



AlarmSense® Installation Guide

General

AlarmSense® is a range of conventional detection and alarm products designed to be connected to the same pair of supply wires. It is not compatible with other ranges of detectors and must be used with AlarmSense compatible control equipment.

The AlarmSense Sounder Base, Sounder Beacon Base and Alarm Relay referred to in this guide incorporate priority/non-priority switching. If this enhanced feature is required, please check with the control equipment manufacturer that the feature is accessible.

The basic functions of all these devices are compatible with all AlarmSense panels and are backwards compatible with all previous AlarmSense devices.

The products are not suitable for outdoor use. Insulation checks on cabling must be conducted prior to connection of AlarmSense devices.

AlarmSense Base

Wiring connections to the AlarmSense base, part no 45681-244, are shown in Fig 4.

The incoming and outgoing cables are connected to the same terminals, L1 IN (+ve Line) and L2 (-ve Line). A remote indicator can be connected to each base, -R (Remote LED +ve) and L2 (Remote LED -ve).

AlarmSense Sounder Base

The AlarmSense Sounder Base, part no 45681-510, is an integrated base and sounder. Each sounder base has a switch to set it to either a priority sounder or a non-priority sounder.

Note: the Sounder Base is factory set as a priority sounder.

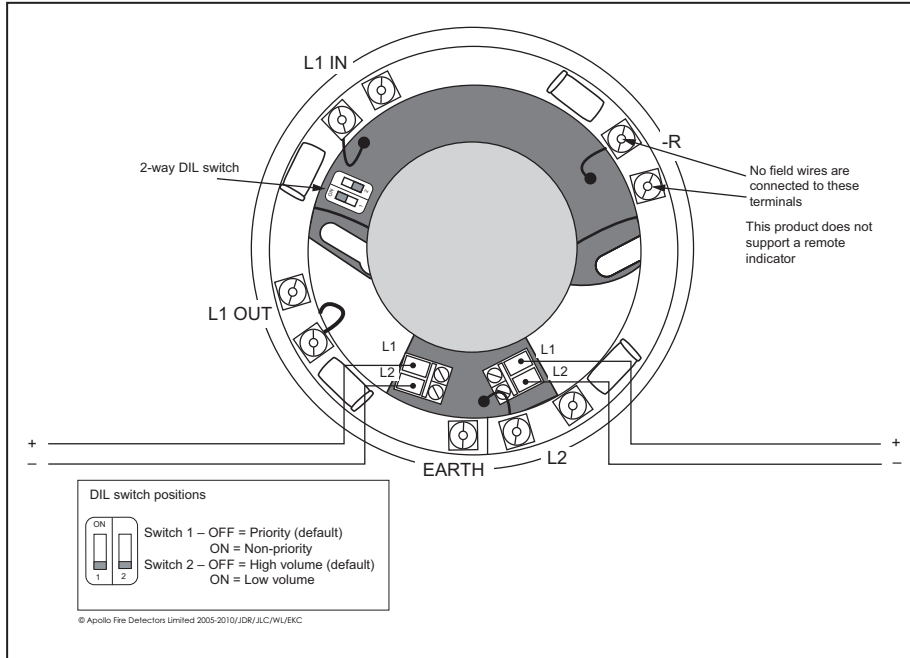


Fig 1 Sounder/Sounder Beacon Base

AlarmSense Sounder Beacon Base

The AlarmSense Sounder Beacon Base, part no 45681-509, combines a sounder with a beacon and a detector base in one unit. The beacon is activated whenever the sounder is active and cannot be controlled separately.

Note: the Sounder Beacon Base is factory set as a priority sounder.

NOTE: DO NOT CONNECT FIELD WIRING TO OUTER RING TERMINALS AS IT MAY DAMAGE THE DEVICE.

