WIRELESS BURGLAR ALARM SYSTEM

OPERATOR INSTRUCTION MANUAL

Please read this manual fully to ensure correct operation

FOR USE WITH MODEL **MHA1000**

CONTENTS

Thank you for purchasing this Mongoose security system which represents a positive step in protecting your home and property.
The multi-zone control panel and wireless detectors provide a convenient and easy to use system which should give years of trouble free service.

Please read this manual fully so you understand how the system works, how to operate it and how to customise the features for your specific needs.

1. HOW THE SYSTEM WORKS

The Mongoose MHA1000 comprises of the following items;

- 1 X Control Panel
- 1 X Remote Control
- 3 X Wireless PIR (Passive Infra-Red) Movement Detectors
- 2 X Wireless MDT's (Magnetic Door/Window Transmitters)
- 1 X Wired External Strobe/Siren with Ni-Cad Battery Back-Up
- 1 X 12 Metre External Siren Cable
- 1 X Control Panel Power Supply Unit
- 8 X Ni-Cad Rechargeable Batteries for Control Panel
- 5 X Alkaline 9V Batteries for all Detectors

The control panel is the heart of the system to which the PIR's and MDT's send a wireless signal when an intrusion is detected. The control panel then sounds it's own built-in internal siren and the exterior siren as a warning. The exterior siren also has a built-in flashing strobe light as a visible warning.

The control panel is armed or disarmed by either the security keypad, with your own personal code number, or by the remote control - it is your choice, whichever is the more convenient.
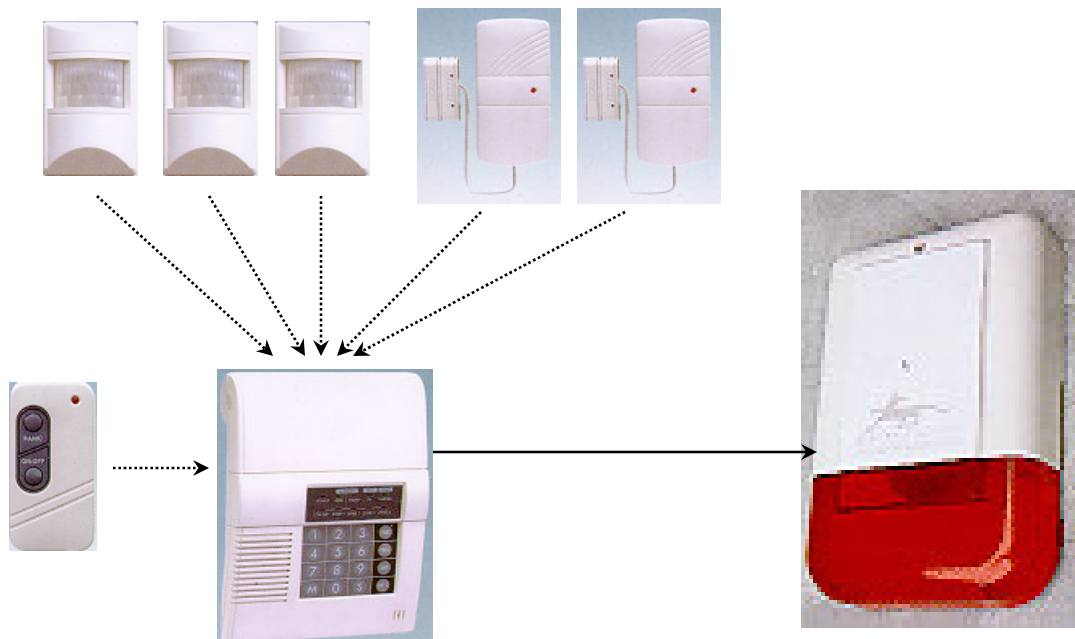
The PIR's and MDT's communicate with the control panel by digital wireless radio transmissions. The day to day use of other wireless products such as mobile phones etc. cannot effect the normal operation of this system due to the incorporation of advanced interference detection circuitry.

SITE CODE
The 'site code' identifies your security system from say your neighbour who may have the same or similar system. The site code is set at the time of installation. For the system to operate correctly, each of the main items in your system are allocated a 'site code' so that they can communicate with each other and ignore any signals from similar neighbouring systems and prevents yours from communicating with theirs.

ZONE CODES
As you may wish to segregate the detectors, the control panel has what are called zones. Think of a zone as an individual protected area of your house. Each detector is allocated to a zone, or many detectors can be allocated to just one zone.

For instance,
ZONE 1 = Entry / Exit point   MDT protected
ZONE 2 = Doors and/or windows   MDT protected
ZONE 3 = Lounge, dining area & hallway   PIR protected
ZONE 4 = Bedrooms   PIR protected

There is a time delay on zone 1 before a detection triggers the alarm to allow you time to enter or exit your house. This entry/exit time is programmable from 10 to 99 seconds to allow you sufficient time to either enter or exit. You may choose to have different entry and exit times. The control panel will chirp during this entry/exit time to warn you to either vacate your home or to disarm the system.
As your usual entry/exit point in you house may be the front door, this area may be protected by both an MDT on the front door and a PIR in the main hallway depending on the location of the detectors. In this case, both these detectors should be set on zone 1. The other zones, 2, 3 & 4, are factory set as instant alarm zones, so as soon as the system is armed, any detection within those zones will instantly trigger the alarm.

PART ARM (at home mode)
You can part arm the system to provide you with security protection whilst you are at home. When arming this way, zones 3 & 4 are omitted giving you protection on zones 1 & 2. In the example above, your doors and windows would be armed but the PIR's are not which means you can freely walk around your house without triggering the alarm. However, if a protected door or window is opened, the alarm will sound.
If you want to protect the lounge and dining area when you are asleep, then any detectors for that zone will need to be allocated to zone 1 or 2.

2. SYSTEM DESCRIPTION

Control Panel

Wireless PIR Detector   Magnetic Transmitter   Remote Control
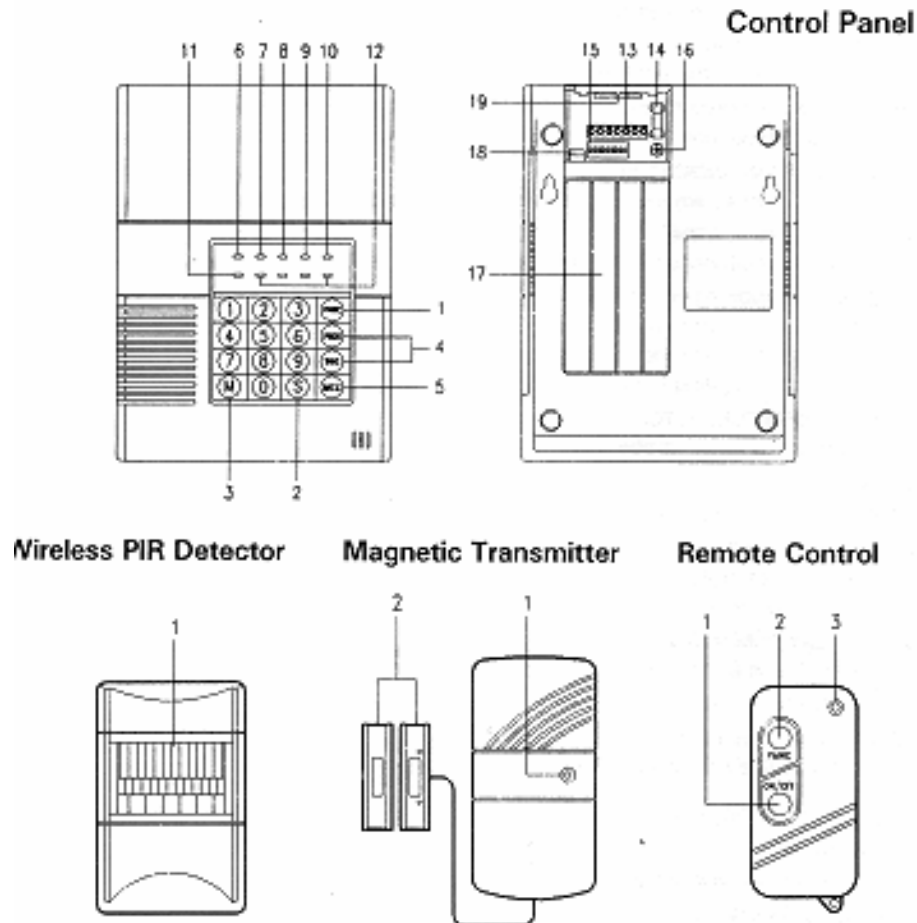
CONTROL PANEL

1. PANIC BUTTON
Press only in an emergency. Instantly activates the built-in and external siren.
2. S BUTTON
Used to arm, disarm & part arm (At Home Mode) the system.
3. M BUTTON
Used only when changing the keypad security code.
4. PROG & SAVE BUTTON
Used when programming the system memory.
5. BAT.C BUTTON
Used when changing the detector batteries.
6. POWER INDICATOR
Indicates that the AC mains power supply adapter is connected.
7. ARM INDICATOR
Indicates the system is armed.

