

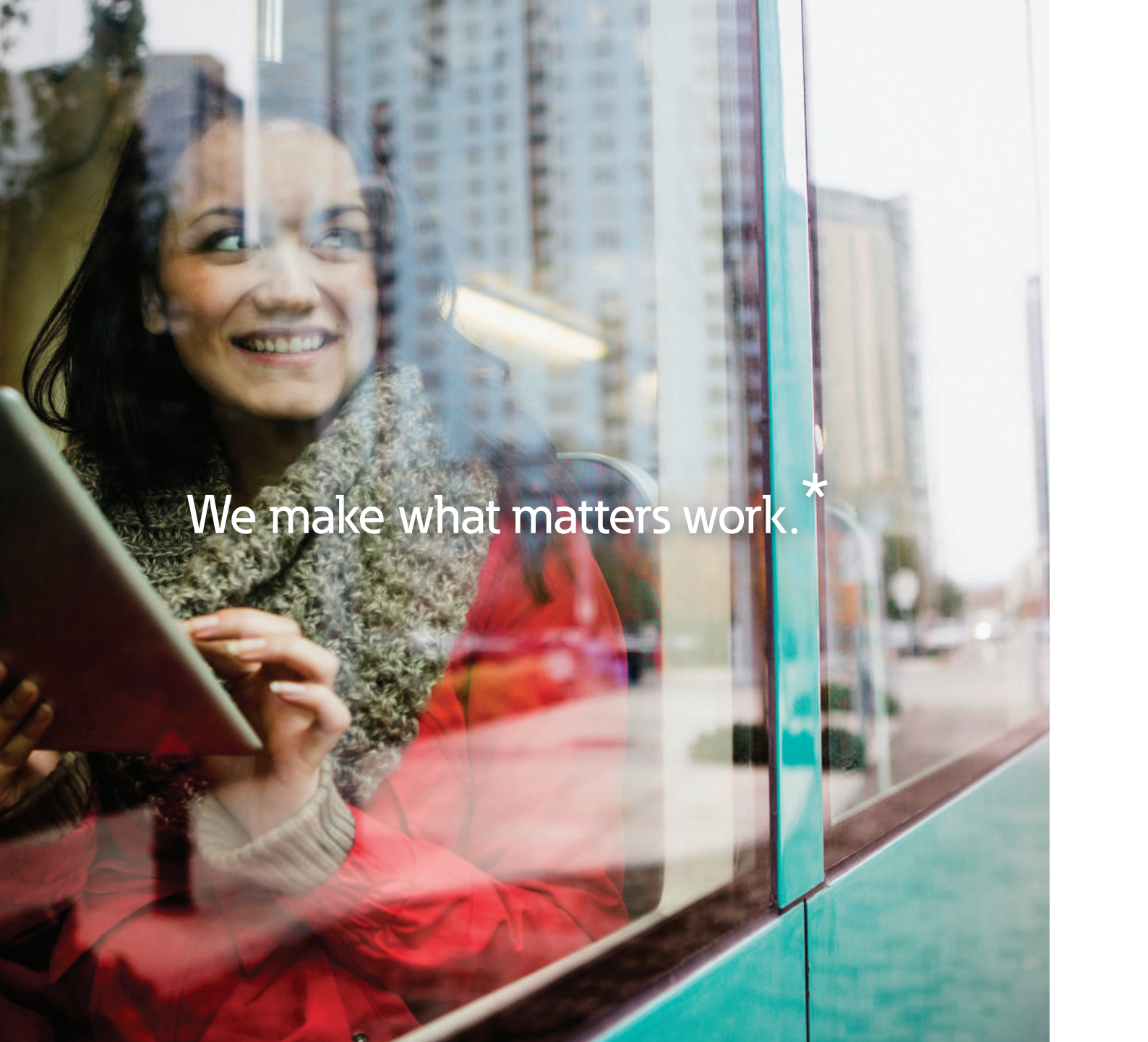
VoCALL product range: Voice alarm (PAVA) and refuge systems (EVCS)

Make your voice heard



EAT•N

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.

To learn more go to: [Eaton.com/whatmatters](https://www.eaton.com/whatmatters)

EATON

Powering Business Worldwide

We make what matters work.

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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, emergency voice communication 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, emergency voice communication 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.

