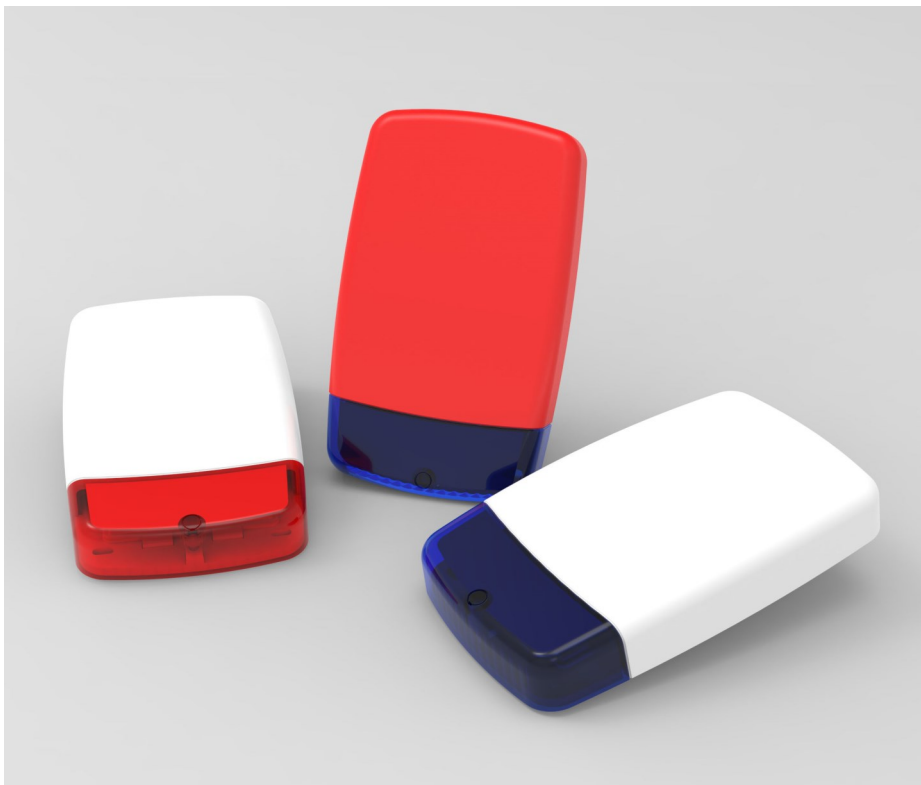# INSTALLATION GUIDE

AZ-TECH

EXTERNAL SOUNDERS

'Quality through People & products!'

CONTENTS

INSTALLATION GUIDE

EXTERNAL SOUND UNIT - INTRODUCTION

Your AZ-TECH External Sounder with on-board Strobe unit is designed to form an integral part of any Residential or Commercial Security Alarm System. The Unit has certain selectable features with which we recommend that you familiarise yourself prior to commencing installation.

Battery ON / OFF:

Your Sounder has its own on-board NiMH back-up battery. This enables it to operate independently of the main control panel should disconnection occur (ie. during an attempt to disable the unit).

When the battery jumper is in the **OFF** position the battery is isolated, the Sounder will not operate unless it is connected to the Control Panel and a 'hold-off' voltage is present.

When the battery jumper is in the **ON** position the battery is connected to the Bell box circuit allowing stand alone, SAB / SCB operation and trickle charge of the battery when a 'hold off' voltage is applied.

SAB / SCB:

SAB: (Self activating Bell unit). The standard sounder operating mode, providing maximum sounder volume. Upon sounder activation, current is drawn from the control panel, unless 'hold off' voltage is removed (ie. as a result of power disconnection from the control panel during an attempt to disable the unit).

SCB: (Self contained Bell unit). In this mode, upon sounder activation, current is drawn only from the on-board NiMH rechargeable battery, not from the Control Panel. This is ideal when using secondary sounders so that you do not overload the Control Panel or power supply current load capacity. Sounder volume is reduced in this mode.

