TAKEX

ANTI-MASKING BASE UNIT

BP-150AE

The BP-150AE is a unique sensor base unit that adds anti-masking functionality to several TAKEX products. It prevents the sensor from being sabotaged by spray paint, paper or the attachment of other materials in an attempt to blind or mask the unit.
Equipped with a photoelectric sensor, the unit will issue an alarm when it detects an event.
You can add anti-masking functionality to the PA-6812E, PA-6820E, PA-6810E, PA-6805E, PA-6612E or FS-2000E* by simply replacing the existing sensor base with the BP-150AE.

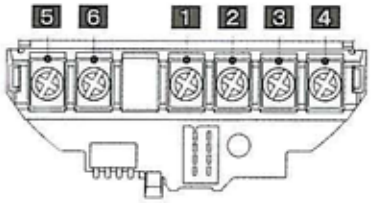
Just snap in an applicable sensor head.

Issues a trouble alarm when covered by paper or cloth.

Also detects putting a cover for sabotage.

ANTI-MASKING BASE UNIT

■TERMINAL ALLGIMENT

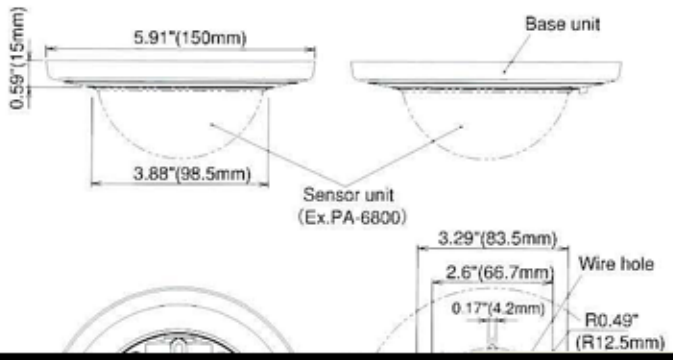


1 2 Power (non-polarity)
9 to 30V DC
Power is supplied to both base unit and sensor unit through terminal 1 and 2.
The supply voltage should be subject to the narrower nominal voltage specified for either base or sensor unit.

3 4 Alarm
Output should be subject to the spec.of the attached sensor unit.

5 6 Trouble alarm
N.C. only 24V(AC/DC)0.25 A Max
Anti-masking operation : Off delay output at detection(Approx.2sec)
Tamper output : Real time output when the sensor unit is removed from the base.

■EXTERNAL DIMENSIONS (Unit: inch)



■SPECIFICATIONS

Model	BP-150AE
Detection system	Direct reflection system by near infrared
Protection distance	Area in front of sensor
Detection element	Photo IC
Terminals	①② :Power supply to both sensor unit and anti-masking base ③④ :Alarm output ⑤⑥ :Trouble alarm output paralleled with tamper output
Installed location	Indoor ceiling mount
Compatible models and Power Supply (non-polarity)	9 to 18VDC :PA-6812E,PA-6820E, PA-6805E,PA-6810E 10.5 to 18VDC :PA-6612E 10 to 30VDC :FS-2000E*(Alarm output is limitted to N.C. only)
Alarm output	Subject to the attached sensor unit *N.C. only for FS-2000E
Current consumption	Max 15mA (Base unit only)
Trouble alarm output	Dry contact(Semi-conductor) output N.C. Rating :24V AC/DC Max. 0.25A (resistive load) Contact protection resistor 3.3 ohms OR-gated with tamper output through terminal ⑤ & ⑥
Trouble alarm operation	Anti-masking output :Off delay operation (Min Approx. 2 sec.) Tamper output :Real time operation
LED	Trouble LED :Orange Warming up :Light off Anti-masking output :Off delay light (Min 2sec.) Tamper output :Light off
Ambient temperature range	+5°F to +131°F (-15°C to +55°C) without condensation
Wiring	Terminals
Weight	120 g (3.86 oz)
Appearance	Body :ABS resin (White)

