

DISC-ET

Energy Saver Ceiling Mount PIR Detector



Installation Instructions

1. INTRODUCTION

The DISC-ET is a ceiling mounted energy management PIR sensor for lighting control. Its main purpose is to save energy by switching lights on upon detection of movement within its coverage area. When movement in the area ceases, the lights remain on for a predetermined duration, and are then switched off automatically.

The detector is equipped with an adjustable operation timer, which causes the output relay to drop out at the end of a selected

duration (provided that no further movement is detected by the PIR sensor).

The DISC-ET is physically and optically similar to the DISC, which is the smallest 360° ceiling mounted PIR presently marketed. When installed on a 3.6 m (12 ft) ceiling, the DISC-ET provides a nearly conical pattern, with a maximum diameter of 10.8 m (36 ft).

2. SPECIFICATIONS

2.1 Coverage Pattern

When viewed from detector to floor, the coverage pattern at floor level is approximately three times the mounting height (see Figure 1).

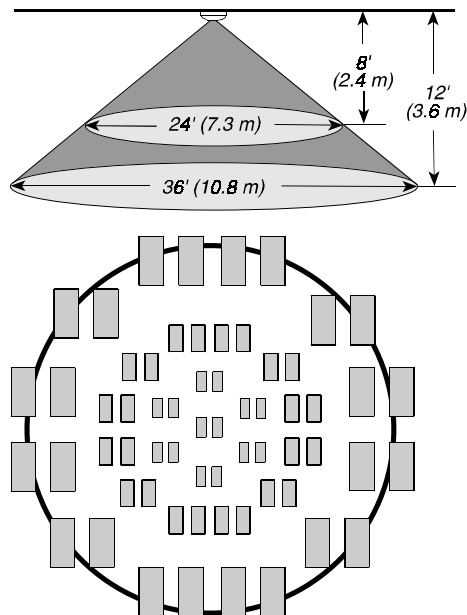


Figure 1. Coverage Pattern

2.2 Technical Data

OPTICAL

Detection Pattern: A virtually conical pattern of 36 ft (10.8 m) diameter, if installed at the height of 12 ft (3.6 m).

ELECTRICAL

Voltage: 9 - 16 VDC.

Current Drain: 6 mA max. (standby), 45 mA max. (relay energized) @ 12VDC.

Relay Output: Form C contacts (normally open, normally closed), rated 1A resistive/24 VDC.

Relay Operation Timer: Adjustable, 3 seconds to 12 minutes.

LED: Walk Test - (switchable).

Detector: Dual-element low-noise pyroelectric sensor.

MOUNTING

Ceiling Mounting; Maximum Height – 12 ft (3.6 m).

ENVIRONMENTAL

Operating Temp.: -10°C to 50°C (14°F to 122°F).

Storage Temp.: -20° to 60°C (-4°F to 140°F).

RFI Protection: Greater than 10 V/m to 1000 MHz.

PHYSICAL

Dimensions: 8.6 x 2.4 cm (3.4 x 0.95 in.).

Weight: 64 g (2 oz).

Color: White.

3. INSTALLATION

3.1 Selecting a Mounting Location

Select the mounting location so that the expected motion within the area will cross the beams of the coverage pattern. DISC-ET units can be mounted at the maximum height of 3.6 m (12 ft). **Be sure to install the detector on a stable ceiling, to avoid vibrations.**

NOTE: Passive infrared detectors are sensitive to changes in infrared energy caused by an object (of a different temperature than the background) moving across the unit's field of view.

The DISC-ET is extremely immune to air turbulence and RF interference. However, to minimize undesired activations, it is highly recommended to avoid aiming the detection pattern at heaters, sources of bright light, or direct sunlight. Avoid mounting

the DISC-ET in locations where air drafts could flow from the ceiling or from nearby walls. Also avoid running wiring close to high-power electrical cables.

3.2 Mounting

A. Hold the base with one hand as shown in Figure 2. Rotate the cover counterclockwise with the other hand, until it stops. Separate the cover from the base, and put it in a safe place, to avoid accidental damage.

Note: If the cover does not separate easily from the base, insert a 1/8" screwdriver between a tab (on the cover) and a slot (on the base). Lower the screwdriver handle until the base separates from the cover and can be removed easily.

- B.** Mount the base, complete with the printed circuit board, in the selected location. Using the 2 mounting holes at the base, fasten the unit firmly to the mounting surface to avoid possible vibrations.

Caution: Do not drill through the mounting holes with the detector held in place, to avoid contaminating the unit with dust and drilled fragments.

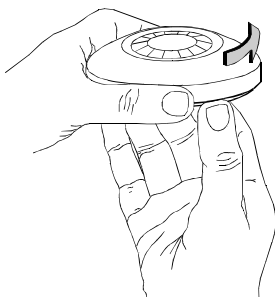


Figure 2. Removing the Cover

- C.** Once all wiring and adjustments are completed (Sections 3.3 and 3.4), line up the three tabs on the cover with the three slots in the base. Fit the cover over the base, and rotate the cover clockwise until it stops (Fig. 3).

3.3 Wiring

Punch out the wiring knockout (see Fig. 4) and route the wires into the detector. Connect wires to the terminal block in the following order (see Fig. 5).

Note: Field wiring should be made with copper conductors only.