Timer Select: 15 Min / 9 Min / 5 Sec

The sounder cut-off time is selectable . 15 or 9 minutes 'cut-off' and 5 second test mode are provided. The test mode is utilised upon initial set-up in order to minimise sounder operating time, thus enabling the engineer to work on the unit with minimal noise disturbance.

MOUNTING YOUR AZ-TECH SOUND UNIT

Consider the following criteria when mounting the unit:-

• Mount high enough to deter potential tampering and to afford some shelter. (preferably under the eaves).

• Mount in a prominent location so as to maximise the deterrent effect.

• Ensure that you have adequate cable access to your chosen location.

• Try to select a flat even mounting surface to ensure the rear micro-switch tamper mechanism locates correctly against the wall surface.

   (**Note:** Where mounting surfaces are uneven you may need to bend the micro-switch blade to effect a good solid contact against the wall surface thus ensuring reliable operation of the front / rear tamper mechanism).

• There are five screw mounting holes on the units backplate to ensure secure fixing even where the mounting surface may be uneven.

N.B When mounting the unit upon a brick wall, BS4737 specifies that a minimum of 3 x No.10 size steel screws be used. They must penetrate the brick itself by at least 40mm using appropriate wall plugs.

Drill all holes required for mounting the unit, using the positioning template provided on the rear of the cardboard outer box, and insert wall plugs.

Affix the Sound Unit backplate to the exterior wall ensuring that your connecting cable has been inserted through the appropriate cable entry hole.

INSTALLATION & WIRING OF YOUR AZ-TECH SOUND UNIT

## Connecting the Sound Unit to the Alarm Control Panel:

Utilising the terminal connectors to the left side of your Sounder's PCB, wire in as follows:-

TAMPER RETURN :	Negative tamper return
BELL TRIGGER :	Negative applied output to activate the Sounder
SUPPLY (12V+) :	Permanent positive supply
SUPPLY(OV-) :	Permanent negative supply
STROBE (-) :	Negative applied output to activate Strobe

We recommend you wire into the Sound Unit first and the Control Panel second.

AZ-120 (Fig.1)

NB: If you are wiring in a basic model **AZ-120** unit (ie. without SAB function or anti-tamper) then you do not need to connect to the TAMPER RETURN. However you do need to place a link between the M/SWTCH Terminals to bypass this function. (See Fig.1)
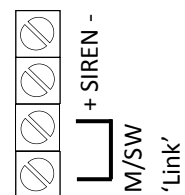
Your AZ-TECH Sounder is compatible with most Intruder Alarm Control Panels. Please see the table at the rear of this booklet that illustrates connection to many of the most popular Control Panels available. If your Alarm panel is not listed in our table please refer to your Alarm Panel Installation manual for appropriate wiring instructions.

SET-UP AND OPERATION

Recommended initial Set-up procedure and selectable features:

1. Select **SAB** or **SCB** mode as required using the appropriate jumper.

2. Check that the **'Timer'** jumper is set to **5 second Test.**

3. Place the **Battery** jumper in the **ON** position.

4. The sounder will now operate for 5 seconds, and then stop. The twin LED's will start to flash simultaneously at five second intervals and continue thereafter.

   (Please note that a low volume or irregular sounder noise during this test may merely indicate that your on-board NiMH battery needs charging. Once connected to your Control Panel the battery will automatically begin to charge and the sounder attain full decibel output).

5. Move the **Timer** jumper to the 9 or 15 minutes sounder cut-off position as required. The sounder will remain silent.

6. Place the Bell box front cover over the backplate and locate into position. You should hear the click of the microswitch depressing as the cover locates. Secure with the fixing screw provided and insert the protective screw cap.

7. The Sound Unit is now in 'muted' alarm condition and should remain silent until connection to the Control Panel is completed. The twin LED's will continue to flash simultaneously indicating that muted alarm status mode is applied.

8. Complete all connections to your Control Panel utilising the panels own installation guide or our wiring guide at the rear of this manual.