TAKEX ANTI-MASKING BASE UNIT
BP-150AE
Instruction Manual

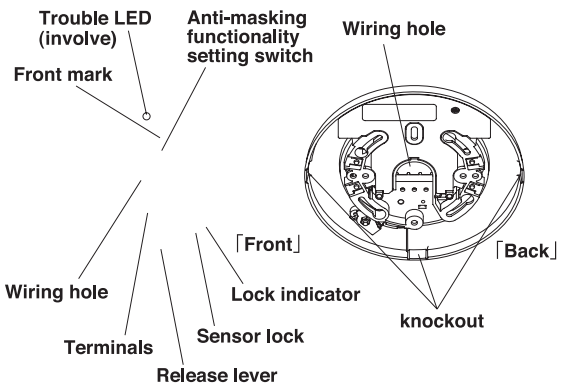
We appreciate your purchase of a TAKEX passive infrared sensor. This sensor will provide long and dependable service when properly installed. Please read this Instruction Manual carefully for correct and effective use.

Please Note : This sensor is designed to detect intrusion and to initiate an alarm ; it is not a or a crime preventing device. TAKEX is not responsible for damage, injury or losses caused by accident, theft, Acts of God (including inductive surge by lightning), abuse, misuse, abnormal usage, faulty installation or improper maintenance.

1 PRODUCT DESCRIPTION

The BP-150AE is a unique sensor base unit that adds anti-masking functionality to several TAKEX products.
It prevents the sensor from being sabotaged by spray paint, paper or the attachment of other materials in an attempt to blind or mask the unit. Equipped with a photoelectric sensor, the unit will issue an alarm when it detects an event.
You can add anti-masking functionality to the PA-6805E, PA-6810E, PA-6812E, PA-6820E or PA-6612E by simply replacing the existing sensor base with the BP-150AE.

2 PARTS DESCRIPTION

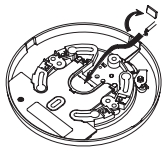


3 DO'S AND DON'T'S

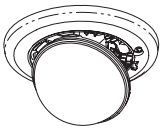
- Make sure that the installed sensor is applicable to the BP-150AE.
  Do not install inapplicable sensors to the BP-150AE, as they could cause mulfunction, damage or a fire.
- Do not install the sensor outdoors. (indoor only)
- Do not install in a site which is subject to electrical noise or intense vibration.
- Avoid direct sunlight, spot light or intense reflections on the sensor or the protection zone.
- The BP-150AE is designed to be installed on the ceiling. When intalling it on the wall, use the optional attachment.
- Make sure that the power is supplied with the nominal voltage.
  Otherwise, it could cause a fire or electrical shock.
- Do not install equipment which needs more capacity for their contacts output than the capacity specified for the base unit.
- Do not modify or disassemble the unit.
- If there is any tall object such as house plant or bookshelf under the installation site, remove them.
  They could cause mulfunction.
- When the unit is soiled, clean them with a soft cloth. (Do not use chemicals such as thinners or alcohol.)
- The anti-masking functionality is supposed to detect reflection changes of objects approaching the sensor.
  When the sensor detects similar changes, even though it is not caused by sabotage, it could issue an alarm.

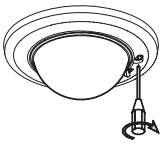
4 INSTALLATION

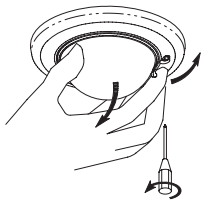
Mount the base unit on the ceiling with screws.
Fix so that the front mark (↑) is pointing to the center of the protection area.
For mounted wiring, put wire through the wiring hole.
For exposed wiring, break knockout and put through the wire hole along the outer side of the unit.



Refer to section "5. WIRING" and connect the wires to the terminals.
Set up the sensor accordin





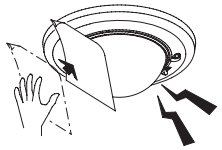


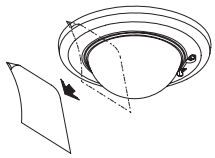
5 WIRING

6 OPERATION CHECK

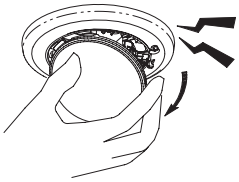
(1) After supplying power, check the operation of the sensor unit according to its installation manual.

(2) Check the operation of the base unit.
Cover the front side of the sensor with paper or colth and make sure that the sensor issues a trouble alarm and turns on the trouble LED (Orange).
Remove the paper or cloth and make sure that the sensor stops issuing an alarm and trouble LED is turned off.