2. SYSTEM DESCRIPTION - continued

CONTROL PANEL CONTINUED

8. P/ARM INDICATOR
Indicates the system is set in the 'At Home Mode' - part armed.

9. Rx/MONITOR INDICATOR
Indicates reception from a detector, remote and interference.

10. TAMPER/PANIC INDICATOR
Indicates that a tamper switch has been activated, or a panic button has been pressed.

11. LOW BAT INDICATOR
Flashes simultaneously with a zone indicator to show a detector has a low battery.
When this happens, replace the battery in the indicated detector with the correct type.

12. ZONE 1 - 4 INDICATOR
A zone indicator will illuminate for 2 minutes when a detector has been activated in the disarmed state. If a detector is activated in the armed state, the zone indicator will stay illuminated until disarmed and then re-armed. This serves as a testing and memory function during day to day operation.

13. EXPANSION CONNECTOR
To connect to external siren, strobe light and auto dialler.

14. FUSE: 1A/1.25A

15. SITE CODE DIP SWITCHES

16. TAMPER SWITCH
Designed to prevent removal of the rear cover. removal causes the sirens to sound.

17. BATTERY COMPARTMENT
Holds 8 pieces of Ni-cad rechargeable batteries. (AA 1.2v/550mA)
These act as battery back-up in the event of mains power interruption.

18. AC ADAPTER INPUT JACK

19. CABLE ACCESS ROUTE
Allows cable access from the siren or any other accessories into the panel.

WIRELESS PIR DETECTOR

1. PIR (PASSIVE INFRA-RED) DETECTOR
Detects movement within the protected area by the measurement of heat sources.

WIRELESS MDT (MAGNETIC DOOR TRANSMITTER)

1. INDICATOR (L.E.D.)
Indicates that a signal is being sent.

2. MAGNETIC DOOR/WINDOW SENSOR
Detects the opening of a door or window.

REMOTE CONTROL

1. ON/OFF BUTTON
Used to arm or disarm the system.

2. PANIC BUTTON
used to instantly sound the sirens in the event of an emergency.

3. INDICATOR
Indicates a signal is being sent and that the battery is working.

4. ARMING & DISARMING YOUR SECURITY SYSTEM

The Mongoose MHA1000 is simplicity itself as it is pre-programmed to suit the vast majority of installations.
The system can be armed and disarmed by either the remote control or by the security coded keypad.

REMOTE CONTROL
The remote control offers three user functions;
1) ON (Arming)   2) OFF (Disarming)   3) PANIC (Instant alarm)
To operate, simply press the button for the desired function. When arming, the control panel will emit ONE chirp. When disarming, it will emit THREE chirps.
By pressing the PANIC button, the siren will sound immediately. ('At Home Mode' (part arm) cannot be controlled by the remote)
TIP: If leaving the remote at home, make sure it is hidden from possible intruders.

HOW TO ARM WITH THE KEYPAD

1. Press the '0' button
2. Press the 'S' button

e.g. ⬚0⬚ ⬚S⬚

* You will notice that the ARM indicator will light on the control panel.

HOW TO DISARM WITH THE KEYPAD

1. Enter your security "PIN" number (factory set at 1 2 3 4)
2. Press the 'S' button

e.g. ⬚1⬚ ⬚2⬚ ⬚3⬚ ⬚4⬚ ⬚S⬚

* The ARM or P/ARM indicator will extinguish.

HOW TO ARM THE SYSTEM IN 'AT HOME MODE' (P/ARM)

This function simply arms the system but omits any detectors on zones 3 & 4 and is ideal for using at night to protect areas allocated to zones 1 & 2. The system can only be set in 'At Home Mode' by the main keypad, but it can be disarmed by the remote control or by the keypad.

1. Press the '9' button.
2. Press the 'S' button.

e.g. ⬚9⬚ ⬚S⬚

* You will notice the P/ARM indicator will light.

5. PROGRAMMING THE SYSTEM

To provide complete flexibility, the MHA1000 has a range of programming options to suit you, your life style and your home.
By following these simple steps you can control the following;

1) Security 'PIN' number	pre-set to 1 2 3 4
	THIS MUST BE CHANGED
2) Exit time	pre-set to 20 seconds
3) Entry time	pre-set to 20 seconds
4) Alarm duration	pre-set to 4 minutes
5) Tamper disable	for changing detector batteries
6) Jamming duration	pre-set to 30 seconds
7) True jamming status	pre-set to 'OFF'
8) Remote 'disarm' disable	pre-set to 'OFF'

In most cases, you will not need to alter the factory settings except for your security 'PIN' (personal identification number) number. It is essential that the factory pre-set of 1 2 3 4 is changed to a 4 digit number of your choice. Avoid selecting numbers that are too obvious such as phone numbers, street numbers etc. It should be a number known only to you and your immediate family. Do not write down the number near the control panel nor in this instruction manual or in any other obvious place.

TO CHANGE THE SECURITY 'PIN' NUMBER CODE

The factory default code is 1 2 3 4. The new code must also be 4digits. To program a new code or to change an existing code to a new one, proceed as follows;

1. Enter the current code	example	[1] [2] [3] [4]
2. Press 'M' then '0' buttons		[M] [0]
3. Enter your new code		[?] [?] [?] [?]
4. Press the 'M' button		[M]

EXAMPLE:
You want to change the factory default code of 1 2 3 4 to a code of 6 5 5 2.

$$\boxed{1}\boxed{2}\boxed{3}\boxed{4} \quad \boxed{M}\boxed{0} \quad \boxed{6}\boxed{5}\boxed{5}\boxed{2} \quad \boxed{M}$$

When carrying out any programming changes, be extremely careful that the correct keys are pressed. Following the successful recognition of a program entry the control panel will emit 1 chirp. Incorrect entries will emit 3 chirps. If this happens, repeat the last step you were entering.

PROGRAMMING			
FUNCTION	PRE-SETS	SETTING PROCEDURE	REMARKS
Keypad Code	1 2 3 4	1 2 3 4 M0 ? ? ? ? M	? ? ? ? = your new code number
Detector battery change	OFF	? ? ? ? BAT.C	Disables tamper switches in detectors for 20 minutes
Alarm duration	4 minutes	? ? ? ? PROG 03 # # SAVE	# # = 01 to 20 mins
Exit time	20 seconds	? ? ? ? PROG 04 # # SAVE	# # = 10 to 99 seconds
Entry time	20 seconds	? ? ? ? PROG 05 # # SAVE	# # = 10 to 99 seconds
Jamming duration	30 seconds	? ? ? ? PROG 06 # # SAVE	# # = 10 to 99 seconds
True jamming status	OFF	? ? ? ? PROG 07 # # SAVE	# # = 01 for ON 00 for OFF
Remote control disarm disable	OFF	? ? ? ? PROG 08 # # SAVE	# # = 01 for ON 00 for OFF

EXAMPLE:
You wish to change the exit time from the factory pre-set of 20 seconds to 1 minute.
Your new security keypad code is 6 5 5 2.

You press these buttons:- 6 5 5 2 PROG 0 4 6 0 SAVE

That's all there is to it, your system is now programmed for your own personal requirements and is ready to protect your home and property.

