



Invacuation/Lockdown Wall Voice Sounder Range

Installation Instructions

CA446A/DW/LD, CA447A/DW/LD



Product Description

The CAST Invacuation/Lockdown range of addressable, loop-powered devices includes voice sounders and combined voice sounder visual alarm devices (VADs).

They are compatible with C-TEC's CAST protocol addressable panels.

With a 92 dB(A) peak sound output at 1 m, they are specifically designed for use in invacuation and lockdown systems and sound an invacuation/lockdown message when activated. These wall mounted units are supplied with a deep base in white plastic enclosures.

The following variants are available:

Order Code	Description
CA446A/DW/LD	CAST Invacuation/Lockdown Wall Voice Sounder, White Enclosure
CA447A/DW/LD	CAST Invacuation/Lockdown Wall Voice Sounder VAD, White Enclosure

**CAST INVACUATION/LOCKDOWN
WALL VOICE SOUNDER
CA446A/DW/LD (White)**



**CAST INVACUATION/LOCKDOWN
WALL VOICE SOUNDER VAD
CA447A/DW/LD (White)**



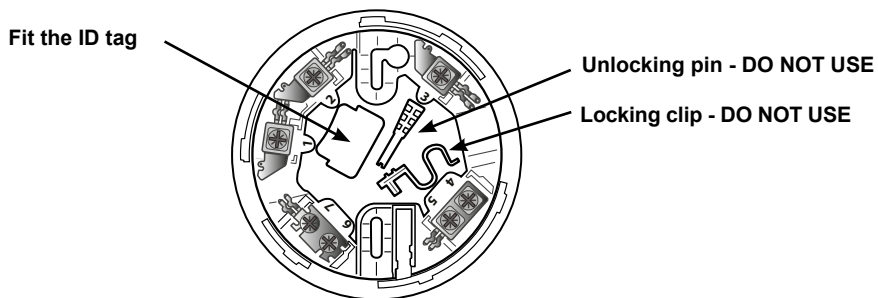
A selection of "Lockdown" voice messages are available. Customised invacuation/lockdown messages are also available to special order. Please note that the volume levels and voice messages can be changed at the panel using PC programming tools.

The devices offer low current consumption, high sound output and four selectable volume levels. All units have built-in short-circuit loop isolators.

The sounder and VAD on the combined device (CA447A/DW/LD) can be set to operate independently of each other (panel-dependent function). The VAD will flash blue when a lockdown situation is in progress.

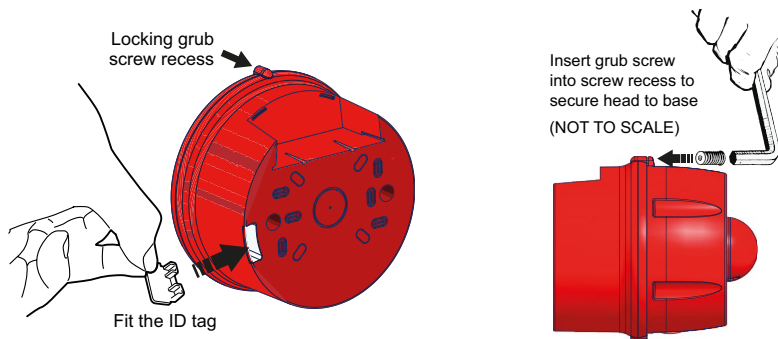
The devices are designed to comply with all relevant sections of the fire alarm device standards EN 54-3 (Sounders), EN 54-23 (Visual alarm devices - VADs) and EN 54-17 (Short-circuit isolators).

Base Accessories



Important Note: For a deep base, only fit the ID tag. DO NOT use the locking clip or the unlocking pin, otherwise, the head will be permanently locked in position.

