

# CHALLENGER

YOUR PARTNER IN A MORE SECURE FUTURE

## APFWKGSM – GSM WIRELESS ALARM OPERATING Manual

### SAFETY

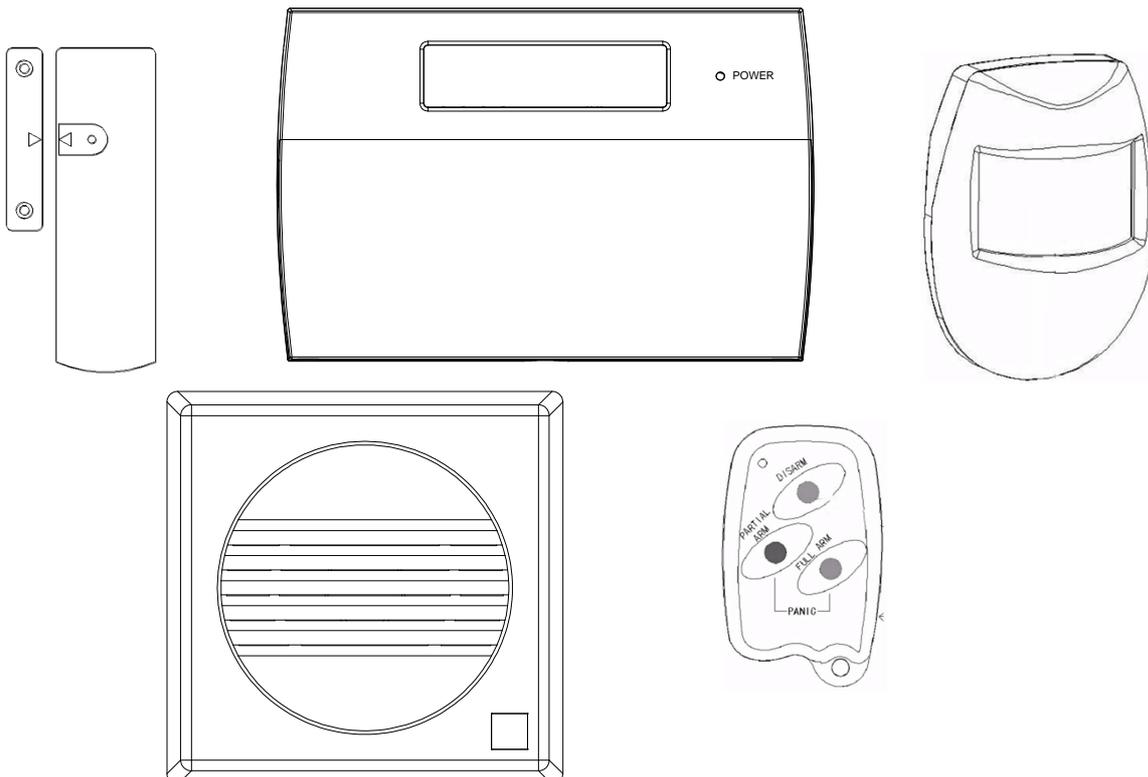
Before proceeding with the installation, please note the following safety warnings:

**DO NOT connect the mains supply directly to the products, this will cause permanent damage to the products.**

Control panel is for indoor use only. Avoid mounting location which can expose this product to splashing or dripping liquid.

Always follow the manufacturer's advice when using any tools power tools, ladder/steps,. using steps or ladders, and wear suitable protective equipment (e.g. safety goggles) when drilling holes, etc. The use of ear protectors are advisable when working in close proximity to the Control Panel's Siren when the front panel cover is removed due to the high sound level produced. Before drilling holes in walls, check for hidden electricity cables and water pipes. The use of a cable/pipe locator is advisable if in doubt. Batteries (battery pack or batteries installed) should not be exposed to excessive heat. Danger of damage to the unit may occur if battery is incorrectly replaced. Replace only with the same or equivalent type. (Do not mix batteries type).

**IMPORTANT – Please read this manual carefully, in full, before commencing Installation. You will find installation easier if you follow these steps in the sequence shown.**



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## Section 1 – Overview of System

This brilliant system incorporates a quad band GSM module to notify you by phone and SMS when the alarm is triggered.

The system is easy to set up and to operate, utilising wireless PIR detectors and reed switches, so there's virtually no wiring at all. Fully featured with up to ten zones, remote arm and disarm function and battery backup. This system allows you to cater for all your security needs in one system while giving you peace of mind. Supplied with the alarm control unit, loud 120dB siren, a wireless PIR detector and wireless reed switch and two wireless remote controls.

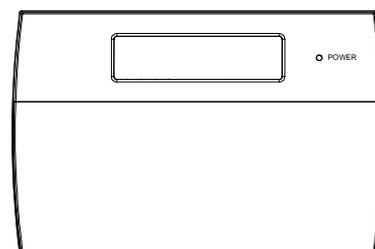
### 1.1 – System Feature

- 10 wireless zones.
- Maximum 4 wireless remote key.
- 10 Zones programmable for Delay zone or Immediate zone.
- Output for External Siren.
- 1 Full set and 1 fully selectable part set programs.
- 100 events memory for event log.
- Programmable timers for exit/entry and bell cut off
- Walk Test mode
- Quick set system
- Non-volatile memory for protection of master program and event log.

### 1.2 – Contents

#### - **GSM Wireless Alarm Control Panel (CU)** (One Unit)

This is the heart of the system. It receives signals from detectors. Accepts input from a user and activates warning devices such as siren and strobe lights.



#### - **Wireless Door/Window Contact Detector (MC)**(One Pair)

Uses a magnetically operated switch to sense the opening/closing of door or window.

#### - **Wireless Movement / Passive Infrared Detector (PIR)** (One Unit)

The PIR uses Infra-Red technology to sense body heat of a moving person. One unit can cover an entire room.

#### - **Wireless Remote Key** (One Unit)

Used for full arming, part arming or disarming the system. In addition it is used for the panic function. (fitted with 3V CR2032 lithium coin cell)

#### - **External Sounder** (One Unit)

Gives audible and visual indication of an alarm condition.

#### - **Other accessories**

External AC adaptor(One Unit)

The CU is pre-programmed to recognize the PIR/MC/Remote Key for immediate operation after power supply is being connected properly.

## 1.3 – Tools Required

- Large and small slotted screwdrivers
- Large and small Phillips screwdrivers
- Power drill
- Hammer
- 5mm, 8mm and 10mm masonry drill bits
- Sharp knife
- Wire cutters & wire stripper
- Ladder or other safe working platform

## 1.4 – Explanation of Terms

**Zone** – A logical area that is monitored by one detector.

**Disarm** – It is the normal state of the system when the house is occupied. Enter your four-digit user PIN code would return to OFF state.

