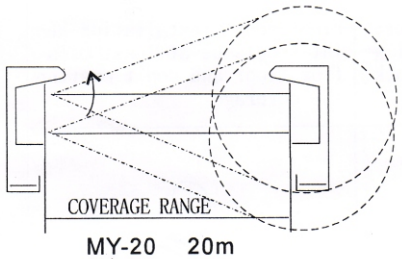
ALEPH®

ACTIVE INFRARED SENSOR

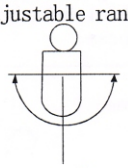
INSTALLATION INSTRUCTION

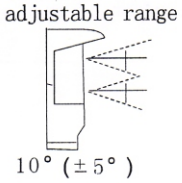
MY-20 (Outdoor 20m)
MY-40 (Outdoor 40m)
MY-60 (Outdoor 60m)
MY-80 (Outdoor 80m)
MY-100 (Outdoor 100m)

COVER AND ADJUSTABLE RANGE



MY-20 20m
MY-40 40m
MY-60 60m
MY-80 80m
MY-100 100m

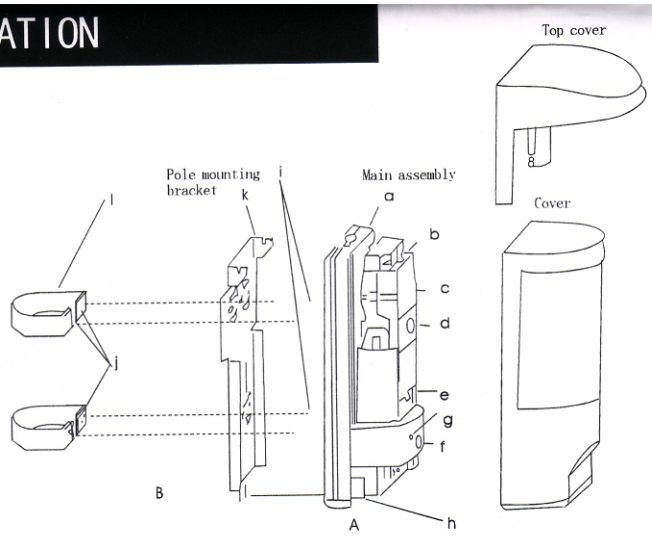




SPECIFICATIONS

Model		MY-20	MY-40	MY-60	MY-80	MY-100
Coverage		20m	40m	60m	80m	100m
Sensing Type		Pulse infrared				
Interruption Time For Alarm		50msec to 500msec(variable adjustment)				
Alarm Output		Output 1b or 1a SPDT Dry Contact(Alarm:NC. or NO.) DC 24V 0.2A(resistive load)				
Alarm Duration		2sec ±1sec				
Adjustable Alignment Range		Horizontal: 180°(±90°) Vertical: 10°(±5°)				
Supply Voltage		DC 11V to 26V (no polarity)				
Indicator LED	Transmitter	Normal: Green LED on				
	Receiver	Normal: Green LED on Alarm: Red LED on				
Power Consumption (At 12v DC Input)	Transmitter	10mA Max.	10mA Max.	17mA Max.	17mA Max.	17mA Max.
	Receiver	27mA Max.	27mA Max.	27mA Max.	27mA Max.	27mA Max.
Using Location		Outdoor				
Ambient Temperature		-25℃ to + 55℃				
Connection		Terminal				
Mounting		Wall mount or pole mount				
Case Meterial		Black poly carboneit				
Weight		690g (Transmitter: 340g, Receiver: 350g)				

