

**FEATURES**

- Patented Double Conductive Shielding of Pyroelectric Element (FX-40D/40DL)
- Patented Multi-Focus Lens
- Look Down Zone
- Sealed Optics
- Temperature Compensation Circuit
- UL Listed only for models FX-40, FX-40D

**EASY INSTALLATION**

- Easy Wiring Knockouts
- Spare Terminal
- Wiring Guide
- Wide Wiring Space

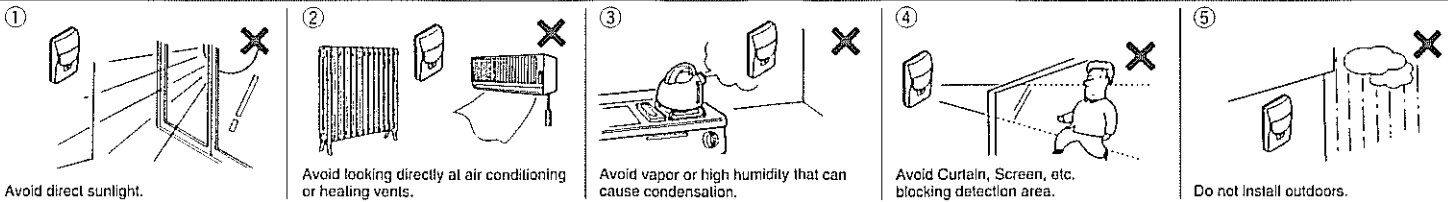
**FUNCTIONS**

- Selectable Pulse Count (2 or 4)
- LED On/Off Switch
- Tamper Switch
- Selectable Alarm Memory for Negative or Positive (FX-40L/40DL)

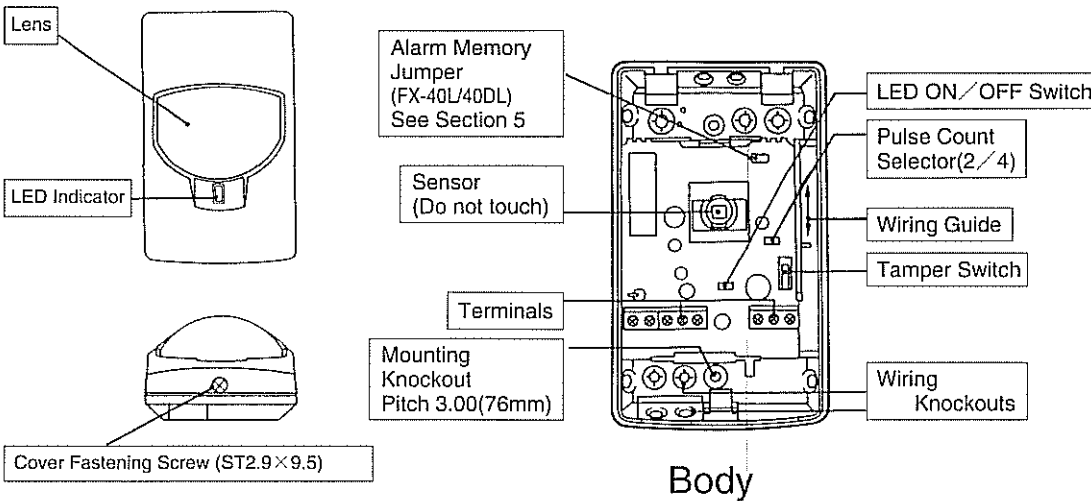
**OPTION**

- FA-3 Wall & Ceiling Mount Bracket. (Horizontally  $\pm 45^\circ$  & Vertically  $0^\circ$  to  $-15^\circ$ )
- FL-60N Curtain Long Range Lens. (60ft/18m)

**1. INSTALLATION HINTS**



**2. DESCRIPTION AND OPERATION**



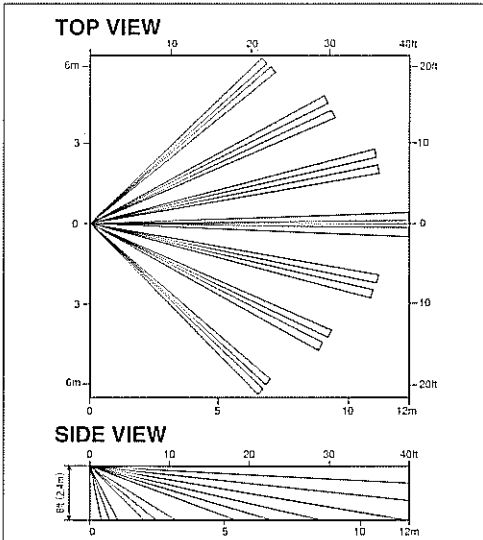
**SELECTABLE ON/OFF & PULSE COUNT**  
Use the pin switch for LED ON/OFF & Pulse Count Selection (2 or 4)

