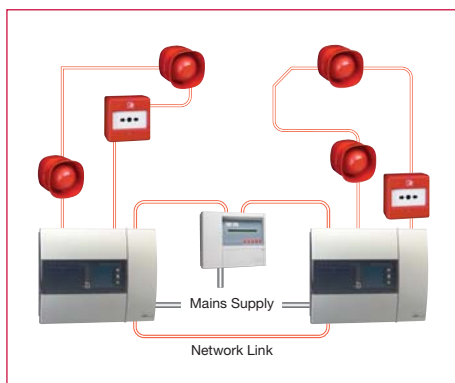


## Addressable Loop Powered LCD Repeater - CF3000PRG / CG3000PRGNC DF6000PR / DF6000PRNC

### Technical Specification

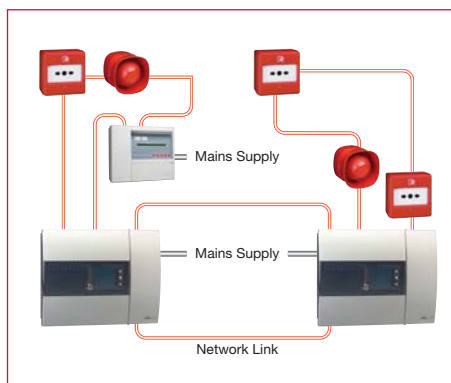
<b>Model</b>	CF3000PGR / CF3000PRGNC DF6000PR / DF6000PRNC
<b>Description</b>	repeater panel: loop / network connected
<b>Standards</b>	EN45: Pt 4 & EMC
<b>Display</b>	2 x 40 character backlit LCD
<b>System indicators</b>	power on, fire, fault, test, disable and scroll
<b>System controls</b>	silence alarms, evacuate and reset
<b>Input ports</b>	RS232 (for connection of programmer)
<b>Mains input voltage</b>	230 V ac +10% / -15%
<b>System operating voltage</b>	24 V dc 24 V dc
<b>Battery</b>	1 x 3.2 Ah
<b>Standby duration</b>	24 hours (dependant on loop loading)
<b>Environmental</b>	
<b>IP rating</b>	IP30
<b>Operating temperature</b>	0°C to 25°C, 75% RH (non condensing)
<b>Physical</b>	
<b>Construction</b>	ABS, rating - UL94V0
<b>Colour options</b>	light grey / graphite
<b>Dimensions (W x H x D)</b>	332mm x 270mm x 92mm
<b>Weight</b>	3.6kg
<b>Compatibility</b>	CF3000, CF2000, CF1100 and CF1200 DF6000, DF6100 and DF61002

### Network Connected



Note: the repeater panel can be programmed to be passive or active

### Loop Connected



### Part Codes

Product Description	Cooper	Menvier	JSB
repeater panel - loop connected	CF3000PGR	DF6000PR	
repeater panel - network connected	CF3000PRGNC	DF6000PRNC	

Ref. Number: DS0015a



loop powered repeater panel

### Description

This range of passive repeater panels are designed to act as a low cost repeater which can be connected to the full range of analogue panels. Compact and easy to operate the passive repeater includes an integral battery and power supply to simplify installation.

The repeater would be used wherever there is a need to relay status information to multiple points to inform key personnel.

When connected to a panel loop, the host panel text information is downloaded manually at time of system commissioning using 'site installer' software. If the repeater is network connected all text is transmitted via the network and is automatically updated should any changes be made to any of the network panels. Both repeater panels are fully compatible with the extensive range of Cooper analogue panels.

### Benifits and Features

- Compact size
- 2 x 40 backlit LCD display
- Can be loop or network connected
- Silence alarm, evacuate and reset commands from repeater

- EN54 approved
- Single two and four loop versions
- Spur tolerant soft addressing
- Large selection of compatible ancillaries
- Full network capability
- Optional integral printer
- Integral battery and power supply
- 150 addresses per loop

The Menvier DF6000 is a high specification analogue fire system available in various loop configurations. It combines sophisticated functionality with simple operation and a very aesthetically pleasing design. The large capacity, ability to support complex cause and effect programming and wide range of user controllable functions make the system suitable for a diverse range of projects from sheltered housing to large office developments and industrial applications. DF6000 uses soft addressing to minimise installation time and remove the potential for error associated with manual addressing

Each of the DF6000 system components has been specifically designed to operate as part of a DF6000 system, this provides an assurance that the panel, the detectors, the interfaces and the ancillaries are all fully compatible with each other and that the full range of system functionality is supported by each device.



