

# SE801 Solar-powered Wirefree Siren & Strobe

## Installation and Operating Instructions

This featured product can work with a series of Everspring control panel, such as SC801, SC811 or SC821, operating at 868MHz or 923MHz.

The Siren is housed within a tough polycarbonate housing. This housing provides full protection against adverse weather conditions.

A LED/Strobe unit is built into the siren to act as a visible deterrent/indication that the system is active. The Strobe LEDs will slowly and alternately flash whether the system is armed or disarmed. However, during an alarm condition the Strobe LEDs will flash rapidly.

The Siren is powered by a high capacity rechargeable sealed lead acid battery. A Solar Panel mounted on the top of the housing charges the battery during daylight hours. During darkness, only a small amount of energy is required to operate the Siren unit. A 9V PP3 Alkaline battery is supplied in the Siren to boost the initial power to the unit when the system is first activated until the Solar Panel charges the main battery.

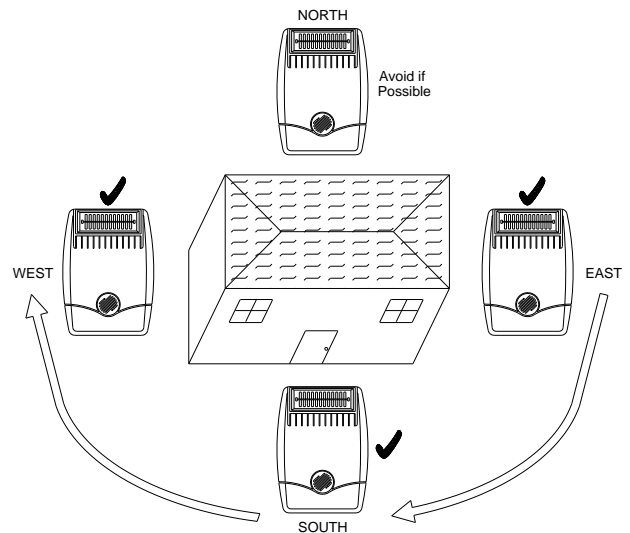
An integral anti-tamper switch provides additional security protection to the Siren and will immediately generate a full alarm should any unauthorized attempt be made to interfere with and remove the siren cover.

### POSITIONING THE SIREN & STROBE

The Siren should be located as high as possible in a prominent position so that it can be easily seen and heard. The Siren should be mounted on a sound flat surface so that the rear tamper switch is not activated when mounted. Ensure that the tamper switch does not fall into the recess between brick courses as this could prevent the switch from closing and give a permanent tamper signal.

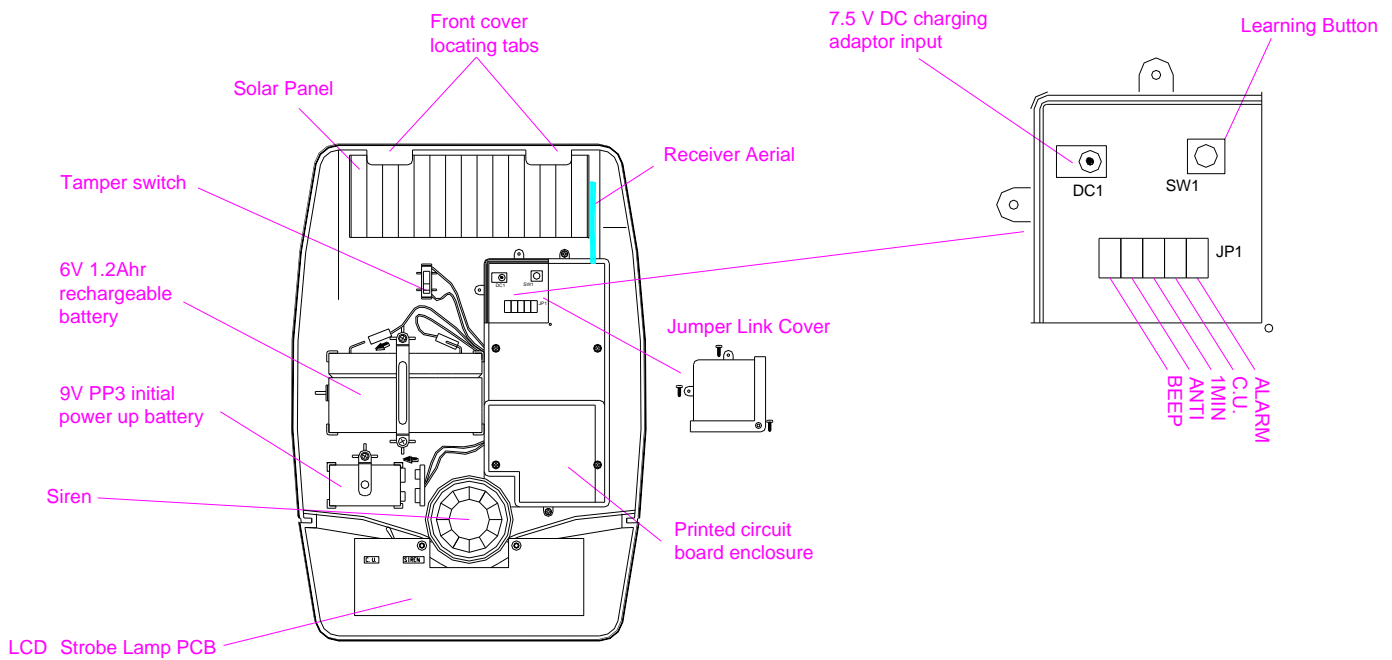
To provide the optimum amount of daylight to the Solar Panel, you should ideally mount the Siren on a south facing wall. However, an easterly or westerly position will suffice.

