Sentry II™ ✳

Hand Held Remote
Operating Instructions

Thank you for purchasing this product. Your remote is state-of-the-art and you'll find it easy to setup and use. Please take the time to read through this manual carefully. It contains important operation and safety information.

⚠ DANGER

To help prevent severe personal injury or death:

- Read and understand instructions completely before beginning installation.

- Wiring must be installed by a qualified electrician according to local and National Electrical Codes (N.E.C.)

- Disconnect main power before beginning installation! Verify that power is OFF at the main breaker or fuse panel by testing with a voltage meter that you know is working correctly.

- Connect power only after motor connections and settings are verified.

- This equipment does not provide a method to shut off power, and should be connected to a dedicated breaker or fused power circuit.

- The screen interlock MUST be correctly mounted and is a required part of the installation. It is intended to help prevent injury that could result from reaching into the window or skylight area during operation. The correct installation of the screen interlock is the responsibility of the installer.

- Do not allow children to operate the wall push buttons or remote control transmitter(s).

Additional Safety Guidelines

- The Sentry II system must not be used on windows that are intended to meet egress codes.

- The Sentry II system is intended for indoor use only, with screens in place.

- When connecting the Sentry II system to accessories, read the installation instructions supplied with each accessory before beginning installation.

- Save ALL instructions.

- Installer – please be sure to give ALL instructions to the homeowner once installation is complete.

Table of Contents

Important information

This remote is compatible with all Sentry II window or skylight motorization systems. Setting up the remote first requires window system installation**.**

About RF Devices

- This remote control is an RF (radio frequency) device and therefore does not need to be pointed in any manner toward the intended window/skylight to be operated. The effective range for this remote is approximately 50ft, but this varies with application conditions such as: wall materials, mounting height of receiver and interference from other devices radiating on RF frequencies.

- Devices which could be affected or cause interference can include the following: radio baby monitors, garage door openers and automotive keyless entry / security systems.

Battery Information

- This remote control uses 3 size "AAA" batteries (not included). Insert with the proper polarities (+ and -) aligned correctly. The use of alkaline batteries is recommended for best service life. Do not mix alkaline and manganese battery types, nor use old and new batteries together.

- When the remote will not be used for a long time, remove the batteries to avoid damage caused by battery leakage and corrosion.

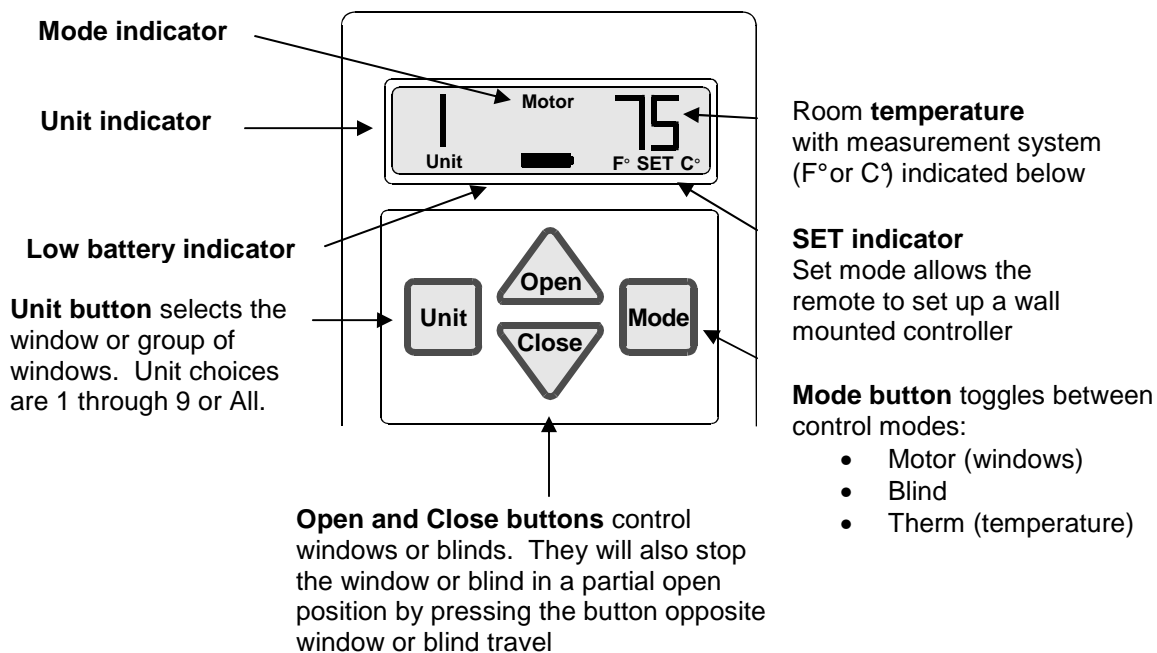 A battery icon " ▬ " will become visible on the LCD when the batteries are down to 20% of usable life. When the battery icon " ▬ " begins to flash the batteries no longer provide enough power to operate the remote consistently, and therefore should be replaced.

