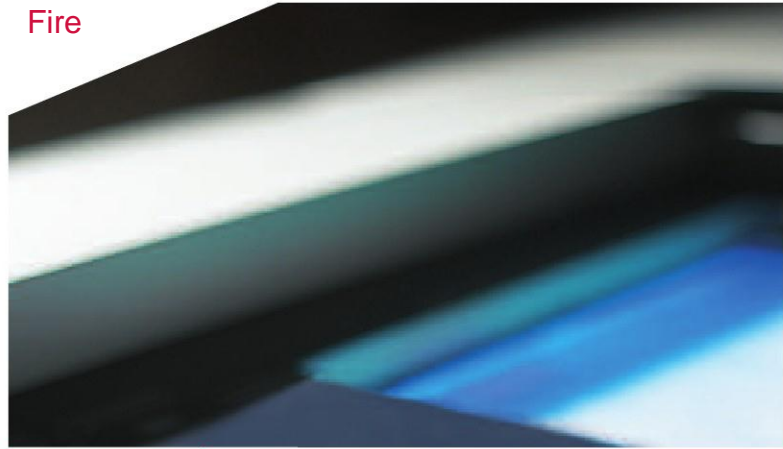


Fire



## Fire product catalogue 2012

**COOPER** Safety

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### Trade Descriptions

All descriptions represent only particulars of the goods to which they apply and do not form part of any contract. The company reserves the right to change specification without prior notification or public announcement.

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1 The Conventional Range  
Fire Detection System Solutions



## Conventional panels

The FX2200CF range of conventional panels provide a simple yet effective installer and end user conventional fire detection system solution. Available as 2, 4 and 8-zone panels, with the 8-zone panel being configured for the provision of a repeater panel output as well as two additional alarm line outputs.



CPD APPROVED

### Features

- > BOSEC 3rd party approved to latest: EN54-2 1997, A1: 2006 EN54-4 1997, A1: 2002 and A2: 2006
- > Choice of 2, 4 and 8-zone panels
- > Single 12V DC battery requirement for 24-hour standby
- > Single keypad access code for end user and engineer use
- > Selectable fire/fault relay
- > Class change facility
- > Supports up to 32 detectors on each zone
- > 'Same style' repeater panel available for 8-zone panel
- > Simple 'one shot' end user test facility
- > Maintenance free poly switch circuit protection
- > Custom configured versions available of 2 and 4 zone panel

### Technical Specifications

Model	FX2202CF	FX2204CF	FX2208CF
Standards	EN54-2 1997, A1: 2006 EN54-4 1997, A1: 2002 & A2: 2006		
Number of zones	2	4	8
Detectors per zone	48		
Number of alarm circuits	24		
Alarm circuit load	150mA per circuit 0.3A total/400mA per circuit 0.8A total/500mA per circuit 2A total		
End of line devices	Detector circuits: EOLM monitoring unit; Alarm lines: 6.3K resistor		
Auxiliary fire signal / fault output	5A 24V DC single pole changeover contacts		
Auxiliary DC output	24V DC fused 30mA		
Repeater port	No/Yes		
Mains input voltage	230V AC ±10% ±15%		
System operating voltage	24V DC		
Standby duration	24 hours		
Battery (sealed lead acid)	1 x 3.2 AH2 x 3.2 AH		
Recharge period	24 hours		
Panel construction	Polycarbonate housing & back box		
Cable entries	Top: 12 x 20mm entries with blanking plugs - Rear cable entry aperture		
Environmental rating	IP30 -5°C to +40°C humidity 75% max (non condensing)		
Surface dimensions WxHxD (mm)	332 x 270 x 30mm		

NOTE: Repeater Panels available on standard 8 zone fire panels and configured on 2 & 4 zone fire panels

### Product Codes

FX2202CF	2-Zone panel	FX2208CF	8-Zone panel
FX2204CF	4-Zone panel	FXRP2200CF	Repeater panel

## Conventional detectors

A comprehensive range of conventional detectors are available for the FX2200CF range of fire detection panels.

### Features

- > LPCB 3rd party approved / CPD approved
- > Low profile design
- > 360° viewable LED design
- > Removable detector chamber for cleaning
- > Common mounting base
- > New enhanced detectors feature Dual LEDs, Drift compensation and Chamber monitoring (CPD321 & CPT341)



CPD APPROVED



### Technical Specifications

Model	CPD321	CPT341	CFR330	CMT360	CHT390
CPD Approval	0832CPD0633	0832CPD0629	0832CPD0233	0832CPD0236	0832CPD0237
Description	Photoelectric Smoke Detector EN54 p17-2000 + A1:2002	Photo Thermal Smoke Detector EN54 p17-2000 + A1:2002 EN54 p15-2000 + A1:2002	Heat Detector (Fast Response)	Heat Detector (Medium Response) EN54 p15-2000 + A1:2002	Heat Detector (High Temperature)
Standards	EN54 p17-2000 + A1:2002 EN54 p15-2000 + A1:2002 (subject to local standard)100m				
Area coverage	50m <sup>2</sup> (subject to local standard)				
System wiring	2 core				
Indication	360° visibility pipe				
Mounting	Surface mount using GDB6300				
Compatibility	FX2200CF range of panels				
Detection mode	Light scatter principle	Light scatter principle	Heat sensitive element	Heat sensitive element	Heat sensitive element
	340 µA/30 µA		5V to 30V DC/30 µA/30 µA		
Operating voltage	NA				
Max standby current	25 mA/25 mA/25 mA				
Max start up current	NA/60 C/77 C				
Max alarm current	NA/25A/18BS				
Alarm temperature					
Heat class					
Environmental Application					92° C
Temperature					CS
Humidity	Indoor use IP40	Indoor use IP40	Indoor use IP40	Indoor use IP40	Indoor use IP40
EMC	-20° C to 60° C	-20° C to 45° C	-20° C to 60° C	-20° C to 60° C	-20° C to 75° C
Construction	0-95% non condensing CE marked	0-95% non condensing CE marked	0-95% non condensing CE marked	0-95% non condensing CE marked	0-95% non condensing CE marked
Material					
Colour					
Dimensions					
Excluding base					
Including base				PC/ABS	
				White	
				100mm(Dia) x 43mm(H)	
				101mm(Dia) x 55mm(H)	
	100mm(Dia) x 45mm(H)				

### Product Codes

CPD321	Photoelectric smoke detector	CPT341	Photo thermal 'dual' detector
CFR330	Heat detector fast response (ATR)	CMT360	Heat detector medium response (BS)
CHT390	Heat detector high temperature (CS)	GDB6300	Common base
CIR301	Remote indicator		

## Ancillary devices

### Callpoints – CX201 and CX203

- > Approved to EN54 -11
- > Convenient clip fixed front cover
- > One key for test and cover removal
- > Available as flush, surface and weatherproof (IP65)



CPD APPROVED

### Technical Specifications

Model	CX201L - Surface	CX203 - Weatherproof
CPD Approval	0832CPD084	0832CPD085
Configuration	Series resistor 680Ω	
Rating	24V DC	
Connection	4-way terminal block	
Operating method	Glass element with safety film	
Test facility	Unique key	
Construction	ABS	
IP Rating	IP67	
Temp	-25°C to +55°C	
Dimensions WxHxD (mm)	IP42	IP67
Weight	86x86x20(S) 53(F) 0.19Kg	110x110x65 0.29Kg

### Product Codes

CX201	Flush/surface callpoint
CX203	Weatherproof callpoint (IP67)
CXPC	Plastic front cover Pk of 10
UBSQ	Spare glasses Pk of 5
CXUK	Call point keys Pk of 10

## Bells

- > Approved to EN54 pt 3
- > High sound output
- > Low current
- > 4, 6 and 8-inch versions available



CFB4D24

CFB6D24

CPD APPROVED

### Technical Specifications

Model	CFB4D24	CFB6D24	CFB8D24
CPD approval	0832CPD0135	0832CPD0134	
Operating voltage	18 to 30V DC		
Sound output	84dB(A) at 12V DC	93-95dB(A) at 24V DC	95-97dB(A) at 24V DC
Current consumption	20mA at 24V DC	25mA at 24V DC	28mA at 24V DC
Operating temperature	-10°C to +55°C		
Construction - Gong	Steel		
Construction - Base	Polycarbonate		
Colour	Red		
IP rating	IP42		
Dimensions (mm)	152 (Dia) x 63 (D)		
Weight	0.85Kg		
	110 (Dia) x 63 (D) 0.46Kg		203 (Dia) x 67 (D) 1.7Kg

### Product Codes

CFB4D24	4" Bell
CFB6D24	6" Bell
CFB8D24	8" Bell

## Ancillary devices

### Electronic sounders

A comprehensive range of electronic sounders, beacons and sounder/beacons are available in the Cooper range.

### Roshni ROLP

- > Approved to EN54 pt 3
- > Low current
- > High sound output
- > 32 selectable tones
- > IP65 version available
- > Lockable base



ROLP-R-S

ROLP-R-D

CPD APPROVED

### Technical Specifications

Model	ROLP-R-S	ROLP-R-D
CPD Approval	0832CPD0131	
Operating voltage	9 to 28V DC	
Sound output (tone-3)	102dB(A) at 24V DC	
Tones available	32	
Temperature	-25°C to +70°C	
Construction	ABS	
Colour	Red	
IP rating	IP65	
Dimensions (mm)	93 (Dia) x 63 (D)	
Weight	IP54 0.24 Kg	IP65 0.3 Kg

### Product Codes

ROLP-R-S	Roshni sounder, shallow base
ROLP-R-D	Roshni sounder, deep base, IP65

## Symphoni

- > Approved to EN54 pt 3
- > Ultra low current
- > High sound output
- > 3 Tones
- > Volume control
- > IP65 version available
- > Lockable base



SY-R

SY-R-IP

CPD APPROVED

### Technical Specifications

Model	SY-R	SY-R-IP
CPD Approval	0832CPD0141	
Operating voltage	12 to 30V DC	
Sound output	100dB(A) at 24V DC	
Current consumption	5mA at 24V DC	
Operating temperature	-25°C to +70°C	
Colour	Red	
IP rating	IP66	
Dimensions WxHxD (mm)	110x110x25	
Weight	IP42 0.68 Kg	IP66 0.68 Kg

### Product Codes

SY-R	Symphoni sounder
SY-R-IP	Symphoni sounder, IP66

## Ancillary devices

### Askari

- > Low current
- > High sound output
- > 32 tones
- > Volume control
- > Available in red (R) or white (W)



AC-W

### Squashni

- > Low current
- > High sound output
- > 32 Tones
- > Volume control
- > Available in red (R) or white (W)



SQ-W

### Technical Specifications

Model	AC-W (R)	SQ-W (R)
Operating voltage	9 to 28V DC	10 to 28V DC
Sound output	97dB(A) at 24V DC	93dB(A) at 24V DC
Current consumption	18mA at 24V DC	18mA at 24V DC
Tones	32	32
Temperature	-25°C to +70°C	-25°C to +70°C
Construction	ABS	ABS
Colour	Red or white	Red or white
IP rating	IP54 (with backbox)	IP42
Dimensions (mm)	86 (W) x 86 (H) x 42 (D)	112 (Dia) x 30 (D)
Weight	0.11Kg	0.15Kg

### Product Codes

AC-W	Askari flush sounder - white
AC-R	Askari flush sounder - red
SQ-W	Squashni base sounder - white
SQ-R	Squashni base sounder - red

### CS200

- > Low current
- > High sound output
- > 32 tones
- > Clip fit base
- > Available in red (R) or white (W)
- > Lockable base



CS200W

### Technical Specifications

Model	CS200W (R)
Operating voltage	10 to 28V DC
Current consumption	16mA at 24V DC
Sound output	100dB(A) at 24V DC
Tones	32
Volume control	20dB range
Operating temperature	-10°C to +55°C
Construction	ABS
Colour	Red or white
IP rating	IP21C
Dimensions (mm)	112 (Dia) x 30 (D) mm
Weight	0.24Kg

### Product Codes

CS200W	Electronic sounder - white
CS200R	Electronic sounder - red

## Ancillary devices

### Sounder/Beacons

#### Flashni

- > High output sounder beacon
- > Volume control
- > Lockable base



FL-RL-R-D

### Technical Specifications

Model	FL-RL-R-S	FL-RL-R-D
Operating voltage	18 to 30V DC	
Sound output	101dB(A) at 24V DC	
Current consumption	68mA at 24V DC	
Operating temperature	-10°C to +55°C	
Construction	Lens - Polycarbonate, Base - ABS	
Colour	Red	
IP rating	IP42	
Dimensions (mm)	93 (Dia) x 92 (D) mm	
Weight	0.29Kg	IP66 93 (Dia) x 121 (D) mm 0.33Kg

### Product Codes

FL-RL-R-S	Flashni sounder beacon, shallow base
FL-RL-R-D	Flashni sounder beacon, deep base

### Base AV unit

- > Low profile design
- > High output LED beacon
- > Volume control
- > Can be standalone unit or with detector & base
- > Tamper-proof cover for standalone use



SOG3-AV-W

### Technical Specifications

Model	SOG3-AV-W
Operating voltage	18 to 28V DC
Current consumption	10mA at 24V DC
Operating temperature	-10°C to +55°C
Light output	>1Cd
Flash rate	1Hz
Tones	5
Construction	ABS FR
Colour	White
IP rating	IP40
Dimensions (mm)	114 (Dia) x 35
Weight	0.11Kg

### Product Codes

SOG3-AV-W-CAP	Base sounder beacon unit
SOG3-COV	Base sounder beacon cover Pk of 5

## Bi wire panels

The Cooper range of Bi wire panels are designed in such a way that there is no requirement for alarm lines to be installed: detectors, sounders, beacons and relays all share the same zone wiring pair giving significant savings in both cable and installation costs.

The 4 and 8-zone panels provide enhanced features accessed via dip switch settings; these include non latching zones, alarm line output delay, double knock and pulsed alarm output facilities.

