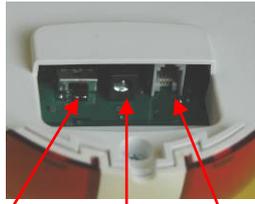


## Wireless Solar Siren with Strobe, i4H-WS-30S



Fig.1



Battery Switch Power Socket COM1 Socket

Fig.2

### INTRODUCTION

The i4H-WS-30S is a wireless solar siren with strobe dedicated for i4Home wireless alarm system. With special designed strobe magnifier, viewing angle and flashing pattern, it provides the users with a fresh experience. The i4H-WS-30S is powered by a solar panel which charges the internal battery. When the battery is fully charged, the i4H-WS-30S can work for one month without sunshine.

With built in transmitter and receiver, it sends heartbeat signal once an hour, if the Base Unit missed 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 i4H-WS-30S. If needed, you can turn on the Battery Switch and connect a 15VDC power adapter (not supplied) to charge it for around 12 hours (but NOT over 24 hours).

### PROGRAMMING

#### 1. Enroll the i4H-LS-20 Base Unit ID in the WS-30S, steps as below.

A). Turn off the i4H-WS-30S Battery Switch, and keep the i4H-WS-30S close to the i4H-LS-20 Base Unit for convenient operation.

B). Turn on the i4H-WS-30S Battery Switch, the red LED would stay ON continuously.

C). Within 30 seconds, press the Enroll Button on the i4H-LS-20 momentarily (less than 3 seconds) to transmit RF ID to the i4H-WS-30S, and the i4H-WS-30S would generate 2 chirps if enrolling succeeds.

**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.

Remarks: In case you need to change siren alarm time (default: 60 seconds) you can change it on Livingpattern web directly.

#### 2. Enroll the i4H-WS-30S ID in the i4H-LS-20 Base Unit, steps as below.

A). Keep pressing the Clear/Enroll Button on i4H-LS-10 for over 3 seconds and then release it, the LS-10 would keep beeping and all LEDs blink. This means the system is ready for enrolling device.

B) Within 30 seconds, use a magnet (not supplied, but you can use the magnet for i4H-Mx-3DS Door Sensor) to approach the right-bottom corner of the i4H-WS-30S, refer to Fig. 3. The i4H-WS-30S would transmit its RF ID for enrolling. If you hear 3 short beeps from the i4H-LS-20 soon later then enrolling successes, otherwise you will hear one long beep after 30 seconds that means enrolling fails, you have to repeat enrolling action.

Note: Avoid activating any other sensors during the 30 seconds Device Enroll period.



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

Fig.3

### LOCATION

The i4H-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 i4H-WS-30S minimum 30 cm away from any metalwork.

**Important Note:**

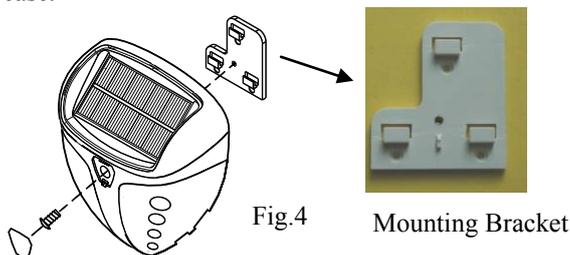
It takes 30 hours to fully charge the battery of the i4H-WS-30S under direct sunshine. To provide the maximum amount of sunlight to the solar panel of WS-30S, it's strongly recommended to mount the WS-30S as below:

- 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 (if any) from the i4H-WS-30S, and turn off the battery switch.
2. Release the mounting bracket from the back side of the i4H-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 i4H-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). Press the i4H-LS-20 Enroll Button momentarily, the i4H-WS-30S would generate a chirp if OK.
- B). Use a magnet to approach the right-bottom corner of the i4H-WS-30S, you will hear a chirp from the i4H-WS-30S. Please refresh the "Status" at i4Home App page to see if the RF signal is received.

**Remark:** If the i4H-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 i4H-WS-30S is mounted on the bracket again. Meanwhile, the i4H-WS-30S would send a RF signal of tamper detection to the i4H-LS-20 Base Unit.

**INDICATION**

The reaction of the light and sound of the i4H-WS-30S varies with the operation or alarm state as below,

**-Power ON and code enroll:** The i4H-WS-30S enters ENROLL state for 30 seconds automatically when the power is applied. Light stays ON continuously, until the i4H-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 Clear Button of the i4H-LS-20 is pressed.

**SOUND TYPES**

For the sake of easy identification of the alarm states, the siren sounds differently with different alarm signals from the i4H-LS-20 Base Unit.

- \_\_\_\_\_ : Burglar Alarm, or i4H-WS-30S is tampered (continuous tone)
- : Fire Alarm
- — — : Medical Alarm, Panic Alarm, Special Sensor Alarm, Sensor Tampered
- : i4H-LS-20 changes from Disarm to Arm state (two chirps, see Remarks 2)
- : LS-20 changes from Arm to Disarm state (single chirp, see Remarks 2)

**Remarks:**

- 1). "-" means ON, the blank interval means Pause.
- 2). Assume that "Mode Change Chirp" and "Tamper Siren" are set "ON" in 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 i4H-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



Fig.5

