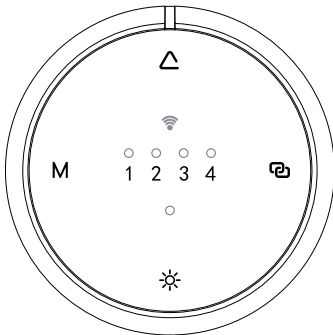


Smart Sunlight Sensor

Programming Guide



INS-101-C125
A-01 January 2026

Safety Instructions

Warning: When using this product, please note the following safety precautions:

1. Do not use a different type of battery than the one specified. Doing so can cause a safety hazard.
2. Dispose or recycle used batteries according to your local rules and regulations.
3. Keep away from children.
4. If swallowed, seek medical attention immediately.
5. Do not:
 - a) Recharge non-rechargeable batteries.
 - b) Force discharge, recharge or disassemble batteries.
 - c) Do not expose batteries to temperatures below -5°C (23°F) or above 60°C (140°F), as this may cause leakage or explosion resulting in burns or injury.
6. Ensure batteries are installed correctly, following indicated polarity (+ and -).
7. Do not mix old and new batteries, different brands, or different battery types (e.g., alkaline, carbon-zinc, or rechargeable).
8. If the device will not be used for an extended period, remove the batteries and store them properly.
9. Do not dispose of batteries in household trash or incinerate.
10. The performance of the radio system may be affected when used near devices with strong magnetic fields or metallic surfaces. Structural conditions may also impact range and functionality.
11. Do not operate the radio system in areas prone to high interference, such as hospitals, airports, or other sensitive facilities.

FCC Statement

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment.

CONTENTS

01

Sensor Installation 1

Included
Accessories 2

Battery
Replacement 3

Mounting
Options 4

Installation
Considerations 5

02

Sensor Pairing 7

Button
Location 8

Motor Pairing
Button Location 9

Pairing Sensor
to Motor 10

Pairing the
Sensor Using an
Existing Remote 11

Shade Control
Mode Switching 12

03

Sensor Operation 14

Light Levels 15

Ambient Light
Detection 17

Sensor Modes 19

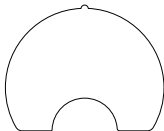
01

Sensor Installation

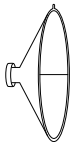
Included Accessories



Sensor



Adhesive Tape



Suction Cup



spacer pad

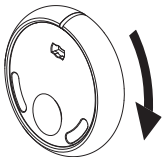


AAA Battery

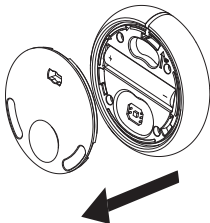
Battery Replacement

Rotate the back cover clockwise to the unlock position.

Step 1



Step 2

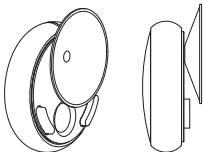


Note: When the battery is low, the red LED will flash once every 2 minutes. Each press of the button will also cause the red LED to flash once. To ensure proper sensor operation, please replace the battery promptly.

Mounting Options

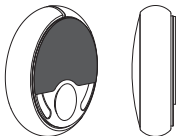
Option 1:

Suction Cup & Spacer Installation



Option 2:

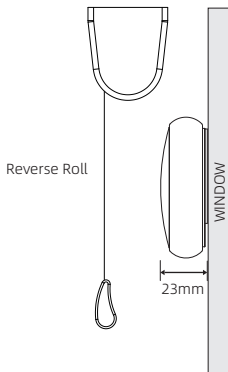
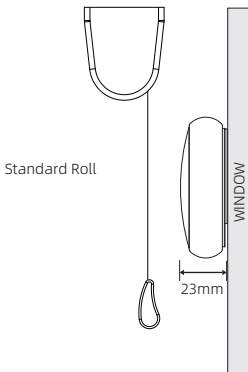
Adhesive Installation



Installation Considerations

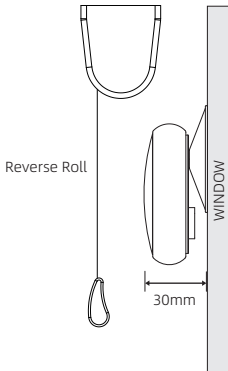
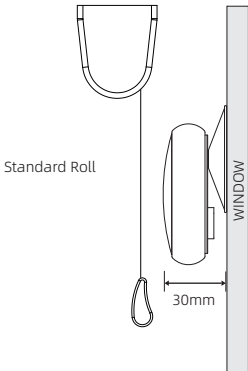
Note: To avoid Bottom Bar coming into contact with the Smart Sunlight Sensor, follow minimum distance to window.

