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Warehouse Lighting DT-300

Wattstopper DT-300 Series Dual Technology Ceiling Sensor Instruction Manual

Model: DT-300

1. Introduction

This manual provides detailed instructions for the installation, operation, and maintenance of the Wattstopper DT-300 Series Dual Technology Ceiling Sensor. The DT-300 series combines Passive Infrared (PIR) and ultrasonic technologies to accurately detect occupancy in various environments. This sensor is designed for low voltage applications and integrates with Wattstopper/Legrand power packs for lighting control.

Please read this manual thoroughly before installation and operation to ensure proper functionality and safety.

2. Product Overview

The Wattstopper DT-300 Series Dual Technology Ceiling Sensor offers 360-degree coverage for occupancy detection. It utilizes two distinct technologies:

- **Passive Infrared (PIR):** Detects motion by sensing changes in infrared energy (body heat) within its field of view.
- **Ultrasonic:** Employs the Doppler Principle using 40KHz high-frequency ultrasound to detect occupancy.

Both technologies work in conjunction to provide reliable occupancy sensing. Lights are activated when both PIR and ultrasonic technologies must initially detect occupancy. Once activated, detection by either technology will maintain the lights in an ON state. Lights will turn off after a set time delay when no occupancy is detected by either technology.

Figure 1: Front and side view of the Wattstopper DT-300 Series Dual Technology Ceiling Sensor, showcasing its flat, unobtrusive design.

3. Specifications

Feature	Detail
Model Number	DT-300
Power Source	18-24VDC/VAC, 25 mA (Requires Wattstopper/Legrand power pack)
Coverage Area	Up to 1300 sq ft (360-degree)
Detection Technology	Dual Technology (Passive Infrared & Ultrasonic)
Mounting Type	Ceiling Mount
Dimensions	Approximately 5 x 4.9 x 2.2 inches (Package Dimensions)
Item Weight	0.01 ounces

4. Setup and Installation

4.1 Safety Precautions

- Ensure power is disconnected at the circuit breaker before installation.
- Installation should be performed by a qualified electrician in accordance with all national and local electrical codes.
- Do not install in locations with excessive vibration or extreme temperatures.

4.2 Mounting Location

Select a ceiling location that provides an unobstructed view of the area to be covered. Avoid mounting near HVAC vents, direct sunlight, or large moving objects that could cause false triggers. The sensor should be centrally located for optimal 360-degree coverage.

4.3 Wiring Instructions

The DT-300 sensor is a low-voltage device and requires connection to a compatible Wattstopper/Legrand power pack. Refer to the power pack's instruction manual for specific wiring diagrams. Typically, the sensor connects to the low-voltage input terminals of the power pack.

- Connect the sensor's low-voltage wires to the corresponding terminals on the power pack.
- Ensure all connections are secure and insulated.
- Verify correct polarity if specified by the power pack.

4.4 Installation Steps

1. Turn off power at the circuit breaker.
2. Mount the sensor to the ceiling using appropriate hardware (not included). Ensure it is securely fastened.
3. Connect the low-voltage wiring from the sensor to the power pack as per the power pack's instructions.
4. Restore power and proceed to the operating instructions.

5. Operating Instructions

5.1 Initial Power-Up

Upon initial power-up, the sensor will undergo a brief warm-up period. During this time, the connected lights may cycle on and off. This is normal. The sensor will then enter its operational mode.

5.2 Occupancy Detection

The DT-300 sensor detects occupancy using both PIR and ultrasonic technologies. For lights to turn on, both technologies must initially detect occupancy. Once on, either technology can maintain the lights in the ON state.

5.3 Time Delay Adjustment

The time delay, which determines how long lights remain on after the last detected occupancy, is typically set on the connected Wattstopper/Legrand power pack. Refer to the power pack's manual for instructions on adjusting this setting. Common time delays range from 5 to 30 minutes.

5.4 Manual-On Operation

If a low-voltage switch is connected to the power pack, the lights can be manually turned on. The sensor will then maintain the lights on as long as occupancy is detected, and turn them off after the time delay when the area is vacant.

