

DA-1, DA-1R

Door Alert Detector



Installation Instructions

1. INTRODUCTION

The DA-1 is a passive infrared (PIR) door announcer system for indoor use. It can be used as an alert when people walk through doors, corridors and passageways, or with automatic door openers in industrial, commercial and residential applications. DA-1 has a programmable alarm duration timer, which can be set to alarm duration between 1 to 7 seconds.

DA-1 with two models provides the best solution for virtually any installation requirement and alternatives on walls, ceilings and in corners.

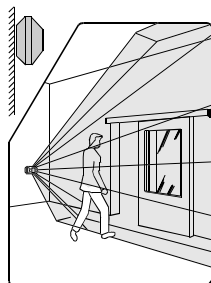


Figure 1. DA-1R Ceiling Corner Installation

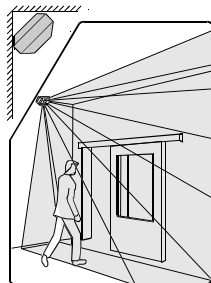


Figure 2. DA-1R Wall Installation

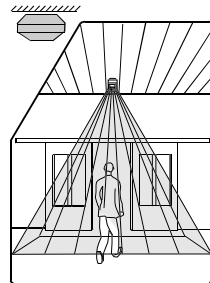


Figure 3. DA-1R Ceiling Installation

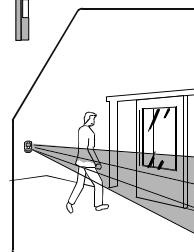


Figure 4. DA-1 Wall or Corner Installation

2. SPECIFICATIONS

COVERAGE (indoor)

DA-1: Single beam up to 7.5 m (25 ft)/6°

DA-1R: Vertical Curtain up to 4.5 x 4.5 m (15 x 15 ft)/90°

ELECTRICAL

Voltage: 12V AC/DC (protected against reverse polarity).

Current: Standby - 10 mA

Outputs: 1) +12VDC/25 mA maximum (marked BUZ)

2) C/O relay contacts - 2A/ 28V AC/DC maximum.

Alarm period: 1 - 7 seconds - adjustable (see note in Para. 4.1).

Detector: Dual-element pyroelectric sensor

MODELS AVAILABLE:

DA-1: Narrow beam 7.5 m (25 ft)/6°

DA-1R: Wide angle vertical curtain 4.5 x 4.5 m (15 x 15 ft)/90°.

MOUNTING

DA-1: Wall or corner mounting

DA-1R: Ceiling, wall and wall-ceiling corner mounting (unit should be mounted horizontally).

OPTIONAL SWIVEL BRACKETS:

BR-1: Bracket, adjustable 30° downward and 45° left and right.

BR-2: BR-1 with corner adapter.

BR-3: BR-1 with ceiling adapter.

ENVIRONMENTAL

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

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

PHYSICAL

Dimensions: 64 x 112 x 35 mm (2.5 x 4.4 x 1.4 in)

Weight: 90 g (3 oz).

Color: White.

Notice: This product should not be employed as an alarm system, or as part of an alarm system.

Caution: This product is only for indoor use. Do not install outdoors. Do not exceed buzzer output load, supply voltage or relay contact rating.

3. INSTALLATION

3.1 Installation Alternatives

A. DA-1 R Ceiling-Corner Installation:

Ceiling-corner installation has the best coverage with virtually no dead zones (Fig. 1).

The preferred mounting location is at the wall-to-ceiling juncture, at 45°. Wall or ceiling mounting is also possible as long as the 45° angle is maintained. See figure 5, Mounting Alternatives.

Mount: Horizontally, with the unit's long dimension in the direction of motion and parallel to the floor (Fig. 1).

Maximum Range: 4.5 m (15 ft).

B. DA-1 R Wall Installation:

If unable to make a ceiling-corner installation, this second alternative has minimum dead zones close to the DA-1.

Install the DA-1R in a location where there is little chance of it being touched.

Mount: Horizontally, with the unit's long dimension in the direction of motion and parallel to the floor (Fig. 2).

Maximum Range: 4.5m (15ft).

Preferred Installation Height: 1 to 1.3 m (3 to 4 ft).

Installation: Flush on wall (not 45°)

C. DA-1R Ceiling Installation:

Where ceiling mount is more convenient use this installation method with narrow floor coverage area and open side zones.

Mount: Horizontally, with the unit's long dimension in the direction of motion and parallel to the floor (fig. 3).

Maximum Installation Height: 3.5 m (11.5 ft).

D. DA-1 Wall or Corner Installation:

Use when the required range exceeds 4.5 m (15 ft).

Mount: Vertically (fig. 4).

Preferred Installation Height: 1 to 1.2 m (3 to 4 ft).

3.2 Mounting

A. Select the mounting location of the unit so that a person will have to cross its field of view. See installation drawings, fig. 1-4 for the various fields of view and fig. 5, mounting alternatives.

