PATROL – 301
"QUAD PIR"

DIGITAL CURTAIN
PIR DETECTOR

INSTALLATION
INSTRUCTION

CE (PⒸ
OC03

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GSN *Electronic Company Ltd.*

"PATROL-301" FEATURES.

- Excellent light immunity – no less than 10000 Lux.

- High RFI & EMI immunity.

- Maximum detection range – 15m.

- Maximum installation height – 10m.

- "QUAD" PIR sensor.

- Digital mathematical algorithm of signal processing.

- Bipolar pulse counter under microprocessor control.

- Optoelectronic switch relay.

- Sensitivity switch regulator to increase the "PATROL-301" resistance to all kinds of environmental disturbances.

- Hermetically sealed pyroelectric sensor.

- Low operating temperature.

- Automatic temperature compensation.

- Stylish up-to-date design.

DESCRIPTION.

The "PATROL-301" ensures the professional windows, all-glass walls, doors and other openings protection.

The "PATROL-301" detects the infrared energy radiating from the intruder moving in its field of view.

The "PATROL-301", equipped with the QUAD PIR sensor, creates solid curtain coverage and guarantees the reliable detection, eliminating undetectable areas.

MOUNTING LOCATION.

The "PATROL-301" can be installed on the wall or on the ceiling (see the figures A - D).

The mounting height is up to 10m. Select the mounting location so that the expected motion path of an intruder will cross the curtain pattern. For the wall or ceiling mounting install the detector so that the protective curtain will enable complete coverage for windows, all-glass walls, doors and other openings (Figure A, B, D).

NOTE!

Avoid installations so that blinds or curtains are blocking the detector's field of view.

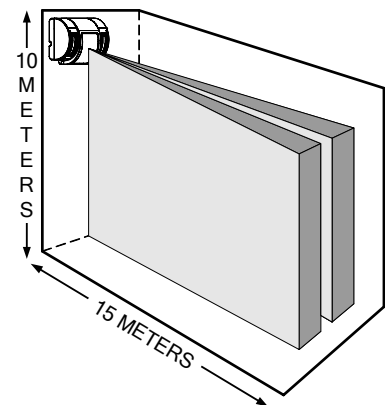## "PATROL-301" VARIOUS MOUNTING LOCATIONS.

Fig. A

Fig. B

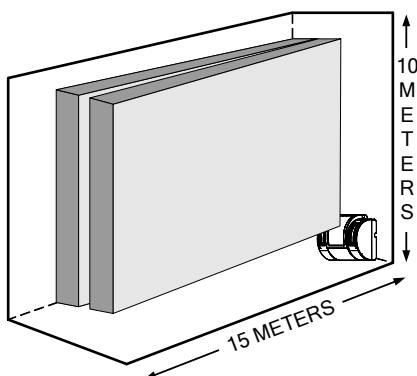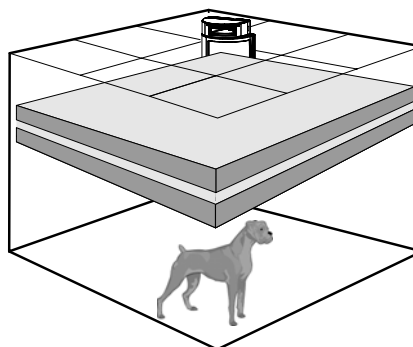**Fig. C**

For the skylight or ceiling protection install the detector so that the coverage pattern will be parallel to the floor (Figure C).
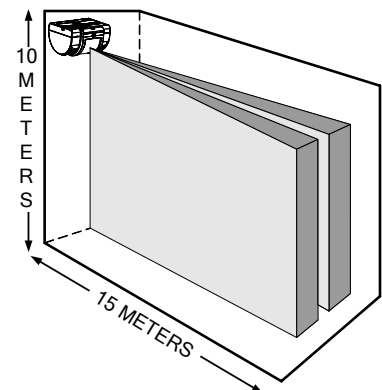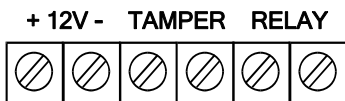

