Yale®

HSA3800 *Telecommunicating*
control panel alarm system

Installation
Programming
Operating

Keep in a handy place for reference and for future maintenance

Helpline **01902 635998**

Introduction

General system overview

Thank you for choosing the Yale HSA3800 Security Alarm System. This simple to install system has been designed with the user in mind.

Two window stickers are included in the pack. Please stick them in a front and rear window.

No connections

All the components are self contained and no connections are needed between the units. There is no need to damage the home decor, lift carpets or run cables.

Number of devices

You can install up to 20 devices in the system. As well as extra door/window contacts and PIRs, you can add smoke detectors, keyfob remote controls, keypad remote controls and help buttons.

Long battery life

There is no need to wire into the mains supply or seek the services of a qualified electrician. The control unit is powered by a plug top supply and all other components are powered by battery (all batteries included).

Batteries will operate for 3 years before they need changing. Regular testing and battery changes (when notified by the system) will ensure reliability and peace of mind. Please note that alkaline batteries must be used as replacements.

Tamper proof system

The security detectors and external siren are 'tamper' protected. Any unauthorised tampering with these items will result in an alarm. This feature can be turned off by the user when a battery change is required.

Unique telephone links

In the event of an alarm, in addition to external and internal sirens, the system will telephone up to six allocated phone numbers (with a message specific to the cause of the alarm) to secure a response. The system includes six credit card sized quick reference cards, so you can distribute them amongst the people who will receive the calls, including yourself.

The system allows you to dial into your home and have control of the system from anywhere in the world. This innovative feature allows the kind of flexibility and control we have come to expect in this day and age. When accessed via telephone, the system will only work with your PIN code. It is important to ensure that you keep this number secure.

Home and away arming

In addition to fully arming the system, the HSA3800 also allows you to ‘home’ arm. The 'home' mode allows you to arm the system in such a way that you can protect the non-sleeping areas, such as downstairs, allowing access from the bedroom to the bathroom for example, without triggering the alarm.

Take care of your safety

Display extreme caution when using ladders or steps, please follow manufacturer instructions.

Be careful when using hand and power tools and follow the manufacturers' guidelines when using them. Take care that the correct tools are used. Wear goggles or protective clothing where required.

The external Siren is extremely loud, please ensure you replace the cover and retreat to a safe distance before testing.

Warranty

Please complete and return the warranty card. This will not be returned unless it is for an extended warranty period.

Yale offer extended periods of warranty, please see warranty card for details.

Calling for help

Yale have a helpline team who are there to offer advice or solve problems over the phone.

Have your certificate number ready.

Helpline 01902 635998

Helpline service available 9am-5pm Monday to Friday.

Caution

The dialling facilities must only be used with persons who have consented to being contacted by the system.

The system is not to be used to make 999 emergency calls directly. Yale do not hold responsibility for any actions taken by emergency services for incorrect use of the dialling facility.

Contents

Recommended installation sequence

We recommend you follow the simple install sequence, headings numbered 1-5. Subsequent sections provide:

- Use of additional accessory devices including keypad and keyfob remote controls, smoke alarm and help watch
- Telephone connection
- Advanced protection and features

Carton contents

Control unit and mounting base
External siren
Dummy siren
2 x PIR
2 x Door contact
2 x Door contact magnet

2-metre 500mA 9V power adaptor
3-metre telephone cable
2-way telephone adaptor

4 x 1.5V AAA alkaline cells
6 x 1.5V AA alkaline cells
4 x 1.5V D alkaline cells

2 x Large adhesive pad
2 x Small adhesive pad
4 x small wall plugs
12 x medium wall plugs
8 x large wall plugs
8 x 4mm x 30mm cross head fixing screws
4 x 3.5mm x 22mm cross head fixing screws
12 x 3.5mm x 16mm cross head fixing screws
4 x 3mm x 12mm cross head fixing screws

2 x window stickers
6 x quick reference cards

Contents

Accessories available

HSA3020 Passive infra-red (PIR) detector
HSA3030 3 x Passive infra-red (PIR) detectors
HSA3010 Door/window contact
HSA3090 Multiple door/window contact switches
HSA3060 Remote control (keyfob)
HSA3080 Remote keypad
HSA3045 Help button
HSA3070 Smoke detector
HSA3050 External siren

1 Location planning

Work out the best places to locate the devices for maximum protection. Having chosen the locations *do not mount at this stage*.

Home and away mode planning

The home arming mode allows the premises to be part armed so that no one can get inside without warning the occupier, yet the person already inside the house can move freely without triggering the alarm. For example the downstairs of a house can be armed while upstairs can be disarmed allowing the user to go to bed without causing an alarm.

If this feature is to be used, then it should be planned now, before installation.

Decide what areas can be occupied when in home arming mode, the sensors for these areas should be programmed to home omit; and the sensors activated on the path to access the control unit should be to be set to home delay as explained in 'Further programming' (page 16).

Operating range

All devices must be within 30 metres of the control unit and must not be mounted on or near large metal objects. Avoid obvious sources of electrical interference such as fridges and microwave ovens.

Tamper switches

When mounting devices ensure that any tamper switches close fully. On uneven surfaces it may be necessary to place packing behind the switch for reliable operation.

Extend the system

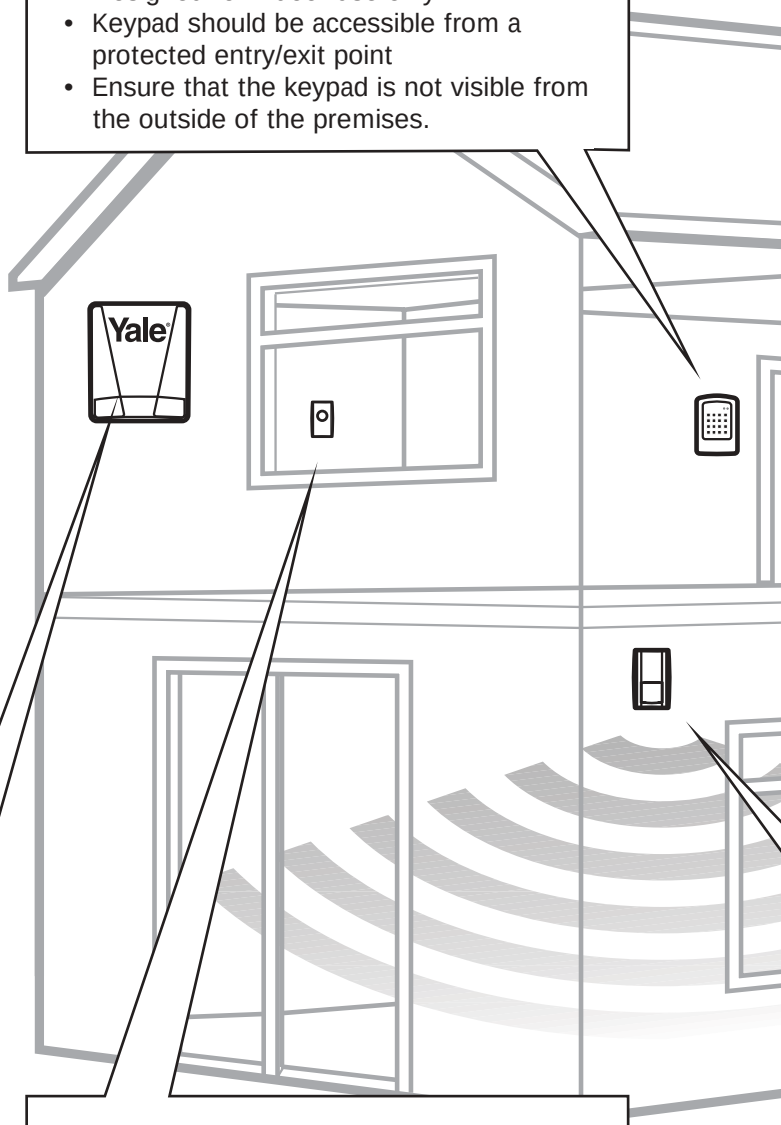
Extend the system in the future to increase your security or as your needs change.

For example, add extra PIR detectors and extra door/window contacts.

Keypad remote control accessory

When used as second keypad, it is ideal in bedrooms or at the top of a stairwell so the ground floor can be armed when going to bed for the night. Or, at a side or back door for alternative entry.

- Mount at chest height for ease of use
- Designed for indoor use only
- Keypad should be accessible from a protected entry/exit point
- Ensure that the keypad is not visible from the outside of the premises.



Dummy siren

Choose a secondary position on another external wall where the siren would be most prominent. Mount as high as possible, out of easy reach.

Help button accessory

The help button provides extra protection for you and your family. When help is needed the button can activate your alarm immediately - even when the system is disarmed.

- Mount on bedroom wall or by the front door
- Not clearly visible to an intruder
- Easily accessible
- Out of reach of children

Smoke detector accessory

- Mount on the ceiling at the top of a stairwell, or where smoke would most likely be detected.
- Install additional detectors if there are closed doors preventing smoke from reaching detectors.

Siren

Choose a position on an external wall where the siren would be most prominent. Mount as high as possible, out of easy reach.

