ARGUS SECURITY

ALBLS100-32 *
ALBLS100-32/AV **
Altair Addressable Sounder Base
Altair Addressable Sounder Base with Supplementary Visual Indicator

* **LPCB** ** **LPCB**
928w/05 928w/06

PRODUCT DESCRIPTION

The "Altair Addressable Sounder Base" and the "Altair Addressable Sounder Base with Supplementary Visual Indicator" are acoustic output devices that are activated by the analogue control panel in case of a fire emergency.
The "Altair Addressable Sounder Base with Supplementary Visual Indicator" is equipped with a supplementary visual indicator that reinforce the audible warning.
The adaptor bases at the top of both platform sounder models are intended to host analogue Altair detectors.

INSTALLATION NOTES

During the installation of these devices follow these rules:

Follow your national installation standards.

Use an analogue control panel that uses the Altair analogue protocol.

Make sure that the analogue loop is not power supplied during its cabling.

Device's terminals must be cabled following the instructions given in this manual; remember that this device is polarity sensitive.

This device can work with a detector installed on its base or stand-alone (without detector); if the sounder is working stand-alone it needs special cabling, and a base cover (supplied separately) needs to be installed on top of the base.
If stand-alone loop cabling is used don't install the detector on the sounder base; change to detector loop cabling instead!

## ADDRESSING AND PROGRAMMING

In order to make this device to operate in an installation you need to do two things:

- give the device its unique analogue address

- program the device's operating mode.

These two operations are done through a specific hand held programmer connected to the sounder by the means of a specific cable; this cable ends on both sides with a jack plug. For connection, follow this procedure:

- insert one plug into the programmer's socket

- insert the other plug into the platform sounder socket (picture 1 & 2).

This operation can be performed before and after cabling indifferently.

Picture 1

Picture 2
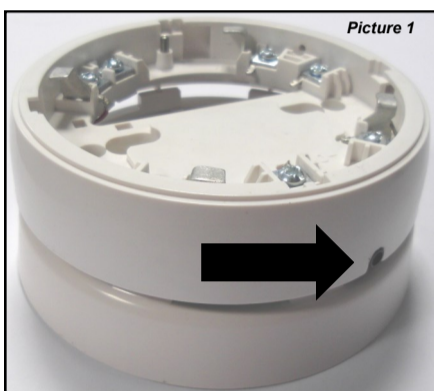
ASSIGNING THE ADDRESS

As said before the address number is assigned to the sounder through the programmer; this operation is better explained if you consult the programmers manual.

An alternative way of giving an address to the sounder is through automatic addressing from the control panel once all devices on the analogue loop have been installed, but not all panels are designed with this feature, so, check its documentation before choosing this option.

For addressing remember:

All devices on one analogue loop have a unique address.

Addresses range from 1 to 240.

PROGRAMMING THE SOUNDER

Programming the sounder consists only in defining its operating mode by programming a decimal number into it by the use of the programmer; this number is the "**operating mode number**".

DEFINING THE OUTPUT TONE SET AND VOLUME LEVEL: PROGRAMMING THE OPERATING MODE

The output set of tones that the sounder can emit when activated by the control panel and the output's acoustic level are programmed by the installer before installation: for this purpose different selectable operating modes for the device are used.

One selected operating mode is programmable through an "operating mode number", "written" into the device through the hand-held programming unit used before for the addressing step; the "**Set Mod / Set Op**" option of the programmer is used for this purpose: consult the programmer's documentation for further details.

In the following paragraphs a description of the possible operating modes (and their corresponding "operating mode numbers") will be given.

THE STANDARD OPERATING MODE

"Operating mode number" for this operating mode is "0"; this simply means that the decimal number "0" must be set into the sounder with the programmer with its "**Set Mod / Set Op**" option.

Volume level, selected activation sound tone pattern and supplementary visual indicator activation are directly controlled from the control panel.

The available tone set for this mode is given in table 1.