Adhesive Mount



 **Note:** To avoid Bottom Bar coming into contact with the Smart Sunlight Sensor, follow minimum distance to window.

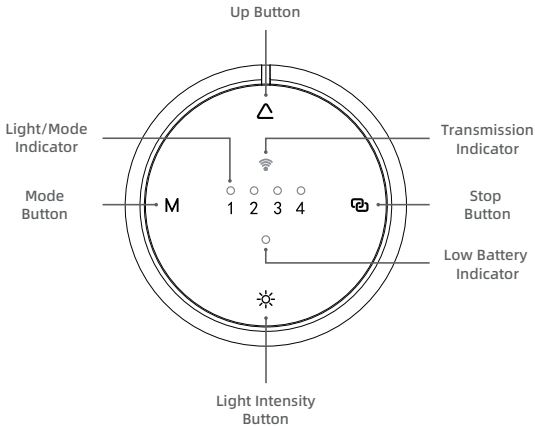
Suction Cup Mount



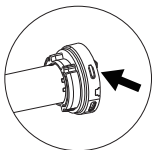
02

Sensor Pairing

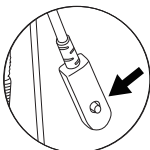
Button Location



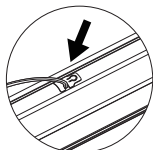
Motor Pairing Button Location



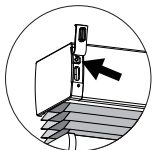
Roller Shade



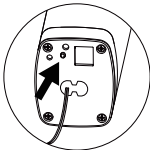
Outdoor Shade



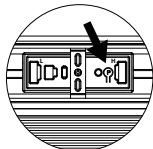
Cellular Shade



Cellular Shade



Drapery



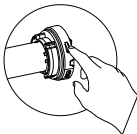
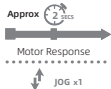
Skylight

Pairing Sensor to Motor

* Using this type of motor as an example, please refer to "Motor Pairing Button Location" (P9) for the specific devices.

Press and hold the pairing button on the motor head for 2 seconds, until the motor responds as below.

Activate Pairing Mode



Press the Stop button on the sensor to complete the pairing.



The motor jogs twice

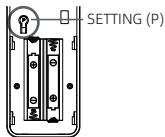
* Note:

For TDBU shades, after pairing is complete, please proceed to Page 12 to switch the shade control mode.

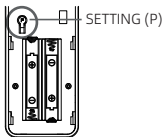
For standard shades, the sensor is ready for use immediately after pairing, and no shade control mode switching is required.

Pairing the Sensor Using an Existing Remote

1. Press the "P" button on existing remote for 1 second.
2. Press the "P" button on existing remote again for 1 second.
3. Press and hold the Stop button on the sensor for 2S to complete the pairing.



The motor
jogs once



The motor
jogs once



The motor
jogs twice

 **Note:** Repeating this procedure on a paired sensor will disconnect it from the motor.

Shade Control Mode Switching

Standard Shade Mode ↔ TDBU Shade Mode

The sunlight sensor supports multiple types of motorized shades. You can switch between two control modes to ensure proper operation with different shade systems.

Factory Default Mode

- Standard Shade Mode

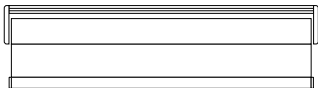
For standard shades, including roller shades, zebra shades, cellular shades, and other standard shade types.

Switching Control Modes

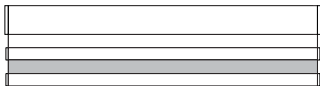
1. Press and hold the MODE and SUN buttons simultaneously for 5 seconds.