Parts List

- Sentry II remote unit
- Standard remote battery cover
- Wall mounting remote battery cover
- Two wall mounting screws

Remote Overview

CONTROLS AND DISPLAY INDICATORS

Mode indicator

Unit indicator

Room **temperature** with measurement system (F° or C°) indicated below

Low battery indicator

SET indicator
Set mode allows the remote to set up a wall mounted controller

Unit button selects the window or group of windows. Unit choices are 1 through 9 or All.

Mode button toggles between control modes:
- Motor (windows)
- Blind
- Therm (temperature)

Open and Close buttons control windows or blinds. They will also stop the window or blind in a partial open position by pressing the button opposite window or blind travel

Note: The buttons on the remote need to be held down for ½ second for the command to be accepted.
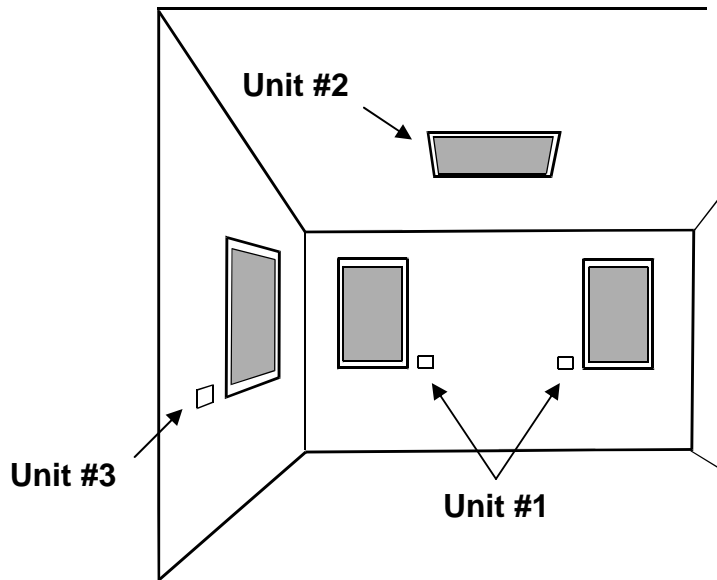
The Sentry II system is designed to operate both windows and skylights. This manual refers to windows and skylights as "windows" and all skylight and window blinds as "blinds."

Planning

If you have only one window you can skip ahead to the next step, "Remote Setup."

The Sentry II remote control has the ability to operate multiple power windows with a single command sequence. This is accomplished by assigning wall or skylight mounted controllers a unit number with the remote. Controllers with the same unit number make up a group. The remote can operate up to nine groups.

In this illustration the two front windows are set to "Unit" #1. This allows the home owner to operate both windows with one command sequence from the remote. The side window and skylight are assigned their own "Unit" numbers. This allows each of these units to be controlled individually.

Note

- *The remote has an "All" function that will open or close all windows or skylights regardless of which "Unit" or group each window belongs to.*

- *If the remote is wall mounted, it should be placed so that it is within site of all windows and skylights it will control.*

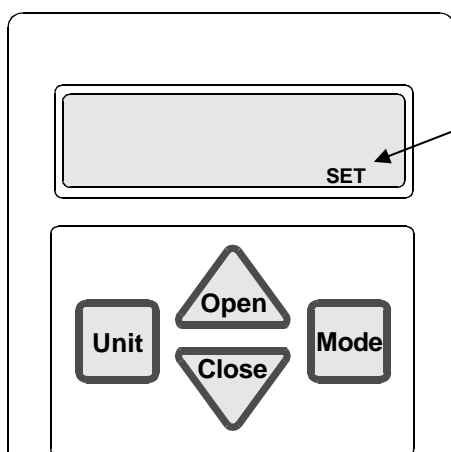- *See "Options For Multiple Units" (page 9) for more details on this topic.*

Important: If you are not the homeowner, it is important to contact the homeowner and discuss which windows or skylights the homeowner would want to control as a group. It may be very inconvenient for the homeowner to reset these settings once installation and remote control set up are complete.