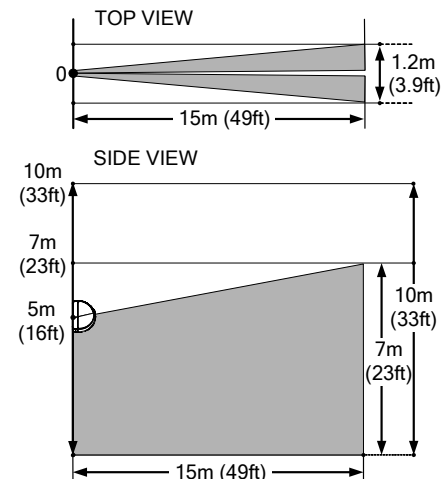**Fig. D**

MOUNTING THE DETECTOR.

1. Open the cover by gently inserting a flat screwdriver between the front cover and the base of the detector and twisting it.

2. Remove the PCB by gently tilting backwards the plastic clips.

3. Mount and fix the detector base on the wall. Use the specially signed knockouts on the base of the detector.

4. Replace the PCB into the detector's base.

5. Connect the wires according to the scheme by using the signed knockout on the detector base.

+ 12V -   TAMPER   RELAY

6. Close the detector's cover.

DETECTION PATTERNS.

TOP VIEW

0

1.2m (3.9ft)

15m (49ft)

SIDE VIEW

10m (33ft)
7m (23ft)
5m (16ft)

10m (33ft)
7m (23ft)

15m (49ft)

## PIR ADJUSTMENT.

1. Use the **1 PULSE** operation mode (Jumper JP2) for premises with stable environment.

Use the **2 PULSE** operation mode (Jumper JP2) for locations with unstable environment – thermal or other streams of air, vibration, etc.

2. Use the trimmer marked "PIR SENSITIVITY" to adjust the sensitivity of the PIR detector according to the certain surround conditions.

PATROL - 301

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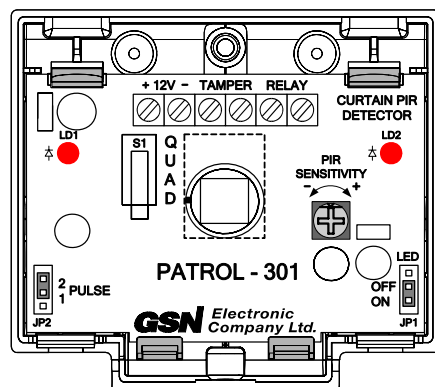
LED INDICATION.
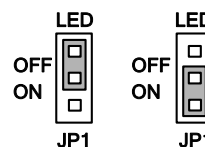
Jumper JP1 enables/disables the alarm LED.

Jumper JP1 is **ON** – LEDs will be activated on alarm.

Jumper JP1 is **OFF** – LEDs will be disabled on alarm.

TECHNICAL SPECIFICATIONS.

Detection speed range:……………….....0.20-3.0m/sec

Power input:……..……….8.5-16Vdc

Current consumption in stand-by mode:…………..12.2mA

In alarm mode with LED on:………………...13.2mA

In alarm mode with LED off:………………....8.2mA

Pulse mode:………………….....1,2

Alarm period:……………..……3sec

Warm up period:……........40 ± 1sec

Reset time:…………………5 ± 1sec

Relay output:...NC;60V;120mA;17Ω

Detection range:..………………15m

Installation height:……….up to 10m

Light immunity no less than:……………....10000Lux

Operating temperature range:………………..– 30°C + 50°C

Storage temperature range:………………..– 50°C + 80°C

RFI immunity:…………...30V/m at a frequency range 10MHz-1000MHz

EMI immunity:……………...50 000V

Dimensions:…………..75x66x49mm

Weight:…………………………106gr.

WARRANTY.

GSN Electronic Company Ltd. warrants the product to be free from defects in materials and workmanship under condition of observance of service regulations and to be repaired or replaced under absence of mechanical damages for a limited period of five years from the date of sale.