

PASSIVE INFRARED
DETECTOR

WONDEREX

FX-360, FX-360L, FX-360L(P), FX-360S

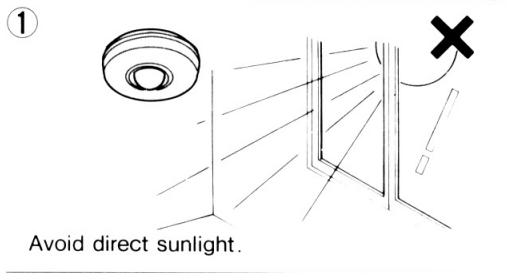
[Alarm Memory] [Form C]

FEATURES

- Ceiling Mount Type 360° PIR Detector.
- Selectable pulse count 2 or 4.
- LED ON/OFF remotely from the control panel or at the detector.
- Alarm Memory (FX-360L, FX-360L(P))
- Form C Relay (FX-360S only)
- UL Listed only for models FX-360, FX-360S

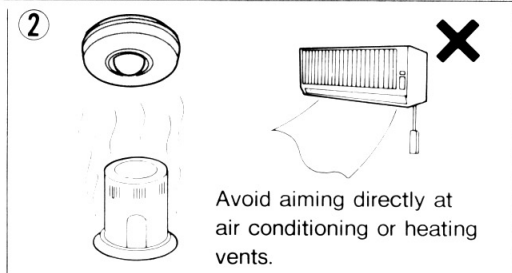
I. INSTALLATION HINTS

1



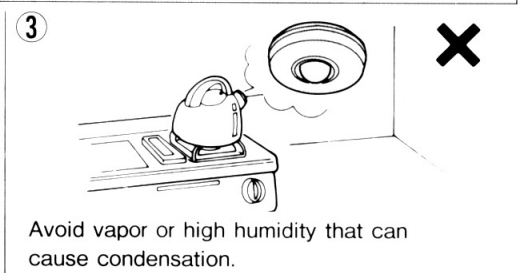
Avoid direct sunlight.

2



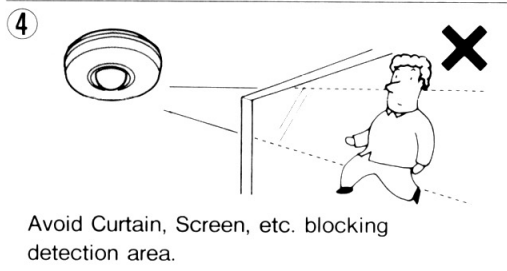
Avoid aiming directly at air conditioning or heating vents.

3



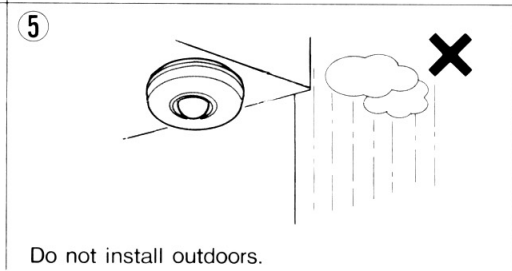
Avoid vapor or high humidity that can cause condensation.

4



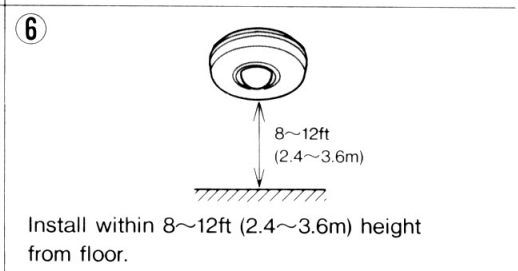
Avoid Curtain, Screen, etc. blocking detection area.

5



Do not install outdoors.