IMPORTANT NOTE: not all control panels may be able to activate all table 1's listed tones: check the control panel's documentation for gathering more information.

TONE	PATTERN	FREQUENCY	RATE	MAIN APPLICATION
0	SILENT RUNNING	-	-	SILENT
1	**DUAL TONE ***	**800 & 960**	**250ms - 250ms**	**ALTERNATIVE WARBLE**
2	**CONTINUOUS TONE ***	**1000**	**Steady**	**CONTINUOUS TONE**
3	PULSED TONE	970	500ms ON, 500ms OFF	ISO 8201 LF BS5839 Pt 1 1983
4	**SLOW WHOOP ***	**500-1200**	**3500ms sweep, 500ms OFF**	**DUTCH TONE**
5	**SWEEP (DIN) TONE ***	**1200-500**	**1s sweep (1Hz)**	**GERMAN DIN TONE**
6	SWEEP TONE	800 -1000	500ms	LF SWEEP (CRANFORD SWEEP)
7	DUAL TONE	800 & 1000	500ms - 500ms	WARBLE TONE
8	DUAL TONE	500 & 600	250ms – 250ms	ALTERNATIVE WARBLE
9	PULSED TONE	2800	1s ON, 1s OFF	HF BACK UP INTERRUPTED TONE
10	PULSED TONE	800	150ms ON, 150ms OFF	LF BACK UP ALARM
11	PULSED TONE	2800	150ms ON, 150ms OFF	HF BACK UP INTERRUPTED TONE - FAST
12	CONTINUOUS TONE	800	Steady	LF CONTINUOUS TONE BS5839
13	SWEEP TONE (1Hz)	800-900	1s sweep	SWEEP TONE (1Hz)
14	SLOW WHOOP	500 -1200	3750ms sweep, 250ms OFF	AUSTRALIAN SLOW WHOOP
15	SWEEP TONE	500-600	500ms sweep (2Hz)	ANALOGUE SWEEP TONE
16	SWEEP TONE (3Hz)	800-970	333ms sweep (3Hz)	SWEEP TONE (3Hz)
17	SLOW SWEEP	2350-2900	333ms sweep (3Hz)	ALTERNATIVE HF SLOW SWEEP
18	PULSED TONE	970	625ms ON, 625ms OFF	AUSTRALIAN ALERT (INTERMITTENT TONE)
19	TEMPORAL PATTERN	950	(500ms ON, 500ms OFF) x3, 1500ms OFF	US TEMPORAL PATTERN LF
20	PULSED TONE	800	500ms ON, 500ms OFF	INTERRUPTED TONE
21	PULSED TONE	1000	250ms ON, 250ms OFF	INTERRUPTED TONE MEDIUM
22	PULSED TONE	2850	500ms ON, 500ms OFF	ISO 8201 HF
23	LF BUZZ	800-950	9ms sweep (110Hz)	LF BUZZ
24	CONTINUOUS TONE	2800	Steady	HF CONTINUOUS
25	SWEEP TONE (9Hz)	800-970	11ms sweep (9Hz)	SWEEP TONE (9Hz)
26	PULSED TONE	660	150ms ON, 150ms OFF	SWEDISH FIRE SIGNAL
27	DUAL TONE	554 & 440	100ms - 400ms	FRENCH TONE AFNOR
28	CONTINUOUS TONE	660	Steady	SWEDISH ALL CLEAR SIGNAL
29	TEMPORAL PATTERN	2900	(500ms ON, 500ms OFF) x3, 1500ms OFF	US TEMPORAL PATTERN HF
30	2 WAY RAMP (SHORT)	500-1200	250ms sweep rising, 250ms sweep falling	SIREN 2 WAY RAMP (SHORT)
31	DUAL TONE	800 & 970	250ms – 250ms	FP1063.1 - TELECOM

Table 1 - Standard mode tone set

* Tones in bold are LPCB certified

THE 1st OPERATING (COMPATIBILITY) MODE - FACTORY SETTING DEFAULT MODE

In order to preserve the compatibility of this device with other Altair protocol compatible sounders, it is possible to program this sounder as a standard sounder with its relative tone set.