Remote Control Set Up

After installing window motors, blinds, and control systems set up the remote using the following steps:

1. **Place three "AAA" batteries into the remote.**

2. **The display on the remote will be blank except for the word "SET."**

   *Remote must be in "SET" mode to set up. If "SET" is not showing in the display or the remote is out of the "SET" mode, **remove and re-install the batteries.** (Re-installing the batteries will refresh the remote and cause it to come up in the "SET" mode.) When reinserting the batteries be sure they are fresh and properly positioned with the cover in place.*

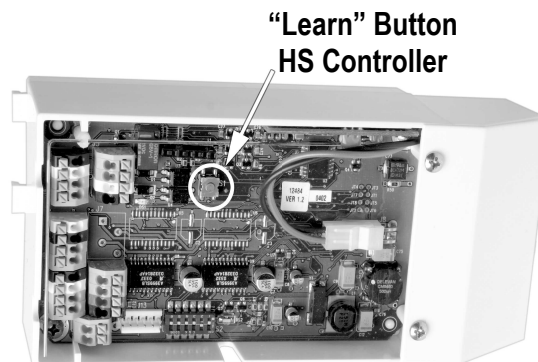**"SET" indicator** is displayed after batteries are installed

3. **Press the "Learn" button once on the wall or skylight mounted control board.**
   Remove cover if installed.

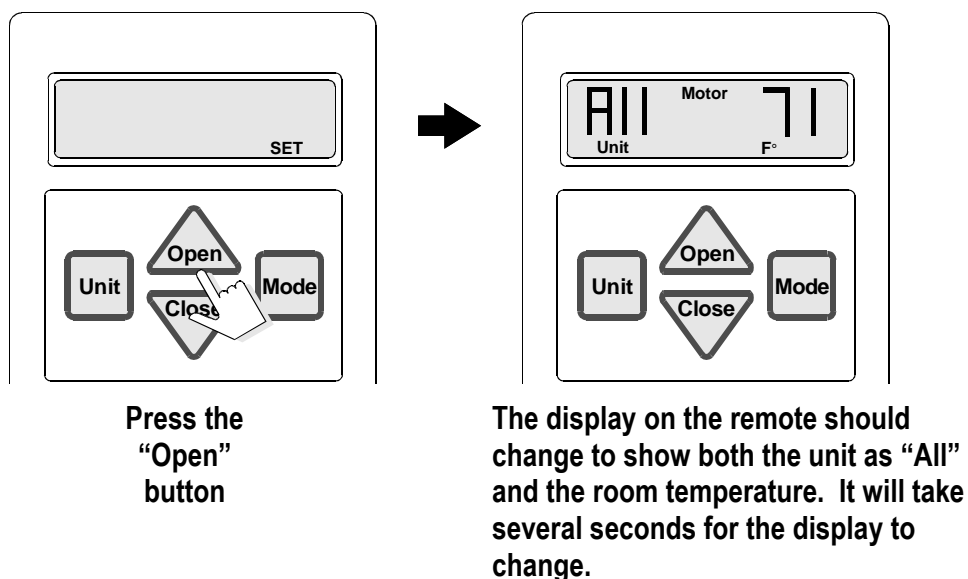**"Learn" Button WLS Controller**

"Learn" Button HS Controller

The RF Remote Status LED in the control box will light a steady red and the Motor Status LED (on control board for HS model and wall plate for WLS model) will begin to flash Green. This indicates that the controller is in "Learn" mode.
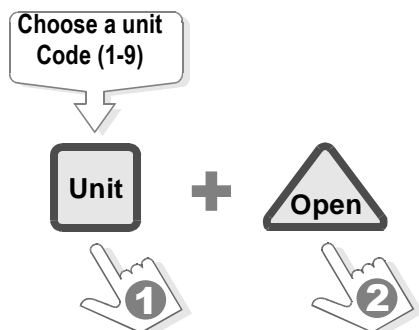
> *Note: The control unit will stay in learn mode for 1 minute. If the setup has not been completed in that time, press the "Learn" button again and continue where you left off in the set up sequence.*
>
> *Important note: The "Learn" button electronically links the control unit to the remote. It will not help with other problems that exist between a control unit and window motor.*

4. **Press the "Open" button on the remote once.** The RF Remote Status LED will flash then go out.