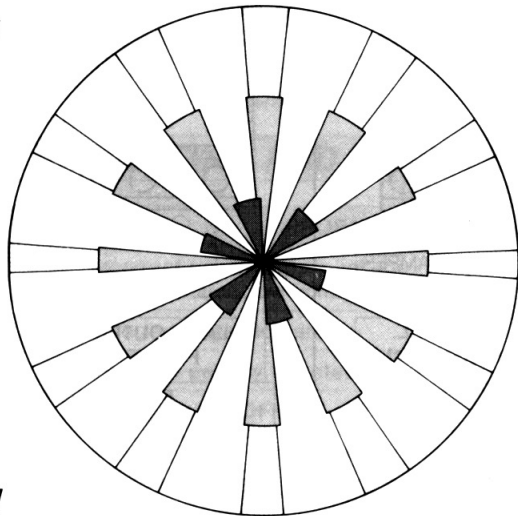
6



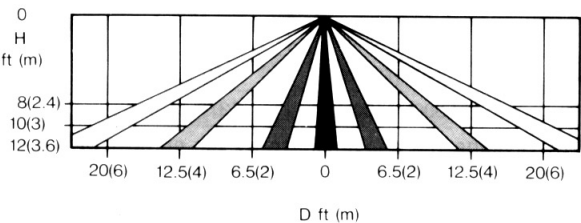
Install within 8~12ft (2.4~3.6m) height from floor.

