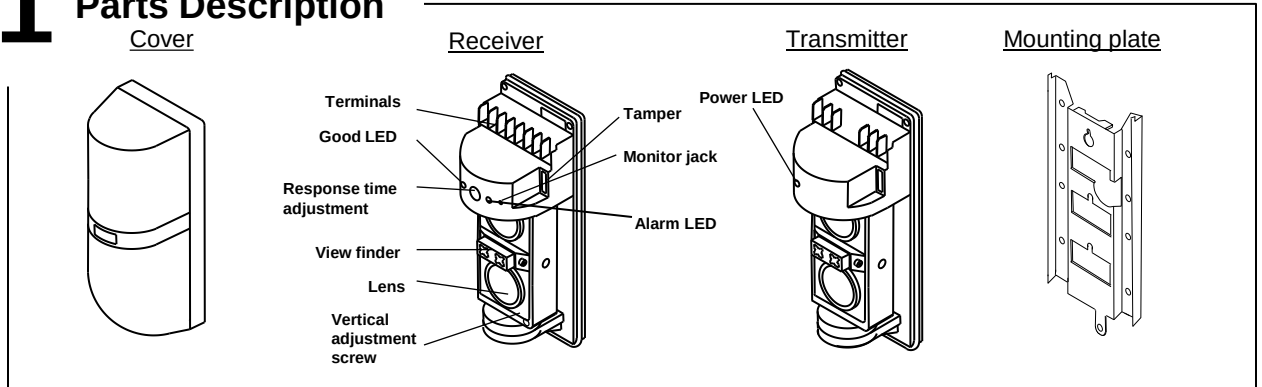


PHOTOELECTRIC BEAM SENSOR

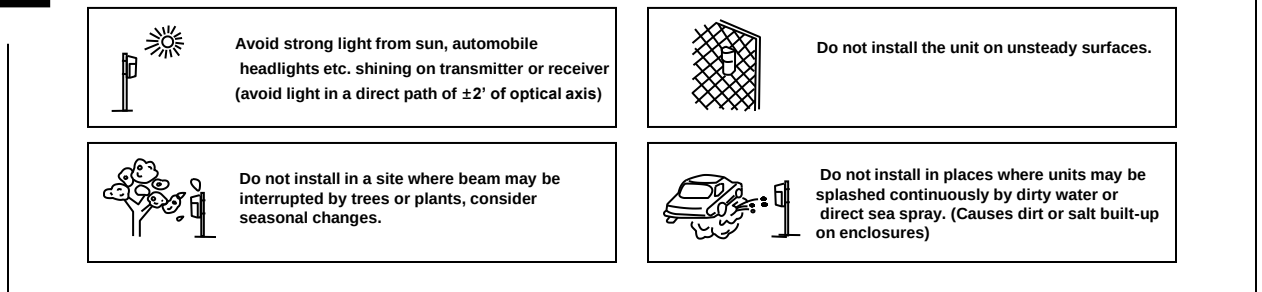
Installation Instructions

•PRO-40 : Outdoor : 40m(160ft.)

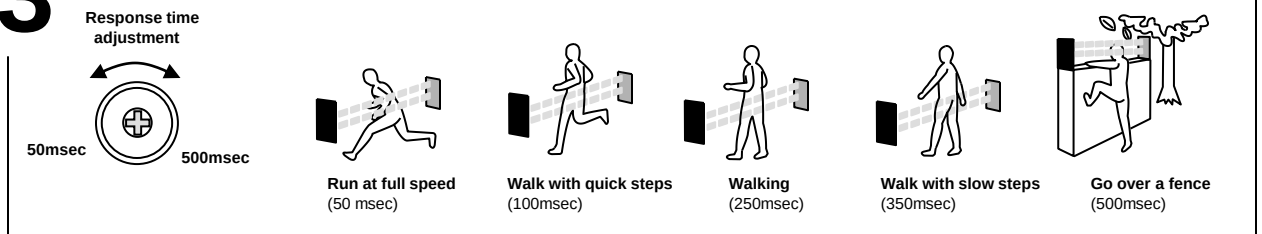
1 Parts Description



2 Cautions on Installation



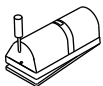
3 Response time



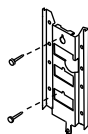
4 Installation

4-1. Wall mount

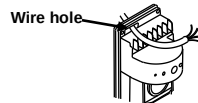
- Remove cover from unit and slide the mounting plate to detach it.



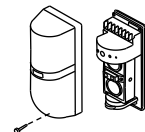
- Break grommet on mounting plate and pull wire through it. Secure the plate with 4mm screws.