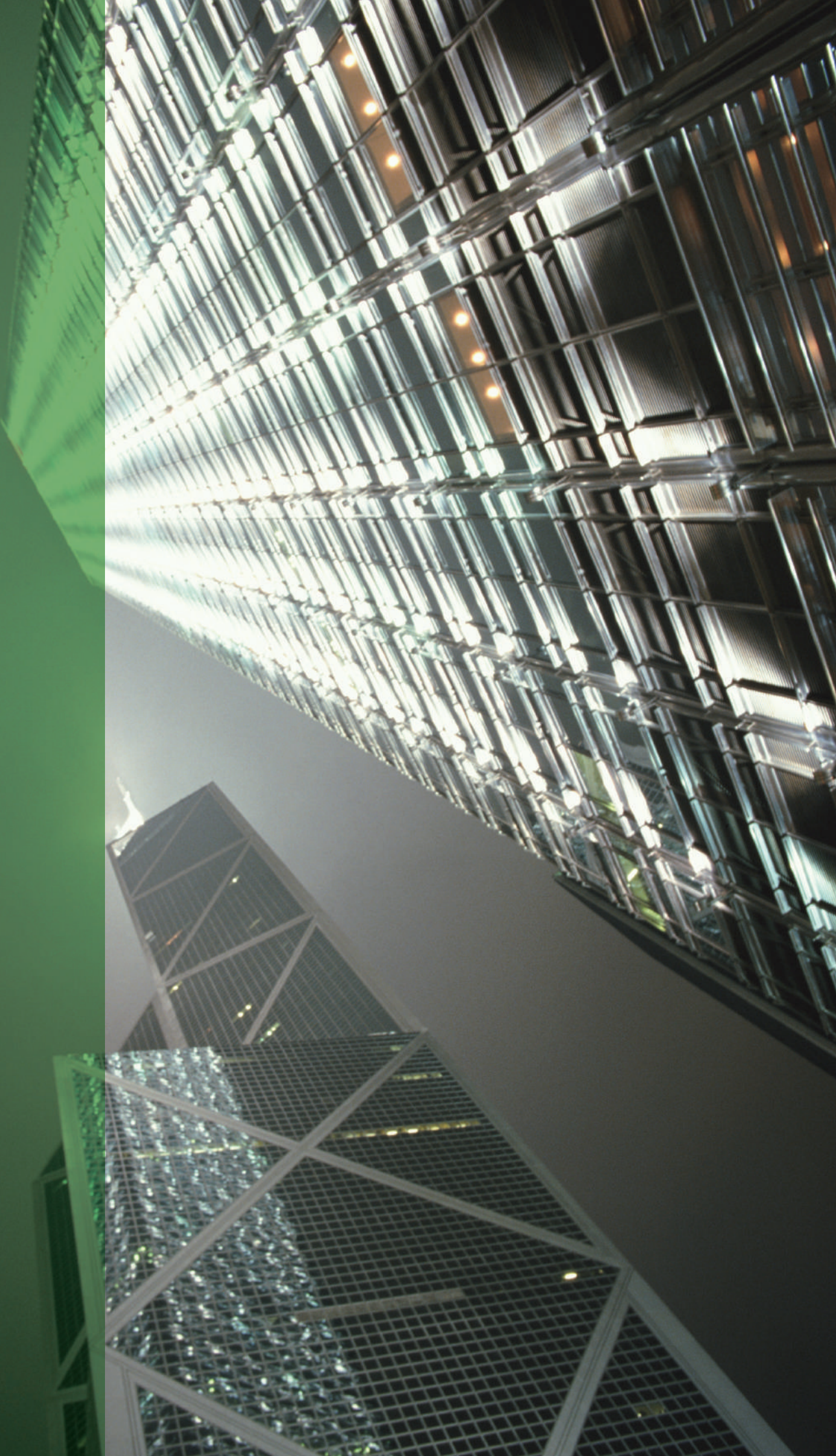
Industry Firsts:

- First Digital EVC system
- First EVC system to meet EN54-18
- 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, Bsec, 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 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 BS8893 EVCS equipment and BS5839 part 9, with EN54-4-A2 compliant power supplies and chargers. The VoCALL 5 panel is certificated to EN54 part 18.

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.



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

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 ...”

VoCALL analogue range



Contents

VoCALL analogue

Panels

VoCALL 5 Compact 5 Line **12**



Outstations

VoCALL type A outstation **14**



VoCALL type B outstation **16**



Ancillaries **18**



Emergency alarm assist equipment

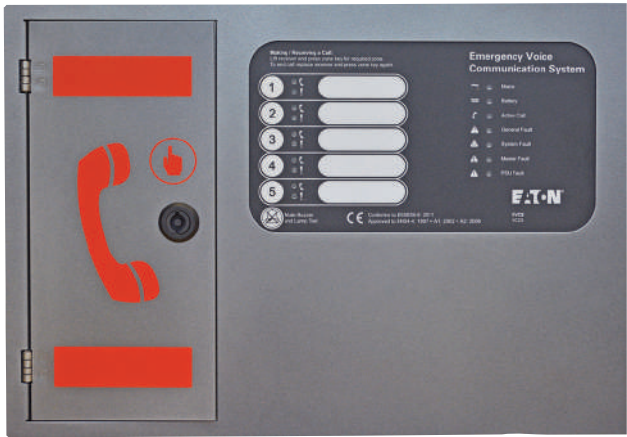
Kits and accessories **20**



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 5Ah backup batteries (not supplied).



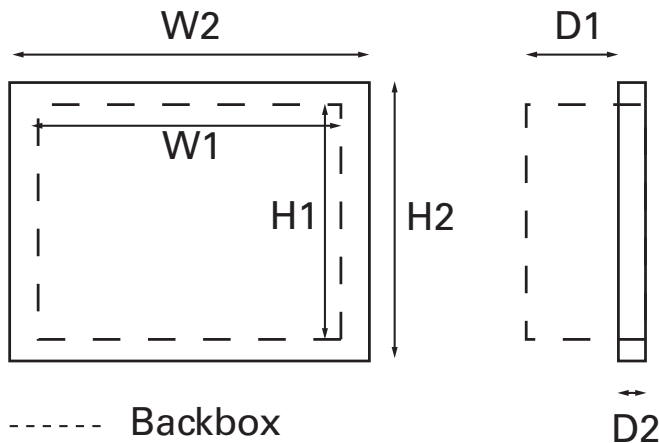
Features

EN54-18 Approved	✓
BS5839 part 9 compliant	✓
Monitored handset	✓
Monitored supply and charger	✓
Relay outputs	✓
No programming	✓
Functional with emergency assist alarms	✓

Product codes

Description	Code
VoCALL compact 5 line master exchange unit, non-network, surface mount, graphite	EFVCC5
VoCALL compact 5 line flushing bezel	EFVCC5-FB
VoCALL Compact 5 stainless steel front cover	EFVCC5-FC