**Full Alarm (ARM state)** – The CU will sound full alarm (internal siren) when it receives alarm signals.

**Part Arm (Home state)** – Arming the system so that certain zones omitted (i.e. will not trigger an alarm).

**Entry/Exit Zone** – The CU recognize MC zone as entry and/or exit zone.

**OK Beep** – Rapid double tone; it indicates correct operation.

**Error Beep** – Long single tone; it indicates incorrect operation.

## Section 2 – Installing your System

### 2.1 – Location of components

#### GSM Wireless Alarm Control Panel (CU) – Location

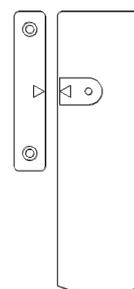
In choosing a suitable location you should bear in mind:

- The need to reach the keypad easily, within the 99 seconds of entering and leaving the premises ( ideally passing one detector).
- The Alarm panel should not be visible from the exterior of the protected premises.
- Reception of radio signals can be affected by the presence of metal objects within a few feet of the CU. (E.g. mirrors, central heating radiators, garage doors and cars parked in garages on the opposite side of the wall. Avoid any location which is near (within 60cm) to these or any other large metal objects.

**Having chosen the location, do not mount at this stage.**

#### Wireless Door/Window Contact Detector (MC) – Location

- These parts contain a radio transmitter and should not be situated near large metal objects.
- Contains two parts. The larger one (the actual detector) contains the batteries and the electronics. The smaller part is simply a magnet inside.

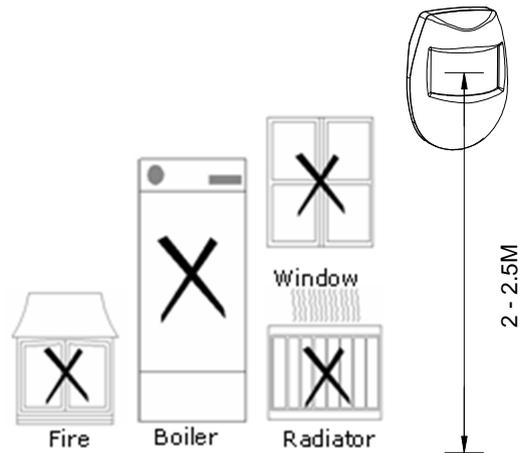


- Designed to detect a door or window opening. The detector is usually mounted next to it on the door or window. For optimum wireless range, they should be mounted as high as possible.
- In most applications, it is fitted to the front door.

**Having chosen the location, do not mount at this stage.**

### Wireless Movement / Passive Infrared Detector (PIR) – Location

- The detector should not be mounted near to large metal objects or on metal surfaces. It needs to be mounted on a wall or in corner at a height of approximately 2-2.5 meters for the best general coverage in an average room. The detector has been designed to avoid false alarms, nevertheless, it is best to avoid installing the unit where it is facing directly at sources of heat such as fires and boilers and always try to avoid facing at the window. A PIR can face at a radiator but should not be situated above it.



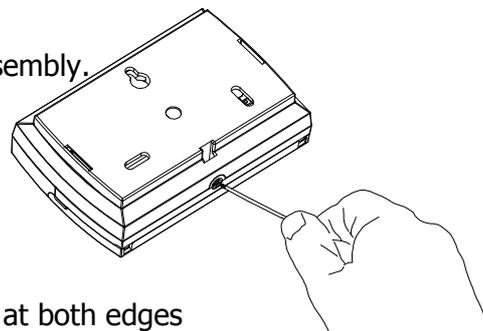
- Do not position a PIR where its field of view may be obstructed (e.g. by curtains.)  
Also, note that PIR works best when sensing a movement across rather than along their detection beams.
- Allowing for pets – The PIR senses moving body heat. In some cases, the movement of pets may also be detected. To overcome this it is recommended that the pets are kept in one specific room out of sight of a PIR when the system is armed.

**Having chosen the location, do not mount at this stage.**

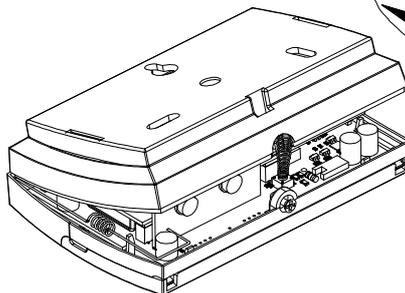
## 2.2 – Fixing the Control Panel

**CAUTION:** When positioning the control panel ensure that it is located in a dry place.

Step 1. Remove the background cover(s) from the base assembly.

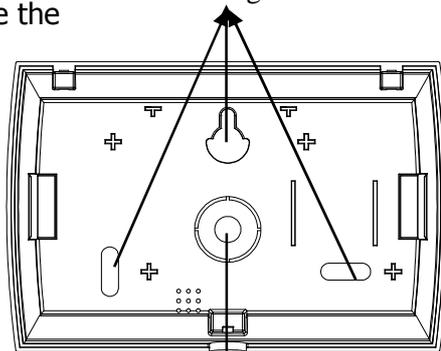


Step 2. Carefully remove the board by taking away screws at both edges



Step 3. Fit the panel to wall with suitable fixings. Ensure the wall surface is flat to prevent base distortion. There are cable entry holes provided in the rear of the base and around the outside edges through the thinned out plastic sections which may be cut away as required.