6. Maintenance

The Wattstopper DT-300 Series sensor requires minimal maintenance.

- **Cleaning:** Periodically wipe the sensor lens with a soft, dry cloth to remove dust or debris. Do not use abrasive cleaners or solvents.
- **Inspection:** Annually inspect the sensor for any physical damage or loose connections.
- **Testing:** Periodically test the sensor's functionality by entering and exiting the coverage area to ensure proper light activation and deactivation.

7. Troubleshooting

Problem	Possible Cause	Solution
Lights do not turn on with occupancy.	• No power to sensor/power pack. • Incorrect wiring. • Sensor lens obstructed. • Sensor malfunction.	• Check circuit breaker and power pack status. • Verify wiring connections according to manual. • Clean sensor lens; ensure no obstructions. • Contact technical support if problem persists.
Lights turn off too quickly or too slowly.	• Incorrect time delay setting on power pack. • Insufficient detection coverage.	• Adjust time delay setting on the power pack. • Review sensor placement for optimal coverage.
Lights turn on without apparent occupancy (false triggers).	• Sensor mounted near heat sources or air vents. • Movement outside the intended coverage area.	• Relocate sensor away from heat sources or drafts. • Adjust sensor sensitivity if available on power pack (refer to power pack manual).

8. Warranty and Support

For warranty information and technical support, please refer to the documentation provided with your

Wattstopper/Legrand power pack or visit the official Wattstopper website. Keep your purchase receipt for warranty claims.

Manufacturer: Warehouse Lighting (as listed on product information)

For further assistance, please contact your authorized distributor or the manufacturer's customer service.

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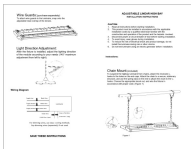
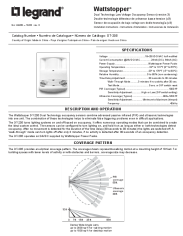
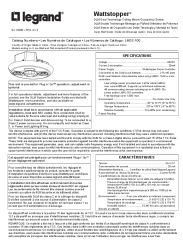
Related Documents - DT-300

	WL-MAWP LED Wall Pack Installation Guide | Warehouse Lighting Comprehensive installation guide for the Warehouse Lighting WL-MAWP LED wall pack. Includes mounting instructions, wiring diagrams, maintenance, and troubleshooting tips for safe and proper installation.
	Adjustable Linear High Bay Luminaire Installation Instructions Comprehensive installation guide for the Adjustable Linear High Bay Luminaire, detailing mounting options, wiring, and safety precautions. Includes instructions for chain, cable, surface, and pendant mounting, as well as motion sensor installation.
	Wattstopper DT-205 Dual Technology Occupancy Sensor Installation and Operation Manual Comprehensive guide for installing, wiring, adjusting, and troubleshooting the Wattstopper DT-205 Dual Technology Low Voltage Occupancy Sensor. Features PIR and ultrasonic detection for efficient lighting control.
	Greengate OAC-DT-MicroSet Dual Tech Low Voltage Ceiling Sensor Specifications Comprehensive technical specifications, features, and ordering information for the Greengate OAC-DT-MicroSet Dual Tech Low Voltage Ceiling Sensor by Cooper Lighting Solutions. Details include dual technology (PIR and Ultrasonic), self-adjusting capabilities, wiring diagrams, and coverage patterns for various indoor applications.
	Wattstopper LMDC-100 DLM Dual Technology Occupancy Sensor | Quick Start Guide Quick start guide for the Wattstopper LMDC-100 DLM Dual Technology Ceiling Mount Occupancy Sensor. Provides specifications, installation, connectivity, mounting, pre-set operations, and troubleshooting information.

DUAL TECHNOLOGY CEILING MOUNT OCCUPANCY SENSOR

LMDC-100

[Wattstopper LMDC-100 Dual Technology Ceiling Mount Occupancy Sensor]

Detailed specifications and features of the Wattstopper LMDC-100, a dual-technology ceiling mount occupancy sensor for energy-efficient lighting and plug load control. Includes operation, applications, mounting, wiring, and ordering information.