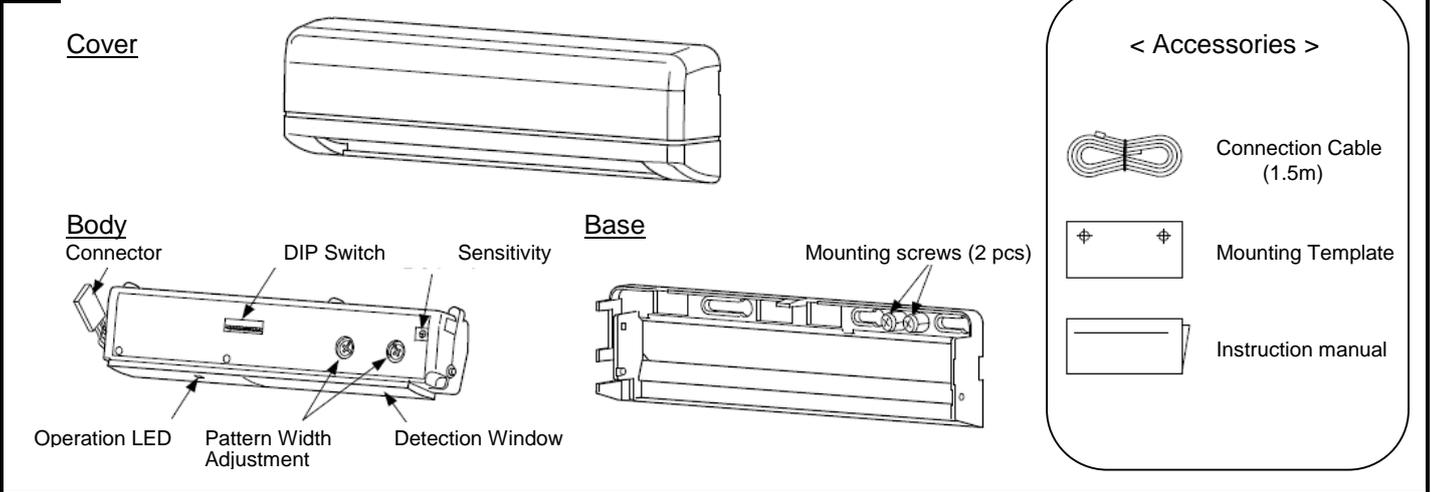


Thank you for purchasing this product. Before using the product, please read this instruction manual carefully to ensure correct operation.

1 PARTS DESCRIPTION



2 PRECAUTIONS

<p>Warning: This mark indicates details regarding handling which, if ignored, may result in death or injury.</p>	<p>Caution: This mark indicates details regarding handling which, if ignored, may result in delay in reporting attributable to false or missed alarms.</p>
<p> This mark indicates a prohibition.</p>	<p> This mark indicates the points of which the user should be aware.</p>

Caution: Observe following instructions to avoid any malfunction, electric leakage and damage to the unit.

<p>1 Do not mount higher than 3m.</p>	<p>2 Do not leave any objects which may move in the direction pattern.</p>	<p>3 Do not mount in a place where reflection of sunlight will shine on the unit.</p>
<p>4 Do not mount where rain or snow will fall directly on the unit.</p> <p>In case mounting in such place, use waterproof cover (option).</p>	<p>5 Avoid mounting in a place with vibration.</p> <p>6 Use the unit with auxiliary sensor.</p>	

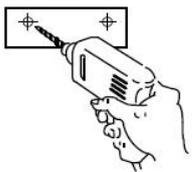
Caution: The unit may detect other than human body in following cases.

<p>1 Rain or snow falling on the detection area.</p>	<p>2 Steam or oily smoke covering the detection area</p>	<p>3 Putting any objects in the detection area.</p> <p>4 Cats and dogs entering detection area.</p>
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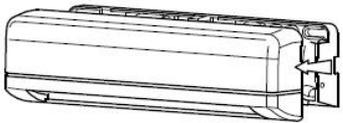
3 MOUNTING AND WIRING

Warning: To avoid electric shock or damage to the unit, mount the unit in a place where no other devices or wiring are already installed

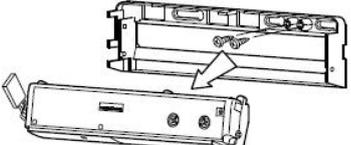
1 Using supplied mounting template, drill mounting and wiring holes.



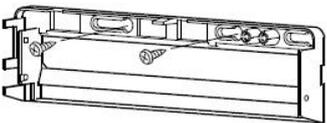
2 Remove cover.



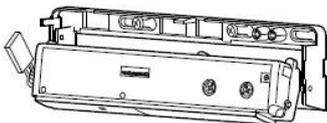
3 Remove body and mounting screws from base.



