



INSTALLATION AND USER MANUAL

GSM+WiFi



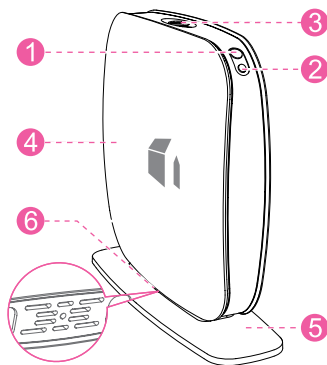
SG2

Alarm Security System™

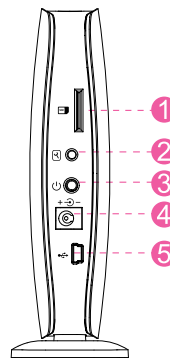
Features

- 16-bit high speed processor, reliable capability
- 100% wireless configuration, D.I.Y. installation
- Built-in 1,000,000 RF codes
- Supports 10 remote controls and 100 wireless sensors.
- The alarm system can be controlled by SMS, App or phone call
- Stores 5 phone numbers and 5 SMS numbers for alarm alert
- Supports exit and entry delay arm / alert
- Wireless self-learning code
- Adding new accessories fast and easy
- Supports arm and disarm by App
- Supports remote monitor by App
- Supports remote control / arm / disarm / monitor by phone
- SMS notification for power off, power recovery and low battery
- Supports global GSM 850/900/1800/1900MHz
- Support Wi-Fi 802.11b/g/n

Control Panel Features



1. Status / GSM Signal Indicator
2. Power / Network status Indicator
3. Panic Button (SOS)
4. Panel
5. Stand
6. Monitoring MIC



1. SIM Card Slot
2. Connect Button
3. Power On/Off
4. Adapter Interface
5. USB Upgrade Port

LED indications

1. Status / Low Power Indicator

Blue(off):system is disarmed
 Blue (continuous): system is armed
 Blue (blinking): the alarm has been triggered
 White(Fast blinking):searching GSM network
 White(slow blinking): GSM signal is normal

2. Power / GSM Signal Indicator

Green(continuous):Not connected
 Green+Blue(Continuous):Connected to the network

Specifications

Product name:
 SG2 GSM+Wi-Fi

Power supply:
 Input: AC 110~240V/50~60Hz
 Output: DC 12V/1A

Wi-Fi:
 802.11b/g/n

GSM working frequency:
 850/900/1800/1900MHz

Standby current:
 60mAh

Alarm current:
 120mAh

Built-in battery:
 7.4V 500mAh lithium battery

Support wireless accessories:
 10 remote control, 100 wireless detectors

Wireless receiving frequency:
 315 MHz / 433MHz (±75KHz)

Siren volume:
 90dB

Housing material:
 ABS plastic

Operating conditions:
 Temperature: -10°C ~ +55°C
 Relative Humidity: ≤80%
 (non-condensing)

First operations

Store a phone number

To interact with the control panel by SMS, by phone call and/or from the app, at least one phone number must be stored in the control panel. Please refer to the instructions on "Store Phone Numbers" on page 7 of this manual.

Change the language

By default the language of the SG2 control panel is set to English. If you wish to change the system language, refer to the instructions "Change system language" on page 12 of this manual. "System language" refers to the language of the SMS you receive from the control panel.

Arm / Disarm the system

The alarm system can be armed or disarmed by SMS, by App and by phone call.

By SMS

To arm the system: Send "1" by SMS to the number of your system's SIM card.

To disarm the system: Send "0" by SMS to the number of your system's SIM card.

By app

Click on "Arm" in the app to arm the system, and "Disarm" to disarm the system. The app is available for download on the App Store and Google Play.

Register wireless accessories

1. Press the connection button at the back of the control panel to enter the Connection mode.
2. Trigger the accessory once within the next 15 seconds. You hear one beep: the registration is successful.

