CFP
r a n g e

Fire Alarm Control Panel Instructions

To override any activated delays: press

To silence the internal sounder: press

To silence/resound the alarm sounders:
Turn key to I or enter code and press

To reset the panel:
Ensure the alarm sounders are silenced and press

To exit access mode: Remove key OR press

Indicators
1-8 ● constant light = Zone disabled
1-8 ● flashing light = Zone in fault or test mode

Output delays
● constant light = delays present
● flashing light = delays activated

General fault
● flashing light - call engineer

CFP SERIES
The system must be tested regularly.
If in doubt, refer to the user manual.
EN54-2 & 4
Manufactured in England

C-TEC

Fire

Fire Zones
1 2 3 4 5 6 7 8

Zone fault/disable/test
1 2 3 4 5 6 7 8

2 to 8 zone
EN54
conventional fire
alarm panels

LPCB

CE

LPCB Ref. 176a
to BS EN 54 pts 2 & 4

You're safe with **C-TEC**

CFP range

LPCB certified to the latest revisions of EN54 parts 2 and 4, our new-look super-enhanced CFP conventional fire panel offers an array of user and installer-friendly features at a very competitive price.

Supplied in an attractive flush or surface mountable plastic enclosure, 2, 4 and 8 zone versions are available, each featuring four conventional sounder circuits, class change and alert inputs, on-board fire and fault relays and combined keypad/keyswitch entry.

A wide range of engineering functions are also provided including selectable zone delays, coincidence and non-latching zone facilities. Comprehensive test and fault finding facilities are also provided.

The CFP's LPCB stamp of approval demonstrates that the panel has been tested and certified as being compliant with EN54 parts 2 and 4 by the Loss Prevention Certification Board, one of the most-respected independent approval bodies in the world.

LPCB Ref. 176a
to BS EN 54 pts 2 & 4

CFP features

- **LPCB certified to the latest versions of EN54 Parts 2 and 4**

- **Intuitive user-friendly interface with colour-coded buttons and combined keypad/keyswitch entry to access level 2**

- **2, 4 or 8 zone circuits (dependent on model purchased)**

- **Four conventional sounder circuits**

- **Integral 1.5A EN54-4/A2 compliant switch mode PSU**

- **Wide range of engineering functions including zone test, coincidence*, zone delay and non-latching zones***

- **Two on-board relays (Fire and Fault)**

- **Two open-collector outputs (Remote and Reset)**

- **'Class change' and alert inputs**

- **Installer-friendly design accommodates easy first fix and straightforward maintenance**

- **Attractive flush or surface mountable plastic lid and enclosure - no bezel required**

- **Low quiescent current**

- **Multiple indicators**

- **End of line units included (one per zone)**

- **Ancillary system expansion connections provided for up to eight two-wire repeaters (one CFP761 network driver card required per system) and optional CFP relay boards**

- **Space for two x 12V 3.2Ah VRLA batteries**

LPCB Certified Economy CFP panels (without on-board relays, system expansion connections, coincidence, delay or non-latching zone facilities) are also available - see order codes on page 4

Features marked * fall outside the scope of EN54-2

CFP702-4, CFP704-4, CFP708-4 Technical Specifications

Power Supply Specification

Mains supply voltage	230V 50/60Hz
Mains rated current	350mA maximum
Internal power supply	19V - 28.5V (27V nominal). Ripple 7V maximum (battery fault)
Total output current limited to	1.5A @ 230Vac (ImaxA = 146mA)
Quiescent current	25mA (Mains failed, internal sounder active, power supply & general fault lights lit)
Supply and battery charger monitored for failure	YES (battery charger is also temperature compensated)
Batteries monitored for disconnection and failure	YES
Batteries protected against deep discharge	YES (Deep discharge cut off approx. 21 volts)
Max. battery size and type	2 x 12V 3.2Ah VRLA connected in series (use YUASA NP3.2-12 for LPCB approved systems) Minimum battery size = 1.2Ah
Mains fuse	240V 1A HRC ceramic 20mm compliant with IEC (EN60127 PT2)
Battery fuse	1.6A F 20mm compliant with IEC (EN60127 PT2)
Current draw from battery (Mains failed)	1.5A maximum

