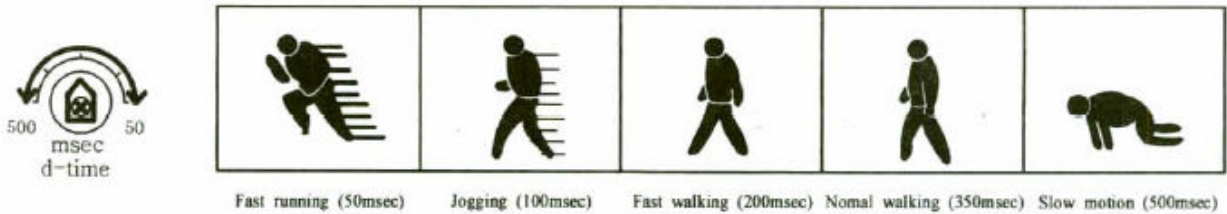




RESPONSE TIME

- The beam interrupt adjustment pod sets long the beam can be interrupted before triggering the alarm.
- Adjust the pod to the site’s situation. You may need to make adjustments later after the walkthrough test.
- The following figures show the typical values for sensing an adult man.



TROUBLE SHOOTING

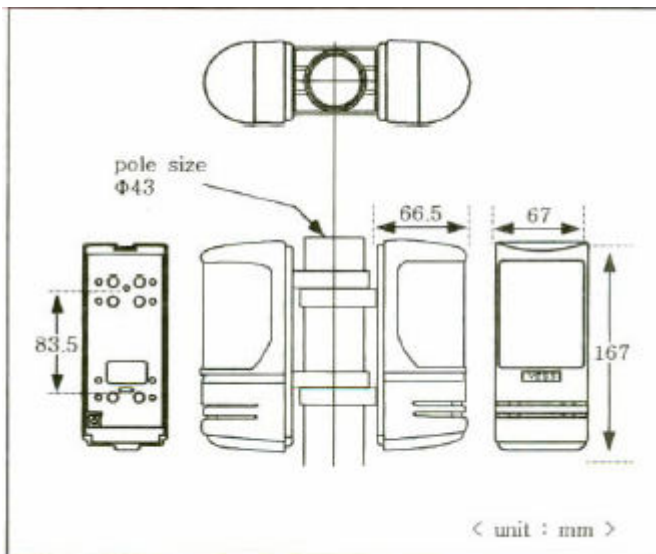
TROUBLE	CHECK	REMEDY
Transmitter LED does not light	Incorrectly wired and/or insufficient voltage	Easure the power supply to the transmitter is 10 to 24 VDC
Receiver LED never lights up when the beam is interrupted	Insufficient voltage	Vaise voltage
	Beam reflected away from receiver	Clean the cover
	Beam not simultaneously interrupted	Check overall installation
Beams interrupted and LED lights, but no alarm trigger	Alarm trigger cable may be cut, or the relay contact stuck due to overloading	Check wiring and effect of load on output level, or overhaul the unit
Alarm LED continuously lit	Lenses out of alignment	Realign the lenses
	Beams are blocked	Remove any obstacles
	Cover is foggy or dirty	Clean the cover
Alarm trigger becomes erratic in bad weather	Lenses out of alignment	Check overall system installation if still erratic, realign the lenses
Frequent false triggers from leaves, birds, etc	Too sensitive Bad location	Reduce beam interrupt speed Change location

SPECIFICATIONS

MODEL	PRO 90
Power input	DC10 ~24V
Current consumption	55mA
Distance	90m
Beam	Infrared photoelectric, 1KHz, 940nm infrared Pulse
Interrupt time	50msec ~ 500msec (variable)
Relay output	N.C., DC30V, 1A max. 1 sec.
LED Indication	Transmitter (green shows transmit)

	Receiver (red shows alarm, green show normal)
Align angle	+/- 5° vertical, +/- 90° horizontal
Tamper	NC → NO when cover is opened
Mounting	On wall or pole (pole brackets and all screws included)
Operating Temp	-25 ~ 60°C
Case Material	PC, ABS resin
Dimension	67x167x66.5
Weight	875g

DIMENSIONS



NOTE

The PRO 90 is designed to detect movement of an intruder. There fore, note that similar variations in conditions in protected area, due to other reasons, may cause the sensor to create an alarm as it is unable to distinguish between sources.

Test the detector periodically for continuous satisfactory operation of any alarm system.

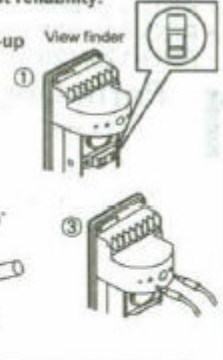
WARRANTY

Manufacturer warranty on its products is for a period of 12 months from original date of shipment against defects in materials and workmanship. Our warranty covers only repair or replacement of products found to be defective under normal use during the warranty period.

7 Optical alignment

Read voltage from monitor jack with volt-meter(digital) to confirm optical alignment and to obtain the highest reliability.

1. Supply power with cover detached.
2. Set Transmitter lens to Receiver lens by the view finder. Look through view finder on either side and line-up optics horizontally and vertically until the opposite unit is visible. (Using the adjustment, the lens can move horizontally($\pm 90^\circ$) and vertically($\pm 10^\circ$) allowing the unit to work in all directions. The opposite Transmitter or Receiver should appear on the view finder of inside middle mirror.

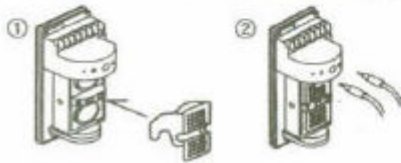


- Reference table.

3. Adjust Transmitter horizontally and vertically to get highest voltage reading.
Adjust Receiver horizontally and vertically to get highest voltage reading.

Monitor Jack Output Voltage	Beam Level
3.0 (P type 2.2V) or over	Good
2.9 (P type 2.1V) under	Readjustment

4. Confirm the beam level by inserting a tester in monitor jack of receiver.



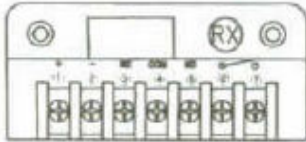
Better alignment for outdoor 90m and 120m

How to use attenuation sheet

1. After alignment, attach sheet directly to optical system of Receiver
2. Adjust alignment until "GOOD LED" is ON.
3. Take out attenuation sheet

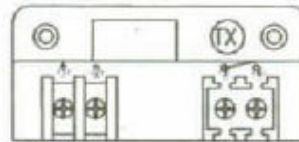
*Attenuation sheet blocks 90% of beam from Transmitter, and makes just 10% of beam from Transmitter received by Receiver

Receiver



1. VCC : DC10~24V
2. GND
3. Normal Close
4. Common
5. Normal Open
6. Tamper
7. Tamper

Transmitter



1. VCC : DC10~24V
2. GND
3. Tamper(option)
4. Tamper(option)