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> [treewell 240-Degree Replacement Motion Sensor Instruction Manual \(Model TMDL240B\)](#)

treewell TMDL240B

treewell 240-Degree Replacement Motion Sensor Instruction Manual

Model: TMDL240B

1. INTRODUCTION

This manual provides detailed instructions for the installation, operation, and maintenance of your treewell 240-Degree Replacement Motion Sensor (Model TMDL240B). This device is designed to enhance security and convenience by automatically controlling lighting fixtures based on detected motion and ambient light levels. Please read this manual thoroughly before installation and use to ensure proper function and safety.



Image 1: treewell 240-Degree Replacement Motion Sensor

2. PRODUCT FEATURES

- **Three Operating Modes:** Auto Mode, Dusk-to-Dawn (DTD) Mode, and Manual Override Mode for versatile control.
- **Adjustable LUX Sensitivity:** Customize the ambient light level (5-300 LUX) at which the sensor activates.
- **Adjustable Timer:** Set the light-on duration from 10 seconds to 10 minutes after motion detection.
- **Adjustable Detection Sensitivity:** Configure the sensing range up to 60 feet.
- **Wide Detection Angle:** 240-degree sensing coverage for broad area monitoring.
- **Rotatable Sensor Head:** Flexible adjustment with 180 degrees vertically and 300 degrees horizontally for optimal positioning.
- **Durable Design:** IP65 waterproof rating ensures reliable outdoor performance in various weather conditions (Working Temp -22°F to 122°F).
- **Easy Replacement:** Designed to replace existing motion sensors on floodlights, saving cost and effort.
- **Load Rating:** Supports Max. 300W Incandescent Lamps and Max 72W LED DRIVER/LED Bulbs.



Image 2: Wide 240-degree detection angle and up to 60 feet sensing distance.

IP65 Waterproof

Working Temp -22°F~122°F



Image 3: The motion sensor is IP65 waterproof, suitable for outdoor use in various temperatures.

3. SAFETY INFORMATION

Please observe the following safety precautions during installation and operation:

- **Electrical Hazard:** Always turn off power at the circuit breaker before installing or servicing the motion sensor. Failure to do so may result in serious injury or death.
- **Qualified Electrician:** If you are unsure about wiring or electrical connections, consult a qualified electrician.
- **Voltage:** This device operates on 120 Volts. Ensure your electrical supply matches this requirement.
- **Proper Grounding:** Ensure the fixture is properly grounded according to local electrical codes.
- **Secure Mounting:** Mount the sensor securely to prevent it from falling.
- **Avoid Direct Water Spray:** While IP65 rated, avoid directly spraying water onto the sensor with high-pressure hoses.

4. PACKAGE CONTENTS

- treewell 240-Degree Replacement Motion Sensor (Model TMDL240B)

- Wire Nuts
- Instruction Manual

5. INSTALLATION

The treewell motion sensor is designed for easy replacement of existing sensors on outdoor light fixtures. Follow these steps for installation:

1. **Turn Off Power:** Before starting, ensure the power to the light fixture is turned off at the circuit breaker.
2. **Remove Old Sensor:** Carefully disconnect and remove the old motion sensor from your light fixture. Note the wiring connections (Live, Neutral, Load, Ground).
3. **Connect Wiring:** Connect the wires from the new treewell motion sensor to your light fixture's wiring using the included wire nuts. Typically:
 - Black wire (Live) to the fixture's Live wire.
 - White wire (Neutral) to the fixture's Neutral wire.
 - Red wire (Load) to the light bulb's Live wire.
 - Green or Bare wire (Ground) to the fixture's Ground wire.
4. **Mount Sensor:** Securely mount the new motion sensor to your light fixture. The sensor head is rotatable for optimal positioning after installation.
5. **Restore Power:** Once all connections are secure and the sensor is mounted, restore power at the circuit breaker.