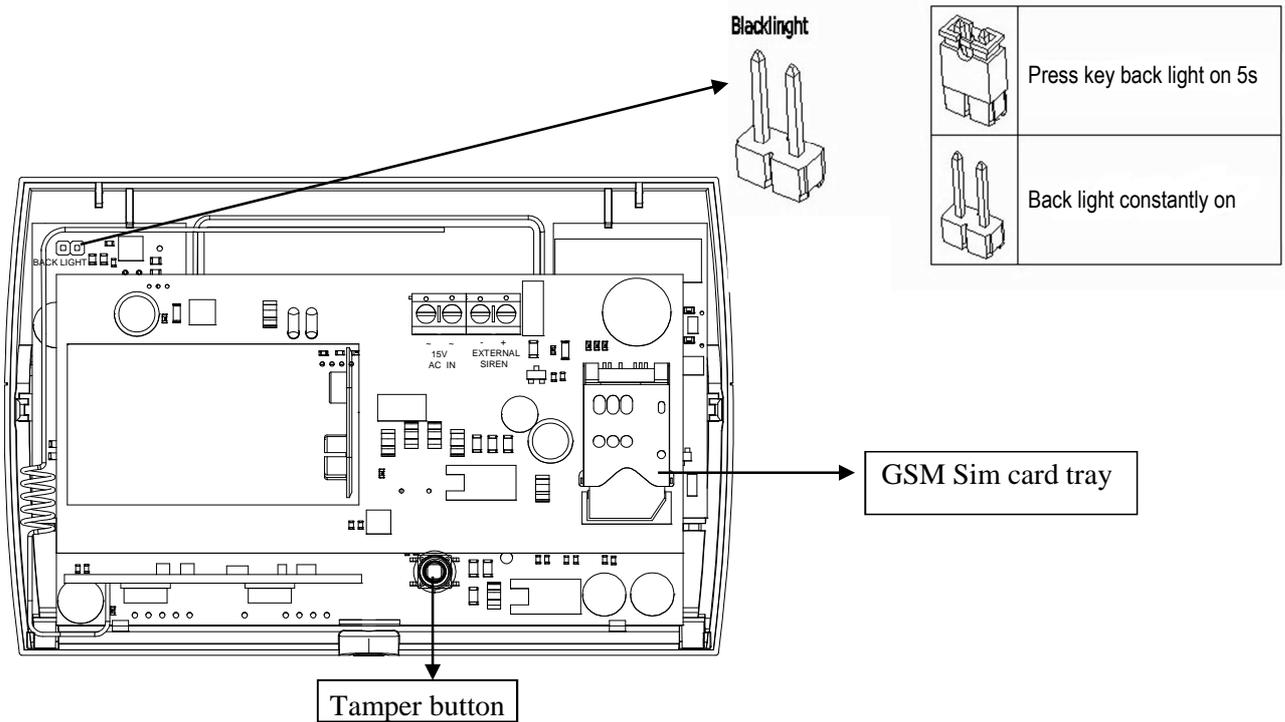
Mounting hole



Cable Entry

Step 4. The hole provided adjacent to the mains transformer is a dedicated mains cable entry point.

## 2.3 – PCB



**CAUTION:** Always power-down the panel when wiring external circuits, to prevent damage to the panel electronics.

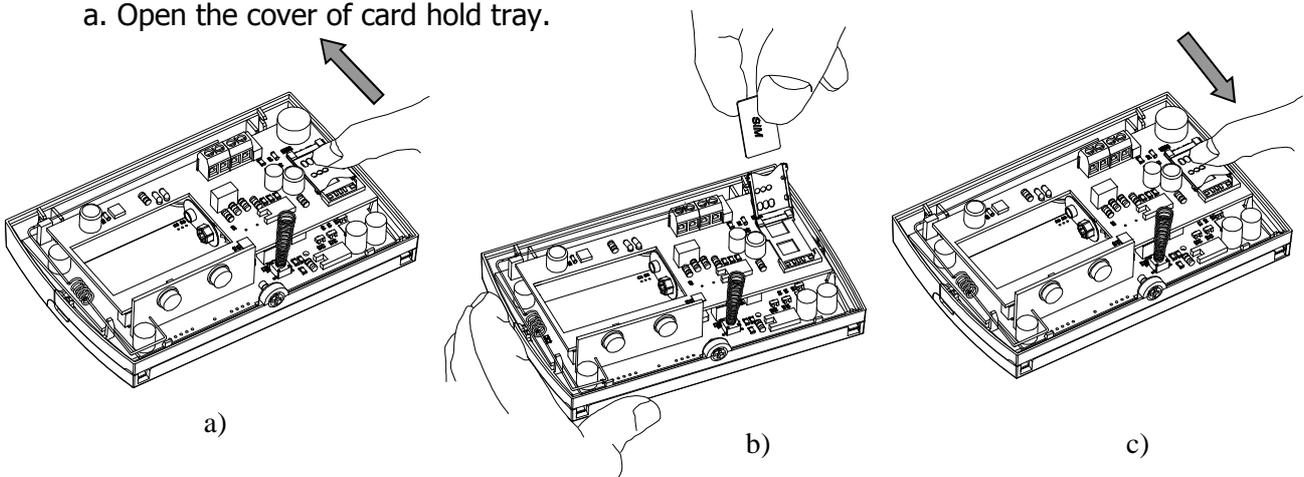
Systematically wire and test each circuit:

- Zone and Tamper circuit
- Finish by wiring any additional extension speaker sounders and the 13V supply.

## 2.4 – How to inset your SIM Card

When you insert the SIM card into panel ensure all power supply of panel is cut off.

a. Open the cover of card hold tray.



b. Insert the SIM card to the cover.

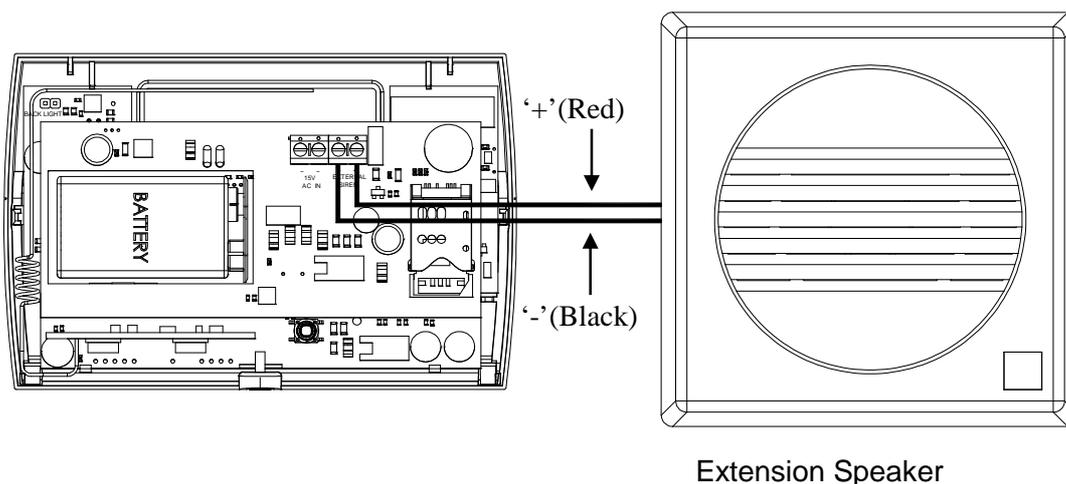
c. Close the cover and slide into the lock.

## 2.5 – Extension speaker

Extension speaker may be connected to the loudspeaker terminals to produce high volume alarm tones.

### **External speaker connects to control panel**

Extension speakers may be wired across the speaker terminals (Red to + and Black to -). Mounted in convenient positions within the installation the extension speakers will reproduce one of the alarm tones generated by itself.



