SolarGuard™
SG-01

TOTALLY WIRELESS EXTERNAL SIREN & STROBE UNIT

INTRODUCTION

Thank you for purchasing this totally wireless solar powered siren and strobe flashing light unit which represents a major step in the protection of your home and property.

The SG-01 is specially designed to operate with the Mongoose MHA2000 alarm control panel.

The SolarGuard is powered by a solar panel and by an internal sealed Lead-acid rechargeable battery.
The standby current is incredibly small thus allowing the Solar Panel to maintain the battery charge when the siren is activated. In fact, the Solar Panel is so sensitive that it will even top up the battery in very cloudy and overcast weather conditions, and even without top-up the system it will operate in standby without light for up to 60 days.

The SolarGuard is fully protected by a tough polycarbonate UV proof housing. All electronic components are protected with moisture repellent materials applied during manufacturing process to ensure long, reliable, trouble free operation and two integral front and rear tamper switches give maximum security to the unit. When activated the SolarGuard sounds a built-in twin siren system at a powerful 115dBs and strobe (if fitted) will flash. The siren duration is selectable from 1 to 8 minutes. If it's allowed to sound for the full siren duration the strobe will latch and continue for approximately 20 minutes or until the system is disarmed.

FEATURES:

SolarGuard
- Incorporates Code Learning System
- Highly sensitive light activated solar panel. No connection to main power required.
- Built-in battery back-up pre-fitted as standard.
- Casing material 3mm UV proof Polycarbonate
- Powerful 115dB twin siren system
- High intensity Xenon strobe flash latches for 20 minutes
- Selectable alarm duration from 1, 2, 4 to 8 minutes
- Front and rear anti-tamper
- Reception range: 80 meters in open space
- Compatible with Extender unit ET-01

ILLUSTRATION & DESCRIPTION
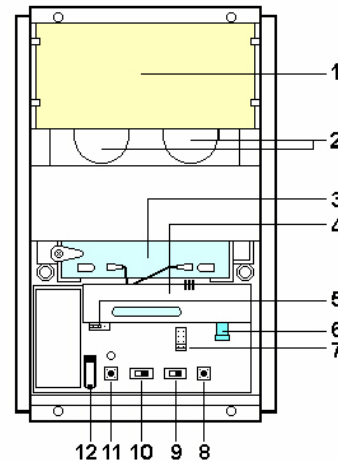
SolarGuard Console

1. Solar panel	Takes energy during daylight hours to charge the internal battery
2. Sirens	Two sirens sound in the event of activation
3. Battery	High capacity 6V/1.2Ah sealed Lead-acid rechargeable battery ensures that siren & strobe is self-maintainable during darkness and long winter period.
4. Strobe board (option)	High intensity Xenon strobe flash. It will latch and continue for approximately 20 minutes or until the system is disarmed.
5. Jamming selector	This feature is available in Mode A only.
6. DC jack	For quick charge the Lead-acid battery with a 12V/DC or AC adaptor if necessary. (plug type 2.1 x 5.5mm) – not supplied
7. Alarm duration selector	Selects alarm duration from 1 minute to 8 minutes.
8. Start button	Only used when power is first applied to the SolarGuard.
9. Mode switch	Must be set to **Mode B** for wireless siren & strobe operation
10. Function switch	This feature is available in Mode A only.
11. Learn button	Used to learn the frequency Site Code of the Siren Transmitter Module
12. Tamper switch	Detect the opening of strobe lens cover and removal from wall.

SYSTEM SET UP & INSTALLATION
Alarm duration
The alarm duration can be set up from 1, 2, 4 to 8 minutes by using alarm duration selector. The factory default is 1 minute.
Ensure the siren duration is the same as that selected in the MHA2000 alarm control panel.
NOTE: Following activation into alarm duration the SolarGuard will continue to sound until either the control panel is reset, or the control panel cut-off time expires, or until the SolarGuard alarm duration time expires, whichever is the shortest.
Initial power-up
Connect the Lead-acid battery to the charging leads red to red (+) and black to black (-). Push the Start button. The SolarGuard is ready for Site Code learning now.

1. It is important that the SolarGuard receives sufficient sunlight to maintain the battery charge. If possible, quick charge the battery by connecting a mains power adaptor, such as that supplied with the MHA2000, for at least 2 hours before mounting to the wall. Also, the unit should not be repeatedly set into alarm as this could rapidly drain the battery.
2. You might hear the siren whispering before connecting to the battery. This is because the solar panel is activated when receiving the light. It is a normal condition.

