CA739 CAST 4-8 CHANNEL SOUNDER CONTROLLER

INSTALLER'S GUIDE

UK CA   C E

ℹ️ Read these instructions before installation and operation

⚠️ **THIS EQUIPMENT MUST BE INSTALLED AND MAINTAINED BY A SUITABLY SKILLED AND TECHNICALLY COMPETENT PERSON. ENSURE ALL POWER IS REMOVED BEFORE INSTALLATION.**

Product Description

CA739

The CA739 is a CAST protocol, addressable 4-8 channel sounder controller designed to control and monitor 4 or 8 short circuit proof sounder circuits.

The CA739 is supplied as 4 channel unit but is extendable to 8 channels using an extension PCB (Pt. No. CA739PCB).
It is compatible with CAST ZFP fire panels and mounts inside a standard C-TEC plastic enclosure.

An optional 24V 1.5A auxiliary PSU (Pt. No. CA739PSU) and standby batteries are accommodated for fitting inside the CA739 enclosure to power additional sounders. The PSU and batteries are automatically monitored by the CA739 unit and their status is signalled back to the CIE.

- Complies with the requirements of EN 54-17, EN 54-18.
- Compatible with C-TEC's CAST ZFP panels. See Fig.2 overleaf.
- Compatible with C-TEC's ActiV range of sounders and sounder VADs.
- Provides four conventional sounder circuits per single loop address, extendable within the same enclosure to 8 channels by the addition of a second CA739PCB (second loop address assigned by the CIE). See Fig.3 overleaf.
- Loop powered, or optional auxiliary CA739PSU powered for increased output power and capacity. Link selectable.
- 11.5mA per sounder circuit capacity when loop powered; 275mA per sounder circuit capacity when aux PSU powered.
- Individual sounder circuit test available at PCB level using onboard pushbuttons.

CA739 Specification

Part Numbers:	CA739	CAST 4-8 Channel Sounder Controller (supplied as a 4 channel unit, extends to 8 channels using a CA739PCB)
	CA739PCB	CAST 4 Channel Sounder Controller Extension PCB (mounts inside CA739 enclosure)
	CA739PSU	24V 1.5A Auxiliary PSU for use with CA739 (mounts inside CA739 enclosure)
	BF319	Fire Alarm Control Panel Mains Keyswitch (for use with CA739PSU)
Operating Voltage:	22 to 40Vd.c. when loop powered; 24Vd.c. nominal when auxiliary CA739PSU powered.	
Sounder Circuit Loads:	Loop Powered (either 4 or 8 channel CA739) 20V sounder circuit output voltage. 11.5mA per sounder circuit.	Auxiliary CA739PSU Powered (either 4 or 8 channel CA739) 24V sounder circuit output voltage. 275mA per sounder circuit. Maximum 1A for a 4 or 8 channel CA739.
Quiescent Current:	1.7mA	
Alarm Current:	3mA	
Monitoring:	27K EOL. S/C and O/C monitored.	
Capacity:	Extendable to 8 channel by addition of 2nd 4 channel card (CA739PCB) which is allocated a separate loop address by the CIE. Extendable to >100 x 4 channel CA739 cards per loop (when auxiliary CA739PSU powered).	
Compatible Devices:	C-TEC's ActiV Conventional Sounders / Sounder VADs (Base Mount / Hi-Output ranges).	
Indicators / Controls:	Active (Red) - sounder circuit activated (1-4 channel or 5-8 channel).	
	Fault (Yellow) - wiring fault on sounder circuit (1-4 channel or 5-8 channel), plus fault on auxiliary CA739PSU (if connected).	
	Polling (Red) - comms check with the CIE available at PCB level.	
	4 x Test pushbuttons (A, B, C, D) - one per sounder circuit available at PCB level.	
Compatible Protocols / Panels:	C-TEC CAST / CAST-PRO protocols. Compatible with C-TEC's CAST ZFP and CAST-PRO products.	
Dimensions (mm):	380 (W) x 235 (H) x 96 (D)	**Weight:** 1.5kg (without batteries)
Fixing Centres (mm):	339 (W x 170 (H)	**Hole required for Flush Mounting (mm):** 367 (W) x 220 (H) x 75 (D)
Operating Temperature:	-10ºC to +40ºC	**Enclosure Material:** PVC lid and base, RAL7035 textured
IP Rating (EN 60529):	IP30 (indoor use only)	**Humidity:** Max. 95% RH (non-condensing)

Wiring and Connections

All wiring must be installed in accordance with all applicable national, regional or local standards. In the UK this is BS 7671 (IET Wiring Regulations).

