treewell TMD180B

treewell 180-Degree Replacement Motion Sensor User Manual

Model: TMD180B

1. INTRODUCTION

Thank you for choosing the treewell 180-Degree Replacement Motion Sensor. This device is designed to enhance the functionality of your existing light fixtures by adding advanced motion detection capabilities. Please read this manual thoroughly before installation and operation to ensure proper use and maximum performance.

2. PRODUCT OVERVIEW

The treewell motion sensor is a versatile and adjustable unit, perfect for upgrading security floodlights or other outdoor/indoor lighting. It features a wide detection range and multiple operating modes to suit various needs.

Image: Front view of the treewell 180-Degree Replacement Motion Sensor, showing the main body, adjustable neck, and wiring.

3. Key Features

- **180-Degree Detection Range:** Covers a wide area for comprehensive motion sensing.

- **Up to 60 Feet Sensing Distance:** Detects motion from a significant distance.

- **Adjustable Time & Sensitivity:** Customize delay time (10s to 10 mins) and detection sensitivity (10ft to 60ft).

- **3 Working Modes:** Auto Mode, Dusk-to-Dawn Mode, and Manual Override Mode for flexible operation.

- **Rotatable Sensor Head:** 180 degrees vertically and 300 degrees horizontally adjustable for precise aiming.

- **Weather Resistant:** Designed for outdoor use with a working temperature range of -30°C to 50°C.

- **UL Listed:** Ensures safety and quality standards.

- **Compatibility:** Supports Max. 500W Incandescent Lamps and Max. 200W LED DRIVER/LED Bulbs.

4. PACKAGE CONTENTS

Please check the package to ensure all components are present:

- treewell 180-Degree Replacement Motion Sensor (1 unit)

- Wire Nuts (included for installation)

- User Manual (this document)

5. SETUP AND INSTALLATION

Before beginning installation, ensure the power supply to the light fixture is turned off at the circuit breaker to prevent electrical shock.

5.1 Wiring Diagram

The motion sensor is designed for easy integration with existing light fixtures. Follow the wiring instructions carefully.
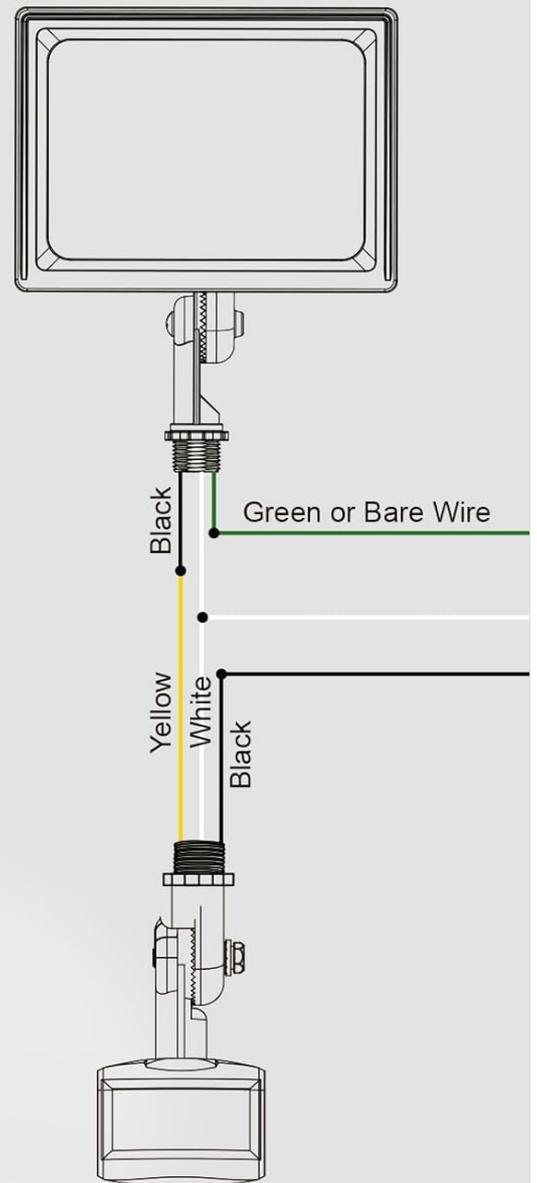
Easy Installation

Image: Diagram illustrating the wiring connections for the motion sensor to a light fixture. It shows black, yellow, and white wires from the sensor connecting to corresponding wires of the fixture, with a green/bare wire for ground.