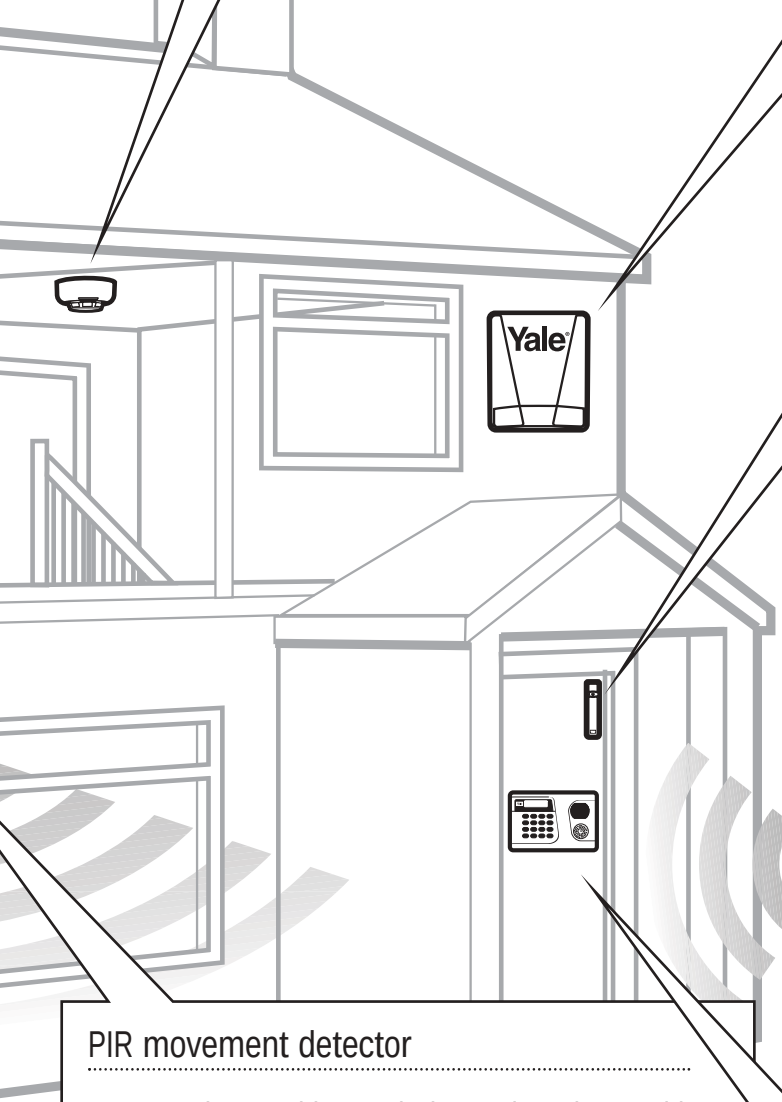
Door/Window contact

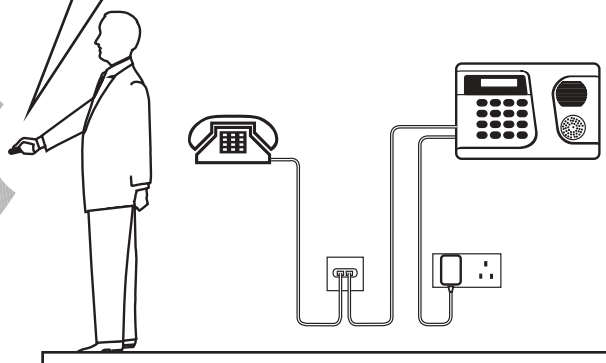
Select a door that will be the main point of entry and exit, usually your front door.

- Mount as high as possible
- Do not aim a PIR at this door or window

Keyfob remote control accessory

Can be used inside or outside the property and can be kept on your keyring.





PIR movement detector

- Mount in a position such that an intruder would normally move across the PIRs field of view.
- Height should be between 1.7 and 2.3 metres above floor level.
- Location in a corner will ensure wider room coverage.
- Do not mount the PIR where its field of view will be obstructed e.g. by curtains, ornaments etc.
- Do not point directly at sources of heat e.g. fires or boilers, and do not position directly above radiators.
- Avoid mounting the PIR directly facing a window.
- Do not point the PIR at a door protected by a door/window contact.

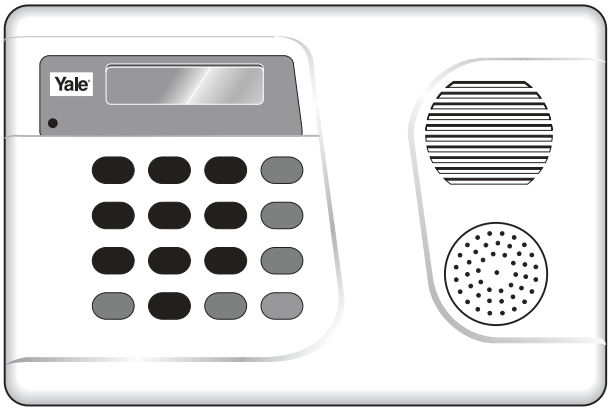
Control unit

- Ensure the control unit is accessible when entering through a protected entry/exit point.
- Avoid mounting the control unit where it would be visible from the outside of the premises
- Locate by a mains socket and telephone point.

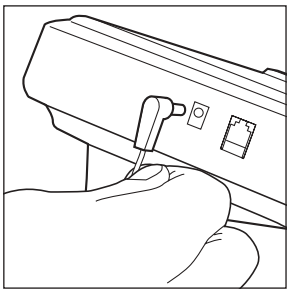
The supplied base unit gives provision for the control unit to be placed on a table top or wall mounted.

2 Unpack all the parts onto a table top

The easiest way to get to know the system and get it up and running quickly is to get all the devices and accessories programmed on a table top before locating and mounting them.



Control unit



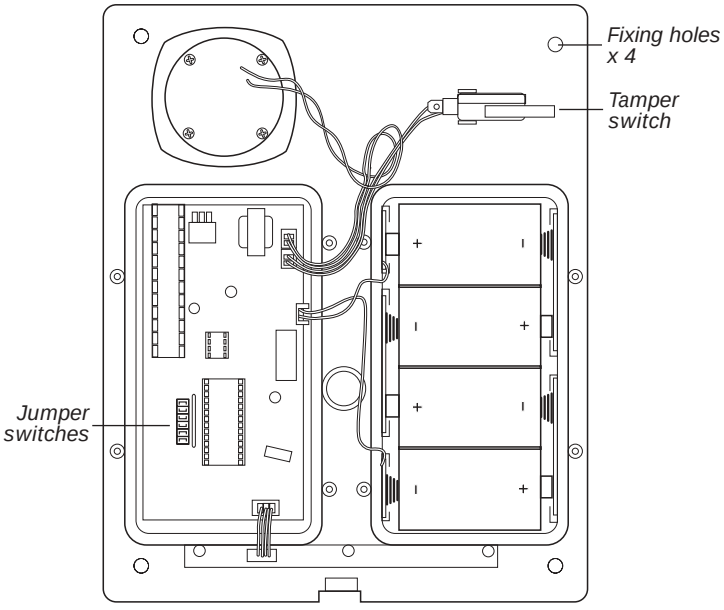
Plug the power adaptor into the mains supply wall socket and the other end into the control unit.

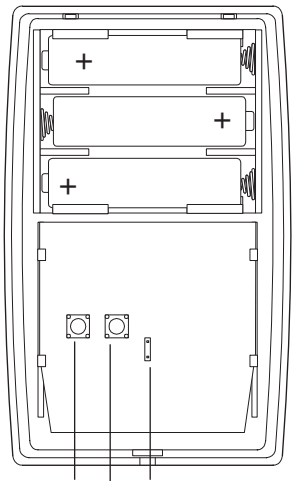
- The batteries in the control unit are rechargeable and act as a back-up in case of power failure. They are charged automatically by the mains supply. If the mains supply is disconnected, an AC Power Fail message will be displayed and the LCD back light will be switched off.
- From new, the batteries need 72 hours to charge completely.

Siren

WARNING: The siren is very loud, be prepared! Take care not to activate the siren unnecessarily.

1 Remove the cover by unscrewing the single screw located at the bottom.
2 Remove the covers of the two internal compartments.
3 Insert the four D batteries as shown. There is a slight pause while the unit initialises. The siren will then beep and the LEDs flash.

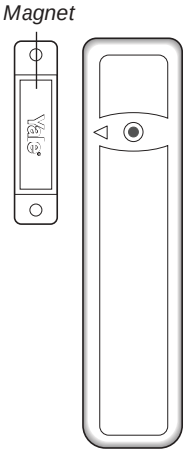


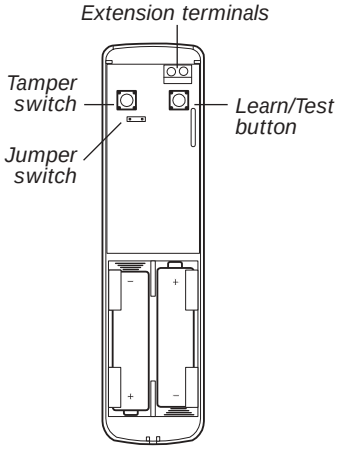


PIR movement detector

Remove the fixing screw and cover assembly and insert the three AA batteries as shown.

- The light steadily flashes for 30 seconds while components initialise.



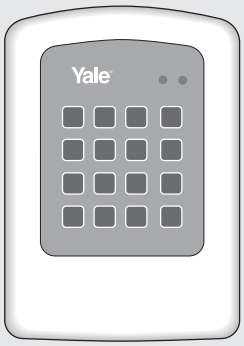


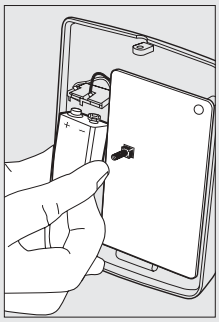
Door/window contact

1 Remove the cover by loosening the fixing screw.
2 Insert the two AAA batteries as shown. The indicator will flash briefly.

Keypad remote control accessory

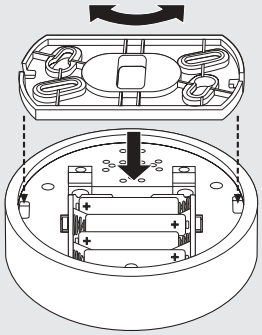
Remove the cover and insert the PP3 battery as shown. The 'Tx' LED will flash briefly while components initialise.





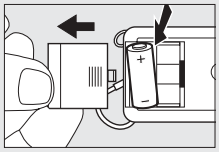
Smoke detector accessory

Remove the cover and insert the four AAA batteries as shown.