Detector Circuit Specification

Number of circuits/zones	2 (CFP702-4), 4 (CFP704-4) or 8 (CFP704-8)
Max cable length per circuit	500 metres
Cable type	Fire resistant screened cable, minimum conductor size 1mm²
Connector blocks	Plug-on type, largest acceptable conductor size 1.5mm²
Line monitored for open circuit and short circuit	YES - DC monitoring
Line monitored for detector removal	YES - end of line monitoring device modules provided
Max. allowable impedance (each conductor)	20 Ohm
Max. cable capacitance	0.27uF
Call point resistor value	470 to 680Ω
Max. number of smoke/heat detectors per zone	25
Max. combined number of detectors & call points	32 per zone

Sounder Circuit Specification

Number of circuits	4
Max cable length per circuit	500 metres
Cable type	Fire resistant screened cable, minimum conductor size 1mm²
Connector blocks	Plug-on type, largest acceptable conductor size 1.5mm²
End of line resistor value	6800 ohm 5% Tol. 0.25W (blue, grey, red, gold)
Each circuit monitored for open and short circuit	YES - reverse voltage DC monitoring. Indicated by common fault
Alarm voltage	27V maximum, 20V minimum (final battery voltage)
Sounder circuit fuses (one per circuit)	Resettable type (200mA min. hold current; 400mA max. trip current; 50mA when tripped. Reset when faults removed)
Max. total sounder output current to all outputs	4 x 200mA = 800mA
Max. No. of bells @ 25mA	32
Max. No. of electronic sounders @ 20mA	40 (sounders must be polarised)

Auxiliary Relay Outputs

Aux. Fire relay output (AUX)	Voltage-free single pole changeover; Max switching current 1A; Max. switching voltage 30Vdc
Fault relay output (FAULT)	Voltage-free single pole changeover; Max switching current 1A; Max. switching voltage 30Vdc

Auxiliary Open Collector Outputs

Reset output (RESET)	Non-monitored open collector type; Active during reset cycle; Max. sink current 30mA; Max. open circuit voltage 27Vdc
Remote output (REM)	Non-monitored open collector type; Active during any unsilenced fire condition (provided all relevant delays have expired); Max. sink current 30mA; Max. open circuit voltage 27Vdc
24V aux power output (for use with the above)	Output protected by a resettable fuse (100mA min. hold current). Resets when fault removed

Auxiliary Inputs

Class Change (makes sounders sound continuously)	Connect to 0V to trigger. Max. input voltage 27V (non-latching)
Alert (makes sounders pulse intermittently)	Connect to 0V to trigger. Max. input voltage 27V (non-latching)

User & Engineer Controls

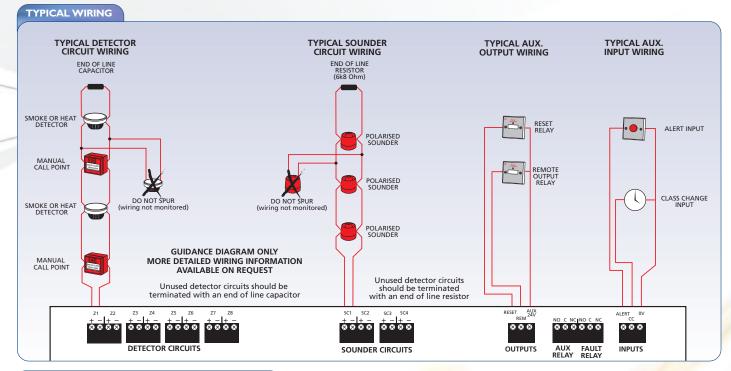|	
General user controls (access level one)	Mute internal sounder; Override delays; Enter access level
Authorised user controls (access level two)	Silence alarm sounders; Activate alarm sounders; Reset the system; Test the lamps; (Entry via keypad code or keyswitch); Disable/enable zones; Disable/enable fault output; Disable/enable remote output; Disable/enable sounders; Disable/enable auxiliary output; Disable/enable output delays
Engineer controls (access level three)	Program coincidence (double knock); Invoke one man walk test; Program delays; Set up zones for non-latching operation; Program sounders to resound (or not resound) when a new zone enters alarm; Enter fault diagnostic facilities

Indicators

External indicators	General fire; Zone fire; Zone fault; Zone disabled; Zone test; Supply present; Remote output activated; Remote output status; Test; Accessed; General disablement; Fault output status; General fault; System fault; Repeater fault; System status; Sounder status; Power supply fault; Auxiliary output status; Output delays
Internal indicators	System fault (distinguishes between watchdog, site memory and phase lock loop faults); Zone fault (distinguishes between open circuit and short circuit faults); Hazardous voltages present; Repeater fault (indicates which repeaters, if fitted, are faulty)