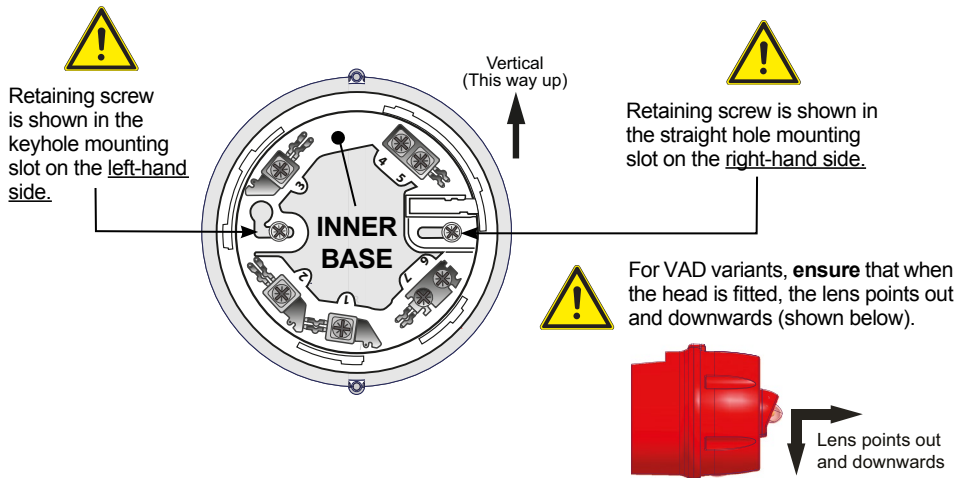
The base is secured to the head using a locking grub screw (M3 x 10) and an Allen key, as shown below. Note that red plastics are shown for illustrative purposes only.



Wall Mounting Orientation

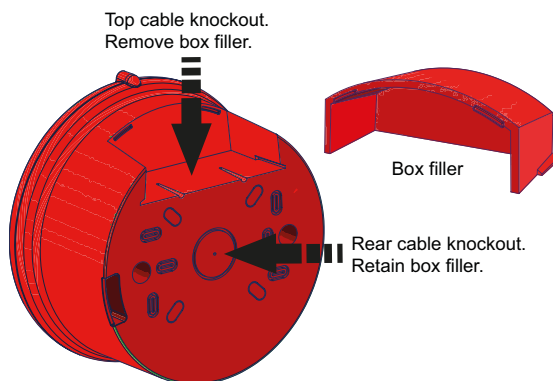
Important Note: It is good installation practice to align the two mounting slots in the deep base horizontally. The horizontal alignment ensures that VAD variants are correctly orientated when wall mounted and illuminate in the correct plane. See the diagrams below. Note that red plastics are shown for illustrative purposes only.

Deep Base Type - Orientation



Deep Base Type - Top/Rear Cable Entry

The deep base is factory-built for top cable entry and supplied with a box filler, as shown below. Note that red plastics are shown for illustrative purposes only.

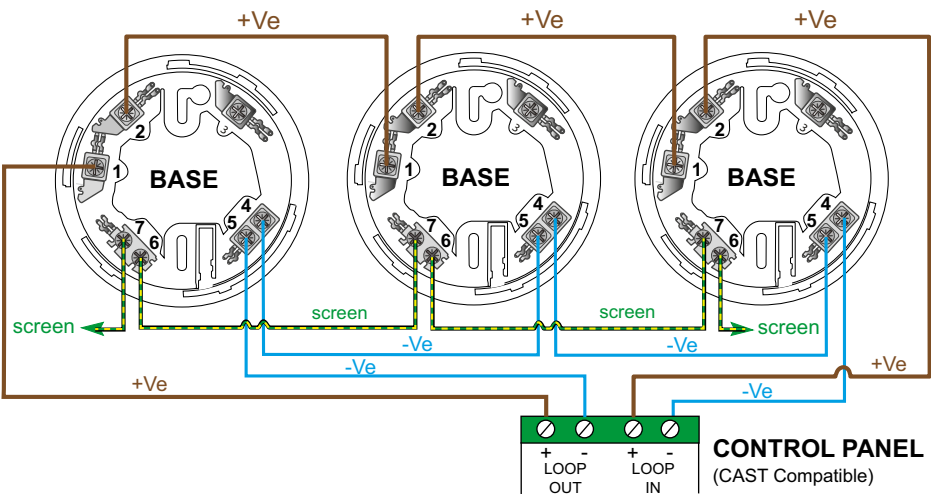


Deep Base Type - Bottom Cable Entry

If bottom cable entry is required, remove the two inner base retaining screws, then rotate the inner base 180 degrees and re-secure. This rotation will ensure that VAD variants are correctly orientated when fitted.

