

# Sunis WireFree™ RTS Light Sensor

## Programming/Operating/Installation Instructions

### DESCRIPTION

The Sunis RTS Light Sensor is a wireless radio transmitter compatible with RTS motors and externally mounted RTS receivers. Window or Sill mounted, the Sunis RTS operates motorized window coverings in accordance to the amount of sunlight received. Sunlight sensitivity (threshold) can be adjusted for varying degrees of sunlight intensity.

- Commands are transmitted by radio waves at 433.42 MHz
- Power: 3V Lithium battery, CR2430
- Operating temperature: 0 deg. C/32 deg. F - +60 deg. C/140 deg. F
- Range: Up to 65ft.
- Mount: Window glass/sill
- Dimensions: Diameter 2 3/16" (55.5mm) x Depth 3/4" (19mm)
- Indoor Use Only



# 9013707

### STEP ONE PROGRAMMING

#### ADDING A SUNIS WIREFREE™ RTS LIGHT SENSOR- INITIAL INSTALLATION

Note: During initial programming, provide power only to motor or RTS receiver being programmed.

1. Carefully remove rear cover to expose sensor control setting panel.
2. Set the RTS Receiver or Motor into Programming Mode (Refer to the installation instructions of the relevant RTS receiver or motor for this procedure).
3. Slide the ON/OFF selector switch to the ON or ☀ Position
4. Using a paperclip or similar device, briefly press the programming button **(1 second max)** located on the Sunis light sensor. **(See Figure 1)** The RTS receiver or Motor will confirm the addition of the new Sunis light sensor in their respective manners.

Note: Repeat steps 1-3 when multiple motors are required to operate from the Sunis light sensor

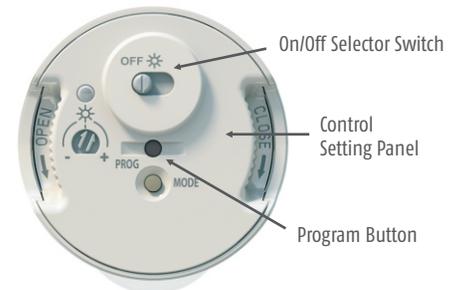


FIGURE 1



#### DELETING A SUNIS WIREFREE™ RTS LIGHT SENSOR FROM MEMORY

1. Using a Paperclip or similar device, press and hold the program button **(3 sec.)** on the previously addressed Sunis Light Sensor or Telis Transmitter. **(See Figure 1)** The RTS receiver or motor will confirm programming mode in their respective manners.
2. Using a paperclip or similar device, briefly press the programming button **(1 sec. max)** located on the Sunis Light Sensor **(See Figure 1.)** The RTS receiver or Motor will confirm the deletion of the Sunis Light Sensor in their respective manners.

## STEP TWO INSTALLATION

### MOUNTING SUNIS WIREFREE™ LIGHT SENSOR TO WINDOW GLASS OR SILL

1. Attach the "screw-in" suction cup mounting device for Window Mount or Sill Mount. (See Figure 2)
2. Determine the appropriate mounting location and thoroughly clean window glass or sill area of debris or residue. Firmly press suction cup mount onto **INSIDE** window (glass or sill) positioning sensor towards the **OUTSIDE** of window. (See Figure 3)

Note: Sunis light sensor **MUST BE** free from obstructions in order to correctly sense incoming light. Sill mount may not be suitable for some window installations.

