

# SOMFY INSTRUCTIONS

## THERMOSUNIS WIREFREE™ RTS

### LIGHT & TEMPERATURE SENSOR

Part# 9013708



#### DESCRIPTION

The Thermosunis RTS Light and Temperature Sensor is a wireless transmitter compatible with RTS motors and externally mounted RTS receivers. Window or Sill mounted, the Thermosunis RTS operates motorized window coverings in accordance to room temperature or the amount of sunlight received. Sensitivity (threshold) settings can be adjusted to accommodate various sunlight intensity and room temperatures to provide the ultimate in comfort and protection from harmful UV rays.

- Commands are transmitted by radio waves at 433.42 MHz
- Power: 3V Lithium battery, CR430
- Operating temperature: 0 deg. C/32 deg. F - +60deg. 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

#### PROGRAMMING: ADDING A THERMOSUNIS WIREFREE™ RTS SENSOR - INITIAL INSTALLATION

**NOTE:** During initial programming, it is recommended that power is provided 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. Sun LED Indicator will illuminate for 5 seconds then extinguish.
4. Using a paper clip, pen or similar device, briefly press the Programming Button (for 1 second) located on the control setting panel of the Thermosunis (See Figure 1). The RTS receiver or motor will confirm the addition of the Thermosunis sensor in their respective manners.

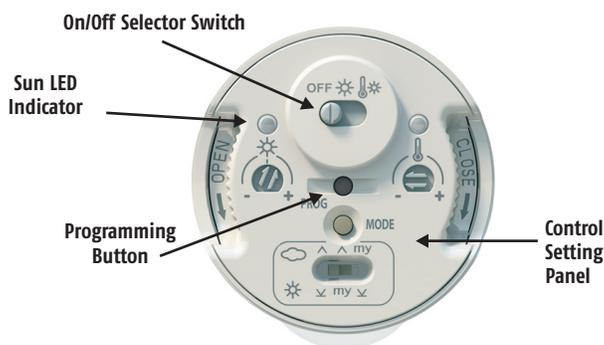


Figure 1

**NOTE:** Repeat steps 1-3 when multiple RTS motors or receivers are required to operate from the Thermosunis sensor.

#### PROGRAMMING: DELETING A THERMOSUNIS WIREFREE™ RTS SENSOR FROM MEMORY

1. Using a paper clip, pen or similar device, press and hold the Programming Button (approximately 3 seconds) on a previously addressed Thermosunis or Telis Transmitter. (See Figure 1). The RTS receiver or motor will confirm Programming more their respective manners.
2. Using a paper clip, pen or similar device, briefly press the Programming Button (for 1 second) located on the control setting panel of the Thermosunis to be deleted (See Figure 1). The RTS receiver or motor will confirm the deletion of the Thermosunis sensor in their respective manners.



**NOTE:** Step 1 should not be performed with the Thermosunis intended for deletion.

## INSTALLATION: MOUNTING THE THERMOSUNIS WIREFREE™ RTS SENSOR TO WINDOW 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 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: Thermosunis sensor MUST BE mounted indoors only and should be free from obstructions in order to correctly sense incoming light. Sill mounts may not be suitable for some window installations. (Sensor should be mounted in front of all interior window coverings)**