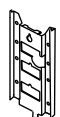
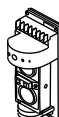
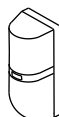
- When exposed wired, break knock-outs on the rear of unit, pull wire through as the figure and attach it to the mounting plate.



- After wiring is completed, adjust alignment, check operation and attach cover.



4-2. Pole mount



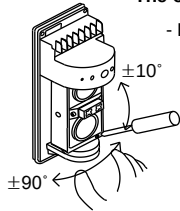
Pole mounting bracket(Model no.PM-11, option)
* Pole external diameter : $\Phi 38-\Phi 43$

5 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.

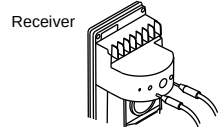
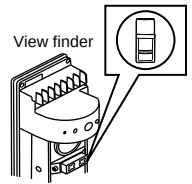
2. Set Transmitter lens to Receiver lens by the view finder. Look through view finder on either side and line-up optics horizontally and vertically until the opposite unit is visible. (Using the adjustment, the lens can move horizontally($\pm 90^\circ$) and vertically($\pm 10^\circ$) allowing the unit 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 or over	Good
2.9 under	Readjustment

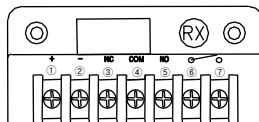


4. Confirm the beam level by inserting a tester in monitor jack of receiver.

6 Trouble-shooting & Wiring

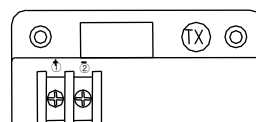
Symptom	Possible Cause	Remedy
Operation LED does not light	1. No power supply. 2. Bad wiring connection or broken wire, short	1. Turn on the power. 2. Check wiring.
Alarm LED does not light when the beam is broken.	1. No power supply. 2. Bad wiring connection or broken wire, short. 3. Beam is reflected on another object and sent into the receiver. 4. Two beams aren't broken simultaneously	1. Turn on the power. 2. Check wiring. 3. Remove the reflecting object or change beam direction. 4. Break 2 beams simultaneously.
Alarm LED continues to light	1. Beam alignment is out. 2. Shading object between Tx and Rx. 3. Optics of units are soiled.	1. Check and adjust again. 2. Remove the shading object. 3. Clean the optics with a soft cloth.
Intermittent alarms.	1. Bad wiring connection. 2. Change of supply voltage. 3. Shading object between Tx and Rx. 4. A large electric noise source, such as power machine, is located nearby Tx and Rx. 5. Unstable installation of Tx and Rx. 6. Soiled optics of Tx and Rx. 7. Improper alignment. 8. Small animals may pass through the 2 beams	1. Check again. 2. Stabilize supply voltage. 3. Remove the shading object. 4. Change the place for installation. 5. Stabilize. 6. Clean the optics with a soft cloth 7. Check and adjust again. 8. Set the response time longer.

Receiver



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

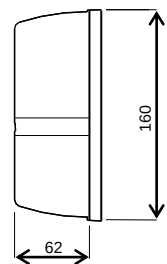
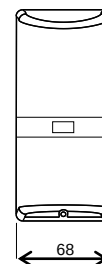
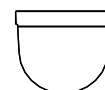
Transmitter



1. VCC : DC10~24V
2. GND

7 Specifications & Dimensions

Model	PRO-40
Protection distance	Outdoor 40m
Detection method	Twin synchronized pulsed beams
Maximum arrival distance	400m(800ft.)
Response time	50 ~ 500 mS
Supply voltage	10 ~ 24 V (Non-polarity)
AGC voltage	Alarm:2.0V under, Ready:2.1~2.9V, Good:3.0V over
Current consumption	Rx : 24mA, Tx : 22mA (Max.)
Alarm output	Dry contact relay output 1C (COM, NC, NO) Reset : Interruption time + off-relay (Approx. 1 sec)
Temperature	-25°C ~ 60°C
Tamper output	Dry contact, Micro SW (COM, NC)
Beam adjustment	Horizontal : 180° ($\pm 90^\circ$), Vertical : 20° ($\pm 10^\circ$)
Mounting position	Indoor / Outdoor
Weight	710g
Bracket	For wall/pole, Pole bracket(model no.PM-11, option)



*Note: This unit is designed to detect an intruder and active an alarm control panel. Being only a part of a complete system, we cannot assume responsibility for theft or damages, should it occur.

*Caution : Please consult the instruction manual to ensure safe and proper operation of the product. Specification and design are subject to change without prior notice for improvement.

*FAQ & Inquiry : sensorpro@sensorpro.co.kr