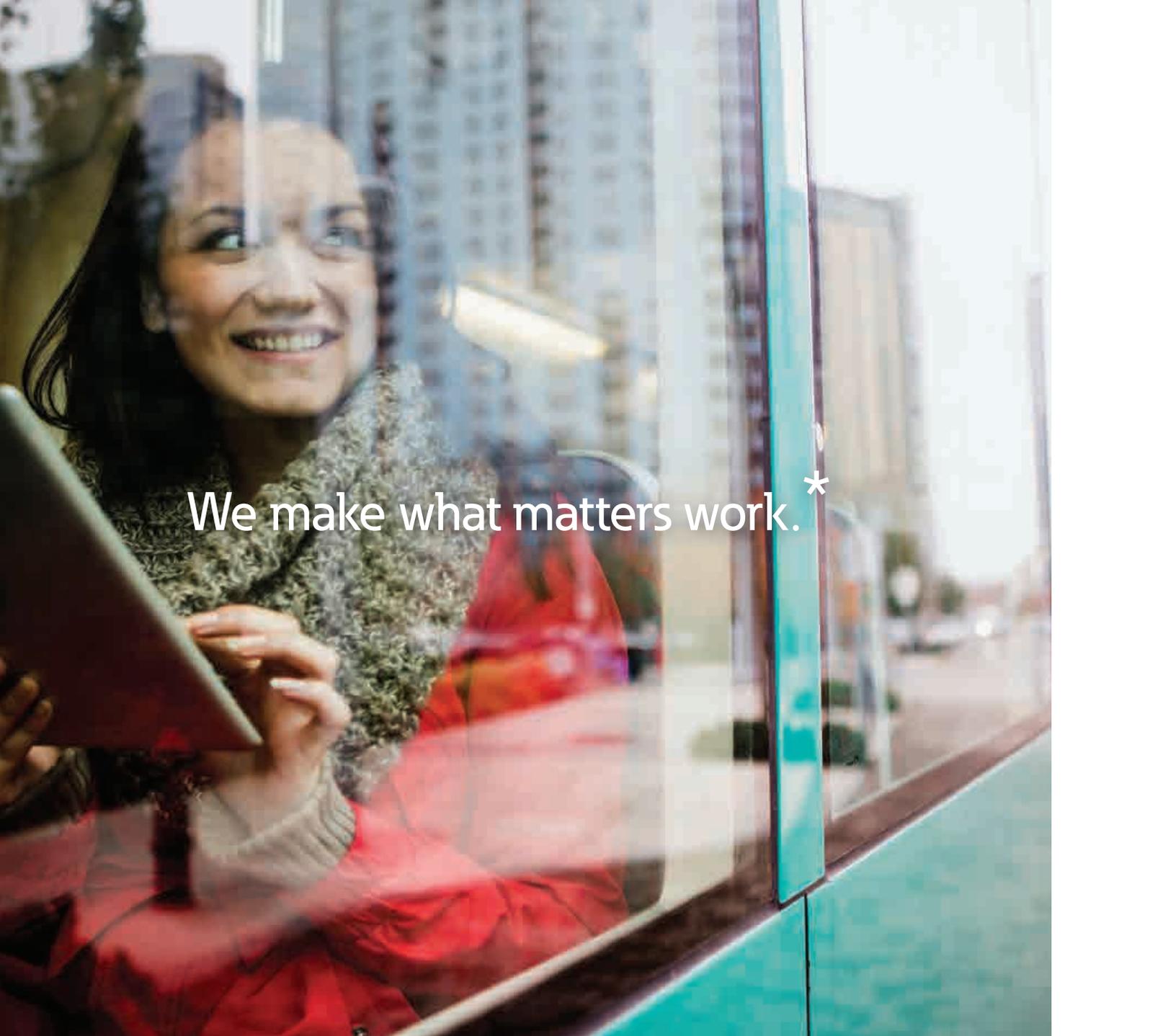


# VoCALL product range: Voice alarm (PAVA) and refuge systems (EVCS)

## Make your voice heard



*Powering Business Worldwide*



We make what matters work.\*

\* Every day, people depend on things like technology, transportation, energy and infrastructure to keep their daily lives on track. But without power, none of it would be possible. That's why companies around the world turn to Eaton. We're dedicated to improving people's lives and the environment with innovative technologies that help manage power more safely, reliably and sustainably. To meet today's challenges, and tomorrow's. Because this is what really matters. And we're here to make sure it works.

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Eaton fire systems and devices



# Excellence in fire and voice alarm systems

Robust fire and voice alarm systems are essential to the protection of people, property and business continuity in commercial buildings. Early detection of a fire risk can prevent catastrophic damage. The risks associated with failure - from loss of life to irreparable reputational damage, make the selection of a fire or voice alarm system a vitally important process.

To ensure the highest levels of safety, all of the people involved in the purchase, installation, commissioning, operation and maintenance of a fire or voice alarm system need to know that the chosen system, and all associated devices, can be relied upon.

Eaton brings decades of expertise to the development of fire and voice alarm systems working closely with industry organisations and customers to shape the future of fire safety. Products within the range, spanning state-of-the-art control panels, detectors and alarm devices, are seamlessly compatible with each other, and are quality assured through a process of rigorous testing.

## Industry Firsts:

- First low-current solution to meet EN54-23 standard for visual alarm devices
- First to introduce a touch-screen on a fire alarm panel
- World's leading supplier of fire notification devices (IHS Fire Detection and Suppression - World, 2016)
- Originator of the market leading Roshni fire alarm sounder
- Creator of the first resettable manual call point

## Expertise:

- 2,000,000 RoLP sounders sold in the last 5 years alone
- Compliance with local, national and international regulations and standards CE, Bosc, Intertek, LPCB, VdS, AFNOR, BAFE, CSIRO, CNBOP, UL certification
- Trusted supplier to some of the world's leading fire safety brands
- Heritage of innovation across legacy brands: Fulleon, JSB, Menvier and Nugelec

# Refuge and voice alarm systems



# Emergency voice communication systems – why are they important?

Emergency voice communication (EVC) systems allow firefighters and others, including members of the public, to communicate with one another during emergency situations in and around buildings, and at sports and similar venues. They also facilitate communication with disabled building occupants, and other individuals that may require additional assistance.

As EVC systems are used in connection with life safety it is essential that these systems are subject to high standards of design, manufacture, installation, commissioning and maintenance. The standards are similar to those covering fire detection and fire alarm systems and voice alarm systems.

## Do you comply?

Building Regulations (BS 5839-9:2011) require that all new non-domestic buildings, with more than one storey, provide 'refuge' areas, i.e. relatively safe places where people, who cannot easily use fire escapes and evacuation lifts, can call for assistance and wait until help arrives. Simple, effective two-way communication (refuge system) in these areas is essential, firstly to assist rescue teams in determining where assistance is required and secondly to reassure people help is on the way.

## Eaton's VoCALL network

Our range of EVCS control units cover functionality for all builds, whether small and basic or larger and more complex. All parts are designed to comply with BS5839 part 9 with EN54-4-A2 compliant power supplies and chargers.

## Which system is right for you, analogue or digital?

The information below indicates which system would suit your small, medium or large EVC system project requirements.

VoCALL EVC systems	No. of panels					
	1 to 5	1 to 9	1 to 16	1 to 19	1 to 256	1 to 512
<b>VoCALL analogue</b>						
VoCALL 5 line analogue panel						
VoCALL 5 line master panel						
VoCALL 10 line slave panel						
VoCALL network master and 8 line exchange unit						
<b>VoCALL digital</b>						
VoCALL 16 master panel						
VoCALL 16 slave panel						

# Introduction

## Refuge and voice alarm systems

### Public address and voice alarm systems – how can they assist safe evacuation?

Under BS5839 Pt.8 2013, voice alarm (VA) systems are recommended for all public buildings and multi-storey buildings over four floors. PAVA systems help to protect the safety of building occupants in an emergency by verbalising useful information about the nature of the hazard or the safest and nearest escape route. Such communication is particularly important in large, vulnerable or complex buildings where some occupants may be unfamiliar with emergency procedures and exit points, such as shopping centres, transport hubs, hospitals, schools and offices.

Evacuation of a commercial building can be triggered by a growing array of potential threats. Fire was once regarded as the most probable cause but the rise of other risks, ranging from acts of terrorism to extreme weather, has diversified the circumstances in which an evacuation may take place. In event of an emergency, automated messages control the flow of people in stairwells 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 injury, or worse.

### Why do we need PAVA systems?

Research has shown that people react slowly to a fire alarm sounder and much more positively and quickly to a Voice message

- 13% of people react in a timely manner to bells
- 45% of people react to text information
- 75% of people react in a timely manner to voice messages

### PAVA systems provide clarity to all building occupants

Without a PAVA system there can be confusion:

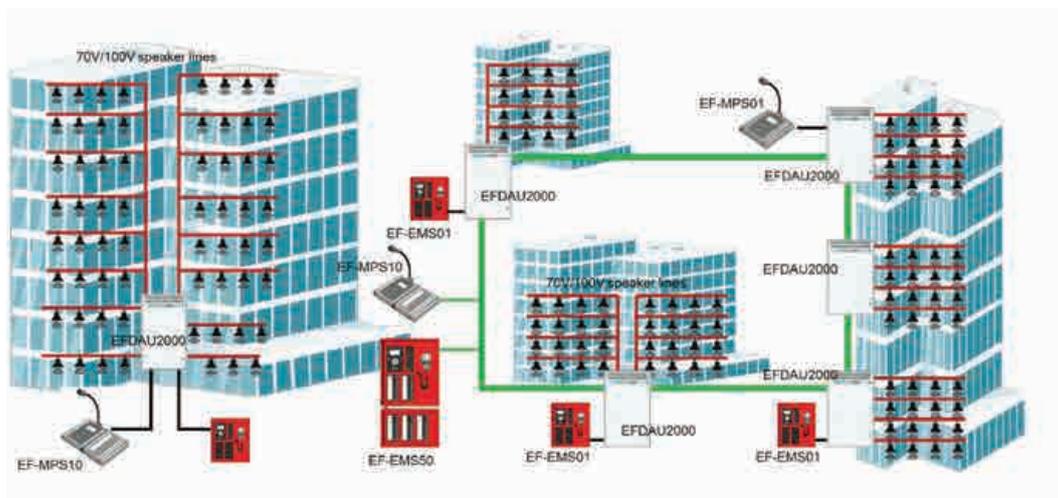
“Is that a false alarm?”

“Which way should we go?”

With a PAVA system clear messaging can be provided to building occupants:

“A fire has been reported, please leave the building ...”

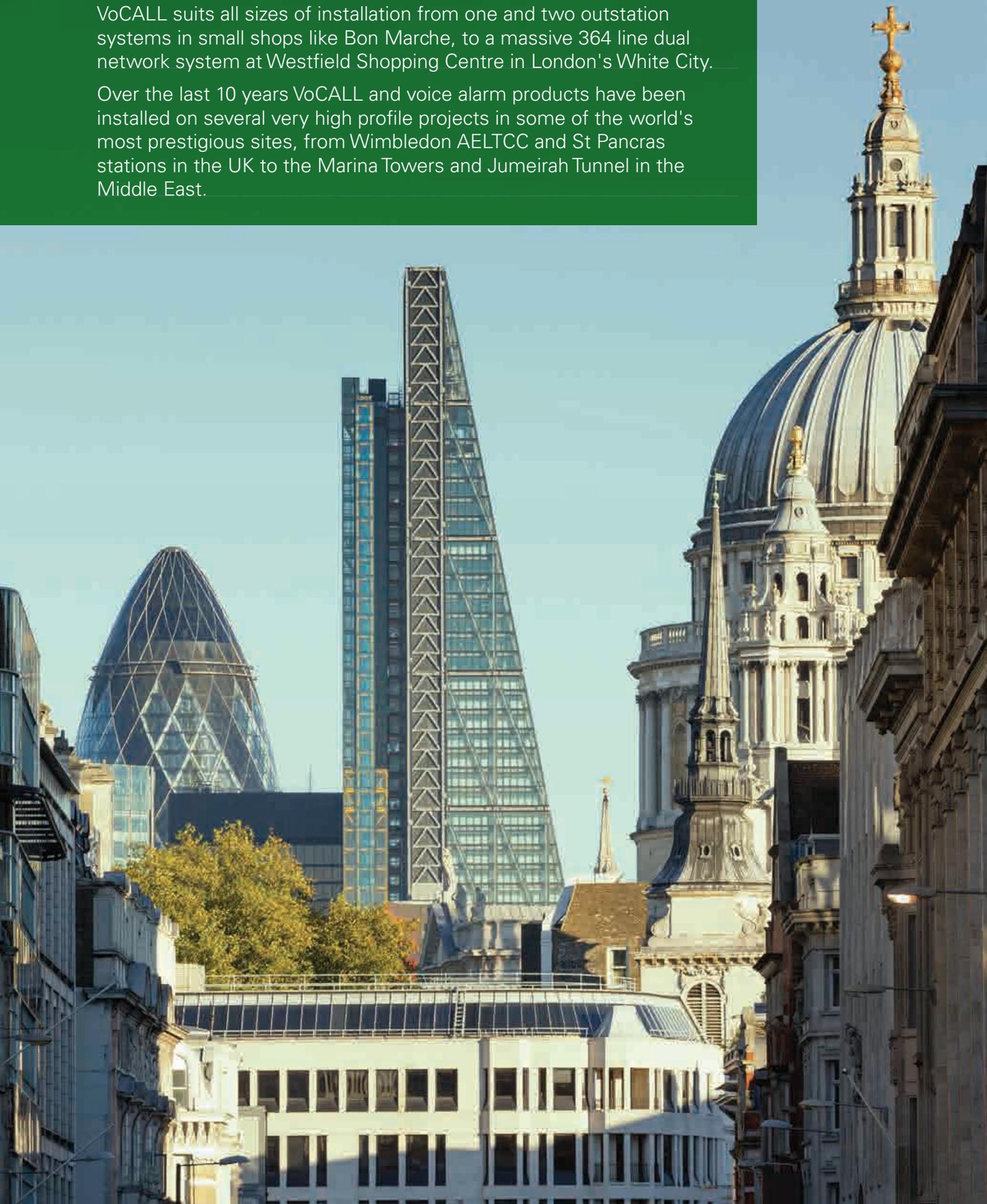
### Example installation



## Major Projects

VoCALL suits all sizes of installation from one and two outstation systems in small shops like Bon Marche, to a massive 364 line dual network system at Westfield Shopping Centre in London's White City.

Over the last 10 years VoCALL and voice alarm products have been installed on several very high profile projects in some of the world's most prestigious sites, from Wimbledon AELTCC and St Pancras stations in the UK to the Marina Towers and Jumeirah Tunnel in the Middle East.



VoCALL analogue ranges



# Contents

## VoCALL analogue range

### Panels

VoCALL compact 5 line **12**      VoCALL compact 9 line and 10 line slave exchange **14**



VoCALL 8 line **16**      VoCALL network master handset **18**



### Outstations

VoCALL type A outstation **20**      VoCALL type B outstation **22**      Ancillaries **24**



### Emergency alarm assist equipment

Kits and accessories **26**



## VoCALL compact 5 line EFVCC5

The VoCALL Compact 5 Line Unit is ideal for smaller installations which require just a limited number of outstations and Emergency Assist Alarms.

The EFVCC5 is a standalone unit containing the systems master handset, EN54-4 approved power supply and connectivity for the 5 outstations. 20mm knockouts are provided for all system cabling and the housing is of ample size to support 2x 3.2Ah backup batteries.

