

# OLD DOG ELECTRONICS

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## Alarm and MagKey

### Mini House Alarm Data Sheet MHA-100-MK

- Compact 120x 100mm x40mm
- Two PIR / sensor input channels; Chan2 can be set for an entry delay.
- Panic button channel
- Relay output to trigger other systems
- Relay output for a siren and strobe light
- 12v DC operation
- LED diagnostics
- Very low power consumption
- Easy to install
- No remotes, armed by a MagKey
- Adjustable siren time
- Locally manufactured
- 12 month warranty

The Mini House Alarm is designed to provide low cost protection to smaller houses, apartments, garden flats, and out buildings.

The MHA-100MK has three channels, 2x alarm channels from wired PIR / switch sensors, Ch1 is an instant alarm, Ch2 can be set for an instant alarm or an entry delay with a jumper, 1 x panic alarm channel. The alarm operates off a 12v dc supply, battery charged from mains, or solar power. It is armed by our unique MagKey with the alarm status being displayed with an LED. The siren time is adjustable. The alarm panel is very compact, being approximately 120mm x 120mm x 40mm.

The MagKey is a small keyfob which arms/disarms/resets the alarm when placed on the alarm enclosure HotSpot. Each alarm has a random location for its HotSpot marked by a sticker when delivered.

### Standby Mode

In the standby mode, the alarm does not trigger if the sensors detect movement. This mode is set whilst the area is occupied. If panic buttons are connected, they will be active in the standby mode. The status LED shows when any of the sensor channels are active. This is useful when testing the alarm.

### Armed Mode

The armed mode is set when leaving the house. When switched to the ARMED mode, the alarm has a 20sec exit delay to leave the area before being armed. During this time, motion sensors will ignore movement. The siren “chirps” twice a few seconds before the system is armed.

Once armed, the alarm will trigger immediately when movement is detected from the external sensors or from a panic button. When entering the house, it's important to ensure additional movement sensors are not triggered or the alarm will sound immediately.

### **Night Time Operation**

**Important:** The system doesn't allow individual areas to be turned off at night. If you'll need to move around after bedtime (like going to the bathroom), it's important to carefully place the sensors to avoid triggering false alarms. If avoiding sensor detection isn't possible, you'll need to set the system to standby mode during those times.

### **Alarm Power**

The alarm operates from 12vdc.

Options are :

12v from a user supplied SLA 12v battery and charger.

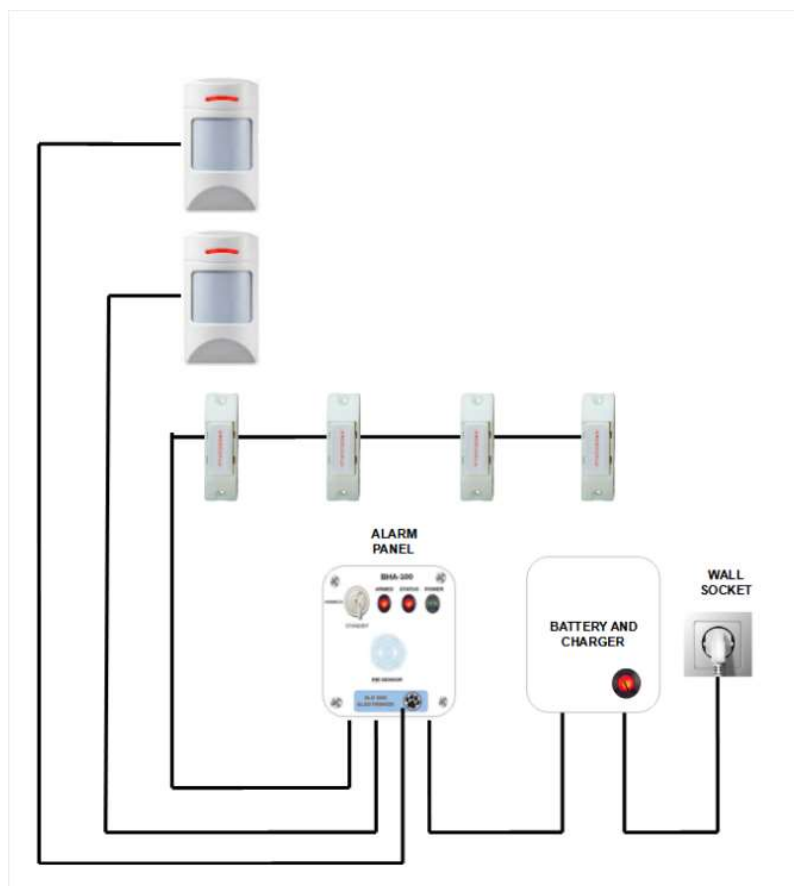
12v from our 220v charger with internal 1.3Ahr battery

We have a very compact and lower cost Li-Ion battery and charger in development.