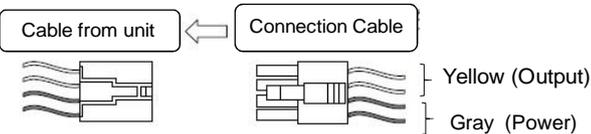
4 Mount base with mounting screws.



5 Mount body to base.



6 Connect wiring and push connector.
* Non-polarity for both cables

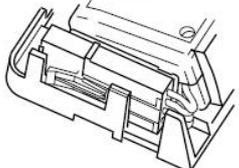


Yellow (Output)
Gray (Power)

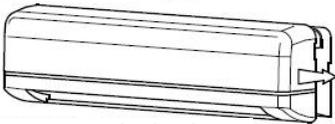
7 Adjust settings following :

- 4 DIP Switch settings
- 6 Adjusting Detection Pattern
- 7 Adjusting Sensitivity
- 8 Verification of Operation

8 Place connector in holder.



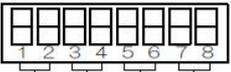
9 Replace cover.



Warning: Do not move body when placing cover.

4 DIP SWITCH SETTINGS

Caution: Select settings suitable for required operation.



Factory set : ☆

① Pattern Depth	② Presence Timer	③ Frequency	④ Env. Level. Adj.
☆ 4 R <input type="checkbox"/> <input type="checkbox"/>	☆ 2 sec <input type="checkbox"/> <input type="checkbox"/>	☆ A <input type="checkbox"/> <input type="checkbox"/>	☆ Normal <input type="checkbox"/> <input type="checkbox"/>
3 R <input type="checkbox"/> <input type="checkbox"/>	10 sec <input type="checkbox"/> <input type="checkbox"/>	B <input type="checkbox"/> <input type="checkbox"/>	Level 1 <input type="checkbox"/> <input type="checkbox"/>
2 R <input type="checkbox"/> <input type="checkbox"/>	60 sec <input type="checkbox"/> <input type="checkbox"/>	C <input type="checkbox"/> <input type="checkbox"/>	Level 2 <input type="checkbox"/> <input type="checkbox"/>
1 R <input type="checkbox"/> <input type="checkbox"/>	∞ <input type="checkbox"/> <input type="checkbox"/>	D <input type="checkbox"/> <input type="checkbox"/>	Level 3 <input type="checkbox"/> <input type="checkbox"/>
1 2	3 4	5 6	7 8

When DIP switch settings are adjusted while power is on, the unit will restart after approx. 6 sec.

① Pattern Depth (Rows):
Pattern Depth is adjustable from 1 to 4 rows.

② Presence Timer :
The unit detects a stationary object following presence timer setting to 2 sec, 10 sec, 60 sec and ∞. With ∞ setting, 1st and 2nd rows are set to ∞ and 3rd and 4th rows to 2 sec.

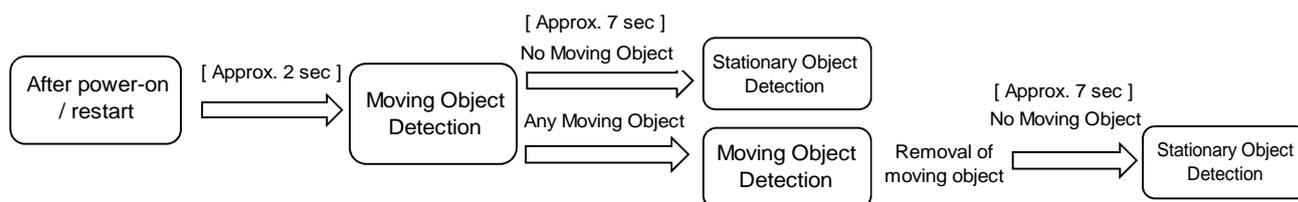
③ Frequency :
Select different frequency to avoid interference by other sensors with different depth pattern setting.

④ Environmental level adjustment :
Select level 1 to 3, depending on frequency of malfunction caused by rain, wet floor, snow fall, snow cover, insects, distorted mounting part for opening/closing of door, etc. The unit operates with less malfunction but becomes less sensitive to human body with higher level setting.

5 DETECTION AFTER POWER ON / RESTART

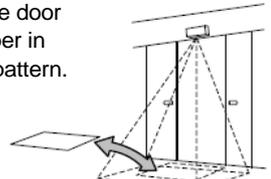
Caution: Before power-on, finish wiring the unit and door controller.

Warning: After power-on or restart,
- when there is any moving object in detection pattern, moving object detection is activated.
- when there is no moving object in detection pattern, stationary object detection is activated.