1. Connect the **Black** wire from the motion sensor to the **Black** (Live) wire of your light fixture.

2. Connect the **White** wire from the motion sensor to the **White** (Neutral) wire of your light fixture.

3. Connect the **Yellow** wire from the motion sensor to the **Black** (Load) wire of the light fixture.

4. Ensure all connections are secure using the provided wire nuts.

5. Connect the ground wire (green or bare copper) from the fixture to the electrical box ground.

5.2 Mounting the Sensor

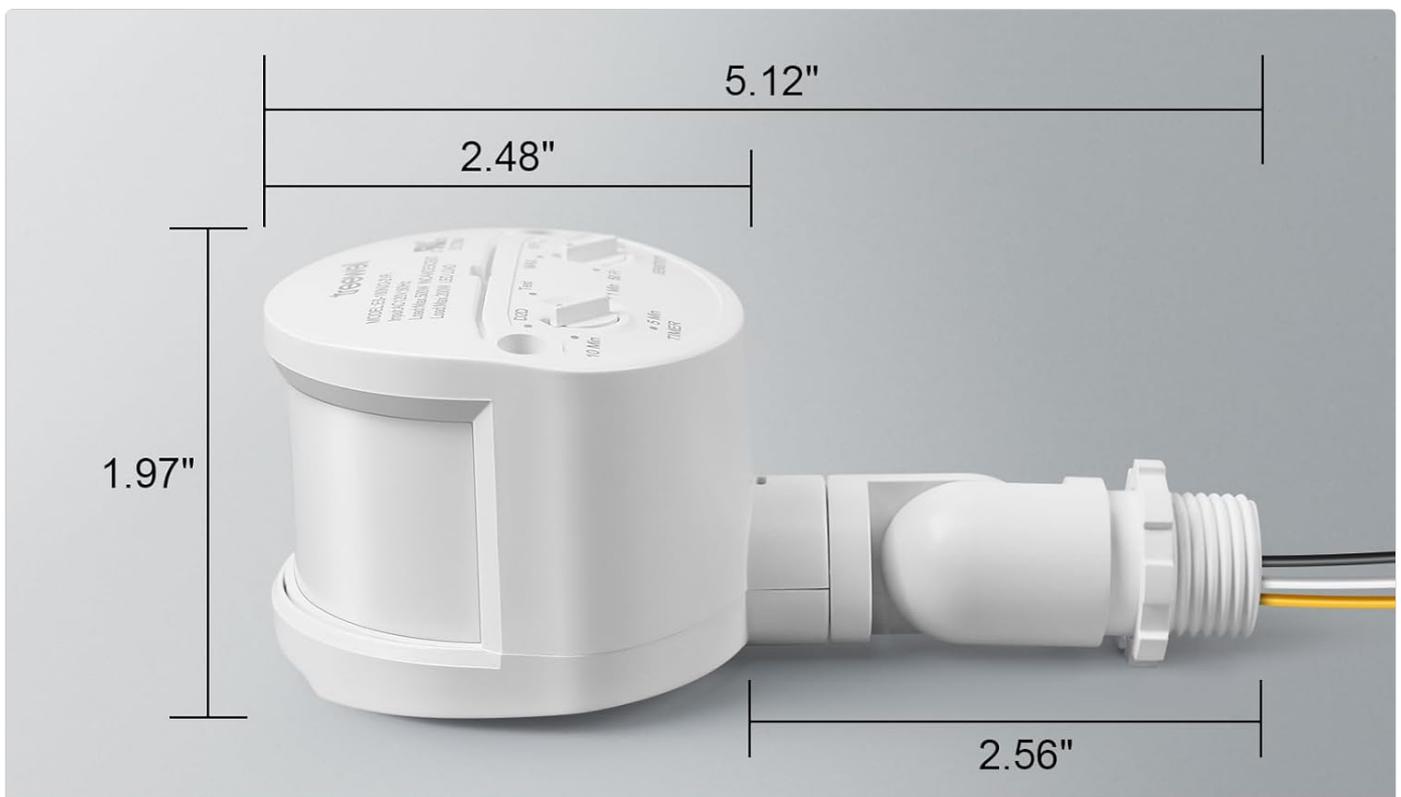The sensor features a rotatable head for optimal positioning.

Image: Diagram showing the dimensions of the motion sensor and its adjustable neck, indicating 300-degree horizontal and 180-degree vertical rotation capabilities.

- Mount the sensor to your light fixture or desired location using the threaded pipe and nut.

- Adjust the sensor head vertically (180 degrees) and horizontally (300 degrees) to cover the desired detection area.

