

Wirefree External Solar Siren

Installation and Operating Instructions

These instructions should be read in conjunction with your System Installation and Operating Manual and be retained for future reference.

Introduction

This Solar Siren is suitable for use with Friedland Response Wirefree Intruder Alarm systems operating at 433MHz only.

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

An LED Strobe unit is built into the siren to act as a visible deterrent and 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.

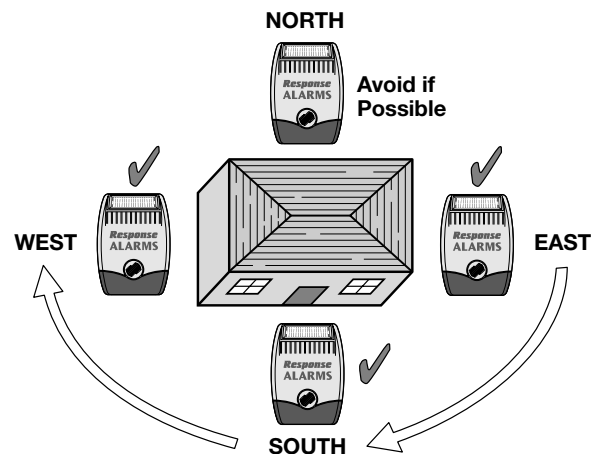
The Siren is powered by a high capacity rechargeable sealed lead acid battery. The Solar Panel mounted on the top of the housing charges the battery during daylight hours. During darkness, only a small amount of energy is required to operate the Siren unit. A 9V PP3 Alkaline battery is supplied in the 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 unauthorised attempt be made to interfere with and remove the siren cover. The Siren also incorporates an Anti-Jamming detection system which will (if enabled) generate an alarm if any attempt is made to continuously jam the radio channel used for the system.

Positioning the Solar Siren

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.