## Section 3 – Factory Default Setting

### System Status

Master code : 1234  
 Bell time : 3 minutes  
 System Time : 00:00:00  
 System Date : 01-01-12  
 Alarm INFO text is Null  
 Zone type : Security  
 GSM Receiving Signal Level Display : On

### SET Mode

**Full mode:**  
 Zone 1-10 : Delay  
 Exit Mode : Timed Exit  
 Delay Time : 30 sec

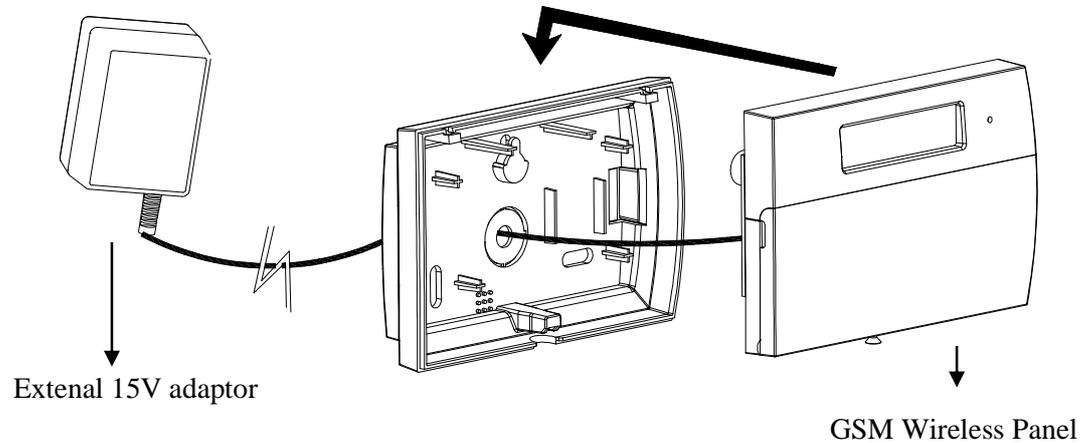
**Part 1 mode:**  
 Zone 1-10 : Immediate  
 Exit Mode : Timed Exit  
 Delay Time : 30 sec

### Defaulting Master code

1. Disconnect all power source to the unit
2. Repower system - After initialized the alarm will start
3. Press **SET** & **RESET** KEYS simultaneously for 5 seconds - this process takes around 10 seconds.
4. After Master Reset, enter 1 2 3 4 to silence alarm

## Section 4 – Mains Connection

The mains power should be connected using an AC/ AC Adaptor(AC230V/AC15V, 500mA).



**CAUTION:** To avoid the risk of electrical shock you must always totally isolate the mains supply before opening the control panel cover(s).

On connecting the mains supply to the panel the power indicator is lit. ★ Power

### Testing the System

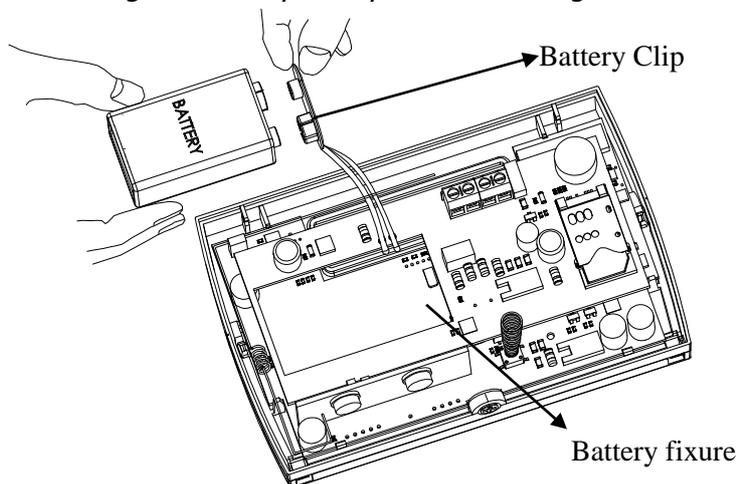
Complete the wiring of the system and then:

- Fully test the system and ensure it is fault free.
- Fully program the system.
- Fill in the installation log at the back of the manual and retain if for future reference.

## Section 5 – First Power Up

Before powering up the GSM panel – fit the top cover on to the base. Connect the speaker wires and the SIM Card inserted.

- a. On connecting the battery the system will now go into alarm condition.



- b. Fit the cover to hold down the tamper spring at the bottom right-hand of the board.  
 c. Enter Master code ① ② ③ ④ (factory set code).

**Power Up**

- d. Press  to return to Day mode.

01-Jan 00:00   
 DAY 

## Section 6 – How to Set up the system

### Master Program Mode

The control panel may be programmed to suit a wide variety of installations. Once the master program mode has been accessed, each configuration may be changed in any order.

**Before entering master program mode the system should be in Day mode.**

The full menu structure for the panel can only be accessed while in master Program Mode. The structure is shown in the following table:

MENU OPTIONS	
1 Register Mobile Number	5 Setup System
2 Setup Arm Setting	6 View alarm log
3 Setup Zone Name	7 Test System
4 Setup code	8 Setup Wireless Device

## 6.1 – Set Mobile Number

### 6.1.1 – Entering Master Program Mode

It is accessed directly from Day mode via the Master code.

Entering the Master Operation mode is as follow :

- Enter Manager program mode

Press **PROG** ① ② ③ ④

**MASTER MENU**  
Set Mobile No.?

### 6.1.2 – Setting the Mobile Phone Number

- Under Master mode.

**MASTER MENU**  
Set Mobile No.?

- Press ① **SET** keys to go into **Set Mobile No** function.

**MASTER MENU**  
Set Mobile No.?

- Press ① **SET** to select phone 1

Note: ① =Phone 1, ② =Phone 2, ③ = Phone 3

**SELECT NUMBER**  
Mobile Number 1?

- Press ① **SET** to go into the **Change Number** function.

**SETUP NUMBER**  
Change Number?

- Press **SET** keys to go into register mobile phone function.

INPUT MOBILE NO.  
\_

- Input your mobile phone Number, max 16 digit.  
Input phone number eg. 0412345678

INPUT MOBILE NO.  
0412345678\_

- Press **SET** to save the phone number or press **RESET** to cancel and exit.

SETUP NUMBER  
Change Num Name?

### 6.1.3 – Setting the Mobile Phone Name

- Under Master mode.

MASTER MENU  
Set Mobile No.?

- Press **1** **SET** keys to go into **Set Mobile No** function.

MASTER MENU  
Set Mobile No.?

- Press **1** **SET** to select phone 1

Note: **1** =Phone 1, **2** =Phone 2, **3** = Phone 3

SELECT NUMBER  
Mobile Number 1?

- Press **2** to select the **Change Number Name** function.

SETUP NUMBER  
Change Num Name?

- Press **SET** to go into the Change Number Name function.

SET Number Name  
?Phone 1

- Press **▲** key, it will clear the last character.

SET Number Name  
?Phone

- Press **▼** key, it will clear the line text.

SET Number Name  
?\_

[0]..[9] key have different characters.

- 0** \_0   **1** ,)?1   **2** abc2   **3** def3
- 4** ghi4   **5** jkl5   **6** mno6   **7** pqrs7
- 8** tuv8   **9** wxyz9

- Press **PROG** key to toggle between capital and lower case letters. ABC-abc.