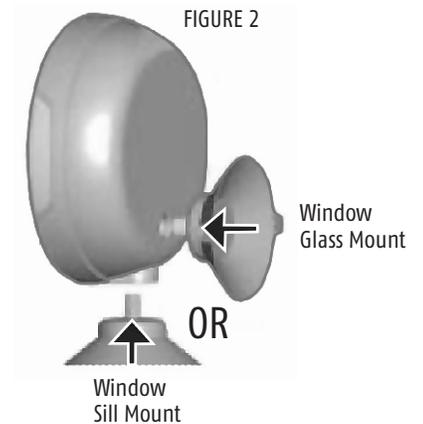
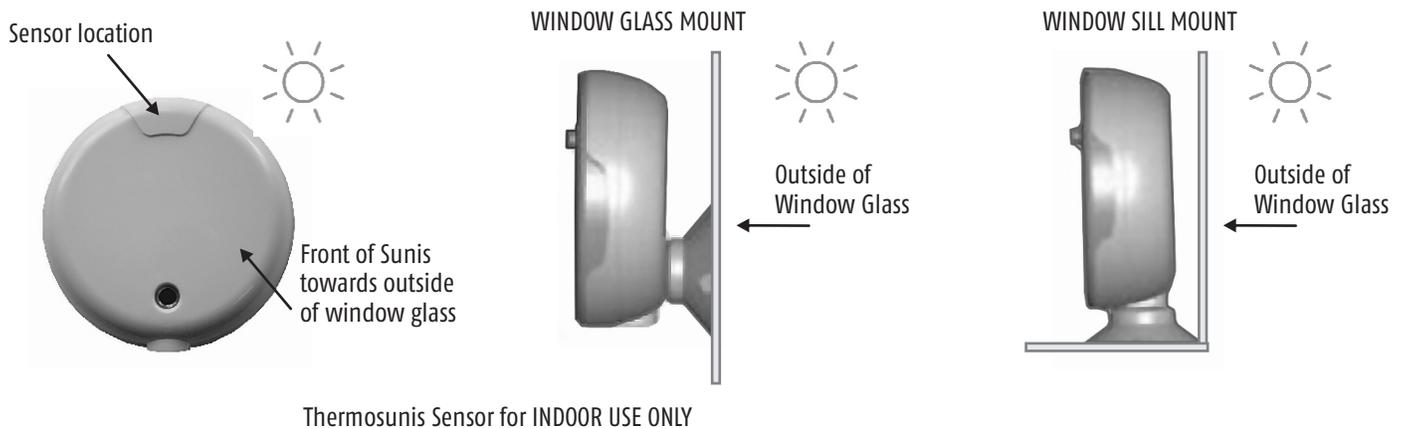


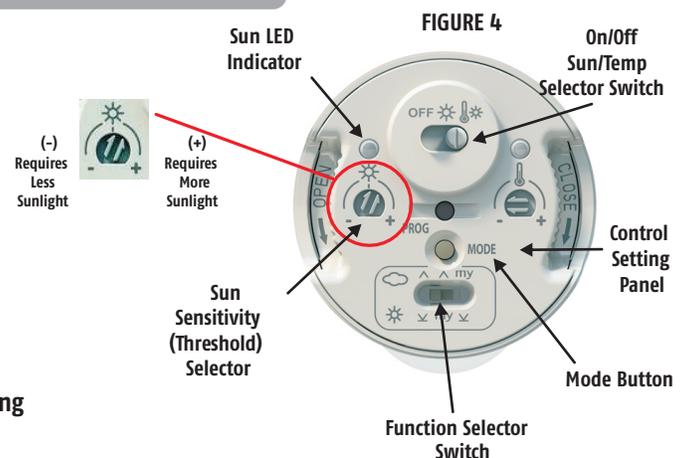
FIGURE 3



## SETTING THE SENSOR SENSITIVITY (THRESHOLD) – SETTING SUNLIGHT SENSITIVITY

1. Carefully remove rear cover of the Thermosunis sensor exposing Control Setting Panel. (See Figure 4)
2. Slide the ON/OFF Selector Switch to the ON or ☀ position. Sun LED Indicator will illuminate for 5 seconds and then extinguish.
3. Momentarily press the Mode Button and Sun LED Indicator will illuminate for approximately 15 seconds to indicate present threshold setting.

**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.**



4. Using a small screw driver or similar device, rotate the Sun Sensitivity Selector to the fully CLOCKWISE (+) position. LED Indicator 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 (threshold) the Sunis sensor will provide the necessary RTS command as selected with the Function Selector Switch (for details reference pg3).