### Features

- > Choice of 2, 4 and 8-zone panels
- > Detectors and sounders share same wiring
- > Single 12V DC battery requirement for 24-hour standby
- > Single keypad access code for end user and engineer use
- > Selectable fire/fault relay
- > Class change facility
- > Supports up to 20 detectors and 20 sounders, beacons or relays on each zone
- > 'Enhanced' features available on 4 and 8-zone panels
- > Maintenance-free poly switch circuit protection



Cooper Patented Technology  
Patent Number GB2293257

### Technical Specifications

Model	FX2202BWCF	FX2204BWCF	FX2208BWCF
Standards	EN54-2: 1998 & EN54-4:1998 EN50130-4: 1996 EN500081-1: 1992 & EN61000-2-2: 1994		
Number of zones	2/4/8	2/4/8	2/4/8
Detectors per zone / sounders	20-20		
Alarm circuit load	150mA per zone		
End of line devices	Active end of line monitoring unit		
Auxiliary fire signal / fault output	1A 24V DC single pole changeover contacts		
Main input voltage	230V AC -10%+16%		
System operating voltage	24V DC		
Standby duration	24 hours		
Battery (sealed lead acid)	1 x 3.2 AH 12V2 x 3.2 AH 12V		
Recharge period	24 hours		
Panel construction	Polycarbonate housing & back box		
Cable entries	1 op: 12 x 20mm entries with blanking plugs. Rear cable entry aperture		
	IP30, -5°C to +40°C Humidity 75% max (non condensing) 332 x 270 x 92		
Environmental rating			
Surface dimensions WxHxD (mm)			

### Repeater panel

- > Repeater matches the style and appearance of main control panels
- > Facility for signalling to repeater panel provided as standard on 8 zone panel
- > Specially configured versions of 2 and 4 zone panels available for use with a repeater panel
- > Displays essential information at other key locations in a large building/site
  - Zone fire and fault conditions
  - Test mode in operation
  - Zones or alarm lines in disabled mode
- > Repeater panel requires only a single pair of wires to receive signals from main control panel, plus local mains power supply, reducing cost of installation

### Product Codes

FX2202BWCF	2-Zone panel
FX2204BWCF	4-Zone panel
FX2208BWCF	8-Zone panel
FXRP2200BW	Repeater panel

## Bi wire detectors

A comprehensive range of conventional detectors are available for Bi wire range of fire detection panels.

### Features

- > Chamber monitoring and Drift Compensation
- > Dual LED with 360° viewable design
- > Low profile design
- > 360° viewable LED design
- > Removable detector chamber for cleaning
- > Common mounting base



### Technical Specifications

Model	CXN623	CXN632	CXN625	CXN624	CXN626
Description	Photoelectric Smoke Detector EN54 p07:2000 + A1:2002	Photo Thermal Smoke Detector EN54 p07:2000 + A1:2002 EN54 p05:2000 + A1:2002 (subject to local standard)100m	Heat Detector (Fast Response)	Heat Detector (Medium Response) EN54 p05:2000 + A1:2002	Heat Detector (High Temperature)
Standards					
Area coverage	50m; (subject to local standard)				
System wiring	2 core				
Indication	360° Visibility pipe				
Mounting	Surface mount using GDBB300				
Compatibility	FX2200BWCF range of panels.				
Detection mode	Light scatter principle Light scatter principle & Heat sensitive element				
	340 µA340 µA		5V to 30V DC30 µA90 µA90 µA		
Operating voltage	NA				
Max stand-by current	25 mA25 mA25mA				
Max start-up current	NA60 C77 C				
Max alarm current	NAA2SA1RBS				
Alarm temperature					
Heat class					
Environmental Application:					
Temperature					
Humidity	Indoor use IP40				
EMC	-20°C to 60°C				
Construction	-20°C to 60°C		-20°C to 45°C		-20°C to 60°C
Material	0 - 95% non condensing CE marked				
Colour					
Dimensions					
Including Base (mm)	PC/ABS White				
	104 (Dia) x 47 (H)		101 (Dia) x 56 (H)		

### Product Codes

CXN623	Photoelectric smoke detector	CXN622	Photo thermal 'dual' detector
CXN625	Heat detector fast response	CXN624	Heat detector medium response
CXN626	Heat detector high temperature	CDBB300	Common base
CIR301	Remote indicator		

## Bi wire ancillary devices

### Callpoints – CX201 and CX203

- > Design approved to EN54 -11
- > Convenient clip fixed front cover
- > One key for test and cover removal
- > Available as flush, surface and weatherproof (IP65)



CFD APPROVED

### Technical Specifications

Model	CX201L - Surface	CX203 - Weatherproof
CPD Approval	0832CPD084	0832CPD085
Configuration	Series resistor 680Ω	
Rating	24V DC	
Connection	4-way terminal block	
Operating method	Glass element with safety film	
Test facility	Unique key	
Construction	ABS	
IP Rating	IP42	IP67
Temp	-25°C to +55°C	
Dimensions WxHxD (mm)	86x86x20(S) 53(F)	110x110x65
Weight	0.19Kg	0.29Kg

### Product Codes

CX201	Flush/surface callpoint
CX203	Weatherproof callpoint (IP67)
CXPC	Plastic front cover Pk of 10
UBSG	Spare glasses Pk of 5
CXUK	Call point keys Pk of 10

## Electronic sounder

- > Ultra low current
- > High sound output
- > Volume control
- > Lockable base



CX009

### Technical Specifications

Model	CX009
Operating voltage	25 to 32V DC
Sound output	100dB(A) at 24V DC
Current consumption	5mA at 24V DC
Operating temperature	-25°C to +70°C
Colour	Red
IP rating	IP42
Dimensions WxHxD (mm)	105x105x05
Weight	0.28 Kg

### Product Codes

CX009	Electronic sounder
-------	--------------------

## Bi wire ancillary devices

### Detector base sounder

- > Integral detector base
- > Low current
- > Can be used as standalone sounder



CXN520BWS

### LED Beacon

- > High output LED beacon
- > Low current



CXN004BW

### Technical Specifications

Model	CXN520BWS	CXN004BW
Operating voltage	25 to 32V DC	18 to 30V DC
Sound output	90dB(A) at 1 metre	-
Current consumption	8mA at 24V DC	6mA at 24V DC
Operating temperature	-10°C to +55°C	-10°C to +55°C
Construction	ABS	Lens - Polycarbonate, Base - ABS
Colour	White	Red
IP rating	IP40	IP42
Dimensions (mm)	102 (Dia) x 40 (D)	95 (Dia) x 53 (D)
Weight	0.2Kg	0.1Kg

### Product Codes

CXN520BWS	Base sounder
CXN004BW	LED beacon

## Relay modules

- > Connects on zone wiring
- > Relay operates on any fire activation
- > Zone powered (no external power required)



CXN01124V

CXN011230

### Technical Specifications

Model	CXN01124V	CXN011230
Sets of contacts	1 set of change over contacts	
Contact rating	1A (24V DC)	3A (230V DC)
Colour	White	
IP rating	IP40	
Dimensions WxHxD (mm)	150x69x58	
Weight	0.2Kg	

### Product Codes

CXN01124V	Relay module 24V DC switching
CXN011230	Relay module 230V AC switching



Fire



# 2

## The Analogue Range Fire Detection System Solutions

- Products:**
- CF3000 Range Analogue Panels
  - CF2000 Range Analogue Panels
  - CF1000 Range Analogue Panels
  - CF3000PRG Range Analogue Repeater Panel
  - System Configuration
  - Detection Analogue Sensors
  - Ancillaries
  - Callpoints
  - Sounders
  - Audio Visual Units
  - Beacons
  - Interfaces
  - PCBs



## Analogue panels

The Cooper CF3000 range of panels offers a high-specification, analogue fire detection panel solution which is available in a 1, 2 or 4-loop configuration.

It combines sophisticated functionality, yet simple panel operation with a very aesthetically-pleasing design.

The large capacity, ability to support complex cause and effect programming and wide range of user-controllable functions makes this panel suitable for a wide range of projects from sheltered housing to large office developments as well as many industrial applications.

The CF3000 range of panels provide a large (120mm x 90mm) touch screen display as the main user element, eliminating the need for dedicated system push buttons. The user interface is menu-driven, automatically reconfiguring to suit the chosen menu option. To enable text updates directly at the panel, the display converts to a full QWERTY keyboard, enabling comprehensive text insertion.

The panel also has 96 zone fire LEDs providing additional information about the extent of any fire activation as well as a comprehensive set of system status LEDs providing additional visual information for the end user.

The panels use 'spur tolerant' soft addressing to minimise installation time and remove the potential for error normally associated with manual addressing.

All of the CF3000 fire detection system components have been specifically designed to operate as part of an integrated system; this provides an assurance that the panel, sensors, interfaces and other ancillaries are all fully compatible with each other and that the full range of system functionality is supported by each device.



CPD APPROVED  
0832-CPD-1061

## Features

- > LPCB 3rd party approved to latest:
  - EN54-2 1997, A1: 2006
  - EN54-4 1997, A1: 2002 and A2: 2006
- > Vds, BOSEC, CNBOP
- > Choice of 1, 2 and 4-loop panel options
- > Large multi functional touch screen
- > Spur tolerant soft addressing
- > Short circuit isolators incorporated into each loop device
- > Up to 200 addresses per loop
- > Fully monitored network capable up to 126 panels
- > Network compatible with CF1000 range and CF2000 range of panels
- > Optional integral printer

## Product Codes

CF30001G	1-Loop panel
CF30002G	2-Loop panel
CF30004G	4-Loop panel
CF30001GP	1-Loop panel c/w integral printer
CF30002GP	2-Loop panel c/w integral printer
CF30004GP	4-Loop panel c/w integral printer
CF30001GNC	1-Loop panel c/w network card
CF30002GNC	2-Loop panel c/w network card
CF30004GNC	4-Loop panel c/w network card
CF30001GPNC	1-Loop panel c/w integrat printer and network card
	2-Loop panel c/w integral printer and network card
	4-Loop panel c/w integral printer and network card
CF30002GPNC	
CF30004GPNC	

NOTE:  
Extended battery versions (EB)

## Rack Mount: R6000

Cooper 19" rack mounted fully modular control panel which consists of a number of different plug in modules, each of which is dedicated to a particular function within the complete Cooper Control Panel.

These modules facilitate the requirements of fire detection, alarm signalling, PA/VA, plant control etc.

Cooper 19" rack mounted control panel has the capability to be networked to other panels, repeaters, mimic panels as well as an alarm manager graphic system, hence provides the perfect solution for all medium to large systems.

This flexible system allows for modules to be added or removed without major modification even after manufacture and commissioning has taken place.

## Features

- > Capacity up to 504 loops (up to 64,512 addressable points). This consists of 126 19" rack R6000 fire alarm modules.
- > Large versatile touch screen display
- > Support complex cause and effect programming
- > Large selection of compatible ancillaries
- > Multi language selection capability
- > Integral battery and power supply



## Product Codes

R6000L2	2 loop rack mount fire panel
R6000L4	4 loop rack mount fire panel
R6000L2NC	2 loop rack mount networkable
R6000L4NC	4 loop rack mount networkable
39UECRACK	19" rack, 39 units high
1UPLATE	1 unit blanking plate
2UPLATE	2 unit blanking plate
3UPLATE	3 unit blanking plate
6UPLATE	6 unit blanking plate
ECRACKPACK43	Pack of 4 fixings (1 required per blanking plate)

## Analogue panels

The Cooper CF2000 panel is an entry level two-loop analogue fire detection panel which can be configured for 1 or 2-loop operation.

The panel has a 126mm x 64mm graphic display which provides a simple yet comprehensive, menu-driven, end user interface.

With the panel's ability to support complex cause and effect programming and a wide range of user controllable functions it makes the panel suitable for a varied range of projects from small warehouses to small/medium office developments as well as many small industrial applications.

As with all Cooper analogue addressable panels, the CF2000 uses 'spur tolerant' soft addressing to minimise installation time and remove the potential for errors often associated with many forms of manual addressing.

All of the CF2000 fire detection system components have been specifically designed to operate as part of an integrated system; this provides an assurance that the panel, sensors, interfaces and other ancillaries are all fully compatible with each other and that the full range of system functionality is supported by each device.

### Features

- > LPCB and BOSEC 3rd party approved to latest: EN54-2 1997, A1: 2006  
EN54-4 1997, A1: 2002 and A2: 2006
- > Choice of 1 or 2-loop panel operation
- > Menu-driven graphic screen
- > Spur tolerant soft addressing
- > Short circuit isolators incorporated into each loop device
- > Up to 200 addresses per loop
- > Network compatible with CF1000 and CF3000 fully monitored up to 126 panels



CPD APPROVED  
0652-CPD-1088

### Product Codes

CF2000G	2-Loop panel
CF2000GNC	2-Loop panel c/w network card

## Analogue panels

The Cooper CF1000 range of analogue fire detection panels are available as 1 and 2-loop configured panels. They provide sophisticated 'touch screen' functionality yet achieve a simple end user interface operation within a compact panel design.

The CF1000 range of panels provide a large (120mm x 90mm) touch screen display as the main user element, eliminating the need for dedicated system push buttons. The user interface is menu-driven, automatically reconfiguring to suit the chosen menu option. To enable text updates directly at the panel, the display converts to a full QWERTY keyboard, enabling comprehensive text insertion.

The panel also has 16 zone fire LEDs providing additional information about the extent of any fire activation as well as a comprehensive set of system status LEDs providing additional visual information for the end user.

The CF1000 range supports a complex cause and effect programming ability which, together with a wide range of user controllable functions, makes the panel suitable for a wide range of projects.

As with all Cooper analogue panels the CF1000 range uses 'spur tolerant' soft addressing thereby minimising installation time and removing the potential for errors often associated with other forms of system addressing.

As with the entire range of Cooper analogue panels, the CF1000 range of panel system components have been specifically designed to operate as part of an integrated system; this provides an assurance that the panel, sensors, interfaces and other ancillaries are all fully compatible with each other and that the full range of system functionality is supported by each device.

### Features

- > Large versatile touch screen display
- > 1 and 2-loop panel versions
- > Spur tolerant soft addressing
- > Short circuit isolators incorporated into every loop device
- > Up to 200 addresses per loop
- > Network capable with CF3000 and CF2000 range fully monitored up to 126 panels
- > Integral power supply
- > Large selection of compatible ancillaries
- > Compliant to EN54 parts 2 & 4

### Product Codes

CF1100	1-Loop panel
CF1100NC	1-Loop panel c/w network card
CF1200	2-Loop panel
CF1200NC	2-Loop panel c/w network card



## Analogue panels

The CTPR3000 fire detection repeater panel provides sophisticated 'touch-screen' functionality yet achieves a simple end-user interface operation within a compact panel design.

