

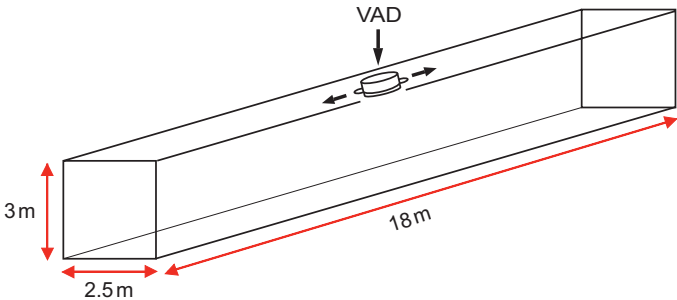
Supplementary Specification

Part Number:	CA454A/W	CA455A/W	CA457/W
Description:	CAST Base Voice Sounder with isolator	CAST Base Voice Sounder VAD with isolator, O-Class	CAST Base Voice Sounder VAD with isolator, C-Class
Relevant Standards:	EN 54-3 (Sounders) EN 54-17 (Short-circuit isolators)	EN 54-3 (Sounders) EN 54-23 (VADs) EN 54-17 (Short-circuit isolators)	
Communication Protocol:	CAST (C-TEC)		
Supply Voltage:	24 to 40 Vdc (sounder)	24 to 40 Vdc (sounder) 27 to 40 Vdc (VAD)	
Quiescent Current (Typical):	490 µA		
Active Current (Typical):	7.2 mA *	14.8 mA *	
Active Current (Max):	13.3 mA *	22.3 mA *	
Power:	290 mW	600 mW	
Environment Type (EN 54-3/23):	Type A (EN 54-3)	Type A (EN 54-3 & EN 54-23)	
VAD Category (EN 54-23):	N/A	O-R-3-2.5-18	C-3-8
VAD Temporal Pattern:	N/A	0.5 Hz synchronised	
Coverage Volume (C-Class):	N/A	135 m³	170 m³
Flash Rate / Colour:	N/A	0.5 Hz / White	
Peak SPL at Vmax:	89 dB(A) @ 1 m **		
Indicator:	Polling LED		
Dimensions:	112 mm diameter; 46 mm deep (with cap fitted)		
Weight:	160 g	170 g	
Mounting Type:	Ceiling		
Body Material / Colour:	Polycarbonate / White	Polycarbonate / Clear	
IP Rating (EN 60529):	IP21C		
Operating Temperature:	-10°C to +55°C (Type A)		
Humidity:	Max. 95% RH (non-condensing)		

* @ maximum volume level @ Vmin; ** ±3 dB(A)

Dimensions of O-Class VAD (O-R-3-2.5-18)

O = O-Class; R = Rectangular Cuboid; 3 m Height; 2.5 m Width; 18 m Length.
VAD is mounted with lens pointing directly along the length of the corridor, centre of the ceiling (9 m either side length and 1.25 m either side width).



Manufacturer: Computationics Limited (C-TEC), Challenge Way, Martland Park, Wigan, Lancashire WN5 0LD. www.c-tec.com
E&OE. No responsibility can be accepted by the manufacturer or distributors of these units for any misinterpretation of this instruction, or for the compliance of the system as a whole. The manufacturers policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.



Base Mount Voice Range Installation Instructions
Addressable Voice Sounders & VADs CAST Compatible



Product Description

The CAST Base Mount Voice range of addressable, loop-powered bases includes voice sounders and combined voice sounder visual alarm devices (VADs). Their purpose is to visually and audibly alert building occupants of a fire alarm. They are designed for use with C-TEC's CAST XFP/ZFP panels and other 'CAST' compatible fire panels.

The following variants are available:

Part Number	Description
CA454A/W	Addressable Ceiling Voice Sounder Base with isolator, white (CAST)
CA455A/W	Addressable Ceiling Voice Sounder VAD Base with isolator, white, O-Class (CAST)
CA457A/W	Addressable Ceiling Voice Sounder VAD Base with isolator, white, C-Class (CAST)

All CAST base devices 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 combined, base device and CAST detector (CAST detectors are separately available).

The devices offer low current consumption, high sound output, high efficiency VADs, four selectable volume levels, six selectable messages with tones and built-in short-circuit loop isolators. Please note the volume levels and messages/tones can be changed using the panel's programming tools. The sounder and VAD on the combined devices (CA455A/W and CA457A/W) can be set to operate independently of each other (panel dependent function).

The devices are designed to comply with all relevant sections of the fire alarm device standards EN 54-3 (Sounders), EN 54-23 (Visual alarm devices - VADs) and EN 54-17 (Short-circuit isolators).

Mounting the Base Device



THE SYSTEM MUST BE COMPLETELY POWERED DOWN BEFORE INSTALLATION

Ensure the base devices 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.

CA454A/W and CA457A/W may be mounted in any orientation, whilst 'O-Class' CA455A/W must be mounted with its lens pointing directly down the length of the corridor.

The base device has screw terminals for the loop cable (see 'CAST Loop Connections' section) and includes rear mounting slots for standard electrical termination boxes. Securely fix the base device to a ceiling using two screws in the mounting slots provided.

Note: A Quick Connect Plate (Part No. BF431QCP) may be used as an accessory to assist with cabling to the base device (refer to BF431QCP Document No. DFU4310020 for details).