Press the "Open" button

The display on the remote should change to show both the unit as "All" and the room temperature. It will take several seconds for the display to change.

5. **Press the "Unit" button on the remote to select the desired Unit Code that will correspond to this window or skylight.**

The first time the "Unit" button is pressed the remote displays 1 for the unit code. Each successive press will increase the unit code until it reaches 9.

Note: *Any number of windows can be put onto a single "Unit" code.*

6. **Press the "Open" button on the remote once again.**
    The RF Remote status LED should flash then go out and the Motor Status LED will go out. Remote control set up is now complete.

7. **Press "Open" button again. Observe Motor Status LED.** (It will be on the control switch of a WLS system or on the motor itself for an HS system.)
    - A steady green LED (while opening/closing) means system set up is complete and fully functional
    - A red LED (while opening/closing) means the system is going through initialization. During initialization, the window will fully open then close once. Once initialization is complete, the system will function normally and a green LED will be visible while operating.

Set up of multiple units: Each window must be added individually to a remote. Follow these abbreviated steps for each window:

Set up Instruction Steps	Remote Status LED Display	Motor Status LED Display	Comment
1-2. Remove and re-install one battery in remote	None	None	Remote will display "Set"
3. Press "Learn" button on control unit	Steady red	Blinking green	
4. Press "Open" button on remote once	Several red blinks	Continues to blink green	links remote to control unit
5. Select "Unit" number on remote	None	Continues to blink green	
6. Press "Open" button on remote once	3 red blinks	None (Stops blinking green)	This step enters the unit number into the remote.
7. Press "Open" button again	3 red blinks	Red or green (See comments)	Red means unit is being initialized – to be followed by green. Green means set up is successful and complete.
Repeat for each window			

Using Unit Code "All": Each control unit is designed to only respond to one "Unit" code and "All". You can not set up a control unit to respond to more than one unit code.
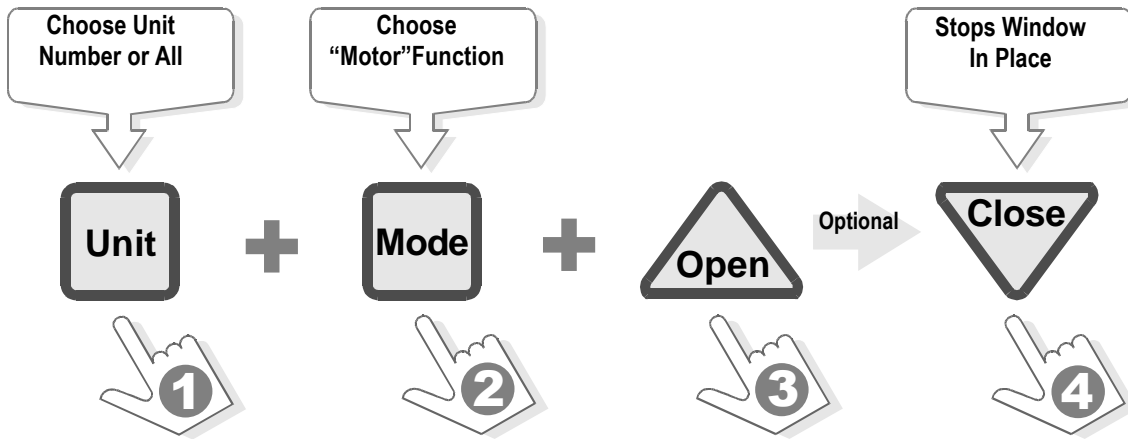
There are a number of different programming possibilities provided by the "Unit" code function of the Sentry II remote. Here are a few:
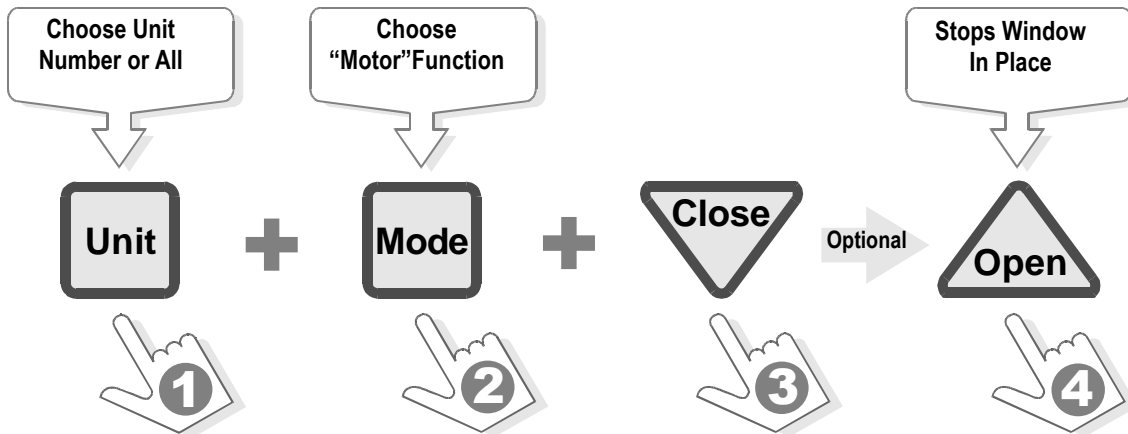
1. **Grouped units on single "Unit" code:** There is no limit to the number of windows that can be grouped on a single unit code. This feature can provide convenient control of a group of windows as long as they are within range of the remote control (approx. 100ft)