Volume level can be programmed directly on the device through the "operating mode number".

The tone set available in this mode for the device can be found in table 2. The desired operating tone must be selected on the control panel.

TONE SELECTED FROM CONTROL PANEL	PATTERN	FREQUENCY	RATE	MAIN APPLICATION
1	DUAL TONE *	800 & 960	250ms - 250ms	ALTERNATIVE WARBLE
2	CONTINUOUS TONE *	1000	Steady	CONTINUOUS TONE
3	PULSED TONE	970	500ms ON, 500ms OFF	ISO 8201 LF BS5839 Pt 1 1983

Table 2 - 1st operating (compatibility) mode tone set (default tone set)   * Tones in bold are LPCB certified

Four different "operating mode numbers" for this mode can be programmed into the device, selectable on the chosen volume level's basis (table 3).

VOLUME LEVEL DESCRIPTION	OPERATING MODE NUMBER
LOW	1
MEDIUM	65
HIGH	129 (FACTORY DEFAULT)
EXTRA-HIGH	193

Table 3 - Mode and volume operating mode numbers

"Operating mode number" "129" is the number programmed into the sounder when it comes out of the factory.

THE 2nd OPERATING (COMPATIBILITY) MODE

In order to preserve the compatibility of this device with other Altair protocol compatible sounders, it is possible to program this sounder as a Dutch sounder with its relative tone set.

Volume level can be programmed directly on the device through the "operating mode number".

The tone set available in this mode for the device can be found in table 4. The desired operating tone must be selected on the control panel.

TONE SELECTED FROM CONTROL PANEL	PATTERN	FREQUENCY	RATE	MAIN APPLICATION
1	SLOW WHOOP *	500-1200	3500ms sweep, 500ms OFF	DUTCH TONE
2	SWEEP (DIN) TONE *	1200-500	1s sweep (1Hz)	GERMAN DIN TONE
3	CONTINUOUS TONE *	1000	Steady	CONTINUOUS TONE

Table 4 - Dutch tone set table   * Tones in bold are LPCB certified

Four different "operating mode numbers" for this mode can be programmed into the device, selectable on the chosen volume level's basis (table 5).

VOLUME LEVEL DESCRIPTION	OPERATING MODE NUMBER
LOW	2
MEDIUM	66
HIGH	130
EXTRA-HIGH	194

Table 5 - Mode and volume operating mode numbers

THE OPERATING MODES FROM 3 TO 31

Other 28 operative modes are virtually selectable for this sounder; for these modes use table 6.

TONE	PATTERN	OPERATING MODE NUMBER (LOW VOLUME)	OPERATING MODE NUMBER (MEDIUM VOLUME)	OPERATING MODE NUMBER (HIGH VOLUME)	OPERATING MODE NUMBER (EXTRA-HIGH VOLUME)
3	PULSED TONE	3	67	131	195
4	SLOW WHOOP	4	68	132	196
5	SWEEP (DIN) TONE	5	69	133	197
6	SWEEP TONE	6	70	134	198
7	DUAL TONE	7	71	135	199
8	DUAL TONE	8	72	136	200
9	PULSED TONE	9	73	137	201
10	PULSED TONE	10	74	138	202
11	PULSED TONE	11	75	139	203
12	CONTINUOUS TONE	12	76	140	204
13	SWEEP TONE (1Hz)	13	77	141	205
14	SLOW WHOOP	14	78	142	206
15	SWEEP TONE	15	79	143	207
16	SWEEP TONE (3Hz)	16	80	144	208
17	SLOW SWEEP	17	81	145	209
18	PULSED TONE	18	82	146	210
19	TEMPORAL PATTERN	19	83	147	211
20	PULSED TONE	20	84	148	212
21	PULSED TONE	21	85	149	213
22	PULSED TONE	22	86	150	214
23	LF BUZZ	23	87	151	215
24	CONTINUOUS TONE	24	88	152	216
25	SWEEP TONE (9Hz)	25	89	153	217
26	PULSED TONE	26	90	154	218
27	DUAL TONE	27	91	155	219
28	CONTINUOUS TONE	28	92	156	220
29	TEMPORAL PATTERN	29	93	157	221
30	2 WAY RAMP (SHORT)	30	94	158	222
31	DUAL TONE	31	95	159	223

Table 6 - Mode and volume operating mode numbers

Tones in table 6 correspond exactly to the tones from 3 to 31 given in table 1.