Easy Installation

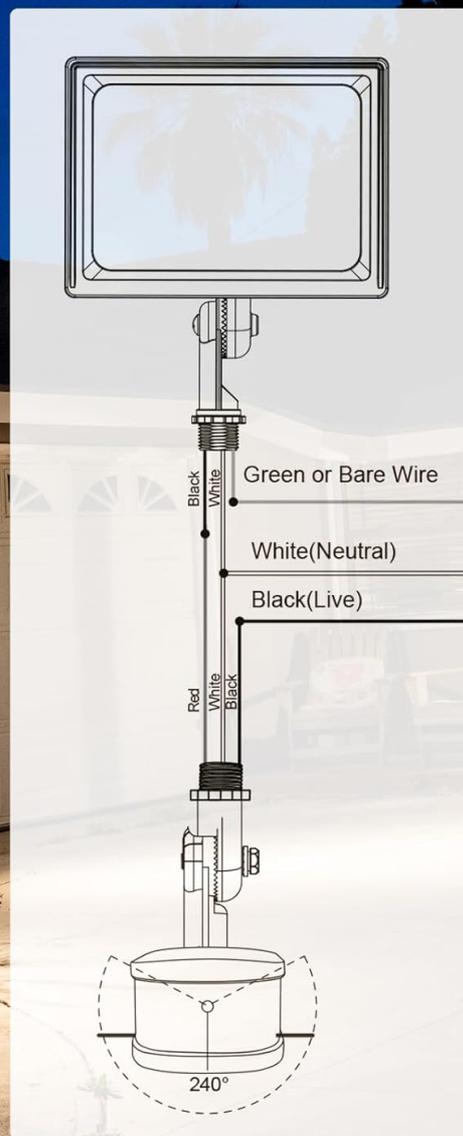


Image 4: Wiring diagram for typical motion sensor installation.

6. OPERATION AND ADJUSTMENTS

The treewell motion sensor features three adjustable knobs for TIMER, LUX, and SENSITIVITY, allowing customization of its operation.



Image 5: Control knobs for TIMER, LUX, and SENSITIVITY.

6.1. Operating Modes

Rotate the TIMER knob to select one of the three working modes:

- **Auto Mode:** When movement is detected in darkness, the light will turn on. It will then turn off after a preselected time delay (10 seconds to 10 minutes), depending on your TIMER setting. To activate, rotate the TIMER knob through 'Test' mode to the desired time setting (e.g., 1 min, 5 min, 10 min).
- **Dusk-to-Dawn (DTD) Mode:** The light automatically turns on at night and stays off during the daytime. Motion detection is active only at night. To activate, rotate the TIMER knob to 'DTD'.
- **Manual Override Mode:** This mode allows for continuous manual control. The light will remain on for approximately 8 hours and will automatically turn off at dawn. To activate, cycle the power switch (if available) quickly twice.

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

Automatically turns on at night and stays off during daytime, works only at the night



Dusk-to-Dawn Mode



Manual Override Mode

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

Image 6: Explanation of the three operating modes.

6.2. Knob Adjustments

- **TIMER Knob:** Controls the duration the light stays on after motion detection. Adjustable from 10 seconds to 10 minutes. Also used to select operating modes (Test, DTD, Auto).
- **LUX Knob:** Adjusts the ambient light level at which the sensor becomes active. In Auto or DTD Mode, you can set the sensor to activate when the ambient light falls between 5 and 300 LUX. Rotate towards '+' for activation in brighter conditions, towards '-' for activation only in darker conditions.
- **SENSITIVITY Knob:** Controls the detection range of the sensor. Adjustable from 10 feet to 60 feet. Rotate towards '+' for maximum range, towards '-' for reduced range.

6.3. Sensor Head Adjustment

The sensor head can be rotated to optimize the detection area:

- **Vertical Adjustment:** Up to 180 degrees.
- **Horizontal Adjustment:** Up to 300 degrees.

Loosen the pivot arm screw slightly to adjust the angle, then tighten to secure the position.