If the accessory has already been registered, the control panel will beep twice. The first accessory registered is assigned to zone 1, the second accessory registered is assigned to zone 2, etc. Zones 1 to 9 can be renamed. Zones 10 to 99 cannot be renamed (refer to the instructions on page 9 to learn how to rename zones).

Control by Phone Call

Method 1

When an alarm has been triggered, the control panel dials the pre-stored phone numbers. When you pick up the phone, control the panel from distance according to the instructions in the table below).

Method 2

1. Dial the telephone number of the SIM card in your control panel.
2. Enter your user code, followed by "#". *After each key you press on your phone, you hear one beep of confirmation. Wait until you have heard this beep of confirmation before pressing the next key.*
3. Select the operations to control the panel (see instructions in the table below).

Note

The call will end automatically if you do not send any command within 30 seconds.

Voice Instructions

Command Function

Press "1"	Arms the system
Press "0"	- Disarms the system and turns the siren off - Stops monitoring without hanging up - Stops the phone call function without hanging up
Press "*"	- Starts audio monitoring mode (not limited in time) - Stops the built-in siren and the wireless siren (if connected to the control panel)
Press "6"	Turns all sirens off
Press "9"	- Turns the built-in siren on (whether the siren ringing settings is ON or OFF) - Turns the wireless siren on (if connected to the control panel)
Press "#"	- Turns all sirens off - Exits control by phone call - Stops call recycles

Note

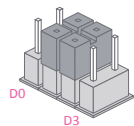
In GSM mode, the audio monitoring is not limited in time.

Hard Reset

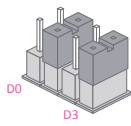
Press the Connect button and the Panic button (SOS) simultaneously. Release them after 3 beeps. Wait 10 seconds. The panel beeps twice: the system is restored to default settings. Stored phone numbers and accessories will also be deleted.

Zone setup of accessories

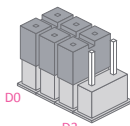
Every detector can be assigned to 4 different categories of zones: Home Mode Zone, Delay Zone, Normal Zone and 24-H Zone. To assign a detector to a zone, open its case and move its jumpers according to the drawing below:



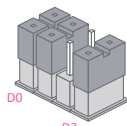
A. Home Mode Zone



B. Delay Zone



C. Normal Zone



D. 24-H Zone

Normal zone

When the system is armed, if a sensor is triggered, the siren rings out. When the system is disarmed, sensors do not trigger an alarm.

24h zone

Regardless the system is armed or disarmed, sensors assigned to the 24h zone can trigger an alarm. *It is recommended to set smoke detectors, gas detectors and outdoor beam sensors in the 24-H zone.*

Delay zone

An entry and an exit delay can be set. In such case, sensors assigned to the “Delay Zone” will not trigger an alarm during the time of delay set. For example, if you assign a motion detector to the Delay zone and you set the Entry/Exit Delay to 30 seconds, the motion detector will not trigger an alarm within 30 seconds after you enter your home and within 30 seconds before you leave it so that you can leave and enter your home without triggering an alarm. Refer to the instructions on page 6 of this manual to learn how to set the entry and exit delay. *It is recommended to assign the Door / Window Contact to the Delay zone.*

Home zone

When the system is armed in Home Mode, the sensors assigned to the Home zone do not trigger an alarm. *It is recommend to assign motion detectors to the Home zone so that you can have your system armed in Home Mode when you are home and move inside your home without triggering any alarm.*

SMS Operations

IMPORTANT: BEFORE USING FOR THE FIRST TIME

SAVE A PHONE NUMBER FOR SMS NOTIFICATIONS. (Refer to instructions on the opposite column)
Only stored numbers can control and configure the system.

INSERT A SIM CARD IN THE CONTROL PANEL BEFORE STARTING SMS OPERATIONS.

MAKE SURE THE SIM CARD DOES NOT REQUIRE ANY PIN CODE.

Each SMS operation defined in this user manual will be illustrated as follows:

You send:

SMS Command

The first pink speech bubble is the SMS command sent by the user.

The control panel replies:

Control panel's reply

The first grey speech bubble is the reply sent by the control panel.