PARTS IDENTIFICATION



OPTICAL ALIGNMENT INSTALLATIONS

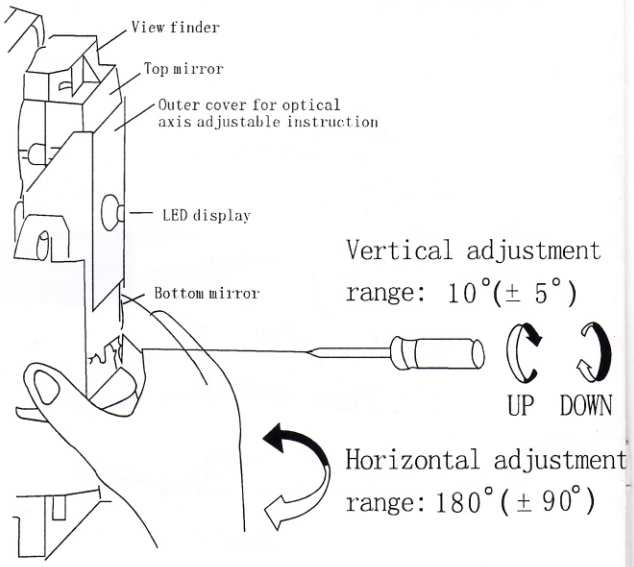
1. It is important that the units correctly transmit and receive; the performance of the installation depends on it. These instructions apply to both the transmitter and reciver in any installation. Each unit must be aligned to "see" the other.

2. Confirm the wiring before power-up.

3. Adjust the mirror units of the transmitter and receiver to see each other. Look through the viewfinder. Proper alignment should result in the viewfinder centering circle in the middle of the opposite unit.

Good Poor

Note: Don't cover the mirror units by hand (example). If you cover the mirror, you won't be able to correctly adjust the units.



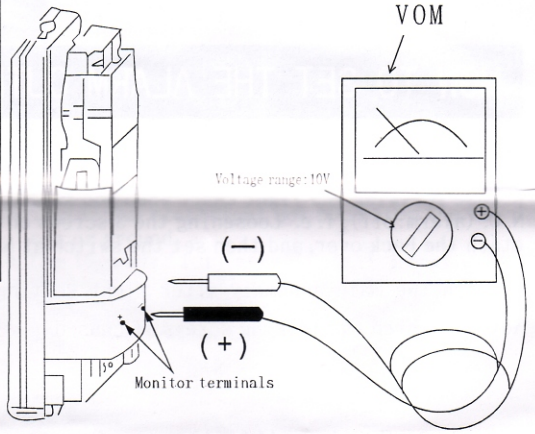
MONITOR TERMINALS INSTRUCTION

To verify the direction of optical axis by measuring the voltage on the jacks located on receiver. Adjust the direction of optical axis to achieve the best sensitivity. Then verify optical alignment after installing the case onto unit.

It is more reliable to put a VOM into the monitor terminals on the mian assembly. When using the VOM, put the tester"+"into the "+"terminal of the main assembly, and the tester"-"into the "-"terminal of the mian assembly. Adjust the transmitter and receiver until the monitor output voltage is maximum

Please refer to the relationship of Sensitivity and Monitor Output Voltage as following.

(Receiver) Indicator LED	State	Monitor output voltage				
		MY-20	MY-40	MY-60	MY-80	MY-100
Green LED On	Excellent	7.0V Min.	6.5V Min.	7.0V Min.	7.0V Min.	7.0V Min.
	Good	5.5V~7.0V	4.0V~6.5V	5.5V~7.0V	5.0V~7.0V	5.0V~7.0V
Green LED Flash	Realign	5.5V Max.	4.0V Max.	5.5V Max.	5.0V Max.	5.0V Max.



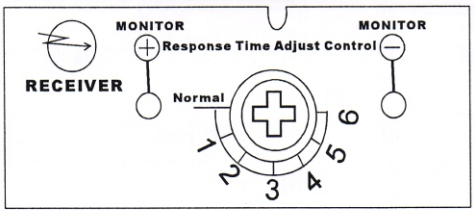
Cover one side of the top of the mirror units and cover one side of the bottom of the mirror units; then adjust the alignment until the monitor voltage of both sides is the same.

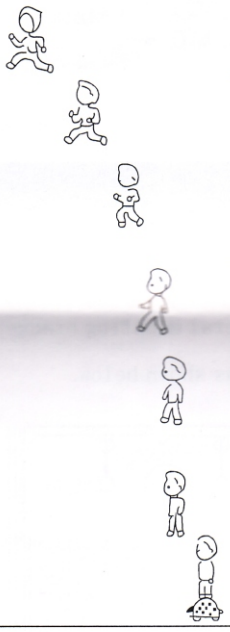
After adjustment, put the cover on the main assembly and tighten the screw.

