

CF3000PR & CF3000PR/NC

Passive Analogue Repeater Panels

Installation and Operation Manual

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COOPER Fire Systems

CF3000PR & CF3000PR/NC Passive Analogue Repeater Panels

This manual provides information on the installation and operation of the Cooper Fire Systems CF3000PR and CF3000PR/NC Passive repeater panels

Notice

The operating system of the CF3000PR and CF3000PR/NC may be revised as a result of enhancements to the system software or hardware. Revisions to this manual will be issued and supplied on request and should be logged in the table supplied on the contents page.

Technical Help: 01594 541900

Sales: 01594 541900

Part of the:-

CF3000

Analogue Addressable Fire Detection System range

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Rev A						

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Section 1

Introduction

General Description

The **CF3000PR** and **CF300PR/NC** - Passive Analogue Repeater Panels, provide a cost effective, system information display which can be programmed to be either fully passive (display only) or semi passive (restricted system control).

The panel is available as either loop connected (**CF3000PR**) or network connected (**CF3000PR/NC**).

If Loop connected the panel will display system information text of the connected panel and will provide a fire indication, with panel number, of any connected network panel that has a fire activation.

This panel requires system programming for local text information.

When network connected the panel will display global text information of all the connected network panels.

This panel does not require system programming.

The panels are suitable for either surface or semi-recessed mounting.

The panel has a main 2x40, backlit, Liquid Crystal Display (LCD), providing system status information and menu driven, system control as well as 6 supervisory LED s:-

- POWER ON
- FIRE
- FAULT
- DISABLED
- TEST IN PROGRESS
- SCROLL

The panel also has five control buttons:-

- SCROLL UP
- ENTER PASSCODE
- ENTER
- MUTE BUZZER
- SCROLL DOWN

When loop mounted, the repeater panel is connected directly to one of the panel loops and is soft addressed on initial system power up. As with all Cooper Fire Systems loop mounted equipment, the repeater panel has integral short circuit isolators to maintain system integrity should a short circuit fault occur on the system wiring.

When connected to a network, a network driver PCB will be required at each panel with the repeater being connected to the network loop via 2 x 2 core, screened, fireproof cables (network in and out), as in diagram 4.

The network loop can have a maximum overall length of 1Km.

Facilities

The panels have an integral battery and charger, providing 24 hour standby and therefore will require a 230V ac supply connection.

It is recommended that a unswitched, fused spur is provided adjacent to the intended repeater panel position.

Main Display

The repeater panel has a 2 line x 40 character LCD which in normal conditions shows System Healthy and is not back lit.

Under Fire, Fault or Pre Alarm conditions system information will be displayed and the LCD will be illuminated.

To illuminate the LCD under normal conditions press any panel button.

LED Indicators

Power LED: On - system ac/dc supply healthy

Off - system supply failure

Fire LED: On - Indicates system fire activation

Flashing - Manual evacuation activated

Fault LED: Indicates internal/external system fault

Disabled LED: Indicates loop device disabled

Test in progress LED: Indicates one man walk test in progress

Scroll LED: Flashes when there is more than one current event

Control buttons

Scroll down: Scrolls display down through current fire/pre-alarm/fault activations

Enter passcode: Allows access to system end user and engineering controls

Enter: Access individual menu items

Mute buzzer: Silences internal buzzer

Scroll up: Scrolls display up through current fire/pre-alarm/fault activations

Section 2

Panel Installation

General/Installation

Panel Mounting

General

As with all electrical equipment the **CF3000PR** and **CF3000PR/NC** panels should be installed in a clean, dry, well ventilated area, away from direct sunlight.

The unit is designed to operate in temperatures between -5° and 40°C, temperatures outside these parameters should be avoided.

The panel should be located away from any potential hazard, in a position where it is readily accessible to both the fire services and authorised users.

The panel is provided with a drill template to aid wall mounting, it is recommended that this is used as it will ensure that possible damage to the panel, whilst fixing, will be minimised and also brick dust will be prevented from contaminating the panel and system circuit boards.

Installation

Using the template provided, mark the four mounting screw positions, drill and plug the wall. Fix the top two screws ready for mounting the panel.

Remove the repeater panel from its protective box and remove front cover by lowering the front panel flap and unscrewing the two philips head screws. This gives access to the battery compartment and the front panel holding screw, remove battery and the remaining fixing screw, the front panel will fold down to give access to the back box and circuit board. Locate the back box on the top two screws, locate the remaining two screws (battery enclosure) and tighten, ensure the back box is securely fitted to the wall and has not been twisted by over tightening the retaining screws.

