

# Yale<sup>®</sup>

HSA3400

Keypad alarm system

**Installation**

**Programming**

**Operating**

Keep in a handy place for reference and for future maintenance

Helpline **01902 635998**

# Introduction

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## General system overview

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Thank you for choosing the Yale HSA3400 Security Alarm System. This simple to install system has been designed with the user in mind.

The siren has a sounder and strobe LEDs to attract attention. In addition, 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, PIRs and keypad remote controls, you can add smoke detectors, keyfob remote controls and help watches.

### Long battery life

There is no need to wire into the mains supply or seek the services of a qualified electrician as all the components are powered by battery (all batteries included).

The system siren has a typical battery life of 2 years, whilst detectors will operate for 3 years before batteries 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

Each part of the system is 'tamper' protected. Any unauthorised tampering with the system will result in an alarm. This feature can be turned off by the user when a battery change is required.

### Entry/Exit feature

The HSA3400 has a 20 second entry/exit time. This feature allows you time to leave the home when arming the system. Upon entering, the feature allows time to disarm the system without causing an 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

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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

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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

Service available 9am-5pm Monday to Friday.

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## Recommended installation sequence

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We recommend you follow the easy start sequence, headings numbered 1-6.

Subsequent sections provide:

- Use of additional accessories including keyfob remote control, smoke detector and help button.

## Carton contents

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1 x External siren  
1 x Keypad remote control  
2 x Passive infrared (PIR) detectors  
2 x Door/Window contacts  
2 x Door/Window contact magnets  
  
4 x 1.5V AAA alkaline cells  
6 x 1.5V AA alkaline cells  
3 x 1.5V AAA alkaline cells  
4 x 1.5V D alkaline cells  
  
2 x large adhesive pads  
2 x small adhesive pads  
4 x small wall plugs  
12 x medium wall plugs  
4 x large wall plugs  
4 x 4mm x 30mm 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

## Contents

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## Accessories available

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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

## Operating range

All devices must be within 30 metres of the siren 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.

## 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.

## 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.

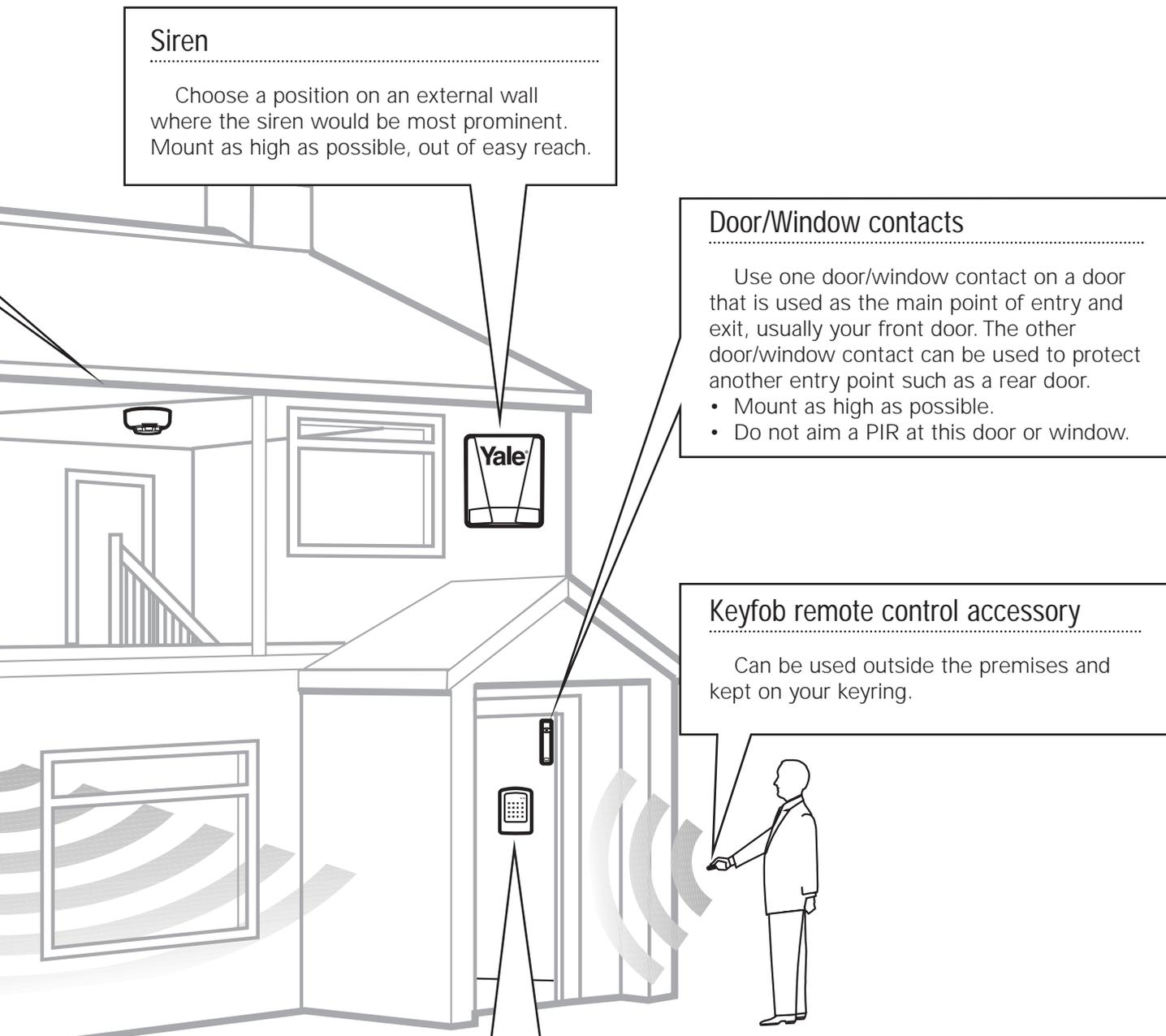
- Mount on bedroom wall or by the front door
- Not clearly visible to an intruder
- Easily accessible
- Out of reach of children
- Not outdoors