# DF6000

## SYSTEM OVERVIEW

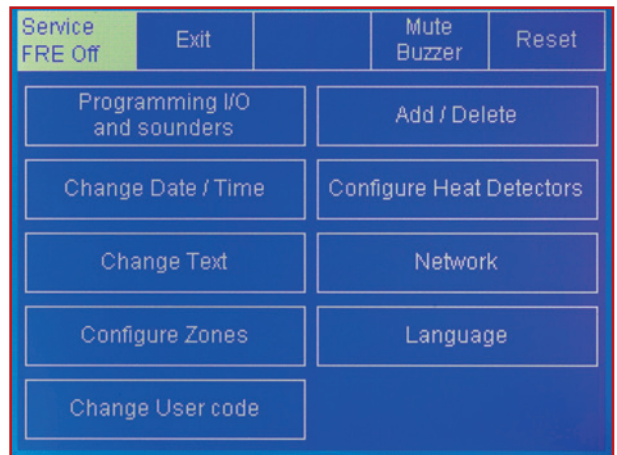
- Panels can operate as stand alone panels or as part of a networked system
- Powerful programming options allow configurable control over whether messages from specific panels are transmitted around the network or remain local
- The range consists of single, two and four loop panels and a wide range of compatible detectors, callpoints, sounders, beacons, repeater panels and interfaces
- Panels are available in a choice of colours (standard light grey and graphite)
- Available with or without a built in printer
- Clear hinged lockable cover is also available to provide additional resilience where required
- All panels have integral power supplies and batteries, both are supplied with the panel as standard
- For heavily loaded systems or systems requiring extended autonomy in the event of a mains failure, versions are available with extended battery capacity
- Each of the DF6000 external devices (callpoints, detectors, sounders interfaces etc) incorporates an integral short circuit isolator to provide maximum protection against short circuits on the external loops

## USER INTERFACE

- The main element of the user interface with DF6000 is a large (120mm x 90mm visible area) touch screen display, which provides comprehensive user information and also acts as a multifunctional keypad. With other more basic systems, the user is limited to a small number of dedicated pushbuttons and consequently system interaction is restricted and complicated
- Comprehensive context sensitive help information is provided throughout the menus to assist unfamiliar users with system operation
- The DF6000 touch screen display automatically reconfigures to suit the selected function, for example, if the change device text menu option is selected, the touch screen is automatically formatted as a full QWERTY keyboard to enable fast and simple text entry (see page 25)



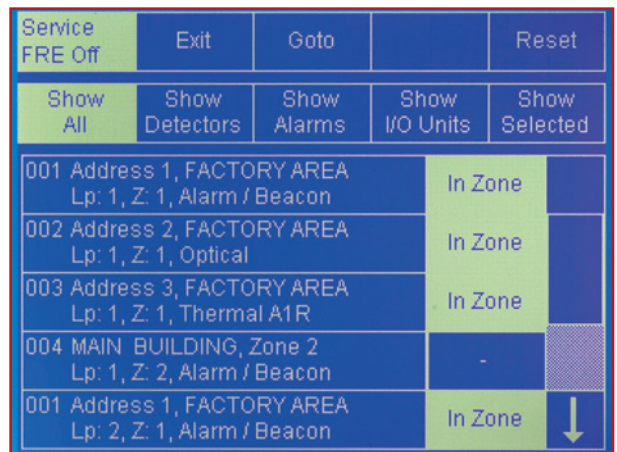
DF6000 in graphite with hinged cover



Simply touch screen to select required function



Standard light grey finish



Large screen provides clear comprehensive system information

### USER INTERFACE (cont'd)

- As well as a large format liquid crystal display providing full system status information, the panel incorporates 96 traditional zone indication LED's to provide clear information about the status and spread of a fire even to a user who is completely unfamiliar with the operation of the system. In addition there are a number of system status LED's designed to provide status information to non technical users
- Access to printer (when fitted) is via separate locked access door. Paper can be changed by non skilled personnel without exposure to any live components
- The printer can either be set to print on demand or to automatically print all system events as they occur
- The hinged front door provides simple access to all internal components and wiring
- The panel door cannot be opened without the use of a special key (supplied with panel)
- For applications requiring a high level of resilience, a clear hinged lockable front cover is available that still allows full system visibility but prevents unauthorized access to the touch screen



