Eye-Spy™ II   AVGAD systems ltd.
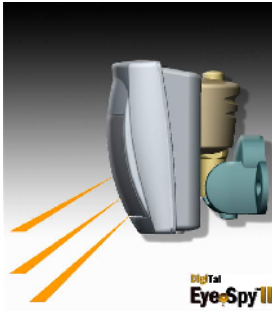
Installation Manual Digital PIR

Item 4773

Types in this manual
Eye-Spy II – Standard (without bracket)
Eye-Spy II PRO – With bracket
Eye-Spy II Quad Pet – With bracket
Eye-Spy II Curtain – (without bracket)

Mounting Location

Choose the mounting location after careful consideration of the protected area.
Locate the **Eye-Spy II** in a way that the intruder will <u>cross</u> the infrared beam pattern.

Do not mount the unit in direct sunlight, windy place, near airflow & Air condition, high voltage lines or close to heat sources. At over **+30°C (86F) detection range is very low**

Remove the front cover by opening the screw in the slot between the cover and the base at the **Eye-Spy II** bottom.

Open here

Mounting Procedure

Mount the **Eye-Spy II** on a flat wall or corner. Usually corner installation provides optimal coverage.
The **Eye-Spy II** special optics provides optimal covering and range when mounted at 1.60 – 3.30 meter (5 to 12 ft) height. PCB vertical adjustment not required. The highest installed provides larger range, however, the optimal height is 2 to 2.5 meters.

Snap cover | Wires entry | Mounting knockout | Screws for bracket | Option: Back Tamper

Figure 1: Mounting and wires entry

Mounting Procedure

Punch out the wires entry rectangular knockout in the **Eye-Spy II** base, as shown in figure 1. Insert the cable and attach the base to the wall or corner.
To prevent false alarm caused by insects and air stream, seal the cable entry knockout and holes that are not in use.
Mounting With the Swivel Bracket
The swivel bracket is used for wall mounting only (for ceiling mount, a self-made adapter is required).
Punch out the two screws knockout (figure 1) on the **Eye-Spy II** base. Use supplied screws.
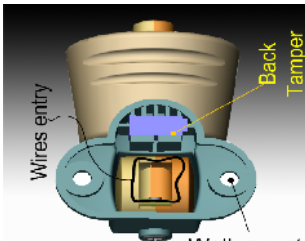
Back Tamper | Wires entry | Wall mount

Figure 2: Eye-Spy II bracket (back view)

Mounting Procedure

Insert the cable through the wires entry at the bracket wall base (figure 2).

To pull the cable from the wires outlet (figure 3) use a small pliers.

If a fat cable is used drill a hole in the detector upper-back to avoid the cable insert via swivel bracket channel.

Seal this hole after installation.

Install the bracket to wall (after inserting the cable through the cable tunnel), first remove the Pan Screw from the bracket and tighten this screw from the detector base side. Attach the **Eye-Spy II** base to the swivel bracket with the two supplied locking screws (figure 1, 3).

Wires Terminal connections

Wire the cable to the terminal block at the PIR board as shown in figure 4. Wire the Tamper switch to a separate zone, programmed at alarm panel as tamper or 24H type.
12V DC: Power supply inputs
ALARM: N.C. contact MOS relay
TAMPER: N.C. dry contact switch

Zone Terminal at Av-Gad Panel | -V Zone | +12V ALARM TAMPER | TAMPER | To reduce false alarms: Set sensitivity at mid range and pulse count at 3 (count 3 pulse prior to alarm). | SENS | SENSITIVITY Adjustment | Don't touch | Eye-Spy II | LED | PET 18Kg 38Kg 3 | PULSE | LED ON OFF | For Pet version only | Sensitivity Level

Figure 4: Eye-Spy II PCB layout

Mounting Height

Before closing the front cover make sure to tighten the PC Board holding screw. Consider range at Max. 12M @ +20°C, unless Curtain.

Pro & Standard Types:
Typical mounting height: 2.2 meter (7 ft).
Quad Pet Type:
Typical mounting height: 2.4 meter (7 ft).
Select the required PET mode; 18 (40 lb) or 30 kg (66 lb), refer to figure 3. It's recommended to install the PIR with the bracket in 5 degrees vertical slop. The Quad Pet is useful at the most hostile environment.

Avoid installing the Pet PIR in front to stairway or furniture, for preventing the pet to jump in front of the detector and cause false alarm.
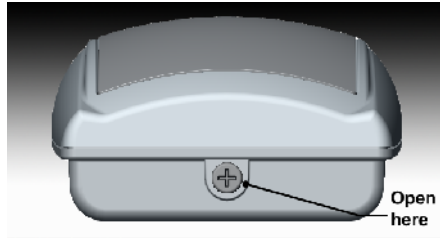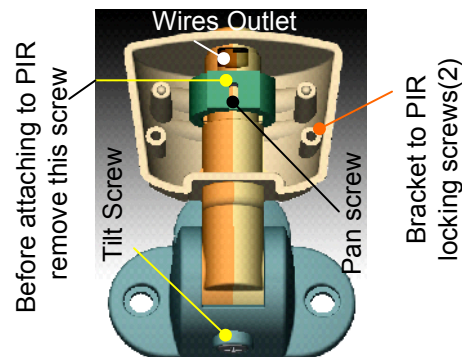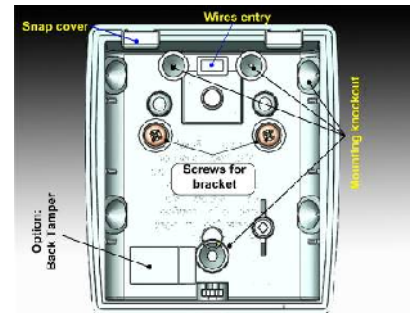
Curtain Type:
Typical mounting height: Top of the protected window or entry. The Curtain type is "blind" on side patterns. Max. range 8M @ +20°C
The Curtain PIR application is bedrooms or other areas where protection is required when people are inside the protected area.

