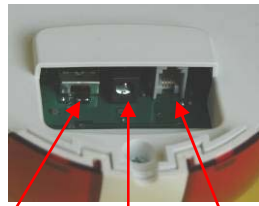


## Wireless Solar Siren with Strobe, WS-30S



Fig.1



Battery Switch Power Socket COM1 Socket

Fig.2

### INTRODUCTION

The WS-30S is a wireless solar siren with strobe dedicated for LS-30 alarm system. With special designed strobe magnifier, viewing angle and flashing pattern, it provides the users with a fresh experience. The WS-30S is powered by a solar panel which charges the internal battery. When the battery is fully charged, the WS-30S can work for one month without sunshine.

With built in transmitter and receiver, it sends heartbeat signal once an hour, if the LS-30 Base Unit fails to receive this signal in the preset supervision time, it will issue a warning message.

### INITIAL POWER-UP

Please note the internal rechargeable battery is not fully charged when you receive the WS-30S. You have to charge it for minimum 12 hours, (but NOT over 24 hours) first. The method as below,

1. turn on the battery switch, refer to Fig 2
2. either connect a 15VDC power adapter (supplied with LS-30), or connecting the supplied COM1 cable to the COM1 socket of a LS-30 which is powered, refer to Fig. 2.

### PROGRAMMING

1. Enroll the LS-30 Base Unit ID in the WS-30S, steps as below,

A). Keep the WS-30S close to the LS-30 Base Unit for convenient operation. Enter the “Installer Mode” on the Base Unit and select \Set Siren\ Siren/Relay Test then wait.

B). Turn on the WS-30S battery switch from off state. The WS-30S LED would light up

C). Press the “YES” button (for Siren/Relay Test) on the Base Unit within 30 seconds. The Base Unit would transmit its RF ID and be enrolled in the WS-30S. However you can also program this through a PC with the supplied software.

**Important Note:** If there is strong light shining on the solar panel, it would produce a voltage to the internal PCB, so that the microprocessor on the PCB can't be reset when the battery switch is turned on. Under such a condition, please turn the solar panel side down for a few seconds, and then turn on the battery switch.

2. Enroll the WS-30S ID in the LS-30 Base Unit, steps as below,

A). Enter the “Installer Mode” on the Base Unit and select \Set Device\ Enroll Device\ Burglar Sensor\ Enter Zone No.

B) Use a magnet (not supplied, but you can use the magnet for TX-3DS Door Sensor) to approach the right-bottom corner of the WS-30S, refer to Fig. 3. The WS-30S would emit its RF ID to be enrolled in the LS-30 Base Unit.

C). The LS-30 LCD would show “Enroll OK” if action is correct.

Likewise, you can also program this through a PC with the supplied software.

**Remark:** When you put a magnet near the right-bottom corner of the WS-30S, it will generate a chirp and emit RF signal for test/enrolling. This action can also be used for RF check, refer to “Master Mode\ Device Test” of LS-30 manual.

3. If necessary, you can change the alarm time of the WS-30S by entering the desired time on the LS-30 Base Unit, under \Installer Mode\ Set Timer\ Set Remote Siren Time.



Put a magnet closely to the right-bottom corner to activate RF transmission.

Fig.3

### LOCATION

The WS-30S should be mounted outside the building and in a position where it can be clearly visible and at a height (3~5 meters above the ground) that is relatively difficult for an intruder to access.

The WS-30S is built in radio transmitter and receiver which can be affected by the presence of metallic objects in the vicinity. Therefore, please keep the WS-30S minimum 30 cm away from any metalwork.

### Important Note:

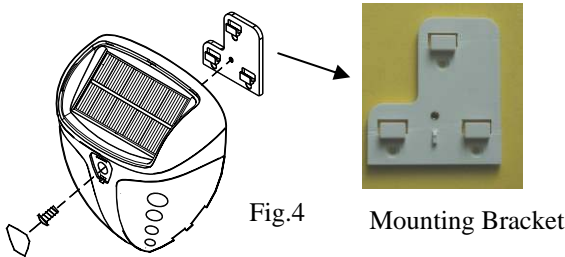
It takes 30 hours to fully charge the battery of the WS-30S under direct sunshine. To provide the maximum amount of sunlight to the solar panel of WS-30S, it's strongly recommended to mount the WS-30S as below:

- 1). On the wall facing south for the user lives in the northern hemisphere and above the line of “Tropic of Cancer” (23.5°North).
- 2). On the wall facing north for the user lives in the southern hemisphere and below the line of “Tropic of Capricorn” (23.5°South).
- 3). On a wall easterly or westerly for the user can't find a suitable location as above or lives in between of the 23.5°North and 23.5°South.

Shadows cast by neighboring walls, trees and roof overhangs should be avoided. Besides, the sun is lower in the sky in winter, the winter shadow should be avoided too where possible.

### INSTALLATION AND TEST

1. Remove external power adapter or COM1 cable (if any) from the WS-30S, and turn off the battery switch.
2. Release the mounting bracket from the back side of the WS-30S by pulling the bracket downward from the case.