The speech bubbles that follow are the dialogue between the user and the control panel (SMS sent by the user are in pink, SMS sent by the control panel are in grey).

The system is in English by default. To change the system's language, refer to page 12 of this manual.

Store Phone numbers for SMS notifications

Send:

6

SMS numbers:

- 1.
- 2.
- 3.
- 4.
- 5.

Copy, Paste, then Edit
(case sensitive):

SMS numbers:

1. 067890033
2. 067890022
3. 067890011
4. 067890000
- 5.

Ok

Disarm the System

Send:

0

System disarmed.

Arm the System

Send:

1

System armed.

Home Mode

Send:

2

System in home mode.

Settings Enquiry

Send:

00

System:Disarmed
AC power:on
Entry delay time:0sec
Exit delay time:0sec
Siren time:5min
Disarm password:1234

Note

The value of default settings will be changed after having set up the system.

Store Phone Numbers

Send:

5

Phone numbers:

- 1.
- 2.
- 3.
- 4.
- 5.

Copy, Paste, then Edit
(case sensitive):

Phone numbers:

1. 067890033
2. 067890022
3. 067890011
4. 067890000
- 5.

Ok

Change Zone Name

Send "91~99". For example for zone 1, send:

91

Zones names:

- 1.

Copy, Paste, then Edit
(case sensitive):

Zones names:

- 1.Entrance door alarm

Ok

Note

Zones 1 to 9 can be renamed. The name of the zone cannot consist of more than 30 Latin characters per line due to SMS character limit. Zones 10 to 99 cannot be renamed.

SMS Alert for Accessory Low Battery

(available for two-way accessories such as Motion Detectors)

For accessories assigned to zones that have been renamed, an SMS will be sent under the format “**Zone name** + **low battery**”.

Bedroom PIR low battery

For accessories assigned to zones that have not been renamed, an SMS will be sent under the format “**Zone number** + **low battery**”.

Zone 10 low battery.

SMS Alert for Accessory Tamper Alarm

(available for two-way accessories such as Motion Detectors)

For accessories assigned to zones that have been renamed, an SMS will be sent under the format “**Zone name** + **tamper alarm**”.

Bedroom PIR tamper alarm.

For accessories assigned to zones that have not been renamed, an SMS will be sent under the format “**Zone number** + **tamper alarm**”.

Zone 10 tamper alarm.

Entry and Exit Delay Time

Send:

11

Entry delay time(0-300sec):0
Exit delay time(0-300sec):0

Copy, Paste, then Edit
(case sensitive):

Entry delay time(0-300sec):10
Exit delay time(0-300sec):20

Ok

Note

This function can be used if you do not want to bring a remote control or RFID tag with you. When the system is armed, you hear one beep every second to remind you to leave. The beep rhythm speeds up during the last 10 seconds. If an intruder is detected, the alarm will be delayed accordingly.

Siren Volume and Ringing Time

Send:

12

Siren volume(0=Mute,1=High):1
Siren ringing time(1-9min):5

Copy, Paste, then Edit
(case sensitive):

Siren volume(0=Mute,1=High):0
Siren ringing time(1-9min):1

Ok

Note

If the Siren ringing time is set to 0, the siren is deactivated.

Disarm Password

Send:

13

Disarm password (4 digits):
1234

Copy, Paste, then Edit
(case sensitive):

Disarm password (4 digits):
8888

Ok

Set Ringing Times

Send:

19

Ringing time:5

Copy, Paste, then Edit
(case sensitive):

Ringing time:3

This function enables you to define the number of times the control panel rings before taking the call. Ring times can be set from 0 to 9. When set to 0, the alarm system will not ring when being called.

Call repetition

If the user does not pick up his phone when the alarm detects an intrusion, the alarm will keep re-dialing the number a certain amount of times.

Send:

20

Call repetition:5

Copy, Paste, then Edit
(case sensitive):

Call repetition:3

The number of call repetitions can be set from 1 to 9.

