CONCEPT
smoke screen

SOUND BARRIER - INSTALLATION AND OPERATORS MANUAL

(v2011-1)

CAN'T SEE IT? CAN'T STEAL IT!

IMPORTANT

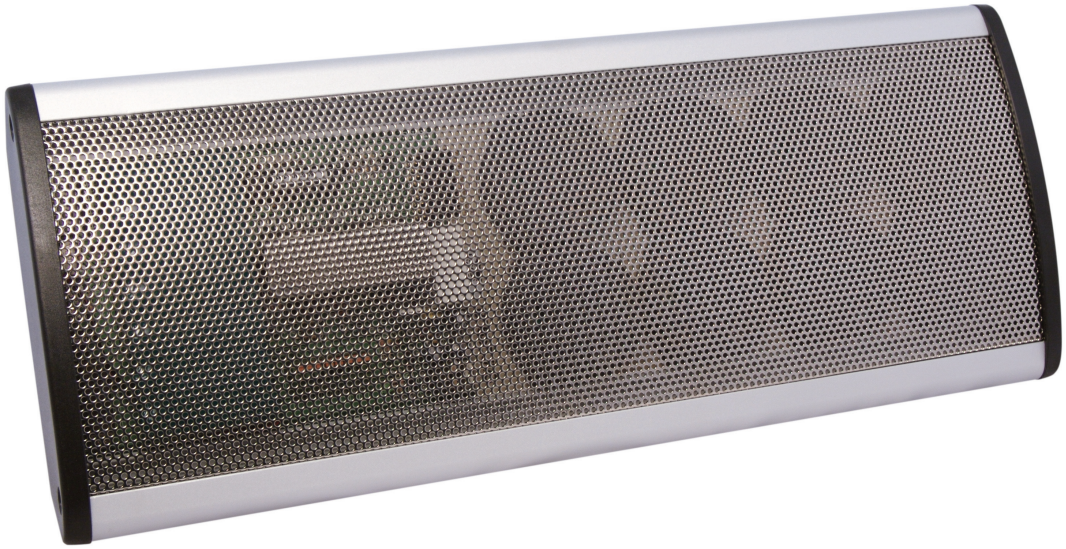
Please read this manual before commencing installation

Tel: +44 (01205) 821111 • Email: info@smoke-screen.co.uk • www.smoke-screen.co.uk

SMOKE SCREEN SOUND BARRIER (S3B)

YOU'VE BLINDED THEM WITH SMOKE, NOW DEAFEN THEM WITH NOISE

☑ Originally developed for military applications ☑ Produces unbearable noise to confront intruders ☑ Completely harmless



AN EAR-PIERCING ALARM SYSTEM

The Smoke Screen Sound Barrier range provides an incredible complement to the Security Smoke Generators. Upon activation an intolerable wall of sound is created forcing any intruder to leave the area.

As with our entire range of security systems, the effect produced is perfectly safe. Additionally, the design of the S3B allows it to be unobtrusively installed in even the most contemporary of environments.

THE TECH SPEC

FEATURES
- Competitive pricing
- Easy installation
- Simple integration into existing alarm systems
- Wall or ceiling mount
- £10 million product £ public liability insurance

OPERATION
- Simple 0 – 12-volt trigger

CONSTRUCTION
- Rugged, compact aluminium £ steel casing
- Silver colour

SOUND BARRIER DATA:
- 11/18-volt DC
- Current 55 mA standby; 1.2 Amps via internal battery
- 127dB at 1 metre
- Internal battery backup

INSTALLATION AND OPERATION

Before commencing installation of the S3B Sound Barrier please ensure that you have all of the equipment required.

