

TAKEX SENSOR SPEAKER

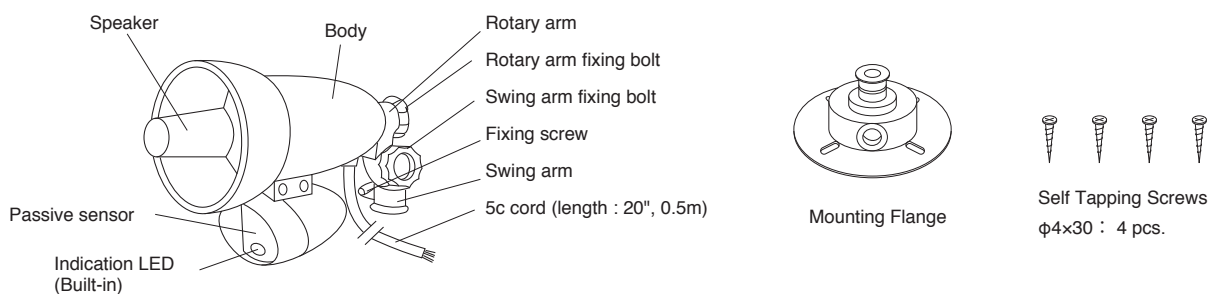
PV-12 (12VDC POWER WITH DRY CONTACT RELAY 1C)

Instruction Manual

Thank you for purchasing a TAKEX product. Please read this Instruction Manual carefully for correct and effective use. Please Note : This sensor speaker is designed to detect passing objects and to initiate a signal : it is not a burglary-preventing device. TAKEX is not responsible for damage or losses caused by accident, theft, Acts of God (including inductive lightning), abuse, misuse, abnormal usage, faulty installation or improper maintenance. Regular maintenance and inspection (at least annually) by the installer and frequent testing by the user are vital to continuous satisfactory operation of any system.

Sensor Speaker, PV-12 is a combination of P.I.R. passive sensor and speech synthesised speaker with amplifier. The recorded message which is reprogrammable is played back when the P.I.R. passive sensor detects movement within its field of view. A dry changeover relay contact is also activated simultaneously.

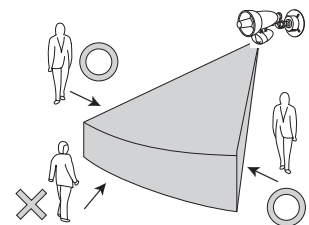
1 PARTS DESCRIPTION



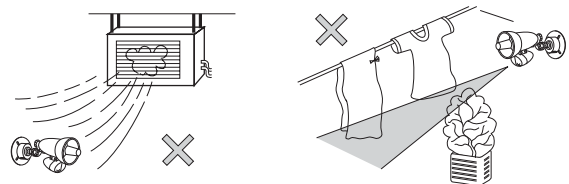
2 PRECAUTIONS **Be sure to observe**

- Do not disassemble or modify this device. This may cause a fire, electrical shock, or malfunction of the device.
- If the following events occur, turn off the power of the unit immediately, and ask the place of purchase for repair. Failure to follow this may result in fire, electric shock, and/or malfunction.
 - Smoke, abnormal odor, and/or sound are found
 - Liquid, such as water, and/or foreign material has entered the unit
 - The unit has deformed and/or damaged parts
- Do not apply impact to the unit.
Strong impact may result in performance deterioration and/or damage to the unit.
- The unit may not operate properly near devices that generate a strong electric or magnetic field.
Also, devices near the unit may not operate properly due to the magnetic field and/or magnetism generated from the unit.
Make sure to confirm before operation.
- Make sure to perform a sufficient operation check on the whole system before operation.
- Sound playback time is approx. 12 secs. During playback, further input signals does not extend the time period, or repeat playback.
- Do not splash water on to the speaker, although it is rain-proof, it is not water-proof.
- Give careful consideration to sound volume level, especially if used at night.
- Sensor requires one minute warm-up after power is applied. (Recording is possible during this period.)
- The sensor is not a burglary prevention device and should not be used as part of a genuine security system.
- The sensor speaker is designed to detect infrared energy variations against ambient background. Note that similar variations in the detection area due to other reasons may cause sensor to initiate an alarm as it is unable to distinguish between sources.