2. **Banked windows on single "Unit" code:** By using the method described in #1 above you can also group windows on the same side of the room or "bank" allowing you to take advantage of prevailing wind conditions to make your home more comfortable. To further improve cross ventilation in a room, group windows on opposing walls.

3. **Ventilation using chimney effect:** Combining an open skylight window and a ground floor window (preferably on the shady or cooler side of the house) will create a natural convection draft known as "chimney effect". This helps to cool a room or house by allowing the hot air to escape out through the skylight and be replaced by cooler air drawn in through the ground floor window.

4. All windows programmed to the remote control will respond when the "Unit" code is set to "All".

5. Sentry II system allows up to two remotes to be used to control a single window or group of windows. The set up process teaches wall mounted controllers to recognize the unique identity of individual remotes. Repeat set up steps 2 through 7 for each remote.

Normal Operation

OPEN A SELECTED WINDOW

Choose Unit Number or All

Choose "Motor" Function

Stops Window In Place

Unit **+** **Mode** **+** **Open** → *Optional* **Close**

1   2   3   4

CLOSE A SELECTED WINDOW

Choose Unit Number or All

Choose "Motor" Function

Stops Window In Place

Unit **+** **Mode** **+** **Close** → *Optional* **Open**
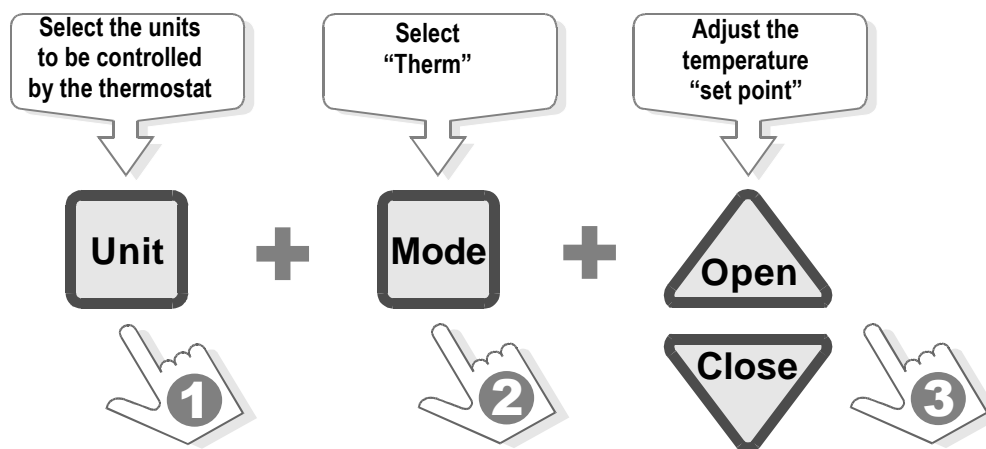
1   2   3   4

Thermostat Operation

There is an internal thermostat built into the hand held remote control. The temperature is always displayed on the right hand side of the remote display. Since the thermostat is built into the remote, the remote will display the temperature for the area the remote is located in. The thermostat can be switched between Fahrenheit and Celsius (see the "Helpful Information" section of the manual).