Dimensions

Physical size / Weight	Size = 380 x 235 x 96mm approx. / 1.75kg (without batteries)
Construction	Plastic lid and base
Enclosure finish	RAL7035 textured
IP rating	IP30

Operating conditions

The components are selected to operate within their specification when the environmental conditions outside the enclosure comply with class 3k3 of IEC 721-3-3:1978. Temperature range: -5 to +40°C. Maximum relative humidity: 95%

TYPICAL DETECTOR CIRCUIT WIRING

END OF LINE CAPACITOR

SMOKE OR HEAT DETECTOR

MANUAL CALL POINT

SMOKE OR HEAT DETECTOR

MANUAL CALL POINT

DO NOT SPUR (wiring not monitored)

GUIDANCE DIAGRAM ONLY
MORE DETAILED WIRING INFORMATION
AVAILABLE ON REQUEST

Unused detector circuits should be terminated with an end of line capacitor

TYPICAL SOUNDER CIRCUIT WIRING

END OF LINE RESISTOR (6k8 Ohm)

POLARISED SOUNDER

POLARISED SOUNDER

POLARISED SOUNDER

DO NOT SPUR (wiring not monitored)

Unused detector circuits should be terminated with an end of line resistor

TYPICAL AUX. OUTPUT WIRING

RESET RELAY

REMOTE OUTPUT RELAY

TYPICAL AUX. INPUT WIRING

ALERT INPUT

CLASS CHANGE INPUT

Z1 Z2 Z3 Z4 Z5 Z6 Z7 Z8
+ − + − + − + − + − + − + − + −

DETECTOR CIRCUITS

SC1 SC2 SC3 SC4
+ − + − + − + −

SOUNDER CIRCUITS

RESET AUX REM 24V

OUTPUTS

NO C NC NO C NC

AUX RELAY **FAULT RELAY**

ALERT 0V CC

INPUTS

CFP STANDARD FIRE PANELS & ANCILLARIES

CFP702-4	LPCB	CFP Standard 2 zone panel, keypad/keyswitch entry, does not extend, LPCB certified to EN54-2/4
CFP704-4	LPCB	CFP Standard 4 zone panel, keypad/keyswitch entry, does not extend, LPCB certified to EN54-2/4
CFP708-4	LPCB	CFP Standard 8 zone panel, keypad/keyswitch entry, does not extend, LPCB certified to EN54-2/4
CFP760		CFP 8 zone repeater panel, up to 8 per system, keypad/keyswitch entry
CFP761		CFP network driver card (one required per repeater system, fit at main)
CFP762		CFP relay output card (provides reset, fault, aux fire & remote relays)
CFP763		CFP relay output card (provides 12 relays - reset, fault, aux fire & remote relays plus 8 output per zone relays)
CFP764		CFP relay output card (provides 8 output per zone relays)
CFP765		CFP relay output card (provides 4 output per zone relays)
CFP766		CFP relay output card (provides 2 output per zone relays)
BF362		Barrier interface unit (allows a CFP zone circuit to be connected to up to 10 intrinsically safe detectors and call points via a Zener barrier (not supplied)

CFP ECONOMY FIRE PANELS

Include all CFP standard panel features except onboard relays, system expansion connections, coincidence, delay and non-latching zone facilities. Economy panels are not compatible with CFP repeaters or CFP relay boards.

CFP702E-4	LPCB	CFP Economy 2 zone panel, keypad/keyswitch entry, does not extend, LPCB certified to EN54-2/4
CFP704E-4	LPCB	CFP Economy 4 zone panel, keypad/keyswitch entry, does not extend, LPCB certified to EN54-2/4
CFP708E-4	LPCB	CFP Economy 8 zone panel, keypad/keyswitch entry, does not extend, LPCB certified to EN54-2/4

C-TEC

Manufactured by
C-TEC, Challenge Way, Martland Park,
Wigan, WN5 0LD United Kingdom

UK Sales:
Tel: 01942 322744. Fax: 01942 829867.
Email: sales@c-tec.co.uk

European Sales:
Tel: +44 1942 322744. Fax: +44 1942 829867.
Email: eu.exports@c-tec.co.uk

Export Sales:
Tel: +44 161 257 2541. Fax: +44 161 225 8817.
Email: xportsales@xportsales.com

Visit our website at **www.c-tec.co.uk**

LPCB
UKAS QUALITY MANAGEMENT 007

Quality System Certificate No: 176
Assessed to ISO9001 : 2008

FIA
Fire Industry Association

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LPCB Ref. 176a
to BS EN 54 pts 2 & 4

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