

GFD-40C

Ultra Low Current Audio Discriminator



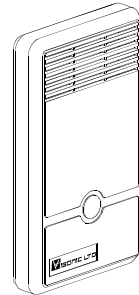
Installation Instructions

1. INTRODUCTION

The **GFD-40C** is a 9-volt battery powered ultra low-current audio discriminator, sensitive to noises above a cutoff frequency of approximately 5 kHz. It is fully compatible with virtually all RF transmitters and can also be incorporated in N.O. and N.C. hard-wired systems.

GFD-40C employs a specially designed microphone and state-of-the-art SMD technology, resulting in a very low standby current drain of 8 μ A. A unique detector LED and a RANGE potentiometer enable easy adjustment of the detection sensitivity.

The **GFD-40C** is equipped with an anti-tamper which protects the unit's cover. The anti-tamper switch output provides Form 1C isolated contacts (N.O. and N.C.)



2. SPECIFICATIONS

ACOUSTICAL

Detection Range: Adjustable, varies with room shape, acoustics, temperature and humidity .Up to 10 m (35 ft).

Cutoff Frequency: 5 kHz (nominal)

ELECTRICAL

Voltage: 9 volt Alkaline or Lithium battery.

Current: 8 μ A in standby

Battery Life: Up to 2 years operating capacity in Standby. Calculation is based on initial full battery capacity of 0.5 Ah and operating conditions within limits of battery specifications. Also see 'CAUTION' in Para.3.5.

Output: N.O. relay contacts, with 18 Ω resistor in series (FORM-1C available by special request).

Alarm Period: 2 - 4 seconds

Tamper: Changeover (Form 1C) isolated contacts.

Indicator: 'ALARM' LED lights on alarm. The 'DETECTOR' LED lights to indicate the effect of ambient noises on the discriminator.

Testing: Built-in tester with ambient noise monitoring 'DETECTOR' LED.

ENVIRONMENTAL

Operating Temp.: 0°C to 50°C (32°F to 120°F).

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

PHYSICAL

Dimensions: 110 x 63 x 25 mm (4.3 x 2.5 x 1.0 in)

Weight: 78 gr (2-3/4 oz)

3. INSTALLATION

3.1 Selecting Mounting Location

The detector should be positioned close to and facing toward the area to be covered (door, window etc.). There should be a clear audible path between the unit and the point of entry. Do not mount the detector behind walls or around corners from the area to be covered as the signal it receives will be reduced. Also any coverings or decorations (drapes, blinds, etc.) should be in place and taken into consideration during adjustment.

3.2 Mounting

Open the case by removing the screw cover (if fitted) and screw from the front cover (see Fig. 1) Mount the unit on a stable surface (wall or ceiling) using the 3 mounting knockouts see Fig. 2.

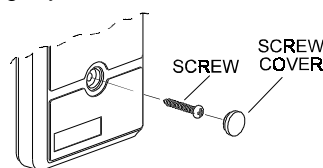


Figure 1: Front Cover Assembly

3.3 Wiring

- To route the wires into the sensor, use one of the wiring knockouts - see Figure 2.
- Avoid making any splices within the unit to prevent the possibility of contact between uninsulated conductors and the printed circuit board.
- Observing correct polarity, connect the furnished battery clip wires to the (+) RED and 9(-) BLACK of the GFD-40C 9-Volt terminal block. Push the battery clip onto a 9-Volt Alkaline or Lithium battery.

- Connect either the N.O. and C terminals (or the N.C. and C terminals if N.C. is available) to the RF transmitter, according to the trigger signal required for transmitter activation.

Note: an 18 Ω resistor is connected in series with the alarm output contacts for protection purposes.

- Connect the anti-tamper contacts to the RF transmitter tamper signal input.

Important! Allow 5 minutes for the unit to stabilize before testing.

3.4 Adjusting the coverage area

All sounds affecting the detector can be monitored and displayed by the LED marked 'DETECTOR', using the test selector (Fig. 2). The effect of individual sounds such as telephones and door chimes can be checked and adjustments made for optimum sensitivity and maximum immunity from false Alarms.

To use the DETECTOR LED, set the Test Selector to the 'TEST' position.

Note: after testing, return the Test Selector to the 'NORM' position. Otherwise, the unit will draw excess current, resulting in shorter battery life.

The potentiometer marked 'RANGE' is used to select the sensitivity better suited to each application. A good simulation for frequencies above 5 kHz is to rattle some keys or to knock with keys on glass.

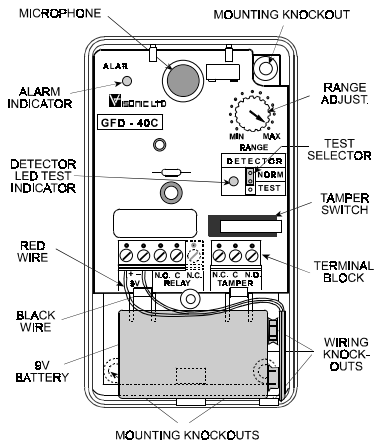


Figure 2:GFD-40C, Cover Removed

An alarm condition occurs when the LED marked ALARM lights. The GFD-40C should be set only as high as necessary, to avoid false alarms.

When you are satisfied with the adjustment, close the cover. Secure the cover with the screw and install the screw cover (Fig. 1). Test the unit again, assuring good detection sensitivity.

3.5. Maintenance

The proper operation and adjustment of the GFD-40C audio discriminator should be checked at least once a year according to para. 3.4. To assure proper continuous functioning, the user should be instructed to perform simulation as explained in para. 3.4 to assure an alarm output prior to each time the alarm system is armed.

CAUTION! Although the 9 Volt battery should last 1-2- years, it is a good practice to replace the battery every 12 months.

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.

6/91



Visonic Ltd

VISONIC LTD. (ISRAEL): P.O.B 22020 TEL-AVIV 61220 ISRAEL. PHONE: (972-3) 645-6789, FAX: (972-3) 645-6788

VISONIC INC. (U.S.A.): 10 NORTHWOOD DRIVE, BLOOMFIELD CT. 06002-1911. PHONE: (860) 243-0833, (800) 223-0020 FAX: (860) 242-8094

VISONIC LTD. (UK): UNIT 1, STRATTON PARK, DUNTON LANE, BIGGLESWADE, BEDS. SG18 8QS. PHONE: (01767) 600857 FAX: (01767) 601098

©VISONIC LTD. 1998 GFD-40C D-1894-0 NEW: DE1894-(REV. 2, 4/98)



MADE IN ISRAEL