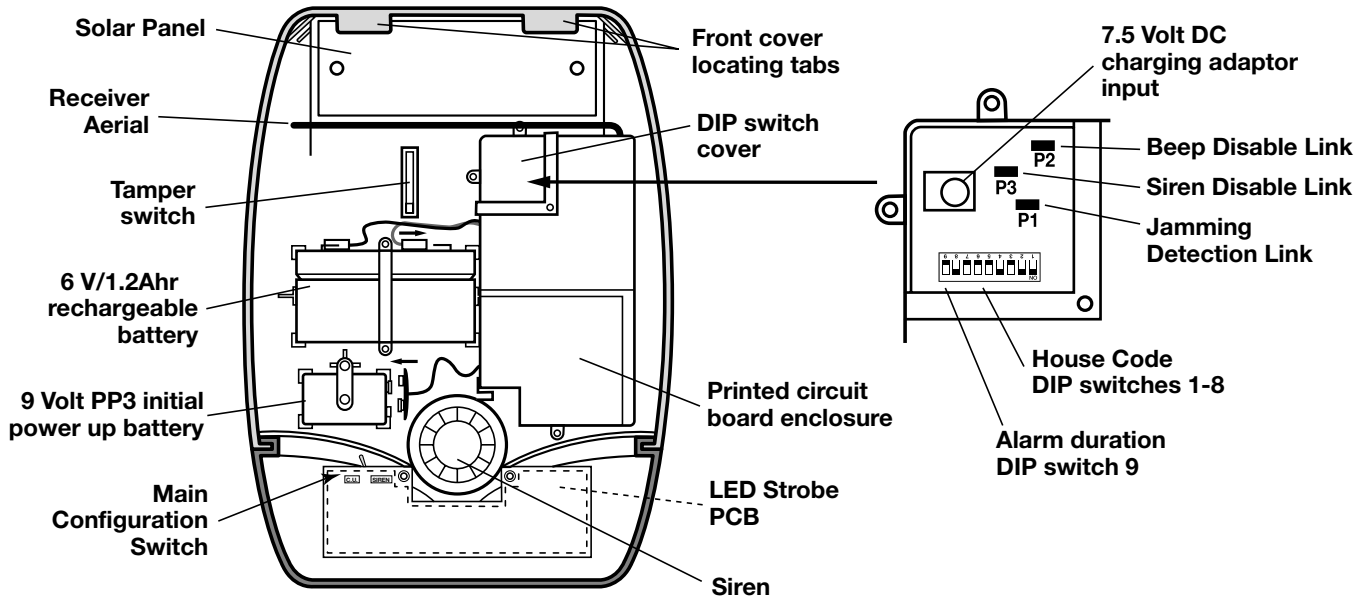


To provide the optimum amount of daylight to the Solar Panel, you should ideally mount the Solar Siren on a south facing wall. However, an easterly or westerly position will suffice. Although the Solar Siren is designed to work on any aspect wall, for optimum performance you should refrain from siting 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 External Solar Siren contains a sophisticated radio receiver. However, reception of radio signals can be affected by the presence of metallic objects within the vicinity of the Receiver. It is therefore important to mount the Solar Siren a minimum distance of 1m away from any external or internal metalwork, (i.e. drainpipes, gutters, radiators, mirrors etc).

It is recommended that you check the suitability of your chosen location for the Solar Siren by temporarily fitting it to the external wall. Using the Remote Control, (as described below) power up the Siren and check that you can operate the Siren from in and around the property, and from all locations where you plan to install detectors.



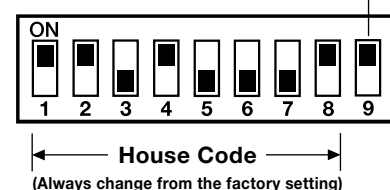
Installing and Configuring the Solar Siren

1. 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.
2. 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.
3. Drill four 6mm holes and fit the wall plugs.
4. Fit the two 30mm fixing screws in the top holes leaving approximately 10mm of the screw protruding.
5. Fit the top keyhole slots of the mounting plate over the screw heads and adjust the screws until they form a neat fit with minimal movement.
6. Secure the mounting plate in position using the two 25mm fixing screws in the bottom fixing holes.
7. If used with a "Siren Controlled" alarm system (i.e. a system without a separate Control Panel) main configuration switch on the LED strobe board should be set to "C.U."
8. Undo the 3 screws holding the DIP Switch Cover in place and remove the cover.
9. Under the cover you will find a series of 9 DIP switches.

Note: When the Solar Siren is viewed as shown above (Solar panel at top) the DIP switches are 'upside down'.

10. Select and record a random combination of 'ON' and 'OFF' positions for DIP switches 1- 8. This will be the system House Code that will enable all devices on the system to communicate with the Solar Siren.

Alarm Duration DIP Switch 9



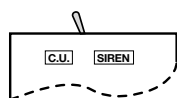
IMPORTANT: The house code for your system should be changed from the factory default settings.

11. Set the alarm duration time using DIP switch 9 as follows:

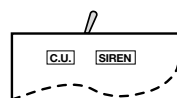
	Siren Controlled Systems	Control Panel based Systems
OFF	1 minute	3 minutes
ON	3 minutes	as Control Panel setting

Main Configuration Switch

In C.U. Position for system without a Control Panel



In SIREN Position for Control Panel based systems



otherwise the configuration switch should be set to "SIREN" for use with systems containing a Control Panel.

12. The Solar Siren will acknowledge signals from the Remote Control, Remote Keypad and Control Panel by beeping and flashing the LEDs. It is

possible to disable these acknowledgement beeps if required by removing the jumper link P2 on the circuit board.

P2 fitted	beep enabled
P2 removed	beep disabled

13. If for any reason you need to disable the Siren, remove jumper link P3 on the circuit board. This will prevent the Siren from sounding during an alarm condition. However, the Siren will still beep to acknowledge signals from the Remote Control, (provided the beep feature is not disabled).

P3 fitted	Siren enabled
P3 removed	Siren disabled

14. To enable the Jamming Detect feature in the Solar Siren fit the jumper link taped to the cover of the Siren control unit across link pins P1 on the circuit board.

P1 fitted	Jamming Detection enabled
P1 removed	Jamming Detection disabled

15. Refit the DIP switch cover and replace the three cover fixing screws. Do not over tighten the screw as this could damage the thread.

Power-Up of the Solar Siren

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 the Black (-ve) terminal.

IMPORTANT: 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 Solar 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. Ensure that the Siren is in Operating Mode.