When controlling the windows using the Thermostat mode, be sure to place the remote where it will get the best temperature reading. Be careful not to place it where it will be affected by direct sunlight or other factors.

To control a selected window via the remote's internal thermostat

Note:

- *When in "Therm" mode, pushing the open or close buttons will cause the set point temperature to be displayed. The "SET" indicator will be visible in the display along with the current set point temperature denoting the thermostat set point is being adjusted. After 5 seconds of inactivity the remote will accept the new temperature set point. At this time the "SET" indicator disappears and the room temperature is displayed.*

- *When the remote is in the "Therm" mode the motors programmed to the displayed "Unit" code will react to changes in room temperature. When the room temperature is above the set point temperature the windows will automatically open. When the temperature drops below the set point temperature by 5°F (2°C) the windows   will automatically close.*

- *The remote must be located no greater than 50-100 feet from the windows for reliable operation in most residential applications. It is a good idea to verify the remote will open and close the windows from the desired thermostat location before using this function.*

- *To deactivate the thermostat function change the mode to either "Motor" or "Blind.". The set point will be retained for future use.*

Helpful Information

TROUBLE SHOOTING

If the remote display is blank
- Verify batteries are installed correctly

- Change the batteries

The windows open or close by themselves
- Check the mode setting on the remote. If the remote is in the "Therm" or thermostat mode, the windows will open and close automatically based on temperature. To deactivate the thermostat function change the mode to either "Motor" or "Blind." The set point will be retained for future use.

Window does not open fully
- The Sentry II system is intentionally programmed to stop windows and skylights from reaching full open to keep wear and tear on the hardware to a minimum. Skylights are programmed to open to 75% of full range. Casement and awning windows are programmed to open to 75% of full range.

- Windows and skylights can be opened fully by pressing the open button multiple times once the window or skylight stops at its programmed full open position, The window or skylight will open a few degrees with each key press until a full open position is reached.

The word "SET" appears after the batteries are replaced.
- This is normal. Pressing the open or close button will return the remote to normal function. All previous setting are retained.

- See "Replacing the Batteries" for more information.

Windows don't react when the remote buttons are pushed
- Hold remote button down longer. It takes a ½ second button press for the remote to respond.

- Remote out of range. Typical range is 50 feet depending on installation conditions.

- Circuit breaker tripped (reset circuit breaker)

- Screen interlock or jumper disconnected. Reconnect. (See installation instructions for Sentry II WLS or Sentry II HS.)
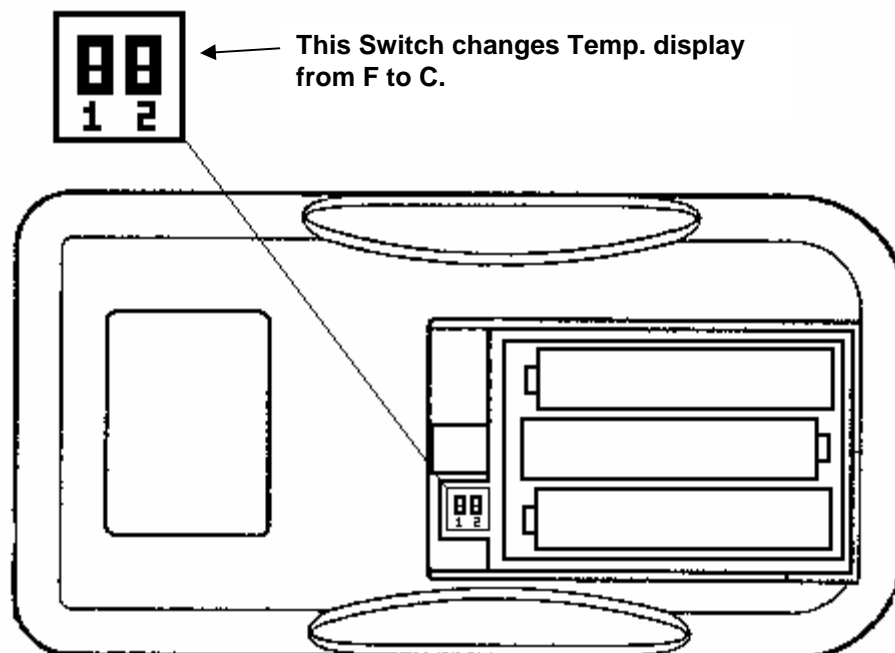
Sentry II system allows up to two remotes to be used to control a single window or group of windows. The set up process teaches wall mounted controllers to recognize the unique identity of individual remotes. Repeat set up steps 2 through 7 for each remote.
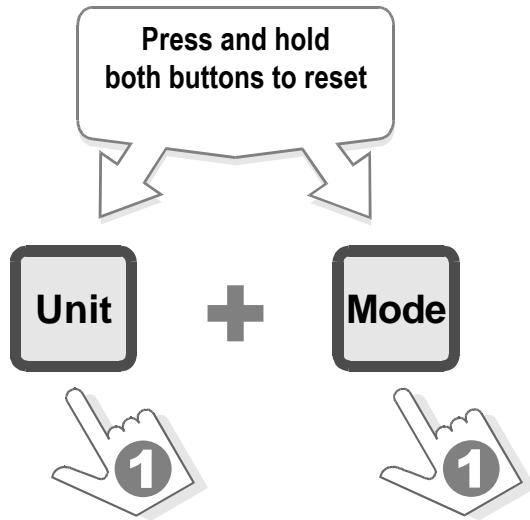
SWITCHING BETWEEN FAHRENHEIT OR CELSUIS

