

# TAKEX PASSIVE INFRARED SENSOR

Wide angle protection : PIR-T45WP (40 lbs PET IMMUNE)

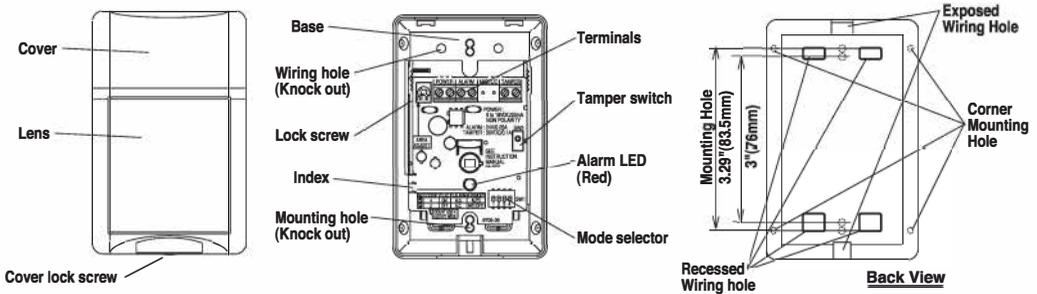
## Instruction Manual

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 burglary-preventing device.

TAKEKX 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. PARTS DESCRIPTION



### 2. DO'S AND DON'T'S

- Install the sensor in a location such that intruders are more likely to cross the protection zones, rather than approach head on.
- 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.
- Do not install the sensor outdoors (indoor use only).
- Do not install the sensor directly on the ceiling. (When installed on ceiling, use optional attachment BCW-401.)

- The passive infrared sensor is designed to detect infrared energy variations caused by the presence of a human body. Therefore, note that similar variations in conditions in protection area, due to other reasons, may cause the sensor to create an alarm as it is unable to distinguish between sources.

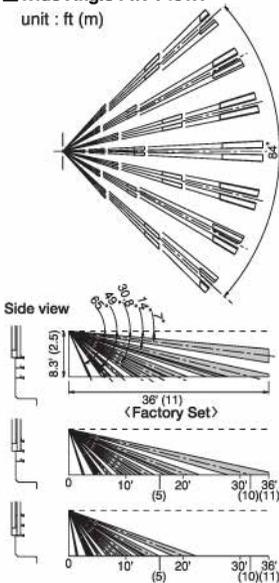
#### [MAINTENANCE]

- When the unit is soiled, clean the cover with a soft cloth moistened with a small amount of cleansing -solution. Do not use chemicals such as thinners or alcohol.
- Check operation once a week. Do not fail to check operation whenever furniture in coverage area is moved.

### 3. COVERAGE RANGE AND PET IMMUNITY

#### Wide Angle PIR-T45WP

unit : ft (m)



#### PROTECTION AREA ADJUSTMENT

The area of protection can be adjusted to allow for different mounting heights as below side view. Loosen Lock Screw, and by moving the inner PCB upwards, the coverage of the sensor can be shortened.

There are three field coverage index marks that are printed onto the PCB located on the left hand side just below the left PCB guide rail. They are to be matched to the bottom of the guide rail. If the PCB is raised past the bottom index the tamper plunger will not activate, leaving the circuit open; in alarm.



#### PET IMMUNITY

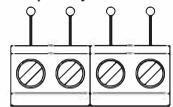
- The sensor is designed to not detect animals under 40lbs. (20kg).
- To maintain maximum pet immunity, the sensor is required to be installed 8.2ft (2.5m) from the floor vertically without changing the set up as it comes.
- The sensor may detect multiple animals in the protection area even that are smaller than 40lbs.
- Area adjustment by PCB will decrease the pet immunity.
- It is therefore recommended to use optional BCW-401 multi purpose mounting bracket if area adjustment is required, which will minimize the performance deterioration of the pet immunity.



### 4. WIRING

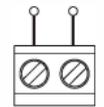
#### POWER ALARM

10~18VDC 24V/0.25A  
25mA (AC/DC)  
non-polarity N.C./N.O.



#### TAMPER

30VDC/0.1A  
N.C.