## PIR movement detectors

- Mount in a position such that an intruder would normally move across a 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 a 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 a PIR directly facing a window.
- Do not point a PIR at a door protected by a door/window contact.



do not mount at this stage.



### 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 contacts

Use one door/window contact on a door that is used as the main point of entry and exit, usually your front door. The other door/window contact can be used to protect another entry point such as a rear door.

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

### Keyfob remote control accessory

Can be used outside the premises and kept on your keyring.

### Keypad remote control

- The keypad should be sited next to the main point of entry/exit so that the system can be disarmed/armed within 20 seconds of entering/leaving the premises.
- Ensure that the keypad is not visible from the outside of the premises.
- Mount at chest height for ease of use.
- Designed for indoor use only.

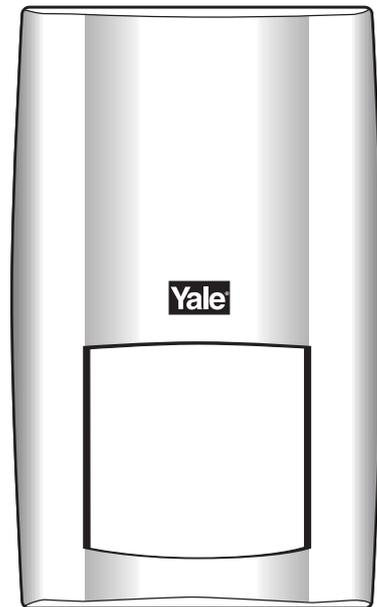
### Extend the system

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

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