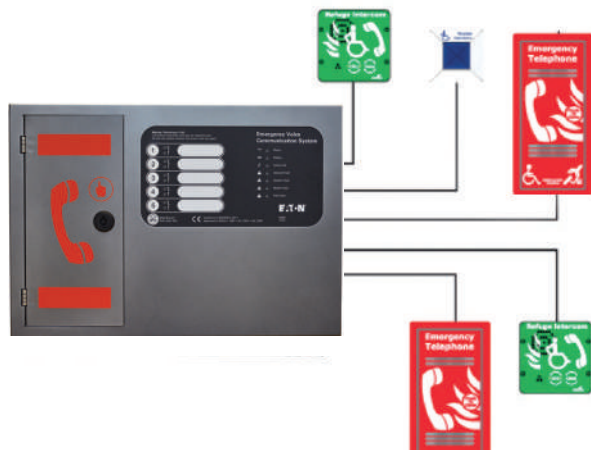
Dimensions



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
Panels and devices	EN54-18

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 local regulations 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 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.



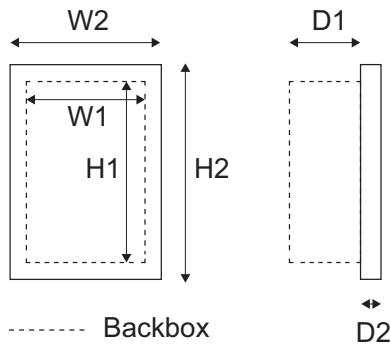
Features

Compact design	✓
High volume ringer	✓
Status LED	✓
Full duplex operation	✓
Stainless steel option	✓
Versatility, the unit can be used on VoCALL 5 and DAX8 systems	✓
Dual use, the Type A outstation can be used a fire telephone or a disabled refuge call point	✓
Magnetic push catch for quick and easy access	✓
Compatible with DAX8	

Product codes

Description	Code
VoCALL Type A outstation, surface mount, red	CFVCSHP
VoCALL Type A outstation, flush mount, red	CFVCFHP

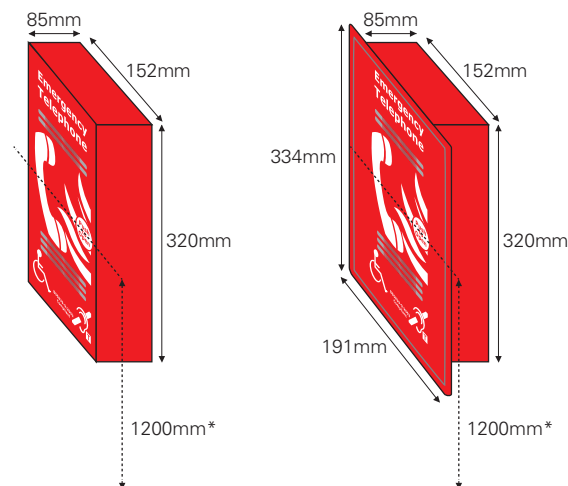
Dimensions



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



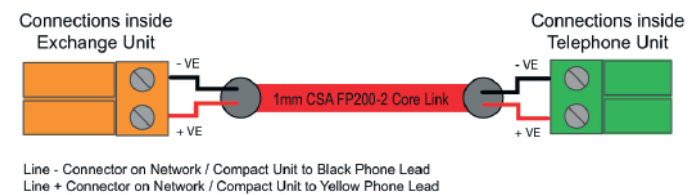
Technical specification

Code	CFVCSHP
Product description	VoCALL Type A outstation
Outstation cables	
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).

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.



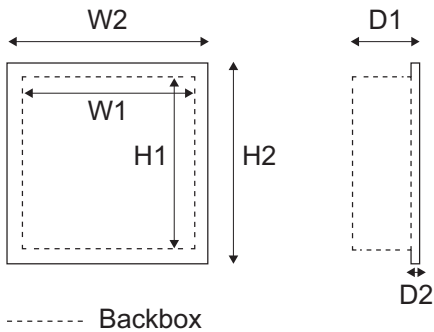
Features

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	✓
Compatible with DAX8	

Product codes

Description	Code
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 bazel for use with any Type B outstation, stainless steel	CFVCFHB

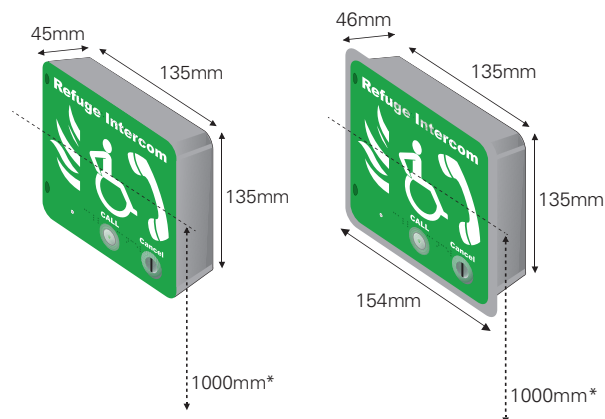
Dimensions



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

Description	H2 (mm)	W2 (mm)	D1 (mm)	D2 (mm)
Flush (separate base)	154	154	45	2

Unit mounting



Technical specification

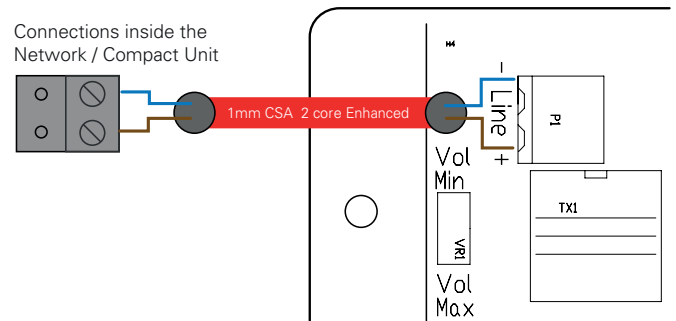
Code	CFVCSHP
Product description	VoCALL Type B outstation
Outstation cables	
Type	Fire rated (some installations will require enhanced cabling, see local regulations for details).
Cores	2 core 1mm or 1.5mm
Distance	500m

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

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

Installation	
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.