- Press **4** key twice within 3 seconds, Capital 'H' will be shown on LCD.

SET Number Name  
?H

- Press **3** key twice within 3 seconds. Lower case 'e' will be shown on LCD.

SET Number Name  
?He

- Input "Helen" string.

SET Number Name  
?Helen

- Press **SET** key to accept input and save the text,
- Press **RESET** key, it will exit without change to the text.

SETUP NUMBER  
Delete Number?

### 6.1.4 – Deleting the Mobile Phone Number

- Under Master mode.

MASTER MENU  
Set Mobile No.?

- Press **1** **SET** keys to go into **Set Mobile No** function.

MASTER MENU  
Set Mobile No.?

- Press **1** **SET** to select phone 1

Note: **1** =Phone 1, **2** =Phone 2, **3** = Phone 3

SELECT NUMBER  
Mobile Number 1?

- Press **3** to select the **Delete Number** function.

SETUP NUMBER  
Delete Number?

- Press **SET** to delete Mobile Number 1.

SETUP NUMBER  
Number Delete!

## 6.2 – Setup Programs

### 6.2.1 – Full mode Setting

- Under Master mode.
- Press **2** **SET** to select **Setup Programs**.

MASTER MENU  
Setup Program?

- Press **1** **SET** to accept and go into **Setup Full Mode**.

SELECT PROGRAM  
Setup Full Mode?

## 6.2.2 – Part mode Setting

- Under Master mode.
- Press **2** **SET** to select **Setup Programs**.
- Press **2** **SET** to accept and go into **Setup Part Mode**.

MASTER MENU  
Setup Program?

SELECT PROGRAM  
Setup Part Mode?

## 6.2.3 – Setting zone function

In **Zone Function**, Security type zones can be assigned with different functions. These are **1= Immediate Zone, 2 = Delay Zone**

### Immediate Zone:

Use this function when the zone is not part of an entry/exit route. When the system is **SET**, activation of an immediate zone will cause a full alarm condition.

### Delay Zone:

A time zone would be used to protect an entry/exit route. Opening the door or triggering the sensor in this type of zone when the system is **SET** will start the entry timer.

Under Master Menu/Setup Program, the program mode is chosen.

- Press **1** **SET** to go into **zone functions** function.
- Select Zone No. using **▲** or **▼** key.
- Press **SET** to accept. Display zone current function.
- If press **1** to select **Immediate zone** function.
- If press **2** to select **Delay zone** function.
- Press **SET** to accept and return to next zone option or press **RESET** to cancel and exit.

Setup Full Mode  
Zone Function?

SELECT ZONE  
Zone 1?

ZONE FUNCTION  
Immediate Zone?

ZONE FUNCTION  
Immediate Zone?

ZONE FUNCTION  
Delay Zone?

SELECT ZONE  
Zone 2?

## 6.2.4 – Setting Delay Time function

This is the time allowed to leave the premises via the exit route before the system arms (Entry/Exit time), and entry route to disarm the system before the system goes into alarm. The programmable range is 00-99 seconds.

The default is 30 seconds.

Under Master Menu/Setup Program, the program mode is chosen. ( Full or Part )

- Press **2** to select **Delay Time** function.

Setup Full Mode  
Delay Time?

- Press **SET** to accept. Display current exit time number.

Delay Time  
? 30

Set the time by pressing number key. The range is 00-99.

eg. Set the exit time 15seconds.

- Press **1** number key, cursor moves to next a character.

Delay Time  
? 10

- Then press **5** number key, cursor move to next a character.

Delay Time  
? 15

- Press **SET** to save, or press **RESET** to cancel.

Setup Full Mode  
Zone Function?

## 6.3 – Setup Zones Name

### 6.3.1 – Setting Zone Name

This option allows each of the ten zones to be given a name.

e.g. Change zone 5 name to Bedroom 1.

Under Master Menu.

- Press **3** to select **Set Zone Name** function.

MASTER MENU  
Set Zone Name?

- Press **SET** to accept.

SELECT ZONE  
Zone 1?

- Press **5** **SET** keys to select zone 5.

SET ZONE TYPE  
Zone Name?

Note: **1** =zone 1, **2**=zone 2, ... **0** = zone 10

- Press **1** **SET** keys to go into setup zone name function.

ZONE NAME  
? Zone 5\_

- Press  key, it will clear the last character.

ZONE NAME  
? Zone \_

- Press  key, it will clear the line text.

ZONE NAME  
? \_

[0]..[9] key have different characters.

- ① \_0    ① ,)?1    ② abc2    ③ def3
- ④ ghi4    ⑤ jkl5    ⑥ mno6    ⑦ pqrs7
- ⑧ tuv8    ⑨ wxyz9

ZONE NAME  
? B\_

- Press  key twice within 3 seconds. Capital 'B' will be shown on LCD.

ZONE NAME  
? B\_

- Press  key to toggle between capital and lower case letters. ABC-abc.

ZONE NAME  
? Be\_

- Press  key twice within 3 seconds. Lower case 'e' will be shown on LCD.

- Input "Bedroom 1" string.

ZONE NAME  
? Bedroom 1\_

- Press  key to accept input and save the text,
- Press  key, it will exit without change to the text.

MASTER MENU  
Change Code?

## 6. 4 – Change Code

### 6. 4.1 – Changing Master Code

Under Master Menu.

- Press   keys to go into **Setup Codes** function.

MASTER MENU  
Change Code?

- Press  to accept and go into set the user.

MASTER CODE  
\*\*\*\*  
\_

- Input the 4-digit code, if you enter the wrong 4 digit code, an error tone will be generated.

- Press  to save. If the 4-digit is the same as other codes, then display and error tone generate,

MASTER MENU  
Setup System?

- Press  key, it will not change the code and exit.

## 6.5 – Setup system

The catalog of Setup system contains five parts. They are list as follow:

**1 = Bell Time, 2 = Set Time, 3 = Set Date, 4 = GSM Receiving Signal Level Display, 5 = Reset NVM**( non-volatile memory)

### 6.5.1 – Entering Bell Time

This is the duration that the external bell output is active. The range is 01-20 minutes. The default is 14 minutes.

e.g. Change the **Bell Time** from 3 to 10 minutes.

Under Master Menu

• Press **5** **SET** keys to go into **Setup System** function.

MASTER MENU  
Setup System?

• Press **1** to select **Bell Time** function.

SETUP SYSTEM  
Bell Time?

• Press **SET** to accept. Display current Bell time number.

BELL TIME  
Min? 03

Set the time by pressing number key. The range is 01-20.

• Press **1** number key, cursor moves to the next a character.

BELL TIME  
Min? 13

• Then press **0** number key, cursor moves to the next a character.

BELL TIME  
Min? 10\_

• Press **SET** to save it, or press **RESET** to cancel, it will exit and go to "Set Time".