The CTPR3000 is designed to work with Cooper analogue addressable fire alarm control panels as a network repeater. It is fully compliant with the statutory requirement of EN60950 (LVD) and EN50130 (EMC) and includes an integral monitor PSU. Compliant with the latest requirements of EN54 pt4 together with a wide range of user controllable functions; make the panel suitable for a wide range of projects.

The Cooper repeater panel is easy to install and commission. All text is transmitted via the network and is automatically updated.

### Features

- > Plug and play. All information is downloading through the network.
- > Touch-screen display
- > Integrated network capability allows networking with the latest Cooper range of analogue addressable fire alarm control panels
- > Multi language capability
- > 2 programmable auxiliary relays
- > 24 volts 500ma output
- > Programmable input
- > External printer outputs
- > Up to 1000 event log
- > Optional local and external PSU
- > PSU approved to EN54 pt4
- > Utilises 2 core cables and up to 125 repeaters can be connected to the network
- > Programmable as an active or passive repeater



## Analogue repeater panel

The Cooper analogue system repeater panel is available as a loop-connected panel (CF3000PRG) or as a network-connected panel (CF3000PRGNC).

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.

### Features

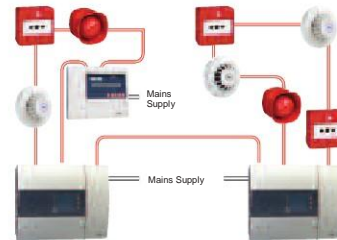
- > 2x40 backlit LCD display
- > Loop or network connected
- > Silence alarm, evacuate and reset commands from repeater

### Product Codes

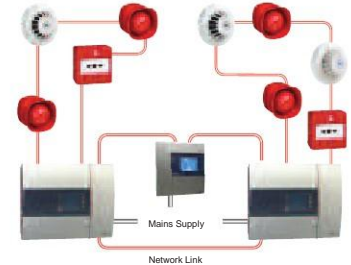
CF3000PRG	Loop-connected repeater panel
CF3000PRGNC	Network-connected repeater panel



### Loop connected



### Network System Configuration



### Product Codes

CTPR3000	Touch-screen repeater panel
----------	-----------------------------

## System configuration

The Cooper analogue control panel system architecture has been designed in such a way that future system expansion, within a single-panel solution or as part of a multi-panel network, can be achieved with a minimum amount of system downtime.

### Soft Addressing

The system 'auto learn' facility, once activated on initial panel start up, will scan each loop and allocate an address number to each loop device thus providing a simple yet efficient setup procedure which alleviates the need for time consuming manual device addressing and minimises potential problems due to dual addressing. Each loop device has integral short circuit isolators ensuring maximum loop integrity should a short-circuit fault occur on the loop wiring.

### Detection Capacity

Up to 200 addresses per loop can be installed, which can be a mixture of callpoints, sensors, beam detectors, interfaces, loop sounders or repeater panels. It should be noted that, to comply with EN54 requirements no more than 512 addresses should be connected to a single panel.

### Alarm Capacity

Up to 60 loop-powered sounders, beacons, sounder beacons or interfaces can be connected per loop. With a full range of conventional sounders and beacons, up to a total load of 1.5A can be connected via the control panels four alarm line outputs. Alternatively additional conventional sounders can be connected via a CSC354 loop mounted 4-way sounder controller unit remotely from the panel.

### Interfaces

An extensive range of interfaces are available for the Cooper range of analogue panels providing solutions for most design requirements.

- > Spur isolator available to allow loop spurs of analogue addressable devices
- > 3-way 24V rated input / output unit suitable for switching low voltage control equipment
- > Zone monitor unit, to connect zones of suitable conventional detectors or loop-powered beam detectors
- > Mains rated Input / output unit for switching mains operated equipment
- > Sounder circuit controller provides four additional, programmable, conventional sounder circuits remote from the main control panel
- > Shop unit isolator allows the connection of a conventional detection zone along with two conventional sounder circuits, ideal for linking small self-contained units onto a main addressable panel. The interface requires a 24V DC power supply.

### System Networking

The full range of Cooper analogue panels can be networked together. When fitted with a network card, up to 126 panels and repeaters can be networked to form a single co-ordinated system.

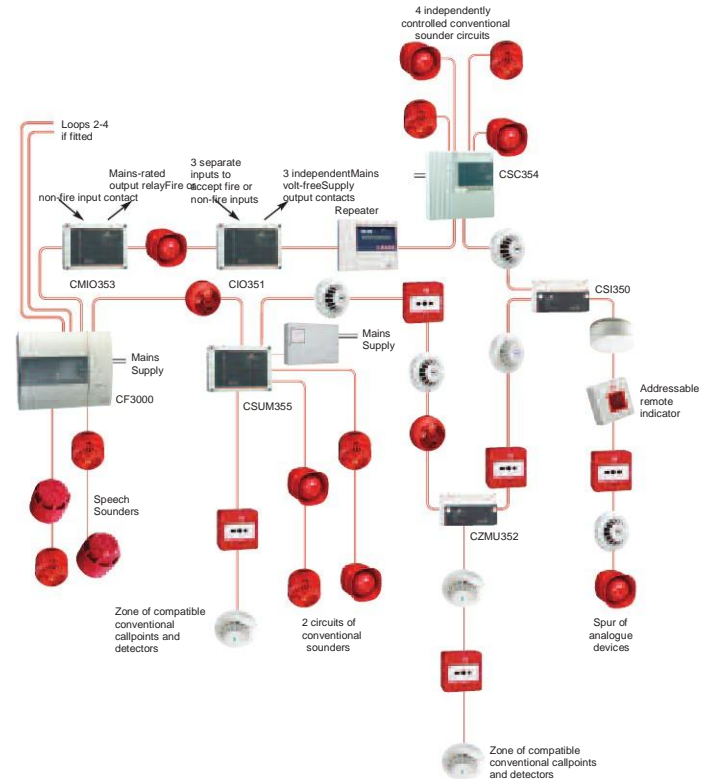
With larger networked systems, where long distances are found, it is possible to connect networks using LON boosters, fibre optic interfaces or IP routers.

When operating as a network system fire, fault and pre-alarm information is transmitted across the network, as well as text information, with evacuate, silence alarm and reset control functions also permitted across the network. Network configuration of the system, to permit or inhibit each signal or facility, is achieved using the engineering menu on each panel.

### Site Monitor/Graphics

Cooper Site Graphic is a versatile alarm management system providing a comprehensive site monitoring and control package of the installed fire detection system that interfaces to the network of the Cooper range of analogue panels using a network manager driver program. The site graphics dedicated PC is connected to the network via an EC0232 interface.

## Typical application schematic





## Addressable callpoints

The Cooper range of addressable callpoints are available as surface and weatherproof versions and approved to EN54-13. All callpoints have integral short circuit isolators and have a status LED fitted as standard. To simplify replacement of glass element callpoints are fitted with fast fit clip on front covers.



CBG370-S  
Surface

CBG370-WP  
Weatherproof

CPD APPROVED

### Technical Specifications

Model	CBG370L-S	CBG370-WP
CPD Approval	0832CPD0575	0832CPD0746
Type	Surface	Weatherproof
Configuration	Addressable	
Rating	24V DC	
Connections	4-way terminal block	
Operating method	Glass element with plastic safety film or resettable plastic element with integral alarm indicator Unique key	
Test/reset facility	ABS Red to EN54-11	
Construction	IP42/IP67	
Colour	-10°C to +55°C	
IP rating	87x87x53110x110x65	
Temp. range	0.2Kg/0.3Kg	
Dimensions HxWxD (mm)		
Weight		

### Product Codes

CBG370	Callpoint-flush
CBG370-S	Callpoint-surface
CBG370-WP	Callpoint-weather-resistant
CXPC	Polycarbonate cover. (pk of 10)
UBSG	Spare glass (pk of 5)
CXUK	Spare callpoint key (pk of 10)

## Addressable sounders

### Base sounder

The CAS380 is a loop-powered integrated sounder and sensor mounting base. It can be used with any analogue sensor or as a standalone sounder with the optional CASC cover plate. Approved to EN54-3.



CAS380

### Wall sounder

The CAS381 range of loop-powered addressable wall sounders offers a highly efficient, low current sounder option. Sounder volume and tone are set at the analogue panel avoiding the need to access each sounder individually to alter settings.



CAS381  
Wall sounder

CAS381-WP  
Wall sounder IP65

CPD APPROVED

### Technical Specifications

Model Number	CAS380	CAS381	CAS381WP
CPD Approval	0832CPD0155	0832CPD0156	0832CPD0156
Model	Base sounder	Wall sounder	Wall sounder - weatherproof
Operating voltage	17 to 32V-DC		
Tones (set by panels)	Continuous 910Hz Pulsed 910 / 0Hz @ 1Hz Two tone 610 / 910Hz @ 1Hz cycle Slow whoop Low volume: 84 dB	Continuous 910Hz Pulsed 910 / 0Hz @ 1Hz Two tone 644 / 984Hz @ 1Hz cycle Slow whoop 500-1200Hz in 3.5 sec / 0.5 sec gap Low volume: 87 dB	Continuous 910Hz Pulsed 910 / 0Hz @ 1Hz Two tone 644 / 984Hz @ 1Hz cycle Slow whoop 500-1200Hz in 3.5 sec / 0.5 sec gap High volume: 100 dB
Sound output (set by panel) +/- 3 dB	Medium volume: 92 dB High volume: 95 dB	Medium volume: 93 dB High volume: 100 dB	Low volume: <2mA Medium volume: <3mA High volume: <6mA <30µA -10°C to +55°C (95% RH)
Current consumption	ABS RedRed		
Standby current	IP42/IP66		
Operating temperature	105x105x55108x108x103		
Construction	0.25Kg/0.57Kg		
Colour	White		
IP rating	IP40		
Dimensions HxWxD (mm)	102 (Dia) x 40 (D)		
Weight	0.2Kg		

### Product Codes

CAS380	Base sounder
CAS381	Addressable wall sounder
CAS381-WP	Addressable wall sounder - weatherproof
	Pk of 5 base sounder covers
CASC	

## Audio visual units

### Integrated sounder beacons

The CASB range of loop-powered addressable wall sounder beacons offer a highly efficient, low current sounder beacon option. Sounder volume and tone are set at the analogue panel avoiding the need to access each sounder individually to alter settings.



CASBB384 Sounder beacon base  
CASB383 Sounder beacon  
CAS383-WP IP65 version

### Technical Specifications

Model	CASBB384	CASB383	CAS383-WP
Operating voltage Tones (set by panels)	Continuous 910Hz Pulsed 910 / 0Hz @ 1Hz Two tone 610 / 910Hz @ 1Hz cycle Slow whoop Low volume: 77 dB Medium volume: 89 dB High volume: 90 dB	17 to 32V DC Continuous 910Hz Pulsed 910 / 0Hz @ 1Hz Two tone 644 / 994Hz @ 1Hz cycle Slow whoop 500-1200Hz in 3.5 sec / 0.5 sec gap Low volume: 87 dB Medium volume: 95 dB High volume: 100 dB	Continuous 910Hz Pulsed 910 / 0Hz @ 1Hz Two tone 644 / 994Hz @ 1Hz cycle Slow whoop 500-1200Hz in 3.5 sec / 0.5 sec gap Low volume: 87 dB Medium volume: 95 dB High volume: 100 dB
Sound output (set by panel) +/- 3 dB		Low volume: <7mA Medium volume: <8mA High volume: <9mA <320µA -10°C to +55°C (95% RH) PC ABS	Red
Current consumption			
Standby current		IP42/IP66	
Operating temperature		105x105x95/108x108x103	
Construction		0.25Kg/0.57Kg	
Colour	White		
IP rating	IP40		
Dimensions HxWxD (mm)	115 (Dial) x 42 (D)		
Weight	0.2Kg		

### LED beacon

The CAS382 loop-powered addressable beacon offers high efficiency LED technology together with a low profile design for a discreet installation. The beacon is designed to provide a visual indication in areas of high ambient noise or where people may be hard of hearing.



CAS382 LED beacon

### Technical Specifications

Model	CAB382
Operating voltage	17-32V DC
Standby current	<250µA
Current consumption	<4.1mA
Operating temperature	-10°C to +55°C
Flash frequency	1/2 Hz
Construction	LENS - polycarbonate, base - ABS
Colour	Red
IP rating	IP54
Dimensions (mm)	95 (Dia) x 53 (D)
Weight	0.15Kg

### Product Codes

CASBB384	Base sounder beacon
CASB383	Wall sounder beacon
CASB383-WP	Wall sounder beacon - weatherproof
CASC	Pk of 5 base sounder beacon covers
CAS382	LED beacon

## Interfaces

An extensive range of interfaces are available for the Cooper range of analogue panels providing solutions for most design requirements.

- > CSIS950 spur isolator available to allow loop spurs of analogue addressable devices
- > CIO351 3-channel 24V-rated input / output unit suitable for switching low voltage control equipment
- > CZMU352 zone monitor unit, to connect zones of suitable conventional detectors or loop powered beam detectors
- > CMO353 mains-rated input / output unit for switching mains operated equipment
- > CSC354 Sounder circuit controller provides four additional, programmable, conventional sounder circuits remote from the main control panel
- > CSUM355 shop unit isolator allows the connection of a conventional detection zone along with two conventional sounder circuits, ideal for linking small self contained units onto a main addressable panel. The interface requires a 24V DC power supply



CSIS950 Spur Isolator unit  
CIO351 3 Channel IO unit  
CZMU352 Zone monitor unit



CMO353 230V Relay IO unit  
CSC354 4 Way sounder controller  
CSUM355 Shop unit monitor



MIU872 Mini-zone monitor  
MCM-C Single input module  
MCOM-S Single output module



MCOM-R Single channel output relay module  
MCM-NF Non-fire input module

A range of micro interfaces modules are also available:

- > MCM-C is a compact input module used to accept input signals from external equipment such as beam detectors, flow switches, valve monitor switches etc
- > MCOM-S is a compact output module used to control or signal external equipment such as access control systems, lift positioning etc
- > MCM-NF is a compact single Channel input unit. This device is identified as a non-fire input module by the COOPER addressable panel. The maximum number of addressable MCM-NF per loop is 200. Complex cause and effect can still be achieved using the latest site installer software without any indication on the panel. However the action will still be seen in the event log. Ideally suited for a non fire applications.
- > MCOM-R is a compact single Channel output unit. This device is identified as a sounder output by a Cooper addressable panel. Up on a reset from the Cooper addressable panel, the output relay of the MCOM-R will pulse for a period of 5 seconds. The maximum number of sounder devices per loop is 60.
- > MIU872 is a compact single zone input, soft addressed, micro interface, incorporating integral short circuit isolators. It is fully compatible with the current range of Cooper analogue fire detection panels. It is suitable for interfacing a zone of up to 20 conventional Cooper detectors onto a Cooper analogue fire panel. It will operate with any Cooper conventional detector in configuration with a schottky diode type base.