Optional integral printer



Blanking plug fitted if printer not required



Simple paper loading

# DF6000

## DETECTION CAPACITY

- Up to 150 addresses per loop which can be a mixture of callpoints, detectors, interfaces, loop sounders or repeaters
- To comply with EN54 requirements no more than 512 addresses should be connected to a single panel
- Panels are available with up to 4 detection loops, up to 63 panels can be networked together giving a total system capacity of over 32,000 devices

## ALARM CAPACITY

- Up to 80 loop powered sounders, beacons or interfaces per loop
- 3 stages of cause and effect programming per output device
- 1.5A of panel connected conventional sounders
- Additional conventional sounders can be connected to MPU424 units

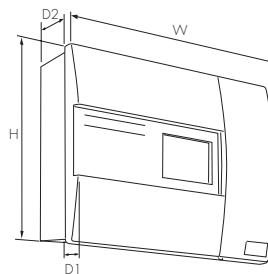
## SYSTEM FUNCTIONALITY

- Panel has 3 modes of operation, normal mode, user maintenance mode and engineer mode
- User, maintenance and engineer modes can only be accessed by entering the relevant pass codes
- Maintenance mode allows access to system test functions, enable and disable menus, view analogue level menus and functions such as evacuate, silence alarms and reset
- Engineer mode allows alteration of system configuration and programming of site specific data such as device text and sounder programming
- Engineer mode also allows adding and removal of devices and alteration of existing text
- DF6000 is designed to ensure simplicity of future expansion. If an additional device is added after the system has been programmed, the DF6000 will allocate the next available address, it will not alter any of the existing address number allocation thus enabling simple updating of 'as fitted' drawings etc. Similarly if a device is removed, the relevant address is saved as a spare address for future use, the addresses of the remaining devices are not affected
- All devices are soft addressed during commissioning however once allocated, addresses are locked until manually altered thus enabling simple system additions and deletions without affecting other addresses
- In event of an external short circuit occurring, short circuit isolators on output of devices nearest to each side of the short circuit open thus isolating the short circuit
- The panel then drives communication from both ends of the loop thus maintaining full communication with all devices