Coming  
2019



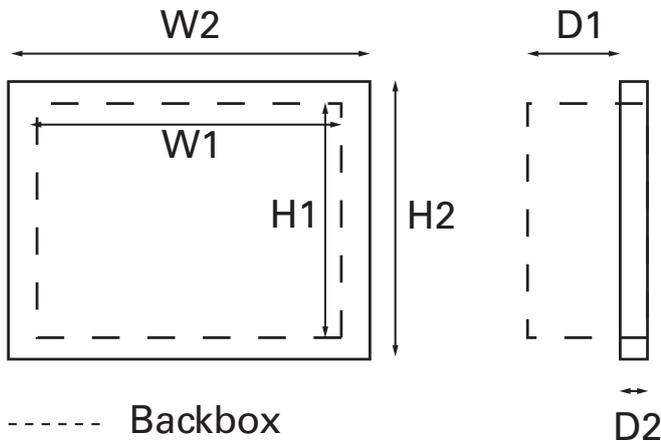
### Features

BS5839 part 9 compliant	✓
Monitored handset	✓
Monitored supply and charger	✓
Relay outputs	✓
No programming	✓
Functional with emergency assist alarms	✓

### Product codes

VoCALL compact 5 line master exchange unit, non-network, surface mount, graphite	EFVCC5
VoCALL compact 5 line master exchange unit, non-network, flush mount, stainless steel	EFVCC5-FB

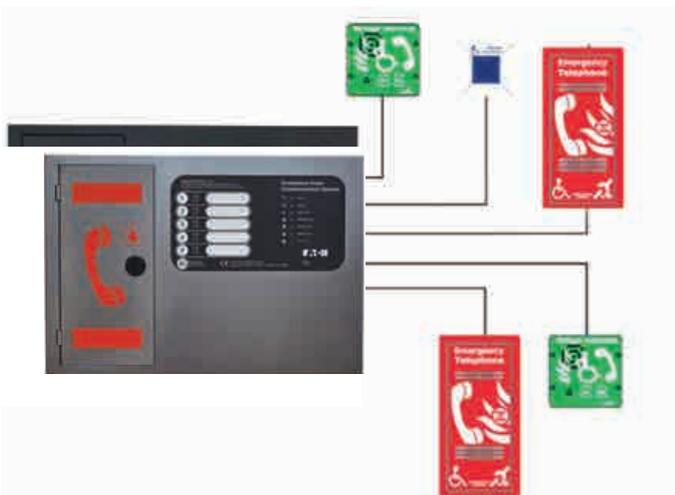
## Dimensions



Description	H1 (mm)	W1 (mm)	D1 (mm)	D2 (mm)
Backbox	280	397	77	-

Description	H2 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Flush mounted	309	427	77	16

## Typical application schematic



Standard	Certificate number
EMC	EN55103-1 & EN55103-2
LVD	EN60950
Local	BS5839 Pt9
PSU	EN54-4

## Technical specification

Code	EFVCC5
Product description	VoCALL Compact 5 Line Unit

Power supply	
Voltage	230V ac +/- 10% 50/60Hz
Internal power supply	24V dc
Supply and battery	Monitored, open, short, fuses
Protection	Deep discharge, short, thermal
Battery size and type	2 x 12V VRSLA 5Ah
Mains fuse	240V 2A HRC
Battery fuse	1A PTC
Charge current	250mA (max)

Inputs	
Number of lines	5
Remote enable	Short to use
End of line	10kΩ

Outputs	
Number	2 (fault & in-use)
Type	Volt free relay
Contact	30V dc 1A

Controls	
Buttons	5 zone keys, 1 acknowledge
Zone LEDs (x5)	1 line status, 1 fault status
Supply LED	AC & DC
Fault LEDs	3 (CPU, supply & general)

Outstation cables	
Type	Fire rated (some installations will require enhanced cabling, see wiring guide for details).
Cores	2 Core (1mm or 1.5mm)
Distance (max)	300m

Physical	
Weight	6.5kg

Installation	
Mounting	Surface or semi-recessed
Cutout	330mm x 300mm (semi-recessed unit)
Cable Entries	Top: 7 x Cable knockouts (20mm)

# VoCALL compact 9 line master and 10 line slave exchange unit CFVCCM9/CFVCCS10

The VoCALL Compact 9 Line Master Unit is ideal for small to medium sized building installations which don't require the complexity of a full network solution.

This system comprises of the 9 line master unit controlling up to 9 outstations (type A, type B, duo emergency assist alarms or in Far East and Middle East applications and jack plates) and with the use of the VoCALL 10 Line Slave Exchange unit, this system can be easily expanded to 19 lines.



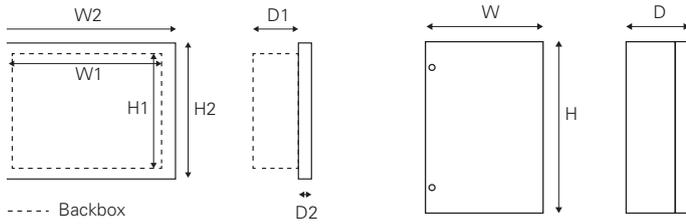
### Features

BS5839 Pt9:2011 compliant	✓
EN54 Pt4:A2 power supply and charger	✓
4 navigation keys	✓
6 status LEDs	✓
4 line, 20 character LCD	✓
Simple menu programming	✓
Wall mount case	✓
Up to 19 lines possible combining the VoCALL 10 and 9	✓

### Product codes

VoCALL compact 9 line master unit	CFVCCM9
VoCALL 10 line slave exchange unit	CFVCCS10

**Dimensions**



Compact 9

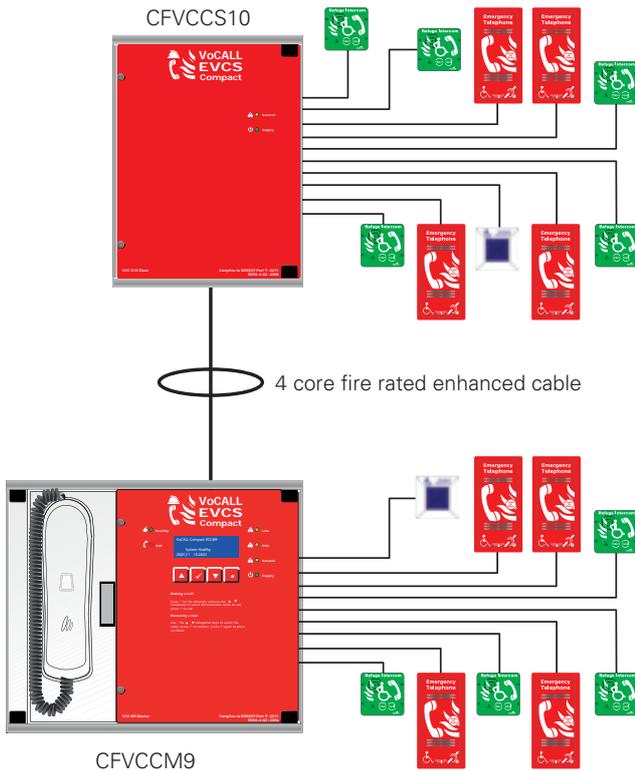
10 line slave exchange

Compact 9 dimensions	H1 (mm)	H2 (mm)	W1 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Backbox	330	-	300	-	78	-
Semi recessed (front)	-	330	-	350	-	25

10 line slave exchange dimensions	H (mm)	W (mm)	D (mm)
Slave unit (surface mount)	330	221	102

**Typical application schematic**



**Technical specification**

Product Description	VoCALL Compact 9 Line Master Unit	VoCALL 10 Line Slave Exchange Unit
<b>Power supply</b>		
Voltage	230V ac +/- 10% 50/60Hz	
Supply and battery	Monitored, open, short, fuses	
Protection	Deep discharge, short, thermal	
Battery size and type	1 x 12V SLA 5Ah	
Mains fuse	240V 125mA HRC	
Battery fuse	500A PTC	
Charge current	220mA	
<b>Inputs</b>		
Number of lines	9	N/A
Remote enable	Short to use	N/A
Line voltage	24V dc +/- 3	N/A
<b>Outputs</b>		
Number	2 (fault & in-use)	
Type	Volt free relay	
Contact	30V dc 1A	
<b>Controls</b>		
Buttons	4 navigation keys	N/A
Display	4 lines, 20 characters	N/A
Status LEDs	3 (healthy, call & supply)	1 supply
Fault LEDs	3 (line, PSU & general)	1 general
<b>Outstation cables</b>		
Type	Fire rated (some installations will require enhanced cabling, see wiring guide for details)..	
Cores	2 Core (1mm or 1.5mm) Fire rated enhanced (standard fire rated cable can be used in certain circumstances -see VoCALL wiring guide).	
Distance	500m	
<b>Network Cables (for use with the 10 line slave unit)</b>		
Type	Fire rated (some installations will require enhanced cabling, see wiring guide for details).	
Cores	1 off 4 core (1mm CSA Soft Skin)	
Distance	10m (max) must be within fire barrier for compliance with current standards	
<b>Physical</b>		
Construction	Powder Coated Zintec	
Weight	6.5kg	4.8kg
<b>Installation</b>		
Mounting	Surface or semi-recessed	Surface
Cutout	330mm x 300mm (semi-recessed unit)	N/A
Cable Entries	Top: 17 x Cable knockouts (20mm) Bottom: 1 x Cable knockout (20mm)	

## VoCALL 8 line network exchange unit CFVCX8

The CFVCX8 VoCALL Network 8 Line Exchange unit is a small, wall mounted unit which can be distributed throughout a site and concealed from view in convenient locations such as risers, stairwells and cupboards.

Using this system greatly reduces the cabling requirement and equipment 'on view' in key places such as reception areas, making the system aesthetically pleasing to the customer as well as reducing the cost of installation.

Each Network 8 Line Exchange unit sits on a network and is locally powered with internal battery backup from a monitored, maintained and sealed lead acid battery



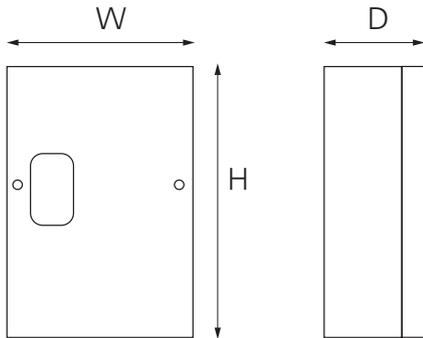
### Features

Can control up to 8 independent monitored lines	✓
Built in monitored 1A charger for 12V SLA 5Ah batteries	✓
12 status LEDs	✓
Dry contact for fault or "in-use" indication	✓
Serial port for configuration or updates	✓
Dual network ports which provide power for the master handsets	✓
Full duplex system	✓
Compact design	✓

### Product codes

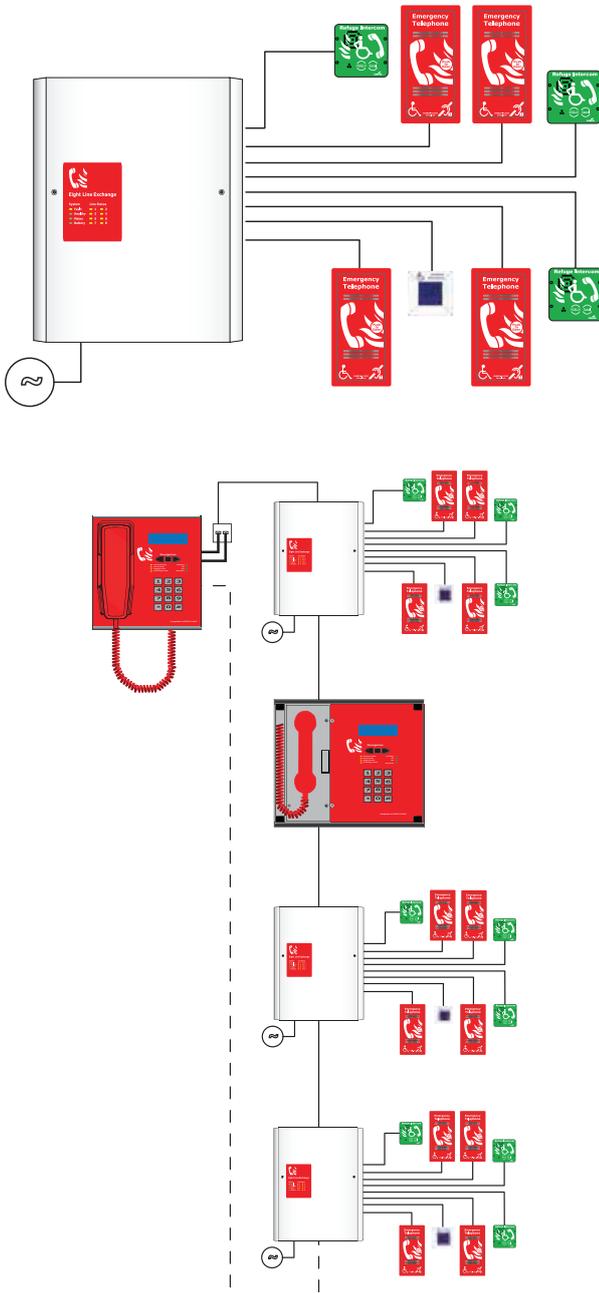
VoCALL Network 8 Line Exchange Unit	CFVCX8
-------------------------------------	--------

## Dimensions



Description	H (mm)	W (mm)	D (mm)
Surface Mounted	338	212	118

## Typical application schematic



## Technical specification

Product Description	VoCALL Network 8 Line Exchange Unit
---------------------	-------------------------------------

### Power supply

Voltage	230V ac +/- 20%
Current	11mA
Battery	12V SLA 12Ah
Charger	1A controlled impedance
Monitoring	Open, short & high impedance cell

### Inputs

Number of lines	8
-----------------	---

### Indication & Controls

Fault LEDs	10x yellow (general, supply, 8 lines)
Status LEDs	2x green (ac & dc)
Settings	8 way DIP switch

### Outstation cables

Type	Fire rated (some installations will require enhanced cabling)
Cores	2 Core (1mm or 1.5mm)
Cable (per Leg)	1 of 2 core soft skin (twisted for MICC)
Distance (per Leg)	500M soft skin types, 300M MICC
Monitoring	DC open, short & earth

### Network Cables

Type	Enhanced
Cores	1 of 4 pair (eg Draka 910245) 2 of 4 core 1mm CSA soft skin (Max 1.5mm)
Distance	300M soft skin types, 300M MICC
Monitoring	Data and phantom voltage

### Physical

Construction	Zintec, Texture Powder Coated, RAL7032
Weight	1.6kg

### Installation

Mounting	Surface
Cable entries	Top: 11 x Cable knockouts (20mm) Bottom: 1 x Cable knockouts (20mm)

Standard	Certificate number
EMC	EN55103-1 & EN55103-2
LVD	EN61000-3-2 & EN61000-3-3 & EN60950
Product family	BS5839 Pt9 & BS9999

# VoCALL network master handset CFVCM

The VoCALL Network Master Handset can be either wall or desk mounted and has a clear four line backlit display which shows the calling outstation name in plain text. Calls can be made to outstations by either dialling the number of the unit or choosing the name for a text dialling directory.

Each system can have up to 4 VoCALL Network Master Handsets which gives great flexibility to the larger installations, allowing all calls to be monitored from various control points.