The temperature display can be switched to either Fahrenheit (F°) or Celsius (C°).

To change the display:
- **Remove the batteries**
- **Change the position of switch 2** located in the battery compartment of the remote (See diagram below)
- **Re-install batteries**

This Switch changes Temp. display from F to C.

FORCED RE-INITIALIZATION

Press and hold both buttons to reset

Unit ✚ **Mode**

When an error is noted in the operation of the motor unit (indicated by a <u>Flashing RED light</u> on the wall plate or status indicator), the unit can be "Reset" by forcing a re-initialization via the remote control.

1. Shut off the power* to the unit for 20 seconds. Upon reapplication of power the unit should automatically <u>close and stop</u>.

2. Using the "Unit" key select the window or skylight.

    Note: *A Reset cannot be activated in the "All" Unit setting.*

3. Using the "Mode" key select the "Motor" function.

4. Press both the "Unit" and "Mode" keys down simultaneously and hold them until the "Motor" icon on the display blinks twice. Watch to be sure the Unit Code does not change during the button press. If it does you will have to return to step 3.

5. The selected unit should begin to run through a full open and closed cycle during which a red light should be seen at the wall switch plate or status indicator.

    Important: *Watch the unit for obstructions or other problems during this procedure. Take action to correct hardware or window/skylight related problems as necessary.*

6. Repeat this procedure (starting from step three) until the problem is resolved.

*Power interruption is most easily accomplished by shutting off the specific breaker at the homes fuse or power distribution panel.
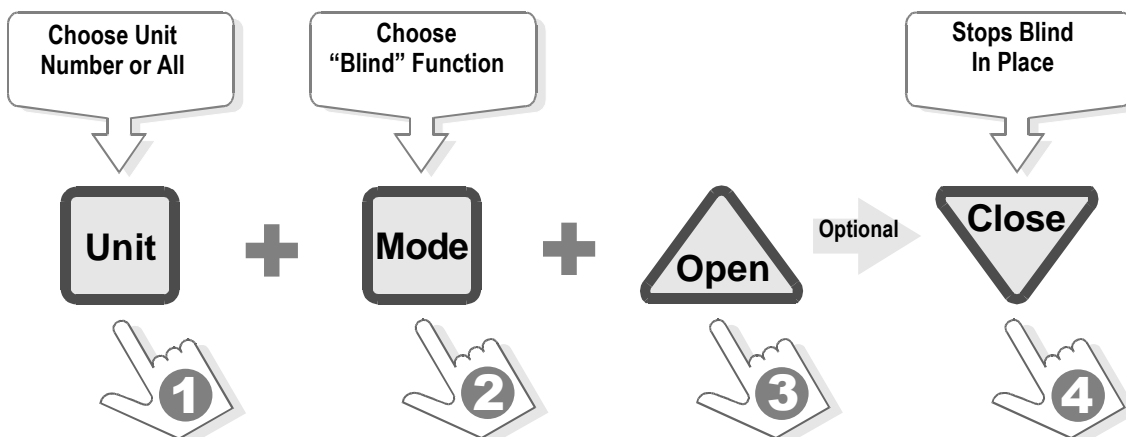
BLIND SET UP & CONTROL

Refer to the Sentry II WLS or Sentry II HS installation instructions for proper installation and wiring of the blind motor system to the control unit.