BEAM RESPONSE TIME ADJUSTMENT

This adjustment is for coping with the environment variable from 50msec to 500msec. Usually, use the standard position (Normal).

Adjust the alarm duration control to higher positions (refer to the chart above) where birds or flying objects may break the beams.



Normal Position 50msec.		Fast running speed (35km / h)
No. 1 Position 100msec		Running speed (15km / h)
No. 2 Position 150msec.		Jogging speed (8km / h)
No. 3 Position 200msec.		Fast walking speed (4km / h)
No. 4 Position 300msec.		Average walking speed (3km / h)
No. 5 Position 400msec.		Leisurely walking speed (2km / h)
No. 6 Position 500msec.		Slow walking speed (1km / h)

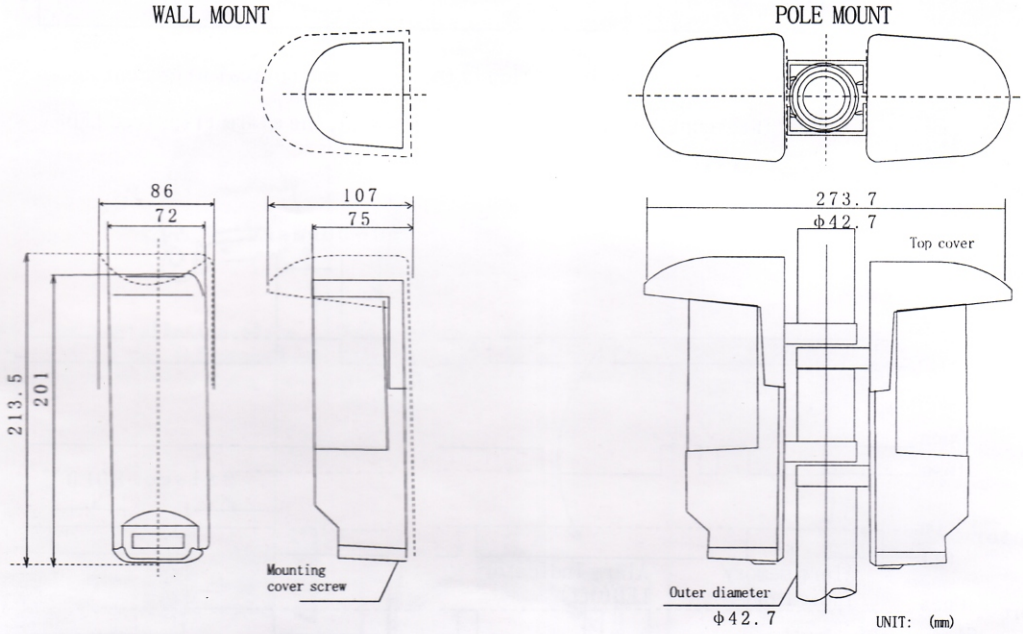
Caution: A target moving faster than the maximum speed setting will not be detected.

B: Metal mounting bracket, Straps for pole mounting
i: Mounting screw for pole mounting strap
j: Mounting screw for pole mount bracket
k: Metal mounting bracket
l: Straps for pole mounting

A: Main assembly
a: Main assembly
b: View finder
c: Mirror units
d: Indicator LED

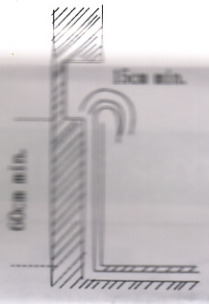
e: Adjustment screw for vertical adjustmetn
f: Interuption time adjustment
g: Monitor terminals
h: Locking screw for main assembly to mounting bracket

DIMENSIONS

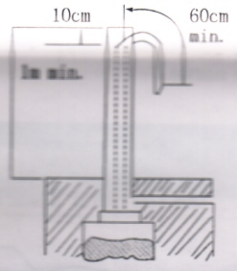


HOW TO SELECT A MOUNTING LOCATION

1) WALL MOUNT



2) POLE MOUNT



Wire Size	At 12VDC input	At 24V DC input
0.50mm²(φ0.8)	500m	3000m
0.75mm²(φ1.0)	750m	4500m
1.25mm²(φ1.2)	1250m	7500m
2.00mm²(φ1.6)	2000m	12000m

Use this chart to determine the wire size and maximum wiring distance between the sensor and power source.