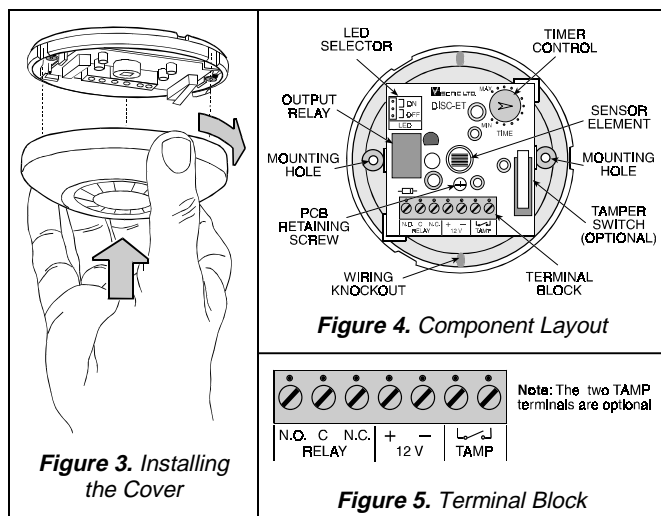


Figure 4. Component Layout

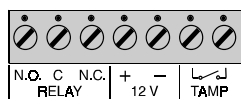


Figure 5. Terminal Block

- A.** Connect the **TAMP** N.C. terminals (optional) to a normally closed 24-hour protection zone of a control panel (if available).
- B.** Connect external load to be switched across the **C** and **N.O.** relay terminals, provided that the external lighting circuit stays within the 1A / 24V resistive load limits. If this rating is exceeded by the load, connect the relay output terminals to trigger an intermediate heavy duty relay or an energy controller unit such as the Visonic Ltd. ENER-300.
- C.** Connect the 12V (+) and (-) terminals to a 9 - 16 VDC source, taking care not to reverse the input voltage polarity.
- D.** Seal the wire entry hole with RTV to prevent insects or air drafts from entering the unit.

3.4 Setting the Operation Timer

The operation time is set by the potentiometer marked TIME. The adjustable timer (3 seconds to 12 minutes) is incorporated to energize the relay for the required operation period. The countdown restarts as the timer is reset by each detected movement. The relay therefore stays latched for a full countdown period following the last detected movement.

3.5 Final Testing

- A.** Apply 12VDC power and allow five minutes for the unit to stabilize before testing.
- B.** Remove the cover (see Fig. 2) and set the shortest operation time – the TIME control fully clockwise.
- C.** Set the LED selector to ON by installing the jumper supplied with the unit on the upper and middle pins of the LED SELECTOR (see Fig. 4).
- D.** Replace the cover (see Fig. 3).
- E.** Walk-test the entire coverage area by walking across the coverage-pattern segments while observing the LED. The LED will light up whenever you cross a detection segment. Keep still a few seconds after each activation, until the LED goes out and the unit restabilizes.
- F.** At the end of the test, you may disable the LED by setting the LED selector to OFF.

WARRANTY

Visonic Ltd. and/or its subsidiaries and its affiliates ("the Manufacturer") warrants its products hereinafter referred to as "the Product" or "Products" to be in conformance with its own plans and specifications and to be free of defects in materials and workmanship under normal use and service for a period of twelve months from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period, at its option, to repair or replace the product or any part thereof. The Manufacturer shall not be responsible for dismantling and/or reinstallation charges. To exercise the warranty the product must be returned to the Manufacturer freight prepaid and insured.

This warranty does not apply in the following cases: improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than the Manufacturer.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express or implied, including any warranty of merchantability or fitness for a particular purpose, or otherwise. In no case shall the Manufacturer be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties whatsoever, as aforesaid.

This warranty shall not be modified, varied or extended, and the Manufacturer does not authorize any person to act on its behalf in the modification, variation or extension of this warranty. This warranty shall apply to the Product only. All products, accessories or attachments of others used in conjunction with the Product, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to products, accessories, or attachments of others, including batteries, used in conjunction with the Products.

The Manufacturer does not represent that its Product may not be compromised and/or circumvented, or that the Product will prevent any death, personal and/or bodily injury and/or damage to property resulting from burglary, robbery, fire or otherwise, or that the Product will in all cases provide adequate warning or protection. User understands that a properly installed and maintained alarm may only reduce the risk of events such as burglary, robbery, and fire without warning, but it is not insurance or a guarantee that such will not occur or that there will be no death, personal damage and/or damage to property as a result.

The Manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property or other loss whether direct, indirect, incidental, consequential or otherwise, based on a claim that the Product failed to function. However, if the Manufacturer is held liable, whether directly or indirectly, for any loss or damage arising under this limited warranty or otherwise, regardless of cause or origin, the Manufacturer's maximum liability shall not in any case exceed the purchase price of the Product, which shall be fixed as liquidated damages and not as a penalty, and shall be the complete and exclusive remedy against the Manufacturer.

Warning: The user should follow the installation and operation instructions and among other things test the Product and the whole system at least once a week. For various reasons, including, but not limited to, changes in environmental conditions, electric or electronic disruptions and tampering, the Product may not perform as expected. The user is advised to take all necessary precautions for his/her safety and the protection of his/her property.



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MADE IN ISRAEL