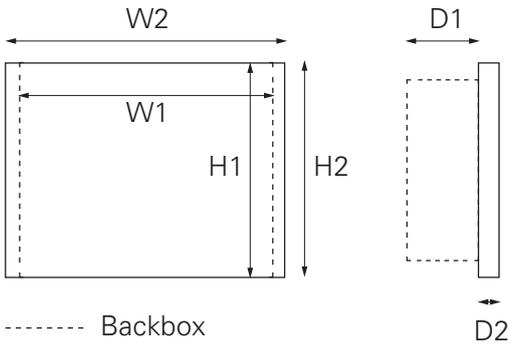
## Features

Up to 4 network master handset per system	✓
Controls up to 152 lines (19 x 8 line exchange units)	✓
Monitored handset	✓
Large high contrast display (4 x 20 character)	✓
12 key quick dial keypad	✓
Full duplex system	✓
Directory dial function	✓
Full system even log (fault & configuration)	✓
Dual network ports	✓
Remote powered requiring no mains supplies	✓
Global configuration, whole site can be configured from the network master handset	✓

## Product codes

VoCALL network master handset, desk mount	CFVCM
VoCALL network master handset, wall mount	CFVCWM

## Dimensions

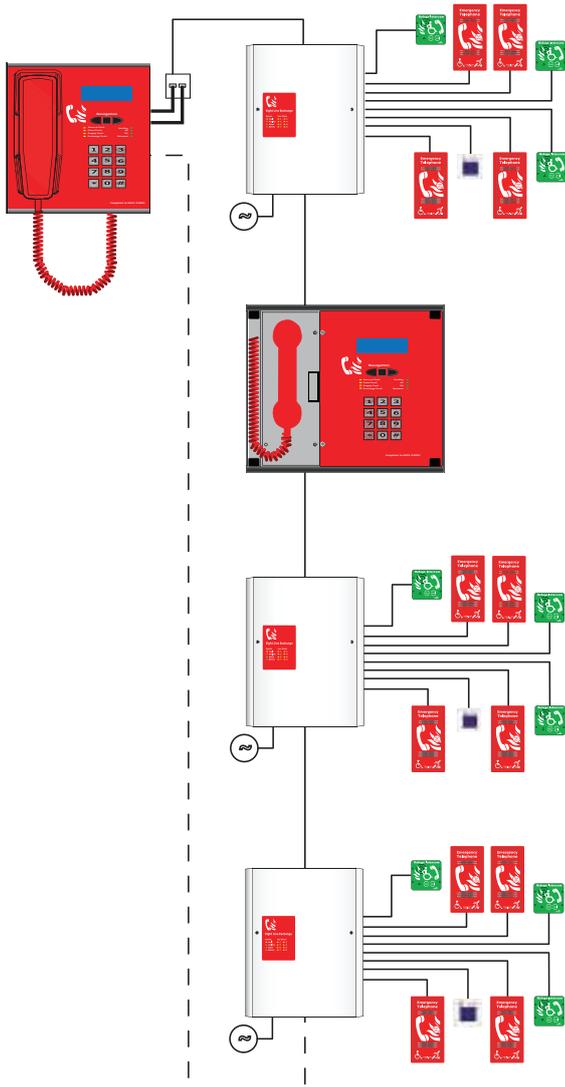


Description	H1 (mm)	W1 (mm)	D1 (mm)	D2 (mm)
Backbox	300	300	65	N/A

Description	H2 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Semi-recessed (Front)	300	300	N/A	25

Description	H (mm)	W (mm)	D (mm)
Desk mount unit	265	275	65

## Typical application schematic



## Technical specification

Product Description	VoCALL Network Master Handset (Wall Mount Unit)	VoCALL Network Master Handset (Desk Mount Unit)
<b>Network Cables</b>		
Type	Enhanced	
Cores	2 of 4 core 1mm CSA soft skin	
Max distance between network nodes	500m (Draka 910245, soft skin) 300M MICC	
Max distance total network length	3000m (Draka 910245, soft skin) 1000M MICC	
<b>Indication &amp; Controls</b>		
Fault LEDs	4 of yellow (general, panel, supply & exchange)	
Status LEDs	4 of green (healthy, ac, dc & network)	
Screen	High contrast blue/white LCD 4 line 20 character, 5 x 8 pixel format	
<b>Physical</b>		
Construction	Zintec, Texture Powder Coated, RAL7032	Base: Brushed Stainless Steel Lid: Zintec, Black Powder Coated Sides: Aluminium, Black Powder Coated
Weight	6.5kg	6.5kg
<b>Installation</b>		
Mounting	Surface or semi-recessed	Desk
Cutout	300mm x 300mm (semi-recessed units)	N/A
Cable entries	Top: 7 x Cable knockouts (20mm) Bottom: 1 x Cable knockouts (20mm)	N/A
<b>Standard</b>		<b>Certificate number</b>
EMC		EN55103-1 & EN55103-2
Product family		BS5839 Pt9 & BS9999

## VoCALL Type A outstation CFVCSHP

The VoCALL Type A Outstation is a compact unit which offers easy access via a magnetic push catch or lockable metal door. The Type A outstation is compatible with all VoCALL analogue systems for use as a standard fire telephone or disabled refuge call point.

The Type A outstation is available in surface mounted, flush mounted and IP65 lockable variants with the option of either red or stainless steel finished, providing a solution for all commercial buildings.



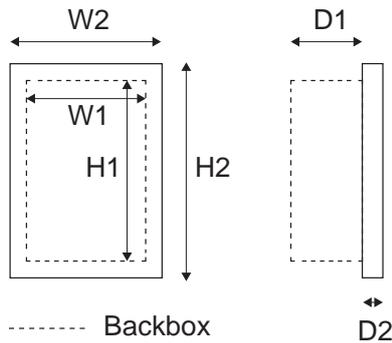
### Features

Compact design	✓
High volume ringer	✓
Status LED	✓
Full duplex operation	✓
Stainless steel option	✓
Versatility, the unit can be used on all VoCALL systems	✓
Dual use, the Type A outstation can be used as a fire telephone or a disabled refuge call point	✓
Magnetic push catch for quick and easy access	✓

### Product codes

VoCALL Type A outstation, surface mount, red	CFVCSHP
VoCALL Type A outstation, surface mount, stainless steel	CFVCSHPSS
VoCALL Type A outstation, flush mount, red	CFVCFHP
VoCALL Type A outstation, flush mount, stainless steel	CFVCFHPSS
VoCALL Type A uncased red handset	CFVCHFS
VoCALL Type A outstation, IP65 lockable, surface mount, red	CFVICIPA

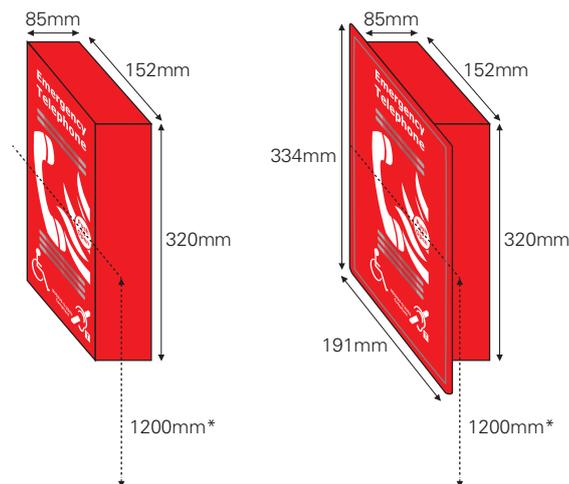
## Dimensions



Description	H1 (mm)	W1 (mm)	D1 (mm)	D2 (mm)
Backbox	320	152	85	-

Description	H2 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Semi-recessed (Front)	334	191	85	2

## Unit mounting



## Technical specification

Code	CFVCSHP
Product description	VoCALL Type A outstation
<b>Outstation cables</b>	
Type	Enhanced
Cores	2 core 1mm or 1.5mm
Distance	500m

Physical	
Construction	Zintec, powder coated
Colour options	Red / stainless steel
Weight	1.4kg (IP65 lockable box 2.5kg)

Installation	
Mounting	Surface or flush
Mounting height	1200mm from the finished floor level to the centre point of the unit.
Cutout	325mm x157mm (flush mount units)
Clearance	When units are used as refuge call points suitable space for a wheelchair user must be allowed.

## Unit wiring



When choosing the outstation type for use with an EVC System we recommend reading relevant country specific standards.

Type A outstations should be used for evacuation or fire fighting use and a Type B outstation should only be used where Type A outstations are impractical.

For disabled refuges Type A or Type B outstations can be used, however Type B outstations should only be used where the background noise is below 40dBA (therefore there should be no sounder or voice alarm coverage in the area).

All VoCALL outstations are designed for use by multi-disability users, having high contrast signage in line with RNIB guidelines and an induction loop coil output in the outstation.

## VoCALL Type B outstation CFVCSHF

The VoCALL Type B Outstations are designed to be versatile, compact and easy to use.

These units can be both flush (via a separate bezel) or surface mounted, have a high volume ringer, status LED and tactile Braille signage.



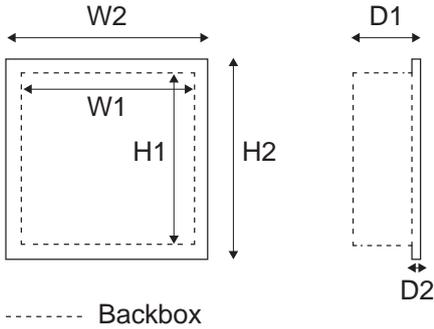
### Features

Compact design	✓
High volume ringer	✓
Status LED	✓
20mm cable glands	✓
Loop output for hearing impaired users	✓
Tactile Braille signage	✓
Full duplex operation	✓
Flush bezel mounting available	✓
Stainless steel option	✓

### Product codes

VoCALL Type B outstation, surface mount, red	CFVCSHF
VoCALL Type B outstation, surface mount, green	CFVCSHFG
VoCALL Type B outstation, surface mount, stainless steel	CFVCSHFSS
VoCALL flush mounting bezel for use with any Type B outstation, stainless steel	CFVCFHB

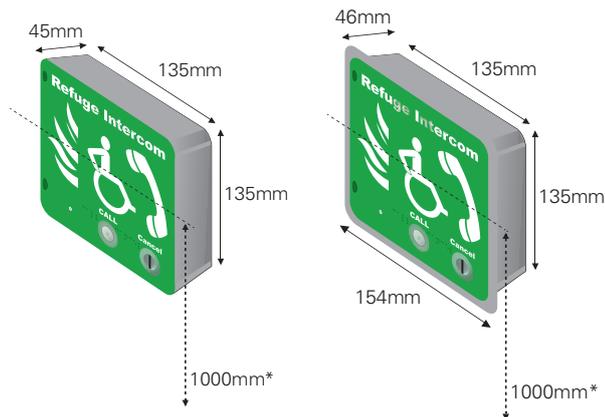
### Dimensions



Description	H1 (mm)	W1 (mm)	D1 (mm)	D2 (mm)
Backbox	135	135	42	-

Description	H2 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Flush (seperate bazel)	154	154	45	2

### Unit mounting



### Technical specification

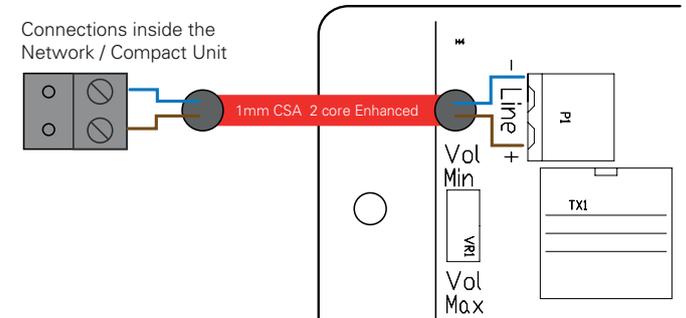
Code	CFVCSHP
Product description	VoCALL Type B outstation
<b>Outstation cables</b>	
Type	Fire rated (some installations will require enhanced cabling, see wiring guide for details).
Cores	2 core 1mm or 1.5mm
Distance	500m

<b>Indications &amp; controls</b>	
Status LEDs	2 off red (flashing for location lights, solid in use)
Call button	Press to call button
Cancel button	Press to cancel button

<b>Physical</b>	
Construction	Zintec, powder coated
Colour options	Green / red / stainless steel
Weight	1.105kg

<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	140mm x 140mm (flush mount units)
Clearance	When units are used as refuge call points suitable space for a wheelchair user must be allowed.

### Unit wiring



Line - connector on Network / Compact Unit to Type B Line -  
Line + connector on Network / Compact Unit to Type B Line +

When choosing the outstation type for use with an EVC System we recommend reading relevant country specific standards.

Type A outstations should be used for evacuation or fire fighting use and a Type B outstation should only be used where Type A outstations are impractical.

For disabled refuges Type A or Type B outstations can be used, however Type B outstations should only be used where the background noise is below 40dBA (therefore there should be no sounder or voice alarm coverage in the area).

All VoCALL outstations are designed for use by multi-disability users, having high contrast signage in line with RNIB guidelines and an induction loop coil output in the outstation.

## VoCALL roaming handset and jack plate CFVCRJP/CFVCRHS

The VoCALL CFVCRHS roaming handset is used along with the CFVCRJP jack plate, for emergency voice communication system installations in countries whose fire codes allow for roaming handsets (these units are not suitable for installation in the UK).

When used together, the roaming handset and jack plate form a Type A outstation which is compatible with all VoCALL analogue systems. Ideal for use in commercial buildings in the Far East and Middle East where standards allow.



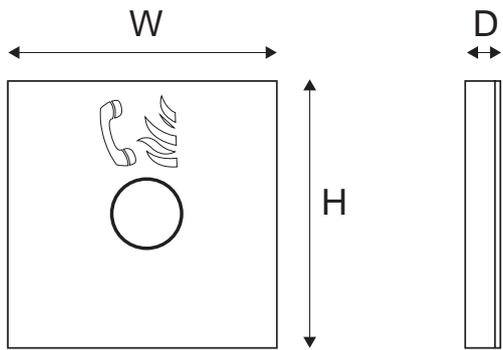
### Features

Flexible roaming phone	✓
Low noise high quality telephone jack	✓
Telecoil for hearing impaired users	✓
Full duplex operation for 2-way voice communication	✓
Stainless steel jack plate	✓
Full duplex operation, allowing two way voice communication	✓

### Product codes

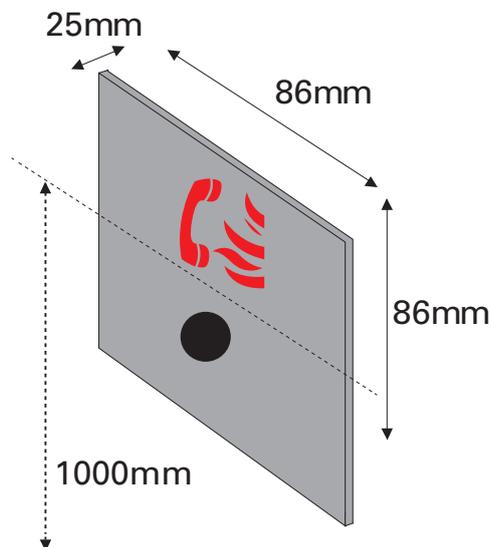
VoCALL roaming handset	CFVCRHS
VoCALL jack plate	CFVCRJP

### Dimensions



Description	H (mm)	W (mm)	D (mm)
Jack plate	86	86	25

### Unit mounting



### Technical specification

Code	CFVCRHS
Product description	VoCALL roaming handset
<b>Controls</b>	
Call	Automatic "off hook" dialling
<b>Connection</b>	
Jack plate	1/4" mono neutrik heavy duty
<b>Physical</b>	
Construction	Acrylonitrile butadiene styrene (ABS) UL90V1
Colour	Red
Weight	0.7kg

Code	CFVCRJP
Product description	VoCALL jack plate
<b>Outstation cables</b>	
Type	Enhanced
Cores	2 core 1mm or 1.5mm
Distance	500m
Monitoring	dc open, short and earth
End of line	10K 1/4 W
<b>Physical</b>	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg
<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	86mm x 86mm (flush units)

Code	CFVCRJP
Product description	VoCALL jack plate
<b>Outstation cables</b>	
Type	Enhanced
Cores	2 core 1mm or 1.5mm
Distance	500m
Monitoring	dc open, short and earth
End of line	10K 1/4 W
<b>Physical</b>	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg
<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	86mm x 86mm (flush units)

Code	CFVCRJP
Product description	VoCALL jack plate
<b>Outstation cables</b>	
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End of line	10K 1/4 W
<b>Physical</b>	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg
<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	86mm x 86mm (flush units)

### Jack plate wiring

Connections inside the Network / Compact Unit



The jack plate and roaming handset are suitable for EVC System installations in countries whose fire codes allow for roaming handsets. Not suitable for installation in the UK.