- Ensure the sensor is positioned to avoid obstructions that might block its detection path.
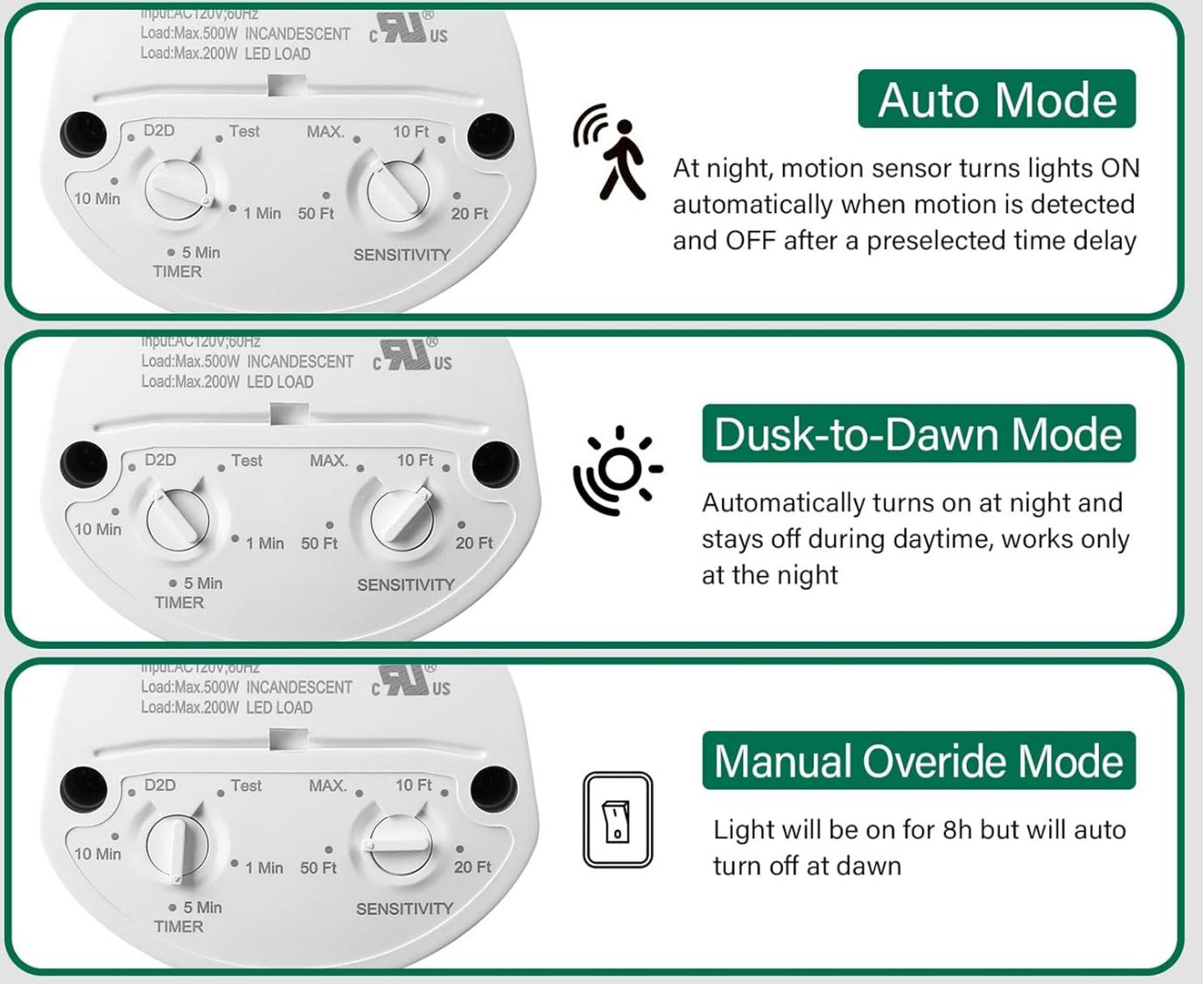
6. OPERATING MODES AND ADJUSTMENTS

The treewell motion sensor offers three distinct operating modes and adjustable settings for time and sensitivity.

6.1 Working Modes

3 WORKING MODES
Rotate the knob switch to adjust the modes

Auto Mode
At night, motion sensor turns lights ON automatically when motion is detected and OFF after a preselected time delay

Dusk-to-Dawn Mode
Automatically turns on at night and stays off during daytime, works only at the night

Manual Overide Mode
Light will be on for 8h but will auto turn off at dawn

Image: Visual representation of the three working modes: Auto Mode, Dusk-to-Dawn Mode, and Manual Override Mode, with descriptions for each.

1. **Auto Mode (Motion-Sensing Mode):**

   When movement is detected in darkness, the connected light will turn on. The light will turn off after a preselected time delay (adjustable from 10 seconds to 10 minutes).