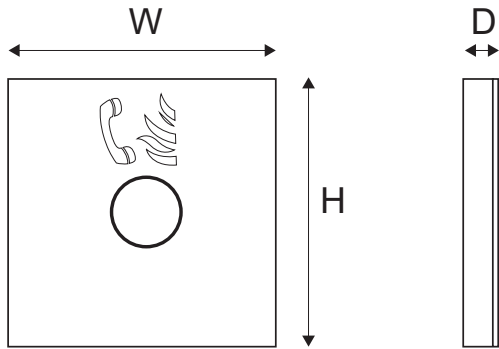
Features

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	✓
Compatible with DAX8	

Product codes

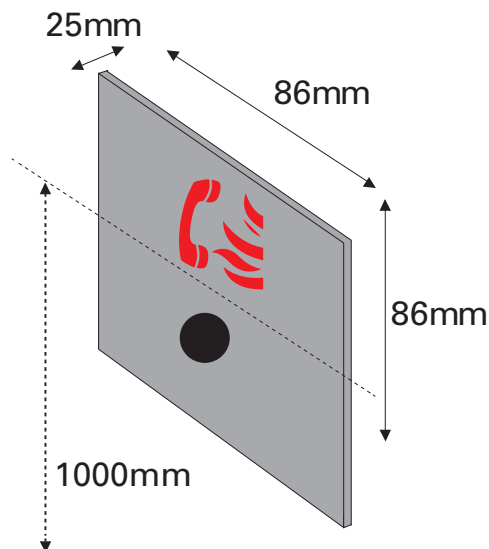
Description	Code
VoCALL roaming handset	CFVCRHS
VoCALL jack plate	CFVCRJP

Dimensions



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

Unit mounting



Technical specification

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

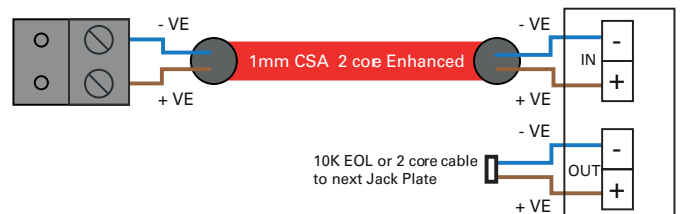
Code	CFVCRJP
Product description	VoCALL jack plate
Outstation cables	
Type	Enhanced may be required (see local standards)
Cores	2 core 1mm or 1.5mm
Distance	500m
Monitoring	dc open, short and earth
End of line	10K 1/4 W

Physical	
Construction	Brushed stainless steel
Colour	Stainless Steel
Weight	0.14kg

Installation	
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

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 (CFVCEA no PSU)

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 (CFEAPULLKIT with PSU)

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

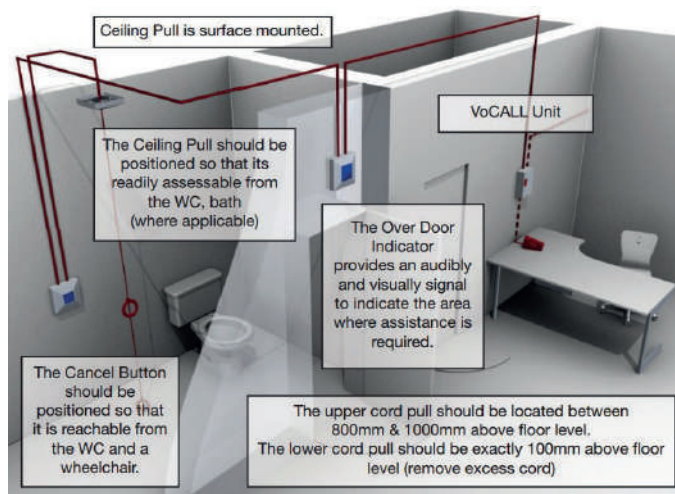
The 4 Way Splitter unit allows up to 4 stand alone disabled toilets to be monitored in one specific area. Staff can then, at the designated area such as a reception or security desk, react to an alarm swiftly and efficiently.

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.

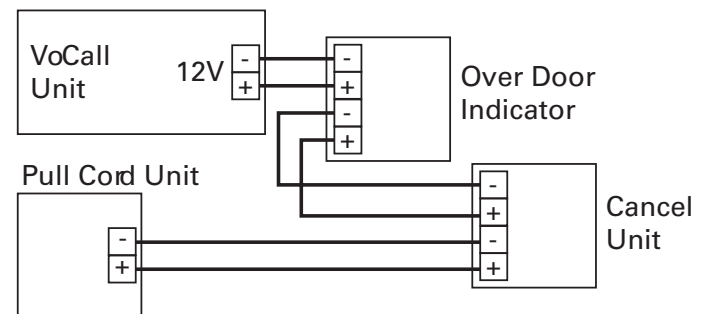
All system components are designed to be sited internally and positioned in locations where they are readily accessible by the user. The area should be clean and dry. Sound and light levels allow the status of all device indicators and sounders to be seen and heard.



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.