## Emergency assist alarm equipment

Emergency assist alarms are required by building regulation document M.

We offer either a stand-alone kit or a kit which integrates the Emergency Assist equipment with our VoCALL products.



Our emergency assist alarm kits supply everything you need to install a fully compliant system.

### VoCALL kit

This Emergency Assist Alarm - VoCALL kit has been specifically designed to integrate disabled call functions into the VoCALL network or VoCALL compact ranges.

It is fully monitored and battery backed by the VoCALL system. The Emergency Assist Alarm shows up as a call on the VoCALL system, but has no speech path so a conversation cannot be had with the occupant, use of the Type B outstations would allow this.

### Stand alone kit

The Emergency Assist Alarm - stand alone kit provides the perfect solution for conformity with the building regulations document M and Equality Act 2010.

The Emergency Assist Alarm - stand alone kit comprises of all the components needed to install a fully compliant system, with additional parts available separately.

### 4 Way Splitter

The 4 Way Splitter unit allows up to 4 stand alone disabled toilets to be monitored in one specific area. Staff can then, at the designated area such as a reception or security desk, react to an alarm swiftly and efficiently.

**EAA VoCALL kit  
CFVCEA**



**Typical applications:**

Disabled Toilets.

Includes:

- Over door indicator
- Cancel button
- Pull cord unit
- Disabled sticker pack

Does not include PSU as the kit is powered by a VoCALL system or 4 way splitter in conjunction with a CFEAPULLKIT which provides the PSU.

**Accessories:**



Pull cord unit

**EAA standalone kit  
CFEAPULLKIT**



**Typical applications:**

Disabled Toilets.

Includes:

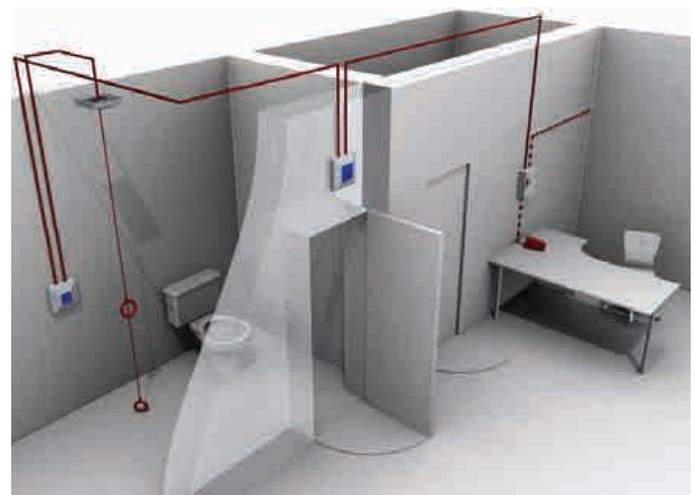
- Power supply unit
- Over door indicator
- Cancel button
- Pull cord unit
- Disabled sticker pack



4 way splitter

**Catalogue numbers**

<b>Stand alone</b>	
Emergency assist alarm - stand alone kit	CFEAPULLKIT
<b>For use with EVC panel or 4 way splitter</b>	
Emergency assist alarm - kit without PSU	CFVCEA
<b>Accessories</b>	
4 way splitter	CFEASL4
Emergency assist pull cord unit	CFEAPULL
Pull cord accessory pack	CFEACORD



Emergency assist alarm stand alone kit, basic usage schematic

VocALL digital range



# Contents

## VoCALL digital range

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VoCALL 16 digital master **30**



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# VoCALL 16 digital master MX16

The VoCALL 16 is a high specification loop driven intelligent emergency voice communication system offering sophisticated functionality along with simple end user operation. It has been designed to ensure simplicity of future expansion, a maximum of 16 outstations of various types can be controlled from one master panel.

Loop wiring ensures the system is fault tolerant through the use of short circuit isolators and continuous fault monitoring ensures high availability. The system uses digital audio transmission to maintain audio quality and intelligibility when it matters most.

The ease of operation and cabling, and competitive pricing make the system suitable for a wide range of applications. In combination with our range of soft addressed digital outstations this stand-alone system reduces the labour and materials cost along with the potential for wiring errors associated with traditional spur systems. Extensive time stamped logs and records are stored internally on the SD card.



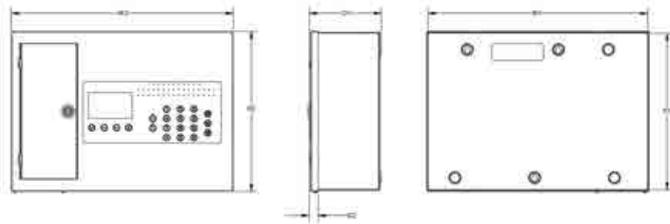
### Features

Up to 16 digital outstations per panel	✓
4 core loop configuration	✓
Soft addressing of outstations	✓
SD card integration	✓
Stainless steel flush mounting option	✓
Ease of programming	✓
Large graphic user interface	✓
PIN protected user levels	✓

### Product codes

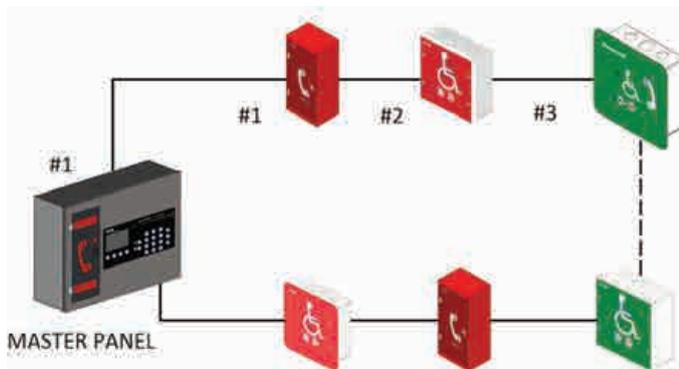
VoCall 16 master panel	MX16
VoCall 16 master panel stainless steel flush cover	MX16-SSC

## Dimensions



VoCALL 16 dimensions	H1 (mm)	H2 (mm)	W1 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Backbox	346	-	483	-	158	20
Semi recessed (front)	-	355	-	487	-	-

## Wiring and installation



## Installation

- The panel is designed for ease of installation with a full range of knockouts on all surfaces along with a substantial rear entry cut-out.
- Up to 200m max between outstations.
- Up to 2000m total loop length.
- 4 core 1.5mm cable loop (check local standards for cable type and installation regulations).
- Panels are provided with a keyhole type mounting on the rear for ease of installation and alignment.
- Key operated hinged lockable door.
- Mains input protection is provided via a resettable fuse.
- Comprehensive installation and operation manual is provided on the SD card in each panel and online.

## Capacity

- Up to 16 outstations in total, non-networkable system.
- All digital outstations Type A and Type B can be connected on the loop in any order.

## Functionality

- Panel has facility for 10 users with access profiles set during commissioning for example user, supervisor and engineer.
- Supervisor and engineer modes can only be accessed via the relevant PIN codes.

## Technical specification

### Code

### Power supply

Input voltage 230V ± 10% RMS 50/60Hz AC - input to Power supply

### Current consumption @ 24V:

VoCALL16 EVCS	2.7W
Type A outstation	0.65W
Type B outstation	0.65W

### Mechanical

#### Dimensions (H x W x D mm)

VoCALL16 EVCS	488 x 355 x 155 mm
Type A outstation	320 x 152 x 114 mm
Type B outstation	132 x 132 x 57 mm

Weight (VoCALL16 EVCS) 6.7kg

Weight (Type A outstation) 2.2kg

Weight (Type B outstation) 0.6kg

### Environmental

Temperature (Storage) -5°C to +40°C

Temperature (Operation) -5°C to +40°C

Humidity range 0% to 95% non-condensing

- Users can be configured to receive, make and reset a call, view fault / event / call log, functions, view panel version, accept system faults, set date/time etc.
- The unit has digital audio transmission and automatic volume control to optimize clarity of communication between outstation and master.
- Engineer mode allows alteration to the system configuration such as change all PINs, panel settings, site name, panel name relay settings, addition or removal of outstations.
- VoCALL16 is designed to ensure simplicity of future expansion up to 16 outstations.
- In the event of an external short circuit occurring the system will operate the integral short circuit isolators on the devices nearest to each side of the short. The panel will then drive communication from both sides of the loop thus maintaining full communication with all outstations.

## User interface

- The main element of the user interface is a large 100mm x 40mm display that provides comprehensive user information which along with the large tactile standard mechanical keypad allows for ease of operation in an emergency situation even with gloved hands.
- In addition to the graphical user interface there are 16 numbered LEDs to provide instant clear indication as to which outstation is calling even to an untrained user unfamiliar with the operation of the unit.

## VoCALL type A digital outstation TA16-RS

The VoCALL Type A Digital Outstation is a compact unit which offers easy access via a magnetic push catch door.

The outstation is compatible with VoCALL digital systems for use as a standard fire telephone or disabled refuge call point. It is compatible with all VoCALL digital systems.



### Features

Compact design	✓
High volume ringer	✓
Status LED	✓
Telecoil for hearing impaired users	✓
Full duplex operation	✓
Magnetic push catch door for quick access	✓
Stainless steel option	✓

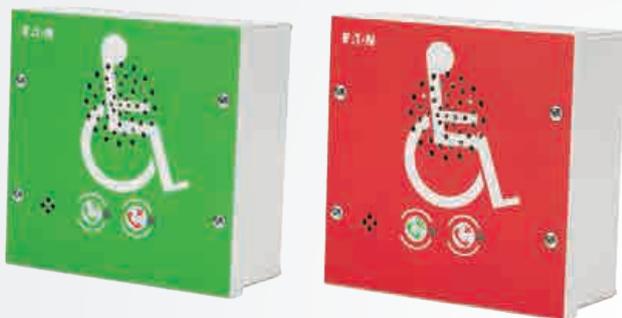
### Product codes

Description	Code
Type A outstation (red, surface mount)	TA16-RS
Type A outstation (bezel, red, flush mount)	TA16-BEZ

# VoCALL Type B digital outstation TB16

The VoCALL Type B Outstations are designed to be versatile, compact and easy to use.

These units can be ordered as both flush or surface mounted, have a high volume ringer, status LED and tactile Braille signage. It is compatible with all VoCALL digital systems.



## Features

Compact design	✓
High volume ringer	✓
Status LED	✓
20mm cable glands	✓
Loop output for hearing impaired users	✓
Tactile Braille signage	✓
Full duplex operation for 2-way voice communication	✓
Flush bezel mounting available	✓
Stainless steel option	✓

## Product codes

Description	Code
Type B outstation (green, surface mount)	TB16-GS
Type B outstation (green, flush mount)	TB16-GF
Type B outstation (red, flush mount)	TB16-RF
Type B outstation (red, surface mount)	TB16-RS

## Emergency assist alarm kit digital outstation EAA16-LS

The Emergency Assist Alarm - VoCALL kit has been specifically designed to integrate disabled call functions into the VoCALL digital range, providing the perfect solution for conformity with local building regulations and country codes of practice.

By integrating the VoCALL kit with the Emergency Voice Communication System all calls relating to disabled communications can be monitored on the same VoCALL system.

This emergency assist solution is fully monitored and battery backed by the VoCALL system, saving local power supplies and giving confidence in the system integrity. The alarm shows up as a call on the VoCALL system, but has no speech path so a conversation cannot be had with the occupant, use of the Type B outstations will allow this.



### Features

Remote powered from the VoCALL digital system	✓
No additional VoCALL system connection equipment required	✓
Dual loop pull cord	✓
High contrast labels	✓
Braille on cancel plate	✓
Blue indication	✓
No PSU required, remotely powered by VoCALL system	✓
Calls from disabled toilets and refuge points are monitored from one location	✓

### Product codes

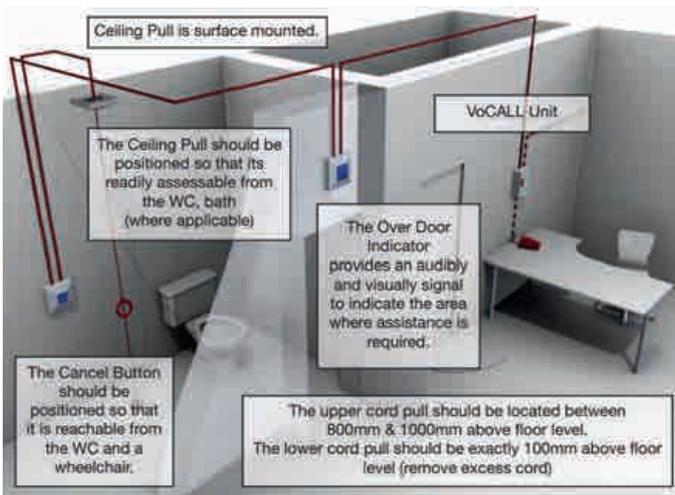
Description	Code
Emergency assist alarm - vocall kit	EAA16-LS
Emergency assist pull code unit	CFEAPULL
Over door indicator	CFEAODI
Cancel button	CFEARS
Pull cord accessory pack	CFEACORD
Disabled sticker (pack of 5)	CFEADS

## System installation

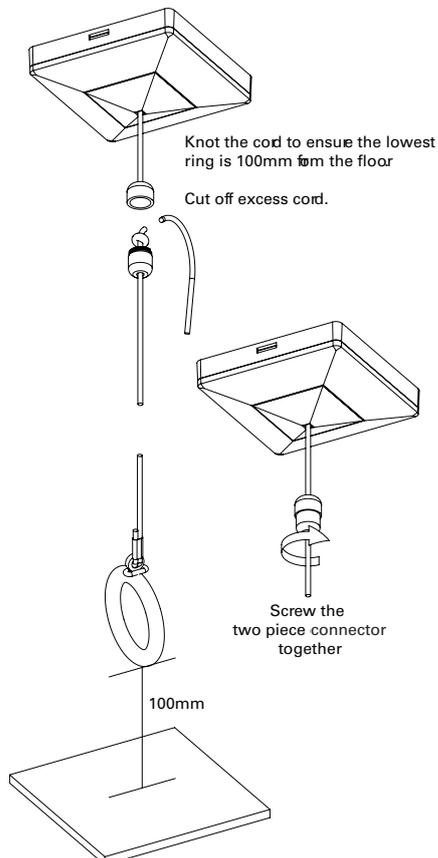
The Emergency Assist Alarm should be installed in accordance with local building regulations and country codes of practice. The diagram below demonstrates a typical layout for installation in a disabled persons toilet.

Note: Where pertinent other or alternative standards of design and installation should be adhered to.

All system components are designed to be sited internally and positioned in locations where they are readily accessible by the user. The area should be clean and dry. Sound and light levels allow the status of all device indicators and sounders to be seen and heard.



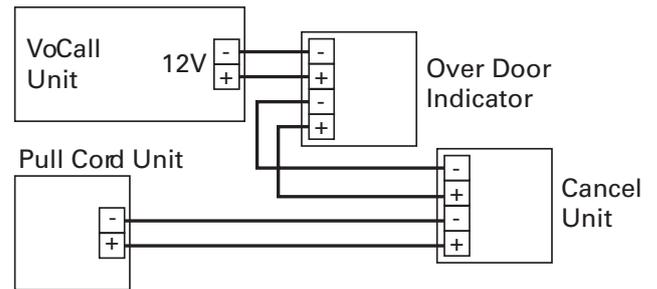
## Pull station installation



## Wiring

The wiring from the VoCALL master exchange, or from the VoCALL compact exchange consists of a single pair; this does not have to be fire rated, although this may be used, the link through to the pull cord is monitored and any open circuit or short will be recorded as a fault on the VoCALL system. A 10K resistor must be fitted in the pull cord unit for the monitoring to work. If this is not fitted then the exchange will show open circuit fault.