Delete all Wireless Accessories

Send:

21

Ok

Change system language

Send the code of the language. For example, for English, send "0001".

0001

Ok

Refer to the table below for the full list of languages:

0001 English	0008 German
0002 French	0009 Spanish
0003 Russian	0010 Finnish
0004 Danish	0011 Norwegian
0005 Dutch	0012 Arabic
0006 Italian	0013 Farsi
0007 Swedish	

Languages available may vary depending on the version of your product.

Restore System to Factory Settings by SMS

Send:

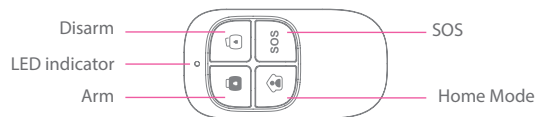
0000

System restored to factory settings

The settings will be restored to default values. Stored phone numbers and connected accessories will also be deleted. Only stored numbers can send the SMS to restore factory settings.

Accessories

Wireless Remote Control



Arm the system

Press the Arm button "Ⓜ" to arm the alarm system. The LED indicator lights up (the siren rings out once). The system is armed.

If an intruder is detected, the siren rings out. (The siren turns off after 5 minutes as per default settings.) In the meantime, the system dials the pre-stored phone numbers automatically.



Disarm the system

Press the Disarm button "Ⓜ" to disarm the alarm system. The LED indicator turns off (the siren rings out twice). The system is disarmed.



Home Mode

Press the Home Mode button "Ⓜ" on the remote control. The system state LED is on. All the sensors in regular zones are armed except those in the Home Mode zone. The sensors in the Home Mode zone are disarmed so that users can move inside their home.



Emergency Mode

Regardless of the status of the system, the alarm is triggered when the SOS button "SOS" is pressed on the remote control.

At the same time, the control panel sends a notification by SMS and dials the pre-stored phone numbers.



Register in the control panel

Press the connection button at the back of the control panel to enter the Connection mode. Press any button of the remote control.

Specifications

Power supply:

DC 3V (CR2025 button battery x1)

Operation current:

≤7 mA

Static current:

10 uA

Transmission distance

≤ 80 m (in open area)

Radio-frequency:

433MHz (±75KHz)

Housing material:

ABS plastic

Operating conditions:

Temperature: -10°C ~ +55°C

Relative Humidity: ≤80%
(non-condensing)

Dimensions:

57 x 31 x 11 mm

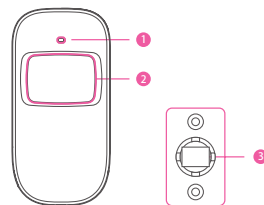
Wireless Motion Detector

Features

The MS-01A (or MS-02A: Pet-Immune Motion Detector) is a high performance wireless motion detector boasting a digital dual-core fuzzy logic infrared control chip with intelligent analysis. This technology identifies interferences created by body motion and reduces the false alarm rate.

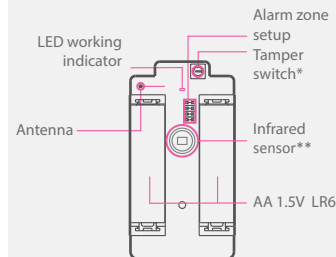
With automatic temperature compensation and anti-air turbulence technology, it easily adapts to environmental changes.

Design



1. LED indicator
2. Detection window
3. Bracket

PCB Layout



*Tamper switch

When the alarm system is armed, the tamper switch will trigger the alarm if the case is opened.

**Infrared sensor

Detects the infrared rays released by human body motion. Do not touch the surface. Keep the surface clean.

LED indications

Blinks continuously: self-testing

Blinks once: an intruder is detected

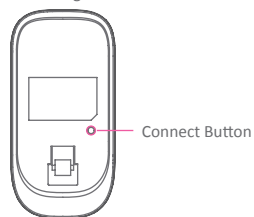
Blinks twice: self-testing is complete; entering working mode.

Blinks once every 3 seconds: under-voltage indication: the batteries must be replaced. (You will be informed by SMS when the batteries are low if the motion detector is registered in the control panel.)