Installation

1. Bring incoming and outgoing cable tails through the aperture in the sounder. Screw the sounder to a mounting box or directly to the mounting surface as required.
2. Connect the incoming two cables to +IN (L1) and -IN (L2) and outgoing cables to -OUT (L2) and +OUT (L1).
3. The priority/non-priority feature and volume are set by means of the DIL switch, see Fig 1.

Note: This feature is not available on all AlarmSense control panels. Please check with control panel manufacturer.

Technical Data: AlarmSense System

Operating Voltage

Detectors	9-33V
Sounders (off)	9-15V
Sounders (on)	18-33V

Sounder Output (base sounders)

High volume setting	maximum volume 87dB(A)
Low volume setting	volume nominally 70dB(A)

SPL polar plot data is available in document PP2203 available on request.

Open Area Alarm Devices

Quiescent Current at 12V	<100µA
Maximum Surge Current	200µA
Head Removal load	47Ω for 10ms every 4s
Polarity	Polarity insensitive
In Alarm Current (Nominal) @ 24V	
Sounder	17.5mA
Beacon	8mA
Sounder Beacon	19mA
Sound Output (Head)	up to 99dB(A) at 1m
IP rating	65
No condensation or icing	

Troubleshooting

Before investigating individual units for faults, ensure the system wiring is fault free.

Fault Finding

Problem	Possible Cause
Control panel reports zone fault	EOL resistor not fitted or incorrect value Detector removed Incorrect zone wiring Incompatible control panel
Control panel reports alarm	Incorrect EOL resistor Detector in alarm state
Sounder fails to operate	Incorrect wiring Sounders disabled at control panel
Sounder operates continuously	Incompatible control panel

Apollo recommends that when a heat detector is attached to a sounder base/sounder beacon base that the sounder is set as a 'priority' sounder.

For stand-alone sounders or sounder beacons, fitted with either a white cap, part no. 45681-294 or red cap, part no 45681-295

1. Follow the steps 1—3 above.
2. A wire link (not supplied) is required between L1 IN and L1 OUT on the outer ring terminals to disable the head removal signal.
3. When using the sounder base or sounder beacon base in stand-alone mode, the non-priority feature is not available.

AlarmSense Alarm Relay

Part no 55000-835 is a relay used to switch and monitor conventional sounders and beacons on an AlarmSense zone. The relay can be set to priority or non-priority by means of a DIL switch.

Note: the Alarm Relay is factory set to its priority setting.

Installation

If connecting conventional sounders and beacons to an AlarmSense zone, the alarm relay has to be placed first in the zone (see Fig 2).

Note: the Alarm Relay has to be mounted in a suitable enclosure rated at IP20.

1. Connect negative to L2 and the 12/24V connection to L1
2. Connect between L1 and N/O1
3. Connect L2 to N/O2
4. Connect N/C1 to N/O2
5. Connect N/O1 to N/C2
6. Positive zone wiring connects to COM 2 and the negative to COM 1.
7. Connect end-of-line supplied by the panel manufacturer between COM 1 and COM 2. (See Fig 4).
8. Set the priority/non-priority feature using the DIL switch.

Note: the Alarm Relay will reset on a 'silence alarms' signal from the control panel.