The remainder of this manual covers installation, the setting up of the site and zone codes, how to change the batteries, testing your system and answers to commonly asked questions.
The reading of this manual fully will help you understand how your security system works and sometimes why it doesn't.

WIRELESS BURGLAR ALARM SYSTEM

INSTALLATION MANUAL

Please read this manual fully to ensure correct operation

FOR USE WITH MODEL **MHA1000**

CONTENTS

Please read this manual fully so you understand how the system works, how to operate it and how to customise the features for your specific needs.

1. INSTALLATION

PLANNING THE INSTALLATION

The installation of this security system is an important part of how well the system will protect your home. Before proceeding with any part of the installation you must give careful consideration to the location of the detectors, the control panel and the exterior siren. You may find it useful to sketch a plan of your home and identify the optimum location for each component.
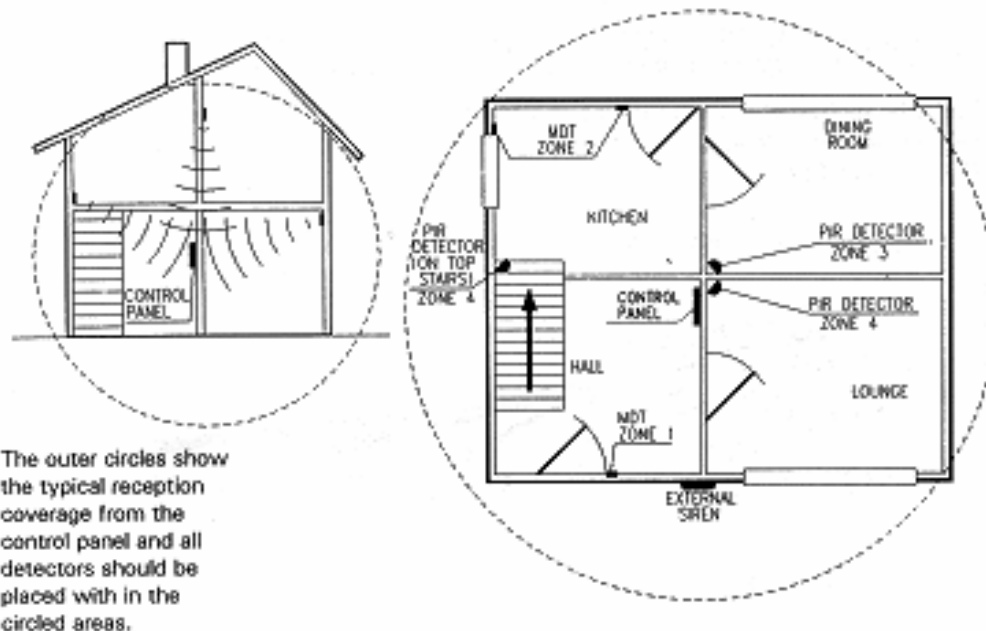
The MHA1000 is equipped with 3 PIR's and 2 MDT's which will provide more than adequate coverage for an average sized home. The use of additional PIR's and/or MDT's is recommended for larger properties or where there are many entry and exit points which you feel need to be protected.

Once you have identified the areas (zones) that need to be protected, you can now decide where each detector can be sited.

The control panel should be ideally located centrally in your home so that it can communicate at equal distances to each detector. For better security, the control panel should not be able to be reached by an intruder before being detected.

NOTE It is possible to add any number of detectors to each Zone.

Fig. 1 is a plan showing this type of dwelling and how best to position the detectors. The Control Panel is positioned at a center point between detectors for optimum reception performance.

The outer circles show the typical reception coverage from the control panel and all detectors should be placed with in the circled areas.

2. STARTING THE INSTALLATION - LOCATION OF COMPONENTS

CONTROL PANEL

The optimum operating range of your detectors is dependant on the location of the control panel and the numbers of walls between your detectors and the panel. The control panel should therefore ideally be located an equal distance from all detectors, where possible, with thought given to easy access when exiting or entering your home.
The location you choose must therefore be close to the access route and within easy reach of a mains power supply. If the optional auto dialler is being installed, access to a telephone jack point is also required.

EXTERNAL SIREN

The external siren should be located on the exterior of your home to provide a visible deterrent that your home has a security system. The location should be such that when an alarm occurs your neighbours or passers by can see and hear it. It should be mounted in a place out of normal reach and protected by the elements such as under an overhanging roof.
NOTE: Never run the siren cable along the surface of an external wall or close to mains power cables. If running under carpets, please avoid possible damage from carpet nails.

PIR DETECTORS

Avoid installing 2 PIR detectors in one room protecting the same area, or with 2 PIR's 'seeing' each other. This may cause false alarms.
Make sure the detection area is not obstructed by curtains, large pieces of furniture, plants etc. which may block the pattern of coverage.
Avoid locating a PIR in areas that may produce rapid changes in room temperature such as central heating ducts, radiators, dish washers (dry cycle), open or living fires etc. PIR's operate by detecting heat movement and therefore may false alarm if rapid temperature changes occur. For instance, a dark coloured coffee table or other item near a window could be sufficient to trigger the alarm when the sun suddenly comes out as it will heat quicker than a light coloured object.
The PIR's have a detecting range of up to 18 metres in a 120 degree arc on 3 layers. Install the detector at a height of approximately 2.1 metres (7 feet) from the floor.

PIR DETECTOR PATTERN

2
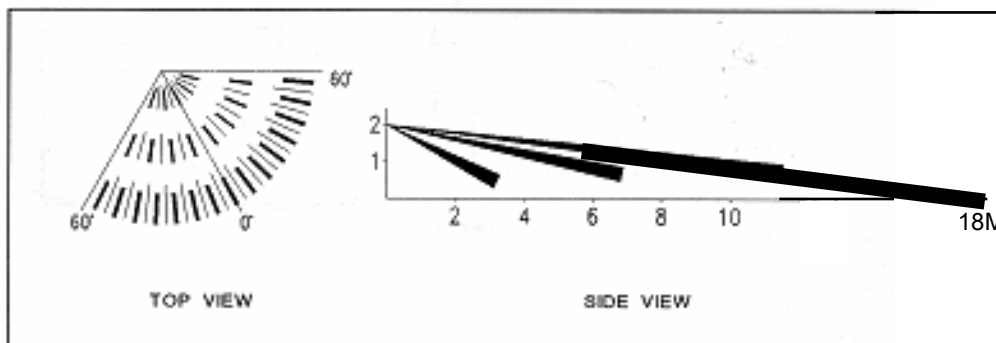
2. STARTING THE INSTALLATION - LOCATION OF COMPONENTS

MDT's (MAGNETIC DOOR/WINDOW TRANSMITTERS)

The MDT's can be used for a number of functions. The most popular is the protection to doors and windows. However, they can be connected to a panic switch or any other type of use where a 'make and break' trigger can be utilised.

3. SITE CODE

Once you have decided where the various components will be located, you need to set the site code in each component. The site code must be the same for all the components and distinguishes your system from a neighbouring one and allows your detectors to communicate with the control panel. If the site code was the same as your next door neighbour, their detectors will trigger your alarm. The selection of site code therefore must be different.
The control panel has 9 dip switches, the PIR's and MDT's have 12 dip switches - 9 for site code and 3 for zone code.

SETTING THE SITE CODE
Remove the cover from the control panel. You will see a panel with 9 dip switches - marked 1 to 9. By setting these dip switches in different configurations, each one either on or off, you are altering the site code. Select your own site code in any configuration of your choice.

EXAMPLE:
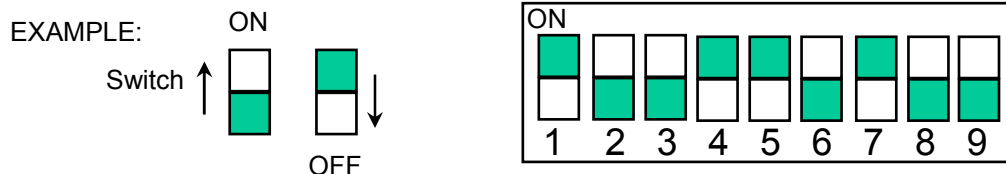
Now you have set the site code for the control panel, you need to set <u>the same</u> site code for the other components.
Remove the covers from the PIR's, MDT's and the remote control. You will see each has a dip switch panel.