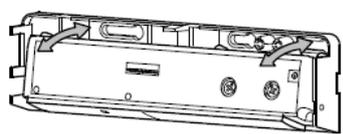


Warning: Be sure to turn the power off before making following job.
When power is on, detection continues during presence timer setting.

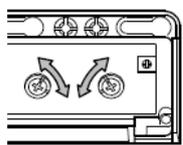
Put/remove door mat /scraper in detection pattern.



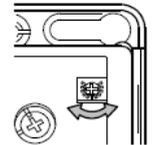
Adjust body angle.



Adjust pattern width.



Adjust sensitivity.



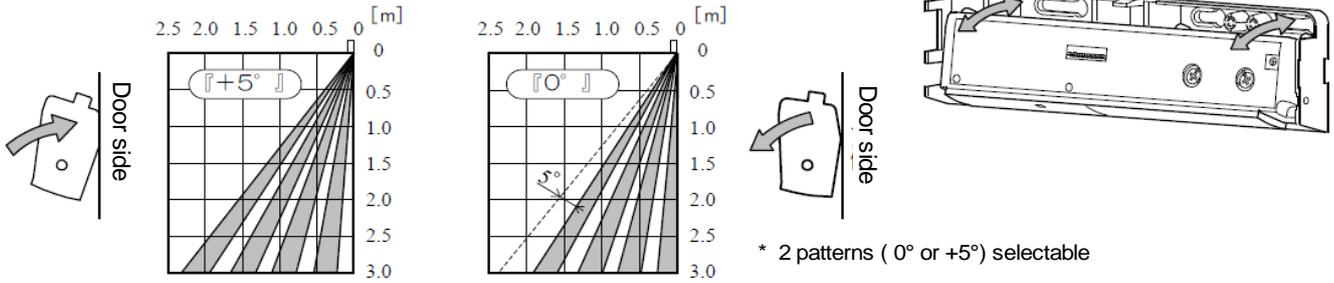
6 ADJUSTING DETECTION PATTERN

Caution: Adjust patter depth suitable for required operation.

Caution: Adjust pattern depth not to cover door area.

1 Body angle adjustment

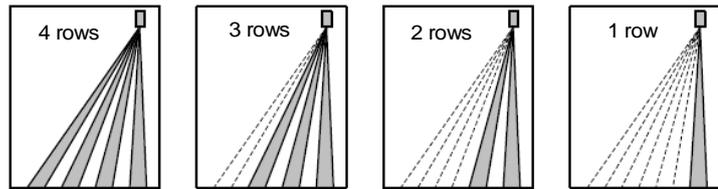
Detection depth 0° or +5° is selectable by changing body angle.



2 Pattern Depth Adjustment

Adjustable with "Pattern Depth" of

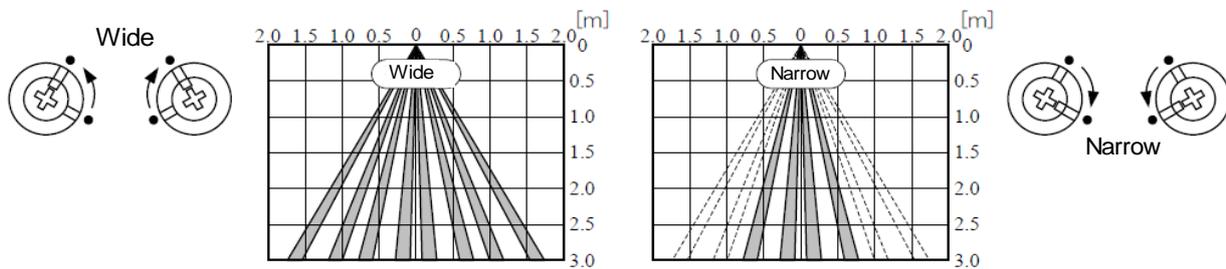
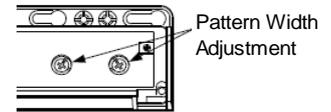
4 DIP Switch settings



3 Pattern Width Adjustment

Turn pattern width adjustment with screwdriver to select wide or narrow detection pattern.

Turn it until it stops with a click.



Caution: When measuring detection pattern, using highly reflective material with narrow setting, adjust sensitivity to L and environmental level to 3. After measurement, reajust to settings suitable for required operation.

Caution: Described detection pattern is design value. It doesn't indicate real status after installation. Detection pattern varies depending on installation environment, objects for detection, settings(material of cloth, floor surface and sensitivity adjustment).

7 ADJUSTING SENSITIVITY

Caution: Select settings suitable for required operation.

1 Adjust sensitivity depending on installation height.



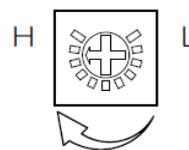
Chart below indicates reference setting .
Be sure to verify sensitivity with assumed approach speed.