**GREEN LED: INDICATES SUNLIGHT WITHIN THRESHOLD SETTING**

**RED LED: INDICATE SUNLIGHT BELOW THRESHOLD SETTING**

**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.**

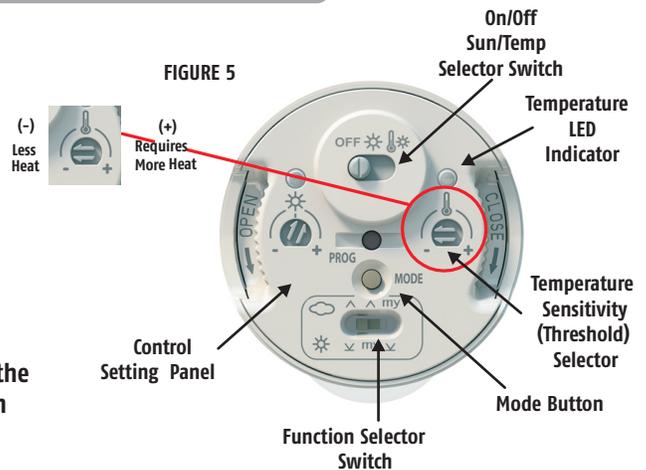
## SETTING THE SENSOR SENSITIVITY (THRESHOLD) – SETTING TEMPERATURE SENSITIVITY

- Carefully remove rear cover of the Themosunis sensor exposing Control Setting Panel (See Figure 5).
- Slide the ON/OFF Selector Switch to the ON or  position. Sun LED Indicator will illuminate for 5 seconds and then extinguish.
- Momentarily press the Mode Button. Temperature LED Indicator will illuminate for approximately 15 seconds to indicate present threshold setting.

**NOTE: LED Indicator light will remain illuminated for approximately 15 seconds. Should the LED indicator light extinguish prior to establishing the temperature sensitivity (threshold) setting, simply press the Mode Button momentarily to reactivate LED light.**

- Using a small screw driver or similar device, rotate the Temperature Sensitivity Selector to the fully CLOCKWISE (+) position. Temperature LED Indicator will remain illuminated red color (See Figure 5).
- Slowly rotate the Temperature Sensitivity Selector COUNTER CLOCKWISE (-) until the LED Indicator illuminates to a green color. A green colored LED indicates the present temperature value (threshold). At this value (threshold) the Themosunis sensor will provide the necessary RTS command as selected with the Function Selector Switch (for details reference Function Selector Switch below).

**GREEN LED: INDICATES TEMPERATURE WITHIN THRESHOLD SETTING**  
**RED LED: INDICATES TEMPERATURE BELOW THRESHOLD SETTING**



## OPERATION: STANDARD OPERATING MODE (DEFAULT MODE)

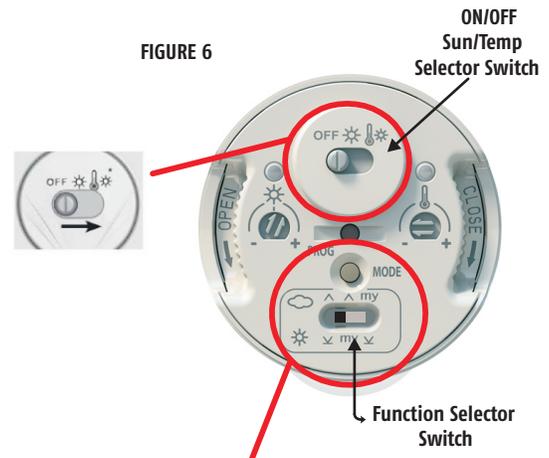
Standard operating mode (default) employs output response time delays.

- Slide the Sun/Temp Selector Switch to the desired setting (See Figure 6).

-  = Activation of Window Covering via Sunlight only  
OR
-  = Activation of Window Covering via Temperature & Sunlight

- Adjust Sunlight and Temperature Sensitivity (threshold) (Refer to Setting the Sensor Sensitivity (threshold) instructions pgs 2 & 3).
- Slide the Function Selector Switch to provide the necessary RTS output commands to the window covering. (see chart below for RTS output command modes)

FIGURE 6



	*Command Mode 1	Command Mode 2	Command Mode 3
	 	 	 
After 5 Minutes (within threshold)	 Go to Down Limit or Sensor Location	 Go to "my" Position	 Go to Down Limit
After 30 Minutes (below threshold)	 Go to Up Limit	 Go to Up Limit	 Go to "my" Position



1 2 3  
Commands Modes

 = Sunlight/Temp sensor within the set "Threshold." Themosunis will provide an RTS command after approximately 5 minutes of sensing within the set threshold.