2. **Dusk-to-Dawn Mode (D2D Mode):**

   The light automatically turns on at night and stays off during daytime. This mode works only at night and does not require motion detection.

3. **Manual Override Mode (Wall Switch Mode):**

   To activate, turn the wall switch OFF and then ON within 2 seconds. The light will remain on for 8 hours, then automatically turn off at dawn. To return to Auto Mode, turn the wall switch OFF for more than 2 seconds and then ON.

6.2 Adjusting Time and Sensitivity

TIMER-Function Knob Switch

- **Test Mode**
  Rotate switch to the Test

- **Auto Mode**
  Rotate TIMER Knob Clockwise through Test Mode, 10s-10Mins step-less adjustable

- **Dusk-to-Dawn Mode**
  Rotate switch to the D2D

SENSITIVITY-Detection Knob Switch

- 10ft-60ft adjustable

Image: Close-up view of the motion sensor's control knobs, labeled "TIMER" and "SENSITIVITY", showing their adjustable ranges and settings like "D2D", "Test", "10 Min", "1 Min", "5 Min", "MAX", "50 Ft", "10 Ft", "20 Ft".

- **TIMER Knob:** Adjusts the duration the light stays on after motion is detected.

  - Rotate clockwise for longer durations (from 10 seconds to 10 minutes).
  - Set to "Test" for initial setup and aiming. In Test mode, the light will turn on for a few seconds each time motion is detected, regardless of ambient light.
  - Set to "D2D" for Dusk-to-Dawn operation.

- **SENSITIVITY Knob:** Adjusts the detection range of the sensor.

  - Rotate clockwise to increase sensitivity and detection range (up to 60 feet).
  - Rotate counter-clockwise to decrease sensitivity and detection range (down to 10 feet).

Image: Illustration demonstrating the 180-degree sensing angle and maximum 60-foot detection range of the PIR motion sensor, with a dog running in the detection area.

7. MAINTENANCE

The treewell motion sensor requires minimal maintenance.

- **Cleaning:** Periodically wipe the sensor lens with a soft, damp cloth to remove dust or dirt that may obstruct detection. Do not use abrasive cleaners.
- **Inspection:** Regularly check the wiring and mounting for any signs of wear or damage.
- **Weather Resistance:** The sensor is designed to be weather resistant (Working Temp -30℃ to 50℃). Ensure it is properly sealed if exposed to direct elements.

Image: Depiction of the motion sensor in rainy conditions, highlighting its weather-resistant design and specified working temperature range of -30°C to 50°C.

8. TROUBLESHOOTING

If you encounter issues with your motion sensor, refer to the following common problems and solutions:

Problem	Possible Cause	Solution

Problem	Possible Cause	Solution
Light does not turn on with motion.	- Power is off. - Sensor is in D2D mode during daytime. - Sensitivity is set too low. - Obstruction in detection path. - Wiring issue.	- Check circuit breaker. - Ensure sensor is in Auto Mode or it is dark enough for D2D. - Increase sensitivity setting. - Clear any obstructions. - Verify wiring connections.
Light stays on continuously.	- Sensor is in Manual Override Mode. - Constant motion in detection area. - Wiring issue.	- Toggle wall switch OFF/ON to reset to Auto Mode. - Adjust sensor angle or sensitivity to exclude unwanted motion. - Verify wiring connections.
Light turns on randomly.	- Sensor picking up distant motion (e.g., cars, animals). - Sensor reacting to environmental factors (e.g., swaying branches, heat sources).	- Decrease sensitivity. - Adjust sensor angle to narrow detection area. - Ensure sensor is not aimed at heat sources or moving foliage.
Light turns off too quickly or too slowly.	TIMER knob setting is incorrect.	Adjust the TIMER knob to the desired duration.

9. SPECIFICATIONS

Attribute	Detail
Model Number	TMD180B
Input Voltage	120 Volts
Frequency	60 Hz
Detection Angle	180 Degrees
Maximum Range	60 Feet
Adjustable Time Delay	10 seconds to 10 minutes
Load Rating (Incandescent)	Max. 500W
Load Rating (LED/LED Driver)	Max. 200W
Material	Housing: PC; Lens: PE

Attribute	Detail
Working Temperature	-30°C to 50°C
Certification	UL Listed
Dimensions	4.53 x 3.15 x 2.56 inches
Item Weight	5 ounces

10. WARRANTY AND SUPPORT

treewell provides a **2-year warranty** for this product, covering defects in materials and workmanship from the date of purchase.

For technical support, warranty claims, or any questions regarding your treewell motion sensor, please contact our customer service team. We offer 7*24h after-sales service.

For more information, visit the official treewell store on Amazon:treewell Store