Note: When using more than one pair of untis on the same wire run, the values must be divided by the number of untis used.

When installing units, check the strength of the wall or pole:

1: Wall Mount
a. install an electrical box 60cm from the floor or ground.
b. Use 15cm wire for installation (at box).
c. When using the wall, bury the wiring or use conduit. Install the wiring box at least 1cm under the cover case.
d. Installation height should be 60cm to 100cm from floor or ground.

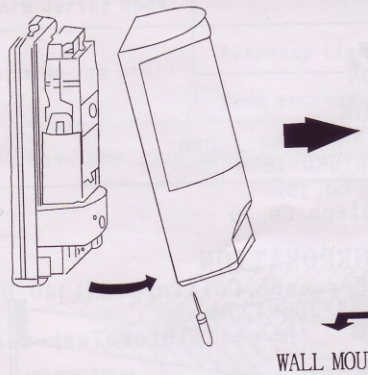
2: Pole Mount
a. The pole mount should be 1m height.
b. Make a hole for the wire about 10cm from the top of the pole.
c. Use at least 60cm of wire from the hole.
d. Installation height should be 60cm to 100cm from floor or ground.

For the best adjustment, install the transmitter and receiver face to face. It is recommended to use shielded wire when not using metal conduit.

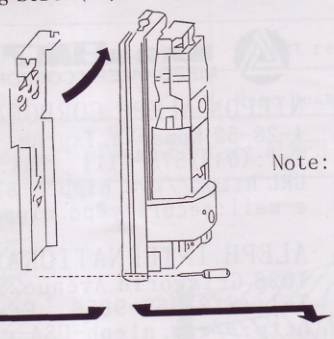
Don't use aerial wire.

INSTALLATION

Loosen the locking screw of the cover and detach the cover form the main assembly.



Detach the metal mounting bracket from the mian assembly by removing the one retaining screw (M3).

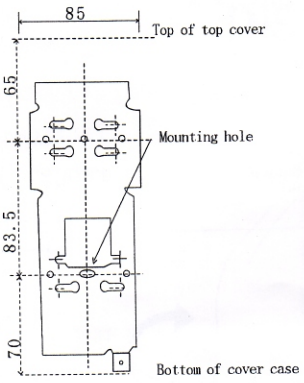


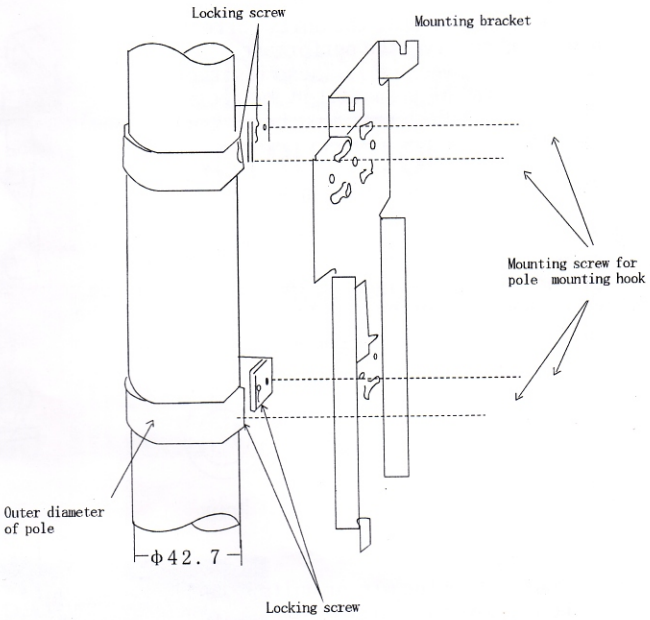
Note: Don't touch the mirror units.

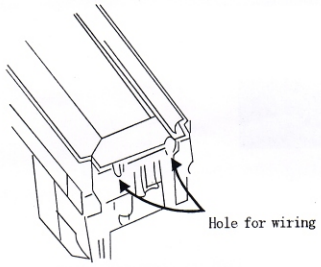
WALL MOUNT

POLE MOUNT

Detach the mounting bracket and installation it on the wall vertically with the enclosed self-tapping screw.







