

treewell TMD180C

treewell Motion Sensor (Model TMD180C) - 180-Degree Replacement Motion Detector Instruction Manual

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your treewell 180-Degree Replacement Motion Sensor, Model TMD180C. Please read this manual thoroughly before installation and retain it for future reference. This device is designed to enhance security and convenience by automatically controlling lighting based on detected motion.





Figure 1: Front view of the treewell Motion Sensor, highlighting the control knobs for **TIMER** and **SENSITIVITY**, and load specifications.

2. SAFETY INFORMATION

WARNING: Risk of electric shock. Improper installation can lead to serious injury or death. Always turn off power at the circuit breaker before beginning installation. If you are unsure about any part of the installation process, consult a qualified electrician.

- Ensure the power supply is disconnected before installation or maintenance.
- This device is intended for outdoor/indoor wall and eave mount applications.
- Do not exceed the maximum load ratings: Max. 500W Incandescent Lamp, Max 200W LED DRIVER/LED Bulbs.
- Wear appropriate personal protective equipment (PPE) during installation.

3. PACKAGE CONTENTS

- 1 x treewell 180-Degree Replacement Motion Sensor (Model TMD180C)
- Wire Nuts
- Instruction Manual

4. PRODUCT FEATURES

- **180-Degree Detection Range:** Covers a wide area for comprehensive security.
- **Adjustable Sensitivity:** Detects motion up to 60 feet.
- **Adjustable Timer:** Lighting duration can be set from 10 seconds to 10 minutes.
- **Rotatable Sensor Head:** 180 degrees vertically and 300 degrees horizontally adjustable for precise aiming.
- **3 Working Modes:** Auto Mode, Dusk-to-Dawn Mode, and Manual Override Mode.
- **Weather Resistant:** Operates reliably in temperatures from -30°C to 50°C.



Figure 2: The motion sensor is designed to be weather-resistant, functioning effectively in temperatures ranging from -30°C to 50°C.

5. SPECIFICATIONS

Attribute	Value
Model Number	TMD180C
Detection Range	180 Degrees
Maximum Sensing Distance	60 Feet
Adjustable Timer	10 seconds to 10 minutes
Power Source	Corded Electric (120 Volts)
Max. Incandescent Load	500W
Max. LED Load	200W
Operating Temperature	-30°C to 50°C
Mounting Type	Wall Mount
Dimensions	4.53 x 3.15 x 2.56 inches
Material	Housing in PC; Lens in PE

6. INSTALLATION

This motion sensor is designed as a replacement for existing light fixtures. Follow these steps carefully to ensure proper and safe installation.

6.1. Preparation

- Turn off Power:** Locate the circuit breaker controlling the light fixture and turn off the power. Verify the power is off by attempting to turn on the light.
- Remove Existing Sensor (if applicable):** Carefully remove the old motion sensor or light fixture from its mounting.

6.2. Wiring

The treewell motion sensor typically has three wires: black (hot), white (neutral), and green/bare (ground). Your light fixture will also have corresponding wires.

- Connect Ground Wires:** Connect the green/bare wire from the motion sensor to the green/bare ground wire from your electrical box using a wire nut.
- Connect Neutral Wires:** Connect the white wire from the motion sensor to the white neutral wire from your electrical box using a wire nut.
- Connect Hot Wires:** Connect the black wire from the motion sensor to the black hot wire from your electrical box using a wire nut.
- Connect Load Wires:** The motion sensor will have an additional wire (often red or yellow) that connects to the hot wire(s) of your floodlight fixture. Connect this wire to the black wire(s) of your floodlight fixture.
- Ensure all connections are secure by gently tugging on each wire.

