



XP-43SL

Security Light™ PIR Intrusion Detector 40ft L x 56 ft W



Description: The Security Light™ provides safety lighting and security in a single motion detector unit. The XP-43SL is a full featured 100 lb animal immune PIR sensor, that provides high intensity LED safety lighting. Additionally because it works with a security system (and the system's backup battery), the safety lighting acts as emergency lighting during power failures.

Installation: To fully utilize, position in high traffic areas. Install the XP-43SL at a mounting height between 7.6 ft (2.4m) and 8.2 ft (2.5m). Mount the unit so it is looking into an area free of obstructions. Avoid pointing the detector at windows and /or areas exposed to direct sunlight, do not mount the unit so it is looking directly at heating or cooling sources.

Wire the XP-43SL to the control panel device using 18 to 24 AWG 4 conductor. Standard non-shelided wire can be used, do not run wiring parallel to AC wiring. For UL installations, all wiring must be in accordance with NEC, NFPA 70. Wiring Connection configuration is specified at the top of page two.

Prior to re-attaching front cover; set Pet Immunity, Pulse Count (PC), and LED configuration settings (Selectable Switch 1, 2, and 3 (Ref page 2)) as desired. If the detector is viewing a narrow area, a PC setting of 4 should be avoided, as the small area may not allow enough movement to detect intruders. In High Security applications set SW-1 to "High Sensitivity", this lowers the alarm trigger threshold, allowing for a quicker detection throughout the detection area. A setting of "High Sensitivity" voids the Pet Immunity features of the XP-43SL. Set SW 1 to "Standard" when Pet Immune functions (Animals up to 100lbs) are desired.

Selectable Switch 3 controls Alarm and Security LED's. Refer to Pg. 2 for Selectable Switch parameters. When disabled all LED's are inactive. When enabled all LED's light in response to movement with the following characteristics:

Alarm: Red LED blinks after first detection pulse, blinking continues until PC set is met. When detection pulses are equal PC set, an Alarm Condition is initiated, Red LED turns on solid/non pulsing state & Alarm Relay Output opens. Alarm duration is two seconds.

Security Light(s): White LED's light solid after first detection pulse, when ambient light level is 50 lux or less. Security Lights remain lit for 10 seconds after movement has stopped. When light level is below 50 lx White and Alarm LED's work concurrently with each other.

The "Sensitivity Adjustment" pot (Reference Pg. 2) enables additional adjustments to fine tune detection sensitivity, by varying the PIR gain trigger threshold level. The "SA" pot is factory preset at 50%.

Walk-Test: Once installation and initial setup is complete, perform a full walk test to insure that detection parameters are met, if required make control adjustments to fine tune detection characteristics. In order to insure detection quality, the XP-43SL should be tested routinely, with no more than a one year period between test.

Troubleshooting:

Trouble	Cause	Remedy
Unit does not power up.	No or low input power. Input power polarity reversed.	Apply proper input voltage. Correct wiring polarity.
Alarm LED does not light up	Selectable Sw 3 is set to "OFF" "Detection Area" settings incorrect. Incorrect Sensor Mounting height. Sensitivity / Pulse Count settings incorrect for secured area.	Set to "On" / up. Reset Sw.1 & 2 to match coverage area and/or remount sensor. Increase / Decrease mounting height. Reset Sw 3 & 4/ readjust Sensitivity Pot to match detection characteristics required.
Alarm LED / Relay triggers without movement in detection area.	Unsecured environment / Animals / Rodents in detection area. Heater /Air conditioning equipment in sensor view. Direct Sun or headlights in sensor view.	Block access of animals/rodents. Remove the hazard equipment. Re- aim sensor so it is not viewing the equipment. Add curtain / shade to block light sources.
LED indicates Alarm, no alarm output	Incorrect wiring at alarm output terminals. Open circuit in wiring between detector and control panel. Lightning damage to detector	Correct wiring fault. Replace/repair wiring. Replace detector.
Alarm LED on constantly, no fault in protected area or wiring.	Abnormal supply voltage	Ensure that there is correct voltage (10.6 to 16 VDC) at power terminals
Security (White) LEDs do not light	Room illumination above 50lx. Jumpers R37 & R38 cut / open	Darken Secured area. Re-short jumpers.