## LP800 Loop Tester

The LP800 loop tester is a hardware /software combination that can be used to test, commission and fault find a loop of up to 200 Cooper addressable devices (detectors, sounders, ancillary devices) without having to connect the loop to a Cooper addressable Fire Panel.

The loop tester is connected between the loop and PC. It allows the engineer to quickly identify and locate any loop device that is operating outside its operating conditions by varying the alarm threshold of any loop device (Alarm, Pre-alarm and fault).

### Features

- > Pre-addressing: Identifies all Cooper filed devices and determines their addressed, types
- > Analogue Values: Constantly displays in real time the analogue value of all cooper loop devices in order to determine their status
- > Test Led: This Command operates the LED of any inputs (detector/call points) as well as controls the outputs of sounders and output modules
- > Device Settings: Analogue values of all devices can be interpreted according to ranges which can be set and altered by the user (OK, Pre-alarm, Fire)
- > Event Log: A history of events can be stored from the date the application was started
- > Soft addressing: Automatically assigns a new, and potentially different, address to every device found on the loop
- > Powered from 230 Volts main supply
- > Support up to 2km of cable with spurs

The loop tester hardware requires a free serial port on the PC, either internal or via a USB extension, a mains power supply and a direct connection to the device loop.



### Product Codes

LP800KIT	Standard Protocol
LP800KIT-OP	Open Protocol

## CF 800 Programmer

The CF800 programmer is a versatile tool to aid the installation, commissioning, maintenance and servicing of Cooper addressable devices and fire alarm systems. Cooper CF800 hand held programmer is designed for use with all Cooper addressable series 800 devices.

This unit is light, robust and easy to operate using a user friendly menu structure on 2 x 40 character LCD display. It is powered from a single PP3 size, heavy duty battery or an external 9 -15 volt supply.

The Programmer has a built in Cooper addressable base as well as two external loop terminals for use with all other Cooper ancillary devices.

### Features

- > Reads Addresses
- > Writes Addresses
- > Reads Analogue Values
- > Tests Devices
- > Deletes Addresses
- > Programmes the 3 Heat Settings (Rate of Rise, Fix 77°, Fix 92°)



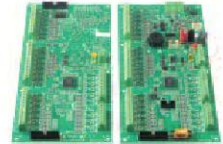
### Product Codes

CF800	Standard Protocol
CF800-OP	Open Protocol

## PCBs

### Mimic PCB

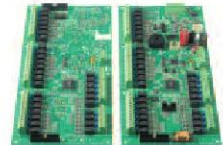
- > Available as master or slave. Each has 32 outputs
- > 96 outputs (1 master + 2 slaves)
- > Ideal for mimic panel provision
- > Two types available:- LED or relay output
- > Each output can be programmed as fire or fault
- > Each output can be operated by address, zone or panel activation



Master and slave LED output PCB

### 4 to 20mA Interface

- > Addressable interface with built in isolator
- > Ideal interface for gas detectors
- > Uses one address
- > Program 3 level of sensitivity using dip switch
- > 3 volt free outputs for each of the three alarm levels (optional)
- > Tracking/enabling facility (in tracking mode CF3000 will display pre-alarm 1, pre-alarm 2 & alarm). In alarm condition, CF3000 cause & effect programming is enabled
- > Requires external power supply (PSU is opto isolated from CF3000 loop)
- > The supply to the gas detector is taken directly from the interface



Master and slave relay output PCB

### LED Repeater PCB

- > Can be loop connected or network connected
- > Each LED can be programmed to operate by zone or by address for fire or fault indication using PC repeater download software
- > Up to 5 different zones can be programmed per LED
- > General fire, fault, local power fault & system fault LED provision
- > Test lamp button



4 to 20mA Interface

4 to 20mA Interface with relay outputs

### Loop splitter unit

- > Unit is loop connected
- > Splits each connected loop into 4 smaller loops (max.50 devices per loop)



96 zone LED repeater PCB



Loop splitter PCB

### Product Codes

ZPCR2252-MML	LED master output PCB
ZPCB2252-MSL	LED slave output PCB
ZPCB2252-MMR	Master relay output PCB
ZPCB2252-MSR	Slave relay output PCB
CG420	4 - 20mA interface
CG420R	4 - 20mA interface with relay output
ZPCB2232	96 zone LED repeater PCB
ZPCB2222	Loop splitter unit



# 3

## The Ultimate Range Fire Detection Systems

Cooper Fire Ultimate range of addressable / conventional fire panels and systems are listed by ETL (Intertek) testing laboratory to UL 864 9th Edition for use in fire alarm signalling in accordance with the latest National Fire Protection Association Standards (NFPA 72), the National Electric Code (NFPA 70), the Life Safety Code (NFPA 101) and / or the Local Authority having jurisdiction (AHJ).

**Products:**

Analogue Addressable  
Fire Detection Panels  
Ultimate 2000  
Remote Annunciator  
Analogue Sensors  
Ancillary Devices

Ultimate  
Conventional Panels  
Ultimate 2/4/8  
Remote Annunciator  
Conventional Detectors  
Ancillary Devices

CF300X Range  
Detector Testing Range  
Testfire  
Solo



Intertek is a leading provider of quality and safety solutions serving a wide range of industries around the world. From auditing and inspection, to testing, quality assurance and certification, Intertek are dedicated to adding value to customers products and processes, supporting their success in the global marketplace.

Intertek's U.S. roots date back to the laboratory founded by Thomas Edison in 1896. At that time, the company's vision was to provide assurance to the public that products were tested to safety and performance standards. Today we are still in the business of product testing for electrical safety and performance and we're among the oldest and continuously operating testing labs in the world. Intertek initiated the UL 864 program for Life Safety and Security (LSS), both on the residential and commercial side of Life Safety.

## Ultimate 2000

### Fire Systems - Addressable

The Ultimate 2000 is a high specification analogue fire alarm control panel, which is available in a 2 loop configuration. It combines sophisticated functionality yet simple operation with very aesthetically pleasing design.

The large capacity, ability to support complex cause and effect programming and wide range of user controllable function make the panels suitable for a wide range of commercial and industrial applications.

The Ultimate 2000 panel uses soft addressing to minimise installation time and remove the potential for errors associated with manual addressing. All of the Ultimate fire detection system components have been specifically designed to operate as part of an integrated system providing an assurance that the panel, detectors, interfaces and other ancillaries are all fully compatible with each other and that the full range of system functionality is supported by each device.



### Features

- > 2 Loop Panel-Networkable
- > Up to 150 addresses per loop
- > Easy Programming
- > Short Circuit Isolators Incorporated into each loop device



Approved to  
UL864 9th Edition

### Panel Specifications

Standards	Approved to UL864 9th Edition
Model	Ultimate2000
Number of Loops	2
Networkable	Yes
Addresses per loop	150
Panel Sounder Circuits	4 Outputs NAC's
Programmable Relays	3
Alarm Relay	1
Trouble (Fault) Relay	1
Output Points	RS485; RS232 & USB
Mains input voltage	110 / 230V AC
System Operating Voltage	24V DC
Battery	2 x 12V 7 Ah or 2 X 12V 12 Ah (dependent)
Cable Entries	4 Top-entry 2 left side 1 Right side
	0°C to +49°C; 95% RH (non condensing)
	Red
	370 x 393 x 112
	10Kg
Environmental Rating	
Colour	
Size WxHxD (mm)	
Weight	

### Product Codes

Ultimate 2000	2 Loop Addressable Analogue Panel
Ultimate 2000NC	2 Loop Addressable Analogue Panel CW Network Card

## Remote Annunciator

### Engineering Specifications

The main control must have a built-in annunciator and must support up to eight remote annunciators. Remote annunciators shall have the same control and display layout so as to match the appearance of the built-in annunciator. The annunciator must have two levels of user codes that will limit the operating system programming to authorized individuals.

Features include a 4 line with 64-character backlit LCD providing easy-to-understand system messages. The annunciator has an easy friendly membrane keypad. The most used keys Reset and Silence are larger and coloured. In addition to status messages displayed on the LCD, there are five LEDs for Alarm, Supervisory, Trouble, Silence and AC power status. The annunciator enclosure can be surface or flush mounted.



Approved to  
UL864 9th Edition

### Features

- > 64-character backlit LCD display (4 lines with 16 characters on each line)
- > Membrane Keypad
- > Accepts user codes or fire fighter's key (Optional)
- > Larger keypad buttons for system Reset and Silence
- > Install up to eight per FACP
- > RS-485 interface to panel
- > On-board Piezo sounder audibly indicates Alarms, Troubles and Supervisories
- > Five status LEDs for Alarm, Supervisory, Trouble, Silence and AC power conditions
- > Wiring lengths up to 3300 ft. from the FACP (depending on wire gauge and number of devices on RS485)

### Panel Specifications

Standards	NFPA 72: UL864
Model	ULREP
Max Per System	8
System Operating Voltage	16 - 26V DC
Standby Current	12 mA max
Alarm Current	30 mA
Wiring Distance	3,300 max. from FACP (depending on wire-gauge and number of devices on the RS-485)
Environmental Operating Temperature	32°F - 120°F (0°C - 49°C)
Humidity	10% - 93% non-condensing

### Product Codes

ULREP	Remote Annunciator
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## Analogue sensors

A comprehensive range of analogue sensors are available to operate with the Cooper analogue addressable panel range with the following :-

### Features

- > Built-in short circuit isolators
- > Stylish low profile design
- > 360° viewable LED design
- > Removable detector chamber
- > Drift compensation



### Panel Specifications

Detector Head Base	UCAP320 WBA or UCAB300	UCAPT340 WBA or UCAB300	UCAH330 WBA or UCAB300
Working Voltage	-18 - 30V DC	-18 - 30V DC	-18 - 30V DC
Voltage Waveform	Filtered DC +/- 1v max. ripple @120Hz 220µA	Filtered DC +/- 1v max. ripple @120Hz 220µA	Filtered DC +/- 1v max. ripple @120Hz 220µA
Standby Current (Average)	5 mA	5mA	5mA
Alarm Current (max)	N/A	N/A	N/A
Relay Current (max)	2.55+/- 0.33%/ft	2.55+/- 0.33%/ft	N/A
Start-up Time	No-Climb	Use No-Climb	Use No-Climb
Sensitivity	TRUTEST	TRUTEST	TRUTEST
Sensitivity Use Checker	UL Listing 77TL N/A	UL Listing 77TL 135F	UL Listing 77TL 135F RDR = Fixed + Fixed * 135F Fixed** 2 seconds 50R
Heat Element Rating			
Reset Time (max)	2 seconds	2 seconds	
Heat Detector Spacing	N/A	50R (heat alone operation)	
Temperature (max)	32-100F	32-100F	32-100F 32-50F (194F setting)
Mounting Position			Ceiling in open areas
Compatibility Identifier	Ceiling in open areas W002	Ceiling in open areas W002	W002

### Product Codes

UCAP320	Photoelectric smoke sensor
UCAPT340	Photo-thermal smoke sensor
UCAH330	Multi-mode heat sensor
UCAB300	Common Base
WBA	Conventional Wide Base



## Addressable callpoints

The Cooper range of UL addressable callpoints are available as surface, flush and weatherproof versions. All callpoints have integral short circuit isolators fitted as standard. To simplify replacement of glass element callpoints are fitted with fast fit clip on front covers.



### Product Codes

UMPS-100	SPST, Single Action, Terminals, Key Reset
UMPS-400X	Explosion Proof, Single Action, Key Reset

The UMPS-400X is an explosion proof unit and requires interface and I/S barriers for safe operation in the relevant classified zones in accordance with NFPA72 standards.

## UL Approved Audio Visual Devices

### General Features and Options:

- > Standard backboxes
- > Strobe/Horn Synchronization
- > Multi-Candela
- > Approvals include: UL, ULC, FM, CSFM, MEA, BPF
- > Weatherproof models -40°F to 150°F



### Technical Specifications

Horn Strobes	Wall Mounted	Snap base, 15/30/75/110cdd. up to 105dB @ 1 meter
ZNS-MCW-FR	Ceiling Mounted	Snap base, 15/30/75/95cdd. up to 105dB @ 1 meter
ZNS-MCC-FW		
Horns		
ZNH-R		
ZNH-W		
Synchronised Strobes	Wall Mounted	Snap base, up to 105dB @ 1 meter
ZRS-MCW-FR	Ceiling Mounted	Snap base, up to 105dB @ 1 meter
ZRS-MCC-FR		
Outdoor Synchronised Strobes		
RSSWP-2475W-FR	Wall Mounted Base	Snap base synchronised strobe, 15/30/75/110cdd
RSSWP-2475C-FW	Ceiling Mounted Base	Snap base synchronised strobe, 15/30/75/110cdd
	Outdoor Wall Mounted	Synchronisation strobe 75cdd
	Outdoor Ceiling Mounted	Synchronisation strobe 75cdd

### Panel Specifications

UL Max Current 16-33 VDC	30cdd	75cdd	110cdd
Wall15cdd			
0.066	0.092	0.165	0.220
Ceiling15cdd	0.065	0.105	0.249

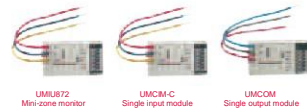
## Interfaces

An extensive range of interfaces are available for the Cooper range of analogue panels providing solutions for most design requirements. These devices are approved to UL864 9th Edition.