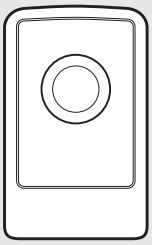
Keyfob remote control accessory

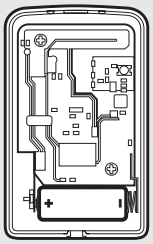
Slide off the battery cover, insert the 23A/MN21 battery as shown, and replace cover. Switch to 'on'.



Help button accessory

Remove the cover by loosening the fixing screw and insert the 12V battery (supplied) as shown. Please ensure you observe battery polarity.





3 Easy install programming

First, create your own PIN code and teach the control unit to recognise (learn) all the devices and get the basic system up and running. *Do not mount at this stage.*

Control unit

When power is connected, a long beep will sound. 'Alarm On' will be displayed. This indicates that the system is armed.

Before you can deactivate the alarm, or enter any information into the system, you must enter a PIN code. This is factory set to 0000.

Disarm

1 Key 0, Enter Code is displayed.
2 Key in 000 to complete the factory set code.
3 Press OK. You will hear 2 short beeps and the display will show 'Alarm Off', and the default time and date.
The system is now disarmed.
• If no code has been entered for a while, the display will revert back to the original screen.

Introduction to programming

Entering a new PIN code will introduce you to the ease of programming the system.

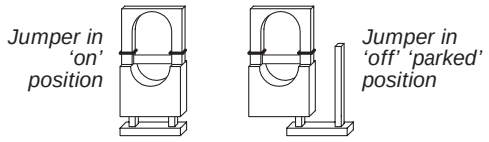
Set your PIN code

1 Press # (program key).
2 Enter 0000.
3 Press OK.
'Program menu/Make a Selection' appears briefly, which is then replaced by a list which can be scrolled up and down using the arrow keys. The action to be selected has a pulsing symbol alongside.
4 Use the down arrow key to select 'General Settings'.
5 Press OK to select this sub-menu.
The first item in this list is 'Pin Code' which we require.
6 Press OK.
7 The system asks you for a new PIN code. Think of one all the family can remember and key it in. Don't forget it, write it in 'System records' page 14.
8 Press OK.
9 Confirm by keying in your PIN code again.
10 Press OK. If the incorrect code is entered, a message prompts the previous step.

Most programming functions work in this way, by entering your code, selecting from menus and sub-menus and responding to the prompts.
• During entering the PIN code press the ↺ button to clear the screen and enter new information.
• Press ↺ to return to a previous menu.
• To return to 'Alarm off' in normal mode, keep pressing ↺ repeatedly.

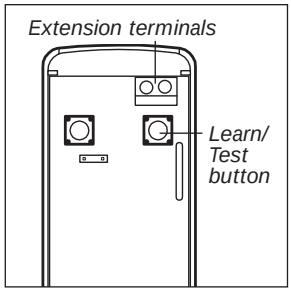
Use of jumper switches

Some devices have internal switches, or 'jumpers', which control working modes, or offer additional programming. The jumpers are either 'on' or 'off'. 'On' is when the jumper connects two pins, 'off' when it is removed. It can be 'parked' on one pin as shown.



Add the door/window contact

1 Press # (program key), enter your PIN code and press OK.
2 Select 'Devices +/-' by scrolling down the program menu and press OK.
3 Select 'Add Devices' and press OK.
• Display will show 'Push Button On Device to Add'.
4 Press the learn/test button in the rear of the door/window contact.
• The control unit will show it has detected the device by displaying 'Detected: (Ok?) Door Contact'.



5 Press OK.
6 You are prompted to select a zone. The control unit displays all the zones available (zones where no device has been added), with the cursor flashing at the first free zone (in this instance zone 1), press OK.
• Each device is given a zone number so that the control unit can indicate the source of an alarm.
• Door/window contacts can be used in various applications to suit your needs, eg home omit (see 'Further door/window contact programming' page 16). As most systems require a detector on the point of entry, for this example the door/window contact is programmed as an entry detector. When used as an entry detector, with the system armed the door/window contact will start an entry countdown upon activation, giving you time to disarm the system.
7 Select 'Entry' from the list displayed and press OK.
8 The display now shows the selected settings: DC Zone01 E – door/window contact

programmed into zone 1 as an entry point detector.

9 Press OK.

- Press ↩ to return to previous menu.
- To return to 'Alarm off' (normal mode), press ↩ repeatedly.

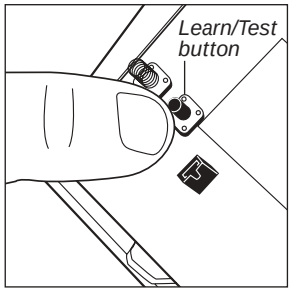
Add the PIR movement detector

1 Select 'Devices +/-' by scrolling down the Programming menu and press OK.

2 Select 'Add Devices' and press OK.

3 Press the learn/test button the rear of the PIR.

- The control unit will show it has detected the device by displaying 'Detected: (Ok?) PIR sensor'.



4 Press OK.

5 You are prompted to select a zone. The cursor will flash at the next available zone (in this instance zone 2), press OK.

- As with the door/window contact, PIRs can be used in various applications to suit your needs (see 'Further programming' page 16). For this example the PIR is programmed as a 'Burglar' detector. When used as a burglar detector, when the system is armed and the PIR activated, the alarm will sound instantly.

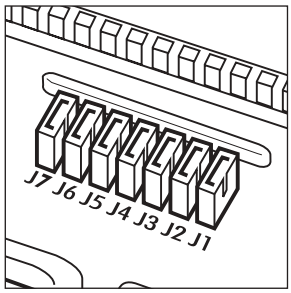
6 Select 'Burglar' from the list displayed and press OK.

7 The display now shows the selected settings: PIR Zone02 B – PIR programmed into zone 2 as a burglar detector.

8 Press OK.

9 Press ↩ repeatedly until display shows 'Alarm Off'.

Add the siren unit



WARNING

The siren is very loud, be prepared! Take care not to activate the siren tamper switch unnecessarily.

The siren is programmed by the jumper switches in the left hand compartment.

1 Lift off jumper number 1 and park it. The siren will beep and flash. The siren is now in learn mode.

2 Lift off jumper 5 and park it. This must be left in the 'off' position permanently.

- If jumper 3 and jumper 4 are removed during the learning-in process, the siren will only be activated for 1 second if accidently activated and is useful for testing. Ensure the jumpers are placed into the positions desired before replacing the cover.

3 Program the control unit by selecting 'Devices +/-' menu, then 'Program Siren' menu, then 'Learn Siren'.

4 Press OK and the unit will give a long beep to confirm - the siren will also respond by a beep and a flash.

5 Replace jumper 1 to the on position, the siren will beep and flash to confirm.

6 To ensure siren does not activate, disable the tamper switch by selecting 'Program Siren' menu on the control unit, then 'Siren A/T Off', and press OK.

- The siren disable tamper will automatically revert to on after about an hour if not switched back on again manually by selecting 'Siren A/T On'.
- Press ↩ to return to a previous menu.
- To return to 'Alarm off' in normal mode, keep pressing ↩ repeatedly.

Further siren programming

The siren can be configured to your personal requirements by the use of jumpers.

Siren jumper programming

J7	Jamming detection
J6	Clear memory (leave On)
J5	Slave mode (leave Off)
J4	Siren activation time
J3	Siren activation time
J2	Strobe activation mode
J1	Learning-in mode (leave On)

Jumper positions

J7 on = jamming detection ‘off’; off = jamming detection ‘on’
J6 on = normal, J6 off = clear memory
J5 on = stand alone operation, not used in this system; off = slave operation
J3 on, J4 on = 3 minute siren ‘on’ period J3 off, J4 on = 5 minute siren ‘on’ period J3 on, J4 off = 10 minute siren ‘on’ period J3 off, J4 off = 1 second siren ‘on’ test period
J2 on = LEDs ‘on’ during siren period; off = LEDs remain ‘on’ (after an alarm) until system is disarmed
J1 on = normal; off = learn-in mode

- Jumper 5 must be left in the ‘off’ position.
- J6 must be left ‘on’ in normal service otherwise the siren will lose its learn-in memory when the batteries are replaced.
- With J7 ‘off’, jamming by radio interference is detected when continuously present for more than 30 seconds and activates the siren only when armed.
- If jumper 3 and jumper 4 are removed during the learning-in process, the siren will sound for 1 second and is useful for testing. Ensure they are replaced in your chosen positions before replacing the covers.

7 Replace the battery and electronics compartment covers, ensuring the gasket between the electronics compartment and cover is correctly located and the wires placed in their slots to ensure a good seal from the environment.

Tamper alarm

If the siren detects a tamper condition it will activate the siren for the programmed period. If the tamper condition persists the siren will sound a series of five pips either every time the system is armed or when the tamper is enabled, to indicate the condition.

Confirm Programming

The siren can be programmed to produce additional confirmation beeps to tell you when the system is armed and disarmed from outside the premises. One beep for armed or home armed, two beeps for disarmed.

1 Program the control unit by selecting ‘Device +/- menu’, then ‘Program Siren’ menu, then ‘Confirm On’.

2 Press OK and the unit will give a long beep to confirm - the siren will also respond with a beep.

Radio jamming

This control unit and siren are equipped with the latest type of radio receiver using AM radio technology. If interference detection is set to ‘on’ in the siren, when the system is armed, any criminal attempt to prevent (or jam) the detector transmissions will be picked up as interference and will cause the siren to alarm. The control unit can be set to display or report (by dialling out, not sounding alarm) when interference is detected.

If the alarm is frequently triggered by interference there may be high levels of unusual radio signals in your area. Some kinds of electronic equipment can generate this kind of radio interference.

In the unlikely event of you experiencing problems with interference, it is recommended that you switch jamming detection off.

Please telephone our helpline if you require any further assistance.

Installation/mounting

4

WARNING To prevent the alarm from activating during installation, the siren must have its tamper disabled and the control unit must be in 'Walk Test' mode.

Testing the radio performance

Before permanently installing the system, check that the siren will receive the system radio transmissions by doing a simple radio range test.