II. DETECTION AREA

TOP VIEW



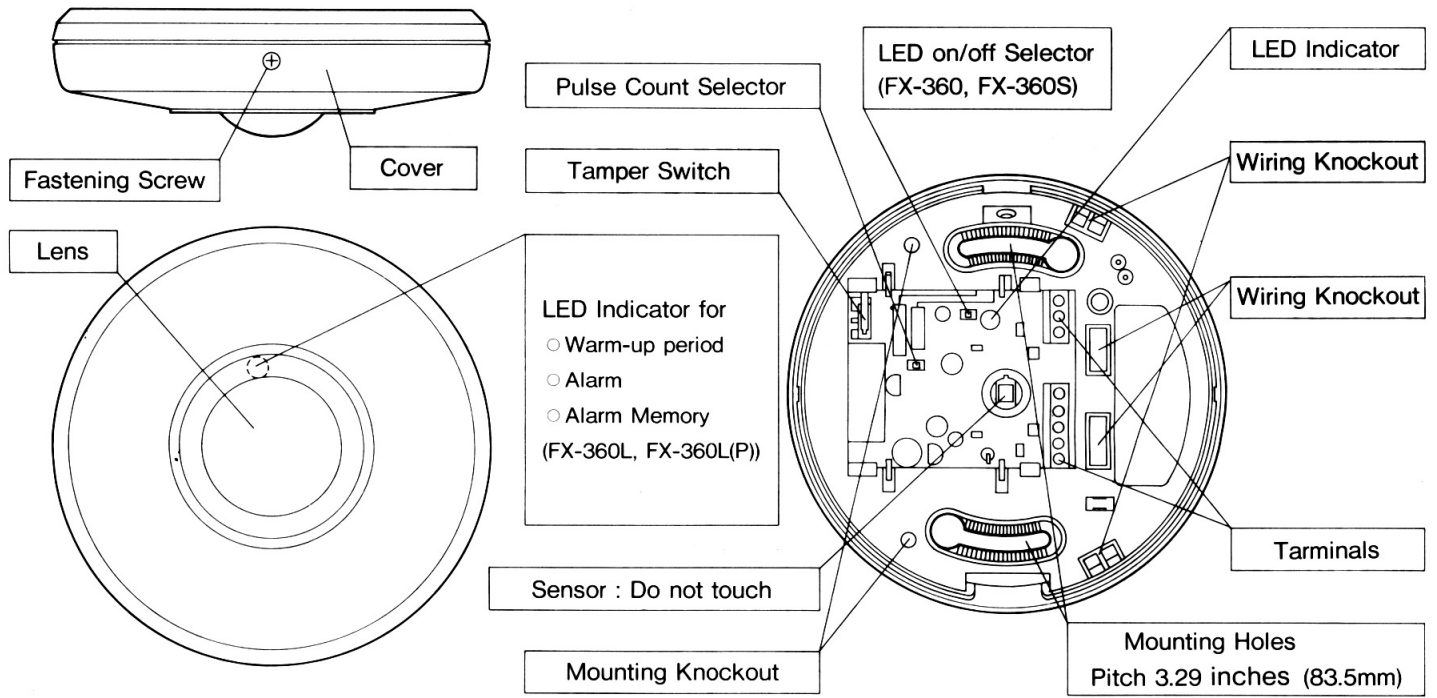
SIDE VIEW



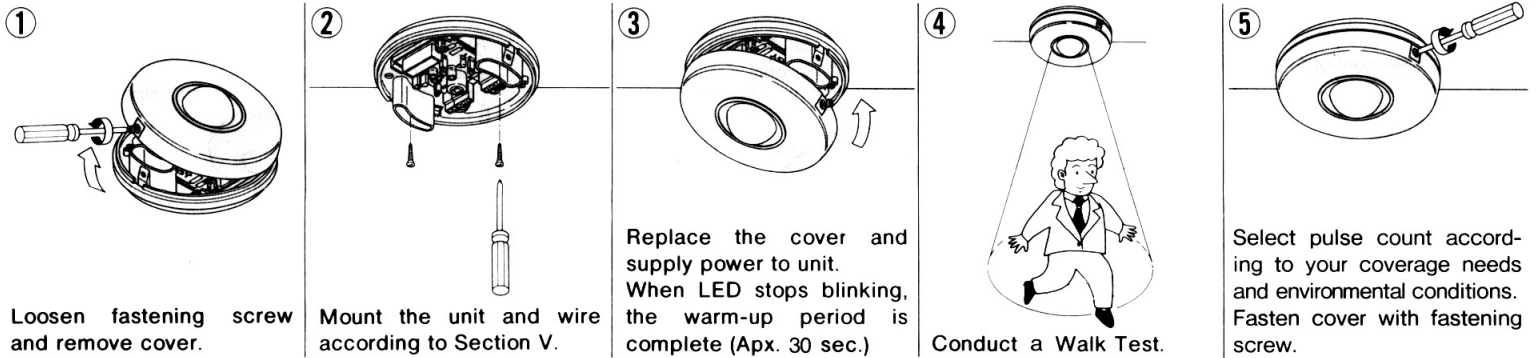
MAX. Detection AREA

Installation Height ft (m)	8 (2.4)	10 (3)	12 (3.6)
Detection Area (Diameter) ft (m)	25 (8)	32 (10)	40 (12)

III. DESCRIPTION AND OPERATION

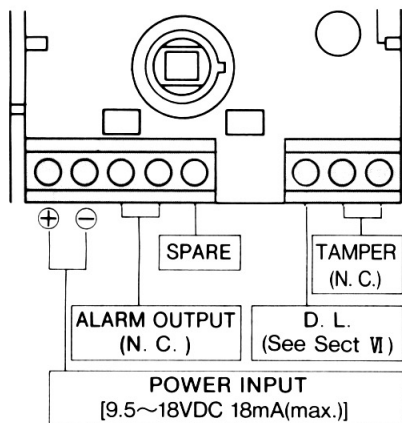


IV. INSTALLATION METHOD

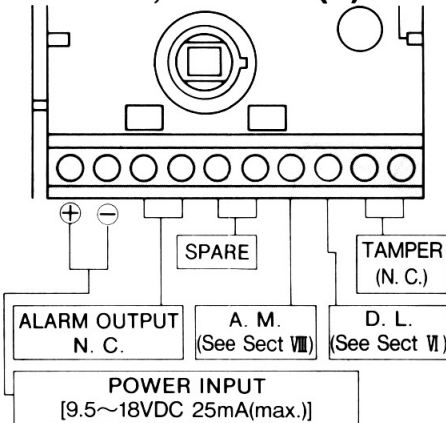


V. WIRING

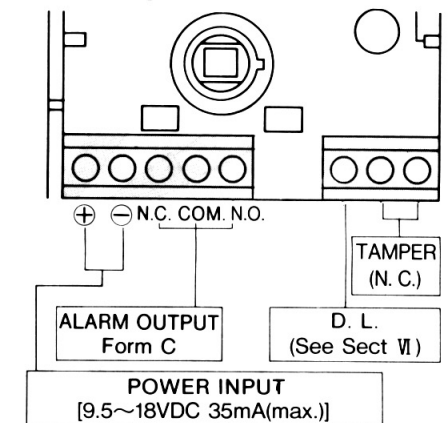
FX-360



FX-360L, FX-360L(P)



FX-360S



Power wires should not exceed the following lengths.