Remove required number of cable entry covers at top of housing and fit the loop/network cables and mains supply cables in the required position together with suitable termination glands.

If panel connection is via rear cable entry, cables must be positioned prior to mounting the panel on the wall.

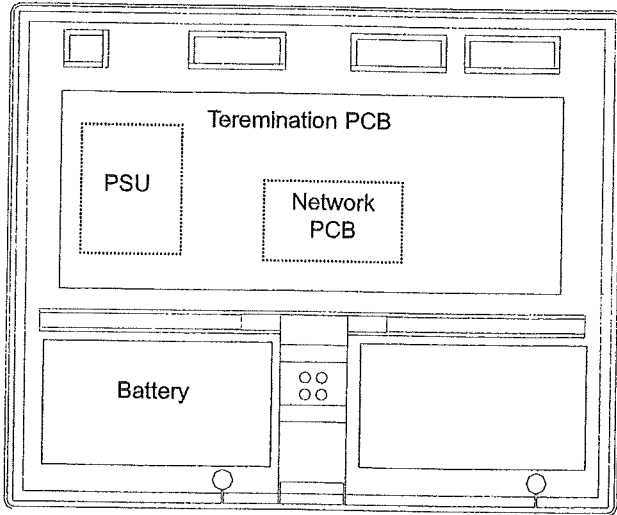
Connect the loop/network cables as per diagram 3 (loop mounting) or diagram 4 (network mounting).

Ensuring the mains supply is isolated and spur unit has had the fuse removed, connect the 230V ac supply wiring.

Replace the front panel and use a protective cover to prevent dust ingress or panel damage prior to system commissioning.