### Product Codes

UMSI850	Spur isolator unit
UMIU871	Zone monitor unit (Call point & detection zone)
	3 Channel I/O unit
UMIO324	4 way sounder controller
UMPU424	Shop unit monitor
UMSI848	Single input module
UMCIM-C	Single output module
UMCOM	Mini-zone monitor
UMIU872	
<b>Network interfaces</b>	
EC490	
EC450	
EC450MD	
EC540	TCP/IP Interface
DF6000NETKIT	IP Fibre optic single mode
EC700	IP Fibre optic multi mode
	Network booster
	Network card
	LON to mode bus gateway

Approved to UL864 9th Edition



Approved to  
UL864 9th Edition

## Addressable sounders

### Base sounder

The CAS380 is a loop-powered integrated sounder and sensor mounting base. It can be used with any analogue sensor or as a standalone sounder with the optional CASC cover plate.

### Wall sounder

The CAS381 range of loop-powered addressable wall sounders offers a highly efficient, low current sounder option. Sounder volume and tone are set at the analogue panel avoiding the need to access each sounder individually to alter settings.

### Product Codes

CAS380	Base sounder	CPD Approved Product
CAS381	Addressable wall sounder	0832CPD0155
CAS381WP	Addressable wall sounder - weatherproof	0832CPD0156
CASC	Pk of 5 base sounder covers.	0832CPD0156

Approved to EN54 Part 3



## Audio visual units

### Base Sounder / Beacon

The CASB384 is a loop-powered, integrated sounder/beacon and sensor mounting base. It can be used with any analogue sensor or as a standalone sounder with the optional CASC cover plate.

### Wall Sounder Beacons

The Cooper Fire range of loop-powered addressable wall-mounted sounder beacons offer a highly efficient, low current sounder beacon option. Sounder volume and tone are set at the analogue panel avoiding the need to access each sounder individually to alter settings.

All sounder / beacons have integral built-in isolators.

### Product Codes

CASB384	Base sounder beacon
CASB385	Wall sounder beacon
CASB385-WP	Wall sounder beacon - weatherproof
CASC	Pk of 5 base sounder beacon covers



## Beacons

### LED beacon

The CAB382 loop-powered addressable beacon offers high efficiency LED technology, integral built-in isolators, together with a low profile design for a discreet installation. The beacon is designed to provide a visual indication in areas of high ambient noise or where people may be hard of hearing.

### Product Codes

CAB382	LED beacon
--------	------------

Approved to EN54 Part 3



## PAVA Interface

The EC0232 PAVA interface allows the Cooper CX-HMX-MP range of PAVA systems to be fully integrated with our advanced range of addressable fire alarm control panels.

The interface can be located anywhere on the Cooper peer-to-peer network allowing information from any addressable fire alarm control panel to be routed through a bi-directional RS232 port to the PAVA system.

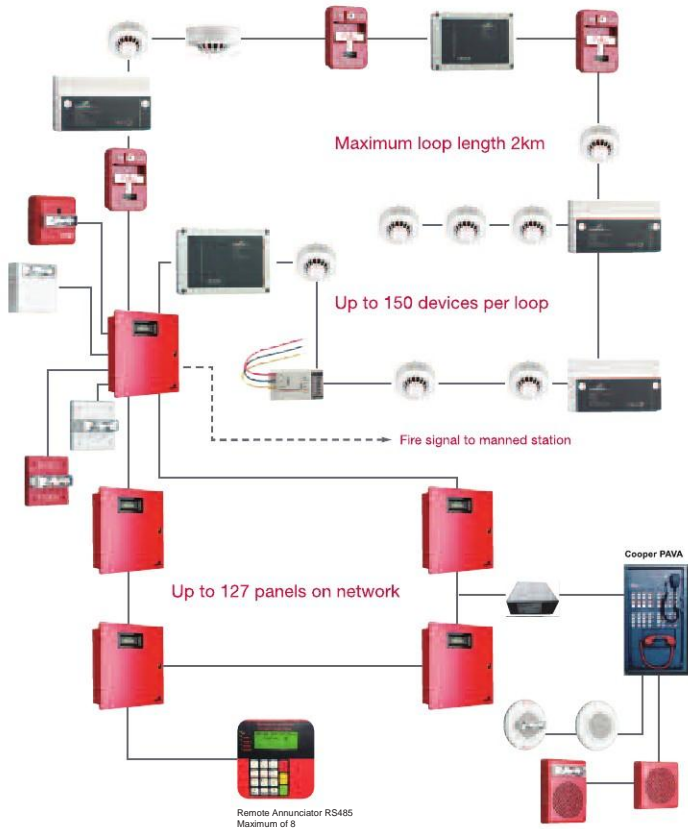
Bi-directional link also allows the status of Cooper PAVA system to be displayed and monitored at the fire alarm controller. Different messages can be played depending on the cause and effect programming.

For safe operation and system integrity, the PAVA panel has an override input facility which can be connected directly to the conventional sounder circuit of the Cooper addressable fire alarm control panels.

Approved to UL864 9th Edition



### Typical Schematic with PAVA Interface



### Ultimate Conventional Panels

#### Fire Systems - Conventional

The ultimate range of conventional fire panels provides a simple yet effective installer and end user fire detection system solution. Available as 2, 4, and 8 zone panels. The Ultimate range has a vast variety of functional features that makes it a very flexible and powerful fire control panel.

The Ultimate comes standard with either a 4 amp or 6 amp 24V DC smart power Supply, with dedicated alarm and fault relays, optional 4 NAC outputs, RS232 and RS485.

#### Ultimate Conventional Panel

Features 2, 4 or 8 zones Class B (Style B) Supervised zone expanders and I/O modules can be mounted remotely from the main control panel.

Event History Buffer (250 events) with date/time stamp 6 selectable/programmable output patterns for notification appliance circuits Module Digital Alarm Communicator Transmitter (DACT) 4 Notification Appliance Circuits 3 programmable general purpose relays Fully programmable from the built-in membrane keypad, remote annunciator or Windows Ultimate downloading software Two RS232 ports Built-in walk test feature.

A viewing port in the keyed panel enclosure door leaves the system status LEDs and LCD display visible while maintaining system control key security. Built-in synchronization for appliances from Wheelock Easy to program.



#### Future Optional Accessories

- > LCD Remote Annunciator
- > FCM 10 Zone Expander
- > SRM Serial Relay Module

#### Technical Specifications

Model	Ultimate 2	Ultimate 4	Ultimate 8
Standards		Approved to UL864 9th Edition	
Number of zones	2	4	8
Detectors per zone	20		
Panel sounder circuits	4 Outputs NAC's		
Programmable Relay's (NAC O/P's)	3		
Alarm Relay	3	1	3
Trouble (Fault) Relay	1	1	1
Mains input voltage	110/230V AC		
System operating voltage	24V DC		
Battery	2 x 12V AH @ 2 x 12V 12 AH (dependent)		
Cable entries	1 Top Entry, 11 Right side, 2 Left side		
End of Line Resistor	4K7		
Environmental Rating	0°C to +49°C, 95% RH (non condensing)		
Colour	Red		
Side WxHxD (mm)	370 x 383 x 112		
Weight	10Kg		

#### Product Codes

Ultimate 2	2 Zone conventional panel
Ultimate 4	4 Zone conventional panel
Ultimate 8	8 Zone conventional panel

Approved to  
UL864 9th Edition



## Remote Annunciator

### Engineering Specifications

The main control must have a built-in annunciator and must support up to eight remote annunciators. Remote annunciators shall have the same control and display layout so as to match the appearance of the built-in annunciator. The annunciator must have two levels of user codes that will limit the operating system programming to authorized individuals.

Features include a 4 line with 64-character backlit LCD providing easy-to-understand system messages. The annunciator has an easy friendly membrane keypad. The most used keys Reset and Silence are larger and coloured. In addition to status messages displayed on the LCD, there are five LEDs for Alarm, Supervisory, Trouble, Silence and AC power status. The annunciator enclosure can be surface or flush mounted.



### Features

- > 64-character backlit LCD display (4 lines with 16 characters on each line)
- > Membrane Keypad
- > Accepts user codes or fire fighter's key (Optional)
- > Larger keypad buttons for system Reset and Silence
- > Install up to eight per FACP
- > RS-485 interface to panel
- > On-board Piezo sounder audibly indicates Alarms, Troubles and Supervisors
- > Five status LEDs for Alarm, Supervisory, Trouble, Silence and AC power conditions
- > Wiring lengths up to 3300 ft. from the FACP (depending on wire gauge and number of devices on RS485)

### Panel Specifications

Standards	NFPA 72: UL864
Model	ULREP
Max Per System:	9
System Operating Voltage	16 - 26V DC
Standby Current	12 mA max
Alarm Current	30 mA
Wiring Distance	3-300 max. from FACP (depending on wire gauge and number of devices on the RS-485)
Environmental Operating Temperature	32°F - 120°F. (0°C - 49°C)
Humidity	10% - 93% non-condensing

### Product Codes

ULREP Remote Annunciator



Approved to  
UL864 9th Edition

## Conventional detectors

A comprehensive range of UL detectors are available for the ultimate control panels.

### Features

- > UL Approved detectors
- > Low profile design
- > 360° viewable LED design
- > Removable detector chamber for cleaning
- > Common mounting base
- > New enhanced detectors feature Dual LEDs, Drift compensation and Chamber monitoring (UCPD-2W & UCPT-2W)

### Technical Specifications

Detector Head	UCPD-2W	UCPT-2W	UCHT-2W	UCHTI-2W	UCHR-2W	UCHRI-2W
Type	Photoelectric 2 Wire	Opto/Heat Multi-Sensor 2 Wire	Fixed Heat Det 135°F 2 Wire	Fixed Heat Det 194°F 2 Wire	Rate of Rise & Fixed Heat 135°F 2 Wire	Rate of Rise & Fixed Heat 194°F 2 Wire
Base	CB or CB2E	CB or CB2E	CB or CB2E	CB or CB2E	CB or CB2E	CB or CB2E
Working Voltage	15 - 30V DC	15 - 30V DC	15 - 30V DC	15 - 30V DC	15 - 30V DC	15 - 30V DC
Voltage-Waveform	Filtered DC	Filtered DC	Filtered DC	Filtered DC	Filtered DC	Filtered DC
	4+ 1V max ripple @ 120Hz 95µA	4+ 1V max ripple @ 120Hz 95µA	4+ 1V max ripple @ 120Hz 70µA	4+ 1V max ripple @ 120Hz 70µA	4+ 1V max ripple @ 120Hz 70µA	4+ 1V max ripple @ 120Hz 70µA
Standby Current (Average)						
Surge Current (max)						
Alarm Current (max)	340µA	340µA	340µA	340µA	340µA	340µA
Relay Current (max)	Must be Limited externally to 40mA	Must be Limited externally to 40mA	Must be Limited externally to 40mA	Must be Limited externally to 40mA	Must be Limited externally to 40mA	Must be Limited externally to 40mA
Start-up Time	N/A	N/A	N/A	N/A	N/A	N/A
Sensitivity	20 seconds	20 seconds	20 seconds	20 seconds	20 seconds	20 seconds
Sensitivity Checker	2.55± 0.33%/ft	2.55± 0.33%/ft	N/A	N/A	N/A	N/A
	Use No-Climb Use TRU/TEST	Use No-Climb Use TRU/TEST	Use No-Climb Use TRU/TEST	Use No-Climb Use TRU/TEST	Use No-Climb Use TRU/TEST	Use No-Climb Use TRU/TEST
UL Listing	UL Listing 777L N/A	UL Listing 777L 135°F	UL Listing 777L 135°F	UL Listing 777L 194°F	UL Listing 777L 135°F	UL Listing 777L 194°F
Heat Element Rating	2 seconds 50ft	2 seconds 50ft	2 seconds 50ft	2 seconds 50ft	2 seconds 50ft	2 seconds 50ft
Reset Time (max)						
Spacing						
Mounting Position						
Compatibility Identifier	32-100°F	32-100°F	32-100°F	32-150°F	32-100°F	32-150°F
	W001	W001	W001	W001	W001	W001



### Product Codes

UCPD-2W	Photoelectric smoke detector
UCPT-2W	Photo Thermal smoke detector
UCHT-2W	Fixed heat detector 135°F
UCHTI-2W	Fixed heat detector 194°F
UCHR-2W	Rate rise and fix heat detector 135°F
CB2E	Detector base
CB	Wide detector base





## Conventional ancillary devices

### UL Approved manual pull stations

- UL Approval - UCMP5-100 & UCMP5-400X
  - > Approved to UL864 9th Edition
  - > Convenient clip-fixed front cover
  - > One key for test and cover removal
  - > Available as flush, surface and weatherproof (IP65)



UCMP5-100 UCMP5-400X

## UL Approved Audio Visual Devices

### General Features and Options:

- > Standard backboxes
- > Strobe/Horn Synchronization
- > Multi-Candela
- > Approvals include: UL, ULC, FM, CSFM, MEA, BFP
- > Weatherproof models -40°F to 150°F



## Technical Specifications

Horn Strobes	
ZNS-MCW-FR	Wall Mounted
ZNS-MCC-FW	Ceiling Mounted
Horns	
ZNH-R	
ZNH-W	
Synchronised Strobes	
ZRS-MCW-FR	Wall Mounted
ZRS-MCC-FR	Ceiling Mounted
Outdoor Synchronised Strobes	
RSSWP-2475W-FR	Wall Mounted Base
RSSWP-2475C-FW	Ceiling Mounted Base
Outdoor Wall Mounted	
Outdoor Ceiling Mounted	
	Synchronisation strobe 75cd
	Synchronisation strobe 75cd

## Panel Specifications

UL Max Current 16 - 33V DC				
Wall15cd	0.06f	30cd	75cd	110cd
	0.09f	0.092	0.165	0.220
Ceiling15cd	0.06f	30cd	75cd	95cd
	0.105	0.105	0.168	0.248

## Bells CFB4D24 & CFB6D24 - (EN54-3)

- CPD Approval - 0832CPD0135 & 0832CPD0134
- > High sound output
- > Low current
- > 4, 6 and 8-inch versions available



CFB4D24 CFB6D24

## Roshni ROLP-R-S & ROLP-R-D - (EN54-3)

- CPD Approval - 0832CPD0131 & 0832CPD0128
- > Low current
- > High sound output
- > 32 selectable tones
- > IP65 version available
- > Lockable base



ROLP-R-S ROLP-R-D

## Symphoni SY-R & SY-R-IP

- CPD Approval - 0832CPD0141 & 0832CPD0141
- > Ultra low current
- > High sound output
- > 3 tones
- > Volume control
- > IP65 version available
- > Lockable base



SY-R SY-R-IP

## Base Sounder SQG3-SDR-W

- > Low current
- > High sound output
- > Volume control



SQG3-SDR-W SQG3-AV-W

## Base Sounder Beacon SQG3-AV-W

- > Low profile design
- > High output LED beacon
- > Volume control
- > Can be standalone unit or with detector & base
- > Tamper-proof cover for standalone use

## Flashni FL-RL-R-D

- > High output sounder beacon
- > Volume control
- > Lockable base



FL-RL-R-D

Conditions of sale  
All goods supplied are subject to the company's general conditions of sale which are available on request.