# 2 Unpack all the parts on 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.

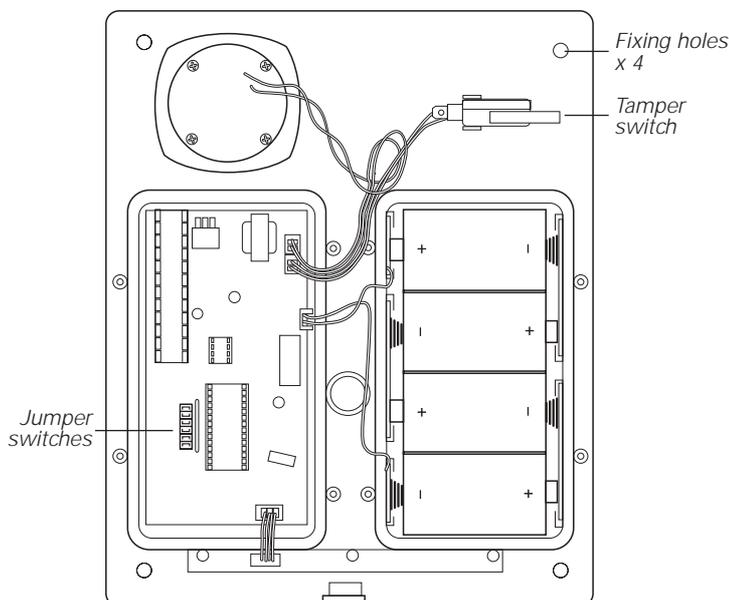


## Siren

### WARNING

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

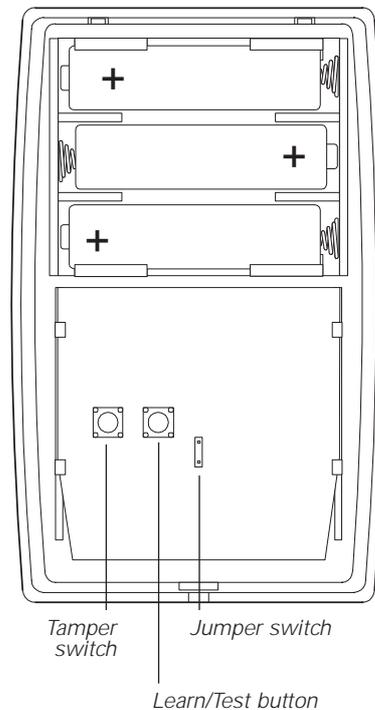
- 1 Remove the cover by unscrewing the single screw located at the bottom.
- 2 Remove the covers of the two internal compartments.
- 3 Insert the four D batteries as shown. There is a slight pause while the unit initialises. The siren will then beep and the LEDs flash.



## PIR movement detectors

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

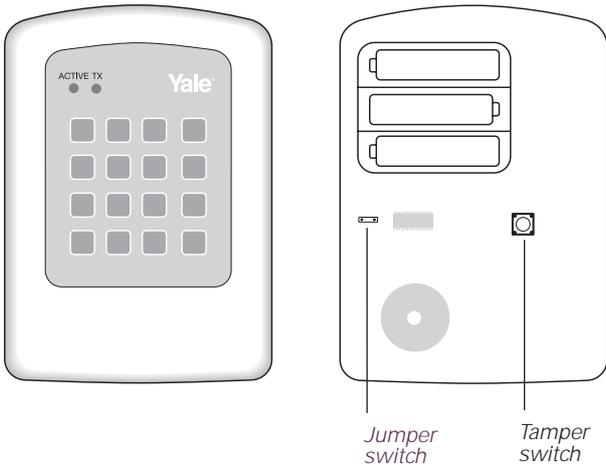
- The light steadily flashes for 30 seconds while components initialise.



## Keypad remote control

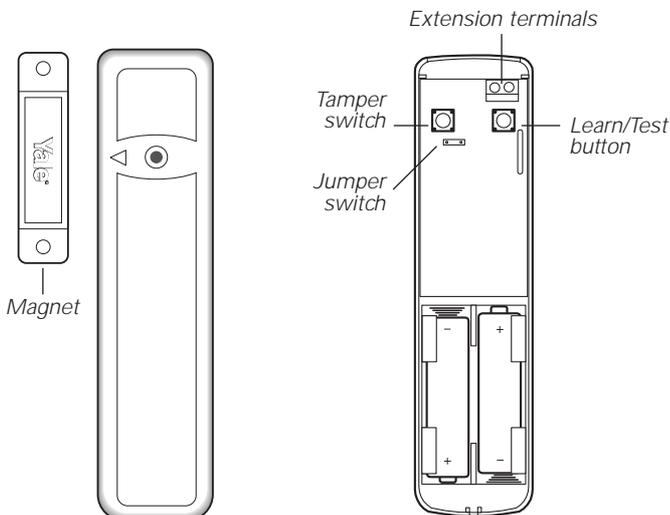
Remove the cover and insert the 3 AAA alkaline batteries as shown. The 'Tx' LED will flash briefly while components initialise.

Please note, the Home button on the operating panel and the jumper switch inside (do not move) have no function on this model.



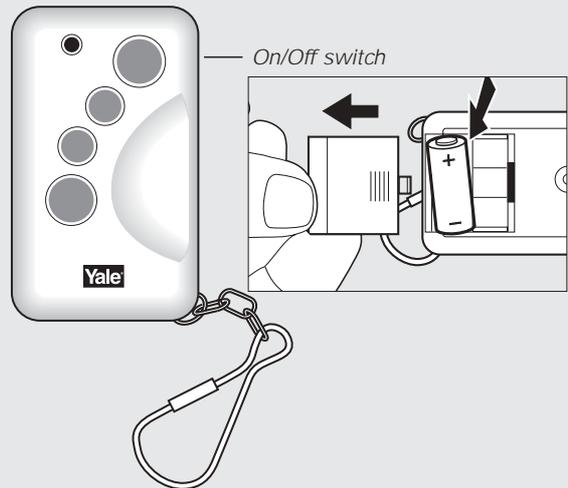
## Door/window contacts

- 1 Remove the cover of each door/window contact by loosening the fixing screw.
- 2 Insert two AAA batteries into each detector as shown. The indicator LED will flash briefly.