B. Open the cover by gently inserting a quarter-inch screwdriver into the slot at the bottom of the unit, between the front cover and the base.

Rotate the screwdriver until the cover swings outward and removes easily.

C. Mount the base (equipped with the printed circuit board) in the location and at the height selected for optimum coverage, as explained in para. 3.1 above.

For wall and ceiling installations use the two knockouts at the back of the base. For corner or 45° mounting use the knockouts on the angled sides. The unit must be fastened securely to the mounting surface to avoid possible vibrations.

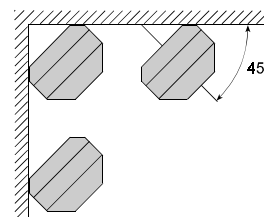


Figure 5. 45° Mounting Alternatives

3.3 Wiring

Loosen the adjustment locking screw slightly and slide the PC board upward, in order to expose the wiring knockouts.

Route wiring through a wiring knockout.

To avoid contact between uninsulated wires and the PC board **DO NOT** make splices within the unit.

The wiring configuration depends on the announcing device(s) you intend to use.

A. Low Current DC Buzzer

When using a DC buzzer (12 VDC/25 mA max.) connect buzzer as follows:

- Connect the negative side of the buzzer to the (-) terminal.
- Connect the positive side of the buzzer to the (BUZ) terminal.

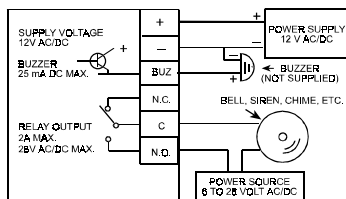


Figure 6. High Current Sounder
Wiring (separate power supply)

B. High Current Sounder (separate power supply)

When connecting a siren, chime, bell or any other sounding device which has a separate power supply, connect as follows:

- Connect one side of the power supply to the (N.O) terminal.
- Connect the other side of the power supply to the sounding device. When using a DC power supply, observe polarity.
- Connect the the sounding device to the (C) terminal.

Note: Make sure that the device load is less than 28Volt / 2A (maximum rating of the DA-1 relay contacts).

C. High Current Sounder (common power supply)

When connecting a siren, chime, bell or any other sounding device and powering it and the DA-1 from the same power supply, connect as follows:

- Connect one side of the sounding device to the (+) terminal.
- Connect the the sounding device to the (N.O) terminal.
- Link between the (-) and the (C) terminals.

Notes: If you are using a DC device and a DC power supply make sure to connect the positive side of the device to the (+) terminal of the DA-1. Also make sure that the device load is less than 28 Volt / 2A.

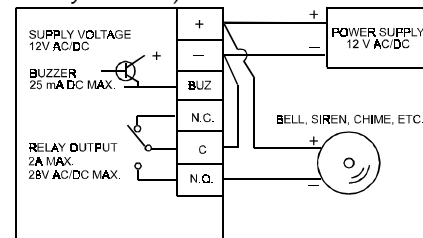


Figure 7. High Current Sounder
Wiring (common power supply)

4. ADJUSTMENT AND TEST

4.1 Setting the Timer

To set the alarm duration, adjust the TIMER control (Fig. 7), leaving it at the desired position.

Note: The DA-1 goes into alarm upon detection of movement and remains in alarm until all movement ceases. The timer then starts its countdown. Therefore, the alarm duration is actually 1 to 3 seconds longer than the time set by the installer (depending on how long it takes a person to cross the coverage area).

4.2 Pattern Adjustment

The adjustment scale (printed on the upper right corner of the PC board) and the plastic pointer on the base permit shifting the coverage pattern from its normal 0° down to -12°. Figure 8 shows the lowering range of the DA-1.

To adjust pattern positioning, loosen the screw, slide it to the desired setting and tighten it firmly.

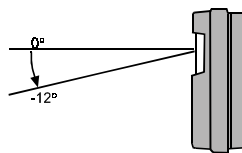


Figure 8. Pattern
Position Adjustment

4.3 Testing

- Apply 12VAC/DC power and allow 5 minutes for the unit to stabilize before testing.
- Remove the cover.
- Set the timer adjust potentiometer as required. See para 4.1.
- Replace the cover.
- Walk test the DA-1's coverage pattern. Verify an alert signal each time you cross the coverage
- If necessary, adjust the coverage pattern (para. 4.2) and Repeat test E.

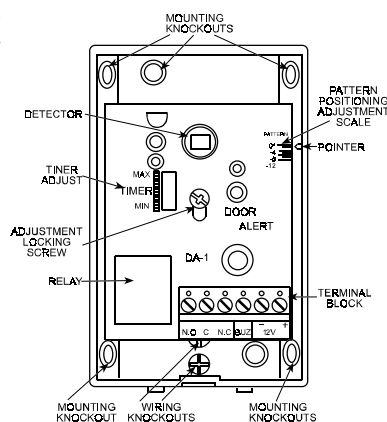


Figure 9. Printed Circuit Board

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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