When using the wall for wiring, cut the knockout of bottom of cover case.

Mounting method(see chart above)

Strap for pole mounting is only suitable for a Pole of φ42.7mm, Other than this pole, please choose the right screws according to the following.

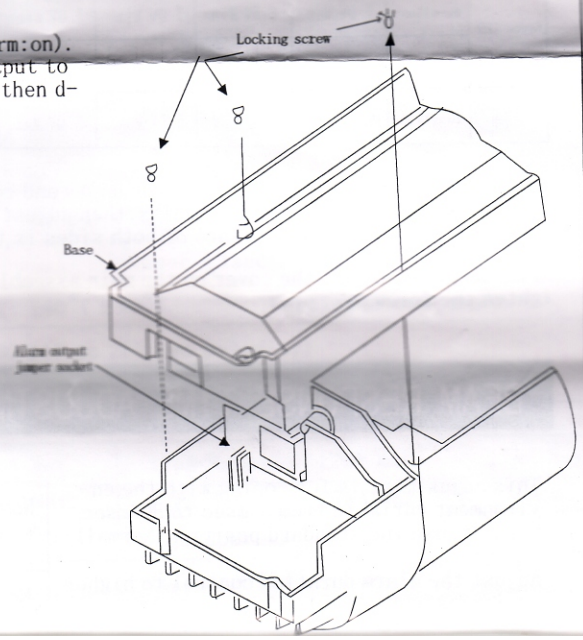
Diameter (Pole)	Specification(Screw)	Remark
φ42.7	M4x 12	Standard
φ38	M4x 16	
φ48	M4x 6	

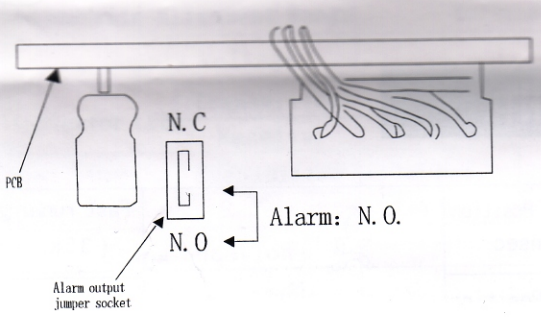
HOW TO SET THE ALARM OUTPUT SWITCH

The Alarm Output Switch is originally preset at N.C. (alarm:on). please follwing the right chart when you switch Alarm Output to N.O. (alarm:off), i.e. Loosening the 3 screws on the unit, then detach the back over, and then set the switch at N.O.

(Return the main assembly after right setting)

Note: Tighten the locking screws if unused.

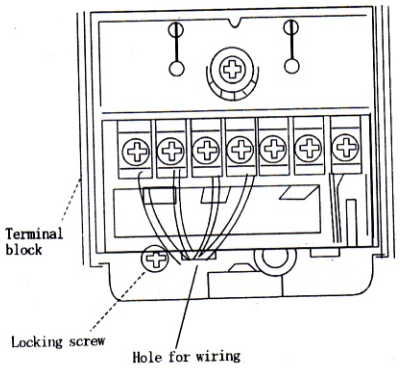




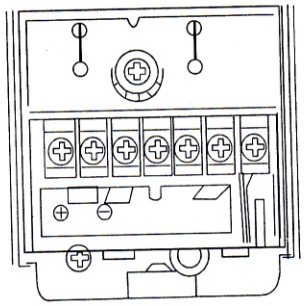
WIRING

Before wiring, check the strength of the metal mounting bracket. Then install the wire between the main assembly and the metal mounting bracket. Then, using the retaining screw to mount the main assembly to the metal mounting bracket.

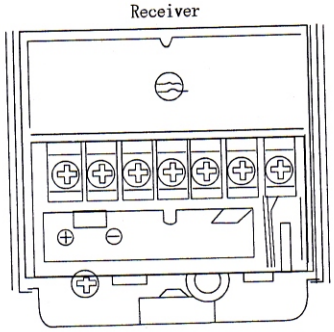
Connect the wire as shown below.