Although the Siren is designed to work on any aspect wall, for optimum performance you should refrain from sitting the unit on a north facing wall, where possible.



Shadows cast by neighbouring walls, trees and roof overhangs should also be avoided. If the Siren is to be mounted below the eaves, it should be positioned a distance of at least twice the width of the eaves overhang below the eaves. Remember that in winter the sun is lower in the sky and you should avoid winter shadows where possible.

The Siren & Strobe contains sophisticated radio receiver. However, reception of radio signals can be affected by the presence of metallic objects within the vicinity of the Siren. It is therefore important to mount the Siren a minimum distance of 1m away from any external or internal metalwork, (i.e. drainpipes, gutters, radiators, mirrors etc).



## INSTALLING AND CONFIGURING THE SIREN & STROBE

- Remove the fixing screw from the bottom edge of the Siren housing and carefully hinge off the front cover. All electronic components are housed within the front cover.
- Hold the mounting plate in position and mark the positions of the four mounting holes. A spirit level placed on the casing will ensure a perfect level.
- Drill four 6mm holes and fit the wall plugs.
- Fit the two 30mm fixing screws in the top holes leaving approx. 10mm of the screw protruding.
- Fit the top keyhole slots of the mounting plate over the screw heads. Adjust the mounting plate and adjust the screws until they form a neat fit with the mounting plate with minimal movement.
- Secure the mounting plate in position using the two 25mm fixing screws in the bottom fixing holes.
- Undo the 3 screws holding the jumper link Cover in place and remove the cover.
- Under the cover you will find one DC socket, jumper link JP1 and learning button SW1.
- Jumper link JP1 is designed for function setting as outlined hereunder:

Position	Link fitted	Link removed
ALARM	Enabling alarm sound	Disabling alarm sound
CU	control panel based system	Siren controlled system
1MIN	1 min. (control panel based system) 3 min. (siren controlled system)	3 min. (control panel based System) 15 min. (siren controlled System)
ANTI	Enabling anti-jamming	Disabling anti-jamming
BEEP	Enabling beep sound	Disabling beep sound

- In order to prevent any unauthorized attempt to operate or disarm your system, you must configure your system to accept radio signals only from your own system devices. All components have their unique ID code, they must learn it with each other for the system to operate correctly.

Proceed with learning the ID code as follows:

- Press and hold the "learning" button for more than 3 seconds. When the LED is

changed from illuminating steadily to flashing, it means that the system enters learning mode.

- b. The unit has a 30-second duration to learn the ID code.
  - c. If it fails to learn the ID code within 30 seconds, three short beeps will be heard. If successful, longer beep can be heard.
11. In the event that any of the components are out of order, you may clear all of the preset ID codes all at one time. Procedure is listed hereunder:
- a. Press and hold the “learning” button for more than 3 seconds. The unit has a 30-second duration to learn the ID code.
  - b. Within this 30 seconds, press the “learning” button again for more than 6 seconds.
  - c. After clearing all of the preset ID codes, the LED will flash every 2 seconds and one short beep will be emitted at 10 second intervals.
12. After selecting between the siren controlled system and control panel based system by setting jumper link JP1, be sure to disconnect and then re-connect the power source.

After switching its mode, the preset ID code will be no longer in existence. Resume ID code learning process as prerequisite.

13. Upon completion of mounting the solar panel on the wall with the tamper switch being pressed firmly, the siren will flash about 3 seconds as an indication of normal operation.
14. After the preset alarm duration has expired the alarm will stop and the system will automatically reset. Subsequent activation will again initiate an alarm condition. If an alarm condition is initiated more than three times then the alarm will be locked out and any further alarm signals will be ignored until the system is disarmed.
15. System off is to facilitate the installation of siren & strobe without triggering an alarm condition despite the detector or tamper switch being triggered. Once the installation is complete set the system to system on.

## POWER-UP OF THE SIREN & STROBE

The use of ear defenders is advisable when working in close proximity to the Siren due to the high sound level produced by this device if the siren is triggered.

1. Connect the 9V PP3 initial power battery to the battery clip.

Connect the rechargeable battery to the charging leads. Connect the Red lead to the Red (+ve) terminal and the Black lead to the Black (-ve) terminals.

**Note:** Once the batteries have been connected, the Siren will be operational and it is important that the solar panel receives sufficient light to maintain the battery charge. The Siren should not be operated repeatedly during installation and testing, as this will rapidly drain the battery. It is recommended that the Siren be left for at least a day in order to charge the battery before the system is armed.