Testing & Maintenance:

Inspection:

An inspection of this unit should be made periodically, consisting of, but not limited to all mounting, wiring and the condition of the interior / components.

Cleaning:

Clean the plastic parts of this unit with a soft, clean, damp cloth.

Testing:

This unit should be tested routinely for proper operation. At a minimum the unit's operation needs to be fully checked yearly.

Notes:

This unit is designed to be incorporated into an overall alarm system. As it is part of the system ALEPH cannot assume responsibility for theft or damage if the system fails to operate.

Compliance Information:

CE compliant:
Directive 73/23/EEC

Patent Information:

U.S. Patent Number: 421,403. Other U.S. & International patents pending.

Control Layout and Configuration

Terminal Configuration

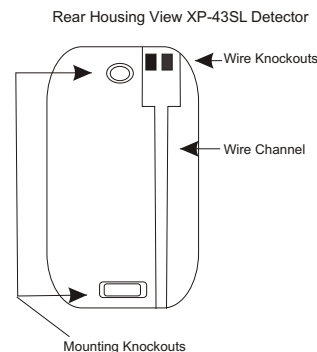
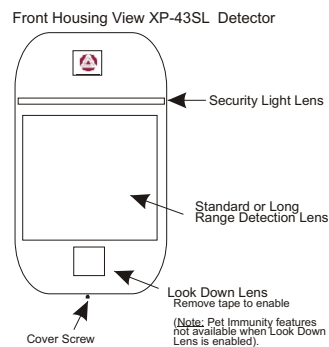
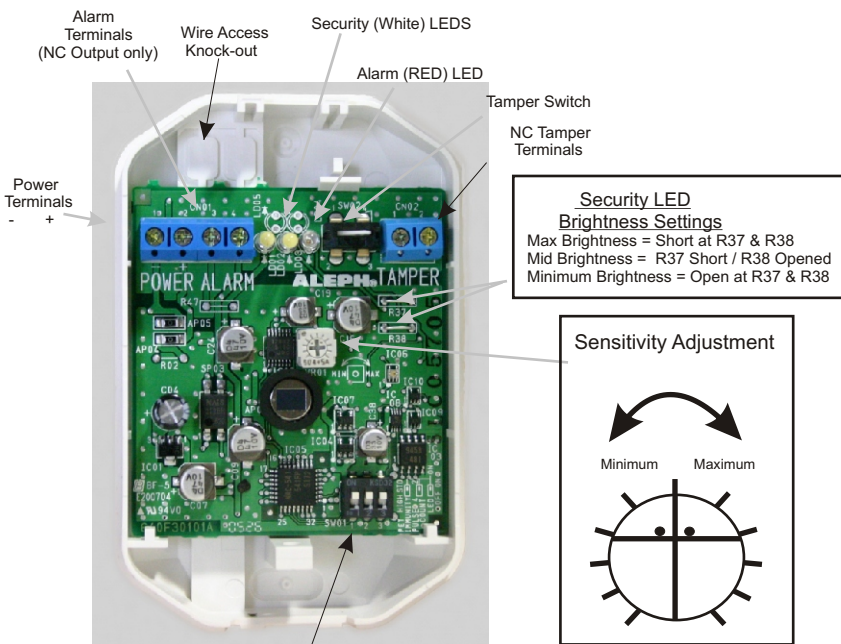
Power	Alarm	Tamper
- + NC C	NC C	NC C

Power: 10.6 to 16 VDC. 12 VDC Nominal.
Current: 20mA idle, 68mA Max (LEDs On)

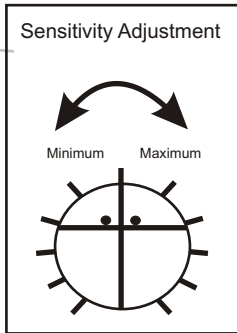
Alarm Output: NC, 30VDC - 100mA Max

Tamper: NC, 30 VDC - 300mA Max

For UL installations: All wiring must be in accordance with NEC, NFPA 70.