3. Use the mounting bracket as a template, hold it against the wall where the WS-30S is to be mounted, and mark the positions of the three screw holes. Drill three 6mm (1/4in.) holes 1 inch deep. Insert the supplied wall plugs and attach the bracket to the wall with the screws.
4. Turn on the battery switch. Use the supplied screw (4mm) to fix the WS-30S on the bracket, refer to Fig 4. Then put the plastic cap on the cavity of the top cover.
5. **It's a must to test RF range after installation.** steps as below.
  - A). On the LS-30 Base Unit, entering "Installer Mode" and select \Set Siren\ Siren/Relay Test then press the "YES" button, which will trigger the WS-30S to generate a chirp if everything is correct.
  - B). Use a magnet to approach the right-bottom corner of the WS-30S, you will hear a chirp from the WS-30S and a beep from the LS-30 Base Unit if the distance is OK.

**Remark:** If the WS-30S is removed from the bracket, or the housing is opened, the internal tamper switch would activate the siren for 5 minutes, or until the WS-30S is mounted on the bracket again. Meanwhile, the WS-30S would send a RF signal of tamper detection to the LS-30 Base Unit.

### INDICATION

The reaction of the light and sound of the WS-30S varies with the operation or alarm state as below,

**-Power ON and code enroll:** The WS-30S enters ENROLL state for 30 seconds automatically when the power is applied. Light stays ON continuously, until the WS-30S learns a new code (2 chirps), or a 30-second timeout expires (one chirp, no new code learnt).

**-Alarm state:** Light flashes, and siren sounds continuously. When alarm time expires, sound stops but light keeps flashing until the LS-30 is disarmed by Master/User press hotkey C (Clear) on the Base Unit.

### SOUND TYPES

For the sake of easy identification of the alarm states, the siren sounds differently with different alarm signals from the LS-30 Base Unit.

- :Burglar Alarm, or WS-30S is tampered (continuous tone)
- - - - - : Fire Alarm
- - - - - : Medical Alarm, Panic Alarm, Special Sensor Alarm, Sensor Tampered
- - : LS-30 changes from Disarm to Arm state (two chirps, see Note 2)
- : LS-30 changes from Arm to Disarm state (single chirp, see Note 2)

#### Remarks:

- 1). "-" means ON, the blank interval means Pause.
- 2). Assume that "Mode Change Chirp" and "Tamper Siren" are set "ON" on the Base Unit.
- 3). Arm/Disarm chirp sound can be disabled by setting jumper J10 to "Off" with only strobe remains.

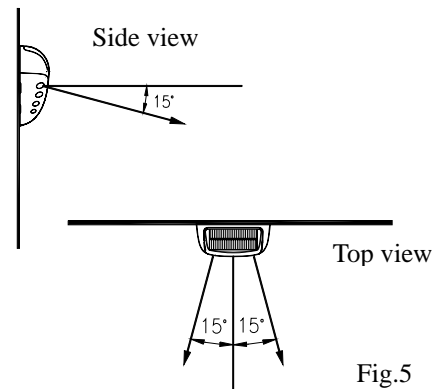
### LOW BACK-UP BATTERY

Back-up battery is monitored all the time, when low battery is detected, the WS-30S would send Battery Low RF signal to the Base Unit. And once the battery is recharged by sunlight or external power, a "Battery Low Restore" RF signal will be sent as well.

### SPECIFICATIONS:

- Power: 1W Solar panel
- Internal rechargeable battery: Ni-MH 6V/1200mAH
- Fully charged battery back-up time: 30 days
- Current consumption: 1.5mA @standby, 170mA @activation
- Siren output: about 115 dB (@30cm, facing the piezo siren)
- Strobe: Red or blue as required
- Tamper protection: Activates when removing from the bracket or opening the cover.
- RF: 2-way radio.
- IP Rating: 54 (with dust and splashing water protected by proper installation)
- Size: 90 x 233 x 190 mm
- Weight: 730g

### Maximum Strobe Light Viewing Angle



## WARRANTY

The Manufacturer warrants its products (hereinafter referred to as the Product) to be in conformance with its own plans and specifications and to be free of defects in materials and workmanship under normal use and service for a period of twelve months from the date of shipment by the Manufacturer. The Manufacturer's obligations shall be limited within the warranty period. At its option, to repair or replace the Product or and part thereof. To exercise the warranty the Product must be returned to the Manufacturer freight prepaid and insured.

This warranty does not apply in the following cases: improper installation, misuse, failure to follow installation and operating instructions, alteration, abuse, accident or tampering, and repair by anyone other than the manufacturer.

This warranty is exclusive and expressly in lieu of all other warranties, obligations or liabilities, whether written, oral, express or implied, including any warranty of merchantability or fitness for a particular purpose, or otherwise. In no case shall the Manufacturer be liable to anyone for any consequential or incidental damages for breach of this warranty or any other warranties whatsoever, as aforesaid.

This warranty shall apply to the Product only. All Products, accessories or attachments of others used in conjunction with the Products, including batteries, shall be covered solely by their own warranty, if any. The Manufacturer shall not be liable for any damage or loss whatsoever, whether directly, indirectly, incidentally, consequentially or otherwise, caused by the malfunction of the Product due to Products, accessories, or attachments of others, including batteries, used in conjunction with the Products.

The Manufacturer shall have no liability for any death, personal and/or bodily injury and/or damage to property or other loss whether direct, indirect, incidental, consequential or otherwise, based on a claim that the Product failed to function.

NOTE: The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

To comply with the FCC RF exposure compliance requirements, this device and its antenna must not be co-located or operating to conjunction with any other antenna or transmitter.

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.



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:

- 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.