2. Press the anti-tamper switch, the LEDs will flash together to indicate that the unit is operational.
3. Hinge the front cover locating tabs over the top edge of the back plate and carefully push the base of the siren cover into place. Secure the siren cover in place by refitting the fixing screw in the bottom edge of the cover. Do not over tighten the screw as this could damage the thread.

**IMPORTANT:** Ensure that the rear tamper switch is closed when you fit the siren cover to the back plate (i.e. listen for the switch to click). If the switch does not close, this will prevent the Siren from operating correctly. If necessary, remove the siren cover again and adjust the screw on the back plate tamper plunger to ensure the switch closes when the siren is secured in position.

4. If fitted remove the protective film covering the Solar Panel.

5. The fitting of the Siren is now complete.

## OPERATING INSTRUCTIONS

1. The anti-jamming detection will be disabled, though the jumper link JP1 of ANTI is fitted.
2. With siren being set at “system on”, when the control panel enters the arm mode, it will transmit radio signal to the siren which will generate one beep. When it enters the disarm mode, the siren will generate two short beeps. But when the siren is system off, whenever the control panel enters the arm or disarm mode, it will enable the siren to be system on by emitting temperament sound changing from low to high frequency and during this audible transmission period the LED

will be on steadily.

3. Following activation into alarm condition, the control panel will emit “Start” radio signal to the siren to generate a full alarm. After alarm condition has been disarmed manually or alarm duration is expired, the control panel will send “Stop” radio signal to the siren to stop the alarm sound.
4. When the siren detects the activation of tamper switch, it will send a radio signal to the control panel to generate a full alarm condition.
5. When battery level drops, the siren will transmit a radio signal to the control panel of which status will be indicated on the control panel’s LED.

## STATUS INDICATION

Status	LED/Strobe Indication	Audible acknowledge	Explanation
No ID code	LED flash every 2 seconds	One short beep at 10 seconds interval	Every time selecting between siren controlled system and control panel based system by disconnecting and reconnecting the power source or after clearing the ID code
About to learn the ID code by pressing the learning button	LED Illuminates when pressing the learning button within 3 seconds. LED flashes every 0.5 seconds by pressing the learning button for more than 3 seconds	After pressing the learning button, one short beep per second will be emitted. Once 3 seconds is expired, one long beep will be emitted. After that, the system enters ID code learning mode.	
Under learning the ID code	LED flashes every 0.5 seconds repeatedly	One short beep at 3 seconds interval	Successful learning can be expected when both units enter the ID code learning mode.

Success in learning the ID code	LED illuminates for 0.5 seconds then extinguishing	Beep 0.5 seconds	
Failure learning the ID code	LED flashes 3 times rapidly	3 short beep rapidly	
Clear the ID code	LED illuminates when pressing the learning button. LED extinguishes after successful clearance.	One short beep at 0.5 seconds interval, which lasts for 6 seconds by emitting a long beep as successful clearance.	Within 30 seconds period, release and press the learning button for more than 6 seconds, all of the preset ID code will be cleared.
Failure ID code clearance	LED flashes 3 times rapidly	3 short beep rapidly	Less than 6 seconds by pressing the learning button for ID code clearance
Standby	LED flashes once at 10 seconds interval		LED flashes once at 20 seconds interval as low battery indication
System off	LED off	Temperament sound changing from high to low frequency	Enter system off
System on	LED keeps on. After completion, LED off.	Temperament sound changing from low to high frequency	Enter system on
Delay arm mode	LED flashes during 15 seconds exit/entry delay time	The beep speed of first 10 seconds slower while latter 5 seconds quicker	Enter delay arm mode
Full alarm	Strobe flashes	Generate full alarm condition	
Installation is ok	Strobe flashes for 3 seconds		Press the tamper switch once resume connect the power source or learn the ID code after clearing the ID code
Low battery indication	LED flashes 20 times rapidly		

## TROUBLESHOOTINGS

Symptom	Possible Cause	Recommendation
LED on siren not illuminating	Improper battery connection or reverse polarity	Ensure battery connections are good. Connect the Red lead to the Red (+ve) terminal and the Black lead to the Black (-ve) terminals.
	Siren is out of order	Do not attempt to open the casing as it will invalidate the warranty. Send it for repair.
LED on siren operating, but cannot learn the ID code or take control of siren	Failure learning the ID code under Siren controlled system	According to the operating instruction, resume learning the ID code process. Ensure it is set at siren controlled system
	Radio channel interference, using 868.3MHz frequency	Wait for a moment to start operating

## SPECIFICATIONS

Frequency	868MHz or 923MHz Transceiver
Stand-by Current	25mA max.
Operating Current	330mA max.
Working Range	Min. 200 meter
Siren Volume	Min. 100dB/ 1 meter

*\* specifications are subject to change without prior notice.*



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## **Federal Communication Commission Interference Statement**

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 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.

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.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

When replacing old appliances with new ones, the retailer is legally obligated to take back your old appliance for disposal at least for free of charge.