Security LED Brightness Settings
 Max Brightness = Short at R37 & R38
 Mid Brightness = R37 Short / R38 Opened
 Minimum Brightness = Open at R37 & R38

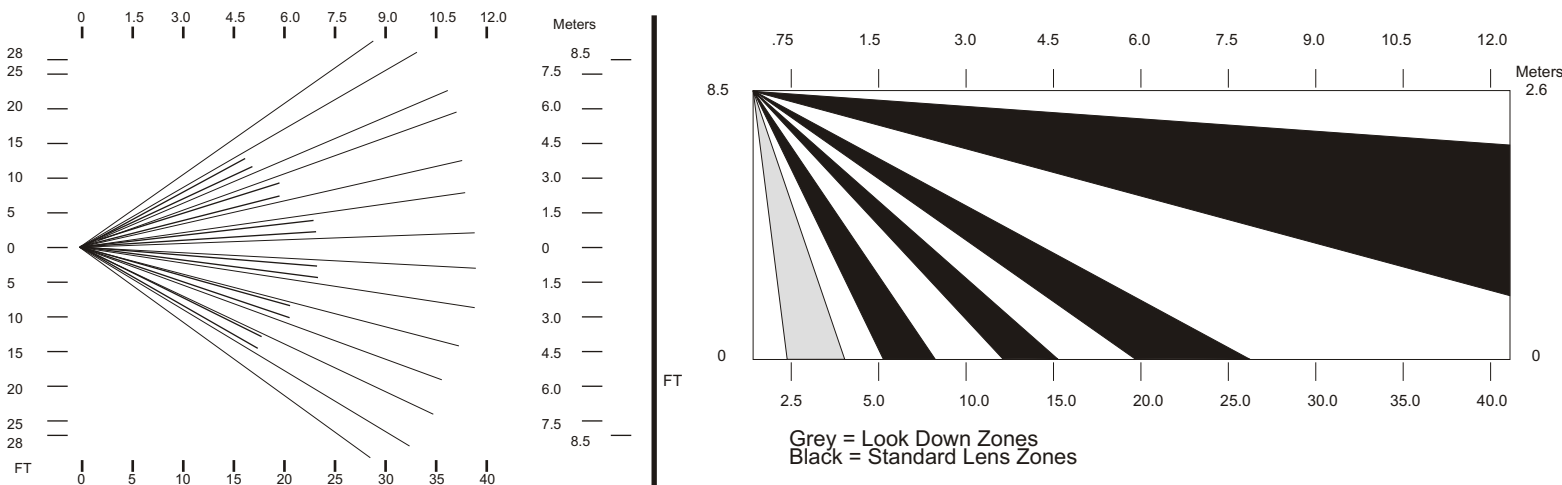


The Sensitivity Adjustment allows for PIR coverage to be fine set to the protected area.
 Preset = 50%.
 Maximum increases sensitivity
 Minimum decreases sensitivity

Selectable Switch Settings

SW1 Pet Immunity On / Up = Enabled / Standard Sensitivity Down / Off = Disabled / High Sensitivity	SW2 Pulse Count On / Up = 2 Down / Off = 4	SW3 LED Function On / Up = On Down / Off = Off
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Detection Pattern Illustrations



Specifications

Power Supply: 10.6 to 16 VDC
 Current Consumption: 68mA max / 15mA nominal
 Detection Type: Dual Element Pyro-Detector
 Detection Range: 40' (12m) L x 56' (17m)
 (100' (31m) l x 8' (2m) W with LL40 lens)
 Pulse Count Control: 2/4 Pulses (via Sw 2)
 Sensitivity Control: Variable via Sens Potentiometer.
 High via Sw 1 (Pet Immun Off).
 Warm-up Period: 40 Seconds max.
 Alarm Period: Approximately 2 sec.

Alarm Indicator: Red LED, blinks pre alarm / On steady after 1st detection pulse.
 Security LED: When light level <50lux, movement lights all LEDs. Light period 10 sec after movement ceases.
 Alarm Output: N.C. Dry contact 30VDC / 100mA Max.
 Tamper Output: N.C. Dry contact 30VDC / 300mA Max.
 Mounting Height: 4.9' to 8.5' (1.5m to 2.8m).
 Environmental Operating Temperature: +14°F to +122°F (-10°C to +50°C)
 Environmental Humidity: RH 95% max.
 Dimensions: 3.9" x 2.5" x 1.7" (98mm x 64mm x 42.5mm)
 Weight: 3.1 oz (88g).

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