Always segregate Extra Low Voltage (ELV) wiring from the mains wiring. System requires minimum 2 core 0.4mm<sup>2</sup> cable. All wallmounting devices should be mounted onto a back box of the required depth.



### Note:

- Installer must follow schematic above when connecting to VoCALL circuits.
- Circuit is limited to one each of the over door indicator, pull cord, and cancel units only.

## System operation

To place a call - operate the pull cord. LEDs will illuminate on pull cord unit, cancel unit and over door indicator. An internal buzzer will also sound in the over door indicator.

Vocall unit will indicate emergency assist alarm activations.

To reset call - press the cancel button on emergency assist alarm.

## Emergency assist 4-way power supply splitter CFEASL4

The CFEASL4 4-way splitter unit allows up to four stand alone, disabled toilets to be monitored in one specific area. Staff can react to an alarm swiftly and efficiently at the designated area, such as a reception or security desk. When using the 4 way splitter, each disabled toilet does not need its own PSU as each toilet is powered by the 4 way splitter.

Note: one standard CFEAPULLKIT must be used to supply the necessary PSU for the system, the other units may be CFVCEA.



### Features

Designed to comply with all regulations and recommendations	✓
High visibility	✓
Small compact design	✓
Local panel acknowledge call button	✓
Up to four disabled toilets monitored in one area	✓
Uses blue LEDs to avoid confusion	✓
Visibility to remote staffed areas	✓
No mains or PSU required at each disabled toilet using the 4 way splitter	✓

### Product codes

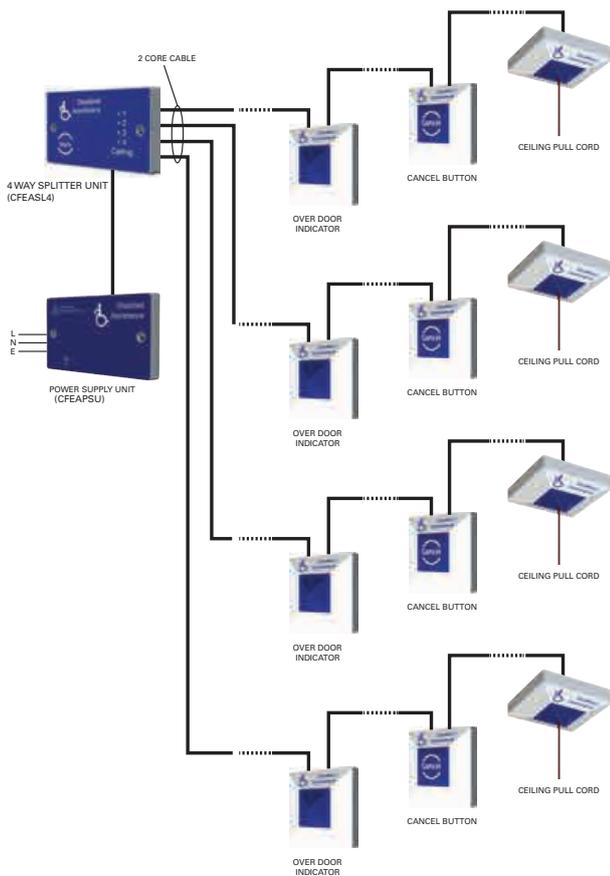
Description	Code
4 way splitter	CFEASL4
Emergency assist pull cord unit	CFEAPULL
Emergency assist alarm - VoCALL kit	EAA16-LS
Over door indicator	CFEAODI
Cancel button	CFEARSF
Pull cord accessory pack	CFEACORD
Disabled sticker (pack of 5)	CFEADS

## Wiring

The mains powered supply must be wired by a qualified person in accordance with the latest revision on the IEE wiring regulations (currently 17th Edition), and connected to the building mains supply using a fused spur (fitted with a 3A fuse).

All mains wiring should be provided in accordance with current wiring regulations and in accordance with relevant national wiring rules.

Always segregate Extra Low Voltage (ELV) wiring from the mains wiring. System requires minimum 2 core 0.4mm<sup>2</sup> cable. All wallmounting devices should be mounted onto a back box of the required depth.



## Technical specification

Code	CFEASL4
Description	4 Way Splitter Unit

Specification	
Output	Volt free relay

Physical	
Construction	PC
Dimensions (mm)	H 86 x W 146 x D 39

Code	CFEAPSU
Description	Power Supply Unit

Specification	
Mains	230V ac +10% -15%
Output	12V dc (nominal)
Battery (optional)	YUASA NP 0.8Ah/12V

Physical	
Construction	PC
Dimensions (mm)	H 86 x W 146 x D 39

## VoCALL roaming handset and jack plate – digital outstations TJ16-LS/TJP-SF/TJ16-Handset

The VoCALL CFVCRHS roaming handset is used along with the TJP-SF jack plate, for emergency voice communication system installations in countries whose fire codes allow for roaming handsets (please check your relevant country standards for guidance).

When used together, the roaming handset and jack plate form a type A outstation which is compatible with all VoCALL systems. Ideal for use in commercial buildings in the Far East and Middle East and where standards allow.



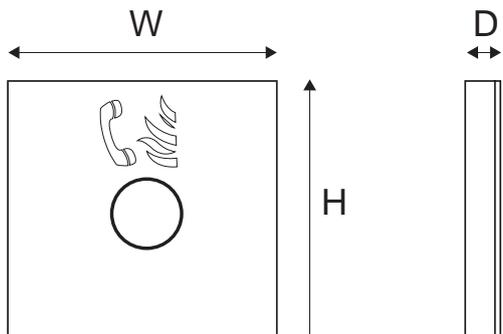
### Features

Flexible roaming phone	✓
Low noise high quality telephone jack	✓
Telecoil for hearing impaired users	✓
Full duplex operation for 2-way voice communication	✓
Stainless steel jack plate	✓
Full duplex operation, allowing two way voice communication	✓

### Product codes

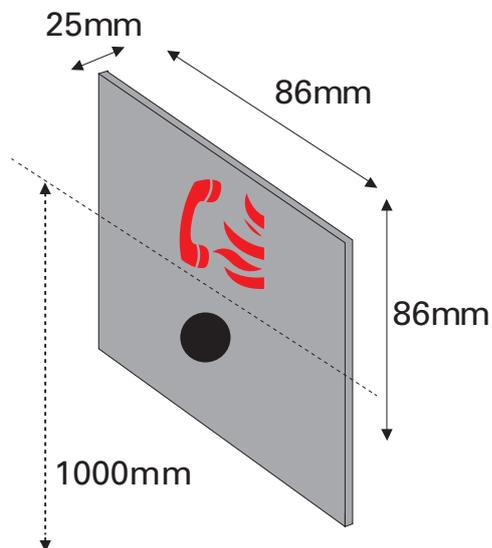
VoCALL roaming handset	TJ16-Handset
VoCALL jack plate	TJP-SF
Digital jack outstation master	TJ16-LS

### Dimensions



Description	H (mm)	W (mm)	D (mm)
Jack Plate	86	86	25

### Unit mounting



### Technical specification

Code	CFVCRHS
Product description	VoCALL roaming handset
<b>Controls</b>	
Call	Automatic "off hook" dialling
<b>Connection</b>	
Jack plate	1/4" mono neutrik heavy duty
<b>Physical</b>	
Construction	Acrylonitrile butadiene styrene (ABS) UL90V1
Colour	Red
Weight	0.7kg

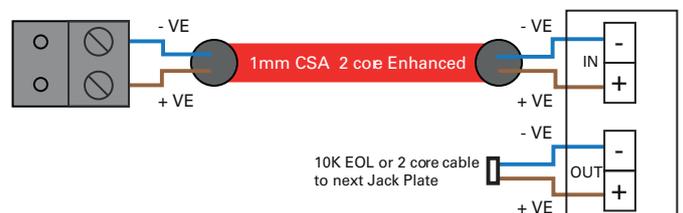
Code	CFVCRJP
Product description	VoCALL jack plate
<b>Outstation cables</b>	
Type	Enhanced
Cores	2 core 1mm or 1.5mm
Distance	500m
Monitoring	dc open, short and earth
End of line	10K 1/4 W
<b>Physical</b>	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg
<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	86mm x 86mm (flush units)

Code	CFVCRJP
Product description	VoCALL jack plate
<b>Outstation cables</b>	
Type	Enhanced
Cores	2 core 1mm or 1.5mm
Distance	500m
Monitoring	dc open, short and earth
End of line	10K 1/4 W
<b>Physical</b>	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg
<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	86mm x 86mm (flush units)

Code	CFVCRJP
Product description	VoCALL jack plate
<b>Outstation cables</b>	
Type	Enhanced
Cores	2 core 1mm or 1.5mm
Distance	500m
Monitoring	dc open, short and earth
End of line	10K 1/4 W
<b>Physical</b>	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg
<b>Installation</b>	
Mounting	Surface or flush
Mounting height	1000mm from the finished floor level to the centre point of the unit.
Cutout	86mm x 86mm (flush units)

### Jack plate wiring

Connections inside the Network / Compact Unit



The jack plate and roaming handset are suitable for EVC System installations in countries whose fire codes allow for roaming handsets. Not suitable for installation in the UK.

VocALL digital range



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# Distributed amplifier unit

## EFDAU2000

The EFDAU2000 is a powerful, all-in-one, wall mounted voice alarm solution suitable for a range of centralised and decentralised PAVA applications. It ships network ready and has capacity for up to 10 amplifier cards. Any mix of EF-D150 or EF-D500 amplifier card configuration is possible, maximising system efficiency.

The unit has 12 audio inputs and internal storage for up to 64 recorded messages. Packaged into a compact wall-mounted enclosure and capable of delivering up to 2000 watts; the EFDAU2000 packs plenty of power into a reduced footprint - it is a voice alarm system which is both powerful and easy to install.

Equipped with integrated audio-over-IP networking and powerful audio processing capabilities, the EFDAU2000 is feature rich, whilst also including essentials such as, an integrated battery charger with dedicated battery mounting shelf.



### Features

EN54-16 certified voice alarm	✓
Integrated IP audio networking	✓
Easy installation & configuration	✓
Maximum design efficiency	✓
Capacity for up to 10 amplifier cards (EF-D150 & EF-D500)	✓
Powerful 2000W total load per panel	✓

### Product codes

Description	Code
1 x Wall mount voice alarm system with capacity for up to 10 amplifier cards	EFDAU2000
1 x 150 watt amplifier card (50V/70V/100V)	EF-D150
1 x 500 watt amplifier card (50V/70V/100V)	EF-D500
Standby amplifier interface card	EF-V2000-STBY
Surveillance interface card	EF-LSZDC

## Technical specification

### Power

AC supply voltage	230V (+25% / -16%)
AC supply frequency	50 / 60 Hz
Quiescent current (no amplifiers)	525mA
Quiescent current (per amplifier)	23mA
Maximum audio output power	2000W

### Battery pack

Capacity (Ah)	75Ah
Capacity (T)	24 hours (quiescent) + 30 mins (full power)

### Audio - general

Digital format	48kHz / 24-bit PCM
THD	<0.01% at 1 kHz
Crosstalk	>70 dB at 1 kHz
Residual noise	<90 dBu (A)
Frequency response	20 Hz to 20 kHz $\pm$ 0.5 dB

### Audio - inputs

Analogue Input channels	12
Input sensitivity	-60 / -40 / -20 / 0 dBu
Max input level	+20 dBu
Input trim	-90 dB to +10 dB (1 dB steps)
Switchable HPF	20 to 500 Hz / Slope: 12 dB/oct
EQ	4 Band Parametric
Dynamics	Gate/Compressor/Limiter
Chime	Off / 1 note / 2 note / 3 note / Custom
Chime level	-60 dB to +10 dB (1 dB steps)
Hardware bypass broadcast capability	2 inputs

### Environmental

Operating	-10°C to +40°C
Storage	-20°C to +55°C
Humidity range	0% to 93% non-condensing
Ingress protection	IP32

### Mechanical

Finish	Low Smoke Zero Halogen (LSZH)
Dimensions (H x W x D)	980mm x 600mm x 220mm
Weight (no amplifiers)	40kg
Weight (with 75Ah batteries)	96kg

### Amplification

Type	Transformerless Class D
Amplifier channels	2 / 5 / 7 / 10
Standby amplifiers	1 (Standard) 2 (with option card)
Max power output per channel	500W
Efficiency	$\geq$ 85%
Frequency response	100Hz to 20kHz $\pm$ 3 dB
THD	< 0.5%
Output noise	85dB below full output

### Audio processing

Delay (per output)	1 ms to 5000 ms (1 ms steps)
EQ	10 Band Parametric
Dynamics	Limiter / Hard Clipper
Loudspeaker monitoring	DC, Impedance, Loop Return

### Control interfaces

Inputs	12
Outputs	12 (open-collector)
General fault relay (With N/O, COM, connections)	1
Voice alarm indicator relay	1
EF-BMB01 IO expansion interface	1

## Fireman zonal microphone range EF-EMS

Eaton's EF-EMS emergency microphone stations are EN54 compliant and compatible with Eaton's EFDAU2000. The range of microphones, that enable the user to broadcast live and pre-recorded message, comprise the EF-EMS01, EF-EMS10, EF-EMS20 and EF-EMS50.

The EF-EMS01 is an All-Call version, with no additional buttons. The EF-EMS10 provides 10 button selection capability whilst the EF-EMS20 provides 20 buttons. The EF-EMS50 is formed from an EF-EMS20 together with an additional 30 button EF-EMX30 expansion unit. All microphones provide EN54 compliant emergency functions and all EN54 mandatory indicators and controls.

Housed in a lockable wall-mounting box, the microphones feature a graphic LCD display together with indicators for ease of operation. The LCD display provides remote access to the list of active faults in the system, while the EN54 mandated control keys enable navigation through the fault list, and provide remote fault acceptance and clearance. Microphones are connected directly to the EFDAU2000 Voice Alarm panels.



### Features

Wall mount fist microphone	✓
0, 10, 20 or 50 selection buttons	✓
EN54 Compliant indicators and controls	✓
Dual redundant output for A & B routers	✓
Additional voice over IP interface, with POE RJ45	✓
Fully monitored	✓

### Product codes

Description	Code
Emergency microphone station - 1 button – IP & analogue	EF-EMS01
Emergency microphone station - 10 button – IP & analogue	EF-EMS10
Emergency microphone station - 20 button – IP & analogue	EF-EMS20
Emergency microphone station - 30 button – expansion module for EF-EMS20	EF-EMX30



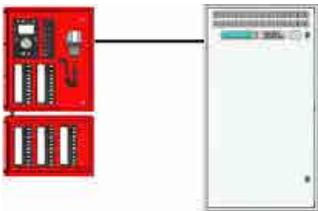
Top, bottom and rear cable entry points are provided by means of 'knock-outs' in the enclosure, while the field connections are provided by means of a set of terminals on the inside rear panel of the back box.

The EF-EMS10, EF-EMS20 and EF-EMS50 are compatible with the EFDAU2000 Wall Mounted Voice Alarm System, and are designed to comply with EN54-16, ISO7240-16 and BS5839-8.

## Specification

### Analogue - standard connection to a single EFDAU2000

The standard connection method uses a single microphone port connected directly to a single EFDAU2000 panel.



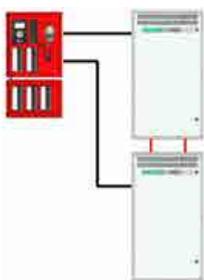
### Analogue - dual redundant connection to a single EFDAU2000

If the microphone is used with a single EFDAU2000 panel, then two microphone ports can be used to make separate connections. This provides dual redundant cabling between the EF-EMS microphone and the EFDAU2000 panel.