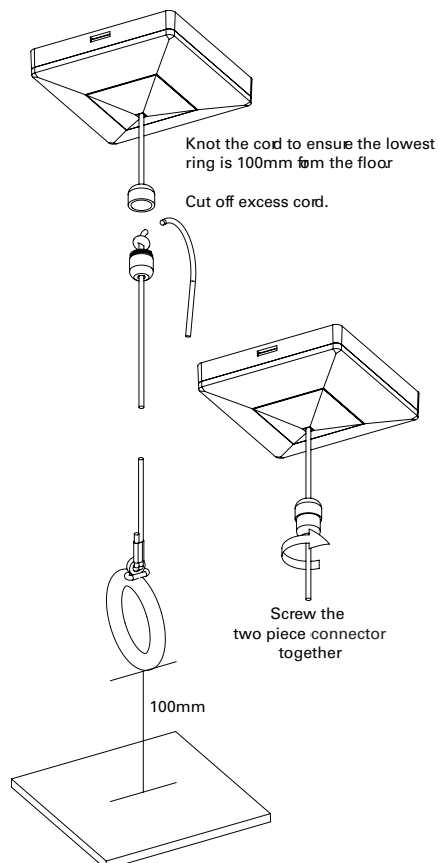
Always segregate Extra Low Voltage (ELV) wiring from the mains wiring. System requires minimum 2 core 0.4mm² cable. All wallmounting devices should be mounted onto a back box of the required depth.



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.

Pull station installation



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

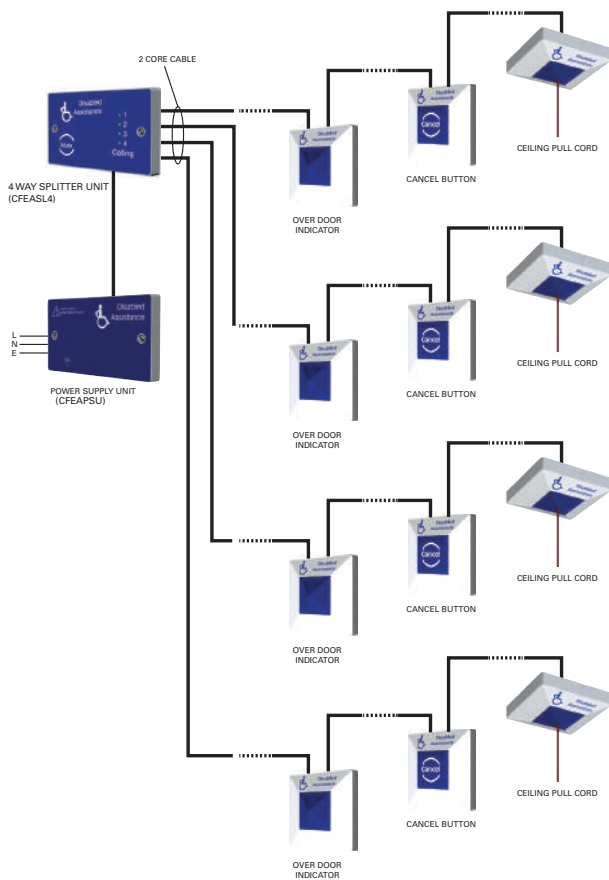
Description	Code
4 way splitter	CFEASL4
Over door indicator	CFEAODI
Cancel button	CFEARSF
Pull cord accessory pack	CFEACORD
Emergency assist kit	CFVCEA

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 0.4mm² 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

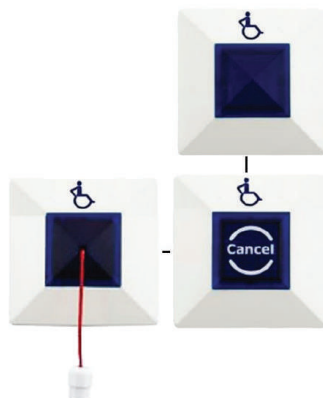
Specification	
Mains	230V ac +10% -15%
Output	12V dc (nominal)
Battery (optional)	YUASA NP 0.8Ah/12V

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

VoCALL analogue range

Emergency assist alarm equipment

EAA VoCALL kit CFVCEA



Typical applications:

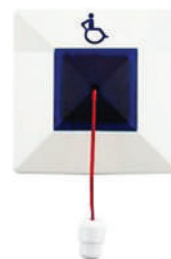
Disabled Toilets.

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:

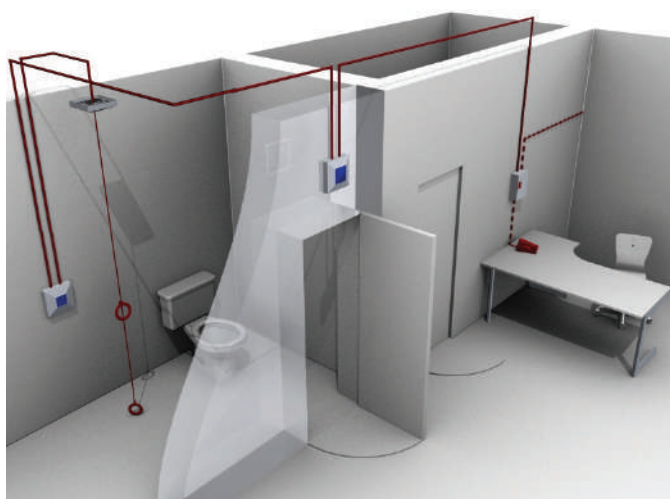
- Power supply unit
- Over door indicator
- Cancel button
- Pull cord unit
- Disabled sticker pack



4 way splitter

Catalogue numbers

Description	Code
Stand alone	
Emergency assist alarm - stand alone kit	CFEAPULLKIT
For use with EVC panel or 4 way splitter	
Emergency assist alarm - kit without PSU	CFVCEA
Accessories	
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 Network panel 30



