Technical Specification

Part Number:	BF454C/CC/W	BF455C/CC/W	BF457C/CC/W
Description:	Base Voice Sounder, White Enclosure	Base Voice Sounder VAD, White Enclosure, O-Class	Base Voice Sounder VAD, White Enclosure, C-Class
Relevant Standards:	EN 54-3 (Sounders)	EN 54-3 (Sounders) EN 54-23 (VAD)	
Supply Voltage:	18 to 30 Vdc		
(1) Imax:	25 mA *	30.5 mA (0.5 Hz) * 48.9 mA (1 Hz) *	
(2) Ityp:	8.3 mA @ 18 Vdc * 9.1 mA @ 30 Vdc *	15.6 mA @ 30 Vdc (0.5 Hz) * 22.1 mA @ 30 Vdc (1 Hz) * 17.9 mA @ 18 Vdc (0.5 Hz) * 28.1 mA @ 18 Vdc (1 Hz) *	
Power @ 30 Vdc:	280 mW	470 mW	
Environment Type (EN 54-3/23):	Type A (EN 54-3)	Type A (EN 54-3 & EN 54-23)	
VAD Cat. (EN 54-23) Class:	N/A	O-R-3-2.5-17 ***	C-3-8.5
VAD Temporal Pattern:	N/A	1.0 / 0.5 Hz, synchronised	
Coverage Volume:	N/A	120 m^3	151 m^3
Peak SPL at Vmax:	96??? dB(A) @ 1 m ** synchronised		
Dimensions:	112 mm diameter; 46 mm deep (with cap fitted)		
Weight:	160 g	170 g	170 g
Mounting Type:	Ceiling		
Body Material / Colour:	Polycarbonate / White + Clear		
IP Rating (EN 60529):	IP21C		
Operating Temperature:	-10°C to +55°C		
Humidity:	Max. 95% RH (non-condensing)		

(1) Imax - Maximum start surge, maximum running pulse current. Ensure that Imax current for all devices on the sounder circuit does not exceed the current limitations of the fire alarm panel.
(2) Ityp - Average running current.

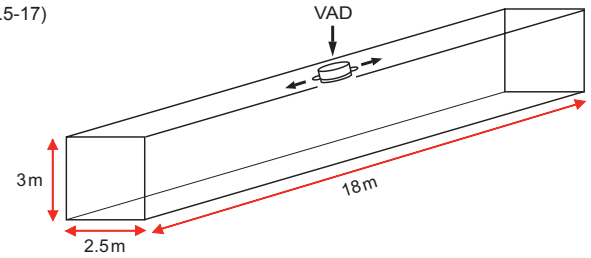
* @ maximum volume level.

** ±3 dB(A) when sounder set to PRIMARY TONE 1.

*** Dimensions of O-Class VAD (O-R-3-2.5-17)

O = O-Class; R = Rectangular Cuboid;
3 m Height; 2.5 m Width; 17 m Length.

VAD is mounted with lens pointing directly along the length of the corridor, centre of the ceiling (8.5 m either side length and 1.25 m either side width).



Manufacturer: Computionics Limited (C-TEC), Challenge Way, Martland Park, Wigan, Lancashire WN5 0LD. www.c-tec.com

Product Description

The ActiV Base Mount range of conventional voice sounders and combined voice sounder visual alarm devices (VADs) are designed for use with C-TEC's range of conventional fire panels (CFP, FP, MFP, EP203) and other compatible third-party panels. However, compatibility testing with third-party panels is recommended to ensure correct operation.

Their purpose is to visually and audibly alert building occupants of a fire alarm.

The following variants are available:

Part Number	Description
BF454C/CC/W	ActiV Conventional Base Voice Sounder, White Enclosure
BF455C/CC/W	ActiV Conventional O-Class Base Voice Sounder VAD, White Enclosure
BF457C/CC/W	ActiV Conventional C-Class Base Voice Sounder VAD Base, White Enclosure

All bases can be optionally used as either:

- a stand-alone base using a separately available locking white cap (BF330CTLIDW) / red cap (BF330CTLIDR) / black cap (BF330CTLIDB), or
- a stacked base device and detector combination (detectors are separately available and wired on a separate detection circuit). The base devices are compatible with C-TEC's range of ActiV conventional detectors and other compatible third-party suppliers.

The bases offer low current consumption, high sound output, high efficiency VADs, four selectable tones, two selectable evacuation voice messages, two selectable volume levels and three selectable VAD flash rates. Tones, messages, volume levels and VAD flash rates are selected using the base's 8-way DIP switch.

All devices are designed to comply with the relevant sections of the fire alarm device standards EN 54-3 (Sounders) and EN 54-23 (Visual alarm devices - VADs).

Mounting the Base

THE SYSTEM MUST BE COMPLETELY POWERED DOWN BEFORE INSTALLATION

Ensure the bases are installed in accordance with applicable local or national regulations. All bases are designed for ceiling mounting, indoor use only. Do not mount bases on uneven surfaces.

BF454C/CC/W and BF457C/CC/W may be mounted in any orientation, whereas the 'O-Class' BF455C/CC/W must be mounted with its lenses pointing directly down the length of the corridor.