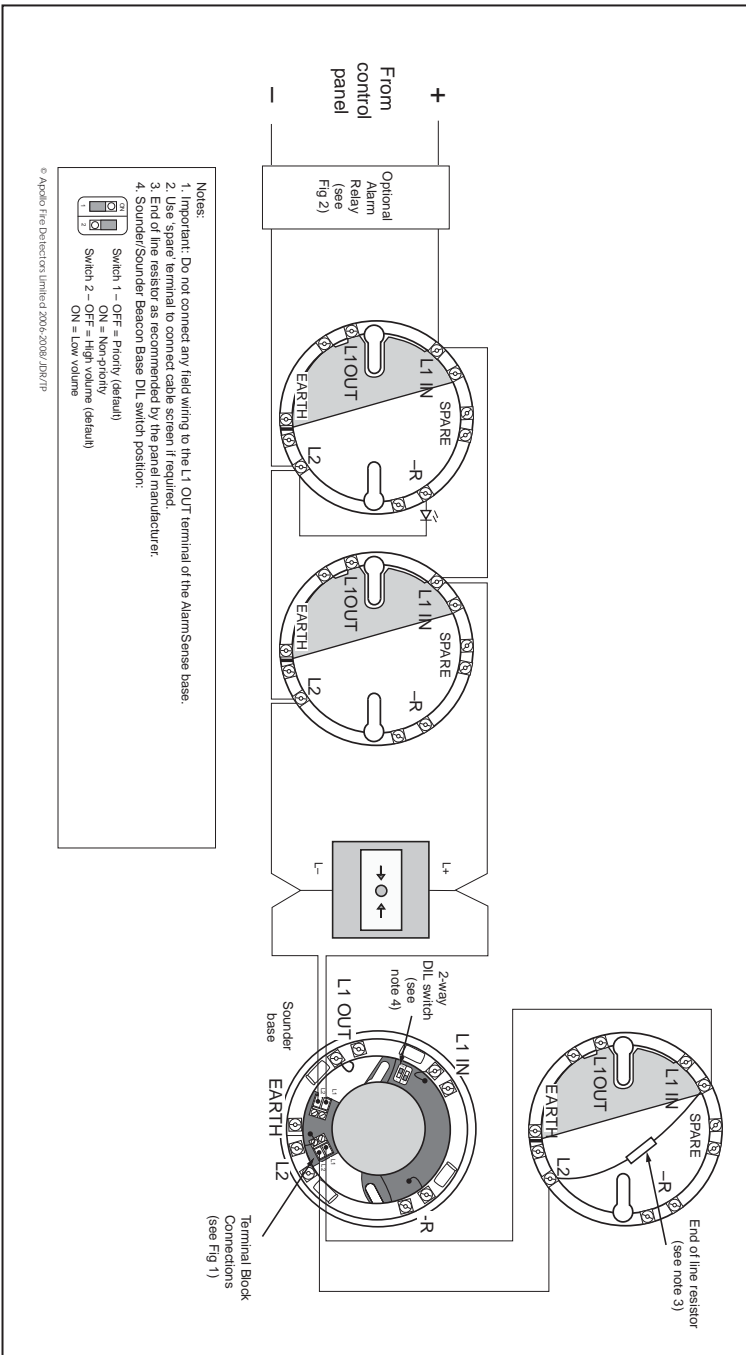


Fig 4 Schematic wiring diagram of an AlarmSense zone

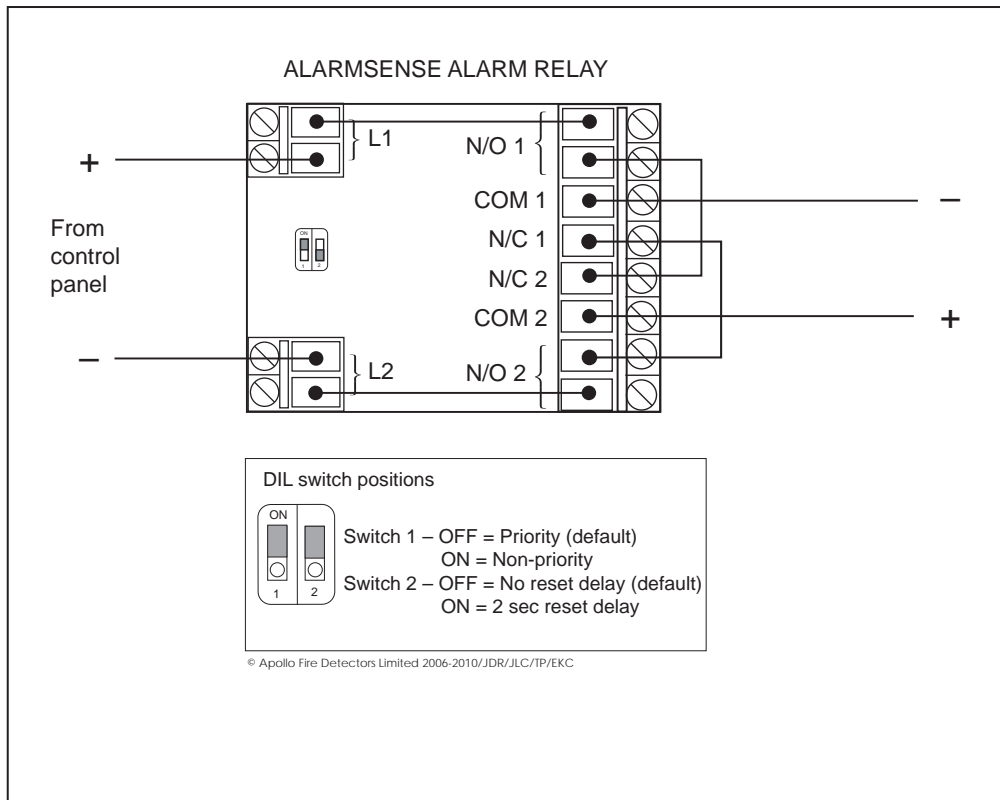


Fig 2 AlarmSense Alarm Relay wiring

AlarmSense Open Area Alarm Devices

The AlarmSense Open Area Alarm Devices are available in the following options

Part Number	Description
55000-017	AlarmSense Open Area Sounder Beacon
55000-018	AlarmSense Open Area Sounder
55000-035	AlarmSense Open Area Beacon

The tone frequency incorporated in these products is the Apollo evacuate tone: 840Hz for 0.5s and 546Hz for 0.5s. The flash rate of the beacon where incorporated is 1Hz.

Installation

1. Drill out the cable entries and mounting holes as required on the base (using a 20mm hole cutter for the cable entries), taking care not to damage the electronics. Do not attempt to knock these out as the base will be damaged.