VoCALL 16 DAX8 33



Outstations

VoCALL Type A digital outstation 36



VoCALL Type B digital outstation 37



Emergency alarm assist equipment

Kits and accessories 38



VoCALL 16 accessories

Stainless flush mount panel front 41



Semi flush bezel grey 41

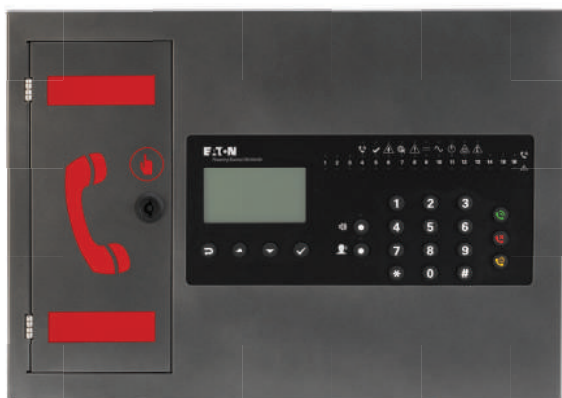


VoCALL 16 digital master MX16

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.



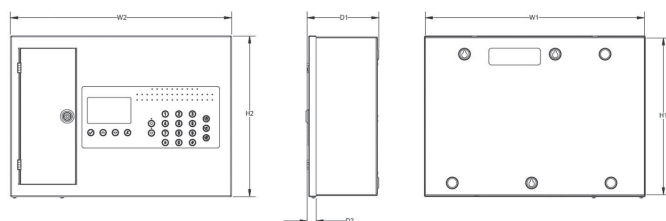
Features

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

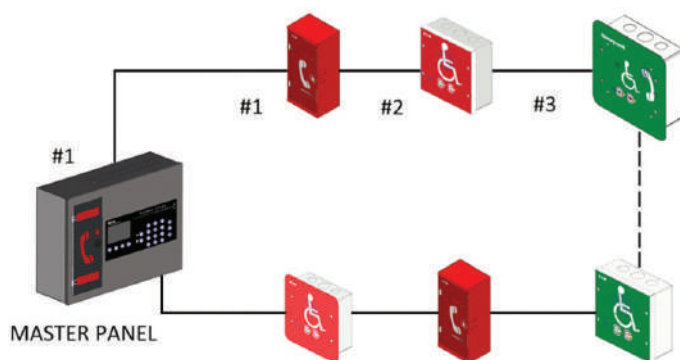
Description	Code
VoCALL 16 master panel	MX16
VoCALL 16 master panel stainless steel flush cover	MX16-SSC
VoCALL 16 master panel semi flush bezel	MX16-BEZ

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 or 2 x 2 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-networked 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.
- Users can be configured to receive, make and reset a call, view fault / event /

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

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 16 digital network panel NX16

NX16 in conjunction with the MX16 enables a system installation of up to 32 panels of any variant, each with a maximum of 16 outstations, giving a total system size of up to 512 outstations, all connected and communicating via isolated fault tolerant loops.

The system uses digital audio communication around the network to achieve high audio quality and intelligibility when it matters the most. The use of isolators on the network cabling loops ensures high redundancy and also reduces labour and material cost along with potential for wiring errors associated with traditional spur systems.



Features

- Network capacity of 512 outstations
- Up to 32 panels (main/network) in a loop
- Up to 16 digital outstations per panel
- Simple to design network
- At least one main panel is required
- Any combination of panels (MX/NX) possible
- Any combination of outstations possible
- Centrally controlled by main panel
- Easy to install and operate
- Automatic soft addressing of panels and outstations
- PC based application for configuration
- Complex call routing is possible
- Extensive time stamped logs on SD card
- Large graphical use interface
- PIN protected use access
- Fully compliant with BS5839-9

Note: Networking functionality should only be accessed by trained personnel

Benefits

- Fault tolerant loop wired design
- Simple drop-in replacement of device possible, if needed
- Simple configuration, faster commissioning
- Easy maintenance and extensive logging
- Superior audio quality
- Simple and intuitive operation
- Centrally controlled network architecture
- Full range of compatible outstations
- Appealing look with flush mount options
- Quick and simple identification of device in use
- Secure access for standard users

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 300m max between panels. Up to 9km total loop length.
- 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 keyhole type mounting points 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 32 panels in total, with any combination of main/network panel.
- Master panel has to be main panel.
- Up to 16 outstations per panel, with any combination of Type A and Type B
- Network capacity of 512 outstations