CONN1 / CONN2 Sounder Connections (see Fig.1)
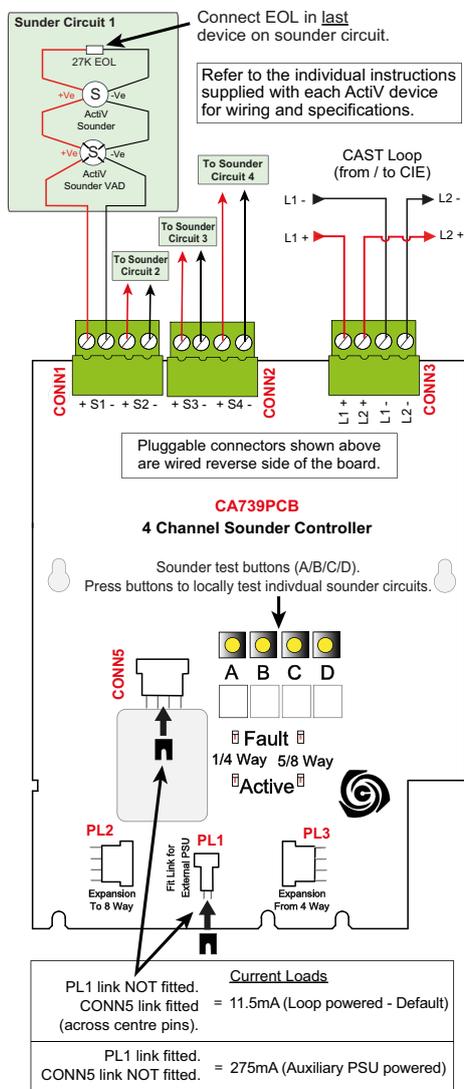Connection to ActiV sounders / sounder VADs.
Fit the supplied 27K EOL across the terminals of the last device on the circuit. All plug-on terminals can accept cables up to 1.5mmØ.
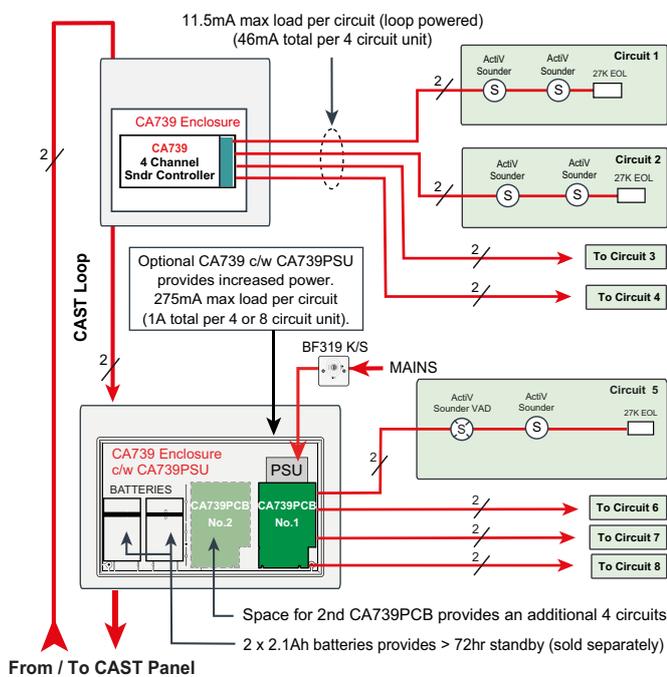
CONN3 Loop Connections (see Fig.1)
Plug-on loop terminals from / to CAST CIE.

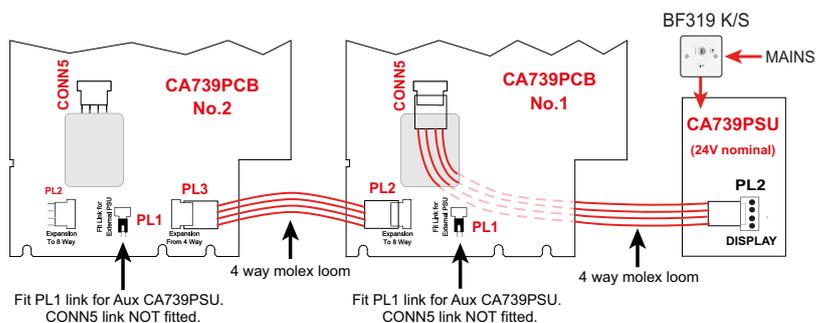| Terminal	Function
L1+	+Ve
L2+	+Ve
L1−	-Ve
L2−	-Ve

Fig.1 - Typical CA739 Connections

Fig.2 - Typical CAST System

Fig.3 - 8 Channel CA739 c/w CA739PSU Connections

System Design Notes

1. When running standalone, loop powered, the CA737 will support 3 ActiV sounders (3.8mA in alarm). Or, when running with an auxiliary PSU the CA737 will support 72 ActiV sounders (3.8mA in alarm) or 14 ActiV sounder VADs (19.5mA in alarm).
2. Using a networked system allows larger installations to be accommodated.
3. It is important that loop current and battery capacity calculations are carried out for each installation.
4. See individual product datasheets for quiescent / alarm currents & limitations.

Installation and Testing

This product must be installed and tested in accordance with applicable national, regional or local regulations.

Assess the condition and construction of the wall and use suitable screw fixings for the in-service weight of the product. Drill centre points are provided in the panel base to aid drilling tools. Cut out suitable holes in the panel using a hole saw directed by a pilot bit in the centre of the hole saw. Always ensure that if a hole is cut out it is filled with a good quality strain relief, cable gland.

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