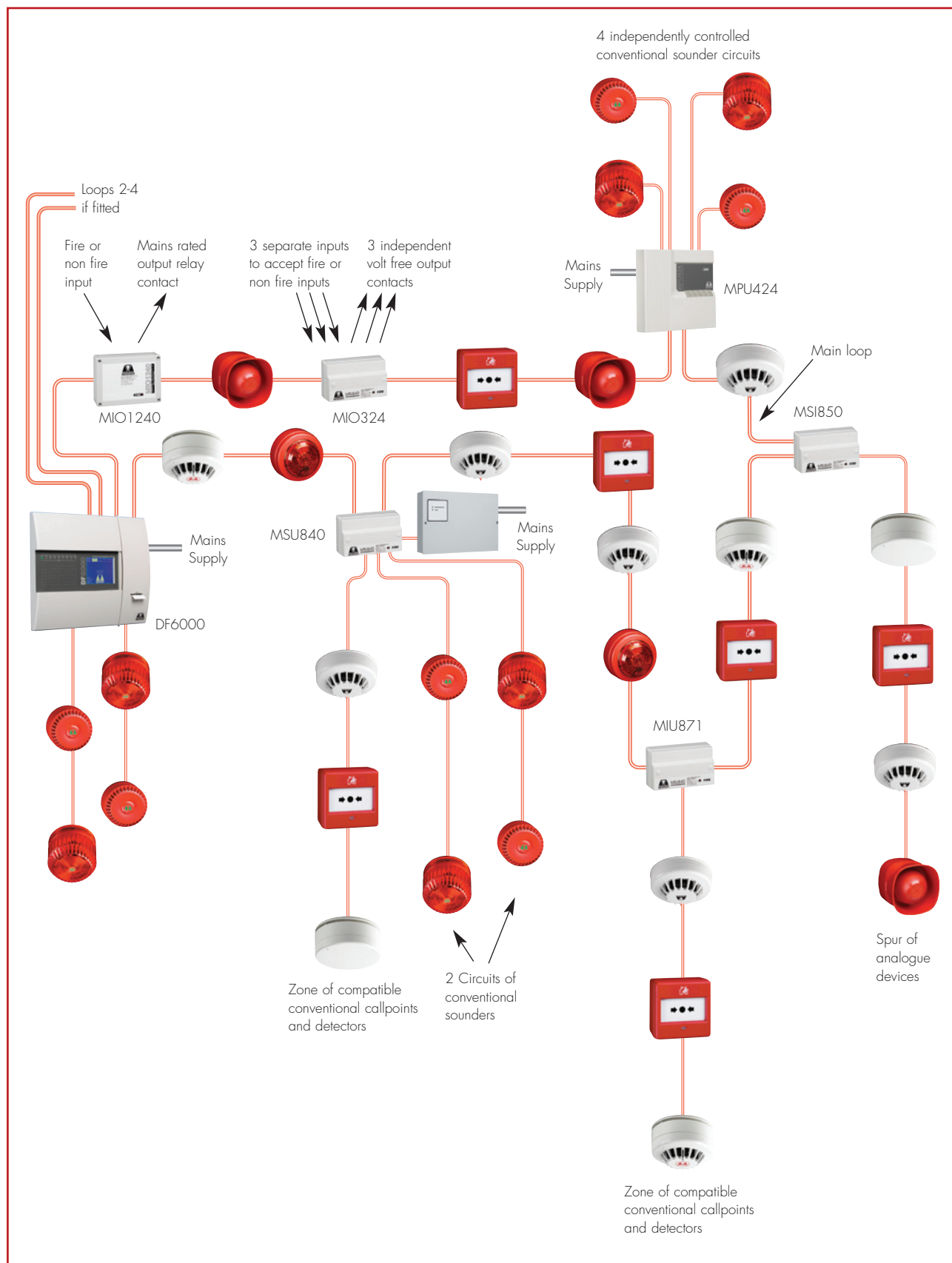
## INTERFACE OPTIONS

- Monitored output to fire routing equipment
- Monitored output to fire protection equipment
- Monitored output to fault monitoring equipment
- Multiple Programmable remote inputs (up to 180 per panel) can be set for:
  - Override of day night mode setting
  - Photo-thermal detectors go to thermal only
  - Rate of rise detectors go to fixed high temperature mode
  - High temperature heat detectors go to rate of rise mode
  - Disablement of pre assigned group of addresses
- Class change
- Non latching zone input
- Evacuate
- Zone monitor units can be used to connect zones of suitable conventional detectors or loop powered beam detectors.
- Sounder circuit controllers can be used to provide additional conventional sounder circuits without wiring back to main panel
- Mains rated input/output unit available
- 3 way 24V rated input/output unit available
- Spur isolator available to allow spurs of analogue addressable devices
- Shop unit interface allows the connection of a conventional detection zone along with a power supply and 2 conventional sounder circuits, ideal for linking small self contained units onto a main addressable panel
- 4 Conventional sounder circuits provided as standard

## DIMENSIONS



	H (mm)	W (mm)	D1 (mm)	D2 (mm)	Cut-out (mm)
Standard	395	495	55	125	472W x 366H
Extended battery	395	495	55	225	472W x 366H

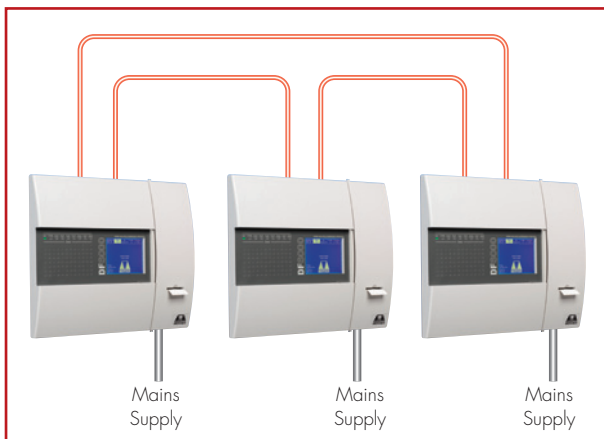


# DF6000

## SYSTEM NETWORKING

DF6000 and DF6100 systems can both be networked together. Up to sixty three DF6000 panels, DF6100 panels and low cost repeaters can be networked together to operate as a single networked system. To achieve this each panel must be fitted with a network card (supplied at additional cost). When operating as a networked system all fire and fault event information can be displayed at every panel. Panels can be configured by service engineers to control whether fire and fault information from each panel is transmitted around the network or not. Silencing and resetting of alarms can also be carried out from any panel on a networked system.