9. Once power is applied to the Control Panel the External Sounder's Twin LED's should commence flashing alternately indicating that set-up and wiring are complete.The unit is now in stand-by mode and a 'hold-off' voltage is present.

10. From the Control Panel perform Sounder and Strobe tests. Most Control Panels have test operation modes detailed within their instruction manuals.

   Your AZ-TECH Sound Unit is now installed and ready to operate!

INDICATIONS OF ALARM STATUS

The on-board Twin LED's indicate the current status of the Sound Unit and the nature of any Alarm trigger that has occured.

1. Alternate flashing LED's - Indicate that the Unit is in stand-by mode ready to operate.

2. Simultaneous flashing LED's giving **two** pulses indicates an Alarm trigger resulting from a Tamper or Alarm activation.

3. Simultaneous flashing LED's giving **three** pulses indicates an Alarm trigger as a result of power disconnection from the Control Panel. ie. as a result of someone cutting the connecting cable to the Sound Unit or due to total loss of Power to the Control panel.

INSTALLING MULTIPLE UNITS

If more than one Sound Unit is to be connected to an installation then the current consumption may exceed the maximum load rating of the Control Panel or Power Supply. Selecting the **SCB** function (as previously described) on secondary units can overcome that problem.

Connections for 2 x AZ-TECH SOUND UNITS

Generic Control

Panel connections

AZ-TECH ESU
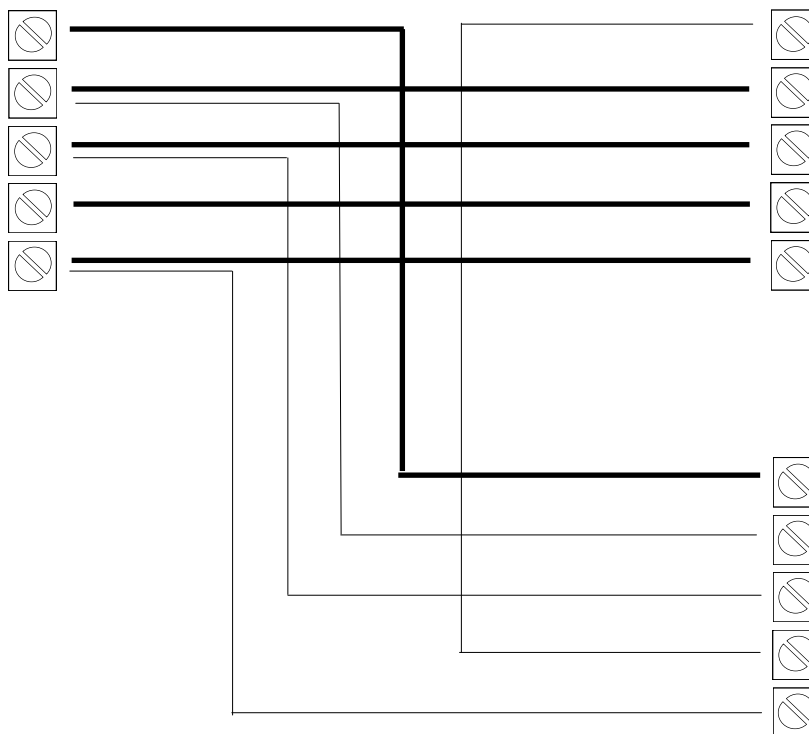
STROBE (+)	—— NO CONNECTION	
TAMPER RETURN		TAMP RTN
BELL TRIGGER (-)		BELL TR -
12V (+)		SUPPLY +
0V (-)		SUPPLY -
STROBE (-)		STROBE -

AZ-TECH ESU

	TAMP RTN
	BELL TR -
	SUPPLY +
	SUPPLY -
	STROBE -

SAFETY

Installation and maintenance should only be carried out by qualified personnel.

All strobes generate high voltages which can remain for some time after the supply has been removed. **NEVER** activate the strobe whilst the PCB is outside of its protective case.