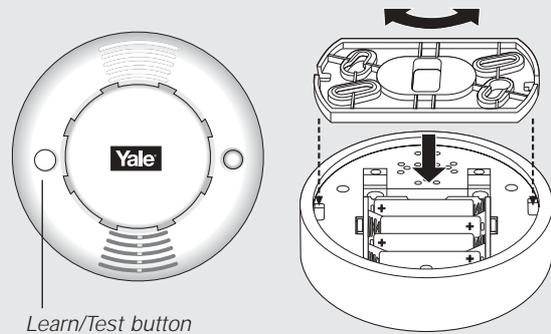
## Keyfob remote control accessory

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



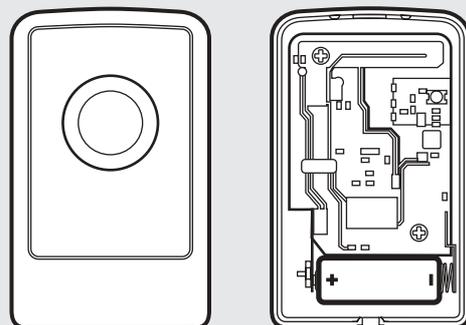
## Smoke detector accessory

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



## 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.

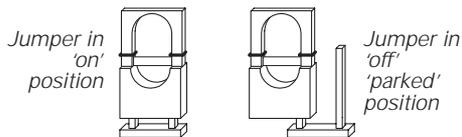


# 3 Program the siren and keypad

The siren is the heart of the system. First, teach the siren to recognise (learn) the keypad.

## Use of jumper switches

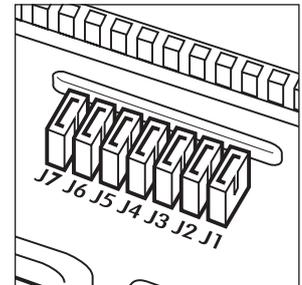
The siren, PIR and door/window contact each have internal switches, or 'jumpers', which control various functions. The jumpers are either 'on' or 'off'. 'On' is when the jumper connects two pins, 'off' when it is removed. To prevent the jumper from being lost when removed, it can be 'parked' on one pin as shown:



## Programming the siren and learning in the keypad

### **WARNING** The siren is very loud, be prepared!

Take care not to activate the siren and keypad tamper switches unnecessarily. Leave the keypad face downwards after programming to avoid accidental operation of the tamper switch



The siren is programmed by the use of jumper switches in the left hand compartment. Ensure all jumpers are in the 'on' position before starting.

- 1 Lift off jumper number 1 and park it. The siren will beep and flash. The siren is now in learn mode.
  - 2 Learn-in the keypad by entering 0000, then press TEST. The 'Tx' LED will flash showing that the keypad is in learn mode.
  - 3 Press TEST again, then 1. The keypad will beep and the siren confirm.
  - 4 Press OFF twice on the keypad to exit programming mode. Place the keypad face down to avoid activating the tamper spring.
  - 5 Replace jumper 1 in the siren to the 'on' position, the siren will confirm with a beep and a flash as it exits learn mode.
- If accidentally left in the learn mode, the sytem will revert to normal after about 3 minutes.

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## Further siren programming

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

J7	Jamming detection
J6	Clear memory (leave 'on')
J5	Standalone mode (leave 'on')
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; off = slave operation, not used in this system
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 'on' 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 if accidentally activated and is useful for testing. Ensure they are replaced before replacing the covers.
- 6 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 a fault.

### Previous alarm warning

If there has been an alarm when you were away the siren will sound and flash for 3 seconds when being disarmed.

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

### Strobe LED visibility

The strobe LEDs are intended to work together with the siren to identify the alarm source.

The strobe is not designed to be viewed from directly underneath or from the sides. It is designed to be clearly visible from 10 to 50 metres in normal daylight conditions, away from direct sunlight.

## Radio jamming

This unit is equipped with the latest type of radio receiver using AM radio technology. If the system is armed, any criminal attempt to prevent (or jam) the detector transmissions will be picked up as interference and will trigger an alarm.

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.

# 4 Mounting the siren and keypad

**WARNING** Before mounting the keypad and siren ensure that the system tamper is disabled as described below.

## Disabling the system tamper

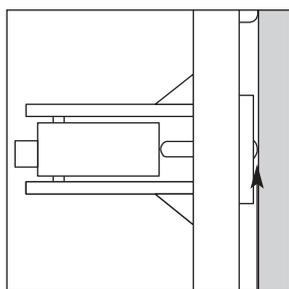
Before mounting it is important to disable the tamper to avoid the siren sounding an alarm.