Functionality

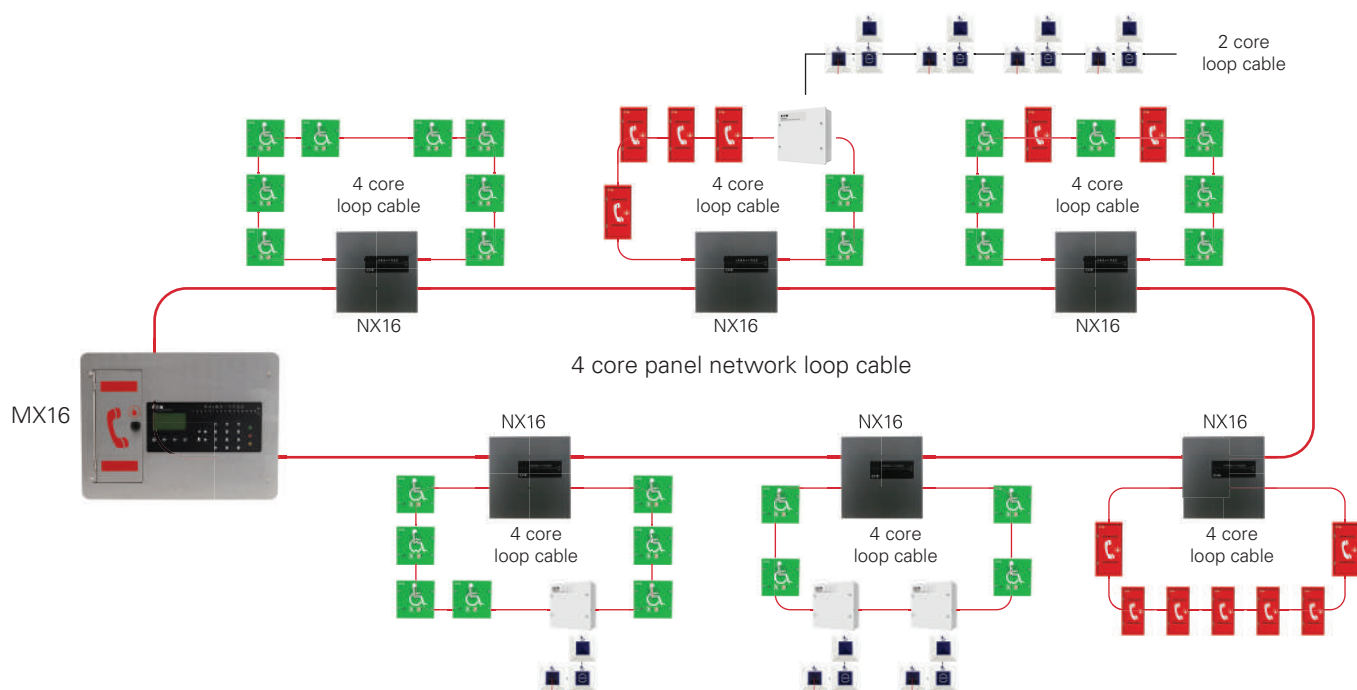
- The system has the facility for 10 users with access profiles set during commissioning. For example: user, supervisor, engineer.
- Supervisor and engineer modes can only be accessed via the relevant PIN codes.
- Users can be configured to receive, make and reset a call, view fault/event/call log functions, view panel version, accept system faults, set date/time etc.
- The unit has digital audio transmission and automatic volume control to optimise clarity of communication between outstation and main panel.
- 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.
- VoCALL 16 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 40 mm 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 an instant, clear indication as to which outstation is calling, even to an untrained user who may be unfamiliar with the operation of the unit.

VoCALL 16 network

Panels



VoCALL 16 Compatible devices

Control panels



Main panel painted grey finish MX16



Network panel painted grey finish NX16



Stainless steel front cover MX16-SSC



Semi flushing bezel MX16-BEZ

Fire telephones Type A



Fire telephone Type A painted red finish TA16-RS



Fire telephone Type A stainless steel TA16-SS



Fire telephone Type A painted red bezel TA16-RS-BEZ



Fire telephone Type A stainless steel bezel TA16-SS-BEZ

Refuge points Type B



Disabled refuge point Green surface mount Type B TB16-GS



Disabled refuge point Green flush mount Type B TB16-GF



Disabled refuge point Red surface mount Type B TB16-RS



Disabled refuge point Red surface mount Type B TB16-RF

Emergency assist alarm



Emergency assist alarm digital interface EAA16-LS



Emergency assist alarm with PSU CFEAPULLKIT

VoCALL 16 Digital EVCS – 8 Line Digital to Analogue Exchange DAX8

DAX8 is a loop powered digital to analogue convertor, used in conjunction with VoCALL 16 to ensure simplicity of future legacy system upgrade or expansion.

This loop powered convertor allows the connection of existing analogue outstations to a digital system. A maximum of 8 analogue outstations of any combination can be connected to the DAX8 with a maximum of two DAX8 units per panel. The loop wired connection to the DAX8, along with short circuit insulators, ensures the network is robust and fault tolerant.

Compatible analogue outstations include the type A, type B, Jack point and emergency assist alarm (EAA).

Utilising a minimum of one MX panel and up to 31 additional lower cost NX network panels, the DAX8 enables system takeovers of up to 512 analogue outstations utilising existing Eaton loop and radial cable configurations.

The simplicity of operation, ease of cabling and competitive pricing makes the system suitable for a wide range of applications. The DAX8 can be wired in combination with our range of soft addressable digital outstations, ensuring the maximum flexibility in takeovers, upgrades and expansion of EVC systems.

The DAX8 also ensures compatibility with our low-cost jack point for regions where this system is allowed by building code, allowing up-to 512 individually addressed jack points per system, or 512 lines of jack points with potentially over 10,240 points available.



Features

- Fault tolerant loop wired design from panel to DAX8
- Simple radial connection of analogue devices
- Dip switch configuration of legacy outstation types, faster commissioning
- Easy maintenance and extensive logging
- Superior audio quality
- Simple and intuitive operation
- Centrally controlled network architecture
- Full range of compatible analogue and digital outstations
- Quick and simple identification of device in use
- Secure access for standard users