The LED corresponding to the current light level will begin flashing to indicate the selected control mode:



1 flash: Standard Shade Mode (default)



2 flashes: TDBU Shade Mode

2. Once the corresponding shade control mode is selected, release the buttons to complete the mode switch.

03

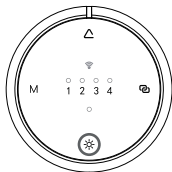
Sensor Operation

Light Levels

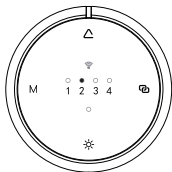
Note: The factory default setting is Level 1. When set to Level 1, the sensor is disabled and does not detect ambient light levels.

Sensor Level Description			
Level	Light intensity detection range	LED	Description
1		1	Sensor is off
2	5K LUX	2	Strong light: >5,000 lux Weak light: ≤5,000 lux
3	15K LUX	3	Strong light: >15,000 lux Weak light: ≤15,000 lux
4	25K LUX	4	Strong light: >25,000 lux Weak light: ≤25,000 lux

Checking Light Intensity



Press the Light Intensity
Button once

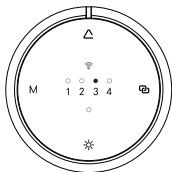


Current Light
Level is 2

Switch the Light Level



When the indicator light
is on, press the light
function button once.



Current Light
Level is 3

Ambient Light Detection



Press and hold the light function button for about 3 seconds. The Level 1 LED will remain on, indicating that the sensor has entered ambient light detection mode.



While in detection mode, the device will automatically light up the LED corresponding to the current ambient light level.



Press any button or remain inactive for 2 minutes to automatically exit detection mode.

Ambient Light Detection Guide		
Ambient Light Level	LED	Description
<5K LUX	1	Current ambient light is less than 5,000 lux
5k-15k LUX	2	Current ambient light is between 5,000 and 15,000 lux
15k-25k LUX	3	Current ambient light is between 15,000 and 25,000 lux
≥ 25k LUX	4	Current ambient light is 25,000 lux or higher

Sensor Modes

Checking the Current Mode



Press x1

Briefly press and release the MODE button. The LED will flash a number of times to indicate the current mode.

(1 flash = Mode 1, 2 flashes = Mode 2, 3 flashes = Mode 3)

Changing the Mode



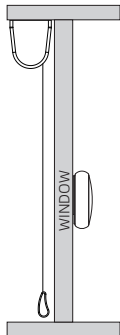
Press and
hold for 5s

Press and hold the MODE button for about 5 seconds until the LED starts flashing, then release. The number of flashes indicates the newly selected mode (1 flash = Mode 1, 2 flashes = Mode 2, 3 flashes = Mode 3). Repeat this operation to cycle through the modes.

Mode 1

Application: Outdoor Shades

Mode Features: Automatic lowering only. No automatic raising.



Set the light level to the desired level (other than Level 1).

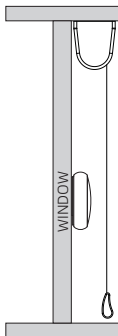
When the ambient light remains above the set level for 2 consecutive minutes, the shades will automatically lower (or move to the mid-position).

When the ambient light remains below the set level for 15 consecutive minutes, the shades will remain in their current position and will not automatically raise.

Mode 2

Application: Indoor Shades (Sensor Not Obstructed)

Mode Features: Automatic lowering and raising



Set the light level to the desired level (other than Level 1).

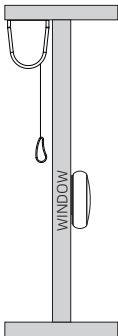
When the ambient light remains above the set level for 2 consecutive minutes, the shades will automatically lower (or move to the mid-position).

When the ambient light remains below the set level for 15 consecutive minutes, the shades will raise.

Mode 3

Application: Outdoor Shades

Mode Features: Continuously monitors light by remaining above the sensor after lowering.



Set the light level to the desired level (other than Level 1).

When the ambient light remains above the set level for 2 consecutive minutes, the shades will lower. If the sensor is obstructed, the shades will raise and stop above the sensor.

When the ambient light remains below the set level for 15 consecutive minutes, the shades will raise.

- Smart Sunlight Sensor -