- 1 Enter 0000 then press TEST. The 'Tx' LED will flash showing the keypad is in program mode.
- 2 Press TEST again, then 2. The keypad will beep and the siren confirm. The system tamper is now disabled. Activating the siren or keypad tamper switches will not cause an alarm.
- 3 Exit the programming mode by pressing OFF twice.
  - The system tamper will remain disabled for 1 hour to allow you to mount the siren and keypad. If more time is required, simply repeat the steps above.

## Mounting the siren

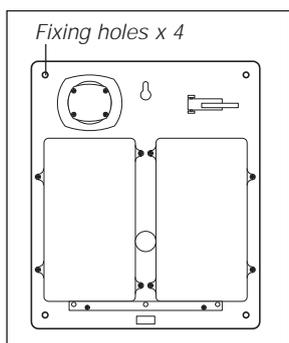
**WARNING** The siren is extremely loud!

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.



*Tamper switch plunger must be pressed in fully by wall surface*

- 1 Having chosen your location ensure that the system tamper is disabled, repeat the steps to disable tamper if necessary.
- 2 Using the large screws provided, mount on wall through the base plate mounting holes shown.
- 3 Fix the siren cover with the securing screw.



## Mounting the keypad

- 1 Ensure system tamper is disabled. Repeat the steps to disable the system tamper if necessary.
- 2 Choose a suitable location, as described in 'Location planning' (usually next to main entry/exit point).
- 3 On the rear plate of the keypad, break through the four knockouts (where the plastic is thinner).

- 4 Using the holes as a template, drill holes in the surface and insert the wall plugs if fixing into plaster or brick.
- 5 Attach the front of the keypad to the rear plate, ensuring that the tamper switch closes. If the tamper switch does not close it may be necessary to pack out with a suitable spacing material (keypad will beep every 30 seconds if the tamper switch is not closed).
- 6 Re-insert and tighten screw.

## Checking operation

Now that the siren and keypad are mounted into position you can quickly check the operation of the system by arming and disarming.

- 1 Enable the system tamper by entering 0000, then TEST. 'Tx' LED will flash.
- 2 Press TEST again, then 3. System tamper will now be active.
- 3 Press OFF twice.
- 4 Press 0000, then ARM. Siren should beep once and flash LEDs. If siren beeps five times, the siren tamper switch is not closed, to rectify the problem, disable system tamper and ensure that the switch closes.
- 5 Press 0000, then OFF. Siren should beep twice and flash LEDs.

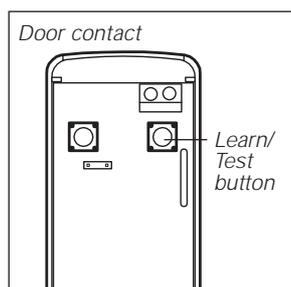
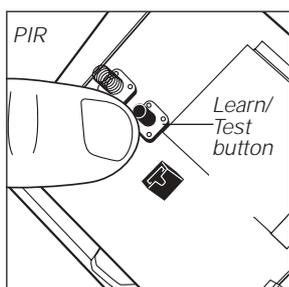
# Programming and mounting detectors

Before mounting detectors ensure that the system tamper is disabled as described in section 4, point 1 (page 10).

## Learning in PIRs and Door/Window contacts

To learn PIRs and door/windows contacts into the system follow the steps below.

- 1 Enter 0000, then press TEST. the 'Tx' LED will flash showing the keypad is in program mode.
- 2 Disable tamper by pressing TEST then 2. The keypad will beep and the siren confirm.
- 3 Enter learn mode by pressing TEST then 4. The keypad will beep and the siren confirm. The PIRs and Door/window contracts can now be learnt into the system.
- 4 Activate the learn/test button on each detector in turn. The siren will beep as each detector is learnt in.
- 5 Exit learn mode by pressing TEST then 5, the keypad will beep and the siren confirm.
- 6 Exit programming mode by pressing OFF twice.



## 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.

## Testing the radio performance

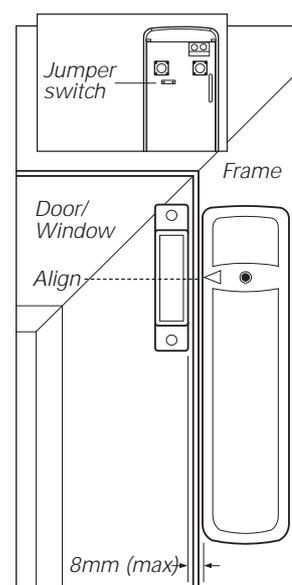
Before permanently installing detectors, check that the siren will receive the system radio transmissions by doing a simple radio range test.