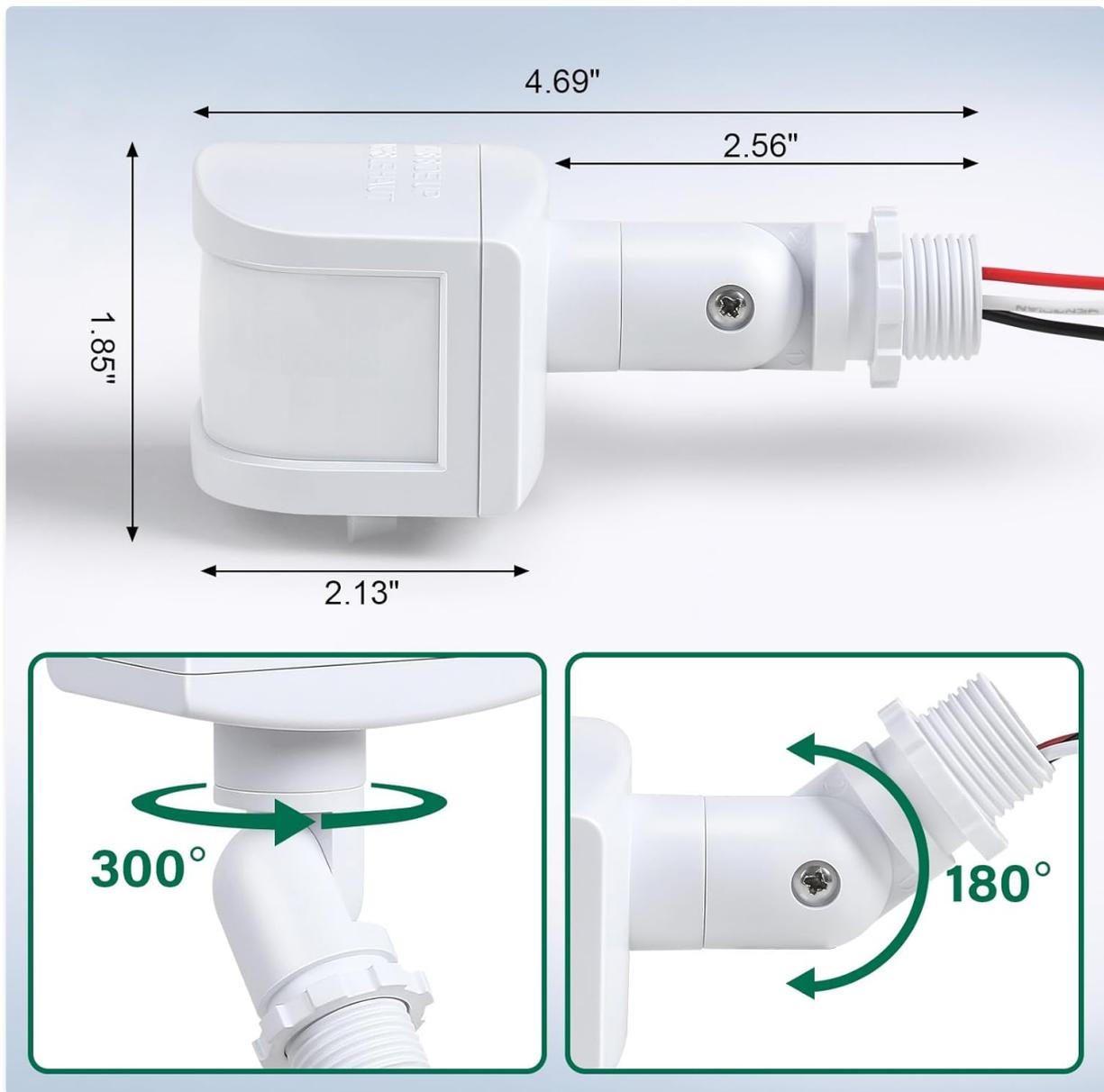


Image 7: The sensor head offers 180-degree vertical and 300-degree horizontal adjustment.

7. TROUBLESHOOTING

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

Problem	Possible Cause	Solution
Light does not turn on when motion is detected.	<ul style="list-style-type: none"> ◦ Power is off. ◦ LUX setting is too low (sensor thinks it's daytime). ◦ SENSITIVITY setting is too low. ◦ Sensor head is not aimed correctly. ◦ Faulty wiring connection. 	<ul style="list-style-type: none"> ◦ Check circuit breaker. ◦ Adjust LUX knob towards '+'. ◦ Adjust SENSITIVITY knob towards '+'. ◦ Adjust sensor head angle. ◦ Verify wiring connections (power off first).

Problem	Possible Cause	Solution
Light stays on continuously.	<ul style="list-style-type: none"> ◦ Sensor is in Manual Override Mode. ◦ Constant motion in detection zone. ◦ Faulty sensor. 	<ul style="list-style-type: none"> ◦ Cycle power to reset, or wait for dawn in Manual Override. ◦ Clear obstructions or adjust SENSITIVITY/angle. ◦ Contact customer support.
Light turns on and off too frequently.	<ul style="list-style-type: none"> ◦ SENSITIVITY is too high. ◦ TIMER setting is too short. ◦ Interference from heat sources or moving objects (trees, traffic). 	<ul style="list-style-type: none"> ◦ Adjust SENSITIVITY knob towards '-'. ◦ Adjust TIMER knob to a longer duration. ◦ Reposition sensor or adjust angle to exclude interference.
Detection range is shorter than expected.	<ul style="list-style-type: none"> ◦ SENSITIVITY setting is too low. ◦ Obstructions in the detection path. ◦ Extreme temperatures affecting sensor performance. 	<ul style="list-style-type: none"> ◦ Adjust SENSITIVITY knob towards '+'. ◦ Clear obstructions. ◦ Ensure operating within specified temperature range (-22°F to 122°F).

8. SPECIFICATIONS

Specification	Value
Brand	treewell
Model Number	TMDL240B
Color	White
Power Source	Corded Electric
Voltage	120 Volts
Maximum Range	60 Feet
Detection Angle	240 Degrees
Mounting Type	Wall Mount
Compatible Devices	Fluorescent, Incandescent, LED
Load Rating (Incandescent)	Max. 300W
Load Rating (LED)	Max 72W

Specification	Value
Product Dimensions	4.13"D x 2.56"W x 3.15"H
Item Weight	4.6 ounces
Waterproof Rating	IP65
Operating Temperature	-22°F to 122°F

9. WARRANTY AND SUPPORT

Your treewell motion sensor comes with a **2-year warranty** from the date of purchase, covering defects in materials and workmanship under normal use. If you experience any issues or require assistance, please contact our customer support team.

We provide **7*24h after-sales service** to ensure your satisfaction. For quick and easy replacement or refund for quality problems, please reach out to us.

For support, please visit the treewell store on Amazon or contact us through the platform.