Easy Installation

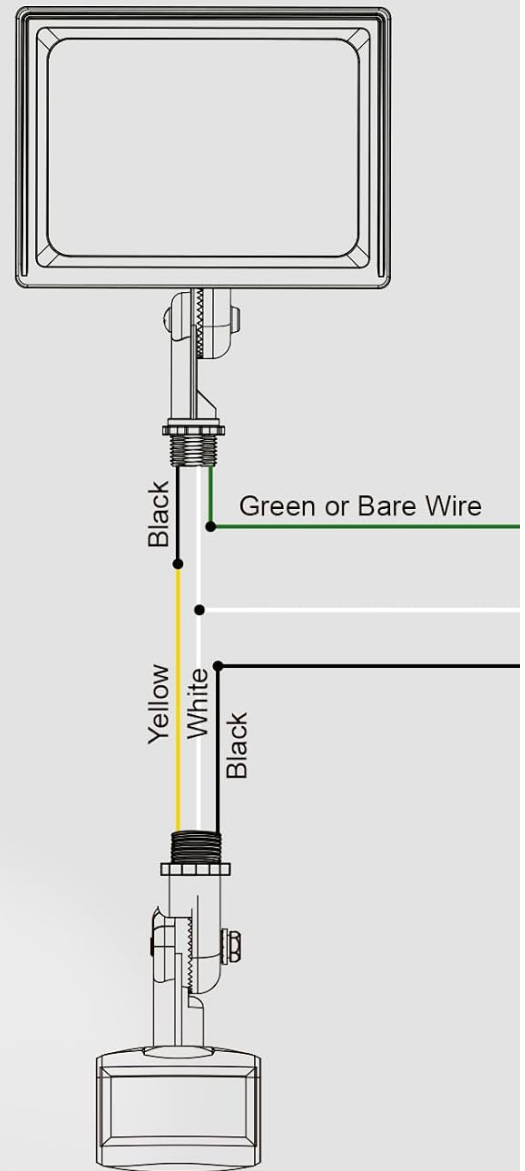


Figure 3: Wiring diagram for easy installation, showing connections for black, yellow/white, and green/bare wires to a floodlight fixture.

6.3. Mounting

1. Carefully tuck all wires into the electrical box.
2. Mount the motion sensor to the electrical box using the provided screws, ensuring a tight and secure fit.
3. Adjust the sensor head to the desired angle. The sensor head is 180 degrees vertically and 300 degrees horizontally adjustable.

