

Intermatic IOS-CMP-DT-LV

Intermatic IOS-CMP-DT-LV Low Voltage Ceiling Mount Dual Tech Sensor Instruction Manual

Model: IOS-CMP-DT-LV

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of the Intermatic IOS-CMP-DT-LV Low Voltage Ceiling Mount Dual Tech Sensor. This device is designed to detect occupancy using both Passive Infrared (PIR) and Ultrasonic technologies, providing reliable control for lighting and other systems.

2. PRODUCT FEATURES

- Ultrasonic and Passive Infrared (PIR) sensing for presence detection, effective even in areas with partitions or small movements.
- Low-voltage operation (24 VDC), designed for ceiling mounting.
- Wide coverage: 360-degree, 1600 square feet for PIR, and 1000 square feet for ultrasonic detection when mounted on an 8 to 11 foot ceiling.
- Adjustable time delay from 5 seconds to 30 minutes.
- Requires an IOS-PP24 power pack (sold separately) for operation.

3. SAFETY INSTRUCTIONS

- **WARNING:** Disconnect power at the circuit breaker or fuse box before installing or servicing the sensor. Failure to do so may result in serious injury or death.
- Installation must be performed by a qualified electrician in accordance with all national and local electrical codes.
- Do not install in locations where the ambient temperature exceeds the sensor's operating range.
- Ensure the sensor is powered by a compatible low-voltage power pack (e.g., Intermatic IOS-PP24).
- This device is intended for indoor use only.

4. PRODUCT OVERVIEW

The Intermatic IOS-CMP-DT-LV sensor combines two detection technologies to ensure accurate occupancy sensing. The circular design is intended for discreet ceiling mounting.



Image 1: Front view of the Intermatic IOS-CMP-DT-LV Low Voltage Ceiling Mount Dual Tech Sensor. The sensor is a white, circular device designed for ceiling installation, featuring a central lens for detection.

5. INSTALLATION AND WIRING

The IOS-CMP-DT-LV sensor is designed for ceiling mount applications and requires a separate low-voltage power pack (IOS-PP24) for operation.

5.1 Mounting

1. Select a suitable ceiling location that provides optimal coverage for the desired area, avoiding obstructions.
2. Ensure the mounting surface is stable and can support the sensor.
3. Follow the specific mounting instructions provided with the sensor, typically involving securing the sensor to a junction box or directly to the ceiling with appropriate hardware.

5.2 Wiring

The sensor operates on 24 VDC and connects to a compatible power pack. Refer to the wiring diagrams below for proper connection. Ensure all connections are secure and insulated.



Image 2: Diagrams illustrating the coverage patterns for PIR and Ultrasonic detection, along with a detailed wiring schematic for the Intermatic IOS-CMP-DT-LV sensor. The wiring diagram shows connections for neutral, hot, low voltage input, and control output.

- Connect the sensor's low-voltage wires to the corresponding terminals on the IOS-PP24 power pack.
- The power pack will handle the line voltage connections to the electrical system and the controlled load.
- Always verify wiring against the power pack's instructions and local electrical codes.

6. CONFIGURATION AND OPERATION

The IOS-CMP-DT-LV sensor offers adjustable settings to optimize performance for various environments.

6.1 Time Delay Adjustment

The sensor features an adjustable time delay, determining how long the controlled load remains ON after the last detected motion. This can typically be set from 5 seconds to 30 minutes using a dial or dip switches on the sensor.

6.2 Sensitivity Adjustment

Both PIR and Ultrasonic sensing technologies have adjustable sensitivity settings. These adjustments allow you to fine-tune the detection range and prevent false triggers. Refer to the sensor's specific markings or internal controls for these adjustments.

6.3 Operating Modes (Occupancy/Vacancy)

Depending on the power pack and system configuration, the sensor can operate in:

- **Occupancy Mode:** Lights automatically turn ON when motion is detected and turn OFF after the adjustable time delay when no motion is detected.

- **Vacancy Mode:** Lights must be manually turned ON, but will automatically turn OFF after the adjustable time delay when no motion is detected.

The selection of operating mode is typically configured at the power pack or associated control unit.

7. MAINTENANCE

The Intermatic IOS-CMP-DT-LV sensor requires minimal maintenance.

- **Cleaning:** Periodically wipe the sensor lens with a soft, dry cloth to remove dust or debris that may obstruct detection. Do not use abrasive cleaners or solvents.
- **No User-Serviceable Parts:** The sensor contains no user-serviceable parts. Do not attempt to open or repair the unit.

8. TROUBLESHOOTING

If the sensor is not functioning as expected, review the following common issues and solutions:

Problem	Possible Cause	Solution
Lights do not turn ON when entering the room.	• No power to the sensor/power pack. • Sensor sensitivity too low. • Obstruction in detection path. • Incorrect wiring. • Sensor in Vacancy Mode.	• Check circuit breaker and power pack connections. • Increase sensor sensitivity. • Clear obstructions. • Verify wiring per diagrams. • Ensure system is configured for Occupancy Mode if desired.
Lights remain ON or turn OFF too quickly.	• Time delay set incorrectly. • Constant motion in detection area. • Sensor detecting HVAC drafts or heat sources.	• Adjust time delay setting. • Reduce sensitivity or reposition sensor to avoid unwanted detection. • Ensure sensor is not installed above a heat source or in a drafty area.
Sensor appears unresponsive.	• No power. • Faulty sensor or power pack.	• Verify power supply. • If power is present and wiring is correct, contact customer support for further assistance.

9. SPECIFICATIONS

Feature	Specification
Model Number	IOS-CMP-DT-LV

Feature	Specification
Power Source	24 VDC (requires IOS-PP24 power pack, sold separately)
Sensing Technology	Dual Technology (Passive Infrared & Ultrasonic)
Mounting Type	Ceiling Mount
PIR Coverage	360-degree, 1600 sq ft (mounted 8-11 ft high)
Ultrasonic Coverage	1000 sq ft (mounted 8-11 ft high)
Time Delay	Adjustable from 5 seconds to 30 minutes
Product Dimensions	4.56 x 4.56 x 1.38 inches
Item Weight	5.6 ounces
Material	Plastic
Shape	Circular

10. WARRANTY INFORMATION

The Intermatic IOS-CMP-DT-LV sensor is covered by the manufacturer's warranty. Please refer to the official Intermatic website or the documentation included with your product for specific warranty terms and conditions.

11. CUSTOMER SUPPORT

For technical assistance, troubleshooting beyond this manual, or warranty claims, please contact Intermatic customer support. You can find contact information and additional resources on the official [Intermatic Brand Store](#) or their corporate website.

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ASK A QUESTION ABOUT THIS MANUAL

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Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question