1 Ensure that the siren tamper is disabled.

2 Mount the siren temporarily in the location you have chosen.

- Use either a masonry nail or single screw in the siren base keyhole to temporarily fix in place.

3 Put the control unit in the chosen position and arm and disarm as described in 'Using the system' (page 13), and check that the siren responds.

4 Put the control into 'Walk Test' mode, as described in 'Testing the system' (page 17), steps 1-3. Hold the devices in the chosen locations and activate.

- The PIR and door/window contact can be tested by pressing the learn/test button.
- Please be aware of the PIR sleep timer (see page 12).

5 When you are satisfied that the devices work in their chosen locations, proceed with the installation as described next.

- If the device does not respond, the location may be out of radio range, try alternative locations until reliable radio contact is obtained.

Mounting methods

Yale provide two methods of mounting. Choose either the self adhesive pads or the screws and wall plugs supplied.

Self adhesive installation *for door/window contact*

Clean the surface with a suitable degreaser. Remove the protective covering from one side of the double sided adhesive pad and firmly apply to the back of the device. Next remove the other cover and firmly press the item onto the desired location.

- Do not use the adhesive pad method of installation on a surface with peeling or cracked paint, or on a rough surface.

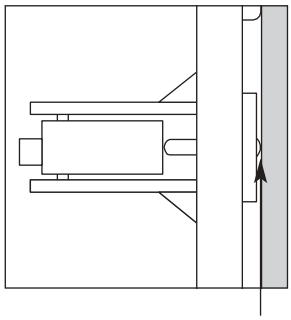
Screw mounting

Remove the front of the device, and, if necessary, break through the appropriate knockout (where the plastic is thinner).

Using the holes as a template, drill holes in the surface and insert the wall plugs if fixing into plaster or brick.

Siren

WARNING: The siren is extremely loud!

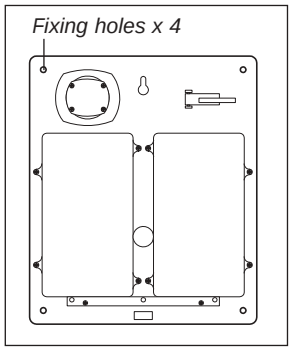


Tamper switch plunger must be pressed in fully by wall surface

The tamper switch plunger protrudes through the back of the unit, so that if the siren is pulled from the wall the alarm is activated. Ensure it is fully depressed when the siren is mounted. If there is a gap, pack with a suitable spacing material.

1 Find suitable location, as previously described in section 2.

2 Disable the tamper switch by selecting 'Program Siren' menu on the control unit, then 'Siren A/T Off', and press OK.



3 Using the large screws provided, mount on wall through the base plate mounting holes shown.

4 Fix the siren cover with the securing screw.

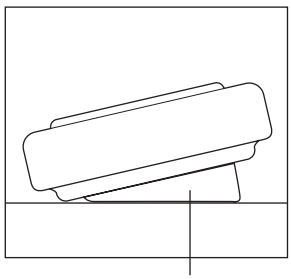
5 Enable tamper switch by selecting 'Program Siren' menu on the control unit, then 'Siren A/T On', and press OK.

6 Test by arming and disarming with the control unit. If 5 pips sound the tamper is not correctly set.

Control unit

Table top

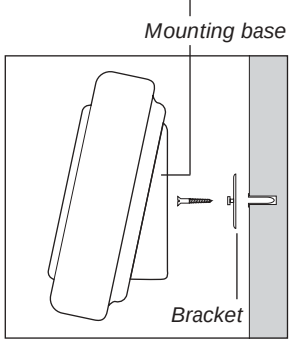
Place the mounting base on the back of the control unit and snap in place so that the unit is angled towards you.



Wall mounting

Fix the bracket to the wall as described in 'Mounting methods'. Snap the mounting base so that the control unit is angled upwards, as shown.

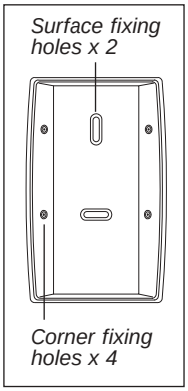
Hang the control unit on the bracket.



PIR movement detector

The PIR has a built-in sleep timer to save battery power. If there is no movement in front of the PIR for 1 minute, the PIR will become 'ready to signal' and any movement will now be reported. The PIR will sleep for 1 minute after. Any movement detected in sleep time will not be reported and will extend the sleep period by 1 minute.

Ensure the test/normal mode jumper switch is in the test 'on' position. This reduces the sleep time to a few seconds and enables the LED to flash every time movement is detected.



1 Screw the rear case to the wall using the appropriate knockouts, as described in 'Mounting methods'. The case has angled back edges for neat corner mounting. If mounting in a corner take care not to bend the rear case. Screw the PIR front on.

2 Walk around the protected area noting when the LED flashes and check that the detection coverage is adequate.

- Remember to wait a few seconds after the PIR has detected movement.
- Do not try to test the detection pattern by walking straight up to, or away from the detector, walk across the field of view.

3 When you are satisfied with the detection coverage, remove the PIR, place the jumper in the normal 'off' parked position and screw the PIR back on to its case.

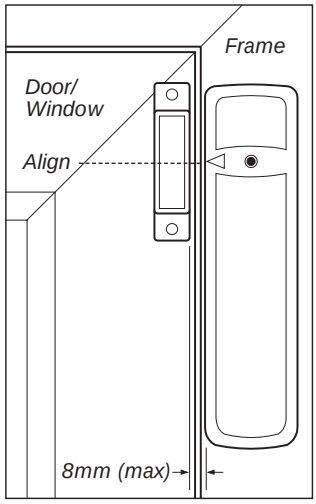
- With the jumper in the normal position the LED will not normally light unless there is a problem, either a low battery or a tamper condition. In the event of a low battery, replace the exhausted batteries with fresh alkaline replacements.
- Do not position a PIR to look directly at a door protected by a door contact, this could cause the door contact and PIR radio signals to be transmitted at the same instant when entering, cancelling each other out.
- Ensure the jumper is in the normal 'off' position when testing is finished, otherwise low battery and tamper conditions will not be shown.

Door/Window contact

1 Ensure the jumper switch is in the test 'on' position.

- In this position the indicator light will illuminate every time the door contact is operated.

2 Fit as described in 'Mounting methods', mounting the detector base on the frame and aligning the magnet by the arrow as shown.



- The magnet should not be more than 8mm from the detector when the door is closed.
- Ensure the tamper switch spring is positioned so that it makes contact with the mounting surface through the tamper switch aperture.
- If the door contact cannot be mounted on the door frame, use the HSA3090 multiple door/window contact accessory kit with a length of wire to mount the door contact remotely (see page 17).
- When fitting to a window, fix the magnet to the moving part and the detector to the frame.

3 Fix the detector on its base and secure with screw. Test it by opening and closing the door or window. The light will flash when an open condition is detected.

4 Remove the detector, put the jumper switch in the normal 'off' position. Screw the detector back onto its base.

- When the jumper is in the normal 'off' position the indicator light will normally be off. It will only light if there is a problem, either a low battery or a tamper condition.
- Ensure the jumper is in the normal 'off' position when testing is finished, otherwise low battery and tamper conditions will not be shown.

Dummy siren

1 Find a suitable location as previously described.

2 Screw to wall as described for Siren, points 3 and 4.

Installation is complete.

Using the system

5

Arm and disarm the system and practice using it. Trigger the alarm by arming the system and opening protected doors/windows and walking past PIR's. Now is the time to show the rest of the family how simple it is to use. The telephone features are yet to be programmed.

Arming the system

Full arming

1 Enter your PIN code and press OK.
2 Arm and Home can be selected by using the arrow keys, select 'Arm'.
3 Press OK. The exit delay is displayed and counts down from the default setting of 10 seconds. The control unit beeps (unless exit sound has been switched off).
4 When the time is up, the control unit sounds a long beep. 'Alarm On' is displayed and the system is armed.
• The siren will beep once (if siren confirm has been switched on), and the strobe will flash once after the Exit Delay has expired.

Home arming

1 Enter your PIN code and press OK.
• You have a silent exit period in which to vacate the armed area. This exit period is the same as used when fully arming.
2 Press ▼ to move the cursor down to select Home.
3 Press OK.
• You can also put the system into the home mode by using the keypad or keyfob accessory.

Stopping the exit delay

Do this by disarming the system.
1 Press ↺.
2 Enter the PIN code.
3 Press OK.
'Alarm Off' will be displayed and the system returns to disarmed mode.

Disarming the system

1 Enter your pin code.
2 Press OK. The control unit will sound 2 short beeps and disarm.
• The siren will beep twice (If siren confirm has been switched on) and the strobe will flash from side to side after the system has been disarmed.

Alarm activation

If a sensor is triggered when armed, or if an entry period is left to expire, the control unit will activate the alarm immediately, while if a Home Omit sensor is triggered, the control unit will not respond if in home mode.

If a 24-hour alarm, fire alarm, personal attack, alarm tamper or medical emergency is triggered, the control unit will activate the alarm immediately irrespective of what armed mode the control unit is in.

During an alarm, the control unit will sound the siren and start to dial the programmed phone numbers.

If a tamper alarm is activated when the panel is disarmed the system will not dial out.

Stopping the alarm

1 Key in your PIN code, and then press OK.
The alarm and dialling will stop and the display will show the device and zone which triggered the alarm in the Alarm Log.
2 Press any key.
The display will show the telephone call made if successful.
3 Press any key again to see if the second call was successful (if programmed).
If nobody has answered the call or only one recipient has answered the call, the screen will return to 'Alarm Off'.

When the log has been displayed the screen will return to 'Alarm Off'.

If an alarm is silenced using a remote keypad or keyfob, the system will only silence the alarm - not disarm the system. The system can only be disarmed after an alarm event at the control panel.

Alarm memory

If an alarm was raised during your absence, and the alarm sequence has been carried out, the screen will continue to show ALARM!