 = Sunlight/Temp sensor below the set "Threshold." Themosunis will provide an RTS command after approximately 30 minutes of sensing below the set threshold

\*When selected for use with **Exterior Rolling Shutter or Exterior Shade Applications**, whereby the window covering is mounted externally to the window and Themosunis sensor, the window covering will travel to **location of sensor only**. It is suggested that (Mode 1) is used to command no more than (1) window covering per sensor.

\*When selected for use with **Interior Window Coverings**, the Themosunis sensor will provide RTS commands to preset window covering limits  =  (Go to Down Limit)

 =  (Go to Up Limit).

## OPERATION: STANDARD OPERATING MODE (DEFAULT MODE)

Activation of Window Covering via Temperature & Sunlight

**NOTE:** When  (Sun & Temperature) control is selected, the **Temperature threshold setting will TAKE PRIORITY over the Sun Threshold Setting.**

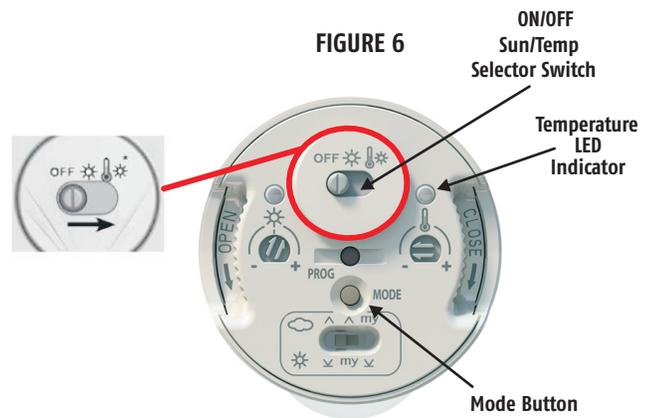
Sun Activation (Control via Sunlight) is not possible unless Temperature is within the preset threshold.

Momentarily press the Mode Button, Sun & Temperature LED Indicator light will illuminate (for approximately 15 seconds) to indicate preset sensor status.

**GREEN LED: INDICATES SENSOR WITHIN THRESHOLD SETTING**

**RED LED: INDICATES SENSOR BELOW THRESHOLD SETTING**

**NOTE:** The Thermosunis RTS Sensor is capable of providing control in accordance to Sunlight and Temperature conditions only. Once a command is sent, the Thermosunis will not send another command until there is a change in sunlight or temperature conditions.



## DEMONSTRATION MODE

Demonstration mode reduces the standard operating time delays, permitting almost an immediate operating/output response from the Thermosunis sensor. This mode facilitates initial SUNLIGHT & TEMPERATURE sensitivity (threshold) settings and quickly demonstrates the operation of the motorized window covering.

1. Press and hold the Mode Button until LED Indicator blinks. LED Indicator(s) will continue to blink for 30 seconds then extinguish.
  1. Press and hold the Mode Button until LED Indicator blinks. LED Indicator(s) will continue to blink for 30 seconds then extinguish.
2. If necessary, adjust Sunlight and Temperature Sensitivity (Threshold) according to [\(STEP THREE: SETTING THE SENSOR SENSITIVITY \(THRESHOLD\)\)](#). LED(s) will blink during this mode. Should LED Indicator(s) extinguish prior to final setting, simply press the Mode Button momentarily to reactivate LED Indicator(s)
3. Thermosunis sensor will provide the necessary RTS command as selected with the Function Selector Switch. (SEE STEP FOUR: OPERATION #3) after 5 seconds of sensing Sunlight or Temperature within the set threshold.