REMOTE CONTROL
The remote has 9 dip switches. Set the position of each of these the same as the control panel.

PIR's & MDT's
These have 12 dip switches - 9 for site code and 3 for zone code. Set the first 9 (1 to 9) to the same code as the control panel and remote.

You have now successfully set up all the components to communicate with each other.

4. ZONE CODES

Refer to the front of this manual for an explanation of zone codes.

In the detectors, there are 12 dip switches. As explained in the previous section, the first 9 are for the site code and the last 3 (10, 11 & 12) are for setting up the zone code. It is the last 3 that determine which detector is on which zone.

EXAMPLE - ZONE 1:
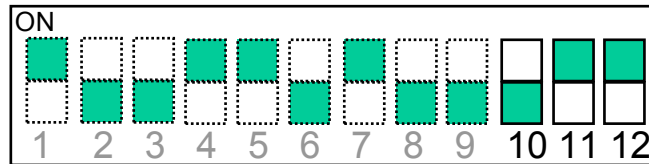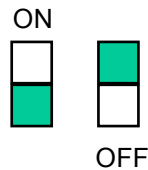
By setting these dip switches in different configurations, each one either on or off, you are altering the zone code.

DIP SWITCH	ZONE 1 ENTRY/EXIT	ZONE 2 INSTANT	ZONE 3 INSTANT	ZONE 4 INSTANT	PANIC TAMPER
10	ON	OFF	ON	OFF	OFF
11	OFF	ON	ON	OFF	OFF
12	OFF	OFF	OFF	ON	OFF
SWITCH SETTINGS	10 11 12	10 11 12	10 11 12	10 11 12	10 11 12

e.g. To allow for an entry or exit delay time any detector likely to be triggered should be set to zone 1. MDT's are normally set to zone 1 as these are door transmitters and are usually located at entry/exit points - front door and/or back door.
Detectors to be armed whilst 'at home' should be set on either zones 1 or 2.

ALARM STATUS	ZONE 1 ENTRY/EXIT	ZONE 2 INSTANT	ZONE 3 INSTANT	ZONE 4 INSTANT	PANIC TAMPER
DISARMED	OFF	OFF	OFF	OFF	ON
ARMED	ON	ON	ON	ON	ON
P/ARM 'AT HOME'	ON	ON	OFF	OFF	ON

5. CHECKING EVERYTHING

1) Remote Control

Before use, check that you
have set the correct Site
Code. Once you have done
this the Remote Control
is ready to use.
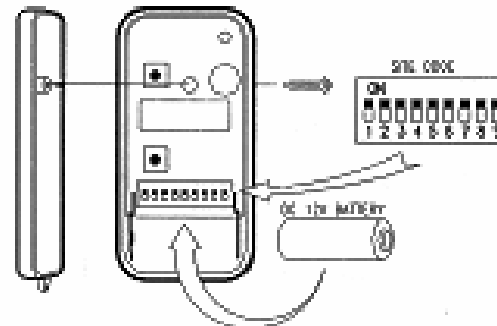
2) PIR Movement Detector Transmitters (PIRs)

Having previously set the Site Code and Zone Code in all your PIR detectors, the
PIRs are ready to be fixed to a wall using the screws and wall plugs provided.

1. Check the Site and Zone code is correct.

2. Check the Slide Switch is set to TEST mode

3. Install a 9V (MN1604) Alkaline battery.

4. Clip the front cover of the PIR back on. At this point the indicator will flash
   each time the PIR detects movement.
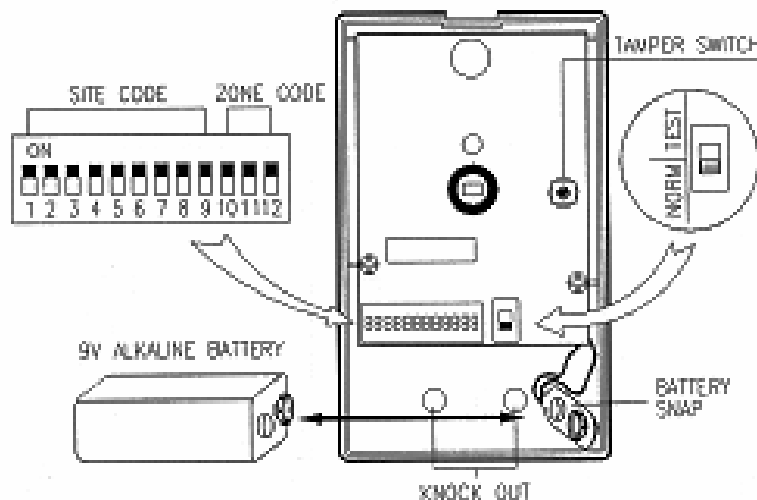
NOTE When the battery is first connected to the PIR a 2 minute period must be
allowed for "Warming Up".

5

5. CHECKING EVERYTHING

3) Magnetic Door/Window Contact Transmitters (MDTs)

The MDTs do not have a Test mode. However, confirmation of correct operation is given in normal day to day operation by activating the door or window to which it is protecting. This causes the red indicator on the MDT to flash.

1. Remove the Battery Cover and fix using 2 screws provided

2. Fix the Magnetic contacts to the door or window

3. Install a 9V (MN1604) Alkaline battery. At this point the red indicator will illuminate

4. Refit the battery cover and the indicator will go out
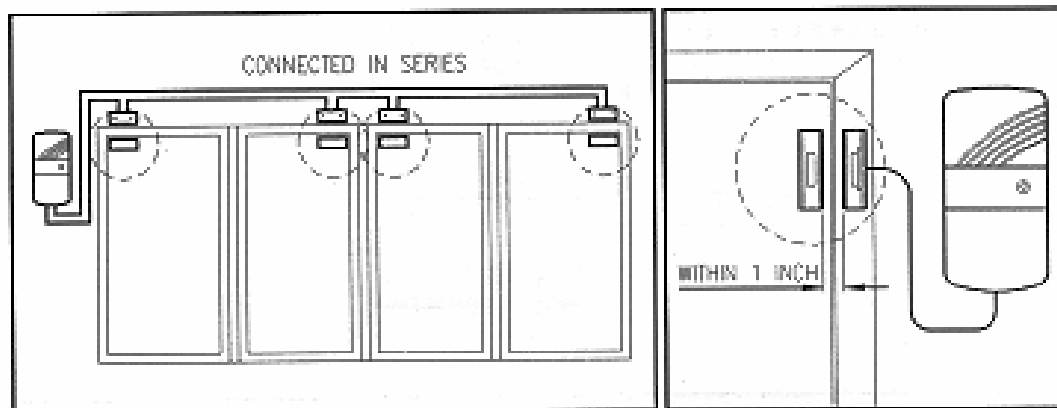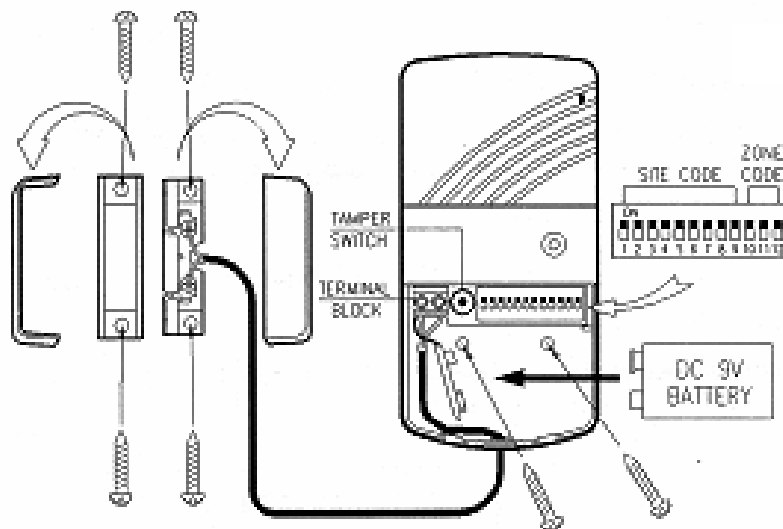
5. CHECKING EVERYTHING

4) Control Panel

Having chosen the best location for the Control Panel follow the steps below.