SETUP SYSTEM  
Set Time?

### 6.5.2 – How to Set Time

The time can be modified in hours, minutes in the format HH:MM. you must set it correctly, or else System will generate an error tone and not save the change. **▼** key will help you to select the bit that you want to change.

*\* Time and Date will be lost once the power supply from both main power and backup battery are disconnected*

e.g. Change the system time to 12:02.

Under Master Menu

• Press **5** **SET** keys to go into **Setup System** function.

SETUP SYSTEM  
Bell Time?

- Press **2** to select **Set Time** function.

SETUP SYSTEM  
Set Time?

- Press **SET** to accept. Display current time.

Set Time HH:MM  
00:00

set new time to 12:02

- Press **1 2 0 2** number keys.

Set Time HH:MM  
12:02

- Press **SET** to save it and clear second time, or press **RESET** to cancel, it will exit and go to "**Set Date**".

SETUP SYSTEM  
Set Date?

### 6.5.3 – Entering Set Date

Using digital keys **▲** or **▼** key to change the date, pressing the **SET** key to save or pressing **RESET** key to cancel. The date can be changed in day, month, year format DD/MM/YY. The method of set date is the same as setting time.

e.g. Set current system date: 01-08-2012

Under Master Menu

- Press **5 SET** keys to go into **Setup System** function.

SETUP SYSTEM  
Bell Time?

- Press **3 SET** to select **Set Date** function.

SETUP SYSTEM  
Set Date?

- Enter system date: Day/Mon/Year(6-digits)

Date DD/MM/YY  
01/01/12

- Press **0 8 0 1 1 2** number keys.

Date DD/MM/YY  
08/01/12

- Press **SET** to save or press **RESET** to cancel and it will exit the current menu.

SETUP SYSTEM  
GSM Signal Dis?

## 6.5.4 – Setting GSM Signal Level Display

When this flag is set to ON, system will check the antenna of GSM module receiving signal level all the time and show level through this icon "  ".

Under Master Menu

- Press   keys to go into **Setup System** function.
- Press   to select GSM Signal Display function.
- Press  or  key to toggle ON/OFF.
- Press  to save or press  to cancel and will exit the current menu.

SETUP SYSTEM  
Bell Time?

SETUP SYSTEM  
GSM Signal Dis?

GSM Signal Dis  
ON

SETUP SYSTEM  
Reset NVM?

\* NVM is non-volatile memory

## 6.5.5 – Restoring to factory setting using menu

You will change the value of all parameters to factory default value when you set it.

**CAUTION:** All configurations of the panel are reset to reset to factory default conditions.

To default to factory settings:

Under Master Menu

- Press   keys to go into **Setup System** function.
- Press  to select Reset NVM function.
- Press  key to go into Reset NVM function.
- Press  to accept and system will generate an extended acceptance tone, or press  to cancel and will exit the current menu.

SETUP SYSTEM  
Bell Time?

SETUP SYSTEM  
Reset NVM?

\* NVM is Non-volatile memory

Are you sure?  
Press S to reset

SETUP SYSTEM  
Bell Time?

## 6. 6 – View Event Log

The event log gives a display of all the events that has taken place. The events are arranged by date and time. Up to 100 events can be stored in the memory. When the log reaches 100 events and another event takes place, the first event drops out. The system is known as FILO (First In Last Out).

To view the event log:

- Press:
- ① Jump to oldest event
  - ④ Jump to newest event
  - ⑨ Clear all alarm event
  - ▼ Move one event older
  - ▲ Move one event newer

- Under **Master** menu
- Press ⑥ key to select **View Event Log** function.
- Press SET to accept and most recent event shown first.
- View other event log using ▲ or ▼ key.
- View event time and date using SET key.
- Press any key to return the current event log when viewing the time and date
- Press SET to accept and system will generate an extended acceptance tone. Or press RESET key to exit
- Finished and return to next option.

MASTER MENU  
View Event Log?

System Set  
Master

Code Changed  
Master

Time : 00 : 28  
Date : 12 - Jan

Code Change  
Master

MASTER MENU  
Test System?

## 6.7 – Test System

This function has three parts in Test System: **Test Speaker, Walk Test, SMS Test.**

### 6.7.1 – How to Test Speaker

- Under Master menu
- Press ⑦ key to select **Test System** function.
- Press SET key to go into test system bell item.
- Press ① key to select speaker output test.
- Press SET key to accept and toggle test outputs ON, or press RESET key , it will leave the menu "Test System".

MASTER MENU  
Test System?

TEST SYSTEM  
Speaker?

Speaker is ON  
Press any key

- Press any key to stop output and menu return to next test option.

TEST SYSTEM  
Walk Test?

## 6.7.2 – How to perform Walk Test

The walk test function allows checking of each Zone trigger, Zone tamper, Detect Tamper, Control panel tamper, Bell Box tamper, Remote Keypad tamper in order to verify that they are functioning correctly. A tone is generated as each zone or tamper is activated (open circuit).

e.g. Trigger Zone and Zone tamper

- Under Master menu
- Press 7 SET keys to go into **Test System** function.
- Press 2 key to select **Walk Test** function.
- Press SET key to go into walk test.
- The zone tested will be display in LCD, if it isn't displayed, check the Zone that you trigger.

TEST SYSTEM  
Speaker?

TEST SYSTEM  
Walk Test?

Walk Test

Zone Tested  
Z1:Zone 1

- Press any key to exit "**Walk Test**".

## 6.7.3 – How to perform SMS test

- Under Master menu
- Press 7 SET keys to go into **Test System** function.
- Press 3 key to select **SMS Test** function.
- Press SET key to go into SMS Test function.
- System sends the message from phone 1 to phone 3.
- System will show "Test fail" when it registers a wrong number.

TEST SYSTEM  
Speaker?

TEST SYSTEM  
SMS Test?

Test Message  
Sending...

Phone 1  
Test OK!

Phone 1  
Test Fail!

- After sending all message, system will display "test finish".
- If no phone number is registered, the unit will ask user to register.
- Press any key to exit "SMS Test".

SMS Test Finish  
Press any key

Please Register  
Phone Number

TEST SYSTEM  
Speaker?

## 6.8 – Setup Wireless Device

Up to 4 wireless remote keys and 10 wireless devices(PIR or MS) could be paired with the control panel.

**1 = Setup WL Key, 2 = Setup WL Zone**

### 6.8.1 – How to pair wireless remote key

Wireless remote key which is paired to the CU may control cp to be full mode, part 1 mode and day mode.

- Under Master menu
- Press **8** to select **Setup WL Device** function.
- Press **SET** keys to go into **Setup WL Device** function.
- Press **1** **SET** key to select **Setup WL Key** function.

MASTER MENU  
Setup WL Device?