### Analogue - redundant connection to multiple EFDAU2000

If the EF-EMS is used with a system which has two or more EFDAU2000 panels, then both EF-EMS microphone ports can be used, one connected to each EFDAU2000.

This option is supported across DBB, Base-IP, Secure Loop and AB architectures. Hardware bypass is only operational across DBB or AB architectures in multi-panel systems.

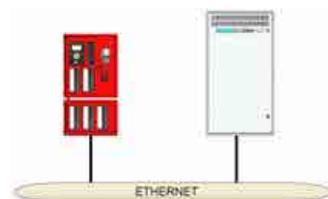


### IP interfaces

EFDAU2000 IP Interface

The standard EFDAU2000 microphone interface can also be configured to operate over Ethernet. Functionality is identical to an analogue standard EF-EMS connection.

IP microphone pre-announcement chimes are configured to be played locally from the EF-EMS microphone.



The EF-EMS microphone normally operates as a slave device hosted by EFDAU2000. It can be configured to act in IP Fall-back mode if communications with the EFDAU2000 host is lost. The feature set available in each of these applications is different. Please see below:

### EFDAU2000 features

- Live paging.
- Store and forward paging.
- Volume control.
- Fixed route button.
- Zone selectable route button.
- EN54 mandatory indications.
- EN54 fault reporting.
- Fault clear.

### Fall-back IP features

- Live paging.
- Store and forward paging.

## Technical specification

### Power supply

Input voltage	Dual 18 to 48 V DC
Current consumption @ 24V (nom. - sounder & LEDs off)	
EF-EMS01	90mA
EF-EMS10	95mA
EF-EMS20	100mA
EF-EMS50	115mA
Current consumption @ 24V (max. - sounder & LEDs on)	
EF-EMS01	165mA
EF-EMS10	220mA
EF-EMS20	275mA
EF-EMS50	440mA

### Analogue PAVA system connection

Audio output	Dual Analogue / 0dBu nominal / 220R
Hardware bypass interface	2 x PTT & 2 x Speak Now
Listen in input	Single Analogue

### IP PAVA system connection

Connection	1 x 100BASE-T Ethernet (RJ45)
Audio format	PMC Compliant VolP

### Mechanical

Dimensions (H x W x D mm)	
EF-EMS01/10/20	402.4 x 344 x 95
EF-EMS50	660.8 x 344 x 95
Weight (EF-EMS01)	5.8kg
Weight (EF-EMS10)	6.0kg
Weight (EF-EMS20)	6.2kg
Weight (EF-EMS50)	9.1kg

### Environmental

Temperature (Storage)	-20 °C to +55 °C
Temperature (Operation)	-10 °C to +55 °C
Humidity range	0% to 95% non-condensing
IP rating	IP30

### IP fallback mode

The analogue and IP interfaces described above, rely on the EFDAU2000 as the host device for full operation.

However, in the event the host were to become unavailable, it is possible to configure the EF-EMS microphone to continue in a 'Fall-back Mode', whereby it is still possible to perform the core function of an "All Call" broadcast, addressing multiple devices directly over an Ethernet network without the need for the host device.

In IP Fall-back mode, EFDAU2000s can be addressed individually or in groups as necessary.

## Desktop microphone range EF-MPS

The EF-MPS range consists of powerful and flexible paging microphones which enable the user to provide live, store-and forward, and recorded message broadcasts into user selected zones. The range also provides EN54 compliant emergency functions and all EN54 mandatory indicators and controls.

Within the range, the EF-MPS10/20/30/40/50 units each consist of a EF-MPS01 sloping desk console with a flexible goose-neck paging microphone, graphic LCD display, and silent operation 'Touch to Talk' touch pad PTT button, together with one or more additional EF-MPX10 zone selection and control button modules. The number of additional buttons depends on the model, with the EF-MPS10 having 10 selectable buttons, and the EF-MPS50 having 50 selectable buttons.

The range can be connected directly to either one or two EFDAU2000 wall mounted voice alarm panels using analogue audio and a serial link. If required, there is also an RJ45 Ethernet IP interface with the option of a 'Power over Ethernet' connection to EFDAU2000 panels. All interconnecting cabling and the microphone capsule are continuously monitored.



### Features

EN54 compliant indicators and controls	✓
0, 10, 20, 30, 40 or 50 selection buttons	✓
Live, store & forward and recorded broadcasts	✓
Background music input & control	✓
Voice over IP & analogue versions	✓
Loudspeaker with zonal "Listen-In" function	✓
Headset support	✓
Wall mount fist microphone option	✓

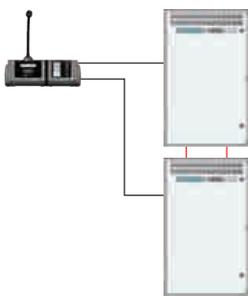
### Product codes

Description	Code
Paging & emergency mic - 01 button - analogue	EF-MPS01-G
10-button expansion module	EF-MPX10

### Installation

#### Analogue - redundant connection to multiple EFDAU2000

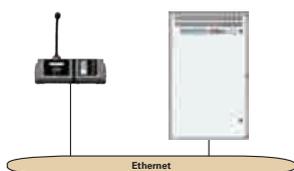
If the EF-MPS is used with a system which has two or more EFDAU2000 panels, then both EF-MPS microphone ports can be used, one connected to each EFDAU2000. This option is supported across DBB, Base-IP, Secure Loop and AB architectures. Hardware bypass is only operational across DBB or AB architectures in multi-panel systems.



#### IP interfaces

##### EFDAU2000 IP interface

The standard EFDAU2000 microphone interface can also be configured to operate over Ethernet. Functionality is identical to an analogue standard EF-MPS connection. IP microphone pre-announcement chimes are configured to be played locally from the EF-MPS microphone.



#### IP fallback mode

The analogue and IP interfaces described above, rely on the EFDAU2000 as the host device for full operation.

However, in the event the host were to become unavailable, it is possible to configure the EF-MPS microphone to continue in a 'Fall-back Mode', whereby it is still possible to perform the core function of an "All Call" broadcast, addressing multiple devices directly over an Ethernet network without the need for the host device.

In IP fall-back mode, EFDAU2000s can be addressed individually or in groups as necessary.

The EF-MPS microphone range can be used free standing on a desk as standard, or can be permanently mounted with the optional mounting bracket. This bracket gives options to mount the microphone flat on a wall, built onto consoles or fixed on desks.

The EF-MPS can be purchased as a variant with a fist microphone fitted instead of the standard goose-neck. This is particularly useful if the microphone is console or wall mounted.

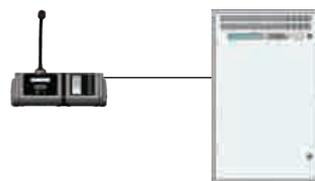
EFDAU2000 Wall Mounted Voice Alarm panels supports 'All Call' hardware bypass operation. The operation of EF-MPS microphones when coupled to input connections 1 and 2 allows the continuous availability of an 'All Call' broadcast in the event of EFDAU2000 panel processor failure.

Hardware bypass operation is supported in DBB and AB system architectures and does not operate over Base-IP or Secure Loop.

### Specification

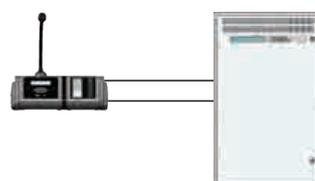
#### Analogue - standard connection to a single EFDAU2000

The standard connection method uses a single microphone port connected directly to a single EFDAU2000 panel.



#### Analogue - dual redundant connection to a single EFDAU2000

If the microphone is used with a single EFDAU2000 panel, then two microphone ports can be used to make separate connections. This provides dual redundant cabling between the EF-MPS microphone and the EFDAU2000 panel.



The EF-EMS microphone normally operates as a slave device hosted by EFDAU2000. It can be configured to act in IP Fall-back mode if communications with the EFDAU2000 host is lost. The feature set available in each of these applications is different. Please see below:

#### EFDAU2000 features

- Live paging.
- Store and forward paging.
- Listen in.
- Volume control.
- Fixed route button.
- Key switch priority.
- Zone selectable route button.
- EN54 mandatory indications.
- Fault clear.

#### Fall-back IP features

- Live paging.
- Store and forward paging.

### Technical specification

#### Power supply

Input voltage	Dual 18 to 48 V DC
Current consumption @ 24V (nom.- sounder & LEDs off)	
EF-EMS01	90mA
EF-EMS10	95mA
EF-EMS20	100mA
EF-MPX10 (each unit)	115mA
Current consumption @ 24V (max. - sounder & LEDs on)	
EF-EMS01	165mA
EF-EMS10	220mA
EF-EMS20	275mA
EF-MPX10 (each)	55mA

#### Analogue system connection

Audio output	Dual analogue / 0dBu nominal / 220R
Hardware bypass interface	2 x PTT & 2 x Speak Now
Listen in input	Single analogue

#### IP system connection

Connection	1 x 100BASE-T Ethernet (RJ45)
Audio format	PMC Compliant VoIP
Listen in input	Single PMC VoIP

#### Additional connectivity

Music input	1 x 3.5 mm jack balanced / unbalanced stereo
Output (speakers, headset)	1 x 3.5 mm jack unbalanced
Contact input (ext. PTT)	1 x 3.5 mm jack
Contact output (speak now)	1 x 3.5 mm jack (open-collector)

#### Mechanical

Dimensions (H x W x D mm)	
EF-MPS01	58 x 175 x 200 mm (excl. goose-neck)
EF-MPS10	58 x 285 x 200 mm (excl. goose-neck)
EF-MPS20	58 x 395 x 200 mm (excl. goose-neck)
EF-MPX10 (each)	+ 110mm width
Weight	
EF-EMS01	1.0kg
EF-MPS10	1.2kg
EF-EMS20	1.4kg
EF-MPX10	0.2kg

#### Environmental

Temperature (Storage)	-20 °C to +55 °C
Temperature (Operation)	-10 °C to +55 °C
Humidity range	0% to 95% non-condensing
IP rating	IP30

## Speaker range

Whether the call is for discreet 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 then versions are available which are fire rated and have been designed to fully comply with BS5839-Pt8 and EN54-24.

### Vandal resistant loudspeaker SENTRY6ST/ENC



#### Typical applications:

Recommended for voice evacuation systems, these units are ideally suited for use in shopping centres, prisons, schools, railway stations etc.

### Sound projector CAD10T/ENC



#### Typical applications:

With rugged construction, these units are ideally suited for use in corridors, passageways, shopping centres, prisons, car parks, railway stations and other public places.

The CAD10T/ENC projector speaker has a fitted U-bracket.

### Weatherproof horn APH10T/ENC



#### Typical applications:

Designed for installation in outdoor or ambient temperature areas where a wide angle of coverage is required, these weatherproof horns are a practical solution for car parks, courtyards and warehouses.

### Ceiling loudspeaker MC range



#### Typical applications:

Ideal for general public address, background music and voice evacuation systems.

These 10W speakers come in sizes from 5" to 6" in diameter, designated by the part codes MC5-EN and MC6-EN.

### Product codes

Description	Code
Vandal resistant loudspeaker	SENTRY6ST/ENC
Projector speaker	CAD10T/ENC
Weatherproof horn	APH10T/ENC
5" ceiling loudspeaker	MC5-EN
6" ceiling loudspeaker	MC6-EN

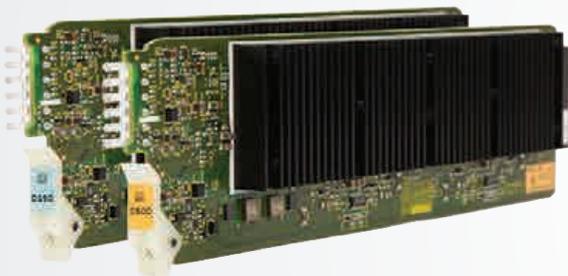


## Modular amplifier cards

### EF-D150 / EF-D500

The EF-D150 and EF-D500 class D transformerless amplifier cards provide 100, 70 or 50V audio output for distributed loudspeaker systems, and are interfaced to EF-LSZDC dual line surveillance interface module to provide fully monitored speaker lines.

The maximum output power is user configurable from 25W to 150W (EF-D150) and from 25W to 500W (EF-D500). Up to 10 x EF-D150 and or EF-D500 amplifiers modules can be housed within a single EFDAU2000 panel. The configurable output power capability of the EF-D500 and EF-D150 amplifier modules enhances its flexibility, with lower quiescent power requirement, and improved environmental performance compared to traditional amplifier designs.



#### Features

Class D transformerless amplifiers	✓
Fault indication LED per amplifier	✓
High efficiency & low standby current	✓
100 / 70 / 50 V Output	✓
Easy installation & configuration	✓

#### Product codes

Description	Code
1 x 150 watt amplifier card (50V/70V/100V)	EF-D150
1 x 500 watt amplifier card (50V/70V/100V)	EF-D500
Standby amplifier interface card	EF-V2000-STBY
Surveillance interface card	EF-LSZDC

## Technical specification

### Quiescent current

Modul	16mA
-------	------

### EF-D500 amplifier modules

Amplification	Transformer-less Class D
Power output @ 100V	25W to 500W
Power output @ 70V	25W to 350W
Power output @ 50V	25W to 250W
Efficiency	>=83%
Frequency response	100Hz to 20kHz +/- 3dB
THD	< 0.5%
Output noise	85dB (A-weighted) below full output

### Mechanical

Module weight	0.8kg
---------------	-------

### EF-D150 amplifier modules

Amplification	Transformer- less Class D
Power output @ 100V	25W to 150W
Power output @ 70V	150W
Power output @ 50V	150W
Efficiency	>=86%
Frequency response	100Hz to 20kHz +/- 3dB
THD	< 0.5%
Output noise	<85dB below full output

### Environmental

Operating	-10°C to +55°C
Storage	-20°C to +55°C
Humidity range	0% to 93% non -condensing
Ingress protection	IP20 as part of V2000

# Amplifier interface card EF-LSZDC

The EF-LSZDC is an amplifier interface card for use with the EF-D500 and EF-D150 modular amplifier cards. It enables two circuits (A&B) to be fed from a single amplifier while still maintaining BS5839 Pt. 8 compliance.

Each EF-LSZDC card includes powerful on-board digital signal processing capability, enabling parametric equalisation. Gate and gain settings should be applied separately to each amplifier.



## Features

Amplifier health monitoring via subsonic surveillance tone	✓
Standby switchover	✓
Loudspeaker line earth leakage monitoring	✓
Loudspeaker line 'end of line' (EOL) monitoring	✓
Isolation of faulty speaker circuits facilitated through relays	✓
Loudspeaker circuits monitored using DC, impedance or loop return method	✓

## Product codes

Description	Code
Amplifier interface card	EF-LSZDC

## Technical specification

### Power

Quiescent current (Normal)	15mA
Quiescent current (Loop return mode)	39mA

### Audio processing

Gain	-60 to +10 db
Gate	Configurable Threshold / Attack / Hold Release
EQ	10 Band Parametric

### Interfaces

Audio input	0 dB Balanced analogue audio
Loudspeaker monitoring	DC, Loop Return
Loudspeaker outputs	Dual A and B outputs

### Environmental

Operating	-10°C to +55°C
Storage	-20°C to +55°C
Humidity range	0% to 93% non-condensing

### Mechanical

Dimensions (H x W x D)	64mm x 30mm x 121mm
Weight	0.15kg
IP rating	IP20 as part of EFDAU2000

# Control port expander EF-BMB01

The EF-BMB01 is an input and output control port (I/O) expander for routers. The EFDAU2000 can support the connection of up to 9 remote EF-BMB01 units, connected by a multi-drop RS485 serial interface.