Usage

Open the case and remove the battery activation strip. Self-testing will start for 30 seconds.

When the sensor is in operation, if it is triggered more than twice within 3 minutes, it will switch to standby mode to save power. If no movement is detected within the next 3 minutes, the sensor goes back to working mode.



Register in the control panel

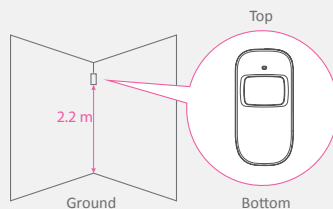
Press the Connection button at the back of the control panel to enter the Connection mode. Press the connect button at the back of the motion sensor or trigger the sensor (by moving in front of it).

Installation

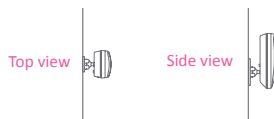
Avoid mounting the detector close to windows, air conditioner, heater, refrigerator, oven, sunshine and places where the temperature changes fast or where the air stream flows frequently.

If two detectors are installed in the same detection scope, adjust the location to avoid interferences and false alarms.

Fix the bracket on the wall with screws and attach the detector to the bracket. Adjust the bracket to change the detection distance and angle. It is recommended to mount the detector 2m from the ground.



The detector is more sensitive to cross movements than vertical movements.



Testing

A. After the installation, turn the detector on. After one minute of self-testing, press the test button, walk in the scope of detection and watch the LED indicator to make sure the detector is working.

B. The LED indicator blinks once when body movement is detected.

C. Adjust the detector angle to achieve the best detection performance.

Specifications

Power supply
DC 3V (AA 1.5V LR6 Batteries x 2)

Static current
≤ 30uA

Alarm current
≤ 15 mA

Detection scope
8m / 110°

Trating distance
≤ 80m (in open area)

Radio-frequency
315 MHz / 433 MHz (±75 KHz)

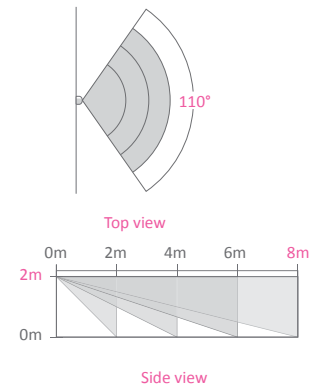
Housing material
ABS plastic

Operating conditions
Temperature: -10°C~55°C
Relative humidity: ≤ 80% (non-condensing)

Detector dimensions (L x W x H)
107 x 53 x 32 mm

Bracket dimensions (L x W x H)
52 x 30 x 26.5 mm

Detection Scope

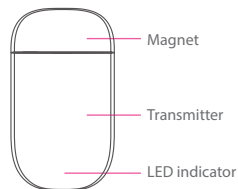


Features

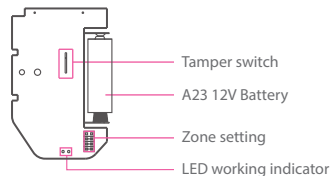
The ES-D3A is a Door / Window Contact that can be installed on doors, windows, and any other objects that open and close. The sensor sends signals to the control panel when the magnet is separated from the transmitter.

Thanks to the tamper switch, any attempt to remove the cover of the Door / Window Contact will trigger the alarm.

Design



PCB Layout



LED indications

Blinks once: the door or window is open and the transmitter sends a signal to the control panel.

Blinks quickly: Low power indication: the batteries must be replaced.

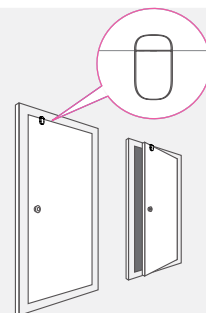
Register the detector in the alarm system

Press the Connection button at the back of the control panel to enter the Connection mode. Then separate the magnet from the transmitter.

To check if the registration is complete, arm the system and separate the magnet from the transmitter again by opening the door or window on which it is installed. If the siren rings out, the registration is successful.