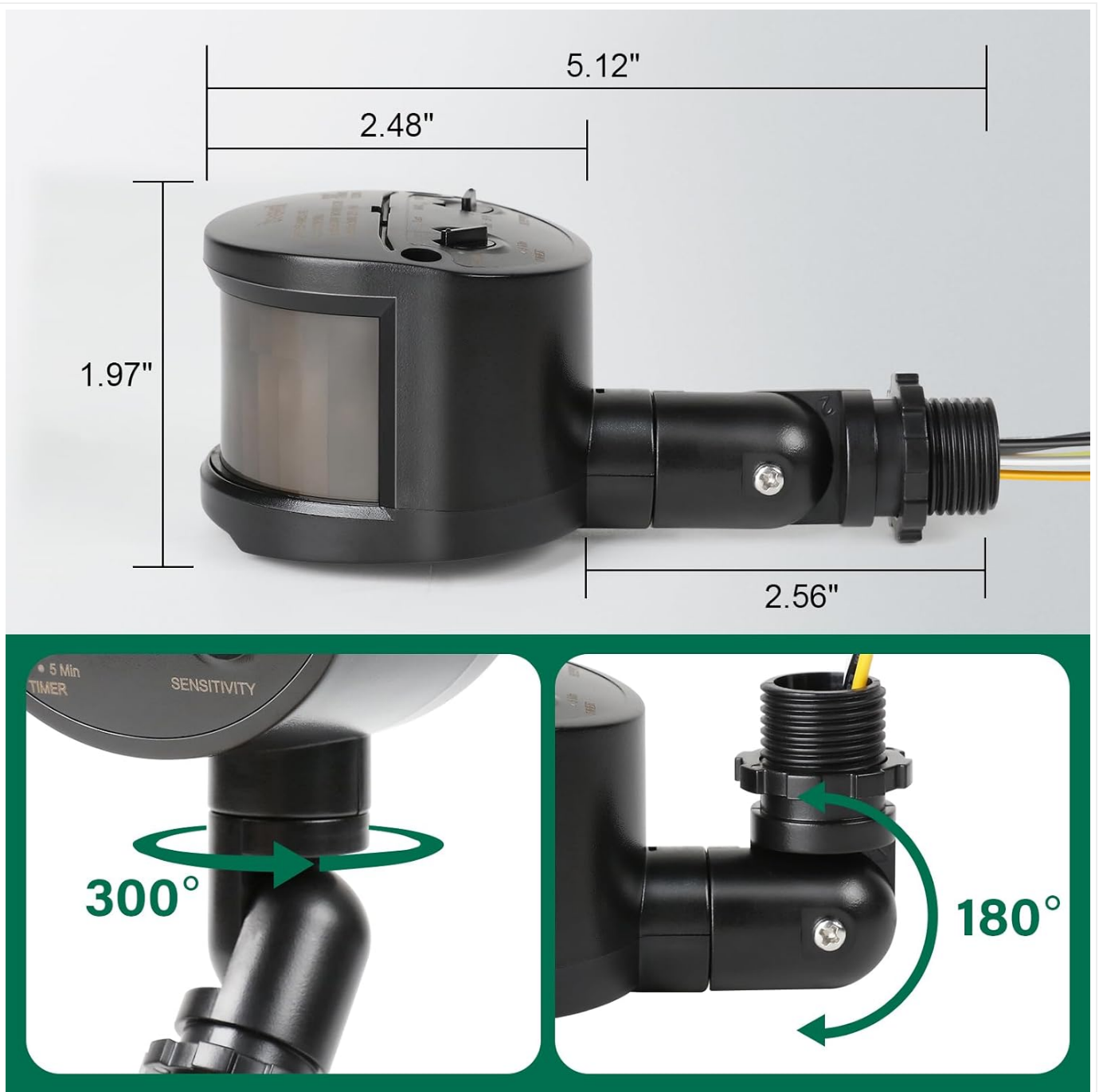


Figure 4: Technical drawing showing the dimensions of the motion sensor and its 180-degree vertical and 300-degree horizontal rotation capabilities.

6.4. Installation Video Guide

For a visual guide on the installation process, please refer to the video below:

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Video 1: Installation guide for the treewell Motion Sensor. This video demonstrates the steps for safely replacing and wiring the motion sensor to a floodlight fixture.

7. SETUP & CONFIGURATION

The treewell motion sensor features adjustable controls for TIMER and SENSITIVITY, allowing you to customize its operation to your specific needs.



Figure 5: Close-up view of the motion sensor's adjustable knobs for TIMER (10s-10min) and SENSITIVITY (10ft-60ft).

7.1. Adjusting Timer

The "TIMER" knob controls how long the light remains on after motion is detected. Rotate the knob to select a delay time from 10 seconds to 10 minutes.

- Rotate clockwise for longer durations.
- Rotate counter-clockwise for shorter durations.

7.2. Adjusting Sensitivity

The "SENSITIVITY" knob adjusts the detection range of the sensor. This can be set from 10 feet up to 60 feet.

- Rotate clockwise for maximum detection range (up to 60 feet).
- Rotate counter-clockwise for minimum detection range (10 feet).



Figure 6: Illustration demonstrating the 180-degree sensing angle and up to 60-foot detection range of the PIR motion sensor in an outdoor setting.

8. OPERATING MODES

The motion sensor offers three distinct operating modes, selectable via a knob on the unit:

3 WORKING MODES

Rotate the knob switch to adjust the modes

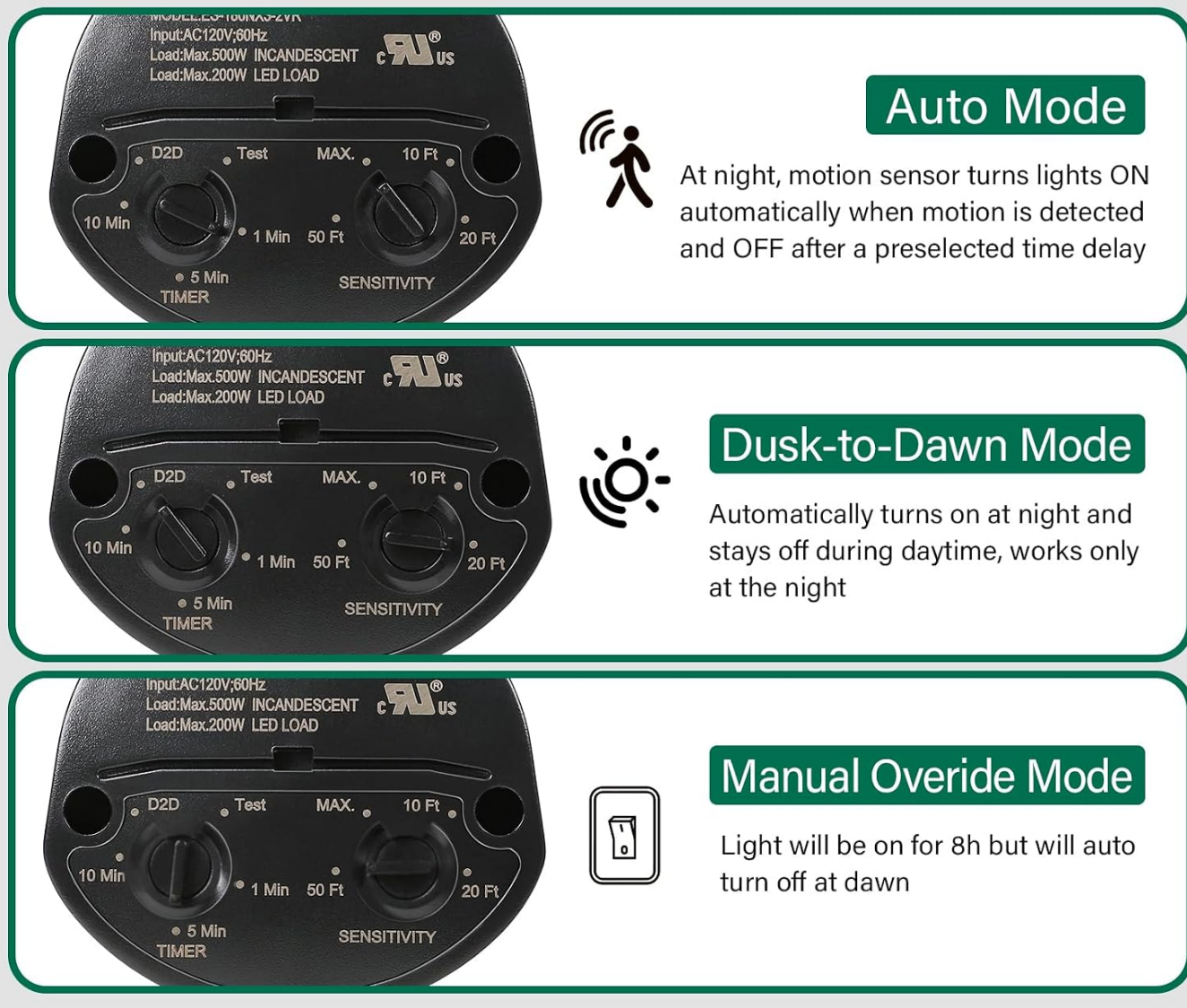


Figure 7: Diagram illustrating the three operational modes: Auto Mode, Dusk-to-Dawn Mode, and Manual Override Mode, with brief explanations.

8.1. Auto Mode (Motion-Sensing Mode)

In this mode, the light will automatically turn on when movement is detected in darkness. After the detected motion ceases and the pre-selected delay time (set by the TIMER knob) expires, the light will turn off. This mode is ideal for security lighting and energy saving.

8.2. Dusk-to-Dawn Mode (D2D Mode)

When set to D2D Mode, the light will automatically turn on at night and remain on until daytime. Motion detection is not active in this mode; the light functions purely based on ambient light levels. This is suitable for continuous nighttime illumination.

8.3. Manual Override Mode

This mode allows for manual control of the light. The light will stay on for approximately 8 hours, regardless of motion or

ambient light, and will then automatically turn off at dawn. This is useful when continuous lighting is temporarily required.

9. MAINTENANCE

To ensure optimal performance and longevity of your treewell Motion Sensor, follow these simple maintenance guidelines:

- **Cleaning:** Periodically wipe the sensor lens and housing with a soft, damp cloth to remove dust, dirt, or debris. Avoid using abrasive cleaners or solvents.
- **Inspection:** Regularly check the wiring connections and mounting screws to ensure they remain secure.
- **Obstructions:** Ensure there are no new obstructions (e.g., growing foliage, new structures) blocking the sensor's detection path.

10. TROUBLESHOOTING

If you encounter issues with your motion sensor, try the following solutions:

Problem	Possible Solution
Light does not turn on with motion.	◦ Check power supply at the circuit breaker. ◦ Ensure wiring connections are secure. ◦ Adjust SENSITIVITY knob to a higher setting. ◦ Verify the sensor is not in D2D or Manual Override mode during daylight. ◦ Clean the sensor lens for obstructions.
Light stays on continuously.	◦ Check if the sensor is in Manual Override mode. ◦ Adjust SENSITIVITY to a lower setting to prevent false triggers. ◦ Ensure the sensor is not detecting constant motion (e.g., moving branches, traffic). ◦ Verify the TIMER setting is not at its maximum.
Light turns on during the day.	◦ Ensure the sensor is not in D2D or Manual Override mode. ◦ Check if the sensor's photocell is obstructed or covered, making it think it's dark.
Detection range is too short/long.	◦ Adjust the SENSITIVITY knob. ◦ Reposition the sensor head for optimal coverage.

11. WARRANTY & SUPPORT

The treewell Motion Sensor (Model TMD180C) comes with a **2-year warranty** from the date of purchase, covering defects in materials and workmanship under normal use. For warranty claims, technical support, or any inquiries, please contact treewell customer service.

Please retain your proof of purchase for warranty validation.

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page's manual context to help answer it.

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After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

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