

# TAKEX PHOTOELECTRIC BEAM SENSOR PR-1B

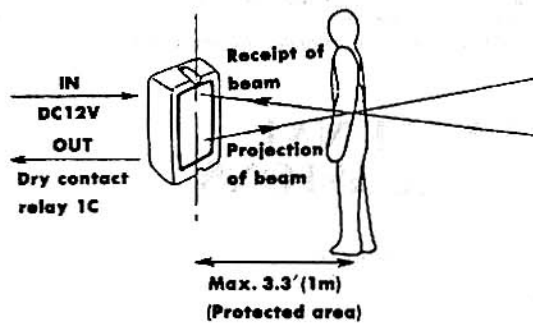
## Instruction Manual

Thank you for purchasing this TAKEX product. 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. TAKEX is not responsible for damage or losses caused by accident, theft, Acts of God (including inductive lighting), abuse, misuse, abnormal usage, faulty installation or improper maintenance.

## 1 PRODUCT DESCRIPTION

Photoelectric beam sensor PR-1B incorporates near infrared direct reflective detection system and is designed to detect moving or motionless people or objects.

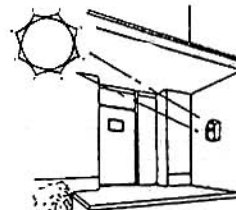


Note : The PR-1B will not detect the following :

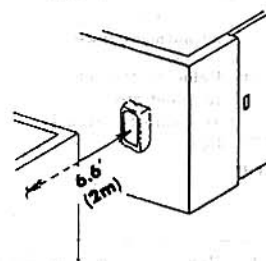
- (1) Extremely high reflective objects such as lustrous surfaced objects similar to mirror surface.
- (2) Extremely low reflective objects ex. Black wool overcoat, Muffler, Leather goods.

## 3 INSTALLATION

### (1) DO'S AND DON'T'S



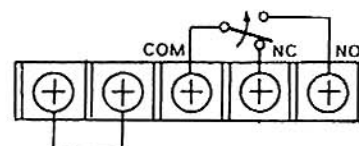
Do not install the sensor outdoors (indoor only) and avoid direct sun light.



Install the sensor in a site where there is no obstacle within 6.6' (2m) in front of the sensor. (If there are obstructions, adjust sensitivity adjustment. Please note that detectable sensitivity is also reduced.)

### (2) WIRING

Detach terminal cover and connect wires to terminals in accordance with terminal arrangement shown on the back of sensor. Break knockouts as required.



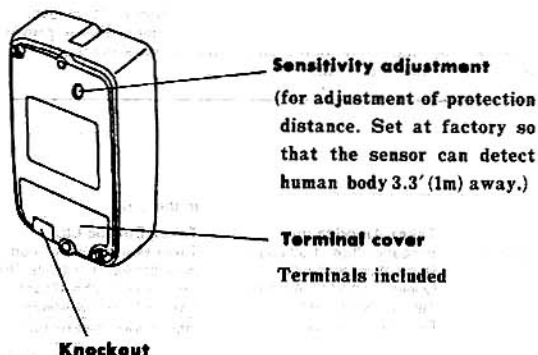
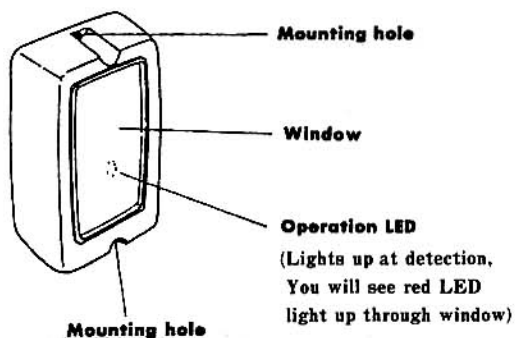
Power

10.5V to 22V DC  
(Non-polarity)