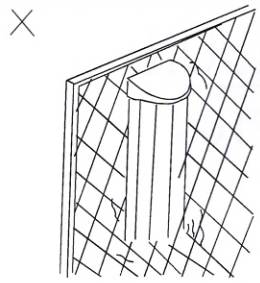
Transmitter



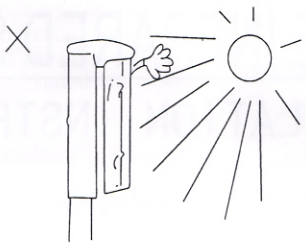
Receiver



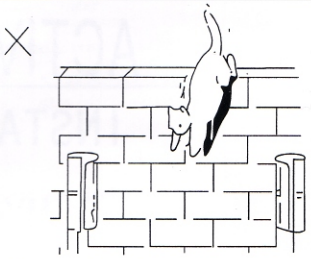
INSTALLATION HINTS



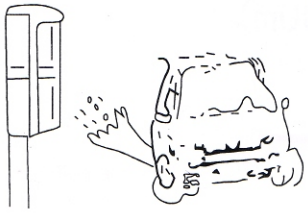
Mount the unit only on a solid location or surface.



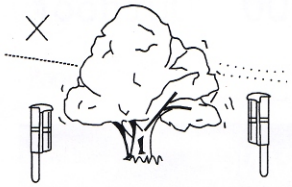
Don't install directly facing a rising or setting sun.
This can cause burn damage to internal optics.



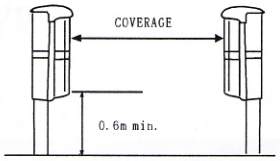
Adjust the alarm duration to higher position where birds or small animals may break the beams.



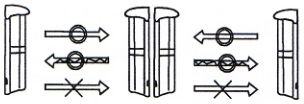
Make the installation place where it is not influenced by the splash of rain water etc.

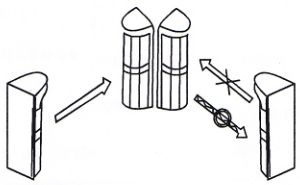


Don't install the unit where falling leaves or seasonal growth of branches will block the beam.

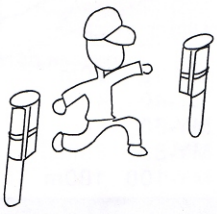


Floor mount installation height should be at least 0.6m from floor and don't overtop the coverage





Caution:Each receiver must see only one transmitter
(i.e., install one receiver at each pole)

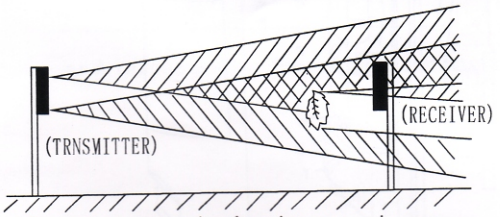


After the installation is completed assure proper operation by walk test.

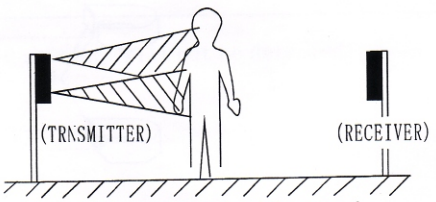
TROUBLE SHOOTING

CONDITION	CAUSE	REMEDY
Transmitting green LED does't turn on.	No power or insufficient voltage (broken connection, power down)	Voltage check. Supply correct voltage (11V DC to 26V DC)
Alarm red LED on receiver does't turn on when both beams are covered.		Check connection
Alarm red LED on, but no relay output.	Signal cable is shorted.	Check cable
	Relay contact is frozen.	Replace receiver
Alarm red LED stays on continuously.	Not aligned properly.	Re-align.
	Object is breaking beams.	Remove object.
	Dirty cover.	Clean cover.
False alarm during fog.	Poor alignment.	Re-align.
False alarm during rain.		
False alarm during snow.		
False alarm due to small animal.	Response time short	Adjust response time.
	Beam mounted too low.	Move beam.

If you have any questions about this product please contact ALEPH or your nearest dealer。



The alarm not trip when intercepting one beam only.

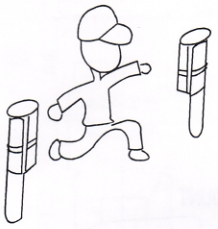


When intercepting both beams, the alarm trips.

