Description of an Intruder Alarm System

If you are unsure of what an Intruder Alarm System consists of and/or how it works, then please read on.
We hope this section will provide a greater insight into the various components used when designing a system.

CONTROL PANELS

We supply the Euro Range of Control equipment which will suit all premises types and have great benefits and are easy to use. All systems have an End Station box which is installed out of sight, e.g. in an understairs cupboard, and are operated from a smaller and neater Remote Keypad.

An easy to use system operated by a 4 or 6 digit code number using a tactile keypad with a back-lit LCD Display & full English Text. Users can have separate Code Numbers of their own chosing which are identified with Names and a Proximity Tag setting facility. It has a Memory Log which will record all events which can be read to establish activity and fault find.

A highly sophisticated system which complies fully with all current Regulations and Standards set out by Insurers and Police. This system also has an online i-Cloud facility for Remote Setting & Unsetting and provides detailed message alerts to your Smart Phone.

Ideal for either Domestic and all Commercial Installations.
https://www.pyronix.com/uk/downloads/euro-46-v10-datasheet
Demonstration Video: https://youtu.be/h-a094JO7Qg

240v MAINS CONNECTION

All Control Panels are connected directly to the mains via an unswitched fused 3Amp Spur outlet. This allows the system to be isolated by an engineer and provides the correct Amp Rating to the system.

BACK-UP BATTERY

Every system has its own back-up Ni-cad battery, which is continuously charged. This takes over in the event of a power failure and would support the system for at least 12-hours but usually more.
When the power has been restored the battery will then automatically recharge itself so that it is ready for any future use.

AUDIBLE SOUNDERS (Internal & External)

External Bell-Box/Sounder
This is a polycarbonate box containing a twin 115db (decibels) siren and a strobe (light which flashes when the siren is activated), a battery that is continuously charged, and a tamper sensor that puts the system into full alarm status should anyone attempt to tamper with the box.
Also contained within the external box is a 15 minute cut-out device (in adherence to The Control of Noise [Code of Practice on Noise from Audible Intruder Alarms] Order 1981; Statutory Instrument 1981 No1829).

Additionally, bright flashing twin red LED's are located at the bottom of the external sounder box. These continuously flash to act as a permanent and prominent visual deterrent.

A decoy box would be located as specified, usually at the rear of the property. This is an empty box, which serves to advertise to would-be intruders that the property is protected by an alarm system.

Internal Speaker

Whenever an alarm condition is caused, the internal speaker will sound in conjunction with the external siren. It also amplifies Entry & Exit tones and also provides a high pitched noise in the event of an Alarm Activation – normally more than sufficient to frighten away an intruder.

TAMPER DETECTION

All the devices have their own tamper circuits. If anyone attempts to tamper with or disable any device when the alarm is turned off, the sounder emits a loud, high-pitched bleeping noise, and can only be stopped by entering the correct code number. As a further safety precaution, the panel cannot be reset until the device that has been tampered with is restored to its correct state. Should anyone attempt to tamper with any device when the alarm is turned on, the system immediately goes into full alarm.

INTRUSION DETECTION DEVICES AND SENSORS

Magnetic Contacts

Magnetic contacts (or reed switches) are tiny devices fitted to a door and its frame, such that when the door is closed it completes the circuit with the control panel. If the door is then opened when the alarm is set, the circuit is broken and activates the alarm system.
https://www.pyronix.com/uk/downloads/mcnano-we-datasheet

Passive Infra-Red Detectors

A passive infra-red detector is a small device connected to the control panel, fitted with an appropriate lens to provide the area of detection required. The infra-red device detects movement by sensing a change in the ambient temperature, e.g. when a person enters the protected area.
https://www.pyronix.com/uk/downloads/kx10dp-datasheet

Dual-Technology Detectors

The same as a passive infra-red detector but has an additional microwave technology. The infra-red element detects movement by sensing a change in the ambient temperature and the microwave element detects a physical movement within the protected area. Only once both technologies are triggered simultaneously then the alarm system will be activated. These detectors are used in more hostile environments which are subject to extreme temperature changes, e.g. garages or conservatories.
https://www.pyronix.com/uk/downloads/kx10dtp-datasheet

Vibration Detectors

A vibration detector can be mounted on a window or a door frame. It reacts to vibration caused by impact, so will trigger the alarm if an attempt is made to force open the window or door or to smash a pane of glass, whereas a magnetic contact will only detect the window or door being opened in the normal way.
https://www.pyronix.com/uk/downloads/nano-shock-we-datasheet

Personal Attack Button

Personal attack (or “panic”) buttons are always "Active 24/7" even when the alarm is turned off. When a panic button is pressed, the external siren is activated, the strobe flashes and the internal sounder is also activated, creating a considerable noise – something intruders or would-be attackers tend to avoid.
Panic buttons are activated by a dual push mechanism, designed to minimise false alarms caused by accidental touch. Once used they need to be reset.
https://www.pyronix.com/uk/downloads/hudmed-we-datasheet

GAS & FIRE DETECTION DEVICES AND SENSORS

Carbon Monoxide (CO)

A Carbon Monoxide sensor which is designed to protect lives and detect the presence of harmful Carbon Monxide in the premises. These detectors are "Active 24/7" and in the event Gas is detected the Alarm will activate immediately with a high pitch screech from the sensor and an elongated deep siren noise from the Control Panel. This combined sound differentiates it from the sound of an Intrusion.