Trade Descriptions  
All descriptions represent only particulars of the goods to which they apply and do not form part of any contract. The company reserves the right to change specification without prior notification or public announcement.  
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## Extinguishing control panel

The CF300X control panel is designed in accordance with European standards EN54-2 and EN54-4 fire detection and fire alarm systems control and indicating.

Approved to EN12094-1 fixed firefighting systems - components for gas extinguishing systems - Part 1: requirements and test methods for electrical automatic control and delay devices.

The CF300X is compatible with all of the Cooper range of conventional detector, manual callpoint and sounders. The control equipment is a combined fire alarm control panel and extinguishing system and has three detection zones, any or all of which are capable of contributing to the release decision.

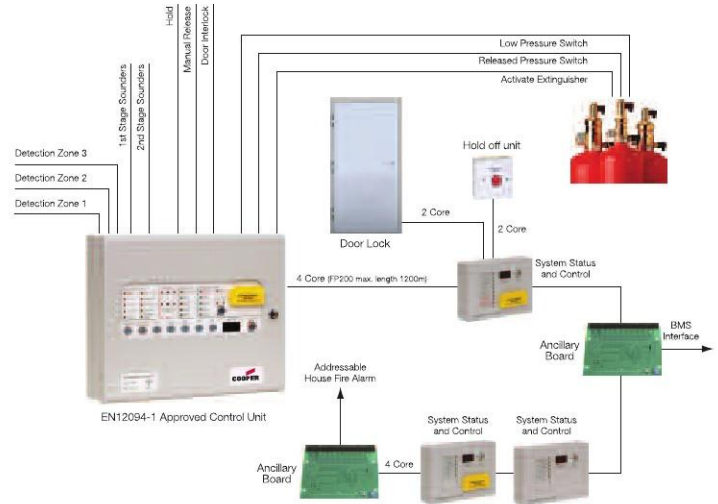


### Features

- > Test condition
- > Delay of the actuation of fire alarm devices (sounders)
- > Fire alarm devices to enable an audible warning to be sounded throughout premises upon the detection of a fire condition or the operation of a manual callpoint
- > Voltage free relay contacts for fire
- > Delay of extinguishing signal of up to 60 seconds
- > Signal representing the flow of extinguishing agent to indicate the released condition
- > Monitoring of the status of components by way of a low pressure switch input
- > Emergency hold device to enable the extinguishant delay time to be extended
- > Control of flooding time to deactivate the releasing output after a set period of time
- > Manual only mode to disable the release of extinguishant via automatic detection devices
- > Triggering of equipment outside the system by way of first and second stage contacts, extract fan output
- > Activation of alarm devices with different signals to indicate pre-discharge and released warnings using different sounds



## Typical application schematic



## Status units

**CF300X-6LSU,  
CF300X-6LSU/S**

> 6 Lamp status unit\*

**CF300X-6LSU-MS,  
CF300X-6LSU-MS/S**

> 6 Lamp status unit with mode select\*

**CF300X-6LSU-MS-M,  
CF300X-6LSU-MS-M/S**

> 6 Lamp status unit with mode select & manual release\*

**CF300X-10LSU-MS-M,  
CF300X-10LSU-MS-M/S**

> 10 Lamp status unit with mode select & manual release\*



\* Status units available in IP enclosures, prefix WP.

## Multi-stimulus detector tester

Testfire is the world's first multi-stimulus detector tester for smoke, heat and CO fire detectors. Combining these three test functions in one tool increases on-site productivity and reduces the amount of test equipment engineers are required to carry on-site.

Smoke, Heat and CO stimuli are created in a single test unit and delivered individually or - for the first time - simultaneously, in whichever combination is required. Testfire does this without using pressurised cans of gas or hazardous goods. Stimuli (Smoke, Heat and CO) are generated at the time of test using safe and patented processes fuelled by replaceable capsules.

There are two models available within the range the Testfire 1000 for Smoke and Heat and the Testfire 2000 for Smoke, Heat and CO.



## Smoke / Heat Options

### Testfire 1001

Smoke and Heat Detector Test Kit. Supplied as a complete kit with Smoke Capsule, Battery Batons and Fast Charger.

### Testfire 6001

Smoke and Heat Detector Test Kit. Supplied as a complete kit with Smoke Capsule, Battery Batons, Fast Charger, Removal Tool, Protective Carrying Bag and Access Poles to 6m height.

### Testfire 9001

Smoke and Heat Detector Test Kit. Supplied as a complete kit with Smoke Capsule, Battery Batons, Fast Charger, Removal Tool, Protective Carrying Bag and Access Poles to 9m height.

## Smoke / Heat / CO Options

### Testfire 2001

Smoke, Heat and CO Detector Test Kit. Supplied as a complete kit with Smoke Capsule, CO Capsule, Battery Batons and Fast Charger.

### Testfire 6201

Smoke, Heat and CO Detector Test Kit. Supplied as a complete kit with Smoke Capsule, CO Capsule, Battery Batons, Fast Charger, Removal Tool, Protective Carrying Bag and Access Poles to 6m height.

### Testfire 9201

Smoke, Heat and CO Detector Test Kit. Supplied as a complete kit with Smoke Capsule, CO Capsule, Battery Batons, Fast Charger, Removal Tool, Protective Carrying Bag and Access Poles to 9m height.

## Capsules

TS3-3PACK 3 x Smoke Capsules

TS3-6PACK 6 x Smoke Capsules

TC3-3PACK 3 x CO Capsules

TC3-6PACK 6 x CO Capsules



Testfire TS3 Smoke Capsule



Testfire TC3 CO Capsule



## Detector testing equipment

The renowned Solo range provides a complete range of test and maintenance tools for smoke, heat and CO fire detectors. The range consists of integrated, durable tools which enable detectors mounted up to 9 metres high to be accessed, tested, removed and replaced with ease.

### Smoke Detector Testing

#### Solo 330 Aerosol Dispenser

- > Contains particles - conserves test gas
- > Spring loaded mechanism for effective, economic delivery
- > Universal - suits most detectors
- > Designed for use at height and at angles
- > Lifetime warranty
- > Uses Solo A3 for smoke testing and Solo C3 for CO testing



Solo 330



Solo A3

#### Solo A3 Smoke Detector Tester

- > Fast activation and clearing
- > Non-flammable
- > Oil-free formulation
- > No testing residue
- > Designed for use with Solo 330



Solo 100



Solo 101

### Access Poles

- > Light, easy to use at height, on-site, day after day
- > Non-whip - even at height
- > Certified non-conductive protecting both the engineer and overhead live equipment from inadvertent shorts
- > Available in one, two or four telescopic sections
- > Lifetime warranty



Solo 200



### Removal and Replacement

#### Solo 200

- > Universal design - suits most detectors
- > Suitable for use on angled ceilings
- > Lightweight
- > Lifetime warranty

### Heat Detector Testing

#### Solo 461 Cordless Heat Detector Tester

- > Ultra safe - no cables
- > Rapid activation
- > Lightweight
- > Universal - suitable for most detectors
- > Designed for use at height and angles
- > Suits fixed temperature, rate of rise and combination detectors



Solo 461

Solo 760  
Battery BatonSolo 725  
Fast Charger

### Solo Test Kits

The range of Solo testing tools are available in economical and convenient kit formats. The contents of each are determined according to your individual testing needs.

#### Solo 808

- > 1 x Solo 108 two section telescopic pole (2.5m)
- > 1 x Solo 330 aerosol dispenser



Solo 808

#### Solo 809

- > 1 x Solo 100 four section telescopic pole (4.5m)
- > 1 x Solo 330 aerosol dispenser



Solo 809

#### Solo 810

- > 1 x Solo 101 extension pole (1.13m)
- > 1 x Solo 330 aerosol dispenser



Solo 810

#### Solo 811

- > 1 x Solo 100 four section telescopic pole
- > 1 x Solo 200 universal detector removal tool
- > 1 x Solo 330 aerosol dispenser
- > 1 x Solo 610 protective carrying bag



Solo 811

Solo 812

#### Solo 812

- > 1 x Solo 100 four section telescopic pole (4.5m)
- > 2 x Solo 101 extension pole (1.13m)
- > 1 x Solo 200 removal tool
- > 1 x Solo 330 aerosol dispenser
- > 1 x Solo 610 protective carrying bag



#### Solo 814

- > 1 x Solo 100 four section telescopic pole (4.5m)
- > 1 x Solo 200 universal detector removal tool
- > 1 x Solo 330 aerosol dispenser
- > 1 x Solo 424 240V heat detector tester
- > 1 x Solo 610 protective carrying bag



Solo 814

#### Solo 822

- > 1 x Solo 100 four section telescopic pole (4.5m)
- > 1 x Solo 200 universal detector removal tool
- > 1 x Solo 330 aerosol dispenser
- > 1 x Solo 461 cordless heat detector tester
- > 1 x Solo 610 protective carrying bag



Solo 822

Solo 823

#### Solo 823

- > 1 x Solo 100 four section telescopic pole (4.5m)
- > 3 x Solo 101 extension pole (1.13m)
- > 1 x Solo 200 universal detector removal tool
- > 1 x Solo 330 aerosol dispenser
- > 1 x Solo 461 cordless heat detector tester
- > 1 x Solo 610 protective carrying bag





- Products:**
- CW9000 Analogue Addressable Radio Fire Panel
  - Booster Panel
  - Hybrid Panel
  - Survey Kit
  - Sensors
  - Manual Call Point
  - Open Area Sounder & Beacon

For both business and leisure radio technology is now common place. Such are the advances made in wireless technologies in recent years that most people use wireless devices without a second thought.

# 4

## CW9000 Wireless System Analogue Addressable Radio Fire Detection



Using a new secure wireless system CW9000 provides a comprehensive fire detection system using the new range of field devices and radio control panel from Cooper Safety.

Based on well proven components the sensors, sounders, beacons and call points give CW9000 a highly reliable foundation into which the wireless technology has been integrated to provide a fully featured analogue addressable fire detection and alarm system.

The development of CW9000 has tracked the progress of the European standard EN54-25 "Fire detection and fire alarm systems. Components using radio links", and has therefore been designed to conform fully with all aspects of this document.

## CW9000 control panel

For both business and leisure radio technology is now common place. Such are the advances made in wireless technologies in recent years that most people use wireless devices without a second thought.

Using the new Cooper wireless protocol the CW9000 provides a fire detection system using secure wireless connections between the field devices and the control panels.

Based on well proven components the sensors, sounders, beacons and call points give CW9000 a highly reliable foundation into which the wireless technology has been integrated to provide a fully featured analogue addressable fire detection and alarm system.

The development of CW9000 has tracked the progress of the European standard EN54-25 "Fire detection and fire alarm systems. Components using radio links", and has therefore been designed to conform fully with all aspects of this document.

### Features

- > Addressable 250 device system
- > Range greater than 1km in free air
- > Low profile aesthetics
- > Touch screen technology
- > Soft addressing
- > Meets the requirements of EN54-25

### Technical Specifications

<b>Power</b>	
Mains fuse	1.6A Slow blow
Nominal voltage	230V AC +10%/-15%
Nominal current	75mA
<b>Batteries</b>	
Number	2
Capacity	7.55Ah, YSP12-7
Battery fuse (F4)	7Ah
Maximum battery current	4A Quick blow
Standby current (mA)	3.5A
	100 (1 loop)
<b>Wireless Capacity</b>	
Maximum wireless loops	1
Address capacity	250 Devices
<b>Wireless Inputs</b>	
Maximum wireless inputs	250 Devices
<b>Wireless Outputs</b>	
Maximum wireless outputs	100 Devices

### Product Codes

CW9000	CW 1000 Analogue addressable fire control panel
CWB9500	Booster panel
CWH9000	Hybrid panel
CW500	Survey kit



#### Survey Kit

A radio survey is the key to correct and trouble-free operation of any wireless fire detection system.

The CW500 survey kit is supplied in a handy carrying case and operates both as an initial survey instrument and then as a commissioning tool once the equipment has been installed.

<b>Conventional Sounder Ccts</b>	
Number	2
Total load	1.5A
Fuses (F1,F2)	1.5A Quick blow
End of line resistor	6K8
<b>Auxiliary Relay (not monitored)</b>	
Maximum load	24V DC, 1A
Fuse (PTC4)	T.35A Ployswitch
<b>Mechanical Specification</b>	
Weight (incl. batteries)	9Kg
Weight (excl. batteries)	4Kg
Dimensions (mm)	357(L)x75(H)x95(D)
Material (backbox)	Mild steel (powder coated)
Material (riscap)	PC/ABS
Flammability rating	UL 94 V0
Cable knockouts	11x20mm

## Sensors

The CWD range of sensors are based on multi-sensor technologies using combinations of optical smoke detection and both fixed temperature and rate of rise heat detection.

These elements can be selected to provide optimum detection of all types of fire and operating conditions.

### Features

#### CWD910 Sensor Range

- > Multi-sensor technology combining optical smoke detection and configurable heat detection (fixed, r-o-r & high temperature)
- > Tamper alarm
- > First fix base
- > Concealed antennas



CWD910

CWD920

#### CWD920 Sensor AV unit as CWD910 Sensor integrated with:

- > Highly visible led alarm beacon
- > Alarm sounder
- > 4 volume settings
- > 8 tones

## Manual callpoint

The CWC950 Manual Callpoint shares all the features of the Cooper Addressable Callpoints on which they are based, in addition a tamper switch is provided so that an alarm is transmitted to the CW9000 Control Panel if the callpoint is dismantled or removed.