1. Remove the access covers from the Control Panel

2. Check the Site Code is set correctly

3. Connect the cable between the Control Panel and External Siren unit (if supplied) Refer to the wiring diagram.

4. Plug the mains power adapter into the Wall socket and connect to the Control Panel

5. Install the 8 pcs of Rechargeable battery

6. Refit the access covers to the Control Panel

SITE CODE DIP SWITCHES

POWER SUPPLY UNIT

UM3-1.2V NI-CAD BATTERY
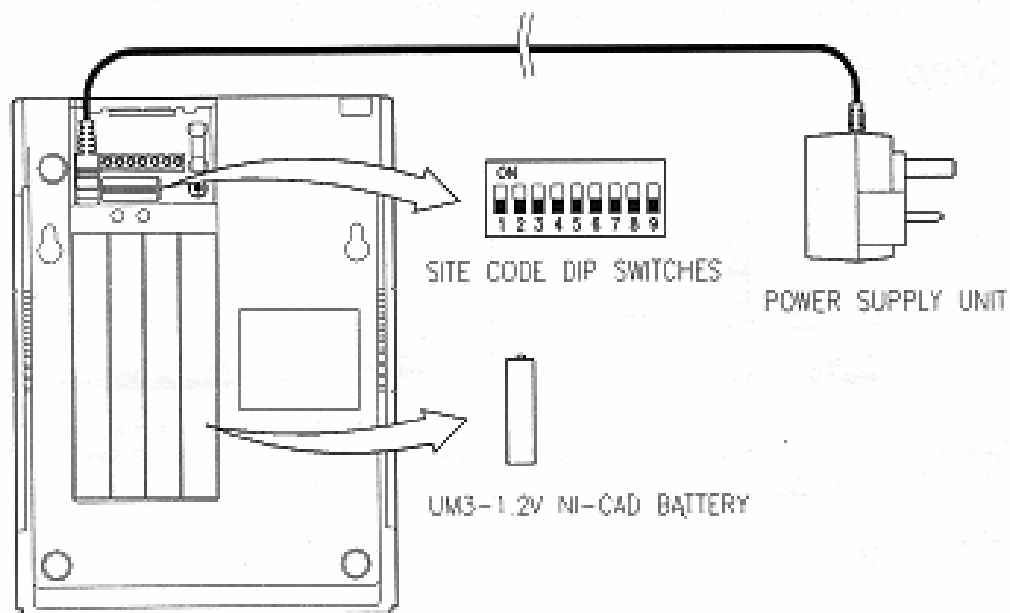
NOTE The use of other types of battery in the Control Panel will cause acid damage and will invalidate your Warranty.

7. TESTING

Whilst checking the operation of each detector it is possible to confirm reception by the control panel each time a detector is activated. The Rx indicator illuminates for approximately 1 second each time a recognised transmission is received.

During normal day to day operation the Rx indicator will illuminate regardless of the system status when a detector transmission from your system is received. If the signal level received from a detector is below a safe operating level the indicator will flicker once. If this occurs it will be necessary to reposition that particular detector to a different location thereby improving the signal level to the control panel.

TESTING THE PIR DETECTORS AND MDT UNITS

Provided you have followed the previous section accurately, all PIR detectors will have been set to the TEST mode and each time you activate a PIR detector or open a Door/Window protected by a MDT the detector red indicator will illuminate. At this moment a digital code is transmitted by the detector to the Control Panel and the corresponding Zone indicator on the Control Panel will illuminate for 2 minutes. If persistent activation of a detector occurs you will notice the corresponding Control Panel Zone indicator will remain on and this confirms that the Control Panel is receiving the correct codes from the detectors. If you experience problems at this stage it may be necessary to move the detector to a different location.

Once you have confirmed correct operation of the PIR detectors you must set the detector back into Normal operation. This is illustrated in Fig. 5 Entering the BAT. C. code will prevent the siren from sounding when the Tamper switch is activated during removal of Tamper protected covers.

IMPORTANT NOTE When the PIR detector is set into the TEST mode using the slide switch shown on page 5 the indicator will flash every 3 to 5 seconds and transmission will take place immediately. When set into NORMAL mode a quiet period of 3 minutes exists between transmissions and the red indicator behind the PIR lens does not illuminate, thereby preserving battery power.

TESTING THE EXTERNAL SIREN AND REMOTE CONTROL

By pressing the ON/OFF button once on the Remote Control you should hear a chirp from the Control Panel. 1 chirp for ON (Arm) and 3 for OFF (Disarm). This enables the system to be entered into and out of Full Arm condition only. In Arm condition the Arm Indicator on the Control Panel will illuminate. This confirms the system status. Now press the Panic Button on the Remote Control and the Siren built into the Control Panel and the External Siren (if fitted) will sound. If you have fitted a strobe to the External Siren unit this will flash at the same time.

Now press the ON/OFF (Arm/Disarm) button to stop the Siren sounding.

The Panic button performs the same function as the Tamper switches and activates the 24 Hour Panic/Tamper Zone on your Control Panel, however this function does not work when the Control Panel is first powered up. During initial power up to the control panel, the system automatically defaults into the battery change function.

PERIODIC TESTING AND MAINTENANCE

Performing periodic test functions is important in order to confirm continual operation of the system whilst at home and when away.

Checking the System Detectors

To confirm correct operation of the detectors simply activate the detector whilst the system is set into the DISARM mode. The corresponding indicator will illuminate for 3 minutes on the Control Panel thereby confirming correct reception from each of the detectors to the Control Panel. The Rx indicator will illuminate or flicker each time a transmission is received.

Checking the External Siren Unit (if supplied)

The External Siren unit should be tested 1 month after installation then every 6 months. This can be achieved by simply pressing the Panic Button on the Remote Control or Control Panel.

8. CHANGING THE BATTERIES

The Control Panel Back Up Battery

The batteries fitted inside the Control Panel are 8 pcs of AA Ni-cad rechargeable battery. Once fitted inside the Control Panel they are kept constantly charged and should last for 3 years. However, as each year passes the batteries ability to hold charge is reduced and it may be necessary to change the batteries after a period of 3 years in order to maintain a sufficient period of operation in the event of a Mains power failure.

> **WARNING**   Other types of battery fitted in the control panel will damage the Control Panel and invalidate your warranty

The Detector Battery

The use of Alkaline batteries in detectors is strongly recommended in order to provide an adequate length of operation. Alkaline batteries installed in the detectors will generally provide an operation life up to 18 months. Newly available Lithium batteries are capable of providing approximately 3 to 5 years of life but are relatively high in cost.

When a detector battery is running low a code is transmitted from the detector and the Low Battery indicator on the Control Panel will flash alternately with the Zone indicator.

The Low Battery Indicator will not stop flashing until the Control Panel has been armed and then disarmed via the keypad.

Battery Change Function

This feature provides the following functions:

1) Prevents the siren from sounding when a Tamper switch is activated during removal of tamper protected battery covers.

2) Checks specific detectors battery status.

a. 6 beeps are emitted to indicate a detector with a low battery

b. If detector battery is in good condition then the control panel will emit chirps corresponding to the zone that the detector operates on.
e.g.1 chirp for Zone 1, 2 chirps for Zone 2 and so on.

Installing A New Battery In The Remote Control

The Remote Control is the only unit supplied with the battery already fitted. A low battery will result in a dramatically reduced range in transmission distance.

The battery should last up to 3 years. When replacing the battery ensure you observe the correct polarity connections.

12

9. EXPANDING THE SYSTEM WITH ACCESSORY PRODUCTS

It is possible to add any number of Wireless accessories to the system including:

Remote Controls, PIR Movement Detectors, MDT units, Remote Keypad Units & Smoke Detectors. A Transmission Extender unit can also be added but must be limited to one per system.