- 1 Ensure that the system tamper is disabled.
  - 2 Hold the detector in the desired location and press the learnt/test button, siren should respond with a single beep.
  - 3 When you are satisfied that the detectors work in your chosen locations, proceed with the installation as described below.
- If the siren does not respond, the location may be out of range, try alternative locations until reliable radio contact is obtained.

## Door/Window contacts

- 1 Ensure the system tamper is disabled, repeat steps to extend the tamper disable time a further hour if necessary.
- 2 Ensure the jumper switch is in the test 'on' position.
- 3 Fit as described in 'Mounting methods', mounting the detector base on the frame and aligning the magnet by the arrow as shown.

- In this position the indicator light will illuminate every time the door contact is operated.
  - 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 doorframe, use the HSA3090 multiple door/window contact accessory kit with a length of wire to mount the door contact remotely (see below).
  - When fitting to a window, fix the magnet to the moving part and the detector to the frame.
- 4 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.
  - 5 Remove the detector, put the jumper switch in the normal 'off' position. Screw the detector back onto its base.

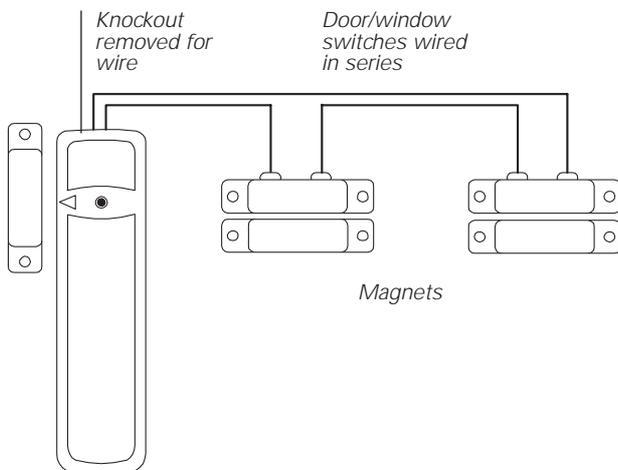


- When the jumper is in the normal 'off' position the indicator light will normally be off. It will only light if there is a problem, either a low battery or a tamper condition.
- Ensure the jumper is in the normal 'off' position when testing is finished, otherwise low battery and tamper conditions will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

### Adding multiple door/window contacts

If difficulty is experienced fitting a 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 terminal block as shown. 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 still use the detector without having a magnet alongside the main unit.

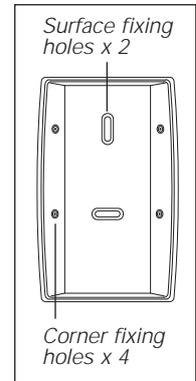
### PIR movement detectors

The PIRs have a built-in sleep timer to save battery power. If there is no movement in front of the PIRs for 1 minute, the PIRs will become 'ready to signal' and movement will now be reported. The PIRs will sleep for 1 minute after. Any movement detected in sleep time will not be reported and will extend the sleep period by a further 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 Ensure the system tamper is disabled, repeat steps to extend the tamper disable time a further hour if necessary.

- 2 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.

- 3 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.

- 4 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.

### Enabling system tamper

After mounting your detectors enable the system tamper as follows.

- 1 Enter 0000 then press TEST. The 'Tx' LED will flash showing the keypad is in program mode.
- 2 Press TEST again, then 3. Keypad and siren will be in confirmation.
- 3 Exit programming mode by pressing OFF twice.

Installation is now complete.

# Using the system

Arm and disarm the system and practice using it. Trigger the alarm by arming the system and opening protected doors/windows and walking past PIRs. Now's the time to set your pin code and show the rest of the family how simple it is to use.

## Setting or changing your user PIN code

- 1 Put the keypad into program mode by entering the 0000 default code and pressing TEST.
- 2 Enter 0000 then CLR, enter your new 4 digit PIN code and press PROG, the keypad will beep to confirm.
- 3 Press OFF twice on the keypad to exit the program mode.
  - If the PIN doesn't change, repeat the above sequence quickly without gaps.
  - Write your code in the space provided below so you don't forget it.
  - If you wish to change the PIN code again, you will have to enter your existing code, rather than 0000.
  - If an unauthorised user attempts to guess the code by entering random four digit numbers, the keypad will produce a series of warning beeps. On a fourth wrong attempt, it will lock out for one minute.