Networked panels are connected using a loop topology as illustrated.



## INSTALLATION NOTES

- Standard panel is suitable for flush or surface mounting, without the need for a separate bezel or trim
- Cable entry can be top or rear and is by means of knockouts in the metal back box. 12 rear entry knockouts and 31 top entry knockouts are provided
- Panels are wall mounted via keyhole slot mounting holes on back of housing
- Front cover retained by screws, accessed after opening the printer bay door
- Flush mounting requires suitable aperture and fixings
- Mains input protection is provided by a polyswitch
- All external wiring should be in accordance with relevant section of latest edition of BS5839:1
- Comprehensive installation and operation manual provided with each system
- Contact technical sales department for details of recommended network cable type
- Maximum length of network cable loop is 1500 metres, beyond this distance or where cables pass between buildings, boosters are required

## OPTIONS

- Choice of one, two or four loop panels
- Optional integral printer
- Light grey or graphite finish
- Optional hinged lockable cover (can be retro-fitted)
- Panels can operate in stand alone mode or can be networked
- Passive repeater available see page 36

## TECHNICAL SPECIFICATION

<b>Standards</b>	EN54-2 1998 & EN54-4 1998 EN50130-4
<b>Number of loops</b>	1 - DF60001 2 - DF60002 4 - DF60004
<b>Maximum number of addresses per loop</b>	150
<b>Number of conventional sounder circuits</b>	4 (programmable in pairs)
<b>Auxiliary fire routing equipment output</b>	(Monitored) 24V 30mA max
<b>Auxiliary fire protection equipment output</b>	(Monitored) 24V 30mA max
<b>Auxiliary fault routing equipment output</b>	(Monitored) 12V 30mA max
<b>Nominal system operating voltage</b>	24V
<b>Mains input supply</b>	230V AC +10% / -15%
<b>Class change facility</b>	Terminals for connection of external contacts, can also be instigated via input interface
<b>Auxiliary relay</b>	1 set of changeover contacts operate in event of fire condition
<b>Output ports</b>	RS485, RS232 for connection of repeaters etc
<b>Standby duration</b>	Dependant on loop loading and battery configuration
<b>Battery</b>	2 x 12A/H - standard versions 4 x 12A/H - /EB versions
<b>Cable entries</b>	31 Top entry cable knockouts (20mm) 12 rear cable knockouts (20mm)
<b>Environmental rating</b>	IP30. -5°C to +40°C. Humidity 75% max (non-condensing)

## SYSTEM ANCILLARIES

**Callpoints**  
Page 78



**Interfaces**  
Page 40



**Beam detector**  
Page 94



**Detectors**  
Page 90



**Conventional sounders**  
Page 75



**Loop powered sounders/beacons**  
Page 97



**Repeater panel**  
Page 36





## CATALOGUE NUMBERS

Cat. No.	Description	Weight (kg)
DF60001	1 Loop DF6000 panel	18
DF60002	2 Loop DF6000 panel	18
DF60004	4 Loop DF6000 panel	18
DF60001P	1 Loop DF6000 panel c/w integral printer	18
DF60002P	2 Loop DF6000 panel c/w integral printer	18
DF60004P	4 Loop DF6000 panel c/w integral printer	18
DF60001G	1 Loop DF6000 panel graphite finish	18
DF60002G	2 Loop DF6000 panel graphite finish	18
DF60004G	4 Loop DF6000 panel graphite finish	18
DF60001PG	1 Loop DF6000 panel c/w integral printer graphite finish	18
DF60002PG	2 Loop DF6000 panel c/w integral printer graphite finish	18
DF60004PG	4 Loop DF6000 panel c/w integral printer graphite finish	18
DF60002EB	2 Loop DF6000 panel extended battery	27
DF60004EB	4 Loop DF6000 panel extended battery	27
DF60002PEB	2 Loop DF6000 panel extended battery & integral printer	27
DF60004PEB	4 Loop DF6000 panel extended battery & integral printer	27
DF60002GEB	2 Loop DF6000 panel graphite finish, extended battery	27
DF60004GEB	4 Loop DF6000 panel graphite finish, extended battery	27
DF60002PGEB	2 Loop DF6000 panel graphite finish extended battery & integral printer	27
DF60004PGEB	4 Loop DF6000 panel graphite finish extended battery & integral printer	27
DF6000COV	Hinged protective cover kit	0.2
DF6000PR	Passive repeater for DF6000	3.6