Suppose now, for example, that you want to have operating mode 12 with a medium volume for the device you are programming. If you look at row 12 under the "OPERATING MODE NUMBER (MEDIUM VOLUME)" column you find a value corresponding to "76"; program this number into the device with the hand-held programmer.

What you will have is the sounder that when activated has a medium volume and the operative tone given in table 7.

TONE SELECTED FROM CONTROL PANEL	PATTERN	FREQUENCY	RATE	MAIN APPLICATION
1	CONTINUOUS TONE	800	Steady	LF CONTINUOUS TONE BS5839

*Table 7 - Operating mode 12's operating tone*

OPERATING MODE REPROGRAMMING

Operating mode number can be reprogrammed after the wiring of the device has been made and with the sensor is installed onto the platform sounder.
It is suggested to disable the loop before reprogramming the platform sounder; nevertheless this operation can be carried out with the loop active, but when the programming jack is inserted into the device, the sounder will be excluded from the loop and the control panel will signal a disconnection fault (until the jack plug is extracted from the device).
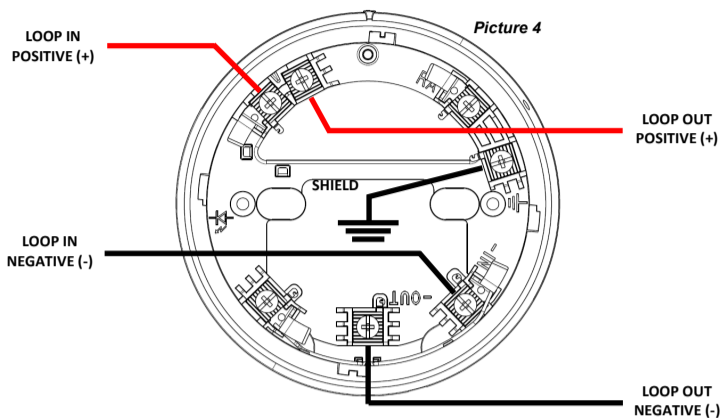

CEILING FIXING

You can fix the platform sounder to the ceiling by inserting the screws through the device's holes evidenced in picture 3.
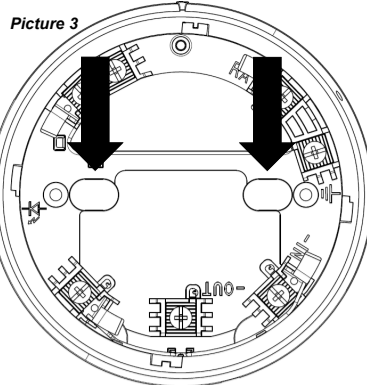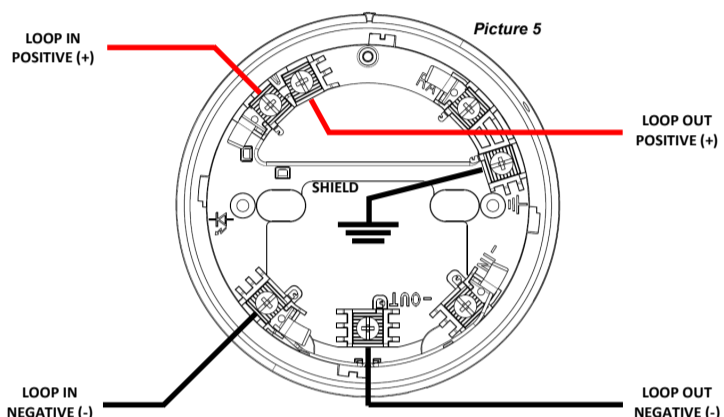
Picture 3

LOOP CABLING - SOUNDER BASE WITH DETECTOR

When used in association with a detector, the sounder base must be cabled as per picture 4.