### **Installation**

Planning is crucial for a successful installation. Make a drawing of the house and discuss the locations of the control panel, sensors, panic switches, and wiring routes. Do not forget to take the location of power sockets into account. When using the exit and entry delays, always be sure you're able to disable the alarm before its triggered. For reliability, its best to dedicate a socket for powering the charger unit.

### **ALARM INSTALLATION EXAMPLE**



## Connections

The circuit board has screw terminals numbered 1-15 from left (fuse holder) to right (relays). Their use is shown below...

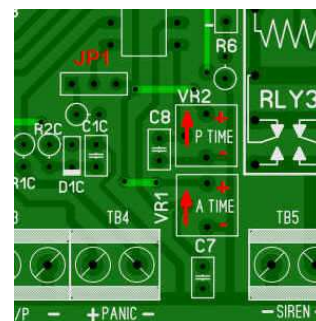


Terminal	Use	Description
1	+12v	Connect to the +12v of the alarm power supply or back-up battery
2	0v	Connect to the 0v of the alarm power supply or back-up battery
3	Ch1 +12v	+12v supply to PIR sensors, the terminal is also used to provide +12v to the PIR contact.
4	Ch1 I/P	Input signal from a PIR sensor. NB: If the channel is not used, connect the terminal to the channel +12v.
5	Ch1 0v	0v connection to the PIR sensor.
6	Ch2 +12v	+12v supply to PIR sensors, the terminal is also used to provide +12v to the PIR contact.
7	Ch2 I/P	0v connection to the PIR sensor.
8	Ch2 0v	0v connection to the PIR sensor.
9	Panic +	Connect the + terminal to the N.O terminal of a panic switch, and the – terminal to the Com terminal of a panic switch.
10	Panic -	
11	Siren -	Connect to the 0v (black) wire of the siren and strobe light to the – terminal, and the +12v (red) wire of the siren and strobe light
12	Siren +	
13	Relay N.C	Terminals 15,16,17 are used to signal another alarm system. This is useful if the alarm is installed in a garden flat and needs to trigger an alarm in the main house.
14	Relay Com	
15	Relay N.O	


## Adjustments

The circuit board has two trimpots to adjust the siren time plus a jumper to disable the entry delay on channel 2. The trim-pots allow the siren time for a sensor alarm and panic alarm to be adjusted individually. Turning the adjustment clockwise increases the time. The alarm is supplied with the adjustment in the centre.

Jumper JP1 enables an entry delay on channel 2. The board is supplied with the jumper in the right hand position (towards the relays). This enables a 10sec entry delay for channel 2 when entering the area. Moving the jumper to the left disables the entry delays.



SPECIFICATIONS	
	<b>MHA-100MK</b>
<b>Sensor Channels</b>	Chan 1 N.C. instantaneous trigger Chan 2 N.C. instantaneous trigger / entry delay selected by JP1
<b>Panic Alarm Channels</b>	1x N.O panic alarm channel active in armed and armed and standby mode
<b>Exit/Entry Timers</b>	Exit timer fixed at 20s Entry timer fixed at 10s
<b>Siren time</b>	Panic 2s – 4min Adjustable. Intrusion 2s-3min Adjustable. The minimum time setting is useful when setting up a new system.
<b>Siren/Strobe Output</b>	12v dc to power a 20w max siren
<b>Relay Output</b>	24vdc 2amp SPCO contact
<b>Power Consumption</b>	Main Unit approx. 15mA PIR Sensors..approx 15mA each
<b>Battery Standby Time</b>	Armed and not triggered ... 1.3A/hr battery with 4x PIR sensors...12hrs min. NB Battery age will affect standby time.
<b>Accessories</b>	We can supply the following for a complete system. Contact us for pricing
	Battery Charger with internal battery
	Larger capacity battery for extended standby time
	Sirens
	Combined siren / strobe light
	Strobe light
	PIR sensors
	Panic buttons
	Remote panic buttons
	Sensor and siren cabling, cable glue

 **Important Notice on Alarm System Compliance** If your home insurance covers break-ins, be sure to review the fine print in your policy. Some insurers require that any burglar alarm system be installed by a **SAIDSA certified** technician. Failure to comply with this requirement could result in your claim being rejected in the event of a burglary.