When you come back and disarm the system the siren will sound a 3-second alarm instead of the normal 2-beep sound.

To clear the display, follow the same steps as stopping the alarm described above.

Warning If the siren is activated for 3-seconds when you disarm your system there could be an intruder still in your premises.

Tamper display

The control unit will identify the device triggering a tamper alarm when the system is disarmed. To enable the display to be cleared a tamper condition has to be rectified. For example, if a detector has been tampered the display can only be cleared once the detector tamper has been closed. The display is cleared by entering your PIN code, pressing OK, and exiting the 'Arm Home' display by pressing ↩.

Please note that detector tampers will trigger an alarm even when the system is disarmed. If you wish to take down a detector that has tamper protection ensure the control unit is in 'Walk Test' mode.

Low battery display

When a detectors batteries are running low, it will signal its condition to the control unit when it is activated. To be able to clear the display the batteries in the detector will have to be changed. Always use alkaline batteries as replacements and ensure the control unit is in 'Walk Test' when taking down detectors. After changing batteries, once the detector is activated (out of 'Walk Test' mode), the display can be cleared as described in 'Tamper display'.

System records

For your future convenience, record your system settings below. For your security please keep this information confidential.

My PIN code

Zone no.	Location	Type
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Configuring your system

Fine tune the operation of the control panel to your requirements; advanced programming for PIRs and door/window contacts.

General settings menu

Pin code

To change PIN code, follow steps in 'Easy install programming'.

Entry time

Enables you to alter the entry delay time. Options available are 0 sec., 10 sec., 20 sec., up to 70 sec. in 10-sec increments.

1 Use the arrow keys to switch between options.
2 Press OK to confirm.
- 10 sec. is set as factory default.
- Entry delay time applies only to the zone that a door contact or PIR is installed and is set to entry point.

Exit time

Enables you to alter the exit delay time. Options available are 0 sec., 10 sec., 20 sec. up to 70 sec. in 10-sec increments.

1 Use arrow keys to switch between options.
2 Press OK to confirm.
- 10 sec. is set as factory default.

Alarm length

This is for you to select the period of time that the control unit siren will sound when an alarm is activated. You can choose from 1 minute to 15 minutes in 1 min increments.

1 Use arrow keys to switch between options.
2 Press OK to confirm.
- 3 minutes is set as factory default.

Control unit siren on/off

Enables you to set the control unit siren (not external siren) to be silent in the event of an alarm.

1 Press arrow keys to select the option.
2 Press OK to confirm.
- Siren ON is set as factory default.
- It is recommended that the control unit siren is left on.

Exit sound

Switches on and off the exit countdown beeps.

1 Press arrow keys to select the option.
2 Press OK to confirm
- Exit Snd Low is set as factory default.
- The exit sound can be selected for high or low volume.

Entry sound

Switches on and off the entry countdown beeps.

1 Press arrow keys to select the option.
2 Press OK to confirm.
- Entry Snd Low is set as factory default.
- The entry sound can be selected for high or low volume.

Door chime

Switches on and off the door chime in the control unit when an entry sensor is activated.

1 Press arrow keys to select the option.
2 Press OK to confirm.
- Door Chime Off is set as factory default.
- The door chime can be selected for high or low volume.

Listen-in

Switches on and off the listen-in feature if privacy is required.

1 Press arrow keys to select the option.
2 Press OK to confirm.
- Listen-in On is set as factory default.
- It will not be possible to remotely listen-in or listen-in on an alarm situation when this feature is turned off.

Time

Allows you to set the current time (hours and minutes).

1 Hours will flash, use arrow keys to select the hour, 24-hour format is used.
2 Press OK to confirm the hour setting.
3 Now the minutes will flash, use arrow keys to select the minutes.
4 Press OK to confirm.
- Time will have to be reset if all power to the unit is lost.

Date

Allows you to set the current date.

1 Months will flash, use arrow keys to select the month.
2 Press OK to confirm the month setting.
3 Now the day will flash, use arrow keys to select the day.
4 Press OK to confirm.
- Date will be reset if all power to the unit is lost.

Interference

Allows you to set the control unit to respond to the presence of radio jamming.

1 Use arrow keys to choose the setting.
2 Press OK to confirm the setting.
- 'Disp Off' is set as factory default.
- 'Disp On' will enable the display of any interference that is detected for more than 30

seconds when the control unit is disarmed.
- With interference set to 'Disp and Rep On', when the system is armed (fully armed, not home armed) and interference is detected, the control unit will notify of the presence by dialling out. Interference will not cause the control unit to sound in alarm.
- Radio interference is unlikely, but can affect the operation of the system. Please read 'Radio jamming' (page 10) for more information.
- The control unit and the external siren both have independent radio interference detection. It is possible for the siren to detect and respond to interference (if set), even if the control unit does not detect any radio interference.

Keyfob remote control entry enable

Turns on and off the remote control disarm function.

1 Press arrow keys to select the option.
2 Press OK to confirm.

- Remote Control Entry Enable off is set as factory default.
- When the keyfob remote entry enable is set to 'off' it will not be possible to disarm the control unit when the system is fully armed unless an entry point device is activated first. This feature is used to ensure that the system cannot be disarmed with a stolen remote control without unlocking a door first.
- When the keyfob remote control entry enable is set to 'on', the keyfob remote can arm and disarm the control unit as normal without activating an entry point first.
- A panic alarm cannot be disarmed by a keyfob remote. This prevents an assailant from silencing a personal attack alarm by snatching the keyfob and pressing Disarm.

Further PIR programming

The PIR can be used in four different ways within the system:

- To cause an instant alarm upon detection when the system is fully or home armed;
- To be omitted when the system is home armed;
- To commence an entry countdown upon detection when the system is home armed, but cause an instant alarm when fully armed;
- To commence an entry countdown upon detection when the system is fully or home armed.

These choices are presented during the learning in process and are summarised by the following codes within the control unit:

B	Burglar	active when control unit is in armed or home mode
O	home Omit	not active when in home mode
D	home Delay	starts entry countdown when in home mode
E	Entry	starts entry countdown when in armed or home mode

PIR operation

The LED does not normally flash when it senses movement. This is to conserve battery power.

If the LED flashes regularly, it indicates that it has either been tampered with, or the batteries are getting low and need replacing.

Further door/window contact programming

The door/window contact can be used in six different ways within the system:

- To cause an instant alarm upon activation when the system is fully or home armed;
- To be omitted when the system is home armed;
- To commence an entry countdown upon activation when the system is home armed, but cause an instant alarm when fully armed;
- To cause a fire alarm when activated whether the system is armed or disarmed;
- To cause an instant alarm whether the system is armed or disarmed (24-hour alarm);
- To commence an entry countdown upon activation when the system is fully or home armed.

These choices are presented during the learning in process and are summarised by the following codes within the control unit:

B	Burglar	active when control unit is armed or home mode
O	home Omit	not active when in home mode
D	home Delay	starts entry countdown when in home mode
F	Fire	causes fire alarm upon activation whether system armed or disarmed
H	24 Hour	causes burglar alarm upon activation whether system armed or disarmed
E	Entry	starts entry countdown when in armed or home mode

Points for consideration

- In home mode, detectors set as ‘Burglar’ will cause an alarm when activated, whilst detectors set as ‘Home Omit’ will not trigger an alarm.
- If the system is fully or home armed, detectors set as ‘Entry’ will start the entry countdown when activated. When disarmed, an entry detector will sound a ‘ding-dong’ chime from the control unit (if ‘door chime’ is selected).
- If a detector is set as ‘Home Delay’ it will start an entry countdown when the system is home armed. This setting is useful if your path to the control unit (when used at night) is vulnerable (a stairwell for instance).
- After testing the door/window contact and PIR in your chosen locations, please ensure that the jumpers are moved into the ‘off’ (parked) positions. If left in the ‘on’ positions battery life will be shortened and it will not be apparent if the detector has a tamper or low battery condition.

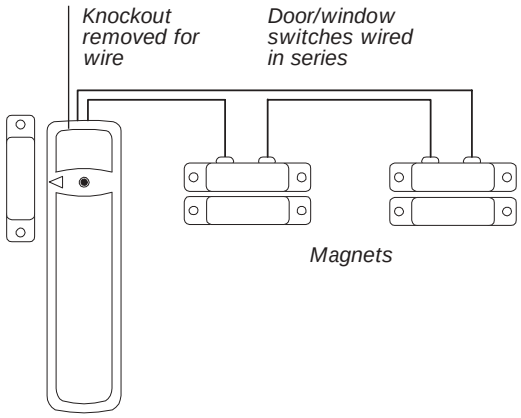
Multiple door/window contact wiring

If difficulty is experienced fitting the door/window contact because of space etc, the HSA3090 multiple door/window contact set should be used (not included).

The magnet/contact pairs are wired using bell wire (not supplied) to the extension terminals as indicated on page 7. The knockout in the top of the door/window contact must be removed to allow the wire to pass through. The total length of wire used must not exceed 10 metres. The magnet/contact pairs should be no further than 8mm apart.

It is possible to use a single pair of multiple door/window contacts with a detector if you experience problems fitting the main unit to the door frame.

When using multiple switches on a door/window contact, you can use the detector without having a magnet alongside the main unit.



Testing the system

Testing the system should be done on a regular basis and after any alterations.

PIR sleep feature

The PIR has a built-in sleep timer to save battery power. If there is no movement in front of the PIR for 1 minute, the PIR will become ‘ready to signal’ and movement will now be reported. The PIR will sleep for 1 minute after. Any movement detected in sleep time will not be reported and will extend the sleep period by 1 minute.

Walk test

This allows you to test the system without causing an alarm.

1 Press # followed by your PIN code.
2 Press OK.
3 Select ‘Walk Test’.
4 Walk around protected areas in front of PIR’s and open doors/windows protected by door contacts.