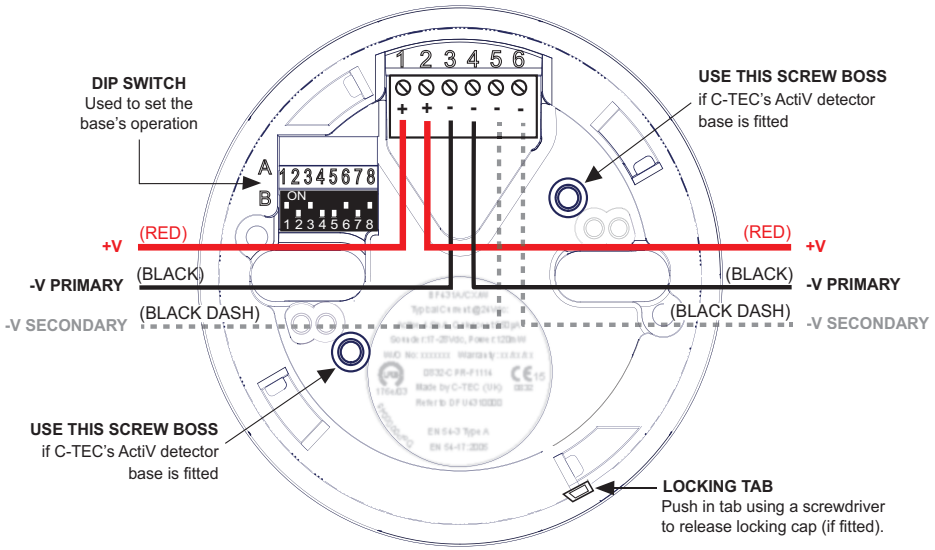
Securely fix the base to a ceiling using two screws in its mounting slots (which are designed for standard electrical termination boxes).
Please note the supplied Quick Connect Plate (Part No. BF431QCP) is an easy-to-fit mounting accessory that can assist with cabling to the bases.

Connections

Connect incoming and outgoing line cables to the base's connector block, as shown in figure 1.

The selection of PRIMARY or SECONDARY tones and messages is made by wiring to the -V PRIMARY or -V SECONDARY connections shown below. Please note that secondary tones/ messages requires additional wiring and control functionality from the CIE.

Figure 1 - Sounder Connections (Typical)



Connector	Function
1 & 2	+Ve
3 & 4	-Ve PRIMARY
5 & 6	-Ve SECONDARY

- All wiring must conform to local or national regulations.
- Correct polarity must be observed.
- Earth screens (not shown above) should be continuous from the CIE panel to the last device.
- Terminate sounder circuit as per panel manufacturer's instructions.
- The connector block's slot head terminals can accept 0.25 mm^2 to 2.5 mm^2 wiring.

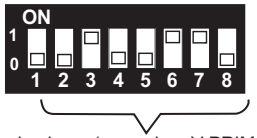
Maintenance

Periodic inspection, testing and maintenance of fire detection systems should be carried out in accordance with national, regional or local standards. In the UK the relevant standard is BS 5839-1 Fire detection and fire alarm systems for buildings. Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.

Inspection and maintenance of the system should only be carried out by a competent person with specialised knowledge of fire detection and alarm systems. This is normally a competent service provider appointed to maintain the system.

DIP Switch Operation

Each base's operation is set using Bits 1 to 8 on its DIP switch.
DIP switch up (ON) = 1, DIP switch down (OFF) = 0.
Use a small screwdriver to set the switches and refer to the tables below for settings. Ensure the switches are set before installation and fully pushed up or down.



Example above (assuming -V PRIMARY is wired to the base):

DIP Switch Setting = 0 0 1 0 0 1 1 0
PRIMARY TONE 0 (Slow Two Tone)
Message 1 'Attention please...'
Volume Level High
VAD Flash Rate C-3-8.5, 0.5 Hz

Sounder Tones (DIP Switches 1 & 2)

PAIR	PRIMARY TONE	SECONDARY TONE	DIP SWITCH 1 2
0	Slow Two Tone	Slow Two Tone	0 0
1	Fast Two Tone	Fast Two Tone	1 0
2	Sweep	Sweep	0 1
3	On-Off Tone	On-Off Tone	1 1

Messages (DIP Switches 3, 4 & 5)

PAIR	PRIMARY MESSAGE	SECONDARY MESSAGE	DIP SWITCH 3 4 5
0	No Message *	No Message	0 0 0
1	Attention please. Attention please. Fire has been reported in the building. Please leave immediately by the nearest exit. (x2)	This is a fire alert. This is a fire alert. Await further instructions. Await further instructions. (x2)	1 0 0
2	In the interest of safety please evacuate the building now. (x3)	This is a fire alert. This is a fire alert. Await further instructions. Await further instructions. (x2)	0 1 0
3	Spare	Spare	1 1 0
4	Spare	Spare	0 0 1
5	Spare	Spare	1 0 1
6	Spare	Spare	0 1 1
7	Spare	Spare	1 1 1

* When 'No Message' is selected, the preceding Sounder Tone is turned off.

Volume Level (DIP Switch 6)

VOLUME LEVEL	DIP SWITCH 6
Low Volume	0
High Volume	1

VAD Flash Rate (DIP Switches 7 & 8)

FLASH RATE	DIP SWITCH 7 8
Off	0 0
C-3-8.5, 0.5 Hz	1 0
C-3-8.5, 1 Hz	0 1
Power Save, 0.5 Hz	1 1