#### [ Allowable wiring distance between sensor and power source ]

Size of wire used	Distance at 12VDC
AWG 22 (Dia. 0.65mm)	830 ft. (250m)
AWG 20 (Dia. 0.80mm)	1470 ft. (450m)
AWG 18 (Dia. 1.00mm)	2300 ft. (700m)

- The maximum wire length, when two or more units are connected, is the above distance divided by the number of units.
- The protection circuit can be wired to a distance of 3,300 ft (1,000m) with AWG 22 (0.65mm dia.) wire.
- All wiring should be in accordance with the national electric code NFPA-70.
- The power supply used with this unit must have a minimum 4 hours standby power capability.

## 5. INSTALLATION

1. Loosen cover lock screw and detach the cover.
2. Open knockout hole.
3. Install the base on the wall.
- \* Two mounting pitches are available.
- \* When installed on wall corner, make use of knockouts on sides.
4. Connect wires to terminals (Refer to 4. WIRING)
- \* Plug up an opening of wiring hole .
5. Attach the cover, and tighten cover lock screw.

## 7. MODE SETTING

Sensor operation can be changed by mode selector on PWB unit.

### ●Pulse count : 1

- 4 : Least sensitive, prevents false alarms caused by temperature fluctuation.
- 2 : Normally set to this position.

### ●Alarm LED : 2

- ON : Lights at alarm
- OFF : LED disabled
- \* Memory function always activate.

## 8. SPECIFICATIONS

Model	PIR-T45W
Detection system	Passive infrared
Coverage	Wide Angle 36° (11m) Max.
Sensitive zone	29 Pairs
Supply voltage	10 to 18V DC (non-polarity)
Current consumption	25mA Max.
Alarm output	Dry contact (Semi-Conductor) (N.O. / N.C. selectable) Reset : Approx. 2sec., Rating : 24V, 0.25A Max (protective resistance 3.3Ω)
Tamper output	0.1A 30V N.C.
Alarm LED (Red)	: Blinking at warming up : Lighting at alarm (LED disabled) : Blinking at memory activated (3 min.) : Lighting at memory indication (47 min.)
Coverage adjustment	Vertically 3 steps
Pulse count	2/4 selectable
Alarm memory	Autoreset : 3 minutes blinking, 47 minutes lighting and automatically reset
Low voltage notice	Dry contact alarm
Ambient temperature range	-15 C to +55 C (+5 F to +131 F) without condensation
Mounting position	Indoor use only (ceiling mount with optional attachment BCW-401)
Weight	120g (4.2oz)
Appearance	Body : ABS resin Lens : PE resin

The specifications are subject to change without notice.

## 6. OPERATION

1. Turn the power ON, and wait for 1 minute until the alarm LED stops blinking.
2. Walk test in the protection area to check if an alarm is activated. Check on both of the alarm LED and control panel.  
It is important to check operation whenever the area of protection is changed.
3. After correct operation has been confirmed, turn the alarm LED OFF with mode selector on PWB unit. (When set at OFF, the alarm LED does not light even if an alarm is activated.)

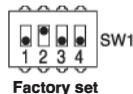
### ●Selection of alarm contact : 3

- N.O. : Close at alarm
- N.C. : Open at alarm

### ●AUTO RESET MEMORY : 4

- Auto : Auto reset operation
- OFF : No operation

**Operation :** Memory is always stored when sensor is armed.  
When an alarm has been activated, the alarm LED blinking for 3 min. and then remains lit for 47 min. It automatically reset and memory is also canceled. In case that the sensor retriggeres while its LED is lit, LED lights for further 47 min. after that.

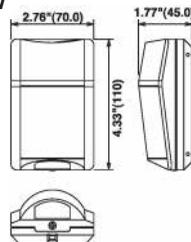


Factory set

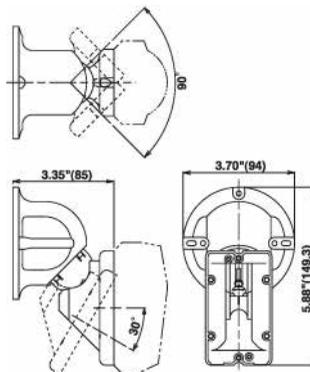
## 9. EXTERNAL DIMENSIONS

unit : inch(mm)

### PIR-T45W



### ■BCW-401 (Optional)



### 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, 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.