output load. Repair or replace the damaged part.
	Improper wiring.	Connect the wires for the detector correctly.
The detector fails to warm up in 60 seconds after power on and the LED blinks continuously.	A moving object exista in the detection area during the warm-up period of the detector.	Be sure that there is no moving object in the detection area during the warm-up period of the detector.
	The detector fails to work properly.	Repair or replace the detector.

- Compliance

OPTEX

OPTEX CO., LTD. (JAPAN)
www.optex.net

OPTEX INC./AMERICAS HQ (U.S.)
www.optexamerica.com

OPTEX (EUROPE) LTD./EMEA HQ (U.K.)
www.optex-europe.com

**OPTEX SECURITY B.V.
(The Netherlands)**
www.optex-europe.com/nl

OPTEX SECURITY SAS (France)
www.optex-europe.com/fr

OPTEX SECURITY Sp.z o.o. (Poland)
www.optex-europe.com/pl

**OPTEX PINNACLE INDIA,
PVT., LTD. (India)**
www.optexpinnacle.com

OPTEX KOREA CO.,LTD. (Korea)
www.optexkorea.com

**OPTEX (DONGGUAN) CO.,LTD.
SHANGHAI OFFICE (China)**
www.optexchina.com

OPTEX (Thailand) CO., LTD. (Thailand)
www.optex.co.th