If the Alarm System is connected to the HomeControl App the system will send Alert Messages to all Smart Phones connected to indicate a Gas Alert!

The device also has a built-in Low Battery Monitor and Self Test Facility.
https://www.pyronix.com/uk/downloads/co-we-2nd-generation-datasheet

Smoke Detection

An Optical Smoke sensor which is designed to protect lives and detect the presence of harmful smoke particles caused by fire. These detectors are "Active 24/7" and in the event Fire is detected the Alarm will activate immediately with a high pitch screech from the sensor and an elongated deep siren noise from the Control Panel. This combined sound differentiates it from the sound of an Intrusion.

If the Alarm System is connected to the HomeControl App the system will send Alert Messages to all Smart Phones connected to indicate a Fire Alert!

The device also has a built-in Low Battery Monitor and Self Test Facility.
https://www.pyronix.com/uk/downloads/smoke-we-2nd-generation-datasheet

Heat Detection

A Heat sensor which is designed to protect lives and detect a rapid rate of rise in temperature caused by fire. Used in areas where smoke or steam may cause "False Alerts" such as Kitchens, Garages and Laundry Rooms. These detectors are "Active 24/7" and in the event Fire is detected the Alarm will activate immediately with a high pitch screech from the sensor and an elongated deep siren noise from the Control Panel. This combined sound differentiates it from the sound of an Intrusion.

If the Alarm System is connected to the HomeControl App the system will send Alert Messages to all Smart Phones connected to indicate a Fire Alert!

The device also has a built-in Low Battery Monitor and Self Test Facility.
https://www.pyronix.com/uk/downloads/heat-we-datasheet

Vehicle Protection

A sensor to connect your vehicle to the house alarm system. Providing the vehicle is within range of the building (indicated by an LED on the sensor) it can be included in the setting of the Whole House and/or Night Set. It can also be set independently of the house on its own assigned area.

Connected to the steering wheel using a combination of vibration and tilt technologies if an attempt is made to steal the motor vehicle and the Alarm has been set from either the keypad or the App on your Smart Phone it will activate the building alarm in it's entirety.

If the Alarm System is connected to the HomeControl App the system will send Alert Messages to all Smart Phones connected to indicate Car Alarm!
https://www.pyronix.com/uk/downloads/cardefender-datasheet
Demonstration Video: **https://youtu.be/BQSSQPqqoAY**

SYSTEM OPERATION

Exit from Property

On leaving the property, you enter your 4-6 digit passcode number on to the keypad and press the “YES” key in response to the displayed question “set system?” A continuous tone will be heard to advise you the panel is getting ready to set, and the display will show “Setting please leave!”. Depending on how the use of the system has been agreed with you, the tone will stop either when the final exit door is closed, or after a specific number of seconds. Once the tone stops, you should be outside the property and the alarm will be set on full guard.
Alternatively, if you have a Proximity Tag, simply present the Proxy Tag to the Tag Reader on the keypad and the system will automatically begin to "Set".

Alarm Activation
If an intruder gains entry, the alarm system is triggered, with both the external siren and the internal sounder activated, and the strobe on the bellbox outside flashing the alarm sounds for 15 minutes then stops and automatically re-arms itself so that it will sound again should a further entry be attempted. Naturally, if the correct passcode number is entered, the alarm is de-activated.

Entry to Property
On returning to the property and opening the main door the alarm is activated, and a bleeping noise emitted by the control panel. This is to remind you to turn the alarm off. Normally 30-40 seconds warning is given to do this before the system goes into full alarm status (although this length of time is adjustable to satisfy your personal requirements). You simply enter your 4- 6 digit passcode on the control panel, or present your Proxy Tag to the Tag Reader, and the alarm is turned off.

Part/Night Set Facility (Residential Use - Upstairs/Downstairs)
At night, for your peace of mind, the system can be programmed by us to de-activate any necessary detection device(s) to allow freedom of movement in certain parts of the property, whilst leaving the other areas fully protected. On retiring to bed, you would simply enter your passcode and press the "B" (*for Bed)* button followed by the "YES" button and the display will show “Setting”.
If setting a Part/Night Set there would be no noise from the alarm when leaving but simply a short confirmation beep once set.
When entering the protected area i.e, Downstairs, the first sensor to detect you such as the hallway would start the Entry Tone and you would turn"Off" the system in the same way as normal, i.e. by entering your passcode.

Entry/Exit Routes
When the system is PART/NIGHT set, and you are inside the property, the “Entry/Exit Route” zones(s) will work in the same way as the Final Exit does when the system is on full guard and you are outside the property. This means that if the detection device on the designated Entry/Exit Route (for example, the kitchen or the hall) is triggered by you entering that protected area without having turned the alarm off, the beeping entry tones will sound. This allows you the normal 30-40 seconds warning time in which to turn off the system before it goes into full alarm.

This only occurs when the system is PART/NIGHT set, to avoid the alarm being triggered accidentally when you are inside the Property at night. When the system is set for normal daytime operation when you are away from the property, should an intruder gain access via the Entry/Exit Route zone, the system will go into full alarm status immediately.

**All systems installed by Madalan Security are simple and easy to use.
Once installed, they will be commissioned with a full demonstration & training session provided by one of our representatives.**