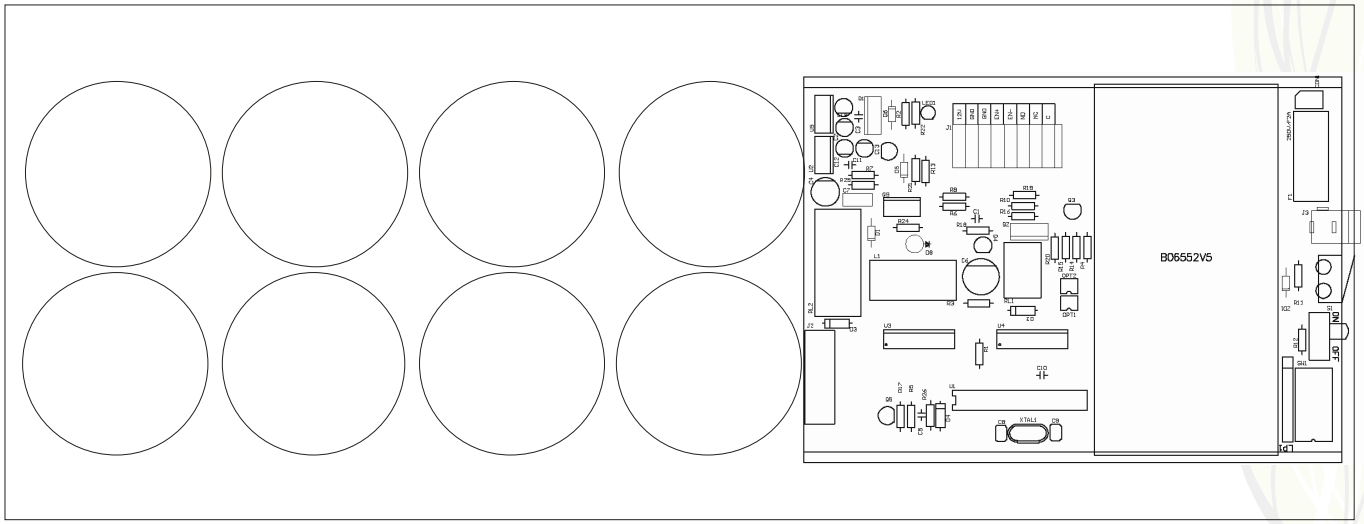
- 1 x S3B Sound Barrier.
- 1 x Literature Pack.

You will also require:

- 12-volt DC supply and Connections into the alarm panel.

OVERVIEW

The S3B Sound Barrier is designed to form part of an existing intruder alarm system. It may also be configured as a 'stand-alone' system. The schematic shows the internal layout of the S3B Sound Barrier. The PCB and Battery pack occupy one end of the device while the eight special speaks occupy the remainder.



TO REMOVE THE COVER

Remove two screws from the PCB end and release the end cap. Pull out the mesh screen to expose the speakers and PCB.

MOUNTING POINTS

Pre-drilled holes on the back of the S3B Sound Barrier allow it to be mounted flat against a wall or in a 90° corner.

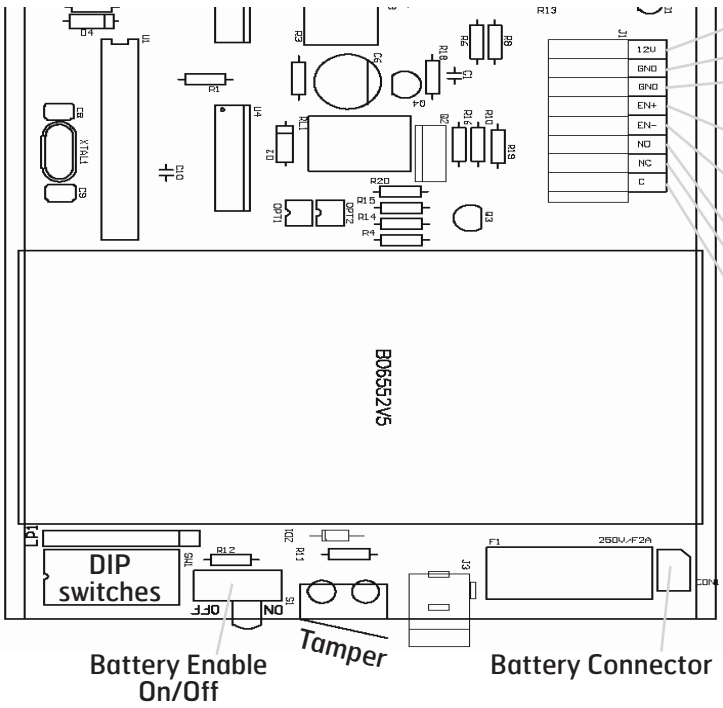
CONNECTIONS

The sounder needs a 12-volt DC supply to charge the internal batteries. Fully charged the sounder will work for up to 168 hrs off mains. If the sounder is to be off mains for longer the Battery Enable Switch must be switched 'Off'.