Site Code Learning

This siren learns the security code of your MHA2000 alarm control panel. Ensure the MHA2000 is completely set up prior to carrying out this procedure.

After the connection of the battery and all the settings of the wireless siren/strobe has been completed, proceed as follows for Site Code Learning, MAKING SURE YOU KEEP THE WIRELESS SIREN/STROBE NEAR TO THE ALARM PANEL.

1. Push the 'Panic' button on the control panel. LED lights up and the control panel built-in siren sounds.
2. Immediately push the 'Start' button once followed by the 'Learn' button once (the LED indicator will light for four seconds for site code learning) and wait for the SolarGuard to "beep" twice to confirm successful site code learning. Disarm the control panel to stop the built-in siren. If you do not hear two beeps, repeat steps 1-2.
3. To test the site code learning, push the 'Panic' button on the control panel to activate the SolarGuard siren. The control panel built-in siren sounds too. If SolarGuard siren does not sound, repeat the steps 1-3. Disarm the control panel to stop the sirens.
4. Disconnect the battery cables. Mount the SolarGuard onto the location you choose. Reconnect the battery cable.
5. Refit the strobe lens cover. Ensure that the front tamper switch is fully depressed by securing the strobe lens cover firmly in place.

NOTE:

The Site Code of the Siren Transmitter Module built inside the MHA2000 alarm control panel is recorded during the manufacturing process.

Keep your remote control handy if you use a wireless alarm system.

Select Location
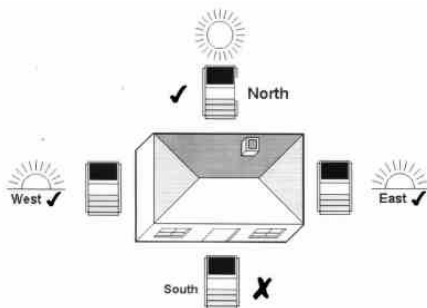
After completing all settings on the SolarGuard, select the best location.
Ideal locations are:-
Highly visible (deters thieves if they can see it)
High off the ground to avoid tampering.
Protected from direct rain and weather.

For best operation the alarm control panel should be within 20 meters of the SolarGuard for the best reception of radio signals and be mounted on a north-facing wall for the optimum amount of sunlight. However, an easterly or westerly position will suffice.

Avoid mounting the siren on a completely shaded wall. Avoid shadows from guttering roof overhangs, facia boards, neighboring walls, trees …etc. In practice, the SolarGuard should be mounted at least 1 meter below a gutter or other overhang. This is because in winter the sun is lower in the sky and you should avoid winter shadows where possible.

The SolarGuard contains a radio receiver. Reception can be affected by the presence of metallic objects within the same vicinity. Therefore, it is important to mount the SolarGuard a minimum distance of 1 meter radius away from any external and internal metalwork. i.e. external drainpipes, gutters and internal radiators, mirrors etc.

IMPORTANT: Before drilling holes and fixing to an exterior wall, test that the siren unit, in the chosen location, can receive the radio signal from the alarm control panel by following the directions below.

NOTE: Use the Fixing Template attached with the manual. When fixing, you must hang the SolarGuard on the top screw first. Then install the lower 2 screws for fixing firmly.

OPERATION TEST

To test the operation of the Siren, please proceed as follows:

1. Set the control panel into alarm.
2. The SolarGuard siren and strobe unit should sound. Allow to sound for at least 5 sec.
3. Disarm the alarm system, the SolarGuard siren & strobe unit will cease to operate.
4. If you fail to cease the SolarGuard, please repeat the steps 1 to 3.

NOTE: Make sure the alarm control panel is within reception range of the SolarGuard.

MAINTENANCE

Your SolarGuard requires very little maintenance. However, a few simple tasks will ensure its continued reliability and operation.

1. Clean the Solar panel lens by using a soft, damp cloth at least once a year. Preferably in the Autumn. This will ensure that the Solar Panel receives all the available light.
2. 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 DC12V/500mA mains adaptor. The complete charge time is approximately 10 hours. Check location of siren for sufficient sunlight.
3. The 6V/1.2Ah sealed Lead-acid rechargeable battery has a typical life of 3 to 4 years and needs no maintenance during this period providing the battery is kept charged. The battery will be damaged if it is stored in a discharged state.

WARNING

You may be required to advise your local emergency services of the installation of this equipment.
Only basic tools are required to install this product but if you use electrical installation tools you must follow the safety procedures recommended by their manufacturer. Always use an RCD breaker with such tools. Use eye protection when hammering and drilling. Please do not risk your safety during the installation of this product. If you are unfamiliar with the use of tools and ladders please consult an Electrician or other competent person.