WIRE SIZE	FX-360		FX-360L, FX-360L(P)		FX-360S	
	12V	14V	12V	14V	12V	14V
AWG22 (0.33mm ²)	1070' (320m)	2140' (650m)	770' (230m)	1530' (460m)	500' (150m)	1070' (320m)
AWG20 (0.52mm ²)	1700' (510m)	3400' (1020m)	1200' (360m)	2400' (730m)	870' (260m)	1730' (520m)
AWG18 (0.83mm ²)	2700' (820m)	5300' (1600m)	1900' (570m)	3800' (1150m)	1370' (410m)	2730' (830m)

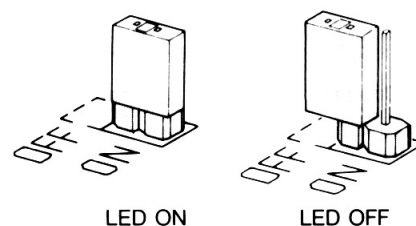
- When using two or more units on one wire, the maximum length is obtained by dividing the above length by the number of units used.
- UL requires FX-360 and FX-360S to be connected to a UL listed power supply capable of providing a nominal input of 12VDC (9.5~18VDC) 18mA (max.) [FX-360], 12VDC (9.5~18VDC) 35mA (max.) [FX-360S] and battery standby time of 4 hours.

VI. LED ON-OFF

MODEL : FX-360, FX360S

- Use Jumper Pin Switch for LED "ON" "OFF" as shown.
 - Use D. L. terminal to turn LED ON-OFF from control panel remotely.
 - i) Place Jumper Pin Switch in OFF position.
 - ii) LED On : Connect D. L. terminal to common ground with detector
- LED Off : No connection to the D. L. terminal.

JUMPER PIN SWITCH



MODEL : FX-360L, FX-360L(P)

Use D. L. terminal as follows, (No Jumper Pin in this model)
LED can be turned ON-OFF at the detector or remotely at the control panel.

	Remotely	At the Detector
LED Enabled	Connect DL terminal to common ground (with detector).	Connect (—) terminal of power input to DL terminal.
LED Disabled	No ground to DL terminal (open circuit).	No connection to DL terminal (open circuit).

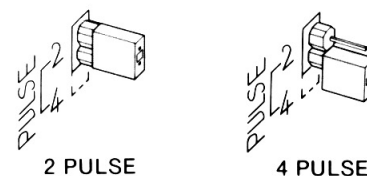
- LED operation of Alarm Memory (FX-360L, FX-360L(P))
LED will remain lit for alarm memory even when the LED is disabled during normal operation.

VII. PULSE COUNT

Select 2 for regular applications. For unstable environments, select 4. Shift Pin Switch as shown.

* NOTE ON PULSE COUNT DURING WALK TEST

Once initial movement is detected during the walk test, subsequent movements that are within the delayed timer period (approx. 20 seconds) will override the pulse count setting and cause an instant trigger.
This feature assures location of each detection zone and accelerates the confirmation of pattern coverage in the walk test.



VIII. ALARM MEMORY (FX-360L, FX-360L(P))

1. Wiring

Connect control voltage signal terminal (System arming status voltage output terminal) of control panel to A. M. terminal.

MODEL : FX-360L

	Control Voltage Signal
System armed	0~1 VDC (grounded)
System disarmed	OPEN

MODEL : FX-360L(P)

	Control Voltage Signal
System armed	+5~20VDC
System disarmed	0~1 VDC (grounded)

(Must have common ground with sensor)

2. Operation of Alarm Memory

If the unit is triggered during an armed period, when the system is disarmed, its LED will remain lit to confirm that it reported the alarm.

- Alarm Memory will operate whether LED is disabled or not.
- Alarm Memory will not latch while system is disarmed.
- LED operation and alarm output are not affected by alarm memory when system is armed.

3. Reset

Alarm memory resets automatically when system is re-armed.
Optional compatible control panel required.

IX. TROUBLE SHOOTING AND MAINTENANCE

PROBLEM	PROBABLE CAUSE	REMEDY
LED does not light.	Incorrect power supply voltage. (disconnection, low voltage)	Correct supply voltage to 9.5 ~ 18V DC.
	Incorrect detection area.	See Section II.
	Incorrect polarity to detector.	Switch positive and negative at terminal.
	LED switch is OFF	Turn on the Switch. See Section VI.
LED lights even though no person within area.	Moving object within area. (curtain, wall hanging, etc.)	Remove object from detection area.
	Rapid temperature changes within area. (heater., air-conditioner, etc.)	Remove the sources from detection area.
LED continues to light	Poor connection of alarm memory.	Reconnect wire.
	Wrong control voltage from panel.	Must be 0~1 VDC. (grounded) See Section VIII.
LED lights but signal is not sent.	Relay contact is stuck or damaged due to overloading.	Check load of output. The unit needs repair or replacement.
	Faulty Wiring	Wire correctly.