**NOTE:** 1. Thermosunis will automatically default to STANDARD OPERATING MODE after 3 minutes.  
2. Rotating the Sun Sensitivity (threshold) selector to a FULL COUNTERCLOCKWISE (-) position will simulate sun if no sunlight is present. It is recommended to leave the selector (threshold setting) in this position.

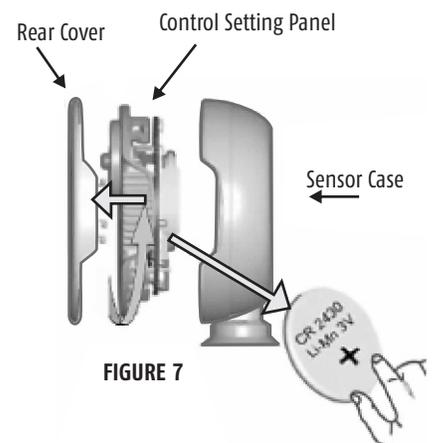
## REPLACING THE BATTERY

The Thermosunis WireFree™ RTS Light and Temperature Sensor uses a lithium battery (Type: CR2430)

Sun and Temperature LED will illuminate orange when battery needs replacing.

1. Carefully remove rear cover of the Thermosunis sensor exposing the control setting panel (See Figure 7).
2. Firmly grip the molded indentations and rotate the control setting panel counterclockwise to open.
3. Carefully separate the control setting panel from the sensor case exposing the battery holder.
4. Replace battery with correct rated/type. 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.



## TROUBLESHOOTING GUIDE

PROBLEM	POSSIBLE CAUSE	SOLUTION
Window covering does not react to Thermosunis sensor	<ul style="list-style-type: none"> <li>■ The Sensor Selector Switch is in the "OFF" position</li> <li>■ The Sensor is not programmed to the motor or RTS receiver.</li> <li>■ The sunlight sensitivity (threshold) is incorrectly set.</li> <li>■ The temperature sensitivity (threshold) is incorrectly set.</li> <li>■ The battery is low/weak and needs replacing.</li> <li>■ The Sensor cover is dirty or obstructed.</li> <li>■ The Sensor is incorrectly positioned/mounted.</li> <li>■ Window covering may have received a subsequent command from another RTS control (i.e., Telis transmitter, Chronis timer, Decoflex wall switch.)</li> </ul>	<ul style="list-style-type: none"> <li>■ Switch the Sensor Selector Switch to the Sun or Sun/Temp position</li> <li>■ Reference "Programming: Initial Installation instructions".</li> <li>■ Increase the sun sensitivity (threshold) selector to "less sun" (-) position.</li> <li>■ Re-adjust the temperature sensitivity (threshold) accordingly</li> <li>■ Replace battery with correct rated/type.</li> <li>■ Clean cover and check for any obstructions.</li> <li>■ Reposition Sensor to a more suitable location</li> <li>■ Manually command the window covering to its intended position using another RTS control (i.e., Telis transmitter, Chronis timer, or DecoFlex wall switch.) Sensor will eventually cycle to its initial mode.</li> </ul>
Window covering moves too frequently	<ul style="list-style-type: none"> <li>■ The Sensor is in "demo" mode.</li> <li>■ The sunlight/temperature sensitivity (thresholds) may need to be adjusted.</li> </ul>	<ul style="list-style-type: none"> <li>■ Switch sensor to standard (default) mode, or wait 2 minutes. Sensor will automatically default to standard mode</li> <li>■ Adjust Sun &amp; Temperature sensitivity selector accordingly</li> </ul>
Window covering reacts incorrectly	<ul style="list-style-type: none"> <li>■ A bright light source may be affecting the sensor.</li> <li>■ The motorized window covering (directional output) is programmed incorrectly (in-reverse).</li> </ul>	<ul style="list-style-type: none"> <li>■ Inspect sensor and surroundings for errant light source.</li> <li>■ Confirm correct directional output of window covering via Telis transmitter or similar device. Program necessary corrections.</li> </ul>

## 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.