- If the control unit receives a signal, it will sound a chime and the display will show the sensor and zone number which has been tested.
- The message will be displayed until being replaced by another test signal.
- Pressing the ↺ key, will return to programming menu.
- If left in walk test, the control unit will revert back to ‘Alarm off’ after 20 minutes.

Testing the siren

The siren can be tested by arming and disarming the system, the siren will respond as follows:

- When the control unit is armed the siren will beep once (if siren confirm is switched on) and will flash after the Exit delay period has expired.
- When the control unit is disarmed, the siren will give two short beeps (if siren confirm is switched on) and will flash from side to side twice.

Adding accessories

To provide additional protection you can add extra door/window contacts, PIRs, keyfob remote controls, keypad remote controls, help buttons and smoke detectors. These are available separately from your local stockist.

Keyfob remote control accessory

Programming

Learn in the keyfob as follows:

1 Enter the 'Devices +/-' menu and select the 'Add Device' sub menu.
2 Press the Arm button on the keyfob remote when prompted.
3 After you have assigned a zone number for the keyfob remote, you are presented with a choice:
- 'Medical Emg': Control unit dials a medical emergency alarm when the Panic button on the keyfob remote is pressed; or
- 'Personal Att': Control unit dials a personal attack alarm when the Panic button is pressed.

4 After making your selection, the display will show the successfully installed device.
5 Press OK.
- The Panic button has to be pressed for more than 5 seconds to operate. This is a safety feature to stop accidental operation.
- If programmed as a Personal Attack alarm, an alarm started by the Panic button cannot be silenced with the keyfob remote, only with the control unit. This is a safety feature to stop any potential attacker disarming the system after a Personal Attack alarm has started.

Using

The system is armed by pressing the Arm or Home button for at least 1 second (this delay feature prevents accidental operation).

The system is disarmed by pressing the Disarm button in the same way.

The switch at the side prevents the keyfob from transmitting accidentally.

- The keyfob can also be used to answer an incoming telephone call by pressing the Disarm button twice for 1 second with a pause between and then to close the call by pressing the Disarm button again for 1 second.
- When arming the system in 'home' mode using the keyfob remote, the system will arm and disarm instantly without an exit or entry countdown.

Keypad remote control accessory

Programming

1 Enter the 'Devices +/-' menu and select the 'Add Device' sub menu.
2 When prompted by the control unit enter 0000 on the keypad then press TEST. The 'Tx' LED will flash showing that the keypad is in program mode.
3 Press TEST then 1 on the keypad. The keypad and the control unit will beep.
4 After you have assigned a zone to the keypad, the display will show the successfully installed device.
5 Press OK on the control unit.
6 Press Off twice on the keypad to exit program mode, Tx LED will stop flashing.
- The keypad will beep every 30 seconds if the tamper switch is open. Please ensure tamper switch closes when mounting.

Changing PIN number

1 Put the keypad into programming mode by entering the factory set code 0000 and pressing TEST.
2 Enter 0000 then press CLR.
3 Enter your new 4 digit code then press PROG. The keypad will beep in response.
4 Press OFF twice to exit programming mode.
- It is advisable to use the same PIN code as the control unit, but it can be different.

Using

To arm the system:

Enter your PIN code and press Arm.

To disarm the system:

Enter your PIN code and press Off.

To home arm the system:

Enter your PIN code and press Home.

Help button accessory

Program your help button before installation and test in the desired location before mounting.

Programming

1 Follow sections 1 and 3 (Inserting batteries and Location planning).
2 With the system in learn mode, press and hold the red button on the help button – the LED will light momentarily and your system will confirm the transmission.
3 Take your system out of learn mode.
- The help button can be tested by entering learn mode (see user guide) and activating the help button. The siren will beep in response to the activation. Please ensure you exit learn mode after testing.

Using

To activate, press and hold the red button for at least 2 seconds – LED will light momentarily and the alarm will be activated.

To silence an alarm, press and hold down the red button, after 10 seconds the LED will light momentarily for a second time – alarm will be silenced

- Please note that silencing the alarm with the help button does not reset the system. If the alarm is armed prior to activation, the system will re-arm after being silenced with the help button.

Smoke detector accessory

Programming

1 Enter the 'Devices +/-' menu and select the 'Add Device' sub menu.
2 When prompted by the control unit, press the learn test button on the smoke detector.
3 Assign a zone number to the smoke detector.
4 Press OK to confirm.
- The smoke detector will indicate a fire by sounding the built-in siren, lighting the LED, and signalling the system to alarm.
- The smoke detector will produce a warning beep and the LED will flash every 30 seconds if the batteries are near exhaustion.
- The learn/test button can be used to test the smoke detector. With the control unit in walk test, press the learn/test button, the detector will sound a two-tone confirmation and the control unit will confirm. Please ensure that you test smoke detectors regularly.

Remove a device

If a sensor needs to be re-programmed (for example, to change home mode settings) or a replacement device needs to be fitted, it first needs to be removed from the control unit memory.

Adding a new sensor to a used zone is prevented until the previous sensor is deleted. To delete a sensor, choose 'Remove Device' in the 'Device +/-' menu, all the used zones with the sensor names are listed.

1 Use arrow keys to move the cursor to the position where the device listed is to be deleted.
- The list is displayed in zone number order.

2 Press OK. The selected device will be displayed for you to confirm.
- Press ↩ to exit if you do not want to delete this device, the screen will return to the previous list.

3 Press OK to delete.

List devices

To view all the devices that have already been installed, choose 'List Devices' in the 'Device +/-' menu, all the sensors included in the system will be displayed.

- The list is displayed by zone number. Use arrow keys to scroll the display. Press ↩ to exit.

Zone already allocated

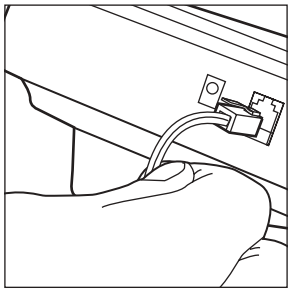
Each device can only be given one zone number. When a sensor is added to the system for a second time (without removing first) an error message is displayed and then the screen will prompt new action.

Telephone connection & programming

Powerful facility that enables the system to the telephone 6 numbers in an emergency - your mobile, friends, relatives, neighbours or colleagues - but not 999 directly.

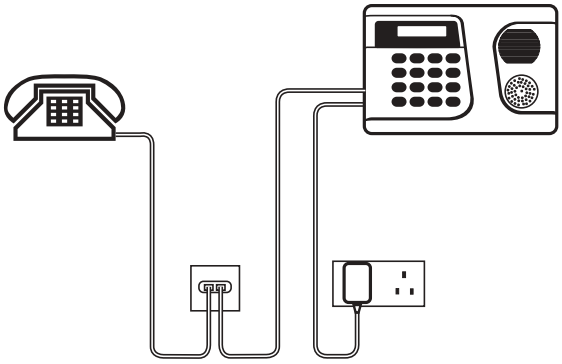
Telephone connection

A telephone lead and 2-way adaptor is included so you can have your telephone and the control unit connected to the telephone network at the same time.



1 Plug the 2-way adaptor into the telephone wall socket.
2 Plug one end of the telephone lead into the control unit and the other end into the adaptor.
3 Plug your telephone into the 2-way adaptor.

- The control unit will not be able to telephone out if any handsets are accidently left off, or if someone is ringing in.
- If you are using an answer machine on the same telephone line as the system please ensure that the answer machine is not set to respond to incoming calls on the first ring.
- If you do not wish to use the telephone features of the system it is not necessary to connect the telephone lead to the control unit.



Telephone number programming

The 'Tel. Settings' menu allows you to set/change/delete telephone numbers and play/record alarm messages.

- Use arrow keys to move the cursor to select the item, press OK to confirm the selection.
- Select 'Stop' or the ↺ key, the screen will return to programming Main menu.

Setting telephone numbers

From 'Tel. Settings' menu, select 'Tel. Numbers', this allows you to store the telephone numbers you wish the alarm to contact.

A maximum of six numbers can be stored in priority order (in the order A to F).

- The unit will dial using tone dialling.
- Positions A to F represent the priority order of the six telephone numbers programmed, 'A' having the highest priority.
- If a slot does not have a telephone number stored, three dots are displayed indicating the slot is empty.
- In the list only the first 9 digits of the telephone number are displayed. Numbers longer than 9 digits are indicated with two dots after the digits displayed.

Storing telephone numbers

1 In the 'Tel. Numbers' menu, the cursor will be flashing at location A.
2 Press OK.
3 Enter the first telephone number required.
4 Press OK, the display will return to the 'Tel. Numbers' menu.
5 Using the arrow keys select location B for your second telephone number.

Repeat these steps until all your telephone numbers have been stored.

- The maximum length of a number is 20 digits including ✻ and #. If this length is reached, the control unit will sound 5 beeps and the unit will only respond to the ↺ and OK keys.
- During entering the number, the ↺ key is used as backspace. However, if the number field is empty, pressing the ↺ key will return to Tel. Numbers lists screen.
- During entering the number, when the 15th position is reached, non-fitting numbers will scroll sideward to the left.

Special function characters

Two special keys ✻ and # are provided for special functions.

✻ represents a 3-second delay or (pause). The control unit will not dial the tone ✻.

tells the control unit to go off line.

Storing a pager number:

Pager number – ✻ - identity code – # - OK

The identity code is a number that you can key in at your discretion. This enables the recipient to know the call is from the control unit.

- Only one attempt will be made to the pager number.

Storing a telephone number in PABX phone system:

PABX access code 0/9/8 – ✻ – telephone number – OK

You can add as many ✻'s as required.

Storing a telephone number with extension number:

Telephone number – ✻ – ✻ – extension number – OK

You can add as many ✻'s as required.

Changing/deleting telephone numbers

1 In the 'Tel. Numbers' display, using the arrow keys, move the cursor to the telephone number you wish to change.
2 Press OK.
3 Press OK to confirm you wish to change the number.
• Press ↩ to abort and the screen returns to Tel. Numbers List screen.
4 Enter the new telephone number.
5 Press OK.