LED ON/OFF    PULSE COUNT

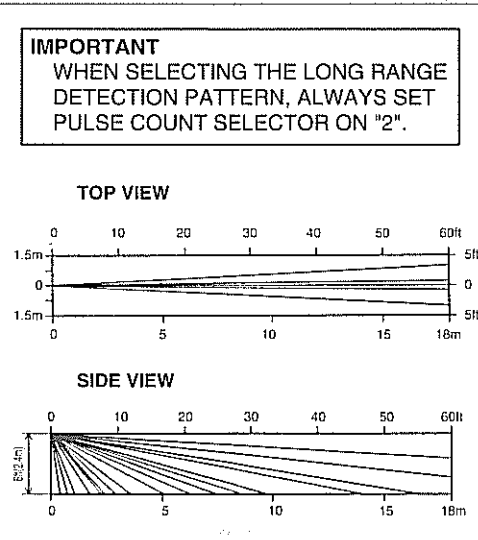
**EASY WIRING KNOCKOUTS**  
Press by a screwdriver to open. Enlarge the hole according to size of wire.

**3. DETECTION AREA**

**WIDE ANGLE**

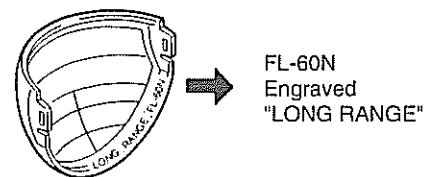


**LONG RANGE (OPTIONAL LENS : FL-60N)**

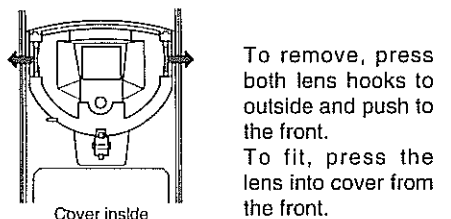


**PATTERN AREA SELECTION**

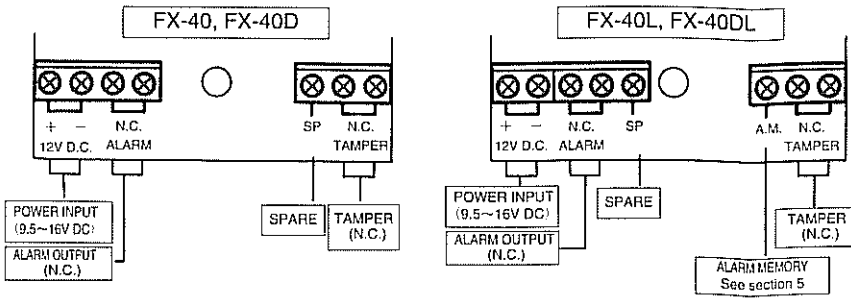
Use an optional lens FL-60N for long range area



**HOW TO REMOVE & FIT LENS**



## 4. WIRING



Power wires should not exceed the following lengths.

WIRE GAUGE	FX-40, FX-40DC		FX-40L, FX-40DL	
	12V DC	14V DC	12V DC	14V DC
AWG22 (0.33mm <sup>2</sup> )	1700' (520m)	3700' (1130m)	1180' (360m)	2520' (770m)
AWG20 (0.52mm <sup>2</sup> )	2690' (820m)	5830' (1780m)	1830' (560m)	4000' (1220m)
AWG18 (0.83mm <sup>2</sup> )	4290' (1310m)	9350' (2850m)	2950' (900m)	6430' (1960m)

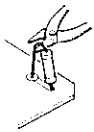
When using two or more units on one wire, the maximum length is obtained by dividing the maximum wire length listed above by the number of units used.

## 5. ALARM MEMORY(FX-40L, FX-40DL)

Compatible Control Panel is required for Alarm Memory.

Connect A.M. terminal to Control Panel's Control Voltage Signal terminal (System Arming Status Voltage Output).