TEST.(OPERATION CHECK)

After installing the cover, start an operation check. Confirm that the tamper switchis closed on both units(transmitter and receiver). After installation, walk-test the unit for proper operation.

Ensure that the power voltage is in specification(11V DC to 26V DC).

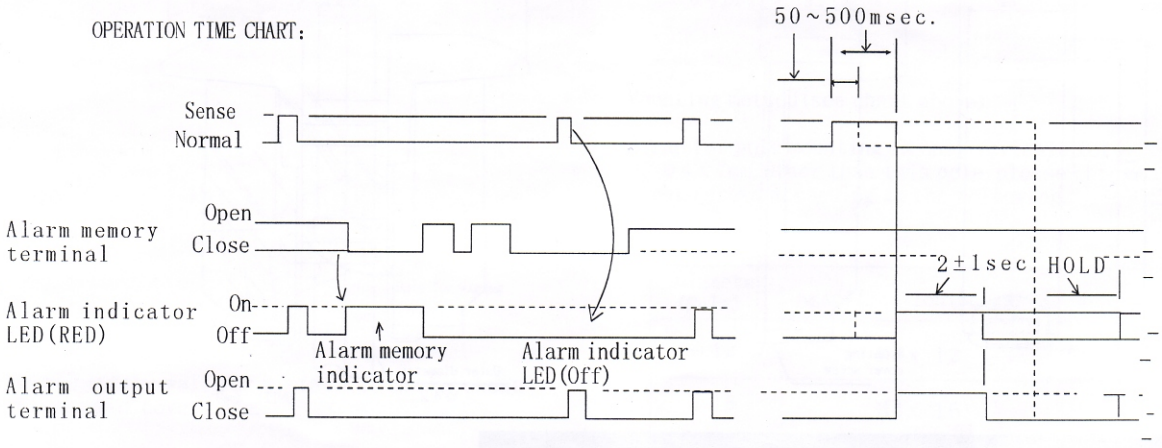


Sensor	Condition	Indicator	Check
Transmitter	Trnsmitter	Green LED On	Walk Test
Receiver	Normal	Green LED On	
	Alarm	Red LED On	

If the red LED(alarm indicator) is ON, adjust the optical alignment again.

When intercepting both beam(upper and lower), the alarm trips(red LED).

OPERATION TIME CHART:



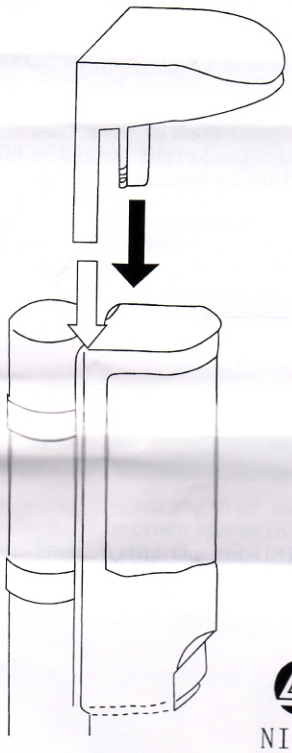
A detection system can be connected with severalalarm memory termianls, Alarm Memory Function-Alarm memory lights the alarm LED continuously to indicate which sensor went into alarm(except the place of alarm continuously).

The alarm memory terminal are open(Non-connection) when on normal, see timing chart above. Please connect the alarm memory terminal to GND to verify detected results.

Caution:Please leave the alarm memory terminal open when on normal.

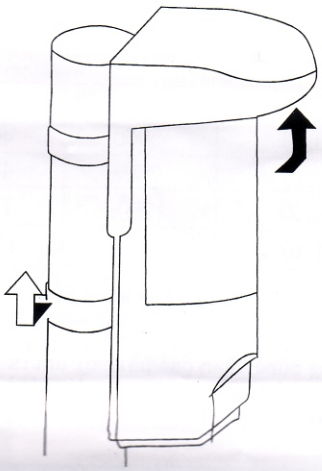
Top cover mount:

Slide the top guide rails down in groove between the cover and metal mounting bracket from top side and close it correctly.



Top cover remove:

Pull the guide rails outwards and then pull the top cover upwards.



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