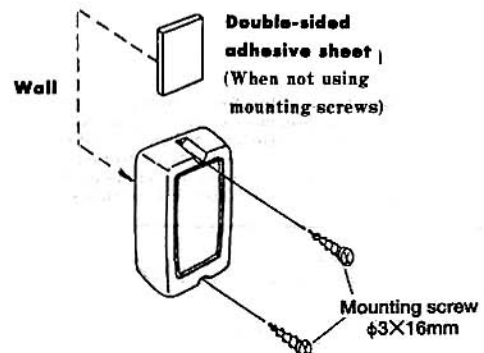
Dry contact relay output IC

Contact capacity :  
30V AC/DC, 0.5A

## 2 PARTS DESCRIPTION



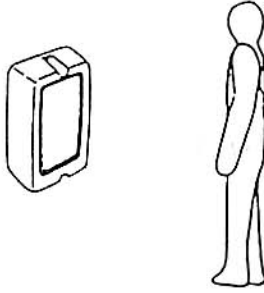
### (3) INSTALLATION



Note : Use a metal backplate of 0.08" (2mm) thickness when installing sensor unit on a rugged surface. This prevents damage to precision optics.

#### (4) OPERATION CHECK

Supply power to the sensor after installation. Then the operation LED remains OFF if the installation is correct. Next, walk test in the protected area to check if the operation LED lights up and if control panel functions.



## 4 TROUBLESHOOTING

Symptom	Possible cause	Remedy
No function	Incorrect wiring to terminals.	Re-wire
Continuous alarm	An obstacle (background wall) is detected.	Turn sensitivity adjustment lower.
Occasional malfunction	Exposed to intensive direct light (including sunlight)	Relocate the sensor to avoid direct exposure to intensive light.
	Presence of moving objects in the protected area such as curtain, etc.	Remove the moving objects

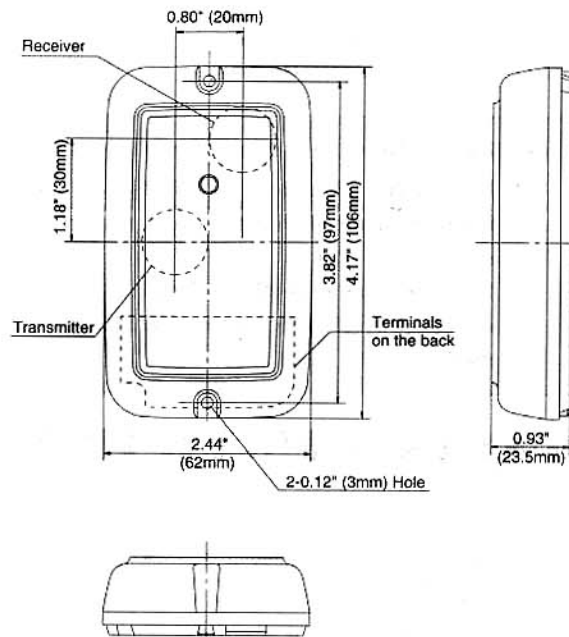
Units should be tested on a regular monthly basis.

## 5 SPECIFICATIONS

	Photoelectric beam sensor
Model	PR-1B
Detection system	Near infrared (Direct reflective detection of motionless objects)
Protection distance	3.3' (1m) or less
Response time	100msec or more
Alarm signal	Dry contact relay output 1C Contact activation : detection time + off delay (approx. 0.5 sec.) Contact capacity : 30V AC/DC, 0.5A or less
Supply voltage	10.5V to 22V DC
Current consumption	60mA or less (at 12V DC)
Ambient temperature range	-4°F to +122°F (-20°C to +50°C)
Mounting position	Indoor
Weight	Approx. 2.6 oz (75g)
Appearance	ABS resin (off-white)

The specifications are subject to change without notice.

## 6 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. This warranty gives you specific legal rights and you may have other rights which vary from state to state.

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