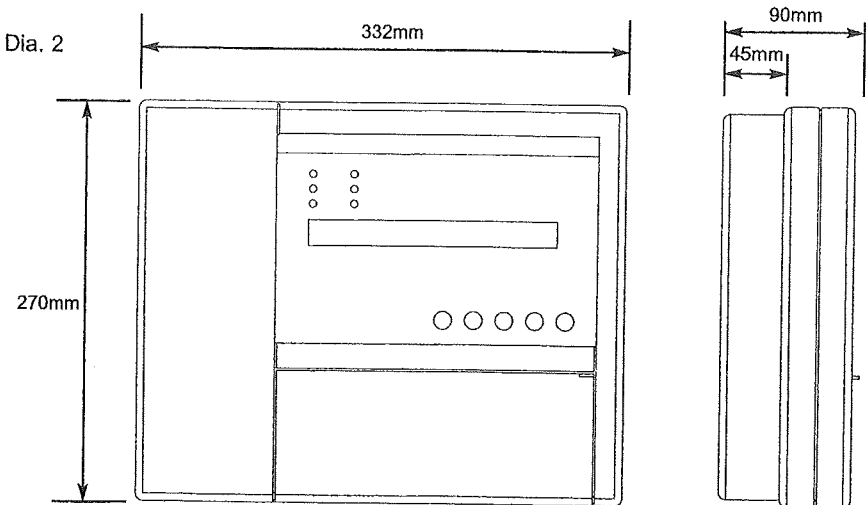
Panel Layout

Dia. 1



*Display PCB s mounted on Front Panel

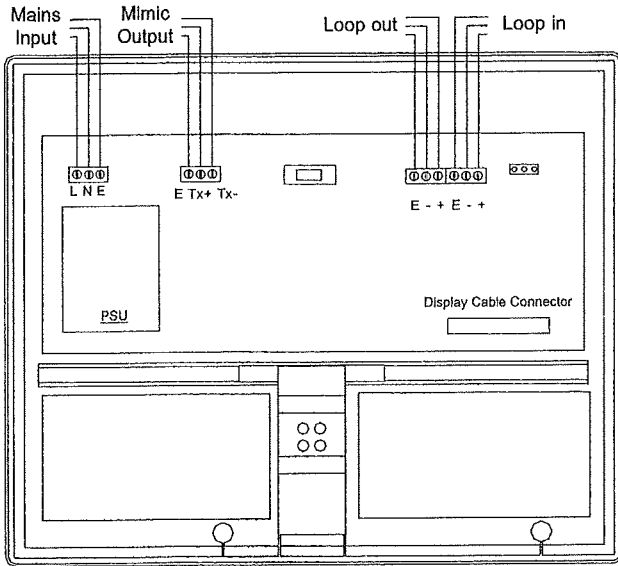
Dimensions



Wiring Diagrams

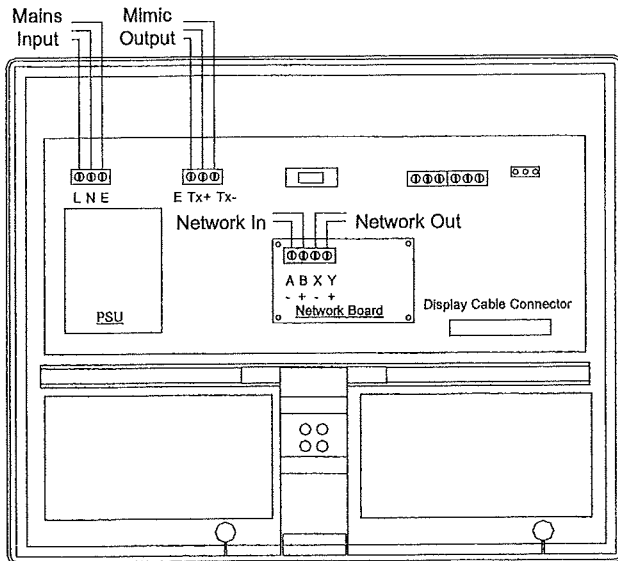
Loop Mounted

Dia. 3



Network Mounted

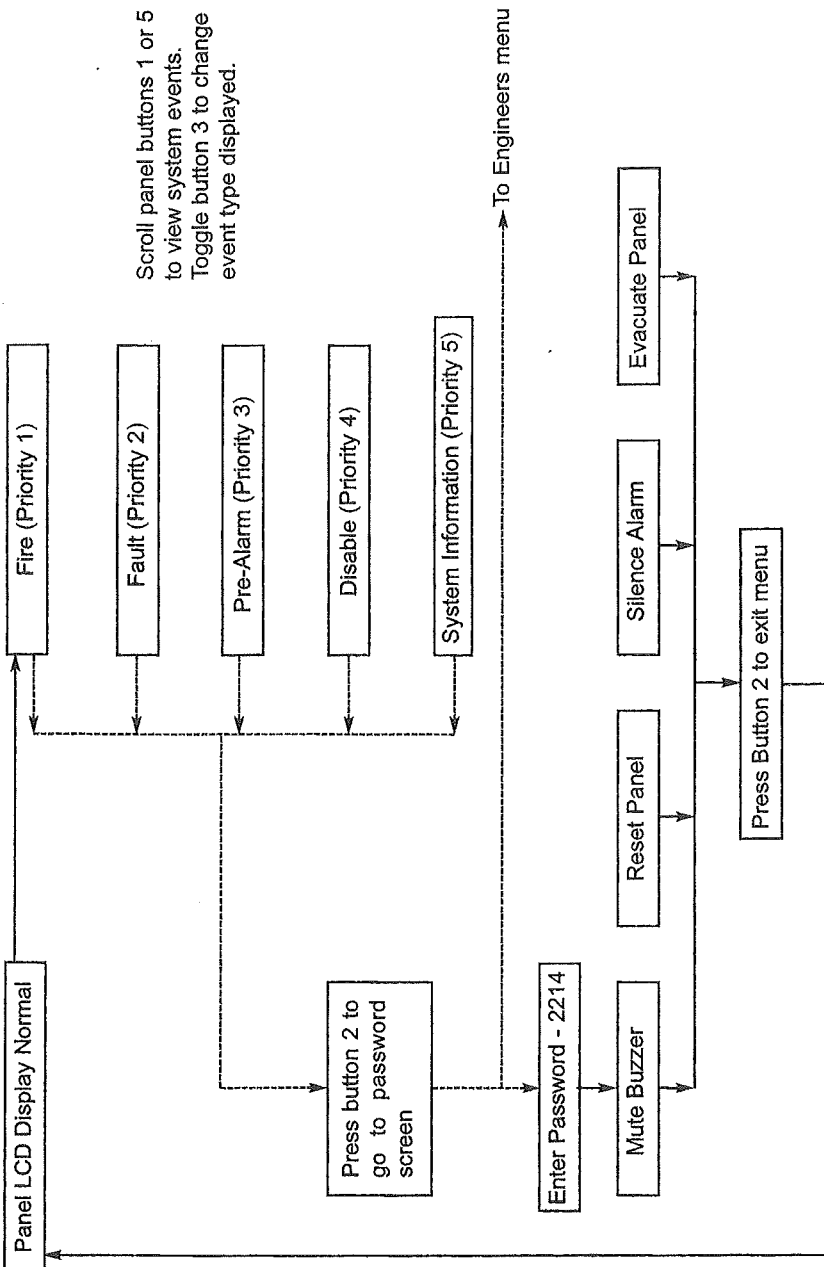
Dia. 4



Section 3

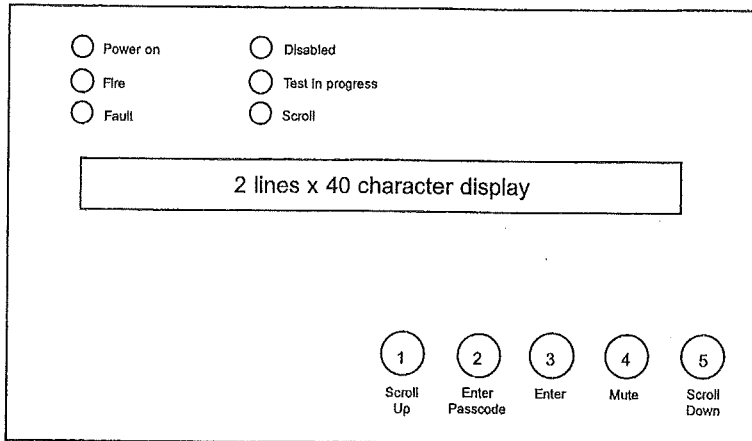
System Operation

Operational Flow Chart



Systems Controls - Loop Panel

CF3000PR and CF3000PR/NC Front Panel Display



The CF3000PR repeater panel provides local panel information and limited control via a comprehensive, menu driven 2x40 character LCD.

It will display local panel:-

- Fire Activations (Priority 1)
- Faults (Priority 2)
- Pre-Alarms (Priority 3)
- Disablements (Priority 4)
- General System Information (Priority 5)

On panel activation the related LED will illuminate and the LCD will indicate:-

- Event Type - FIRE, FAULT, PRE-ALARM, DISABLE, INFO
- Location Text (local panel only)
- Number of current activations
- Address number
- Panel Number
- Zone number
- Loop number
- Device type

Note: Under non event conditions, the repeater panel display remains unlit.
To activate the display backlight, press any control button.

To scroll through displayed events press buttons 1 (up) and 5 (down)

To change event type displayed toggle button 3

Systems Controls - Network Panel

On an event activation the associated LED will illuminate and the LCD will indicate:-

Event Type - FIRE, FAULT, PRE-ALARM, DISABLE, INFO
Panel location
Number of current activations
Address number
Panel Number
Zone number
Loop number
Device type

Press scroll buttons 1 or 5 to view multiple event activation information.

Press button 2 To enable password access to menu

Insert password 2214