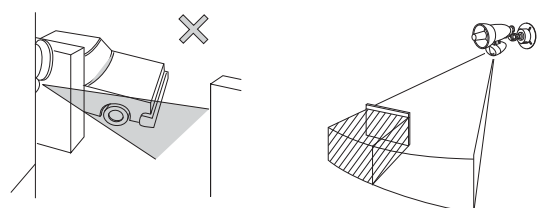
- Install the sensor to detect objects moving across the field of view.



- Do not install in areas where the ambient temperature changes suddenly and / or where there are moving objects.



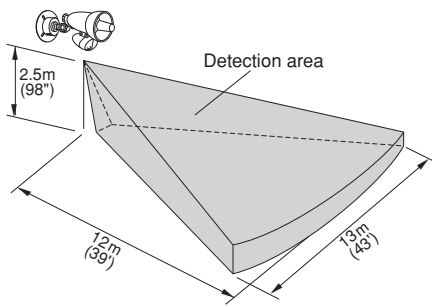
- The detection area should be within inside of compound.
- Any objects within the detection area may cause non-sensitive zone.



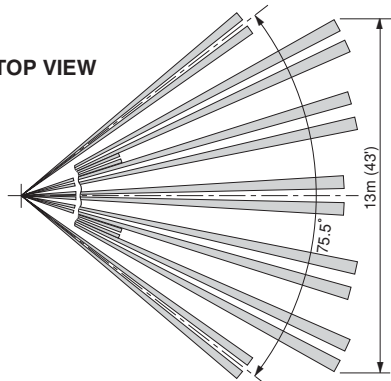
- Do not install where strong vibration or electrical noise is present.

3 DETECTION AREA

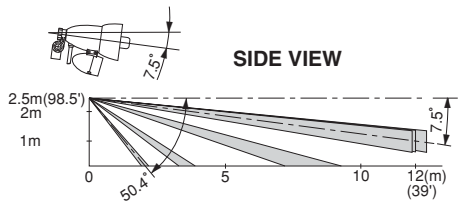
AREA MAPS



TOP VIEW

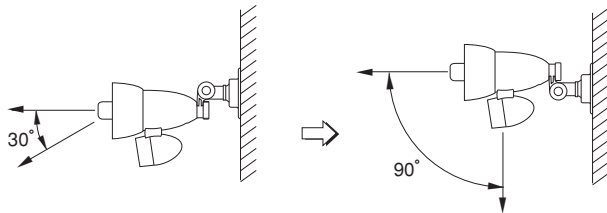
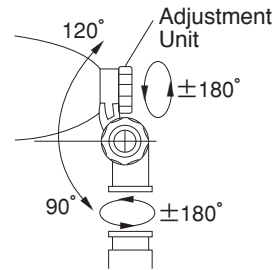


SIDE VIEW

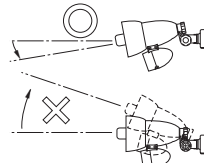


RANGE ADJUSTMENT

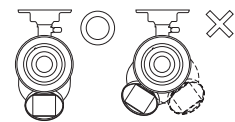
Angle adjustment unit with three-part rotation mechanism as drawn right makes it to adjust many angles. Adjustment angles are limited as shown in the below diagrams. Change to install as right figure.



● Install the voice speaker to face downwards.



● Install the window to be vertically beneath the body.

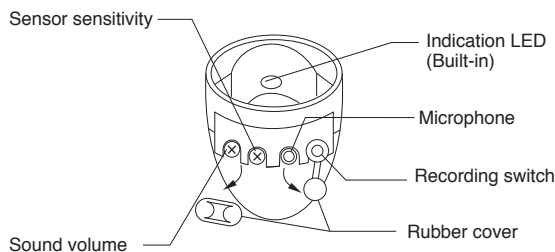


4 HOW TO RECORD AND ADJUST

[ADJUSTMENT]

(SENSOR SENSITIVITY)

Adjustable between 20% to 180%.
Medium level is 100%. Use medium level for normal usage.
If environment is unstable, adjust it below medium.



(Sound volume)

Adjustable between silence to max. (100dB : 1m)

[RECORDING]

- (1) Sensor - Remove the cover of microphone on the bottom.
- (2) Turn on the power supply. (The recording is possible during the 1minute warming up state with indicator blinking.)
- (3) While pressing the recording switch and record with keeping 10cm away sound source (mouth etc.) from the microphone. Release the recording switch when the recording is finished.
*Record level function is also equipped with INDICATION LED. LED blinking while recording is a right level. (Over level : LED off, Below level : LED on)
- (4) Active passive sensor by hand to check the recorded message. (If the message is not recorded correctly, please try to re-record.)
- (5) Put the microphone cover back in place.