Picture 4

LOOP IN POSITIVE (+)
LOOP OUT POSITIVE (+)
SHIELD
LOOP IN NEGATIVE (-)
LOOP OUT NEGATIVE (-)

LOOP CABLING - STAND-ALONE SOUNDER BASE

When the sounder base is not associated with a detector, cabling illustrated at picture 5 must be used.

Picture 5

LOOP IN POSITIVE (+)
LOOP OUT POSITIVE (+)
SHIELD
LOOP IN NEGATIVE (-)
LOOP OUT NEGATIVE (-)

REMOTE INDICATOR LAMP CABLING

This sounder can be connected to a remote indicator lamp. Follow picture 6 connection scheme.

TO REMOTE INDICATOR LAMP
+ −
Picture 6
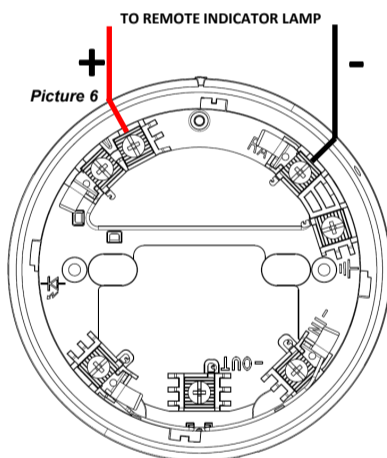
SHORT CIRCUIT ISOLATOR

All standard Altair series devices are provided with integrated short circuit isolators which monitor the detection loop and can also be activated by the control panel.

TESTING

In order to test the functionality of the installed sounder, the following test must be performed: activate an alarm condition on the control panel (by a call-point or sensor in the installed system): the control panel will activate the device's output.
After each test the device must be reset by the specific command on the control panel (see the RESET paragraph).
If the test fails, check if mistakes were done previously or even if the system is powered on. If the device's functionality is hopeless, send back the device to your distributor for repair or substitution.
All devices must be tested after installation and, successively, on a periodic basis.

RESET

To reset the sounder device from an activated condition or a functional fault (raised and indicated by the control panel solely), it is necessary to:

1) solve the cause of the abnormal condition

2) send the reset command from the control panel.

Performing sequentially those two operations, the sound output and/or fault condition will deactivate / resolve.

BASE COVER INSTALLATION

If you want to use the platform sounder as a stand-alone device (without the detector installed on it), you must insert and install securely its cover onto the top of the base.
Top cover is supplied separately from the product.

DETECTOR INSTALLATION

1. Position the detector centrally on its mounting base.

2. Rotate clockwise applying gentle pressure. The detector will drop into its mechanical holding location.

3. Push the detector to win the force of the contacts.

4. Continue to rotate clockwise a few degrees until the detector is firmly held on the detector base.

Picture 6

1. Position the detector.
2. Rotate.
3. Push.
4. Rotate.

5. When the detector is firmly held verify the alignment between the detector and the raised marks on the base (picture 7).
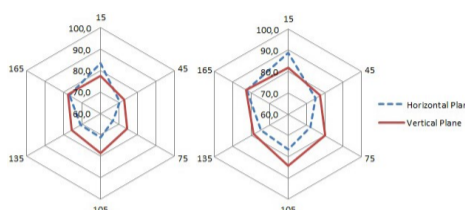
Picture 7
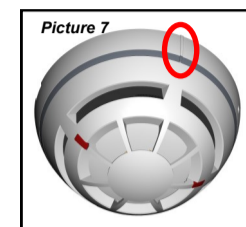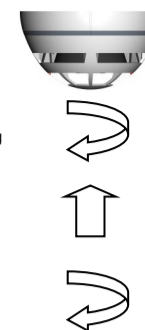
## LOCKING THE COVER OR THE DETECTOR ONTO THE BASE SOUNDER