The control ports can be used for functions such as: Program selection, volume control, fault input, routing control, routing reset input, external fault input, and busy output.



## Features

Extends control and interfacing capability of the router	✓
12 analogue inputs	✓
12 digital (opto-isolated) inputs	✓
12 digital (open collector) outputs	✓

## Product codes

Input/output control port expander for routers	EF-BMB01
--	----------

## Technical specification

### Supply voltage

Range	8 - 40V DC
Current consumption	70mA @ 24V DC supply
Open collector maximum rated current	350mA
Open collector maximum voltage	60V
Analogue input voltage range	0-5V (nominal)
24V max without physical damage Digital input voltage range	12 - 48V

### Mechanical

Dimensions (H x W x D)	105mm x 156mm x 58mm
Weight	300g

### Environmental

Temperature (storage and operating)	-5°C to +50°C
Humidity range	0% to 93% non-condensing

# Network card

## EF-VIPEDIA-NET

The EF-VIPEDIA-NET network card is pre-fitted to all EFDAU2000 panels and is used to provide the possibility to network together up to 32 EFDAU2000 panels.

The card plugs onto the main EFDAU2000 board, adding network interface ports and IP network audio channels to the base EFDAU2000 unit, to increase the maximum system size. EF-VIPEDIA-NET increases the total number of concurrent broadcasts a single EFDAU2000 system can transmit or receive from 2 in & 2 out to 6 in and 6 out.



### Features

Multi-channel digital network	✓
Increases network size up to 32	✓
Easy installation & configuration	✓

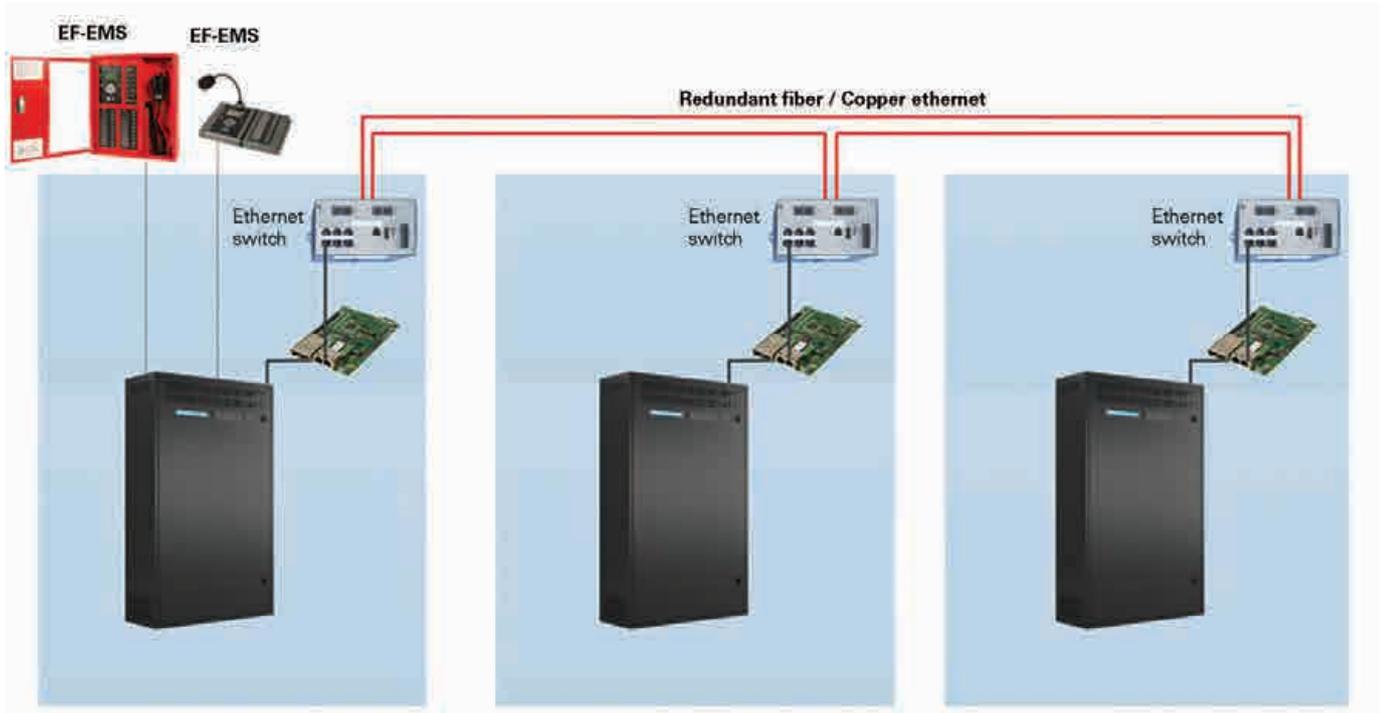
### Product codes

Description	Code
Ethernet network card	EF-VIPEDIA-NET

## Installation

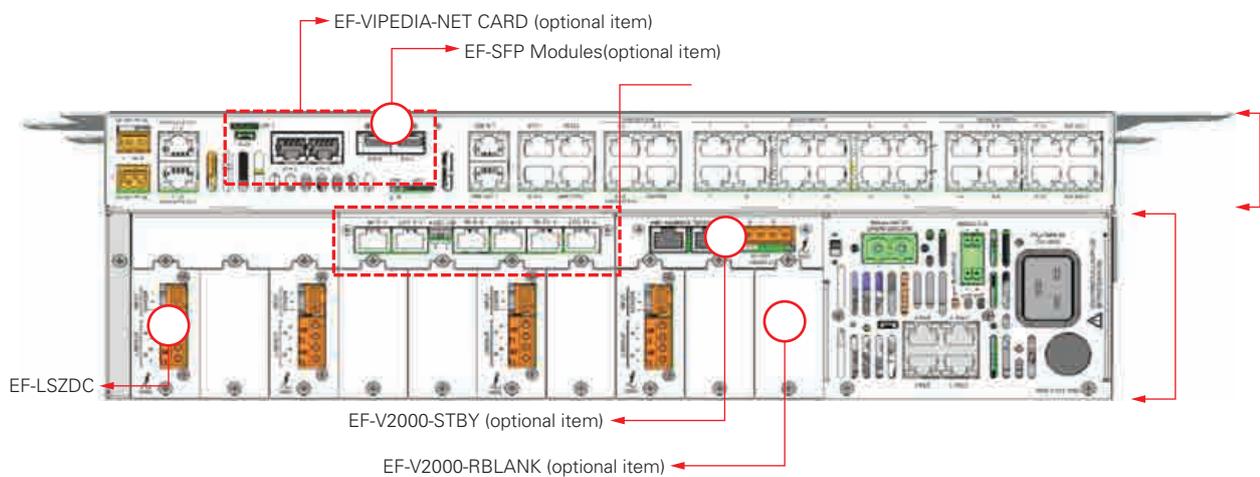
### Ethernet switches + EF-VEPEDIA-NET network diagram

When used in conjunction with Secure Loop Ethernet switches, EF-VEPEDIA-NET can be used to construct large, distributed Voice Alarm systems



### General

Network audio channels per EF-VEPEDIA-12-NET	6 in / 6 out
Audio format	48kHz / 24 bit / mono PCM
Maximum devices	32 x EFDAU2000



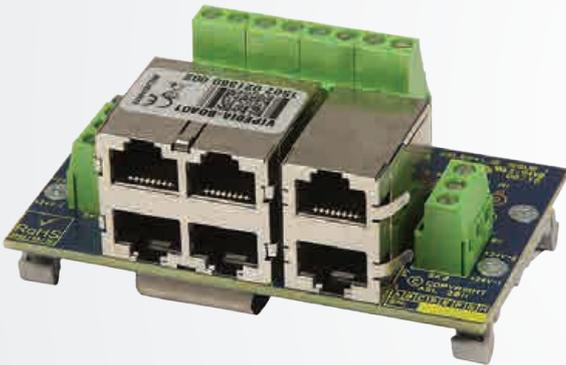
# Break out adaptors

## EF-BOA01 & EFBOA02

Break out adaptors, EF-BOA01 and EF-BOA02, allow field wiring (i.e. network cabling) to be easily interfaced into the EFDAU2000 distributed amplifier panel.

They convert traditional field cabling, and their associated cores, into a compact RJ45 connection. This allows CAT5 patch leads to be interfaced to the external field wiring via a break out adaptor. This approach allows for the use of CAT5 patch leads to terminate connections within the EFDAU2000 panel in a compact and efficient manner.

Using break out adaptors reduces the footprint of field wiring by converting the wiring into an RJ45 connector and helps reduce cabling installation errors. This makes servicing and auditing of cable inventory, within each panel, much easier during the maintenance period. They can also be DIN rail mounted inside each EFDAU2000 panel enclosure.



### Features

Din rail mount	✓
Flexible connection and usage	✓
Break out of all the connections from one RJ45 port, to eight screw terminals plus screen terminals	✓
Daisy-chain In-Out RJ45 connectors for multiple break outs and by-pass connections	✓
End of line monitoring resistor positions	✓
Additional dual redundant power inputs and output power terminals	✓
Additional screen connection and output cable screen terminals	✓

### Product codes

Description	Code
RJ45 Break out adaptor (single port)	EF-BOA01
RJ45 Break out adaptor (four ports)	EF-BOA02

## Technical specification

### RJ45 connectivity

- Main connection port.
- All four pairs of RJ45 signals taken to individual I/O signal terminal pairs.
- The connector screen is taken to the appropriate screen terminal.
- Bypass connection port.
- Straight through one to one connections from the main connection port.
- EFDAU2000 audio input connection ports.
- Ports are each connected to a pair of input terminals.

### I/O terminal connectivity

- Lower row of I/O terminals 8 signal terminals in four pairs, one pair for each twisted pair in the RJ45 cable.
- Connections to the RJ45 ports.
- Upper row of I/O terminals 8 output power and output cable screen terminals.
- Two +24v output terminals, two 0V terminals, four cable screen terminals.
- Power input terminals (two pairs of three terminals each).

### End of line resistor positions

- End of line resistor positions (4 positions).
- One resistor position across each pair of digital input.
- Used for fire panel connection supervision.

## Dimensions

	H (mm)	W (mm)	D (mm)	Weight
Overall dimensions	33	88	52/0.1 kg	0.1 kg

The RJ45 cables will overhang the side of the EF-B0A, adding approximately 50mm to the effective width

## Environmental

Temperature	-20°C to +50°C (storage and operation)
Humidity range	0% to 93% non-condensing

# CW-HMX UL voice evacuation system

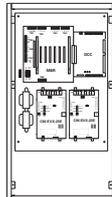
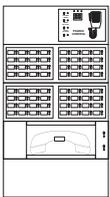


# Contents

## UL voice evacuation system

### Panels

Master panel **62** Distributed panel **62**



### Fire phone equipment

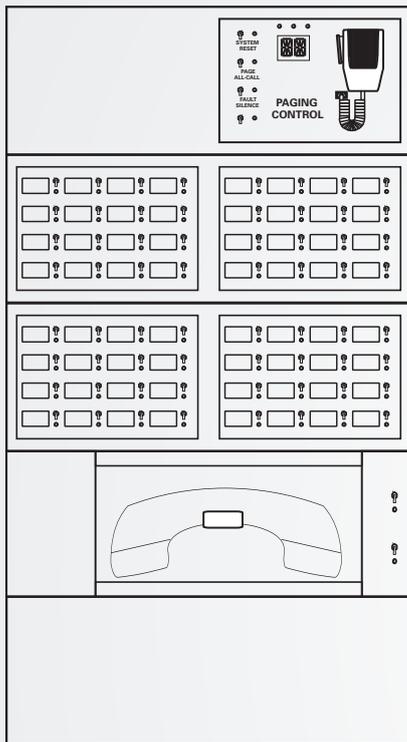
Fire phone jack plate **64** Fire phone handset **64** Fire phone handset cabinet **64** Fire phone stations **64**



# Network audio system CW-HMX

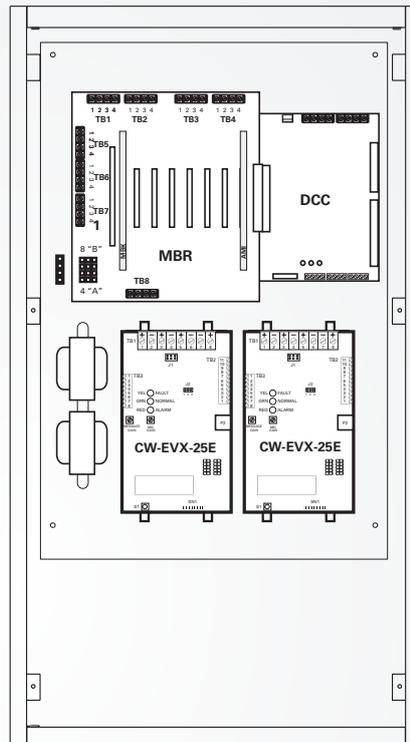
## Master panel

### CW-HMX-MP



## Distributed panel

### CW-HMX-DP



## System configuration

### Master panel (CW-HMX-MP)

- Master mic control
- 16 Switch control points
- Dual channel DMR
- High speed communication loop

### Optional

- Integrated master fire phone
- Area-of-refuge
- Fiber optic network capable

### Maximum system configuration

- Up to 1000 switch/input points

### Distributed panel (CW-HMX-DP)

- 4 Output zones (may be configured for 8)
- Dual channel audio interface
- Dual/Single channel amplification

### Amplifier options

- 25 / 50 / 100W dual channel
- 25 / 50 / 100 / 200W single channel

### Optional

- Integrated fire phone
- 4 circuits expandable to 8, 12 or 16
- Area-of-refuge
- Fiber optic network capable

### Maximum system configuration

- Up to 256 distributed panels (CW-HMX-DP)



277-96-E



6911-1446:103



S35776

## Master panel configurations

Description	Code
Master panel, 16 Switch control	CW-HMX-MP16
Master panel, 32 Switch control	CW-HMX-MP32
Master panel, 48 Switch control	CW-HMX-MP48
Master panel, 64 Switch control	CW-HMX-MP64
Master panel, 80 Switch control	CW-HMX-MP80
Master panel, 96 Switch control	CW-HMX-MP96
Master panel, 16 Switch control, Master fire phone	CW-HMX-MP16/P
Master panel, 32 Switch control, Master fire phone	CW-HMX-MP32/P
Master panel, 64 Switch control, Master fire phone	CW-HMX-MP64/P
Master panel, 80 Switch control, Master fire phone	CW-HMX-MP80/P
Master panel, 96 Switch control, Master fire phone	CW-HMX-MP96/P

## Master panel configurations

Description	Code
Distributed panel, Single channel, 25W	CW-HMX-DPS25
Distributed panel, Single channel, 50W	CW-HMX-DPS50
Distributed panel, Single channel, 100W	CW-HMX-DPS100
Distributed panel, Single channel, 25W, Fire phone	CW-HMX-DPS25/P
Distributed panel, Single channel, 50W, Fire phone	CW-HMX-DPS50/P
Distributed panel, Single channel, 100W, Fire phone	CW-HMX-DPS100/P
Distributed panel, Dual channel, 25W	CW-HMX-DP25
Distributed panel, Dual channel, 50W	CW-HMX-DP50
Distributed panel, Dual channel, 100W, Single channel 200W	CW-HMX-DP100
Distributed panel, Dual channel, 25W, Fire phone	CW-HMX-DP25/P
Distributed panel, Dual channel, 50W, Fire phone	CW-HMX-DP50/P
Distributed panel, Dual channel, 100W, Fire phone, Single channel 200W	CW-HMX-DP100/P

## Technical characteristics

Primary power: 120 VAC / 230 VAC  
24 VDC battery power  
Electrical ratings: All circuits @ 24VDC.