AM Jumper



POSITIVE : Leave AM Jumper as it is  
NEGATIVE : Cut AM Jumper as shown  
CONTROL VOLTAGE SIGNAL

	POSITIVE	NEGATIVE
System Armed	OPEN or +5~16VDC	0~1VDC (grounded)
System Disarmed	0~1VDC (grounded)	OPEN or +5~16VDC

### OPERATION OF ALARM MEMORY

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

- Alarm Memory will operate even when LED is switched OFF.
- Alarm Memory will not operate while system is disarmed.
- After Alarm Memory latches, Alarm Output and LED operate normally during armed period.

### RESET

Alarm Memory resets automatically when system is re-armed.

- UL requires FX-40, FX-40D to be connected to a UL listed power supply capable of providing a nominal input of 12V DC (9.5~16V DC) 11mA (max.) and battery standby time of 4 hours.

## 6. TROUBLE SHOOTING AND MAINTENANCE

PROBLEM	PROBABLE CAUSE	REMEDY
LED does not light.	Incorrect power supply voltage. (disconnection, low voltage)	Correct the voltage supply to 9.5~16V DC.
	Incorrect detection area.	See Section 3
	Incorrect polarity to detector.	Switch positive and negative at terminal.
	LED switch is OFF	Turn on the Switch.
LED lights even though no person is within area.	Moving object within area. (curtain, wall hanging, etc.)	Remove object from detection area, or change location of detector.
	Rapid temperature changes within area. (heater, air-conditioner, etc.)	Remove the source from area, or change location of detection.
LED continues to light	Poor connection of alarm memory.	Reconnect wire.
	Wrong control voltage from panel.	Must be 0~1V DC. (grounded) See Section 5
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 a year.

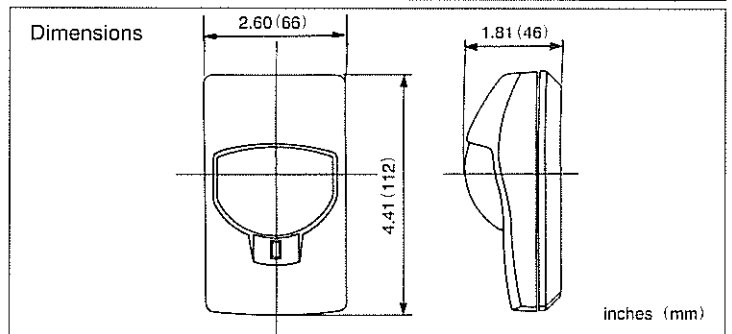
## 7. SPECIFICATIONS

MODEL	FX-40, FX-40D
Detection method	Passive Infrared
Coverage	40ft×40ft (12m×12m) 85° wide
Detection zones	WIDE : 72 zones
Mounting Height	5~8ft (1.5~2.4m)
Sensitivity	3°F (1.6°C) at 2ft./sec (0.6m/sec)
Detectable speed	1~5ft./sec (0.3~1.5m/sec)
LED indicator	Alarm indicator optional
Alarm period	Approx. 2.5 sec
Alarm output	N.C., 28V DC 0.2A max.
Tamper switch	N.C., Open when cover is removed. 28VDC 0.1A max.
Pulse Count	Approx. 20 sec 2 or 4
Warm up period	Approx. 30 sec
Power input	9.5~16VDC
Current draw	8mA(normal), 11mA(max.) at 12VDC
Weight	3.2 oz (90g)
Operating temperature	-4°F ~ +122°F (-20°C ~ +50°C)
Environmental humidity	95% max
RF interference	NO Alarm 20V/m (FX-40/40L)
	NO Alarm 30V/m (FX-40D/40DL)

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

L Version (Alarm Memory)		
Model	FX-40L, FX-40D	
Position	Negative	Positive
Alarm Memory	armed : 0~1V DC (grounded)	armed : OPEN or +5~16V DC
Current draw	8mA(normal), 16mA(max.) at 12VDC	

FL-60N (Optional Lens for Long Range Area Pattern)	
Coverage	LONG : 60ft×6ft (18m×1.8m) Long Range
Detection zones	LONG : 20 zones



### NOTE

These units are designed to detect movement of an intruder and activate an alarm control panel. Being only part of a complete alarm system, we cannot accept responsibility for any damages or other consequences resulting from an intrusion. These products conform to the EMC Directive 2004/109/EC.

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