For maintenance purposes, should you need to access the circuit by removing the PCB protective cover, avoid touching that part of the circuit labelled **'WARNING HIGH VOLTAGE'** to eliminate the risk of electric shock.

SERVICING

If you need to access the External Sound Unit for maintenance purposes, ensure that the Control Panel is in **DAY** or **UNSET** mode. Lift the front cover from the Sounder. You can now work on the Unit without it sounding. (Any internal sounder on your Alarm system will activate at this point and will need to be deactivated from the control panel if necessary).

Most Control Panels have their own method of testing the strobe and siren which should be utilised. Failing that, simply arm the system and cause an alarm activation to confirm correct operation of the External Sound unit.

Temporarily disconnect the positive supply to the unit at the Control Panel to confirm that the sounder self activates.

Replace the Sounder's cover ensuring that the battery jumper is in the **ON** position and the timer jumper set to **9** or **15** minutes as required.

WARRANTY

This product is warranted free from defects caused by design or manufacture for a period of two years from date of manufacture.

Provided that the goods have not been modified, altered or misused in any way, the company guarantees at its sole discretion to refund the price of, replace free of charge or to repair said faulty goods.

The external Sound Unit does not constitute a complete alarm system, merely a component part thereof, and Kinetic Electronics Limited cannot accept responsibility or liability for any damages claim whatsoever based on a claim that the unit failed to function correctly.

# WIRING CONNECTION GUIDE - FOR MOST POPULAR ALARM CONTROL PANELS

Connections For 'ADE' (Honeywell) Panels

Accenta G3 / G4, Optima, Compact, Logic 4 etc.

ADE	AZTECH ESU
STROBE + NOT CONNECTED	
SCB T	TAMP RTN
BELL - B	BELL TR -
BELL + D	SUPPLY +
SCB A	SUPPLY -
STROBE -	STROBE -

Connections For CASTLE CARE-TECH Panels

	AZTECH ESU
SABT	TAMP RTN
BELL	BELL TR -
+ HO	SUPPLY +
- HO	SUPPLY -
STR	STROBE -

Connections For DA Control Panels

	AZTECH ESU
AT	TAMP RTN
BELL	BELL TR -
+ HD	SUPPLY +
OV	SUPPLY -
ST	STROBE -

Connections For GARDINER TECHNOLOGY

	AZTECH ESU
STROBE + NOT CONNECTED	
SAB TAMP	TAMP RTN
BELL -	BELL TR -
BELL +	SUPPLY +
BELL HOLD -	SUPPLY -
STROBE -	STROBE -

Connections For MENVIER panels

	AZTECH ESU
BELL TMP	TAMP RTN
BELL TRIG	BELL TR -
BELL12V	SUPPLY +
OV	SUPPLY -
STB	STROBE -

Connections For A1 OMNICRON & MICROMARK

	AZTECH ESU
STROBE + NOT CONNECTED	
SCB RT	TAMP RTN
BELL -	BELL TR -
BELL +	SUPPLY +
SCB A	SUPPLY -
STROBE -	STROBE -

Connections For SCANTRONIC Panels

	AZTECH ESU
TR	TAMP RTN
BELL	BELL TR -
12V	SUPPLY +
0V	SUPPLY -
STR -	STROBE -

Connections For TEXECOM Panels

Veritas, / Excel range

	AZTECH ESU
C	TAMP RTN
B	BELL TR -
A	SUPPLY +
D	SUPPLY -
S	STROBE -

—— 7 ——

Connections For **C&K Intellisense, Challenger** Control Panels

Bravo 700	ST802	ST700L/ST800L		AZTECH ESU
R	**R**	**R -**		TAMP RTN
S	**S -**	**S**		BELL TR -
Bell +	**Bell +**	**Bell + (or V+)**		SUPPLY +
V -	**Aux -**	**Bell - (or V -)**		SUPPLY -
STB-	**ST-**	**ST-**		STROBE -