Wiring the Base

The base has screw terminals for field wiring, as shown below. Note the orientation of the bases shown is for illustrative purposes only.



Base Contact	Function
1 & 2	+Ve (analogue switch)
4 & 5	0V
6 & 7	cable screen

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

Maintenance

Periodic inspection, testing and maintenance of fire detection systems should be carried out in accordance with national, regional or local standards.

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 task is normally a competent service provider appointed to maintain the system.

Technical Specifications

Supplementary Specification

Order Code:	CA446A/DW/LD	CA447A/DW/LD
Description:	CAST Invacuation/Lockdown Wall Voice Sounder, Deep Base, White Enclosure	CAST Invacuation/Lockdown Wall Voice Sounder VAD, Deep Base, White Enclosure
Relevant Standards (Designed to comply with):	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):	470 μ A	
Active Current (Typical):	6.0 mA *	13.3 mA *
Active Current (Max):	10.6 mA *	19.2 mA *
Power:	240 mW	540 mW
Environment Type:	Type B (EN 54-3)	Type B (EN 54-3 & EN 54-23)
VAD Category (EN 54-23):	N/A	O-W-0.9-0.9 ***
VAD Temporal Pattern:	N/A	0.5 Hz synchronised (Blue LED)
Cuboid Volume (O-Class):	N/A	0.7 m ³ /0.81 m ³
Peak SPL @ V _{max} :	92 dB(A) @ 1 m ** synchronised	
Indicator:	Polling LED (red)	
Dimensions (including base):	114 mm diameter, 131.5 mm deep	114 mm diameter, 131.6 mm deep
Weight:	300 g	315 g
Mounting Type:	Wall	
Body Material/Colour:	Polycarbonate/White	
IP Rating (EN 60529):	IP33C (Type B)	
Operating Temperature:	-25°C to +70°C	
Humidity:	Max. 95% RH (non-condensing)	

* @ maximum volume level @ V_{min}.

** ± 3 dB(A) @ V_{max} for Message 1.

*** O-Class VAD has a blue flash and is wall mounted at 0.9 m height and has a square coverage 0.9 m x 0.9 m.

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 μ A
Maximum Series Impedance with switch closed (Z _c max)	100 m Ω

Lockdown Voice Messages (Selectable at the panel using PC programming tools)

The following lockdown voice messages are available, preceded by an alert tone.

Message 1 (internal threat, full lockdown situation)

"This is a full lockdown alert. There is an immediate threat within the building. Please follow full lockdown procedure. Stay calm and stay alert for further instructions."

Message 2 (internal threat, partial lockdown situation)

"This is a lockdown alert. There is a threat within the building. Please follow partial lockdown procedures. Stay calm and stay alert for further instructions."

Message 3 (external threat, partial lockdown situation)

"This is a lockdown alert. There is a threat outside the building. Please follow partial lockdown procedure. Stay calm and stay alert for further instructions."

Message 4 (full evacuation)

"Attention please. This is an emergency. Please leave the building by the nearest available exit."

Message 5 (all clear, situation resolved)

"All clear. The emergency has been resolved. All clear. All clear. The emergency has been resolved. All clear."

Alternative lockdown messages

Custom or coded voice messages can also be arranged by special order – contact our lockdown system support team at lockdown@c-tec.co.uk for more details.



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 devices for any misinterpretation of this instruction, or for the compliance of the system as a whole. The manufacturer's policy is one of continuous improvement and we reserve the right to make changes to product specifications at our discretion and without prior notice.