SETUP WL DEVICE  
Setup WL Key?

SETUP KEY  
Key 1 Learning

- Press any key on the wireless key to learn.

If wireless key have been entered into the system, process will be unsuccessful.

Key 1  
Leant OK!

- Press any key to exit the current menu.

## 6.8.2 – How to delete all wireless remote keys

- Under Master menu
- Press **8** **SET** keys to go into **Setup WL Device** function.
- Press **1** **SET** key to select **Setup WL Key** function.
- Press **▲** key go into delete all keys function.
- Press **SET** key to delete key ID record or press **RESET** to reject change.
- Press any key to exit "Setup WL Key".

SETUP WL DEVICE  
Setup WL Key?

All keys  
have been learnt

SETUP KEY  
All keys delete?

All keys  
ID code deleted

SETUP WL DEVICE  
Setup WL Zone?

## 6.8.3 – How to learn a wireless zone

Zone 1~ Zone 10 is all the wireless zones.

- Under Master menu
- Press **8** **SET** keys to go into **Setup WL Device** function.
- Press **2** key to select **Setup WL Zone** function.
- Press **SET** key to go into Setup WL Zone item.
- Press **5** **SET** keys to select zone 5.

Note: **1** = Zone 1, **2** = Zone 2, ... **0** = Zone 10

- Trigger wireless Device(PIR or MS).

Note: System emitting beep-beep sound indicate learning the wireless device successfully.

- Press any key to exit the current menu.

SETUP WL DEVICE  
Setup WL Key?

SETUP WL DEVICE  
Setup WL Zone?

SETUP ZONE  
Zone 1?

Zone 5 Learning  
Trig WL Detector

Zone 5  
Learnt OK!

SETUP ZONE  
Zone 6?

## 6.8.4 – How to delete a wireless zone

- Under Master menu
- Press **8** **SET** keys to go into **Setup WL Device** function.

SETUP WL DEVICE  
Setup WL Key?

- Press **2** **SET** key to select **Setup WL Zone** function

SETUP ZONE  
Zone 1?

- Press **5** **SET** keys to select zone 5.

Zone 5  
Has been learnt

Note: **1** = Zone 1, **2**= Zone 2, ... **0**= Zone 10

- Press **▲** key go into delete the zone function.

Zone 5  
ID Code delete?

- Press **SET** key to delete zone ID record or press **RESET** to reject change.

Zone 5  
ID code deleted

- Press any key to exit the current menu.

SETUP ZONE  
Zone 6?

## 6.8.5 – How to delete all wireless zones

- Under Master menu
- Press **8** **SET** keys to go into **Setup WL Device** function.

SETUP WL DEVICE  
Setup WL Key?

- Press **2** **SET** key to select **Setup WL Zone** function

SETUP ZONE  
Zone 1?

- Press **▲** key go into delete all zones function.

All zones  
ID Code delete?

- Press **SET** key to delete all zones ID record or press **RESET** to cancel change.

Zone 5  
ID code deleted

- Press any key to exit the current menu.

SETUP ZONE  
Zone 6?

## 6.9 – How to Exit Master Program Menu

- Under Master menu
- Press **RESET** key to return to top of master menu.
- When no fault(Main tamper), return to DAY mode.

MASTER MENU  
Setup Program?

- LCD show DAY mode.

08-Jan 12:03  
DAY 

## Section 7 – Using System

After you have finished system settings, you can now use the system. This section gives an operation of how to arm and disarm the system as well as how to reset after an alarm.

### 7.1 – Setting the System

The panel has two programs: Program Full, Program Part. Both can be programmed independently in the master operations mode. So you can set the system to the corresponding mode: **Full Mode**, **Part Mode**

#### 7.1.1 – Using the keyboard on control panel to setup

- System is in Day mode.



- Enter 4-digit master code and wait  
e.g. press ① ② ③ ④



- The display will last 3 seconds.



- Prompt user to select arm mode  
Press key to select Full arm mode,  
Or press key to select Part arm mode,

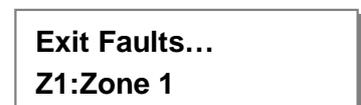


Or press key to exit.

- Exit and check system faults.

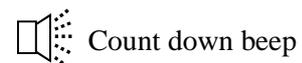
System fault contains: Tamper Zone, CP tamper

- If the system has fault an error message will be displayed on the LCD. Please resolve the fault before entering the mode.



e.g. Detector 1 abnormal.

- When there are no faults, the panel will display "Exit-No Faults" exit tone generated. Alarm will proceed to the selected mode until the exit time is completed..Pressing the key will quickly set the system.



- Arm mode is set.

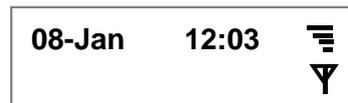
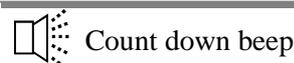
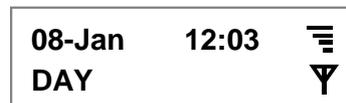


**Note:**

Wireless remote could set **full mode and part mode**. Pressing the **“disarm”** button on the wireless key will disarm the system.

### 7.1.2 – How to use SMS to set the system

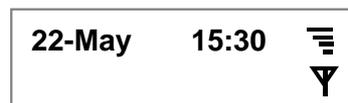
- System is in Day mode.
- Input command message **“1234armf”** to set system FULL Mode.
- Input command message **“1234armp”** to set system PART Mode.  
When no fault, it will display **“Exit–No Faults”** and the exit tone will be generated  
Note:
  - a, The SMS message is Case-insensitive.
  - b, If there is a zone that is open, system will feedback a message. “Zone open, Zone No”.
- Arm mode is set.



### 7.1.3 – Disarming the System

To disarm the system in SET as follows.

- System is in the SET mode
- Input 4-digit master code.  
e.g. press ① ② ③ ④
- System will be reset and work in DAY mode.



### 7.1.4 – How to use SMS to reset the system

- System is in the ARM mode
- Input command message **“1234disarm”** to set system to DAY Mode.



## 7.1.5 – How to DISARM the Alarm and RESET the system

You can disarm the system in SET and reset it after an alarm or tamper.

e.g. Control Panel tamper trigger alarm

- System work in SET mode

- Enter master code

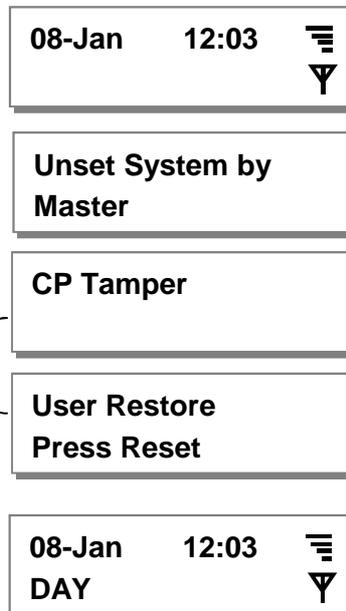
e.g. press ① ② ③ ④ .