FIGURE 2

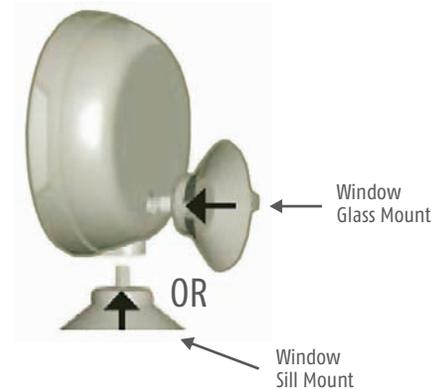
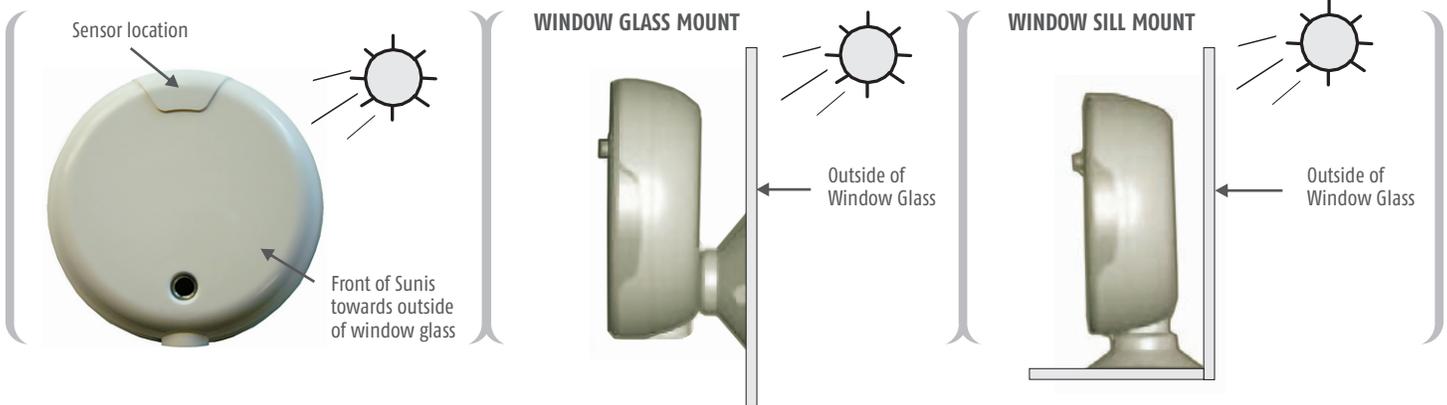


FIGURE 3

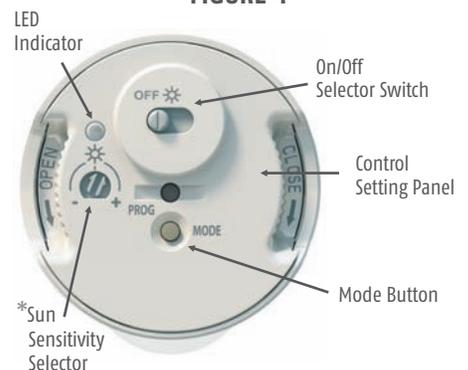


## STEP THREE SETTING THE LIGHT (SUN) SENSITIVITY (THRESHOLD)

1. Carefully remove rear cover of Sunis Light sensor exposing control setting panel.
2. Slide the ON/OFF selector switch to the ON or ☀️ Position
3. Momentarily press the Mode Button, LED Indicator will illuminate to a red color for approx. 15 seconds.

Note: LED indicator light will remain illuminated for approximately 15 seconds. Should the LED Indicator light extinguish prior to establishing the light sensitivity (threshold) setting, simply press the MODE BUTTON momentarily to reactivate LED light.

FIGURE 4



4. Using a small screw driver (or similar device) rotate the Sun Sensitivity Selector to the fully **CLOCKWISE (+)** position. LED will remain illuminated (red color) (See Figure 4)
5. Slowly rotate the Sun Sensitivity Selector **COUNTER CLOCKWISE (-)** until the LED indicator illuminates to a green color. A green colored LED indicates the present light value (threshold) At this value (threshold) the Sunis sensor will provide the necessary **DOWN COMMAND** to the motor or RTS receiver.

\*Note: Rotating the Sun Sensitivity Selector to a FULL COUNTER CLOCKWISE (-) position will simulate sun if no sun is present. It is not recommended to leave the selector (Threshold setting) in this position.

## STEP FOUR OPERATION

The Sunis WireFree RTS Light Sensor can be operated in either Demonstration Mode (temporary) or Standard (default) mode.

### DEMONSTRATION MODE

Demonstration mode reduces the standard operating time delays, permitting almost instantaneous operating/output response from the Sunis light sensor. This mode facilitates initial light sensitivity (threshold) settings and quickly demonstrates the operation of the motorized end product.

1. Press and hold MODE BUTTON until LED indicator blinks (color red) LED will continue to blink for approx. 30 seconds then extinguish. (See Figure 5)
2. If necessary, adjust sun sensitivity (threshold) setting (refer to STEP 3. [4 & 5]) LED will blink during this mode. **Should LED indicator extinguish prior to final setting, simply press the mode button momentarily to reactivate blinking LED indicator.**
3. Sunis RTS light sensor will send a **"DOWN"** command to the RTS receiver or motor **after 5 seconds of sensing light within the set threshold.**
4. Sunis RTS light sensor will send a **"UP"** command to the RTS receiver or motor **IMMEDIATELY** after sensing light that **HAS NOT** reached (or below) the set threshold.