Connections For **PYRONIX** Control Panels

Paragon E / Plus, Conqueror / Super	Sterling 10	Matrix	Euro (Castle)		AZTECH ESU
BT	**BT**	**BT**	**TR**		TAMP RTN
BA	**BELL NO**	**PGM1 (NO)**	**BELL**		BELL TR -
B/S + (or B+ or S+)	**BELL +**	**BELL +**	**B+**		SUPPLY +
B/S - (or B-)	**BELL -**	**BELL -**	**B-**		SUPPLY -
STB-	**STB NO**	**PGM2 (NO)**	**STB**		STROBE -

Connections For **RISCO** Control Panels

Eurosec	Gardtec		AZTECH ESU
SAB TMP	**SAB TMP**		TAMP RTN
Bell -	**Bell -**		BELL TR -
Bell +	**Bell +**		SUPPLY +
Bell Hold -	**Bell Hold -**		SUPPLY -
Strobe-	**Strobe -**		STROBE -

WIRING CONNECTION RECORD

CONTROL PANEL	COLOURS USED		AZTECH ESU
....	....		TAMP RTN
....	....		BELL TR -
....	....		SUPPLY +
....	....		SUPPLY -
....	....		STROBE -

TECHNICAL SPECIFICATION

SPECIFICATION	*AZTECH* *AZ-120*	*AZTECH* *AZ-220*	*AZTECH* *AZ-320TW*
Sound Output @ 1 M	112dB	115dB	118dB
Sounder Type	Single Piezo	Single Piezo	Twin Piezo
Strobe - Xenon tube	90 flashes / min	90 flashes / min	90 flashes / min
Indication	Twin LED	Twin LED	Twin LED
SAB / SCB	—	YES	YES
Timer	Panel determined	15 / 9 minute cut-off + 5 second test	
Tamper	Optional	Front and back tamper via micro-switch	
Standby Battery			
Type	—	6.0 volt NiMH	7.2 volt NiMH
Capacity	—	320 mAh	340 mAh
Current Consumption			
Full Alarm	370 mA	370 mA	400 mA
Strobe	160 mA	160 mA	160 mA
Quiescent	18 mA	18 mA	18 mA
Construction **Cover**	3mm ABS	3mm Polycarb. / ABS	3mm Polycarb.
Back plate	3mm ABS	3mm ABS	3mm Polycarb.
PCB Cover	—	ABS	Polycarbonate
Weatherproof coating	Conformal (PCB)	Conformal (PCB)	Conformal (PCB)
Operating Temperature	-25°C - +55°C	-25°C - +55°C	-25°C - +55°C
Dimensions	328 x 195 x 55mm	328 x 195 x 55mm	328 x 195 x 55mm
Security Grade / Class	1 / IV	2 / IV	3 / IV

Kinetic Electronics Limited reserve the right to change the design or specification without prior notice.

Our AZ-TECH range of External Sound Units are designed to comply with the requirements of BS4737 and BS EN-50131-4 as Warning Devices.

The AZ-220 & AZ-320 series, when correctly configured, are considered suitable for use in Intruder Alarm Systems intended to comply with PD6662:2004 at Security Grade 2 and 3 respectively and Environmental Class IV

INSTALLER REGISTRATION FORM

Please complete and return this form to Kinetic Electronics Limited.
We can then send you any updated product information, current promotions etc.

Name: _____   Position: _____

Company: _____   Tel: _____

Address: _____   Fax: _____

_____   E-Mail: _____

_____

Post Code: _____

Which distributors do you
regularly buy from?

1. _____

2. _____

3. _____

How many Alarm Systems do you install each month?

How many of the following 'Kinetic' products do use each month?

EXTERNAL SOUND UNITS

SLA BATTERIES

MYLAR EXTENSION SPEAKERS

SOUND BOMBS

ALARM CABLE

CCTV CAMERA SYSTEMS

Please complete and Fax to 0161 654 9596, Post to the address overleaf

or email sales@kinetic-security.co.uk.   *Many Thanks!*

KiNETIC

Security

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