- It will stop system in alarm and the LCD will display the message of newest alarm event.

Hint (the display will scroll the following two screens)

- Press  or enter master code to reset.

Then system return to Day mode.



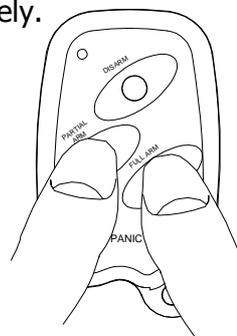
## 7.1.6 – How to use Panic Alarm on keypad

Should you need to attract attention, the full alarm signal can be activated in an emergency by pressing 0 and 5 together

Press ① & ⑤ simultaneously, the system and external sounder will sound immediately.

## 7.1.7 – How to use Panic Alarm on wireless key

Pressing the **PARTIAL ARM** & **FULL ARM** key on wireless key simultaneously will cause the system and external sounder sounding immediately.



## 7.1.8 – SMS Content of feedback for system action

Action event	SMS content
ARM Full action(1234armf)	System is in Full Mode. --Phone Name.
ARM Part action(1234armp)	System is in Part Mode. --Phone Name.
DISARM action(1234disarm)	System is in Day Mode. --Phone Name.
DISARM action(1234disarm)	System is disarmed from alarm. --Phone Name.
Zone trigger	System Zone Trigger, Zn:Zone Name
Wireless Zone tamper	System Zone Tamper, Zn: Zone Name
CP tamper	System Tamper, CP Tamper
Panic alarm	System Panic Alarm
GSM TEST	SMS Self Test
ARM action(1234armf or 1234armp) When Zone open	Zone Open Zone No

## Section 8 – Maintenance

### *Once every three months,*

- Test all detectors.
- Check speaker of control unit.

### *Additionally, once every year,*

- Test detector feature

### *Additionally, once every two years,*

- Replace the 9V alkaline battery in the Control Unit.

## Section 9 – Troubleshooting Guide

### Control Unit (CU)

Symptoms	Possible cause & cures
Power indicator does not light up.	Main supply is out. It is operating from backup battery. Check power connections/adaptor.
TAMPER	Tamper triggered, check panel tamper.
No response to keystroke	Power reset (both mains and backup battery)

**Wireless Door/Window Contact Detector (MC)**

<b>Symptoms</b>	<b>Possible causes and cures</b>
Does not detect opening of door or window (Red LED does not flash)	Check that batteries are correctly installed. Check that magnet is correctly positioned.
Built-in buzzer makes a sound	Batteries are low. Replace batteries

**Wireless PIR detector (PIR)**

<b>Symptoms</b>	<b>Possible causes and cures</b>
Does not detect movement (Red LED does not flash)	Is PIR's LED turned off? Is the PIR in its "sleep" condition (Section 3.4)
PIR causes false "intruder" alarms.	Check that PIR is not pointed at heat sources or moving objects, and is not mounted above a radiator or other heater.
PIR will not trigger alarm when the system is set.	PIR in "sleep" condition.
Built-in buzzer makes a sound	Batteries are low. Replace batteries

**Wireless Remote Control**

<b>Symptoms</b>	<b>Possible causes and cures</b>
Does not transmit (Red LED does not flash)	Check that the battery is correctly installed. Battery low, replace battery

**Remark:** If you have any problem with the alarm system. To default to factory settings, please follow sections 5 explained in this manual.

## Section 10 – Specifications

<b>GSM Wireless Alarm Panel</b>	
Type of Alarm Panel	Microprocessor based control unit
Housing	ABS
Entry Delay	default 30 seconds, programmable
Exit Delay	default 30 seconds, programmable
Alarm Zone	10 Zones - Programmable function
External Speaker	DC12V 16ohm, max current : 200mA
Siren Duration	Default 3 minutes
Current consumption control panel	Standby : 75mA Alarm : 240mA
Battery input voltage	Alkaline battery DC9V, 450mAh
Mains supply voltage	15V AC (+/- 10%) 50Hz max load 0.5A
Ambient operating temperature	0°C ~ 40°C
Dimensions (mm)	253 x 195 x 61

<b>Wireless Door/Window Contact Detector</b>	
Type	Magnetically activated switch with option for external wired contact detectors
Housing	ABS
LED	Transmission indication
Transmission Frequency	433MHz
Transmission Range	120 meters (open air with direct line of sight)
Power Supply	3VDC (2x 1.5V LR03 size AAA alkaline batteries are not included)

<b>Wireless Movement / Passive Infrared Detector</b>	
Type	Dual Pyroelectric element with hemispherical lens
Housing Material	On/off selectable
LED	default 30 seconds, programmable
Mounting Height	2 ~ 2.5 meters

Detection Range	12 meters @ 110°
Transmission Frequency	433MHz
Transmission Range	120 meters (open air with direct line of sight)
Power Supply	3VDC (2x 1.5V LR03 size AAA alkaline batteries are not included)

<b>Wireless Remote Key</b>	
Type	Microprocessor based wireless remote control key
Housing Material	ABS
LED	Transmission indication
Transmission Frequency	433MHz
Transmission Range	30 meters (open air with direct line of sight)
Power Supply	3VDC (1 x CR2032 Lithium Coin size Battery)

<b>External Sounder</b>	
Housing Material	ABS
Rated Voltage	12VDC
Sound Output Level	105dB

<b>Control Panel External Power Supply</b>	
Type	AC/AC Adaptor
Housing Material	ABS
Rated Supply	230VAC 50HZ supply
Output	Extra Low Voltage (AC15V max at 500mA AC)

## Appendix 1 – Event Log Messages

<b>Keypad text</b>	<b>Description</b>
Power up	Supply power on
Code Changed Master	Master code be changed
Battery Low	Battery low voltage
Battery Low Z No: Zone Name	Wireless Zone Low battery
AC Power Off	Mains power supply failure
System SET	System into Set mode
System Disaram	User has disarmed the system
Disarm from Alarm	User has disarmed the system from alarm
Intruder Alarm	Intruder zone activated (opened)
Entry Start	Entry time started
PANIC Alarm	Panic zone activated (opened)
CP Tamper	Control panel tamper opened
Zone Tamper Z No: Zone Name	Zone tamper opened

## Appendix 2 – Zone - Location Table

Zone Number	Location
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	

## Disposal and Recycling

Batteries and waste electrical products should not be disposed of with household waste. Please recycle where these facilities exist.

Due to our policy of continuous improvement we reserve the right to change specification without prior notice. Errors and omissions accepted. These instructions have been carefully checked prior to publication. However, no responsibility can be accepted by Challenger Security Products for any misinterpretation of these instructions.

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