※ Conduct a walk test at least once per year.

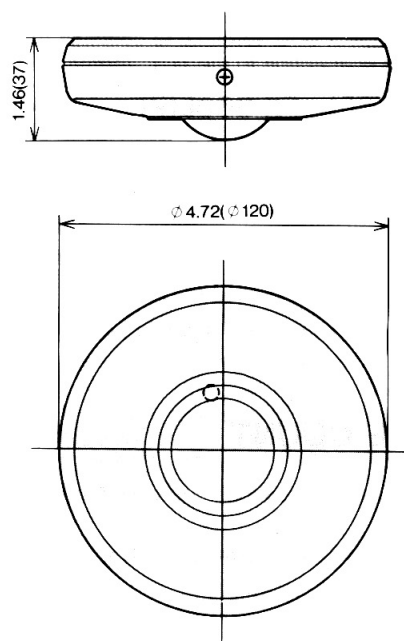
X. SPECIFICATIONS

Model	FX-360
Detection method	Passive Infrared
Coverage	$\phi 25\text{ft} \sim \phi 40\text{ft}$ / ($\phi 8\text{m} \sim \phi 12\text{m}$) Height 8ft \sim 12ft / (2.4m \sim 3.6m)
Detection zones	62 zones
Sensitivity	3°F (1.6°C) at 2ft/sec (0.6m/sec)
Detectable speed	1 \sim 5ft/sec. (0.3 \sim 1.5m/sec.)
LED indicator	LED is blinking during warm-up period. Alarm indicator optional
Alarm period	2.0 \pm 0.5sec
Alarm output	N. C., 28VDC 0.2A max.
Tamper switch	N.C., 30VDC 0.1A max, Opens when cover removed.
Pulse Count	20 \pm 5sec 2 or 4
Warm up period	Approx 30sec. (LED blinks.)
Power input	9.5 \sim 18VDC
Current draw	17mA / (normal) 18mA / (max.)
Weight	4.9 oz (140g)
Operating temperature	-4°F \sim +122°F (-20°C \sim +50°C)
Environment humidity	95% max.
RFI interference	No Alarm 20V/m

L, L(P) Version (Alarm Memory)		
Model	FX-360L	FX-360L(P)
Alarm Memory	System armed : 0 \sim 1VDC (grounded) See Section VIII	System armed : +5 \sim 20VDC See Section VIII
Current draw	17mA / (normal) 25mA / (max.)	
Weight	4.9oz (140g)	

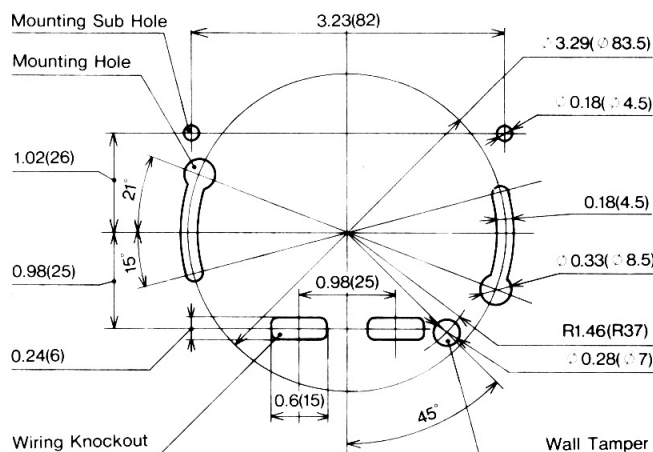
S Version (Form C)	
Model	FX-360S
Alarm output	Form C 28VDC 0.2A (max.)
Current draw	32mA / (normal) 35mA / (max.)
Weight	4.9oz (140g)

Dimensions



inches (mm)

Mounting Position



inches (mm)

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

NOTE

This unit is designed to detect movement of an intruder and activate an alarm control panel. Being only a part of a complete system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion.



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