After the Sentry II remote has been successfully set up to control a window motor and the blinds have been properly installed and wired to the control unit there is no further set up required for blinds.
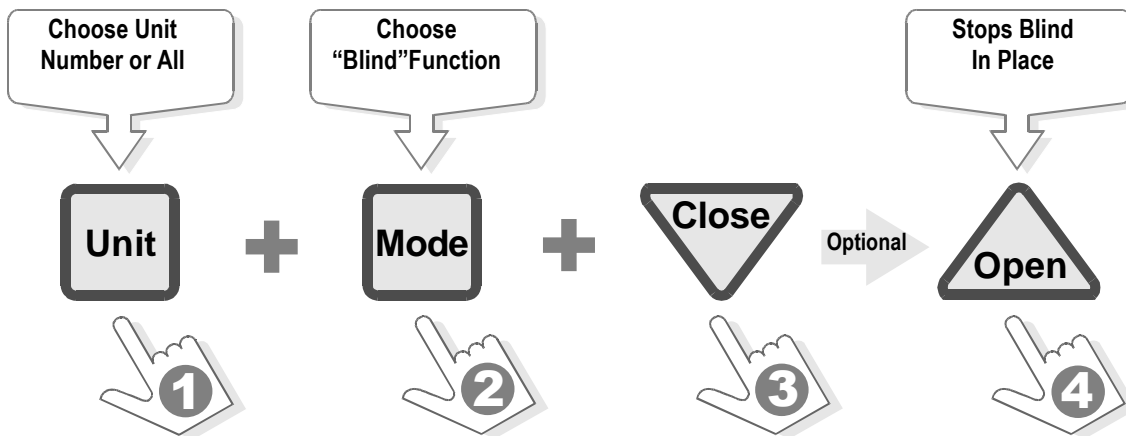
The blind(s) will have the same "Unit" code (or group number) as the window motor. For instance, if you have a pair of windows programmed to open and close from "Unit" code 1, the blinds will also open and close when the remote is set to unit code 1.

Note: The Sentry II remote will not control a window with blinds only. The window must have a window motor installed in addition to a motorized blind for a blind to function from the remote.

OPEN A SELECTED BLIND

Choose Unit Number or All	Choose "Blind" Function		Stops Blind In Place
Unit ➕	**Mode** ➕	**Open** → *Optional*	**Close**
1	2	3	4

CLOSE A SELECTED BLIND

Choose Unit Number or All	Choose "Blind"Function			Stops Blind In Place
Unit	**Mode**	**Close**	*Optional*	**Open**
①	②	③		④

REPLACING THE BATTERIES

- Replace the batteries using 3 "AAA" size batteries.

- Insert with the proper polarities (+ and -) aligned correctly. The use of alkaline batteries is recommended for best service life. Do not mix alkaline and manganese battery types, nor use old and new batteries together.

- Once fresh batteries are in place, the word "SET" will appear in the display. This is normal. Pressing the open or close button will return the remote to normal function. All previous setting are retained.

Regulatory Compliance

United States of America
Federal Communications Commission (FCC)
Unintentional emitter per FCC Part 15

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:

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

Warning: Changes or modifications not expressly approved by AmesburyTruth could void the FCC compliance and negate your authority to operate the product.

FCC Declaration of Conformity
According to 47 CFR, Parts 15.107 and 15.109 Class B

Responsible party: AmesburyTruth 700 West Bridge St., Owatonna, MN 55060
www.amesburytruth.com or 1-800-324-4487

Product: Sentry II Hand Held Remote (43.53)

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 interferences that may cause undesired operation.

Canada
Industry Canada (IC)
Unintentional emitter per ICES-003

This class B digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme á la norme NMB-003 du Canada.

Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Europe
European Community EMC Directive (CE)
Compliance with these directives implies conformity to the following European Norms or Regulations:

Emissions
ETSI EN 300-220-3 v1.1.1 (2000-09)
ETSI EN 301 489-3 v1.4.1 (2000-04)

Immunity
ETSI EN 301 489-3 v1.4.1 (2000-04)