My PIN code

## Arming the system

To arm the system, enter your 4-digit PIN code and press ARM, the siren will beep once and flash. You can now leave the premises.

- After arming the system you have 20 seconds exit time to leave the premises. Any detector activated during this time will be ignored by the system.
- The system does not have an audible countdown during the exit time.
- System tampers will be active during the exit time.

## Disarming the system

After entering the premises, disarm the system by entering your PIN code and press OFF. The siren will beep twice and flash.

- Upon entering the premises, the first detector activated (usually a door/window contact on the main point of entry) will cause the 20 second entry time to start. During the entry time any detector activated will be ignored by the system.
- The siren will beep once when the first detector is activated.
- If the system is not disarmed before the entry time expires the alarm will be activated.
- The system does not have an audible countdown during the entry time.
- System tampers will be active during the entry time.

## Stopping the alarm

If the alarm is activated the siren will sound and flash the strobe LEDs. To stop an alarm, enter your PIN code and press OFF. The siren will stop sounding and beep twice.

## PIR sleep timer

Please remember when testing, that the PIR has a sleep timer. See section 4 for details.

# Adding accessories

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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.

## Putting the system in and out of learn mode

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Put the system into learn mode and disable the system tamper using the keypad as follows.

- 1 Enter your PIN code, then press TEST. The 'Tx' LED will flash showing the keypad is in program mode.
- 2 Disable tamper by pressing TEST then 2. The keypad will beep and the siren confirm.
- 3 Enter learn mode by pressing TEST then 4. The keypad will beep and the siren confirm. The PIRs and Door/window contacts can now be learnt into the system.
- 4 Learn in the appropriate device as described.
- 5 Exit learn mode by pressing TEST then 5, the keypad will beep and the siren confirm.
- 6 Enable system tamper by pressing TEST then 3. The keypad will beep and the siren confirm.
- 7 Exit programming by pressing OFF twice.
  - When learning in accessories that are not tamper protected (such as the helpwatch) it is not necessary to disable the system tamper, therefore steps 2 & 6 can be ignored.
  - If accidentally left in learn mode, the system will revert to normal in about 3 minutes.
  - If accidentally left with tamper disabled the system will revert to normal in about 1 hour.

## Remote keyfob accessory

---

The keyfob accessory allows you to operate the system from outside the premises. Along with panic attack feature, the keyfob also allows you to put the system in and out of learn mode and disable/enable the system tamper.

- Please note that the Home feature is not used with the HSA3400 system.

## Programming

Learn in the keyfob as follows:

- 1 Enter learn mode as described.
- 2 Press the Arm button (ensure keyfob is switched on). The keyfob LED will light and the siren will beep to confirm.
- 3 Exit learn mode as described.

## Arming and disarming

The system is armed by pressing the ARM button for at least 1 second (this delay feature prevents accidental operation). The system is disarmed by pressing the DISARM button in the same manner. The switch at the side prevents the keyfob from transmitting accidentally.

**WARNING** Please note that when arming the system with the keyfob, the entry/exit feature will not be active. When the Arm button is pressed, the system will arm instantly. Any activation of a detector will cause an instant alarm.

## Panic feature

You can cause the alarm to sound, regardless of whether the system is armed or disarmed, by pressing and holding down the Panic button. The Panic button has to be pressed for more than 5 seconds to operate. This is a safety feature to stop accidental operation.

## Tamper disable/enable

The system tamper can be accessed with the keyfob as follows:

- 1 To disable the system tamper, press the Arm and Home buttons simultaneously until the siren confirms (approx 5 seconds).
- 2 To enable the system tamper, press the Arm and Panic buttons simultaneously until the siren confirms (approx 5 seconds).

## System learn mode

The system learn mode can be accessed with the keyfob as follows:

- 1 To enter learn mode, press the Panic and Home buttons simultaneously until the siren confirms (approx 5 seconds).
- 2 To exit learn mode press Disarm, the siren will confirm.

## Adding the help button

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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.

## Adding the smoke detector

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- 1 Follow sections 1 and 3 (Inserting batteries and Location planning).
- 2 With the system in learn mode, press the learn/test button on the smoke detector until siren confirms.
- 3 Exit learn mode.
  - The smoke detector will indicate a fire by sounding the built-in siren, lighting the LED, and sounding the external siren.
  - 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. The detector will sound a two-tone confirmation and the siren will beep. Please ensure that you test smoke detectors regularly.

## Adding further PIRs and door/window contacts

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- 1 Disable tamper and enter learn mode.
- 2 Press the learn button in the device. The siren will confirm.
- 3 Exit learn mode and after mounting the detector, enable tamper protection.