Installation

- Open the case and remove the battery activation strip.
- Mount the sensor on the door and the magnet on the door frame.
- Make sure the magnet is placed above the transmitter.
- Mount the magnet max. 1 cm away from the transmitter and secure the transmitter and magnet with double-sided tape or screws.
- Avoid mounting the sensor in areas with a large amount of metal or electrical wiring such as a furnace or utility room.



Specifications

Power supply

DC 12V (A23 12V Battery x 1)

Static current

≤ 30 μ A

Alarm current

≤ 15 mA

Transmitting distance

≤ 80 m (in open area)

Radio-frequency

315 MHz / 433 MHz ($\pm$ 75 KHz)

Housing material

ABS plastic

Operating temperature

-10°C~55°C

Relative humidity

≤ 80% (non-condensing)

Transmitter dimensions (LxWxH)

60 x 45 x 18 mm

Magnet dimensions (LxWxH)

45 x 19 x 17,5 mm

Register an Additional Siren

The control panel of the SG2 features a built-in 100 dB siren. Your Maxsmart security system supports additional indoor and/or outdoor sirens so to enable you to extend your system according to your needs.

To register an additional Maxsmart siren, refer to the instructions provided in the manual that comes with your siren.

Troubleshooting and Safety Instructions

FAQ

Issue	Cause of malfunction	Solution
No response following interaction with the control panel	The control panel is switched off	Turn the power on
	AC Power failure	Contact your electricity provider
	Backup batteries are empty	Plug the AC adapter to an AC socket
Accessories cannot connect to the control panel	The control panel is not in Connection mode	Make sure the control panel is in Connection mode
	Accessories have not been triggered for connection	Make sure the accessory is triggered so to send a signal to the control panel
	When attempting the connection, the control panel beeps twice	The accessory has already been connected Make sure you do not trigger any other accessory when connecting one accessory to the control panel (e.g. do not stay in the detection scope of a motion detector if it is not the one you want to connect)
No response from the control panel following commands from the remote control	The remote control has not been connected to the control panel	Follow the instructions in this manual to connect the remote control to the panel
	Remote control is too far from the control panel	Transmission distance of the remote control: 80 m (in open area)
		A signal repeater can be installed to increase the transmission distance

Precautions

For a safer use of the product and to optimize the lifespan of the product, we recommend you to follow the precautions below:

- The wireless accessories must be connected to the control panel.
- Low power voltage may affect transmission distance.
- Do not press the SOS key on the remote control if it is unnecessary to avoid disturbing neighborhood.
- Check the system regularly to make sure the system works properly.
- The control panel is neither waterproof nor moisture-proof, install it in a shady, cool and dry place.
- The case of the control panel is made of ABS plastic. Keep away from bright light for a longer lifespan.
- The control panel is not explosion-proof. Keep away from fire and flames.
- Install the control panel away from objects such as heater, air conditioner, microwave oven etc. that generate heat or electromagnetic fields.
- Dispose of the batteries according to local regulations.
- Dismantling of this product must be done by professional personnel only.

Standards



This product bears the selective sorting symbol for waste electrical and electronic equipment (WEEE). This means that this product must be handled pursuant to European Directive 2002/96/EC in order to be recycled or dismantled to minimize its impact on the environment.

For further information, please contact your local or regional authorities.

Electronic products not included in the selective sorting process are potentially dangerous for the environment and human health due to the presence of hazardous substances.



In compliance with European laws.



This product was designed and manufactured in compliance with Directive 2002/95/EC of the European Parliament and of the Council on the restriction of use of certain hazardous substances in electrical and electronic equipment (RoHS Directive - RoHS) and is deemed to comply with the maximum concentration values set by the European Technical Adaptation Committee (TAC).

Manufactured in China.



FCC Information and Copyright

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.

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.

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

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.



Rm 402-403, 4th Floor Skyworth Semiconductor Design
Building West Wing, Nanshan District, Shenzhen, China.
www.maxsmart.cn