The Expansion connector located on the underside of the Control Panel allows you to connect any of the following wired accessory products:

External Siren Unit, Internal Siren, Autodialer & Strobe/SAB units. Additional Emergency Panic buttons and wired magnetic Door/Window contacts can be connected to each MDT unit.

The maximum combined output current that can be provided from the Expansion connector is 500mA. This is sufficient to drive 1 Strobe/Siren and 1 Auto dialer.

WIRING DIAGRAMS

CONNECTING A DC SIREN WITHOUT TAMPER SWITCH

STROBE
SIREN-
V+
GND
TAMPER

BLACK
RED

Link

CONNECTING A DC SIREN WITH TAMPER SWITCH

STROBE
SIREN-
V+
GND
TAMPER

BLACK
RED
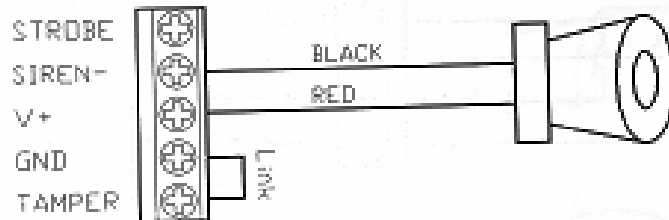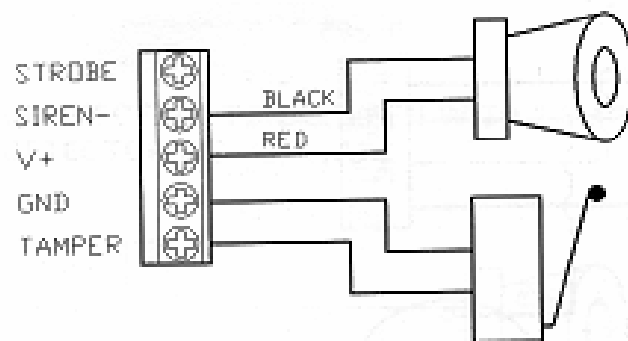
If you are not making a connection to the Tamper terminal, you must leave the link connected between GND and Tamper.

(When connecting siren may sound until siren cover is refitted.)

CONNECTING TO DC SIREN AND AUTO DIALER

BLACK
RED
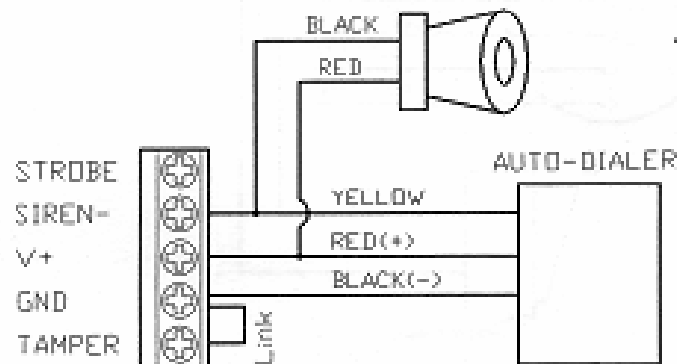
NOTE Auto dialers must ·not be programmed to call the Emergency services.

STROBE
SIREN-
V+
GND
TAMPER

Link

AUTO-DIALER

YELLOW
RED(+)
BLACK(-)

CONNECTING TO EXTERNAL SIREN/STROBE

```
STROBE  ⊕
SIREN-  ⊕ ──────────────────────  ⊕ POWER-
V+      ⊕ ──────────────────────  ⊕ POWER+
GND     ⊕ ──────────────────────  ⊕ TRIGGER-
TAMPER  ⊕ ──────────────────────  ⊕ TAMPER-
```
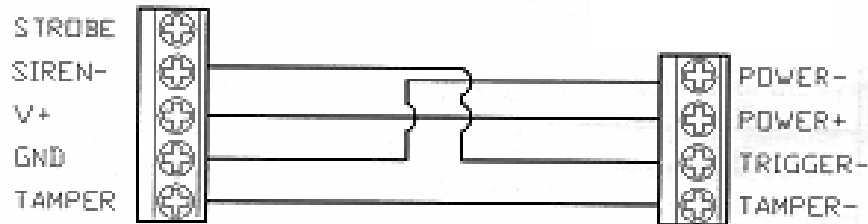
CONNECTING TO EXTERNAL SIREN/STROBE   AND SMOKE
DETECTOR

```
STROBE  ⊕
SIREN-  ⊕ ──────────────────────  ⊕ POWER-
V+      ⊕ ──────────────────────  ⊕ POWER+
GND     ⊕ ──────────────────────  ⊕ TRIGGER-
TAMPER  ⊕ ──────────────────────  ⊕ TAMPER-
```

```
                        RED
              BLACK
              GREEN                 SMOKE
              BLUE                  DETECTOR
         YELLOW(N.C.)
         WHITE(N.C.)
```
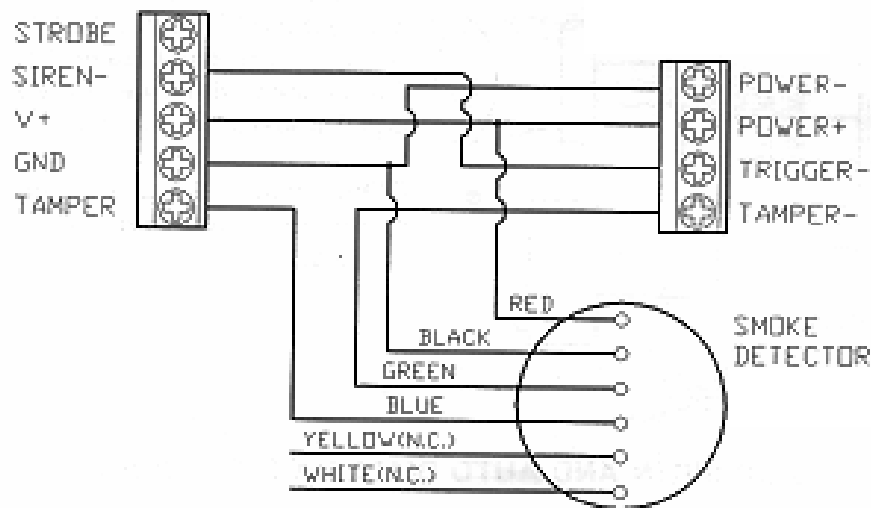
CONNECTING TO DC SIREN WITHOUT TAMPER SWITCH AND SMOKE DETECTOR

STROBE
SIREN-
V+
GND
TAMPER

BLACK
RED

RED
BLACK
BLUE
GREEN
YELLOW(N.C.)
WHITE(N.C.)
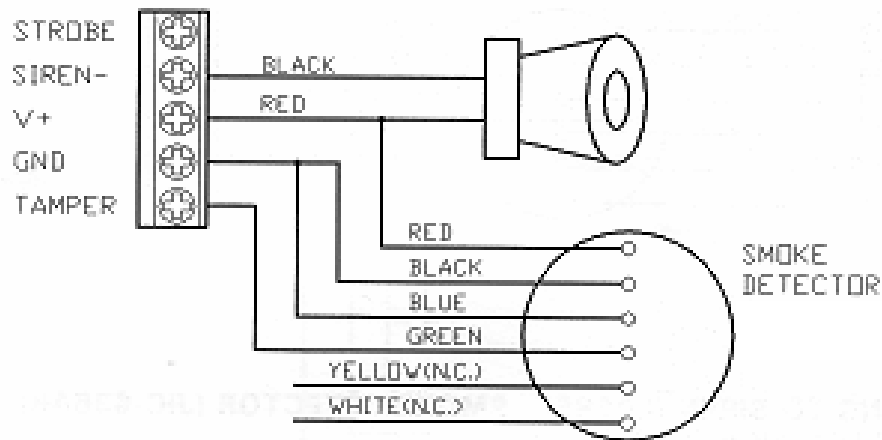
SMOKE
DETECTOR

CONNECTING TO DC SIREN WITH TAMPER SWITCH AND SMOKE DETECTOR

STROBE
SIREN-
V+
GND
TAMPER

BLACK
RED

RED
BLACK
BLUE
GREEN
YELLOW(N.C.)
WHITE(N.C.)