*Record the message in a room where there is no noise and the wind does not blow.

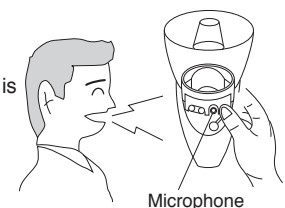
*Record time is while a recording switch is being pressed. (Max. 12 seconds.)

*Be careful so as not to press the recording switch after recording.

If the recording switch is pressed, the previous recorded message are deleted by overwriting

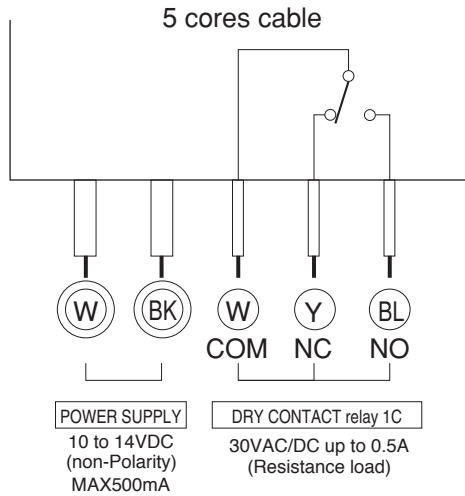
*Do not record mechanical sounds such as buzzer or siren. It gives a load to the speaker and may cause a malfunction.

*The recorded message will not disappear even if it is stored in non-energized state.



5 WIRING

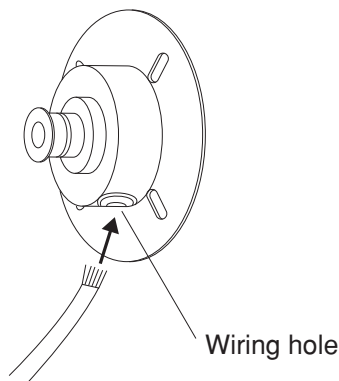
CONNECTION



SPECIAL NOTICE

If the mounting flange is used, set it so that the wiring hole is underneath.

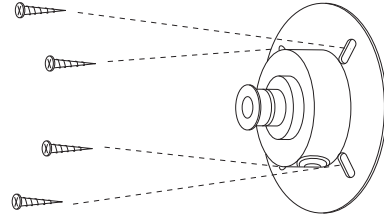
Ensure sufficient rain proof treatment is given to the surrounding of the flange, fixing screws and wiring hole.



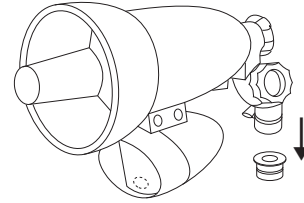
6 INSTALLATION INSTRUCTIONS

⊘ Do not install this device in a location that cannot support its weight. This may cause the device to fall and cause an injury or malfunction of the device.

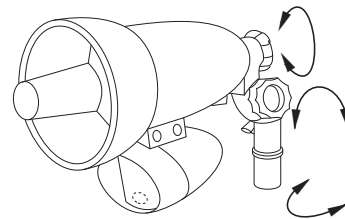
- (1) Complete Recording. (See 4.)
- (2) Select installation position which should be vertical. (See 2,3.)
- (3) Complete wiring.
- (4) Fix flange by tapping screws, 4 pcs, attached.



- (5) Insert body to fixing flange by loosening fixing screw of rotation arm.



- (6) Loosen slightly rotation lock bolt, pan & tilt lock bolt, and fixing screw of rotation arm, adjust rotation arm to obtain best detection direction and angle in the detection area. Ensure all bolts are then tightened firmly.



- (7) Check all operations are satisfactory. (See 8.)

7 OPERATION CHECK

- (1) Confirm the procedures upto 6, wiring.
- (2) Confirm the following volumes are set to the following levels.
 - 1. Sensor sensitivity — Medium
 - 2. Sound volume — Medium
- (3) Wait for one (1) minute after power on.

- (4) Walk across detection area, and check size and position of detection area. Adjust angles if necessary. Operation is able to be checked by sound of playback, or indication LED on. (Playing back and lighting ON for 12 sec. when once detects.)
- (5) Check that any other equipment connected to the system is on or off, etc.
- (6) Adjust the sound volume of playback.