In order to avoid tampering, the detector or the cover can be locked onto the base sounder; use the supplied locking Allen screw inserted in its side hole; after having installed the detector or cover, secure it through a suitable Allen key.
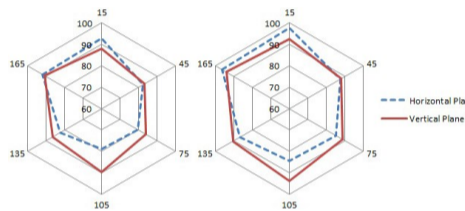
OUTPUT OPERATIONAL PERFORMANCE

Following are illustrated the output operational performance graphics; these refer to the tones of the **ALBLS100-32/AV** sounder at minimum (left graphic) and maximum (right graphic) volume.
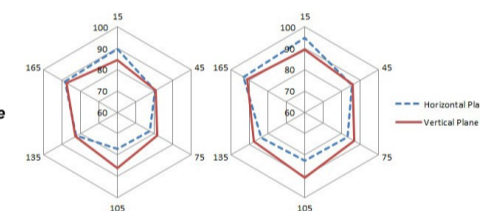

Picture 8 - Continuous tone
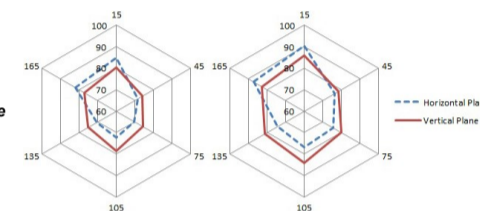
Picture 9 - Dual tone

Picture 10 - Slow whoop

Picture 11 - Sweep DIN tone

TECHNICAL SPECIFICATIONS **

Operating voltage *	15 Vdc to 40 Vdc	Typ. 24 Vdc Operating range
Operating voltage *	15 Vdc to 32 Vdc	Typ. 24 Vdc Operates down to 15 Vdc, but without the supplementary visual indicator (**ALBLS100-32/AV**) EN54-3 compliant range
Standby current (24Vdc)	70 µA	
Alarm current 24Vdc in "1 - Dual tone"	4.0 mA - 7.2 mA	No auxiliary visual indication
Alarm current 24Vdc in "1 - Dual tone"	4.5 mA - 7.7 mA	With auxiliary visual indication
Max alarm power 24Vdc in "1 - Dual tone"	172.8 mW	No auxiliary visual indication
Max alarm power 24Vdc in "1 - Dual tone"	184.8 mW	With auxiliary visual indication
Temperature	-30 / +70 °C	
Humidity	5 / 90 RH%	
IP rating	21C	
Application environment	Type A Indoor use only	Per EN 54-3

* Operates down to 15 Vdc, but without auxiliary visual indication.
** Check latest version of document TDS-ALBLSXX32 for further data, obtainable from your supplier.

ALTAIR ADDRESSABLE SOUNDER BASE
CURRENT CONSUMPTIONS BY OUTPUT TONE AND VOLUME

DIN tone	5.4 mA maximum peak at HIGH volume	7.9 mA maximum peak at EXTRA-HIGH volume
Slow whoop	5.7 mA maximum peak at HIGH volume	8.0 mA maximum peak at EXTRA-HIGH volume
Continuous	5.7 mA constant at HIGH volume	8.1 mA constant at EXTRA-HIGH volume

CE UK CA
2831 0832

ARGUS SECURITY S.R.L.
Via del Canneto, 14
34015 Muggia (TS)
Italy

14

AT5110CPR
AT5110UK

EN 54-3:2001+A1:2002+ +A2: 2006

ALBLS100-32/AV is not intended to comply with the requirements of EN 54-23

ALBLS100-32
ALBLS100-32/AV

For use in compatible fire detection and alarm system

Type A For indoor use only