CA737 4-8 WAY FLAT INTERFACE

INSTALLER'S GUIDE

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

CA737

The CA737 is an addressable 4-8 way flat interface for use on C-TEC's EVAC-ALERT evacuation alert system. The CA737 is supplied as 4 way unit but is extendable to 8 ways using an extension PCB (Pt. No. CA737PCB).

Designed to meet the requirements of BS 8629, the CA737 is mounted inside a standard C-TEC plastic enclosure ideally sited in a riser / ceiling void on each floor. It controls 4 or 8 short circuit proof sounder circuits located inside individual flats.

An optional 24V 1.5A auxiliary PSU (Pt. No. CA737PSU) and standby batteries are accommodated for fitting inside the CA737 enclosure to power additional sounders and/or vibrating pillow pads. The PSU and batteries are automatically monitored by the CA737 unit and their status is signalled back to the CIE.

- Complies with the requirements of BS 8629.
- Compatible with C-TEC's EVAC-ALERT evacuation alert system and EACIE panel. See Fig.2 overleaf.
- Compatible with C-TEC's ActiV range of sounders including ActiV self-testing sounders.
- Provides four conventional sounder circuits per single loop address, extendable within the same enclosure to 8 ways by the addition of a second CA737PCB (second loop address assigned by EACIE panel). See Fig.3 overleaf.
- Loop powered, or optional auxiliary CA737PSU 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.

CA737 Specification

Part Numbers:	CA737 4-8 Way Flat Interface Unit (supplied as a 4 way unit, extends to 8 ways using an additional CA737PCB) CA737PCB 4 Way Flat Interface Extension PCB (mounts inside CA737 enclosure) CA737PSU 24V 1.5A Auxiliary PSU for use with CA737 (mounts inside CA737 enclosure) BF321 EACIE Panel Mains Keyswitch (for use with CA737PSU)			
Operating Voltage:	22 to 40Vd.c. when loop powered; 24Vd.c. nominal when auxiliary CA737PSU powered.			
Sounder Circuit Loads:	Loop Powered (either 4 or 8 way CA737) 20V sounder circuit output voltage. 11.5mA per sounder circuit.		Auxiliary CA737PSU Powered (either 4 or 8 way CA737) 24V sounder circuit output voltage. 275mA per sounder circuit. Maximum 1A total for a 4 or 8 way CA737.	
Quiescent Current:	1.7mA			
Alarm Current:	3mA			
Monitoring:	27K EOL. S/C and O/C monitored and isolated per BS 8629.			
Capacity:	Extendable to 8 way by addition of 2nd 4 way card (CA737PCB) which is allocated a separate loop address by the CIE. Extendable to >100 x 4 way CA737 cards per loop (when auxiliary CA737PSU powered).			
Compatible Devices:	C-TEC's ActiV Conventional Sounders / Sounder VADs (Base Mount / Hi-Output / Hi-Output Self-Testing ranges). C-TEC's BF320 vibrating pillow pad and BF320JP connector plate.			
Indicators / Controls:	Active (Red) - sounder circuit activated (1-4 way or 5-8 way).			
	Fault (Yellow) - wiring fault on sounder circuit (1-4 way or 5-8 way), plus fault on auxiliary CA737PSU (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's CAST / CAST-PRO protocols. Compatible with EVAC-ALERT evacuation alert panels.			
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:	-10°C to +40°C	**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) and BS 8629. 2-core screened, enhanced fire-resistant cable must be used for loop wiring and wiring to devices.

CONN1 / CONN2 Sounder Connections (see Fig.1)
Connection to ActiV sounders / sounder VADs (located inside flats). 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 EACIE panel.