The number entered will override the previous entry. The display returns to the 'Tel. Numbers' list.

• If you wish to delete a telephone number and leave the location empty, press OK when reaching step 4. The location will be cleared and the display will return to 'Tel. Numbers' list.

Storing alarm messages

The control unit allows you to record messages to be relayed to the recipient that are specific to the cause of the alarm.

Messages

Alarm messages are recorded in five separate parts, with a total recording time of 16 seconds.

Address message	8 seconds
Burglar message	2 seconds
Fire message	2 seconds
Personal attack message	2 seconds
Medical emergency message	2 seconds

When an alarm is raised, the control unit will dial the stored phone numbers according to priority (A through to F). The address message will be relayed, followed by the message specific to the cause of the alarm. For instance an alarm started by a smoke detector will cause the fire message to be relayed.

Recording address message

Ideally your address message should contain your family name, house number and street name so that the recipient can quickly identify the source of the message. For example: 'Smith, number 10, Wood Street.'

1 Enter the 'Tel. Settings' menu, select 'Messages' > 'Record Msg' then 'Rec. Address'. The display will ask for confirmation.
2 Press OK. A prompt message will be displayed and the control unit will sound a long beep. At this point recording starts.
3 After saying your address message, press OK. The display will then allow you to record your specific alarm messages.
• At any time, pressing ↩ will abort recording and the message will not be stored. The display will return to the menu.
• The maximum length of the address message is 8 seconds. When the 8 seconds are over, recording will stop automatically and the message recorded will be stored.
• When recording messages ensure you are facing the microphone and within 30cm of the control unit.

Recording specific part messages

After recording your address message the display will show the specific message menu. Select each message in turn, following the same procedure as for recording the address message. Ensure you are brief when recording specific messages. For example, when recording the burglar message: 'Burglar, burglar'.

• The message length for each specific message is 2 sec only.
• Specific messages have to be recorded for specific alarms, eg fire messages for a fire alarm, panic message for a panic alarm etc. otherwise the wrong message might be sent.

Playing messages

1 Select 'Play Message' and then press OK. You are prompted to select the appropriate message to be played.
2 Move the cursor to select the desired message and then press OK. The address part message will first be played.
3 After the address part message is played completely, the selected specific part message is played accordingly.
4 After playing the specific part message, the address part message is played again and starts a new cycle. Playing the message will be repeated for a total of 5 times, and then the screen returns to 'Play Selection' menu.
• During playing the message, pressing the ↩ key will stop the playing and the screen returns to 'Play Selection' menu.

Changing a message

If for any reason, you want to change any part of the recorded message, just follow the same procedure to record a new message for that part. The new message will override the previous one.

Dialling and call acknowledgement

Auto dialling

When an alarm occurs, the control unit will immediately dial the phone numbers you stored and play the recorded messages.

After dialling, the control unit delays 5 seconds then starts to play the message. It will first play the address part of the recorded message then play the specific part message (burglar, fire, personal attack or medical emergency) depending on the nature of the alarm.

To ensure the recipient successfully receives the call, the recipient should acknowledge the message by pressing the appropriate button on their telephone set (described below).

The control unit, while playing the message, will check if there is any acknowledgement signal being received. If the recipient does not acknowledge the call, the message will be repeated for a period of 80 seconds; the control unit will then consider the call as unsuccessful and will try to dial the next phone number in priority.

If more than one number is programmed the control unit will continue to dial the number(s) until two emergency calls are successfully answered with either 1 or 0, or closed down with a 9 acknowledgement.

- Care must be taken not to have other phones off the hook, otherwise the alarm call will not be able to get through.

Interference detection

If interference detection has been set to 'Disp and Rep On', when the system is armed (fully armed, not home armed) and interference is detected, the control unit will dial out and play the address message only. In this alarm condition the system will not sound either the control unit or the external siren (unless the external siren has been set to respond to interference independently).

Call acknowledgement

When the recipient receives the alarm call, they should acknowledge it by pressing either the 0, 9 or 1 button on their telephone.

Acknowledging with 0 key

If the recipient presses 0 on their phone set as the acknowledging signal, the control unit will then take the following actions.

The control unit will go back offline.

The control unit will continue alarming.

The control unit will try to dial the next phone number(s) until two recipients have acknowledged the call.

Acknowledging with 9 key

If the recipient presses 9 on their phone set as the acknowledging signal, the following will happen:

The control unit will go back offline.

The control unit will stop alarming and stop dialling.

Acknowledging with 1 key

The recipient can press 1 to acknowledge the call and also initiate a two-way voice communication. Please see Two-way voice communication in next section for details.

Auto redial

When only one number is stored and that number is engaged or the control unit does not receive the acknowledgement signal, the control unit will automatically redial that number up to a maximum of 5 times with an interval of 62 sec. between dialling attempts.

When more than one telephone number is stored, the control unit will dial in accordance to the set priority order. If the number being dialled is engaged or the control unit does not receive the acknowledgement signal, it will try the next number in sequence and so on. Each number will be tried a maximum of 5 times and the redial interval between each number is 5 sec.

The maximum number of times the control unit will retry is 15 times.

- When no telephone number is stored or no address message is recorded, the control unit will not dial.
- When dialling a pager number, the control unit will only send the identity code, it will not play the message and the call is not considered to be successful.
- The same pager number will be dialled only once.
- When disarming the system after an alarm event, the control unit will display the successful call acknowledgments thus, 'System reached:', followed by the letter(s) of the recipients stored number(s) (A-F). If the system has had no successful acknowledgments (recipient pressing 0, 9 or 1) the display will show 'System reached: None'.

Two-way voice communication

Opening two-way communication

In the event of an alarm, the call recipient can press 1 to acknowledge the call and also initiate two-way voice communication.

The two way voice communication channel enables you to permit the recipient to listen in to what is happening on your side. You can also talk to the recipient through the microphone and speaker on the control unit, hands free.

The communication channel, once opened, lasts for 5 minutes. The recipient will hear repeated beep sound 20 seconds before the control unit hangs up the line.

If the recipient wants to have more time to listen and talk, they can press the 1 button on their telephone set again to add another 5 minutes.

- When the recipient opens the two way voice communication channel by pressing 1, the control unit will then stop the audible alarms to allow speech communication.
- If the call is not terminated with a 0 or 9 within 5 minutes, it is acknowledged as one of the 2 attempted calls and will not re-activate the sirens. It will re-dial if a previous acknowledgement has not been registered.

Terminating two-way communication

After two-way voice communication has been initiated, the recipient can terminate the communication by pressing 0 or 9 on their phone set.

Terminating with 0 key

If the recipient presses 0 on their phone set, the following will happen.

The two-way voice communication will be terminated.

The audible alarm will continue.

The control unit will go back offline.

The control unit will try to dial the phone number of the next priority until a total of 2 calls have been acknowledged.

Terminating with 9 key

The two-way voice communication will be terminated.

The control unit will go back offline.

The alarm will be silenced.

The control unit will stop dialling.

Hands free calling

The control unit provides the convenience of functioning as a hands-free phone.

You can dial the phone number on the keypad of the control unit, communicate with the call recipient using the built-in microphone and speaker without lifting your hand-set. To do this, follow the procedure below.

1 If the system is in disarmed mode or home mode, press the ▲ key on the keypad.

2 The display will show a prompt asking for confirmation.

3 Press OK to confirm. The control unit will pick up the phone line and allow you to enter the telephone number.'

- Pressing ↺ will return the display to 'Alarm Off'.

4 You can key in the telephone number, the number entered will be dialled.

5 Voice communication is now enabled.

6 To hang up you can either press the ↺ or ▼ key or press the disarm button on the remote control.

- 30 minutes is allowed for one call. The control unit will hang up automatically after 30 minutes. You will hear a repeated beeping sound beginning 20 seconds before the call is disconnected.
- If you want to continue the conversation, press any numeric key on the keypad of the control unit, another 30 minutes will be added.
- If you want to hang up, you can either press the ↺ or ▼ key or press the disarm button on the remote control.

The control unit will then disconnect the line and go offline.

- During hands-free conversation, pressing Arm button or Home button on the remote keyfob control, the control unit will not respond.

Hands-free call answering

If the system is in Disarmed mode or Home mode, when the telephone rings you can answer the call without lifting a handset.

1 When the telephone rings, the screen will display 'Ring!'.

• The control unit itself will not produce a ringing sound when an incoming call is received.

2 If you want to answer the call hands-free, press the ▲ key.

3 Press OK to confirm; the control unit will go online.

4 Voice communication is now enabled; you can then converse with the caller through the microphone and speaker on the control unit.

5 To hang up either press the ↺ or ▼ key or press the Disarm button on the remote keyfob control.

• The control unit will hang up automatically after 30 minutes. You will hear a repeated beeping sound beginning 20 seconds before the call is disconnected.

• If you want to continue the conversation, press any numeric key on the keypad of the control unit, another 30 minutes will be added.

If you want to hang up, you can either press the ↺ or ▼ key or press the Disarm button on the remote keyfob control. The control unit will then disconnect the line and go offline.

• A keyfob can also be used to answer an incoming telephone call by pressing the Disarm button twice for 1 second with a pause between and then to close the call by pressing the Disarm button again for 1 second.

Remote access

The control unit gives you the power to control your system remotely through the telephone line.

1 Dial your phone number.

2 Hang up on the first ring.

3 Wait 8-15 seconds.

4 Dial your number again.

5 The control unit will answer the phone on the first ring of that second call.

6 Key in your PIN Code within 3 seconds.

7 If the PIN code is correct, you will hear a long beep, then press the appropriate key as follows.

Press 1 Open the two way communication channel. You can then listen in to what is happening in your house or talk to anybody at home through the microphone and speaker on the control unit.