SMOKE
DETECTOR

16
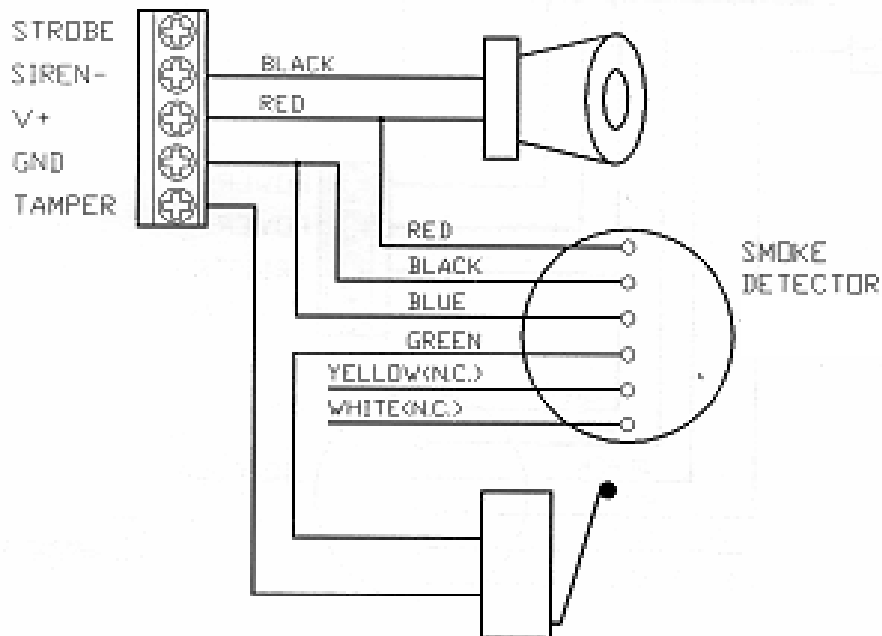
CONNECTING A SMOKE DETECTOR
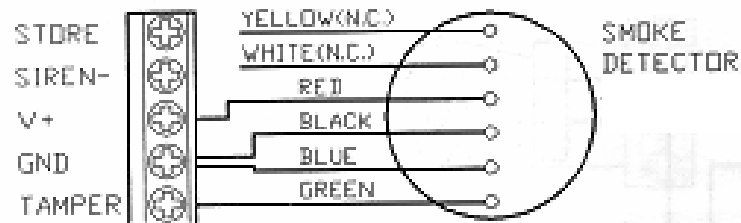
STORE
SIREN-
V+
GND
TAMPER

YELLOW(N.C.)
WHITE(N.C.)
RED
BLACK
BLUE
GREEN

SMOKE
DETECTOR

CONNECTING TO SIREN , SMOKE DETECTOR
AND AUTO DIALER

STROBE
SIREN-
V+
GND
TAMPER

AUTO-DIALER

YELLOW
RED(+)
BLACK(-)

POWER-
POWER+
TRIGGER-
TAMPER-

GREEN
RED
BLACK
BLUE
YELLOW(N.C.)
WHITE(N.C.)

SMOKE
DETECTOR

CONNECTING TO EXTERNAL SIREN/STROBE AND AUTO-DIALER

```
STROBE  ⊕
SIREN-  ⊕                      YELLOW        AUTO-DIALER
V+      ⊕                      RED(+)
GND     ⊕                      BLACK(-)
TAMPER  ⊕


                                      ⊕  POWER-
                                      ⊕  POWER+
                                      ⊕  TRIGGER-
                                      ⊕  TAMPER-
```
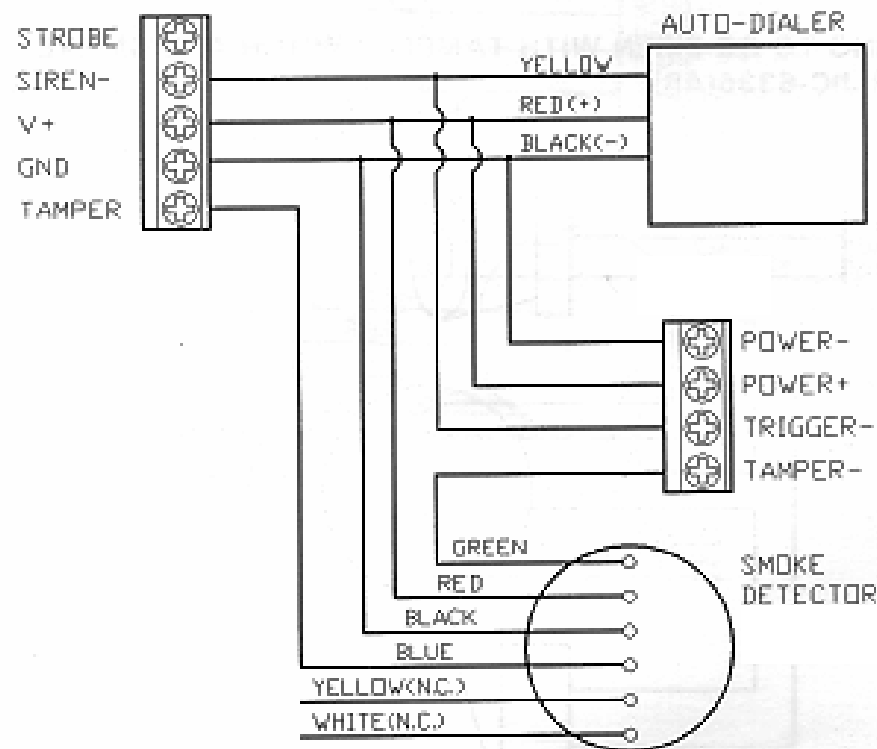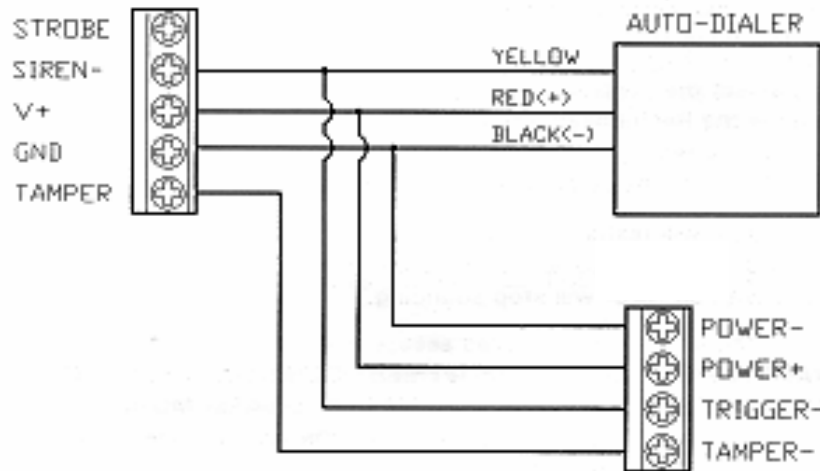
11. YOUR QUESTIONS ANSWERED

Q. WHAT TO DO IF YOU FORGET KEYPAD SECURITY CODE
A. If you forget your Keypad Security code you must perform the Global Reset Function. This restores the memory back to the factory pre-set codes. Perform the following steps:

Step 1) Disconnect the control panel form the mains power supply
Step 2) Remove the Rechargeable Ni-Cad batteries from the Control Panel
Step 3) Wait 5 minutes
Step 4) Reapply the mains power and refit the rechargeable batteries

This procedure will restore all user programmable parameters back to the manufacturers default settings and when the power is re-applied the External Siren (if fitted with an SAB) will stop sounding.

Q. WHEN I WALK IN FRONT OF A PIR MOVEMENT DETECTOR THE SIREN SOUNDS IMMEDIATELY WHEN THE SYSTEM IS IN DISARM MODE. WHY?
A. You have not set up your zone code correctly on the switch bank inside the detector or you have not fitted the cover back on the detector properly - check the Tamper switch operation.