Sensitivity

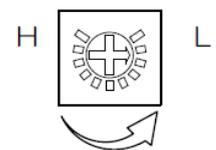


Installation height (m)	Sensitivity Reference setting
2.0 ~ 2.5	L ~ M
2.5 ~ 3.0	M ~ H

2 Increase sensitivity when it is difficult to detect human body in detection pattern



3 Decrease sensitivity when detection occurs without human body in detection pattern.



8 VERIFICATION OF OPERATION



After mounting the unit, and setting parameters and adjustment, verify if detection pattern and sensitivity are suitable for required operation.

In case of any trouble in detection or malfunction, readjust detection pattern and sensitivity.

9 TROUBLESHOOTING

Problem	Cause	Solution
Door does not operate	Bad wiring or connection via connector	Ensure correct wiring or connection.
	Incorrect power supply/voltage	Ensure appropriate power supply/voltage.
Door sometimes does not operate	Detection window is covered with dust or water droplets	After cleaning with a soft cloth dipped in a weak neutral detergent, wipe off water droplets.
	Insufficient sensitivity	Increase sensitivity.
	Inappropriate detection pattern	Reajust detection pattern.
Door operates by itself (Hunting)	Pattern depth covers door area	Eliminate door area from detection pattern.
	Mounting part is distorted	Set environmental level adjustment.
Door operates without any people within detection pattern	Something is moving within the detection pattern	Reajust detection pattern. Remove moving object.
	Detection pattern covers passage	Reajust detection pattern.
	Sensitivity is too high	Decrease sensitivity.
	Detection pattern overlaps with other Active IR sensors	Select different frequency from other sensors.
	There are sudden changes in detection pattern • Getting dirty • Putting/removing door mat, etc • Footprint on snow	Readjust presence timer to shorter time settings. * When setting presence timer, the unit may get in detection mode during selected time. It will go back to normal operation later.

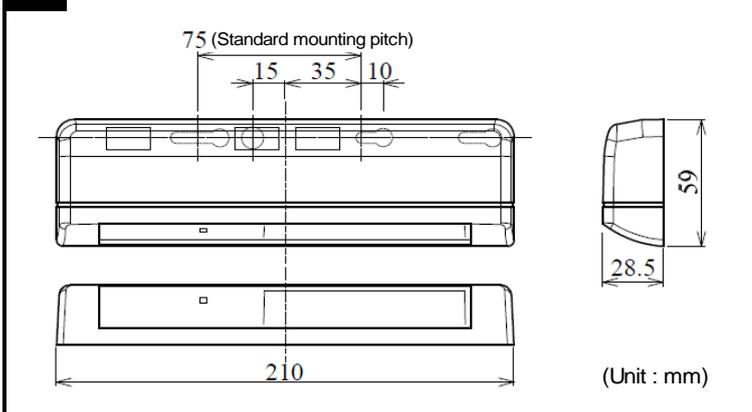
If normal operation cannot be restored by these means, contact either the dealer from whom you bought the unit or TAKEX directly.

10 SPECIFICATIONS

Product	Motion & Presence Sensor	Supply voltage	AC/DC 12 ~ 110V ± 10% 50/60Hz
Detection system	Active near infrared	Current Consumption	AC100V : 2.4 VA Max.
Installation height	Max 3.0m		AC 12V : 1.7 VA Max.
Sensitivity Adjustment	Yes		AC 24V : 1.7 VA Max.
Pattern Depth	Angle		DC 12V : 80 mA Max.
	Row	DC 24V : 40 mA Max.	
Pattern Width	Wide / Narrow	Output Contact	Dry contact relay output N.O. DC50V 0.1A (Resistive load)
Presence Timer	2 sec / 10 sec / 60 sec / ∞	Output Holding Time	Approx. 0.5 sec
Frequency	4 Frequency channels selectable	Ambient Temperature	-20°C ~ +60°C
Environmental Level	Normal/Level 1/Level 2/Level 3	Weight	180 g
Operation LED	Power-on/Standby (Green)	Cover color	Silver (S)
	Detection (Red)		
	Hunting door (Orange)		
	Reset wait (Orange:rapidly blinking)		

※Specifications and design are subject to change without prior notice.

11 EXTERNAL DIMENSIONS



<Maintenance>

- To clean the device, use a soft, wet cloth and then wipe off any water drops. If the device is particularly dirty, dip the soft cloth in the water that contains a weak neutral detergent. Wipe the device gently with the cloth, then wipe off any detergent that remains. Do not use substances such as thinner or benzene. (The plastic parts may deform, discolor or change their properties.)
- Perform operation checks on a regular basis.

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 natural disasters, 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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