## Adding extra keypads

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Additional keypads can be added to the system, for instance alongside another point of entry/exit.

- Please note that the Home feature (extra button on accessory keypads) is not used on the HSA3400 system.
- 1 Using your original keypad, disable the system tamper and enter the learn mode.
  - 2 Enter 0000 on your new keypad, then press TEST. The 'Tx' LED will flash showing that it is in program mode.
  - 3 Press TEST again, then 1. Keypad will beep and the siren confirm.
  - 4 Press OFF twice on the new keypad.
  - 5 Using either keypad, enable system tamper (after mounting new keypad) and exit the learn mode.

## Adding extra keyfob remote controls

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- 1 Using your original keyfob, enter the learn mode.
- 2 Press the Arm button on your new keyfob, the siren will confirm.
- 3 Exit learn mode using either keyfob.
  - Now both keyfobs can be used to operate the alarm and learn further devices (including extra keyfobs) into the system.

# Changing the batteries

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Always use alkaline batteries as replacements, any other type of battery (such as heavy duty) can cause problems with the operation of the system. Typical life of siren batteries is two years, whilst detectors will operate for three years before batteries need changing. Always ensure you disable the system tamper when changing batteries.

## Disabling and enabling system tamper

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The keypad or the keyfob remote control accessory can be used to disable and enable the system tamper feature. This allows batteries to be changed in any tamper protected device without causing an alarm.

### Using the keypad remote control

#### *Disabling tamper*

- 1 Enter your PIN code and press TEST. The Tx LED will flash showing the keypad is in program mode.
- 2 Press TEST again, then 2. The keypad will beep and the siren confirm.
- 3 Exit the programming mode by pressing OFF twice.

#### *Enabling tamper*

- 1 Enter your PIN code and press TEST.
- 2 Press TEST, then 3. The keypad will beep and the siren confirm.
- 3 Exit the programming mode by pressing OFF twice.

### Using the keyfob remote control accessory

#### *Disabling tamper*

Press the Arm and Home buttons simultaneously until the siren confirms (approximately 5 seconds). The keyfob LED will also flash.

#### *Enabling tamper*

Press the Arm and Panic buttons simultaneously until the siren confirms (approximately 5 seconds). If left in the tamper disable mode, the system will revert to normal after 1 hour.

## Siren

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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 Disable the system tamper.

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

**WARNING** After the batteries have been changed the system 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 disable the system tamper again.
- 3 Refit the siren cover.
- 4 Enable the system tamper.

## PIR and door/window contact

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The LED will flash everytime the device is activated indicating a low battery.

- 1 Disable system tamper.
- 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.
- 5 Enable system tamper.

## Keypad remote control

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To indicate a low battery, the 'Active' LED will flash repeatedly every time the device is used.

- 1 Disable system tamper.
- 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.
- 5 Enable system tamper.

## Keyfob remote control accessory

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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.

## Smoke detector

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

## Help button

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

**YALE SECURITY PRODUCTS UK LTD**

Wood Street, Willenhall,  
West Midlands,  
England, WV13 1LA

## 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: HSA3400  
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: 

Date: 26/7/00

On behalf of Yale Security Products UK Limited

# Specifications

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## All devices

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### EMC

Tested to ETS 300 683  
Radio Components tested to EN 300 220-1

### 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, range can vary depending on building construction, device positions and RF environment

Housings ABS/polycarbonate

### Siren

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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 typical service life

## Passive infra red (PIR) detector

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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 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 typical domestic service life

## Smoke detector

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

## Keypad remote control

---

Radio Microprocessor controlled 433.92MHz AM transmitter

Power supply 3 x AAA alkaline cells. 3 years typical domestic service life

## Help button

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**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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# Trouble shooting

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## Siren

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### Siren does not respond to keypad

- Keypad low battery or bad connection. Check battery connections and polarity, if OK replace battery with alkaline equivalent.
- 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.
- Keypad not learnt-in. If siren produces a tamper alarm when the cover is removed, and keypad is OK, learn-in the keypad.

### 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 condition. 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.

## Keypad

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### Keypad produces a beep every 30 seconds

- The tamper switch at the rear of the keypad is open. Ensure the switch closes when the keypad is mounted.

## PIR

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### 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

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### Door contact 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 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

## Key points

### Stopping the alarm

- Enter your PIN code and press OFF on the keypad
- Press Disarm on the keyfob accessory (if purchased)

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

***been tampered with***

See trouble-shooting, page 19

***or require a new battery***

See how to change a battery, page 16

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