(3) Check the tamper function.
Remove the sensor unit from the base and make sure that the sensor issues tamper alarm.
Reattach the sensor unit to the base and make sure the tamper output resets.



7 FUNCTION

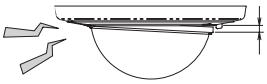
●Anti-masking functionality

Anti-masking functionality allows the sensor to issue the trouble alarm and turn on the trouble LED when its front side is covered by objects such as paper or cloth.
The sensor stops issuing an alarm when those objects are removed.
Once the sensor issues a trouble alarm, check its operation.

Note : The sensor could fail to detect clear spray or others which are less reflective to the near-infrared rays.

●Tamper output

Tamper alarm is issued when the sensor unit is removed from the base.
Alarm stops when the sensor unit is attached to the base unit properly.
Once the tamper alarm is issued, check the operation of the sensor unit.



●Functions selectable

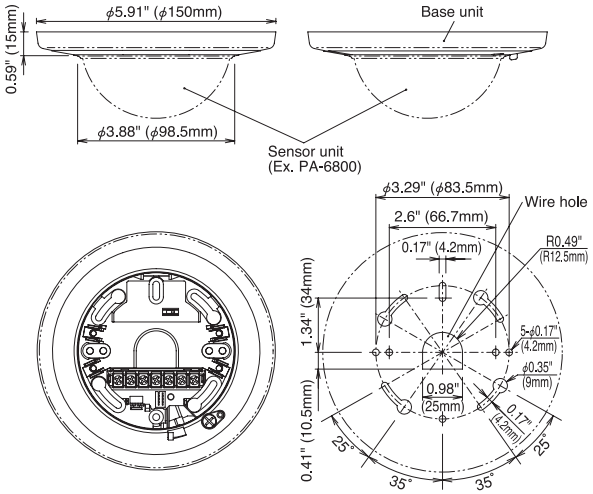
Anti-masking functionality can be disabled with a slide switch setting inside the base unit.
Tamper functionality cannot be disabled.

	A	Disable
	B	Activate / LED OFF
*	C	Activate / LED ON

8 SPECIFICATIONS

Model	BP-150AE
Detection system	Direct reflection system by near infrared
Protection distance	Area in font of sensor
Detection element	Photo IC
Terminals	①② : Power supply to both sensor unit and anti-masking base ③④ : Alarm output ⑤⑥ : Trouble alarm output paralleled with tamper output
Installed location	Indoor ceiling mount
Compatible models	PA-6812E, PA-6820E, PA-6805E, PA-6810E PA-6612E, FS-2000E
Power Supply rate	10.5 to 30VDC (Base unit only) Subject to the attached sensor unit
Alarm output rate	Subject to the attached sensor unit N.C.only for FS-2000E
Current consumption	Max 15mA (Base unit only)
Trouble alarm output	Dry contact (Semi-conductor) output N.C. Rating : 24V (AC/DC) 0.25A (resistive load) Contact protection resistor 3.3 ohms OR-gated with tamper output through Terminal ⑤ & ⑥
Trouble alarm operation	Anti-masking output : off delay operetion (Min Approx. 2 sec.) Tamper output : Real time operation
LED	Trouble LED : Orange Warming up : Light off Anti-masking output : off delay light (Min 2 sec.) Tamper output : Light off
Ambient temperature range	+5˚F to +131˚F (−15℃ to +55℃) without condensation Subject to the attached sensor unit
Wiring	Terminals
Weight	120g (3.86 oz)
Appearance	Body : ABS resin (White)

9 EXTERNAL DIMENSIONS



Limited Warranty :

TAKEX products are warranted to be free from defects in material and workmanship for 12 months from original date of shipment. Our warranty does not cover damage or failure caused by Acts of God (inductive surge by lightning), abuse, misuse, abnormal usage, faulty installation, improper maintenance or any repairs other than those provided by TAKEX. All implied warranties with respect to TAKEX, including implied warranties for merchantability and implied warranties for fitness, are limited in duration to 12 months from original date of shipment. During the Warranty Period, TAKEX will repair or replace, at its sole option, free of charge, any defective parts returned prepaid. Please provide the model number of the products, original date of shipment and nature of difficulty being experienced. There will be charges rendered for product repairs made after our Warranty period has expired.

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