IMPORTANT:

1. Ear protection should be worn during installation and testing.

2. Sounder should always be mounted high on walls or on the ceiling - recommended minimum height is 2 metres.



BATTERY CHARGING

The S3B Sound Barrier is shipped with the battery pack disconnected. A Battery Enable switch has been fitted. During shipping this is in the 'Off' position. An intelligent charging circuit is fitted. This limits the maximum current draw to 1 Amp at 12-volts DC. Fastest charging time (At 1 Amp) is 50 minutes. Lower charging currents will require longer.

Once the device is connected to an external 12-volt DC supply it will activate when triggered with the 'Battery Enable' switch in both the 'On' and 'Off' positions.

CONNECTIONS

The S3B Sound Barrier connections are shown on the schematic above. External power is supplied via the 12-volt and 0-volt connections. Activation trigger is provided by connecting EN+ and EN- through a Normally Closed (N/C) relay opening in alarm. Status monitoring is via the volt-free relay outputs (NO / NC / C).

Contacts closed = Tamper closed, battery switch ON & battery OK.
Contacts open = Tamper closed and/or Dip 7 is ON (Sounder disabled) and/or battery fault.

BATTERY PACK

The S3B Sound Barrier battery pack is retained using a Velcro fastening and is easily removed. The pack is connected to the PCB using a small push-on connector. This should be checked when installing.

Battery Data:

Charging Voltage:	12 – 13.5-volts DC
Maximum Charging Current:	12-volt 1 Amp
Maximum Charging Time:	50 mins @ 1 Amp
Battery Specification:	DC 10.5-volts 1 Ah

DIP SWITCH SETTINGS

Dip switch setting control the following functions:

Duration of Sound:	Dip 1, 2, 3, 4 30 / 60 / 120 / 240 / 480 seconds
Delay after Activation:	Dip 5, 6 1 / 3 / 6 seconds
Disable Sounder:	Dip 7 On = Disable Off = Operational
Test / Normal Mode:	Dip 8 On = Test Off = Operational

Note: Test mode enables the sounder to be tested without full tones and volume.

INSTALLATION AND TESTING

Remove end cap and mesh cover.

DISABLE SOUNDER

Switch Dip 7 to ON to prevent accidental activation.

MOUNT SOUNDER

Mount the S3B Sound Barrier in the desired location.

CONNECTIONS

Ensure the Battery Enable switch is OFF.

Make connections for the 12-volt external power supply.

Make connections for the alarm relay (normally closed opening in 'Alarm')

Make connections for Status Monitoring (optional).

SETTING THE SOUNDER TIMER

The S3B Sound Barrier will produce sound for a preset period. This can be from 30 seconds up to 8 minutes. The timing is set using Dip switches 1 – 4.

Dip 1	Dip 2	Dip 3	Dip 4	Time
OFF	OFF	OFF	OFF	30 seconds
ON	OFF	OFF	OFF	60 seconds
OFF	ON	OFF	OFF	120 seconds
OFF	OFF	ON	OFF	240 seconds
OFF	OFF	OFF	ON	480 seconds

DELAY AFTER ACTIVATION

The S3B Sound Barrier can be delayed 1, 3 and 6 seconds after the Alarm activation relay has triggered. The delays are set using Dip 5 and 6 as follows:

Dip 5	Dip 6	Delay
OFF	OFF	1 second
ON	OFF	3 second
OFF	ON	6 seconds

TEST MODE

Place Dip 8 to ON to place on TEST mode.

TESTING THE SOUNDER

Prior to testing the sounder ensure that:

- The battery pack has been charged for a minimum of 2 hours.
- Battery Enable switch should be ON.
- Dip switch 7 should be OFF.
- All personnel attending the test have ear protection.

Test the unit by opening the alarm connections (EN+ & EN-). If the sounder test is successful then place Dip switch 8 to OFF and reassemble. If the sounder does not test OK leave on charge for a further 30 minutes.

IMPORTANT NOTE - BATTERY CARE

If the S3B Sound Barrier is to be stored without external power for more than a week then the Battery Enable switch must be switched OFF. Failure to do this will drain the battery completely and the battery will no longer retain a viable charge.

HEALTH & SAFETY ISSUES

The S3B Sound Barrier is rated at 125 dB at 1 metre. This decreases at a rate of 6 dB per metre. We strongly recommend that all engineers fitting this device wear some form of approved ear protection and limit exposure to the full sound of the device. Exposure without ear protection will create a feeling of nausea and disorientation. This will disappear when the sounder is switched off or when the exposed person leaves the protected area. No permanent hearing damage will be caused.