### Features

- > Reassurance led
- > Glass or plastic resettable element (both provided)
- > Tamper alarm
- > Concealed antennas



CWC950

## Open area sounder & beacon

The CWSB980 Sounder / Beacon is based on the Cooper AV unit to provide a combined audible and visual alarm to suit applications affected by the Disabilities Discrimination Act.

### Features

- > 100db(a) sounder
- > Integrated highly efficient led beacon
- > Tamper alarm
- > 4 volume settings
- > 8 tones



CWSB980

### Product Codes

CWD910	Analogue addressable radio multi sensor
CWD920	Analogue addressable radio multi sensor/sounder/beacon
CWC950	Radio callpoint
CWSB980	Radio wall mounted sounder/beacon



- Products:**
- CFDAU30  
Voice Alarm Systems
  - CFDCA4  
Voice Alarm Matrix
  - CFPER4  
Voice Alarm Amplifier
  - CFP24 & CFP48  
Voice Alarm Microphones
  - Floor Rack Unit

Representing the cutting edge of audio technology, Cooper voice alarm systems provide the highest quality audio equipment using the latest digital techniques for greater reliability, ease of operation and simplicity of configuration.

# 5

## Voice Alarm / Public Address Systems



Under BS5588, voice alarm systems are recommended for all public buildings and multi story buildings over four floors. Voice Alarm (VA) systems are the quickest way to evacuate the public & staff from a building.

Following fire detection, automated messages control the flow of people in stair wells and corridors allowing an orderly evacuation without panic. These messages are supplemented by spoken messages from the fire service or management suite confirming the validity and need to leave the building. This positive confirmation speeds evacuation and avoids the 'false alarm' mentality reducing the risk of death from fire.



## Voice alarm systems

### CFDAU30

The CFDAU30 is a new Voice alarm system from Cooper Fire, an innovation which combines the Cooper analogue addressable fire detection panel functionality and sophisticated cause and effect programming with the very latest in voice alarm address technology.



#### Features

- > BS5839 Part 8 Compliant
- > Dual 30W 100V line outputs
- > Wall mounted
- > Integral battery and charger to EN54-4
- > Up to 20 units per loop
- > 3 messages (65 seconds)
- > Soft addressed
- > Emergency microphone in fire interface (with reset)
- > Common fault out
- > Paging input

### CFDCA4 - Voice Alarm Controller

For most installations, this fixed-function networked voice alarm controller provides the ideal solution.



#### Features

- > Meets the requirements of EN54-16, BS5839pt8:2008
- > Four local zones, networkable to eighty
- > Six sounder circuit inputs plus reset
- > Simplified rack cable management
- > 99 entry event log
- > PA and Background music functions integrated
- > Six high quality messages available
- > 64 Network 'Virtual Contacts'
- > Comprehensive Service and Engineering functions
- > Touch Screen front end available

### CFPER4 - Voice Alarm Amplifier

The CFPER4 amplifier is designed to provide the power amplification needed by Voice Alarm systems of all sizes, by using the latest class D techniques the amplifiers are both smaller in size and run cooler than their conventional equivalents.



#### Features

- > Meets or exceeds EN54-16, BS5839pt8:2008
- > Two independent 200W Class D amplifiers
- > Silent DC load monitoring of up to eight spurs
- > Simplified rack cable management
- > Battery charging and monitoring to EN54-4
- > Priority and Page inputs for local systems
- > 2u Convection cooled chassis
- > Intelligent 'Hot Swap' system
- > Impedance monitor option
- > Auxiliary power for matrices

## Product Codes

CFDAU30	Distributed amplifier unit
CFDCA4	Four zone network voice alarm controller
CFPER4	4 dual 200W IPGCPNM class D voice alarm amplifier

## Voice alarm systems

### CFP24/48 - Network Desk Microphones

The CFP24 & CFP48 paging panels have been designed to provide a flexible user interface to the Cooper Voice Alarm systems. The panel layout is clean and uncluttered, but contains all the system functions and status indication required by EN54-16 and BS 5839pt8. A large speak bar is central on the panel and operation is both simple and intuitive.



#### Features

- > Meets the requirements of EN54-16, BS5839pt8:2008
- > Expandable up to 24 (CFP24) or 48 (CFP48) selector keys
- > 99 Entry Event log
- > Complete site fault and status display

### Floor Rack Unit

Our data cabinet range of 19" floor rack range meet the all the requirements of voice alarm installation. They have been designed to enable ease of site assembly and access, safety and security in use, and durability in service.

The cabinets are available in 18u, 27u, 39u, 42u or 45u. They are supplied in a 600mm wide and 800mm deep format as standard, other formats are available to special request.

When you receive your cabinet, all the wiring will be installed, support rails are fitted for heavy items and blank panels fill in unused or ventilation space.

The use of Cat5 patch leads reduces the build labour on all the systems, all power and speaker circuits use industry standard connectors for ease of replacement.

#### Features

- > Enclosed glass front door
- > Slam-latch door
- > Lockable rear metal swing door
- > Vented top cover
- > Four 19" mounting profiles
- > Support rails and blank strips
- > Four castors



## Product Codes

CFP24	Network desk microphone - expandable to 24 keys
CFP48	Network desk microphone - expandable to 48 keys



**Products:**

Spheres / Projectors  
SPH-20, RAC-15 / PAC-15,  
MSP-20, MSP-30

Ceiling Loudspeakers  
Quickfit, MA-4 / 6,  
MC-4 / 5 / 6 / 8, Sound 20

Hom Loudspeakers  
MR-10 / 15 / 20,  
AR-10T / 15T / 30T

Cabinet Speakers  
CM-15 / 20 / 40, WS-10,  
SAFE - V6 / B/D,  
SUB-200 / 500

The Next Two range of public address loudspeakers offer many types and configurations to suit the varying acoustic and environmental conditions found in commercial and industrial locations.

# 6 Loudspeakers



Whether the call is for discrete ceiling speakers in a hotel or for vandal resistant weatherproof columns on a station, there is a suitable model within the range to match the most demanding environments.

Where the speakers are required to operate in a highly secure life safety Voice Alarm system, as found in many public areas such as airports and retail malls, then versions are available which fully meet the recommendations of BS5839-P18.





## MC - 4 / 5 / 6 / 8

### Ceiling Loudspeakers

Designed to be aesthetically pleasing and acoustically engineered for quality sound reproduction, the MC range of loudspeakers are ideal for general public address, background music and voice evacuation systems.

"FT" versions are supplied with firedomes which are fitted into a ceiling prior to the driver assembly, giving the advantage of hard wiring through 2 x 20mm and 1 x 25mm top gland entries to a terminal block in the fire dome. For ease of installation, the units incorporate a user-friendly true first and second fit fixing method and are supplied with a dual 100V/70V line transformer. A convenient plug-in connector is provided for rapid second stage installation.



The MC-FT range is supplied compliant to BS5839, part 8.

### Features

- > 103 dB(a)
- > 10W
- > BS5839-8 Compliant versions available
- > Mild steel
- > 100V/70V line transformer (except MC-4)

### Technical Specifications

Model	MC-4	MC-5	MC-6	MC-8
Power		10W/100V line		
Output	100dB @ 10W		103dB @ 10W	
Sensitivity	90dB @ 1W		93dB @ 1W	
Tappings		0.75, 1.5, 3.0, 6.0, 10W		
Frequency range		100-15,000Hz		
Dispersion @ 1KHz	140° Conical	150° Conical/170° Conical		
Temperature		-20°C to +50°C		
Protection	140° Conical	Interior use		150° Conical
Ceiling opening		Depends on model (see installation instructions)		
Terminations		Nylon block		
Mounting		Bracket		
Weight		0.9Kg to 1.8Kg (dependant on model)		
Material		Steel		
BS5839-8 additions		Steel Fire dome, Ceramic terminals, Thermal fuses, High temp. wiring		
Colour		White		

### Product Codes

MC-4T	4" speaker, 10W, 100V
MC-4FT	4" speaker, 10W, 100V, Part 8 Compliant
MC-5T	5" speaker, 10W, 100V
MC-5FT	5" speaker, 10W, 100V, Part 8 Compliant
MC-6T	6" speaker, 10W, 100V
MC-6FT	6" speaker, 10W, 100V, Part 8 Compliant
MC-8T	8" speaker, 10W, 100V
MC-8FT	8" speaker, 10W, 100V, Part 8 Compliant

## Quickfit

### Ceiling Loudspeakers

The Quickfit truly lives up to its name for ease of installation and quick maintenance due to its unique hinges and fixing mechanism. This combined with stylish appearance and quality sound makes it a totally distinctive unit. Manufactured from UL approved fire retardant ABS to yellow card V.O. at 1.6mm this unit can be supplied with or without transformer and fire dome. The Quickfit is also available in 8 ohm.



### Features

- > Up to 101dB(a)
- > Easy to install
- > 100V line transformer or 8 ohm version available

### Technical Specifications

Model	Quickfit
Power	10W (50/100V line)
Output	101dB @ 10W
Sensitivity	91dB @ 1W
Tappings (100V)	0.25, 0.5, 0.75, 1.5, 3.0, 6.0, 10.0W
Frequency range	110-12,000Hz
Dispersion @ 1KHz	160° Conical
Temperature	-10°C to +50°C
Protection	IP55
Ceiling opening	209mm diameter
Terminations	Nylon block
Mounting	Push clips, hinge
Weight	0.5Kg, 0.7Kg (with transformer), 0.8Kg (with fire dome)
Construction	ABS
Colour	White

### Product Codes

QUICKFIT-T/8OHM	Ceiling speaker, 10W, 100V/8 ohm
QUICKFIT-FT/8OHM	Ceiling speaker, 10W, 100V/8 ohm, Part 8 Compliant



## SAFE - V6 / BiDi

### Vandal Resistant Loudspeakers

This series of elegant looking robust metal cabinet loudspeakers are vandal resistant and are supplied with a 100 volt line transformer. The units contain 2 x 20mm knock-out gland entries and have a range of fixing holes for easy installation to wall or ceiling.

Recommended for voice evacuation systems, these units are ideally suited for use in shopping centres, prisons, schools, railway stations, etc., and can be supplied in optional colours on request. SAFE-V6 units are supplied with 100V/70V line transformer as standard.

The SAFE Bi-Di is a bi-directional 10 Watt loudspeaker ideal for corridors.

The SAFE range is supplied as standard in compliance with BS5839-8.

### Features

- > Up to 125 dB(a)
- > 10, 15 & 30W horn
- > IP66
- > Spun aluminium construction
- > 100V line transformer



### Technical Specifications

Model	V6	BiDi
Power	10W (70/100V line)	10W (100V line)
Output	100dB @ 6W	95dB x 2 @ 10W
Sensitivity	90dB @ 1W	85dB x 2 @ 1W
Tapings		
Frequency range	0.25, 0.5, 0.75, 1.5, 3, 6, 10W	
Dispersion @ 1KHz		12-12,000Hz
Temperature	110-12,000Hz	180° Conical
Protection	150° Conical	
Terminations		- 20°C to +50°C
Cable Entry		Interior use Ceramic block
	2 x 20mm knockouts in top and bottom. Single rear entry	2 x 20mm knockouts in the top. Single rear entry
Mounting		Tilt & turn bracket
Weight		2.0Kg
Construction		Vandal-proof mild steel
BS5839-8		Yes
Colour		White

### Product Codes

SAFE-V4TPT8	Metal cabinet loudspeaker, 6W, 100V transformer, Part 8 Compliant	SAFE-V6TVC	Metal cabinet loudspeaker, 10W, 100V transformer, Part 8 Compliant, with volume control
SAFE-V6TPT8	Metal cabinet loudspeaker, 10W, 100V transformer, Part 8 Compliant	SAFE-Bi-Di 6TPT8	Metal cabinet loudspeaker, 10W, 100V transformer, Part 8 Compliant, bi-directional

## SUB - 200 / 500

### High Quality Cabinet Loudspeakers

The SUB range of monitor-style loudspeakers provides the installer with a stylish solution to sound reinforcement in a variety of locations. These compact units are both pleasing to the eye and unobtrusive.

The cabinets are manufactured from a structurally-loaded plastic material with excellent acoustic properties. The SUB-200 is fitted with a high quality full-range driver; the SUB-500 is a two-way reflex design with an extended bass response. Both systems are ideal for music reproduction.

These products are available in both 8 ohm and 100 volt line versions and come complete with a swivel mounting and slide bracket. Weatherproof and BS5839 part 8 compliant versions are available. BS5839 part 8 compliant versions can be fitted with fire-rated cable tails on request – contact sales office.



### Features

- > Up to 105 dB(a)
- > Up to 50W
- > ABS plastic
- > 8 ohm and 100V line versions available
- > Available in weatherproof and BS5839-8 compliant options

### Technical Specifications

Model	SUB200	SUB500
Power	15W / 100V line, 20W / 8 ohm	30W / 100V line, 50W / 8 ohm
Output	101dB @ 15W	105dB @ 30W
Sensitivity	89dB @ 1W	90dB @ 1W
Tapings (100V)	2, 4, 7.5, 15W	5, 7.5, 15, 30W
Frequency range	100 - 16,000Hz	80 - 20,000Hz
Dispersion @ 1KHz	160° Conical	180° Conical
Temperature Protection		
Terminations		- 10°C to + 50°C
Cable entry		Interior use (WP Version available)
Mounting		Spring loaded terminals (WP Version-ceramic blocks)
Weight		20mm cable gland
Material		Keyhole / Swivel & slide bracket
BS5839-8	1.2Kg / 8 ohm, 1.4Kg / 100V Line	2.3Kg / 8 ohm, 2.3Kg / 100V Line
Colour		Polypropylene
		Yes
		Black or white

### Product Codes

SUB-200T BLACK	Cabinet speaker, 20W, 100V
SUB-200 8OHM	Cabinet speaker, 20W, 8 ohm
SUB-200TPT8	Cabinet speaker, 20W, 100V, Part 8 Compliant
SUB-500T	Cabinet speaker, 50W, 100V
SUB-500 8OHM	Cabinet speaker, 50W, 8 ohm
SUB-500TPT8	Cabinet speaker, 50W, 100V, Part 8 Compliant

## CM - 15 / 20 / 40

### Weatherproof Column Loudspeakers

The slimline CM range of column speakers has been designed for installation with the kind of appeal normally associated with foreground music. These robust yet attractive loudspeakers are designed to give high quality sound reproduction. Complete with an easily fitted rugged stainless steel swivel bracket arrangement these weatherproof speakers can be used in airports, the rail industry, churches, small theatres and other places of entertainment.