Master panel	Standby		Alarm	
DCC	80 mA		80 mA	
ASC	30 mA		30 mA	
MFP	10 mA		10 mA	
SSC	25 mA		25 mA	
SLC	6 mA		6 mA	
MMC	45 mA		45 mA	
IOI	20 mA		20 mA	
Backbox Dim:	14.5 x 27 x 4" w h d			
Color:	Charcoal Grey			

**Note:** Specifications are subject to change without notice. Specifications are provided for information only and no responsibility is assumed by Eaton for their use.

## Panel options: Cards may be added as job requirements demand

Description	Code	
Switch scan card	CW-MX-SSC	Included with IP panels. Enables system to incorporate 2 way communication.
Switch LED card	CW-MX-SLC	Included in basic panels, up to 7 additional cards may be added.
Input interface card	CW-MX-II	16 Switch LED bank, up to 8 per CW-MX-SSC.
Master fire phone	CW-MX-MFP	One included with basic panel, additional cards give 16 control inputs each. Maximum of 8.

## Panel options: Cards may be added as job requirements demand

Description	Code	
Motherboard relay card	CW-MX-MBK	Expands MBR output 8 Class B or 4 Class A circuits
Fire phone interface card	CW-MX-FPI	Included in /P panels, up to 3 additional cards may be added
Fire phone output card	CW-MX-FPO	Used with additional MX-FPIs for termination
Audio module interface	CW-MX-AMI	Included with basic panel, additional cards give the ability to control multiple

Communications Bus: RS-485 standard, 1M Baud rate, Low capacitance cable.

Voltage: 5V peak-to-peak max. Frequency: 1.024MHz  
Current: 50mA max. Impedance: 120 Ohms  
(max. imp. between panels)

Distributed panel	Standby		Alarm	
DCC	55 mA		55 mA	
MBR	10 mA		55 mA	
AMI	10 mA		10 mA	
FPI	13 mA		13 mA	

Battery charging: Maximum charging current from CW-EVX-25/50 is 800mA. Maximum battery size is 17Ah  
CW-EVX-100 is 1A. Maximum battery size is 24Ah

# Fire phone equipment CW-HMX



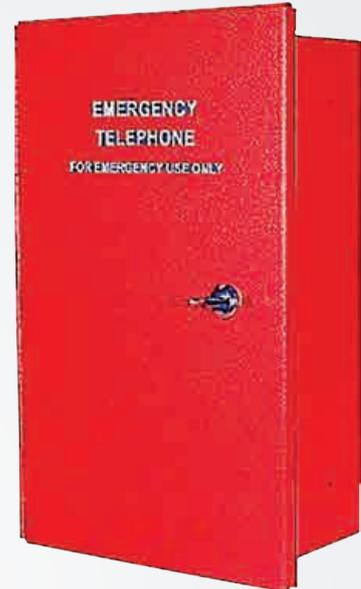
**CW-MX-FJ**



**CW-MX-FH**



**CW-MX-TC**  
(Shown with 6 CW-MX-FH)



**CW-MX-FS**  
**CW-MX-WS**

## Description

Fire phone accessories give the CW-HMX voice system two way communication capability.

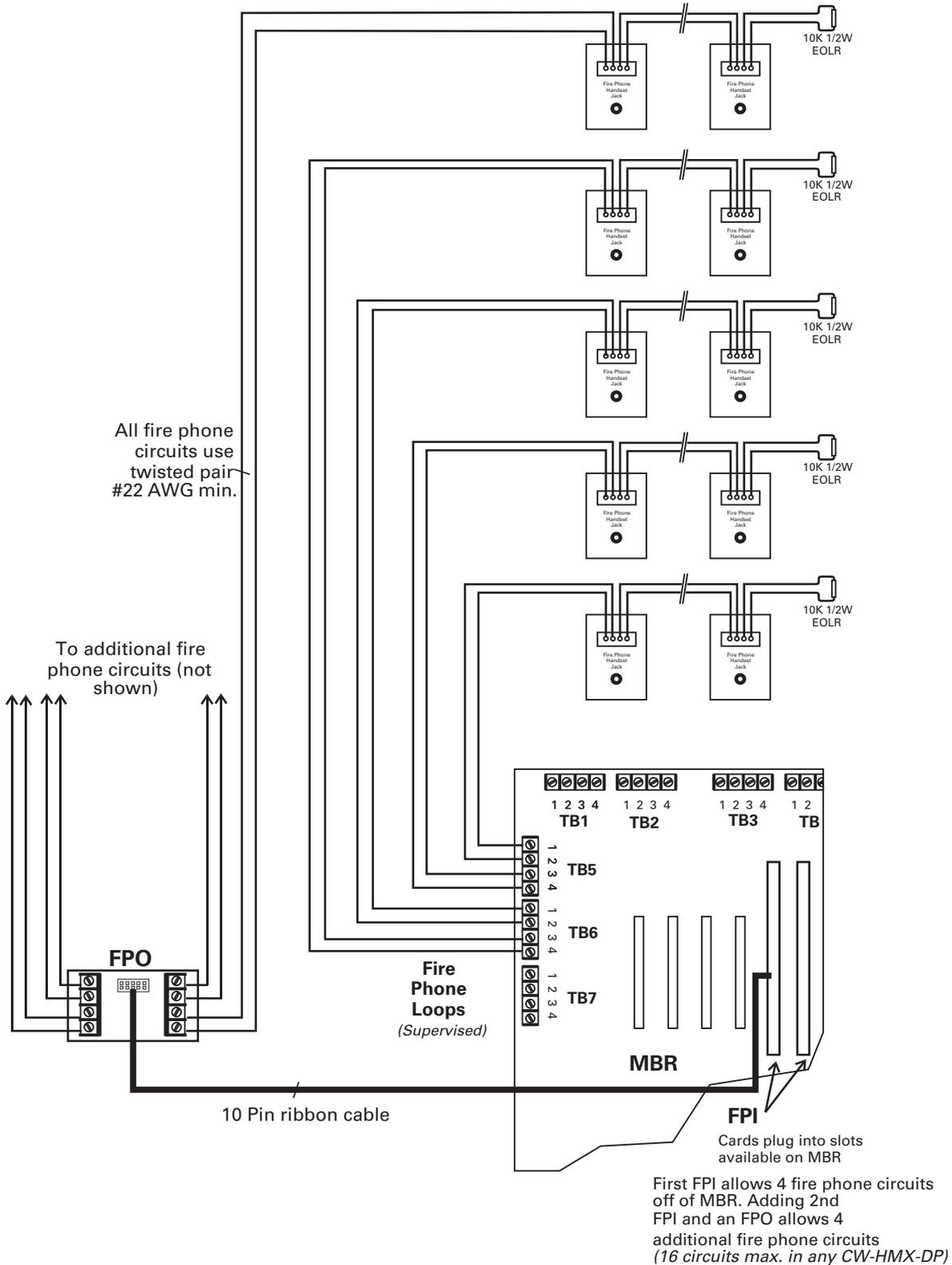
Fire phone jacks are mounted on a single gang plate.

Fixed telephone and warden stations are available in Surface/Semi-flush mount cabinet with a thumb turn latch.



## Product codes

Description	Code
Fire phone jack plate Brushed stainless steel single gang plate	CW-MX-FJ
Fire phone handset Color - red 6 mount in MX-TC cabinet)	CW-MX-FH
Fire phone handset cabinet Holds 6 MX-FH portable handset Cabinet: Charcoal grey - std. -R red (Surface/Semi-flush mount/Key lock 27 x 14-1/2 x 4" h-w-d)	CW-MX-TC
Fire phone station Coil cord / Thumb turn latch Cabinet: Red (Surface/Semi-flush mount 12-3/4 x 7-1/4 x 3-3/4" h-w-d)	CW-MX-FS
Warden station Armored cable / Thumb turn latch Cabinet: Red (Surface/Semi-flush mount 12-3/4 x 7-1/4 x 3-3/4" h-w-d)	CW-MX-WS



## Product code cross reference

Page No.	Description	Product Code
P12	VoCALL compact 5 line master exchange unit, non-network, surface mount, graphite	EFVCC5
P12	VoCALL compact 5 line master exchange unit, non-network, flush mount, stainless steel	EFVCC5-FB
P14	VoCALL compact 9 line master unit	CFVCCM9
P14	VoCALL 10 line slave exchange unit	CFVCCS10
P16	VoCALL network 8 line exchange unit	CFVCX8
P18	VoCALL network master handset, desk mount	CFVCM
P18	VoCALL network master handset, wall mount	CFVCWM
P20	VoCALL Type A outstation, surface mount, red	CFVCSHP
P20	VoCALL Type A outstation, surface mount, stainless steel	CFVCSHPSS
P20	VoCALL Type A outstation, flush mount, red	CFVCFHP
P20	VoCALL Type A outstation, flush mount, stainless steel	CFVCFHPSS
P20	VoCALL Type A uncased red handset	CFVCHFS
P20	VoCALL Type A outstation, IP65 lockable, surface mount, red	CFVCIPA
P22	VoCALL Type B outstation, surface mount, red	CFVCSHF
P22	VoCALL Type B outstation, surface mount, green	CFVCSHFG
P22	VoCALL Type B outstation, surface mount, stainless steel	CFVCSHFSS
P22	VoCALL flush mounting bezel for use with any Type B outstation, stainless steel	CFVCFHB
P24	VoCALL roaming handset	CFVCRHS
P24	VoCALL jack plate	CFVCRJP
P27	Emergency assist alarm - stand alone kit	CFEAPULLKIT
P27	Emergency assist alarm - kit without PSU	CFVCEA
P27	4 way splitter	CFEASL4
P27	Emergency assist pull cord unit	CFEAPULL
P27	Pull cord accessory pack	CFEACORD
P30	VoCALL 16 master panel	MX16
P30	VoCALL 16 master panel, stainless steel, flush cover	MX16-SSC
P32	Type A outstation (red, surface mount)	TA16-RS
P32	Type A outstation (bezel, red, flush mount)	TA16-BEZ
P33	Type B outstation (green, surface mount)	TB16-GS
P33	Type B outstation (green, flush mount)	TB16-GF
P33	Type B outstation (red, flush mount)	TB16-RF
P33	Type B outstation (red, surface mount)	TB16-RS
P34	Emergency assist alarm - VoCALL kit	EAA16-LS
P34	Emergency assist pull code unit	CFEAPULL
P34	Over door indicator	CFEAOIDI
P34	Cancel button	CFEARSF
P34	Pull cord accessory pack	CFEACORD
P34	Disabled sticker (pack of 5)	CFEADS
P36	4 way splitter	CFEASL4
P36	Emergency assist pull cord unit	CFEAPULL

Page No.	Description	Product Code
P36	Emergency assist alarm - VoCALL kit	EAA16-LS
P36	Over door indicator	CFEAODI
P36	Cancel button	CFEARSP
P36	Pull cord accessory pack	CFEACORD
P36	Disabled sticker (pack of 5)	CFEADS
P38	VoCALL roaming handset	TJ16-Handset
P38	VoCALL jack plate	TJP-SF
P38	Digital jack outstation master	TJ16-LS
P42	1 x Wall mount voice alarm system with capacity for up to 10 amplifier cards	EFDAU2000
P42	1 x 150 watt amplifier card (50V/70V/100V)	EF-D150
P42	1 x 500 watt amplifier card (50V/70V/100V)	EF-D500
P42	Standby amplifier interface card	EF-V2000-STBY
P42	Surveillance interface card	EF-LSZDC
P44	Emergency microphone station - 1 button – IP & analogue	EF-EMS01
P44	Emergency microphone station - 10 button – IP & analogue	EF-EMS10
P44	Emergency microphone station - 20 button – IP & analogue	EF-EMS20
P44	Emergency microphone station - 30 button – Expansion module for EF-EMS20	EF-EMX30
P46	Paging & microphone mic - 01 button - analogue	EF-MPS01-G
P46	10-button expansion module	EF-MPX10
P48	Vandal resistant loudspeaker	SENTRY6ST/ENC
P48	Projector speaker	CAD10T/ENC
P48	Weatherproof horn	APH10T/ENC
P48	5" ceiling loudspeaker	MC5-EN
P48	6" ceiling loudspeaker	MC6-EN
P50	1 x 150 watt amplifier card (50V/70V/100V)	EF-D150
P50	1 x 500 watt amplifier card (50V/70V/100V)	EF-D500
P50	Standby amplifier interface card	EF-V2000-STBY
P50	Surveillance interface card	EF-LSZDC
P52	Amplifier interface card	EF-LSZDC
P54	Input/output control port expander for routers	EF-BMB01
P56	Ethernet network card	EF-VIPEDIA-NET
P58	RJ45 Break out adaptor (single port)	EF-BOA01
P58	RJ45 Break out adaptor (four ports)	EF-BOA02
P62	Master panel, 16 Switch control	CW-HMX-MP16
P62	Master panel, 32 Switch control	CW-HMX-MP32
P62	Master panel, 48 Switch control	CW-HMX-MP48
P62	Master panel, 64 Switch control	CW-HMX-MP64
P62	Master panel, 80 Switch control	CW-HMX-MP80
P62	Master panel, 96 Switch control	CW-HMX-MP96

## Product code cross reference

Page No.	Description	Product Code
P62	Master panel, 16 Switch control, Master fire phone	CW-HMX-MP16/P
P62	Master panel, 32 Switch control, Master fire phone	CW-HMX-MP32/P
P62	Master panel, 64 Switch control, Master fire phone	CW-HMX-MP64/P
P62	Master panel, 80 Switch control, Master fire phone	CW-HMX-MP80/P
P62	Master panel, 96 Switch control, Master fire phone	CW-HMX-MP96/P
P62	Distributed panel, Single channel, 25W	CW-HMX-DPS25
P62	Distributed panel, Single channel, 50W	CW-HMX-DPS50
P62	Distributed panel, Single channel, 100W	CW-HMX-DPS100
P62	Distributed panel, Single channel, 25W, Fire phone	CW-HMX-DPS25/P
P62	Distributed panel, Single channel, 50W, Fire phone	CW-HMX-DPS50/P
P62	Distributed panel, Single channel, 100W, Fire phone	CW-HMX-DPS100/P
P62	Distributed panel, Dual channel, 25W	CW-HMX-DP25
P62	Distributed panel, Dual channel, 50W	CW-HMX-DP50
P62	Distributed panel, Dual channel, 100W, Single channel 200W	CW-HMX-DP100
P62	Distributed panel, Dual channel, 25W, Fire phone	CW-HMX-DP25/P
P62	Distributed panel, Dual channel, 50W, Fire phone	CW-HMX-DP50/P
P62	Distributed panel, Dual channel, 100W, Fire phone, Single channel 200W	CW-HMX-DP100/P
P62	Switch scan card	CW-MX-SSC
P62	Switch LED card	CW-MX-SLC
P62	Input interface card	CW-MX-II
P62	P62 Master fire phone	CW-MX-MFP
P62	Motherboard relay card	CW-MX-MBK
P62	Fire phone interface card	CW-MX-FPI
P62	Fire phone output card	CW-MX-FPO
P62	Audio module interface	CW-MX-AMI
P63	Fire phone jack plate Brushed stainless steel single gang plate	CW-MX-FJ
P63	Fire phone handset Color - red 6 mount in MX-TC cabinet)	CW-MX-FH
P63	Fire phone handset cabinet Holds 6 MX-FH portable handset Cabinet: Charcoal grey - std. -R red (Surface/Semi-flush mount/Key lock 27 x 14-1/2 x 4" h-w-d)	CW-MX-TC
P63	Fire phone station Coil cord /Thumb turn latch Cabinet: Red Surface/Semi-flush mount 12-3/4 x 7-1/4 x 3-3/4" h-w-d)	CW-MX-FS
P63	Warden station Armored cable /Thumb turn latch Cabinet: Red Surface/Semi-flush mount 12-3/4 x 7-1/4 x 3-3/4" h-w-d)	CW-MX-WS





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