Maintenance

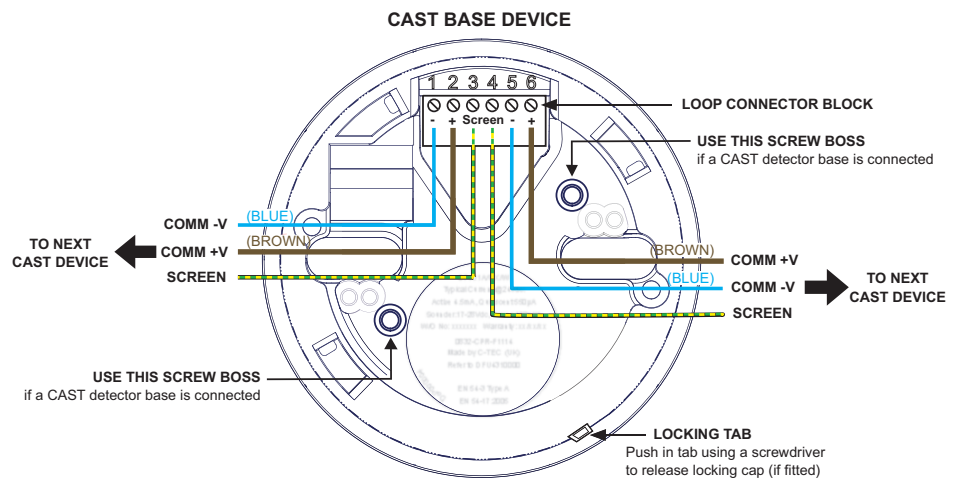
Periodic inspection, testing and maintenance of fire detection systems should be carried out in accordance with national, regional or local standards. In the UK the relevant standard is BS5839-1 Fire detection and alarm systems for buildings: Code of practice for system design, installation & maintenance 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 third-party fire alarm maintenance organisation.

CAST Loop Connections

Connect the incoming and outgoing CAST loop cable to the base's connector block, as shown in figure 1. Note the loop connections are polarity sensitive.

Figure 1 - Loop Connections (Typical)



Connector	Function
1	-Ve IN
2	+Ve IN
3 & 4	cable screen
5	-Ve OUT
6	+Ve OUT

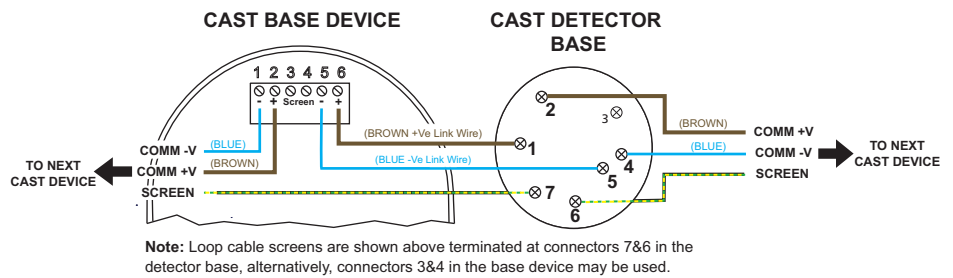
- All wiring must conform to local or national regulations.
- Correct polarity must be observed.
- Slot head terminals can accept 0.25 mm² to 2.5 mm² wiring.
- For optimum performance, it is recommended that screened cables are used.

Connection to an Optional CAST Detector

If a combined base device and CAST detector is used, wire the two bases using the supplied Brown (+Ve) and Blue (-Ve) link wires (see figure 2). Two screws are supplied to secure both bases together using the screw bosses (see figure 1).

Important Note: For optimum performance, **DO NOT SPUR** to the detector base. The preferred method is to run the loop cable into the base device, then connect to the detector base (using the link wires), then back out to the next CAST device on the loop. Note that loop cable screens should be terminated to ensure continuity of the screen to and from the panel.

Figure 2 - Connection to CAST Detector Base (Typical)



Technical Specifications

EN 54-17 SC-Isolator Specification (Controllable Isolator)

Maximum Loop Voltage (V max):	40 Vdc
Nominal Loop Voltage (V nom):	40 Vdc
Minimum Loop Voltage (V min):	22 Vdc
Maximum Current Device Isolates, switches from closed to open (I _{so} max):	55 mA
Minimum Current Device Isolates, switches from closed to open (I _{so} min):	15 mA
Maximum Rated Continuous Current with switch closed (I _c max):	1 A
Maximum Rated Switching Current under short circuit conditions (I _s max):	1.6 A
Maximum Leakage Current with switch open (I _L max):	20 µA
Maximum Series Impedance with switch closed (Z _c max)	100 mohms

Sounder Tone Selection (Tones are selectable at the panel)

SELECTION	TONE	MESSAGE
0		Audio Off
1	Fast Two Tone	Attention please. Attention please. Fire has been reported in the building. Please leave immediately by the nearest exit. (repeated 2x)
2	On-Off Tone	This is a fire alert. This is a fire alert. Await further instructions. Await further instructions. (repeated 2x)
3	Fast Two Tone	In the interests of safety please evacuate the building now. (repeated 3x)
4	On-Off Tone	All Clear. The emergency has been resolved. It is safe to resume normal activities. All Clear. (repeated 2x)
5	On-Off Tone	This is a test of the fire alarm system. Please do not take any action. (repeated 2x)
6	On-Off Tone	The fire alarm test is now complete. (repeated 2x)
7 to 31		For Future Use