2. Secure the base to the mounting surface with pan-head screws. If IP integrity is required, fit the weatherproof mounting pad between the base and the mounting surface. Fit the 'O' ring to the base (Fig 8). Attach head to base using a lubricant such as silicone grease if required.
3. To lock the sounder in the base, snip the break-out on the base rim (location shown in Fig 3). Fit the sounder to the base, using above steps if IP integrity is required.

IP rating

To maintain the integrity of the enclosure it is essential that suitable IP rated cable glands be used along with the 'O' ring provided and weatherproof mounting pad.

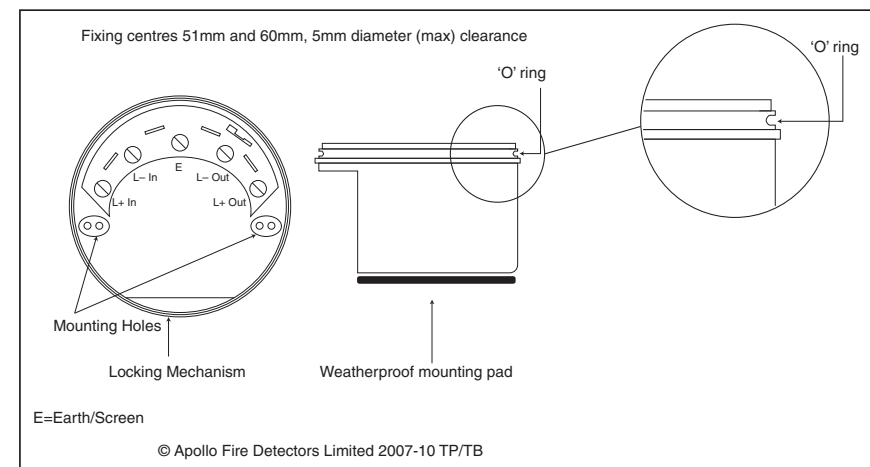


Fig 3 Base diagram