Service Mode

The Solar Siren includes a Service Mode facility which prevents the sirens tamper switch triggering the siren while it is removed from the wall for maintenance or to change the batteries:

Siren Service Mode: To switch the Siren into Service Mode press and hold the  button on the Remote Control for approximately 10 seconds. The Solar Siren will produce two short beeps as the button is pressed followed by a single long beep 10 seconds later to indicate that it has switched into service mode.

Siren Operating Mode: To switch the Siren into Operating Mode:

a) **Single Zone system** - press and hold the  button on the remote control for approximately 10 seconds until the Siren acknowledges the signal by emitting one long beep. The  button should be released during the long beep, otherwise the system will switch into an Armed state.

b) **Control Panel based system** - Press and hold the  for approximately 10s until the siren emits a single long beep followed immediately by two short beeps.

Depending upon your system it may also be possible to switch the Siren between Service and Operating Modes using the Control Panel or Remote Keypad, (refer to System Installation and Operating Manual for details).

Maintenance & Batteries

The Solar Siren requires very little maintenance. However, a few simple tasks will ensure its continued reliability and operation.

1. It is recommended that the Solar Panel on the top of the siren housing should be cleaned at least twice a year, (Spring and Autumn), using a soft damp cloth. This will ensure that the Solar Panel does not become affected by the build up of excessive dirt and receives all the available light.

Do not use abrasive, solvent based or aerosol cleaners. Do not attempt to clean inside the unit or allow water to enter the unit

2. The Solar Siren should not be left for long periods with the batteries connected unless the unit is able to receive sufficient light to maintain the battery charge. Failure to maintain charge to the unit will result in the rechargeable battery running unacceptably low. Should this occur, the unit must be recharged from a 7.5Vdc/100mA supply (e.g. from a mains adaptor power supply). When re-powering the Solar Siren fit a new 9V PP3 leak proof Alkaline power-up battery to ensure that the Unit receives sufficient power until the solar panel can recharge the main battery.

3. The main rechargeable battery has a typical minimum life of 3-4 years and needs no maintenance during this period, provided the

battery is kept charged. The battery will be damaged if it is stored in a discharged state for long periods.

Note: Before removing the Solar Siren from the wall in order to replace the batteries or for any other reason ensure that the Solar Siren is first switched into Service Mode to prevent the Tamper switch operating and triggering an alarm.

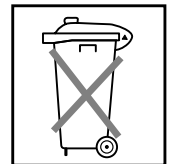
IMPORTANT: After changing the batteries and refitting in position, the Solar Siren must be put back into normal Operating Mode; otherwise the siren will not sound in the event of an alarm condition.

The specifications for replacement batteries are as follows:

Power-Up battery:	1 x 9V PP3 Alkaline
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Rechargeable Battery	6V/1.2Ah Sealed Lead Acid Type: NP1.2-6 (or equivalent)
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At the end of their useful life the batteries should be disposed of via a suitable Recycling Centre. Do not dispose of with your normal household waste. DO NOT BURN.



Pb

The Rechargeable Batteries contain Sulphuric Acid – DO NOT ATTEMPT TO OPEN THE CASING.

Guarantee

Novar ED&S undertakes to replace or repair at its discretion goods (excluding non rechargeable batteries) should they become defective within 1 year solely as a result of faulty materials and workmanship.

Understandably if the product has not been installed, operated or maintained in accordance with the instructions, has not been used appropriately or if any attempt has been made to rectify, dismantle or alter the product in any way the guarantee will be invalidated.

The guarantee states Novar ED&S entire liability. It does not extend to cover consequential loss or damage or installation costs arising from the defective product. This guarantee does not in any way affect the statutory or other rights of a consumer and applies to products installed within the UK and Eire only

If an item develops a fault, the product must be returned to the point of sale with:

1. Proof of purchase.
2. A full description of the fault.
3. All relevant batteries (disconnected).

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Note: If returning a Solar Siren, make sure that both the rechargeable battery and initial power up battery are disconnected and secure.

HELPLINE
If you have a problem with your alarm,
please call the helpline on:

01268 563273
(Lines open 9.00am to 5.00pm, Monday to Friday).



Friedland, Novar Electrical Devices and Systems.
The Arnold Centre, Paycocke Road, Basildon, Essex SS14 3EA.