#### Note:

1. Sunis light sensor will automatically default to standard operating mode after 3 minutes.
2. \*Rotating the Sun Sensitivity Selector to a FULL COUNTER CLOCKWISE (-) position will simulate sun if no sun is present. It is not recommended to leave the selector (Threshold setting) in this position.

### STANDARD OPERATING MODE

Standard operating mode (default) employs output response time delays.

1. Refer to STEP 3. [1-5] (Setting the Light (Sun) Sensitivity Threshold)
2. Sunis RTS light sensor will send a **"DOWN"** command to the RTS receiver or motor after **5 Minutes of sensing light within the set threshold.**
3. Sunis RTS light sensor will send a **"UP"** command to the RTS receiver or motor after **30 Minutes** of sensing light that **HAS NOT** reached (or below) the set threshold.

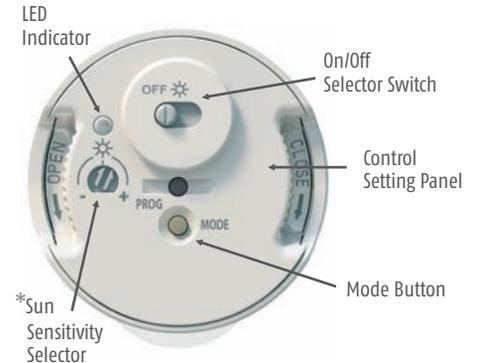
Note: LED indicator light will remain illuminated for approx. 15 seconds. To confirm present light level, momentarily press the mode button to illuminate the LED indicator light.

**GREEN LED:** INDICATES SUN (Light) WITHIN THRESHOLD SETTING

**RED LED:** INDICATES SUN (Light) BELOW THRESHOLD SETTING

Note: The Sunis WireFree RTS light sensor is capable of providing control in accordance to light level conditions only. Once a command is sent, the Sunis will not send another command until there is a change in light condition.

FIGURE 5



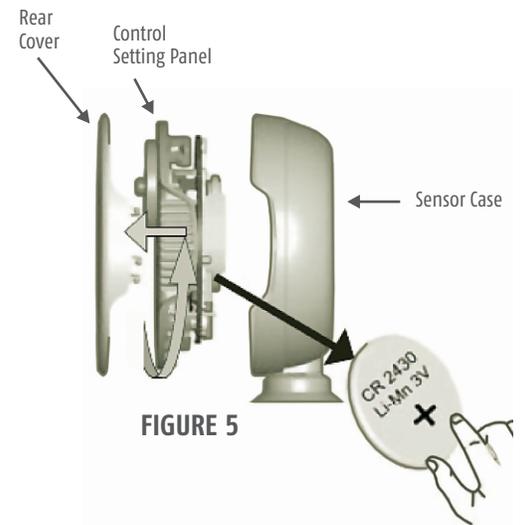
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## 6. REPLACING THE BATTERY

The Sunis WireFree RTS Light Sensor uses a lithium battery (Type: CR2430) **LED INDICATOR LIGHT will illuminate Orange (color) when battery needs replacing.**

1. Carefully remove rear cover of Sunis Light sensor exposing the control setting panel. (See Figure 5)
2. Firmly grip the molded indentations and rotate control setting panel to open (counter clock wise) position.
3. Carefully separate from sensor case to expose battery holder.
4. Replace battery with correct rated/type battery. Be certain of battery polarity (+) and (-) when installing new battery.

**Note:** Do not use any tools when replacing the battery as there is a risk of damaging the sensor circuitry.



## 7. TROUBLESHOOTING GUIDE

### PROBLEM

Window covering does not react to Sunis Sensor

Window covering moves too frequently  
Window covering reacts incorrectly

### POSSIBLY CAUSE

- The Sensor Selector is in the "Off" position.
- The Sensor is not programmed to motor or RTS receiver.
- The Light sensitivity (Threshold) values are incorrectly set.
- The Battery is low/weak and needs replacing.
- The Sensor cover is dirty or obstructed.
- The Sensor is incorrectly positioned/mounted.
- Window covering may have received a subsequent command from another RTS control (i.e., Telis transmitter or Chronis timer)
- The Sensor is in "Demo" mode
- A bright light source is affecting the sensor.
- Motorized window covering (Directional output) is programmed incorrectly

## FCC INFORMATION

This device complies with Part 15 of the FCC Results. Operation is subject to the following two conditions:

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

**NOTE:** This equipment has been tested and found to comply with the limits for CLASS B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. 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 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:

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

**WARNING:** Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.



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