Terminal	Function
L1+	+Ve
L2+	+Ve
L1–	-Ve
L2–	-Ve

Fig.1 - Typical CA737 Connections

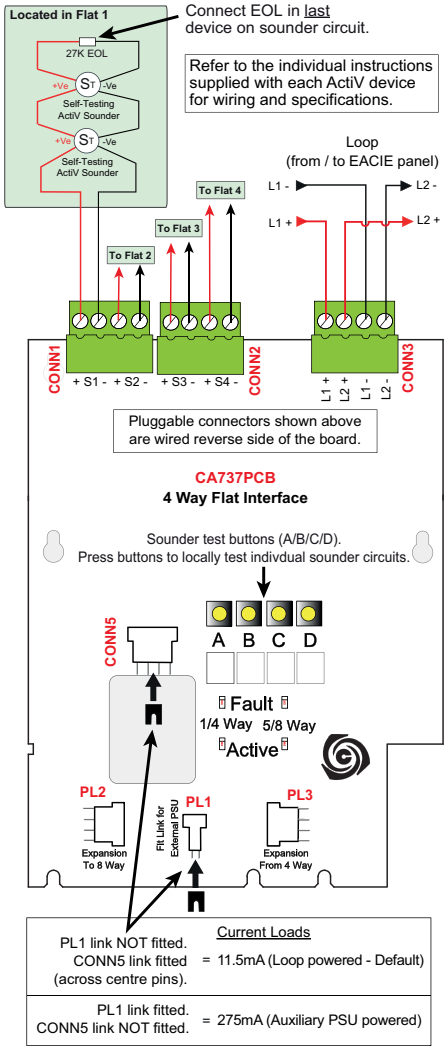


Fig.2 - Typical EVAC-ALERT System

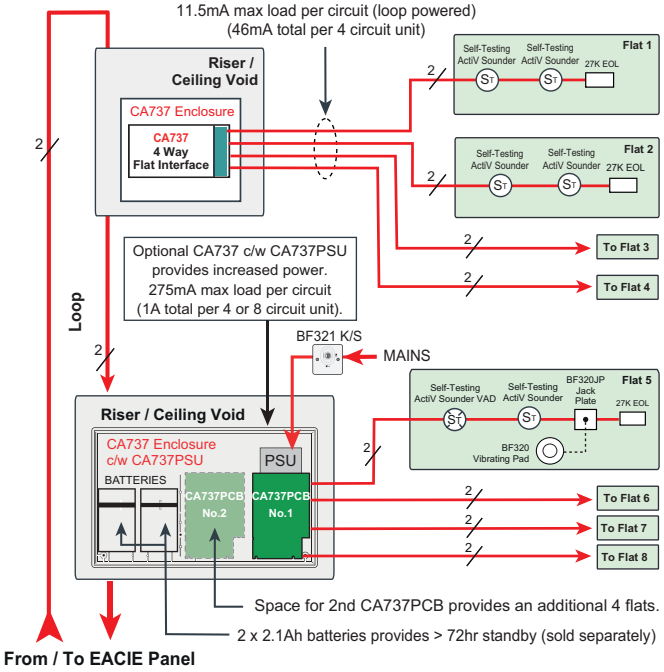
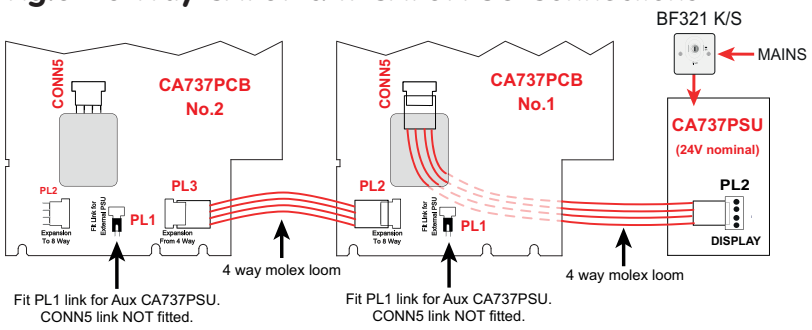


Fig.3 - 8 Way CA737 c/w CA737PSU Connections



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. System specifiers and installers must refer to the latest version of BS 8629 for system design.
4. It is important that loop current and battery capacity calculations are carried out for each installation. **NB.** EACIE Loop & Battery Calculator tools are available on C-TEC's website, available @ www.c-tec.com.
5. See individual product datasheets for quiescent / alarm currents & limitations.

Installation and Testing

This product must be installed and tested as per BS 8629, or applicable national, regional or local regulations. The CA737 must be installed indoors but sited OUTSIDE the flat / apartment, e.g. a riser / ceiling void.
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.

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