With an ingress protection rating of IP65 and BS5839, part 8 compliant as standard, these units represent an affordable and elegant high quality solution for music and speech reproduction.

### Features

- > Up to 109 dB(a)
- > 15, 20 and 40W units
- > BS5839-8 Compliant as standard
- > IP65
- > Aluminium
- > Switchable between 100V line transformer and 8 ohms

### Technical Specifications

Model	CM-15	CM-20	CM-40
Power	15W - 100V line only	20W - 100V line / 4 ohms	40W - 100V line / 8 ohms
Output	101dB @ 15W	106dB @ 20W	109dB @ 40W
Sensitivity	95dB @ 1W	91dB @ 1W	93dB @ 1W
Tappings (100V)	1.25, 2.5, 5, 10, 15W	1.25, 2.5, 5, 10, 20W	2.5, 5, 10, 20, 40W
Frequency range	150 - 18,000	100 - 20,000	100 - 20,000
Dispersion @ 1KHz	180° Horiz / 70° Vert	180° Horiz / 70° Vert	200° Horiz / 90° Vert
Temperature		-20°C to +50°C	
Protection		IP65	
Cable entry Industrial version	1 x M25 entry with conduit adaptor	1 x M25 entry with conduit adaptor	P18 - 2 x M20 entries with glands
	1.7Kg/2.7Kg	Tilt & turn bracket Aluminium	P18 - 2 x M20 entries with glands
Mounting	-Yes	White	
Weight			3.8Kg
Material			
BS5839-8			
Colour			Yes

### Product Codes

CM-15T1	Column speaker, 15W, 100V, plus adaptor, IP65
CM-20T	Column speaker, 20W, 100V, IP65
CM-20TPT8	Column speaker, 20W, 100V, IP65, Part 8 Compliant
CM-40T	Column speaker, 40W, 100V, IP65
CM-40TPT8	Column speaker, 40W, 100V, IP65, Part 8 Compliant

## WS - 10T

### Wall Cabinet Loudspeakers

Designed to offer a high standard of visual appeal at a competitive price, the WS10 also incorporates significant benefits for the installer. With a separate back box, the wiring can be terminated before fit out. The speaker is fitted with a convenient and quick plug in connector allowing a rapid final fit.

Available as a 10W coaxial unit, with facility for glanded cable entry to allow the IP21 rating to be maintained. A stylish brushed stainless steel bezel is available as an optional extra to further enhance the superb aesthetics.

### Features

- > 101dB(a)
- > 10W with multiple tapplings, including a 6W tapping option
- > All versions BS55639-8 Compliant
- > Coaxial drivers for enhanced performance
- > Dual 100V/70V line transformer
- > Stylish brushed stainless steel bezel available (supplied separately)

### Technical Specifications

Model	WS-10T
Power	10W (70/100V line)
Output	101dB @ 15W
Sensitivity	89dB @ 1W
Tappings (100V)	0.25, 0.5, 0.75, 1.5, 3, 6, 10W
Frequency range	150-20,000Hz
Dispersion @ 1KHz	120° Conical
Temperature	-10°C to +56°C
Protection	Interior use
Terminations	Ceramic block
Cable entry	20mm cable gland
Mounting	Keyhole / Swivel & slide bracket
Weight	1.2kg (8 ohm)
Material	ABS (Optional - stainless steel bezel)
BS55639-8 additions	Yes
Colour	White

### Product Codes

WS-10T	Dual cone speaker, 10W, 70/100V transformer, Part 8 Compliant
WS Bezel	Stainless Steel Bezel

## MR - 10 / 15 / 30

### Corrosion Free Horn Loudspeaker

This range of lightweight, corrosion-free and weatherproof horn loudspeakers cover the spectrum of sound required for general sound reinforcement.

These highly effective units give clarity of speech and directional sound reproduction and are supplied complete with a stainless steel bracket. The ABS plastic is unaffected by most chemicals.

The units are available with or without transformer and BS5839, part 8 compliant options.

### Features

- > IP66
- > up to 125 dB(a)
- > 10, 15 and 30W versions
- > Corrosion-free abs plastic
- > Stainless steel mounting bracket
- > BS5839-8 Compliant versions available



### Technical Specifications

Model	MR-10	MR-15	MR-30
Power	10W (100V line)	15W (100V line)30W (100V line)	
Output	115dB @ 10W	115dB @ 15W/125dB @ 30W	
Sensitivity	105dB @ 1W	108dB @ 1W/110dB @ 1W	
Tappings (100V)	1, 3, 5, 10W (selected by rotary switch)	1, 3, 5, 10, 15W/1, 3, 5, 10, 15, 30W (selected by rotary switch)/(selected by rotary switch)	
Frequency range	280-12,000Hz (dependant on model)		
Dispersion @ 1KHz	100°-110° Conical (dependant on model) 20°C to +60°C		
Temperature	IP66 500mm Flying lead		
Protection	Stainless steel 'U' Bracket		
Terminations	1.1Kg - 1.6Kg with transformer (dependant on model)		
Mounting	ABS		
Weight	Aluminium		
Construction	Versions available		
Material	Light cream		
BS5839-8			
Colour			

### Product Codes

MR-10T	Horn speaker, 10W, 100V line transformer
MR-15T	Horn speaker, 15W, 100V line transformer
MR-30T	Horn speaker, 30W, 100V line transformer
MR-15 8OHM	Horn speaker, 15W, 8 ohms only
MR-30 8OHM	Horn speaker, 30W, 8 ohms only
MR-10TPT8	Horn speaker, 10W, 100V line transformer & BS5839, Part 8 Compliant
MR-15TPT8	Horn speaker, 15W, 100V line transformer & BS5839, Part 8 Compliant
MR-30TPT8	Horn speaker, 30W, 100V line transformer & BS5839, Part 8 Compliant

## AR - 10T / 15T / 30T

### Horn Loudspeakers

Next Two's metal horn loudspeakers are manufactured in robust spun aluminium and are designed for heavy-duty industrial use. They are coated in a tough, grey epoxy finish. The AR-30 has switchable tappings which allow the installer to adjust sound pressure levels without rewiring.

Suitable for both indoor and outdoor use, these compact re-entrant horns provide high sensitivity combined with a tightly controlled dispersion pattern.

The AR-15 and AR-30 come complete with a 16mm weatherproof gland entry plate. The AR-10 is supplied with a 300mm flying lead.

### Features

- > Up to 125 dB(a)
- > 10, 15 & 30W horn
- > IP66
- > Spun aluminium construction
- > 100V line transformer



### Technical Specifications

Model	AR-10T	AR-15T	AR-30T
Power	10W (100V line)	15W (100V line)30W (100V line)	
Output	117dB @ 10W	120dB @ 15W/110dB @ 30W	
Sensitivity	107dB @ 1W	109dB @ 1W/110dB @ 1W	
Tappings (100V)	2.5, 5.0, 10W	2.0, 4.0, 7.7, 15W/4.0, 7.7, 15, 30W	
Frequency range	325-6,000Hz (dependant on model)		
Dispersion @ 1KHz	110° - 120° Conical (dependant on model)		
Temperature	20°C to +60°C		
Protection	IP66		
Terminations	1 x M16 Gland entry		
Mounting	'U' Bracket		
Weight	1.5Kg/2.0Kg		
Construction	Flying lead		
Material	Aluminium		
Colour	Light grey		
	1.0Kg		

### Product Codes

AR-10T	Industrial horn speaker, 10W, 100V, IP66
AR-15T	Industrial horn speaker, 15W, 100V, IP66
AR-30T	Industrial horn speaker, 30W, 100V, IP66

## RAC - 15 / PAC - 15

### Sound Projectors

These elegant but rugged sound projectors are manufactured in an aluminium extruded case finished in white (RAL 9010). The RAC-15 has a slide fitting mounting bracket whereas the PAC-15 has a fitted U-bracket. Incorporated in these units is a high quality dual cone driver unit giving both clear speech and excellent background music reproduction for many applications both indoors and out. With a rugged construction, these units are ideally suited for use in corridors, passageways, shopping centres, prisons, car parks, railway stations and other public places.

The RAC-15 and PAC-15 are BS5839, part 8 compliant, weatherproof to IP54 and are fitted with a 100V line transformer and a 0.5m fire rated cable tail as standard.

### Features

- > Up to 104dB(a)
- > 15W
- > BS5839-8 Compliant
- > IP54
- > Aluminium housing
- > 100V line transformer
- > Options available :
  - 8 ohms
  - Special paint finish



### Technical Specifications

Model	PAC - 15FT	RAC - 15FT
Power	15W - 100V line	2 x 7.5W - 100V line
Output	104dB @ 15W	98dB @ 15W
Sensitivity	92dB @ 1W	80dB @ 1W
Tappings (100V)		
Frequency range		0.8, 1.3, 2.7, 4, 7.5, 15W
Dispersion @ 1KHz	120° - 20,000Hz	140° - 20,000Hz
Temperature		
Protection		130° Conical -40° to +90°
Terminations		IP54
Mounting		Flying lead - 0.5m fire rated multicore 'U' Bracket
Weight		
Material		
BS5839-8		
Colour	2.4Kg	2.6Kg
		Aluminium
		Yes
		White

### Product Codes

RAC-15FT (Industrial)	Bi-directional speaker, 2 x 75W, 100V, Part 8 Compliant, plus adaptor
RAC-15FTPT8	Bi-directional speaker, 2 x 75W, 100V, Part 8 Compliant
PAC-15FT (Industrial)	Projector speaker, 15W, 100V, Part 8 Compliant, plus adaptor
PAC-15FTPT8	Projector speaker, 15W, 100V, Part 8 Compliant

## MSP - 20T

### Music Projector

20 Watt Music Projectors providing excellent music reproduction as well as clear speech. Ideal for leisure centres, swimming pools, stadiums, etc. as well as for background music applications. Weatherproof. Complete with 100 volt line transformer, 8 ohm version available by request. BS 5839, part 8 compliant version is also available.

Supplied with multicore flying lead and stainless steel bracket.

### Features

- > Up to 108dB(a)
- > 20W
- > IP54
- > ABS plastic body, painted metal grille
- > 100V line transformer or 8 ohm version
- > BS5839-8 Compliant option



### Technical Specifications

Model	MSP-20T
Power	20W (100V line)
Output	107dB @ 20W
Sensitivity	95dB @ 1W
Tappings (100V)	2.5, 5, 10, 15, 20W
Frequency range	125-20,000Hz
Dispersion @ 1KHz	120° - 150° Conical (dependant on model)
Temperature	-20°C to +60°C
Protection	IP54
Terminations	Flying lead -1m or 0.5m multicore (dependant on model)
Mounting	Stainless steel 'U' bracket
Weight	2.2Kg
Construction	ABS
Colour	Cream

### Product Codes

MSP-20T	Speaker, 20W, IP54, 100V transformer
MSP-20TPT8	Speaker, 20W, IP54, 100V transformer, Part 8 Compliant

## MSP - 30T

### Music Projectors

30 Watt Music Projectors providing excellent music reproduction as well as clear speech. Ideal for leisure centres, swimming pools, stadiums, etc, as well as for background music applications. Weatherproof. Complete with 100 volt line transformer, 8 ohm version available by request. BS 5839, part 8 compliant version is also available.



Supplied with multicore flying lead and stainless steel bracket.

### Features

- > Up to 112dB(a)
- > 30W
- > IP54
- > ABS plastic body, painted metal grille
- > 100V line transformer or 8 ohm version
- > BS5839-8 Compliant option

### Technical Specifications

Model	MSP-30T
Power	30W (100V line)
Output	112dB @ 30W
Sensitivity	97dB @ 1W
Tappings (100V)	100V - 7.5, 15, 30W, 70V - 3.8, 7.5, 15, 30W, 50V - 1.9, 3.8, 7.5, 15, 30W
Frequency range	125-20,000Hz
Dispersion @ 1KHz	120° - 150° Conical (dependant on model)
Temperature	-20°C to +60°C
Protection	IP54
Terminations	Flying lead -1m or 0.5m multicore (dependant on model)
Mounting	Stainless steel "U" bracket
Weight	3.7Kg
Construction	ABS
Colour	Cream

### Product Codes

MSP-30T	Speaker, 30W, IP54, 100V transformer
MSP-30TPT8	Speaker, 30W, IP54, 100V transformer, Part 8 Compliant

## SPH - 20T

### Pendant Sphere

This elegant plastic sphere is the ideal system for providing high-quality sound in areas where conventional ceiling speakers are impractical. Typical applications include supermarkets, department stores and warehouses. The unit has a smooth omni-directional dispersion pattern, which helps to reduce hot spots and dead areas.



The SPH-20T has inputs for both transformer and 8 ohm matching. It is available in either black or white and comes complete with 3m of 8 core, screened cable.

### Features

- > Up to 107dB(a)
- > Up to 20W
- > ABS plastic
- > Available in BS5839-8 Compliant versions
- > 100V line transformer or 8 ohm operation

### Technical Specifications

Model	SPH-20T
Power	20W (100V line)
Output	107dB @ 20W
Sensitivity	94dB @ 1W
Tappings (100V)	2.5, 5, 10, 20W
Frequency range	100-18,000Hz
Dispersion @ 1KHz	180° Vertical / 360° Horizontal
Temperature	-20° to +50°
Protection	IP54
Terminations	3m multicore lead / suspension cable
Mounting	Suspension via termination cable
Weight	2.4Kg
Construction	ABS
Option	BS5839-8
Colour	Black or white

### Product Codes

SPH-20T Black	Pendant sphere, Black, 20W
SPH-20T Part 8 Black	Pendant sphere, Black, 20W, Part 8 Compliant
SPH-20T White	Pendant sphere, White, 20W
SPH-20T Part 8 White	Pendant sphere, White, 20W, Part 8 Compliant

