

ELKRON 80IR3D00113

ELKRON IR15 Passive Infrared Detector (Model 80IR3D00113) Instruction Manual

Your guide to installation, operation, and maintenance.

1. INTRODUCTION

1.1 Product Overview

The ELKRON IR15 is a digital passive infrared (PIR) volumetric detector designed for indoor security applications. It detects motion by sensing changes in infrared radiation within its detection zone. This device features two selectable sensitivity levels, a maximum detection range of 15 meters, and a 90° opening angle. Its Fresnel lens is configured with 18 beams across 4 planes, including a look-down zone for enhanced coverage.

1.2 Safety Information

- Read all instructions carefully before installation and operation.
- Installation should be performed by qualified personnel in accordance with local electrical codes.
- Disconnect power before performing any wiring or maintenance.
- Do not expose the detector to direct sunlight, extreme temperatures, or high humidity.
- Avoid mounting near heat sources, air conditioning vents, or objects that may cause rapid temperature changes.

2. PACKAGE CONTENTS

Verify that all items are present in the package:

- ELKRON IR15 Passive Infrared Detector unit
- Mounting screws and wall plugs
- Instruction Manual (this document)

3. INSTALLATION

3.1 Mounting Location

Choose a mounting location that provides optimal coverage of the area to be protected. The detector can be mounted on a wall or in a corner. Ensure the detector is positioned to avoid direct line of sight to windows, heat sources, or moving objects that are not intended to trigger the alarm.

Recommended mounting height: 2.1 to 2.4 meters (7 to 8 feet) from the floor.

3.2 Mounting the Detector

1. Carefully open the detector casing.
2. Mark the drilling points on the wall or corner using the detector's base as a template.
3. Drill holes and insert wall plugs if necessary.
4. Secure the detector base to the wall or corner using the provided screws.
5. Route the wiring through the designated opening in the base.



Figure 1: ELKRON IR15 Passive Infrared Detector. This image shows the compact design of the detector, suitable for discreet wall or corner mounting.

3.3 Wiring Connections

The ELKRON IR15 requires a 12V DC power supply. Connect the power and alarm output wires to your security system control panel as follows:

- **Power Input:** Connect 12V DC to the designated terminals (typically + and -).

- **Alarm Output:** Connect the opto-relay output (NO/NC) to the alarm zone input of your control panel.
- **Tamper Switch:** Connect the tamper output to a 24-hour tamper zone on your control panel. This switch activates if the detector casing is opened.

Ensure all connections are secure and correctly polarized. Refer to your security system's manual for specific wiring diagrams.

4. SETUP

4.1 Sensitivity Adjustment

The ELKRON IR15 offers two selectable sensitivity levels to adapt to different environments and reduce false alarms. A jumper or switch inside the detector typically controls this setting.

- **High Sensitivity:** Recommended for environments with minimal environmental disturbances.
- **Low Sensitivity:** Recommended for environments prone to minor disturbances (e.g., small pets, air currents) to prevent false alarms.

After adjusting the sensitivity, perform a walk test to ensure proper detection coverage and to verify that the chosen sensitivity level is appropriate for the protected area.

5. OPERATING PRINCIPLES

The ELKRON IR15 is a passive infrared detector, meaning it does not emit any energy. Instead, it detects changes in infrared energy (heat) within its field of view. When a person or object with a different temperature than the ambient environment moves into the detection zone, the detector's Fresnel lens focuses this change onto its pyroelectric sensor. If the change in infrared energy meets the detector's criteria (based on sensitivity settings), it triggers an alarm signal to the connected security control panel.

The 90° detection angle and 15-meter range ensure comprehensive coverage for typical indoor spaces. The "look down zone" feature helps detect intruders moving directly below the detector.

6. MAINTENANCE

To ensure optimal performance and longevity of your ELKRON IR15 detector, follow these maintenance guidelines:

- **Regular Cleaning:** Periodically clean the detector's lens and casing with a soft, dry cloth to remove dust and debris. Do not use abrasive cleaners or solvents.
- **Walk Test:** Perform a walk test at least once a year, or after any significant changes to the protected area, to confirm proper operation and detection coverage.
- **Power Supply Check:** Ensure the 12V DC power supply is stable and within the specified voltage range.
- **Environmental Check:** Verify that no new obstructions or heat sources have been introduced into the detection zone that could interfere with operation.

7. TROUBLESHOOTING

Problem	Possible Cause	Solution
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Problem	Possible Cause	Solution
Detector not triggering	No power; incorrect wiring; sensitivity too low; obstruction in detection zone; faulty unit.	Check power supply and connections. Adjust sensitivity. Remove obstructions. Perform walk test. If problem persists, contact support.
False alarms	Sensitivity too high; heat sources (heaters, direct sunlight); air currents (AC vents); small pets; vibrations.	Adjust sensitivity to a lower setting. Relocate detector away from heat sources or air vents. Ensure pets cannot enter the detection zone. Check for stable mounting.
Tamper alarm active	Detector casing not properly closed; tamper switch faulty; wiring issue.	Ensure the detector casing is securely closed. Check tamper switch wiring. If faulty, contact support.

If you encounter issues not listed here or if the suggested solutions do not resolve the problem, please contact ELKRON technical support.

8. SPECIFICATIONS

Feature	Detail
Model	IR15 (80IR3D00113)
Type	Digital Passive Infrared (PIR) Volumetric Detector
Detection Range	Max. 15 meters
Detection Angle	90°
Lens Type	Fresnel lens: 18 beams on 4 planes with look-down zone
Sensitivity	Two selectable levels
Mounting	Wall or Corner
Nominal Supply Voltage	12V DC +/- 3V
Current Consumption (12V)	Max. 17 mA
Standby Consumption	13 mA
Opto Relay Output	100mA / 24V
Tamper Output	100 mA / 30V
Environmental Humidity	Up to 95% (non-condensing)
Operating Temperature	-10°C to +55°C (14°F to 131°F)
Dimensions (L x H x D)	60 mm x 60 mm x 45 mm (2.36" x 2.36" x 1.77")
Weight	65 g (2.29 oz)

9. WARRANTY AND SUPPORT

ELKRON products are manufactured to high-quality standards. For specific warranty terms and conditions, please refer to the warranty card included with your product or visit the official ELKRON website. Keep your proof of purchase for warranty claims.

For technical assistance, troubleshooting, or service, please contact your authorized ELKRON dealer or ELKRON customer support. Contact information can typically be found on the ELKRON website or product packaging.

Website: www.elkron.it (Example link, actual link may vary)