Press button 5 To scroll to required menu

1. Mute Buzzer
2. Reset panel
3. Silence panel
4. Evacuate panel (Sound alarms)

At required menu press enter (button 3)

(To exit menu at any time press button 2)

Note. If the panel is set as passive (in engineers menu section) the panel will display local system information only and will provide no system control (2, 3 and 4 above).

The CF3000PR/NC repeater panel operation is as per the CF3000PR but provides full network information via the menu driven LCD and limited network system control:-

Silence Panel - Global silence alarm
Evacuate - Global sound alarm (one out all out)
Reset - Global (all panels)

Specification

CF3000PR & NC	CF3000 system passive repeater panel
Compatibility	CF3000 analogue addressable control panel
Standards	EMC - See below*
Display	2x40 Character LCD (black on green)
System Indicators	Power on, Fire, Fault, Test, Disable, Scroll LED s
Colour	Silver or Black
Operating Voltage	230vac, 50Hz, +10%, -15%
Batteries	1x12vdc, 3.2Ah
Standby period	24 hours + 30min. alarm
Mechanical	PC/ABS, UL94VO rating
Weight	3.6Kg, incl batteries
Dimensions	270(h)x332(w)x90(d)mm
IP Rating	IP30 - for indoor applications
Operating Temp	-5 to +40 degree C
Wiring	See main panel specification (CF3000)
Cable Entry	12x20mm knockouts top of backbox
Download Comms	RS232 port

*When used as intended this product complies with the EMC directive (89/336/EEC) and the UK EMC regulations 1992 (SI2372/1992) by meeting the limits set by the standards BS5406 Pts.2&4 1988, EN50130-4 immunity and EN61000-6-3 emissions requirement

CF3000PR

Up to 20 repeater panels can be connected to a loop (subject to loop loading calculation)

CF3000PR/NC

Up to 60 repeater panels can be connected to the network as part of an maximum 63 panel system.