Q. WHY DO MY BATTERIES ONLY LAST A FEW MONTHS IN THE DETECTORS.
A. Check the battery connections are tight especially if you are using duracell as this make of battery has an unusually narrow positive nipple.
A. Make sure you have not left the switch in the PIR set to TEST mode.

Q. WHY CAN I NOT GET A VERY GOOD RANGE WITH ANY OF MY DETECTORS OR REMOTE CONTROL?
A. The system is designed for use up to 80 meters from the control panel in clear space with low back ground RF noise conditions. The range is also influenced by the number of walls between your detectors and control panel. Try to remain with in 18 meters of the control panel and do not install the control panel close to metal objects or inside cupboards.

Q. WHY DO MY DETECTORS NOT RESPOND AT THE CONTROL PANEL ?
A. You have not set the correct Site code. Check your switches 1 to 9 in the control panel match your detectors.
A. Try moving the switches on & off a few times so as to ensure they make a good contact.

Q. WILL I NEED TO CHANGE THE BATTERIES IN THE CONTROL PANEL ?.
A. The batteries are Ni-Cad rechargeable and their charge is maintained by the mains power automatically. They will require replacement after approximately 3 years of operation.

Q. WHY DOES THE PIR INDICATOR NOT ILLUMINATE WHEN THE PIR IS SET INTO THE NORMAL MODE ?

A. To conserve battery power. But the zone indicator will show on the control panel when the PIR is activated.

Q. WHEN THE PIR IS SET INTO NORMAL MODE I CANNOT GET THE CONTROL PANEL ZONE INDICATOR TO RESPOND WHEN I MOVE IN FRONT OF THE DETECTOR.

A. This is because the PIR sleeps when it sees movement for long periods of time. It will only wake up when you stop movement for at least 2 minutes.

Q. THE TAMPER CIRCUIT IS ACTIVATED THE MOMENT I ARM THE CONTROL PANEL.

A. This is because the back access cover on the control panel has not been refitted. If you have connected a wire to the tamper terminal on the expansion connector then you have not fitted the cover onto any external unit such as a siren & strobe.

12. QUICK PROGRAMMING GUIDE

■ Set up 1st Security Code........................ `1` `2` `3` `4` `M` `0` `New Code` `M`
default = 1234 (new code must be 4 digits)

■ Change to new security code............... `Old Code` `M` `0` `New Code` `M`

■ Full arm the system (ARM).................... `0` `S`

■ Part arm the system (P/ARM)............. `9` `S`
default = zone 4 and zone 5

■ Disarm the system............................... `New Code` `S`

■ Changing batteries in detectors............ `New Code` `BAT.C`

■ Set up alarm duration........................... `New Code` `PROG.` `0` `3` `?` `?` `SAVE`
?? = 01 to 20 min./default 4 min.

■ Set up exit delay time............................ `New Code` `PROG.` `0` `4` `?` `?` `SAVE`
?? = 10 to 99 sec./default 20 sec.

■ Set up entry delay time.......................... `New Code` `PROG.` `0` `5` `?` `?` `SAVE`
?? = 10 to 99 sec./default 20 sec.

■ Set up acceptable jamming duration.... `New Code` `PROG.` `0` `6` `?` `?` `SAVE`
?? = 10 to 99 sec./default 30 sec.

■ Set up jamming protection function...... `New Code` `PROG.` `0` `7` `?` `?` `SAVE`
?? = 01 for ON, 00 for OFF/default OFF

■ Set up remote control disarm
disable function.................................... `New Code` `PROG.` `0` `8` `?` `?` `SAVE`
?? = 01 for ON, 00 for OFF/default OFF

■ Set up Panic function............................. `PANIC`

SYSTEM DETAILS

- **Remote control & keypad operation**
  It is possible to operate the system via the Control panel keypad, remote control or an accessory Keypad unit

- **Panic feature**
  A remote panic feature enables sirens to sound instantly in the event of an emergency

- **Full tamper protection**
  All detector covers and the control panel rear cover are prevented from deliberate removal without first entering the special 'Battery Change command'

- **Compatible with any number of additional detectors**
  You can add any number of detectors to each zone

- **Long range PIR movement detectors**
  The PIR detectors are able to view an area up to 12 meters long at an angle of 120 degrees

- **Entry/Exit zone (Zone 1)**
  This zone is used to protect the main entrance and provides a period to disarm the system when entering the property

- **Instant activation zones with exit default & entry zone follow on**
  Zones 2 to 4 will activate the system instantly except zone 2 if zone 1 is activated first

- **Part arm feature for selected detectors**
  Arms the system but omits detectors set to zones 3 and 4

- **Programmable siren duration**
  The siren will sound for the programmed siren duration period

- **Programmable entry time period**
  You can adjust the time allowed to enter your property and enter your keypad code before the siren sounds

- **Programmable exit time period**
  You can adjust the time allowed to exit the property following arming

- **Latching strobe output for wired strobe unit**
  If the system is allowed to sound its sirens for the programmed siren duration period the strobe can continue until the system is disarmed.

- **LED memory function to show activated zone**
  The arm & part arm light will remain lit with the zone light to indicate the system was activated when last set into Arm.

- **Audible entry/exit countdown warning**
  A warning tone is given upon arming reminding you of imminent siren activation if the property is not vacated during the exit period. During initial entry to the property you are also reminded to disarm the control panel with an identical warning tone.

- **Battery change mode for servicing and detector battery replacement**
  Disables the tamper switches and allows detector covers to be removed to replace batteries

- **Mains power failure warning**
  In the event the mains power fails the power light will extinguish but the battery back up will maintain power for up to 20 days

- **Low detector battery warning**
  The Low Battery light will flash alternately with the Zone light to indicate a low battery in a detector operating on that zone

- **Frequency code combinations**
  There are over 500 different frequency code combinations referred to as the site code

- **Expansion connector**
  For the connection of wired accessories.

- **Rx reception level/channel monitor indication**
  A singular momentary flash indicates a poor reception level indication from detectors. Multiple flashing or prolonged illumination for 1/2 second indicates a good reception level. Interference present on the frequency channel will cause the Rx LED to illuminate. If the jamming circuitry has been activated the LED will remain permanently illuminated.

- **Programmable jamming detection circuitry**
  Provides an early indication of possible interference present on the frequency channel. Can be programmed to activate sirens in the event of prolonged jamming. We recommend you set this to the 'on' position provided the Rx light does not remain contrantly lit during normal operation.

- **Programmable jamming duration 'Patent Pending'**
  Unique to these systems this function allows the user to set the period malicious interference is allowed to affect the day to day operation. We recommend this is set to 15 seconds.

- **Frequency channel monitoring**
  Provides an early indication of possible interference present on the frequency channel

- **Automatic noise level self test**
  Following initial connection to the power the interference detection circuitry will measure the background noise to avoid false triggering of the Jamming detection circuitry

- **Programmable remote control 'Disarm' disable function**
  When switched on - prevents the system from being disarmed via the transmitted Disarm radio frequency code when the sirens have sounded. Disarm is only possible via the control panel keypad code

13.   SPECIFICATIONS

Standard Specifications

- Remote control & keypad operation
- 5 Zone (4 Zone plus Tamper Zone) operation
- Panic feature
- Full tamper protection
- Compatible with any number of additional detectors
- Long range PIR movement detectors
- Control panel with built-in loud siren
- Instant activation zones with exit default & follow on
- Part arm feature for selected detectors
- Programmable siren duration
- Programmable entry time period
- Programmable exit time period
- Latching strobe output for wired strobe unit
- LED memory function to show activated zone
- Audible entry/exit countdown warning
- Audible zone identification function for detector testing
- Battery change mode for servicing and detector battery replacement
- Wireless SolarGuard external siren & strobe compatibility
- Wireless remote keypad compatibility
- Wireless smoke detector compatibility
- Auto telephone dialer compatible

Advanced specifications for use by professional installers

- Rx reception level indication from detectors
- Instant zone operation with entry & exit follow on
- Programmable jamming detection circuitry
- Programmable jamming duration
- Frequency channel monitoring
- Automatic noise level self test
- Programmable remote control disable function

Worldwide patents pending on programmable functions and
interference detection features