Press 2 Put the system into a fully armed mode (arm the system)
Press 3 Disarm the system
Press 5 Turn on the microphone (listen only)
Press 6 Turn off the microphone
Press 7 Activate siren
Press 8 Deactivate siren
Press 9 Check the system mode
Press 0 To hang up

• After you press 1 to open the Two Way Voice communication channel, you can press 0 to close the channel or the control unit will hang up automatically after 5 minutes.

• If you want to continue talking or listening, press 1 again, and another 5 minutes will be added.

• When you press 9 to check the system mode, the control unit will report a long tone to show the system is armed, 2 pips for home armed, 3 pips for disarmed and 5 pips if there has been an alarm event.

• Remember to press 0 before you hang up, or the control unit will hang up automatically 30 seconds after (except in the situation that the two way communication channel was opened by pressing 1, in this case the control unit will hang up 5 minutes after).

Changing the batteries

Always use alkaline batteries as replacements, any other type of battery can cause problems with the operation of the system. Typical life of batteries is three years. Ensure the correct steps are taken when changing batteries in tamper protected devices.

Siren

The siren will produce a series of pips when armed and disarmed, and an interrupted alarm sound (if activated) if the siren batteries are near exhaustion. Change the batteries as soon as possible. The sound will be reset when the batteries are changed.

- You can determine if your siren is sounding a tamper warning or a low battery warning by arming and disarming the system. If the siren produces 5 pips when the system is armed and disarmed, the batteries are low. If the siren produces 5 pips, only when the system is armed, the tamper switch has been disturbed.

1 Before changing siren batteries, the siren tamper must be disabled by selecting 'Devices +/-', then selecting the 'Program Siren' menu and then 'Siren A/T Off'. Press OK. When these steps are taken the siren will beep in confirmation.'

- When changing the batteries allow 1 minute between taking out the old batteries and replacing with the new.

Warning After the batteries have been changed the siren tamper will become active again. To avoid the siren sounding in alarm, ensure that you follow the next step before attempting to refit the siren cover.

2 With the new batteries fitted the siren tamper must be disabled again by selecting 'Devices +/-', the selecting 'Program Siren' menu and then 'Siren A/T Off'. Press OK.
3 Refit the siren cover.
4 Enable the siren tamper by selecting 'Siren A/T On' in the 'Program Siren' menu. Press OK.

PIR and door/window contact

The LED will flash every time the device is activated indicating a low battery and the control unit display will identify the sensor low battery.

1 To prevent a tamper alarm, in the control unit select 'Walk Test'.
2 Remove device from mounting.

- Before changing the batteries check that the tamper switch closes when mounted.

3 Change the batteries with alkaline replacements.
4 Screw device back on.

Keyfob remote control

The LED will either be very dim or will not light at all when the battery is low. Change the battery as soon as possible with an alkaline replacement.

Keypad remote control

To indicate a low battery the 'Active' LED will flash repeatedly. The control unit display will also indicate the low battery condition.

1 To prevent a tamper alarm, in the control unit select 'Walk Test'.
2 Remove keypad from mounting.

- Before changing the battery check that the tamper switch closes when mounted.

3 Change the battery with alkaline replacement.
4 Screw keypad back on.

Smoke detector

The LED will flash and sounder will beep every 30 seconds to signal low battery. Change the batteries as soon as possible with alkaline replacements.

- The control unit display will identify the smoke detector low battery only after activation.

Help button

Remove the cover by loosening the fixing screw and insert a new 12V battery.

Trouble shooting

Siren

Siren does not respond to arming or disarming

- Siren batteries are completely exhausted. Check siren batteries by removing siren cover, if there is no tamper alarm when removed, replace batteries with new alkaline equivalents.
- Siren not learnt-in. If siren produces a tamper alarm when the cover is removed and siren is OK, learn-in the siren.

Siren produces a 3 second alarm when disarmed

- There has been a previous alarm and there might be an intruder still in the premises.

Siren produces a series of pips when armed or disarmed

- The siren has low batteries. Check that the siren produces a series of pips when arming and disarming, indicating low batteries. Change batteries with new alkaline replacements.
- The siren tamper switch has been disturbed. Check that the siren produces a series of pips only when arming, indicating a tamper fault. Check that the siren cover is firmly secured and the tamper switch plunger is in contact with the wall. If not use suitable packing material to fill gap.

Siren produces an interrupted tone when sounding an alarm

- The siren has low batteries. Change batteries with new alkaline replacements.

Siren will not learn-in

- No detectors are learnt-in. Learn-in a detector first. The siren will not learn-in into a control unit without a previously learnt-in detector.

PIR

PIR does not respond to movement

- Previous movement has triggered the PIR sleep timer is preventing subsequent movement detection. Arm system and vacate protected room for at least 1.5 minutes before testing.

PIR is slow to respond

- This is normal, the PIR has sophisticated false alarm filtering that will filter out random fluctuations and responds to genuine movement across field of view, it is less sensitive walking directly towards it.

PIR gives false alarms

- Check pets have no access to protected area.
- Check that PIR is not pointed at sources of heat or moving objects, e.g. fluttering curtains.
- Check that PIR is not mounted above convector heaters or pointing directly at windows.

PIR LED flashes when jumper is in normal position

- Batteries are low or the tamper switch is disturbed. Check that the tamper switch spring is making contact with base. If the tamper switch is OK, change batteries with new alkaline replacements.

PIR does not respond to movement when jumper is in test position

- Batteries are completely exhausted. Change batteries with new alkaline replacements, LED will flash for 30 seconds while components initialise.

Door contact

Door contact LED flashes when jumper is in normal position

- Batteries are low or the tamper switch disturbed. Check that the tamper switch spring is making contact with the mounting surface. If the tamper switch is OK, change batteries with new alkaline replacements.

Door contact does not respond to door opening when jumper is in test position

- Batteries are completely exhausted. Change batteries with new alkaline replacements
- The magnet is too far away from the door contact. Check that the gap between door contact and magnet is not greater than 8mm.

Control unit

Control unit does not dial out when there is an alarm

- No messages recorded. Check that the speech messages are all recorded.
- No telephone numbers programmed. Program telephone numbers.
- Faulty telephone connection. Check all connections to the telephone line. Test with spare telephone handset if necessary.

Specifications

All devices

EMC
Tested to EN 300 220-1 and ETS 300 683

Environmental conditions
-10°C to 40°C, relative humidity 70% non-condensing for all units except the external siren. Siren: -20°C to 50°C, relative humidity 95% non-condensing

Radio operational range
30m in a typical domestic installation
Can vary depending on building construction and RF environment.

Housings ABS

Control unit

Keys

▼	Scrolls display downwards
▲	Scrolls display upwards
#	Program button, telephone dialler
✻	Phone number pause
↶	When in programming mode, clears the screen or return to previous menu; back space for telephone numbers

Device codes

DC	Door/window contact
PIR	PIR movement detector
SD	Smoke detector
RC	Keyfob remote control
KP	Keypad remote control
WTR	Help watch

Control unit illumination Display is back lit when the unit is mains powered.
Housing ABS
Siren Output 95dBA sound pressure @ 1m minimum
Zones 20 radio devices
Radio system 433.92MHz AM Integral transmitter and super heterodyne receiver with jamming detection
Power supply Plug top adaptor type, input 230VAC 50Hz, output 9VDC, 500ma, tested to EN 60 950
Rechargeable battery Nickel cadmium 7.2V, 600mah, charge time 72h, standby duration 8h
Telephone interface Tested to TBR 21. Hands free vox operated, 6 programmable numbers with 4 different pre-recorded messages
REN rating 1

Siren

Siren output 104dBA sound pressure @ 1m minimum
Radio 433.92MHz AM super heterodyne receiver with jamming detection
Power supply 6V, 4 x D alkaline cells. 3 years minimum typical service life

PIR movement detector

Alarm processing Microprocessor controlled dual edge sequential pulse count with pulse length discrimination
Radio 433.92MHz AM transmitter
Power supply 4.5V, 3 x AA alkaline cells. 3 years minimum typical domestic service life, 1-minute sleep timer
Movement detection range 15m, 110°

Door/window contact

Radio Microprocessor controlled 433.92MHz AM transmitter
Power supply 3V, 2 x AAA alkaline cells. 3 years minimum typical domestic service life @ 50 activations a day

Smoke detector

Radio Microprocessor controlled 433.92MHz AM transmitter
Power supply 6V, 4 x AAA alkaline cells. 3 years minimum typical domestic service life

Keyfob remote control

Radio Microprocessor controlled 433.92MHz AM transmitter
Power supply 12V 23A/MN21 alkaline miniature "lighter" battery. 3 years minimum typical domestic service life

Keypad remote control

Radio Microprocessor controlled 433.92MHz AM transmitter
Power supply 9V alkaline PP3. 3 years minimum typical domestic service life

Help button

EMC Tested to EN 300 220-1 and ETS 300 683
Environmental conditions -10°C to 40°C, relative humidity 70% non-condensing
Radio operational range 30m in a typical domestic installation. Can vary depending on building construction and RF environment
Radio Microprocessor controlled 433.92MHz AM transmitter
Power supply 12V 23A/MN21 alkaline miniature "lighter battery". 3 years typical domestic service life

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EC Declaration of Conformity

We: Yale Security Products UK Limited
Wood Street
Willenhall
West Midlands
WV13 1LA
UK

declare under our sole responsibility that the following product(s):

Model: **HSA3800**
HSA3020
HSA3060
HSA3010
HSA3050
HSA3045
HSA3080
HSA3030
HSA3070

is (are) in conformity with the following relevant harmonised standards:

EN 300 220-1
ETS 300 683

following the provisions of Council Directive 1999/5/EC on radio equipment and telecommunications terminal equipment and the mutual recognition of their conformity,

Name: Martin Wakeman Position: Financial Director

Signature: M. C. J. Wa... Date: 26/7/00

On behalf of Yale Security Products UK Limited

Key points

Stopping the alarm

- Key in your PIN code and press OK on the control panel

If any of the devices beep or flash, they have either

been tampered with
See trouble-shooting, page 26

or require a new battery
See how to change a battery, page 25

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