Swivel bracket

Wires Outlet | Before attaching to PIR remove this screw | Tilt Screw | Pan screw | Bracket to PIR locking screws(2)
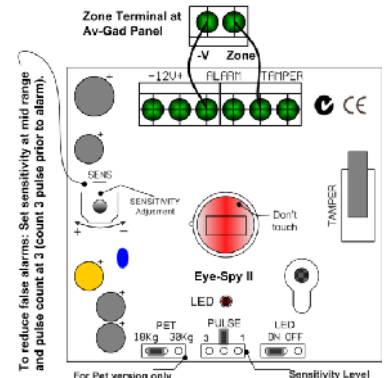
Figure 3: Eye-Spy II bracket

Walk Test

Replace the front cover during the walk test. Apply power and wait at least two minutes for the detector to stabilize.
The LED is viewed through the detector lens. Walk in by two steps (cross the PIR don't walk frontal) the entire protected area and observe the LED to confirm full coverage. If the swivel is used, adjust it when necessary.
To prevent false alarms adjust sensitivity at minimum and pulse at mode 3 setting (factory default is mid range).

When adjustment is complete, tighten the PIR cover screw. For Eye-Spy II with swivel bracket, refer to figure 3; tighten the two adjustment screws.
Consider that the Eye-Spy II has a creep zone, test coverage.

Do a walk test and readjust sensitivity and pulse count as necessary until a desired coverage pattern is reached.
It's recommended to set the Pulse jumper at 3.

Testing the Detector	Wide Angle Detection Pattern	Curtain Type Detection Pattern

Testing the Detector

After walk test done, arm your alarm central and verify that in alarm mode your panel is activated.

Notice that at over +30°C (+14 to +86°F) the EYS II, EYS II Pet and Pro range drop to 3-4 meters. For very hot environment the maximum range is 10-12 meters at +20°C, humidity at 50%, installed at 2.40 meters, even the detection pattern display ~15M.
Prevent setting the range trimmer at maximum for lower false alarms.

WARNING: Test this sensor at least once a week, verify is active and cause alarm at detection

Wide Angle Detection Pattern

Effective range is 12M at 20°C

Wide Angle Pattern
TOP VIEW
0' 0m — 92° — 72' 22m
SIDE VIEW
8' 2.4m
1.5' 0.4m 6' 2m 16' 5.15m 40' 13.1m 50' 15m

Curtain Type Detection Pattern

Effective range is 8M at 20°C

Curtain type Pattren
TOP VIEW
0' 0m — 28° — 19' 6m
SIDE VIEW
8' 2.4m
1.5' 0.4m 6' 2m 16' 5.15m 40' 13.1m 50' 15m

Standards	Technical Specifications	Technical Specifications

Standards

The EYS II Conforms to European Union (EU) Electro Magnetic Compatibility (EMC) Directive number 89/336/EEC (amended by 92/31/EEC & 93/68/EEC).

The CE mark indicates that this product complies with the European requirements for health, environmental, safety, and customer protection.

C CE

Technical Specifications

Sensor: Dual Element Pyro
Sensor Pet (Quad): Quad Element Pyro
Processor: Digital ASIC with analog channel
Operating Voltage: 8.4 to 16V DC
RF Immunity: From 50 KHz to 1 GHz @ 50V/m.
Current Draw @ Active: 24 mA
                        @ Standby: 7 mA
Alarm Contacts: 0.1 amps @ 24V DC, N.C. (Solid State Relay)
Tamper Contacts: 0.5 amps@ 24V DC, N.C.
Range: 12 meters +/- 1M @ 20 °C, @ 2.40M high, two steps walk at 1m/sec
Size without swivel: 7.7 x 6.6 x 3.9 cm (3.0 x 2.6 x 1.5")
Swivel Bracket Adjustment:
Horizontal (tilt): ± 25° Vertical (pan): +5°, -15°
Indicators: Red LED for alarm
Optical Filtering:
White light protection, pigmented lens

Technical Specifications

Warm Up Period: 60 seconds
Operating Temperature: -10 to +30°C (+14 to +86°F)
Temperature Compensation: Automatically
Storage Temp. : -20 to +60°C (-4 to +140°F)

® Eye-Spy II™ is a registered trademark of Av-Gad Systems Ltd.

Technical Specifications	Warranty	Warranty & Contact

Technical Specifications

We reserves the rights to change specifications without prior notice

Warning: Test this product at least once a week

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