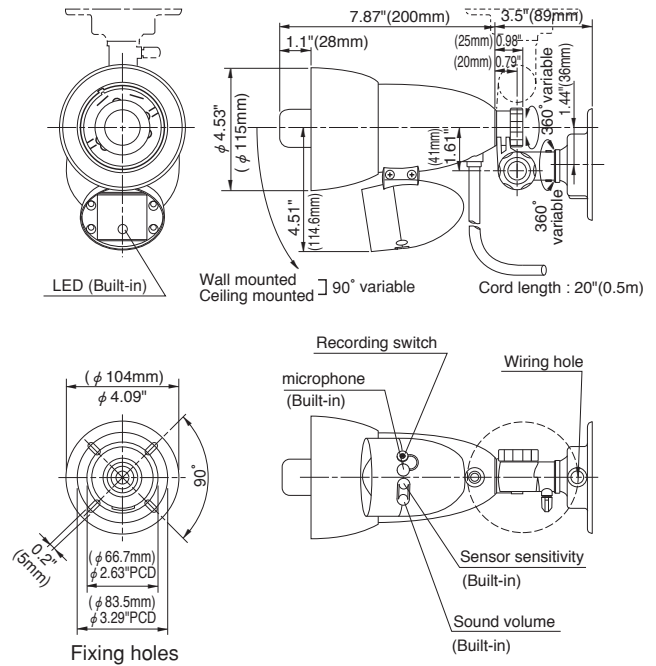
8 TROUBLESHOOTINGS

Symptom	How to check problems	Remedy
Inactive at all	No power (including wire break). Too low power voltage.	Check power cord and power voltage are right.
	One minute passed after power on ?	Await one minute.
	Any obstacles in detection area (including glasses) ?	Remove obstacles.
	Detection area set up properly (including distance) ?	Readjust detection area (see 4).
Inactive from time to time	Detection area set up properly (including distance) ?	Adjust detection area (see 4).
	Is sensor window stained with dust or water ?	Wipe sensor window.
Malfunction, false signals	Is power voltage stable ?	Adjust power voltage properly.
	Are there any moving obstacles or enormous temperature change in detection area ?	Remove obstacles or readjust temperature. Adjust sensitivity to lower level.
	Are there any electrical noise source near sensor ?	Reinstall sensor speaker.
	Are there any direct rays of Sun or car light coming into sensor ?	Reinstall sensor speaker. Readjust detection area.
	Does sensor detect any objects outside of estimated detection area ?	Readjust detection area.
	Any animals like cats or dogs coming into detection area ?	Prevent them coming in.
Playback and LED operates. But, connected equipment does not operate.	Mis-wiring, short circuit, or wire break of detection signal.	Repair mis-wiring, wire break or short circuit.
	Detection signal is not initiated from output contact.	Check output contact terminal by tester.
	Is the equipment connected normally ?	Check the equipment connection.

9 SPECIFICATIONS

Description	Sensor Speaker
Model	PV-12
Detection system	Passive infrared
Detection area	Wide angle 40°(12m)Max.
Sensitive zone	24 zones (12 pairs)
Sensitivity adjustment	Variable 20%(L) to 180%(H) (medium : 100%)
Power supply	10 to 14VDC (non-polarity)
Current consumption	20mA or less(Standing by) 500mA or less (Max.)
Alarm output	Dry contact relay : form C AC/DC 30V 0.5A (Resistive load) Contact operation:Interlock with recording time.(Min 2 secs.)
Warm up time	60 secs. (no detection, recording O.K.)
Sound synthesis method	PCM method
Record method	Built-in condenser microphone
Record / Playback time	Max 12 secs.
Sound output	Operation : One-shot playback (12 sec.) by detection signal (No retrigger during playback) Sound volume : Max.100dB/2W(1m ahead) at right recording level Adjustable from 0 to Max by volume switch
Indication LED	Warm up : Blinking Recording level is indicated : "Blinking" : good "ON" : too low "OFF": too loud Playback : ON(during playback)
Ambient temperature	-20°C to + 50°C without condensation and freeze
Mounting position	Indoor / outdoor (rainproof)
Weight	Apprx.1000g
Appearance	Body: Resin(Black)

10 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, 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.