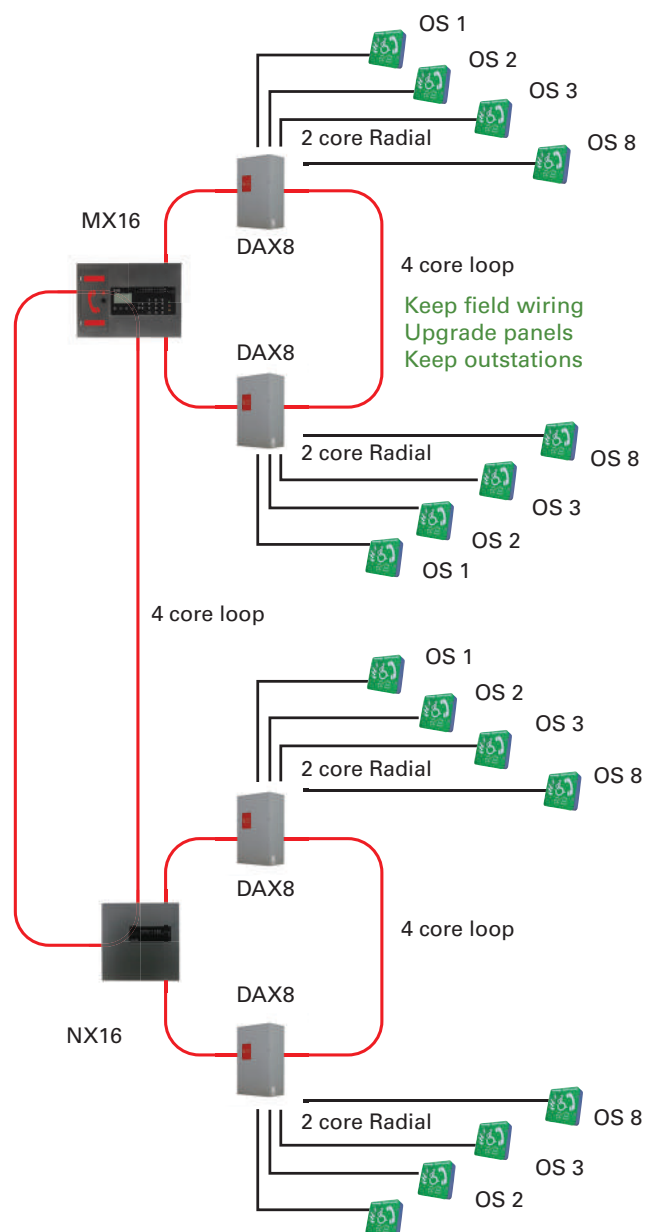
Features

- Up to 64 DAX8 units in a network
- Up to 8 analogue outstations per DAX8
- 4 core loop connection to host panel
- 8 x 2 core radial spurs for legacy outstations
- Upgrade existing systems to a digital isolated network
- Requires at-least 1 MX panel per system
- Any other combination of panels (MX/NX) possible
- Any combination of analogue outstations possible.
- Easy to install and commission
- Soft addressed panel, digital outstation and DAX8
- PC based application for configuration
- Loop isolators built into the DAX8
- Built in end of line monitoring of legacy outstations
- Dill switch identification for legacy outstations
- Uses existing CFVCX8 footprint
- Emergency assist toilet alarms are powered from the DAX8
- Fully compliant with BS5839-9
- Network capacity of 512 outstations

Installation

- The DAX8 panel is designed for ease of installation with a full range of knockouts
- Up to 200m max between DAX8 exchanges. Up to 2000m total loop length
- Up to 300m max between panels. Up to 9Km total loop length.
- 4 core cable loop between panels and DAX8 exchanges
- Existing Eaton cabling loops and spurs can be reused
- DAX8 Panels are provided with a keyhole type mounting on the rear for ease of installation and alignment.
- secured hinged 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

Wiring and installation



Technical specification

Power supply

Input voltage	230V ± 10% RMS 50/60Hz AC - input to power supply
Current consumption @ 24V	Secondary source - Battery back-up. Batteries not supplied. 2 x Yuasa 12Ah 12V battery (required)

Mechanical

DAX8 Dimensions (H x W x D mm)	212 x 341 x 119 mm
Weight DAX8	2.6kg

Environmental

DAX8 temperature (Storage)	-5°C to +49°C
DAX8 temperature (Operation)	-5°C to +49°C
Humidity range	0% to 95% non-condensing

Product order codes

Order code	Description
DAX8	Digital to analogue exchange
MX16	VoCALL 16 Main Panel
NX16	VoCALL 16 Slave panel
CFVCFHP	VoCALL Analogue
CFVCSHP	VoCALL Analogue
CFVCFHPSS	VoCALL Analogue
CFVCSHPSS	VoCALL Analogue
CFVCFHPSS	VoCALL Analogue
CFVCSHF	VoCALL Analogue
CFVCSHFG	VoCALL Analogue
CFVCSHFSS	VoCALL Analogue
CFVCFHB	Flush mounting bezel stainless fits all type B
CFVCRJP	VoCALL analogue jack plate
CFVCRHS	VoCALL analogue roaming handset
CFVCEA	Pulkit without PSU

System Functionality

- Up to 64 DAX8 exchanges in total,
- Wired in conjunction with 32 main panels in any combination of MX or NX panels.
- At least one panel must be an MX to provide a handset
- Up to 16 outstations per panel, with any combination of Type A, Type B, Jack point or Emergency assist alarm
- Up to 20 Jack points per radial line
- Conference call between 3 jack points and the master on the same line
- Network capacity of 512 addressed outstations.
- Possible maximum of 10,000 radial spur addressed jack points (one address per radial spur)
- DAX8 units can be mixed on the same outstation loop with new digital outstations
- The VoCALL 16 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.
- 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.
- 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.
- DAX8 has local LED indication of an incoming call, a fault on the line or outstation and in use
- DAX8 also has a local in use relay which can be used to silence local sounders or voice alarm speakers
- The DAX exchange also benefits from 2 programmable output relays

VoCALL type A digital outstation

TA16-RS, TA16-SS

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
Type A outstation (steel, surface mount)	TA16-SS
Type A outstation (bezel, steel, flush mount)	TA16-SS-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

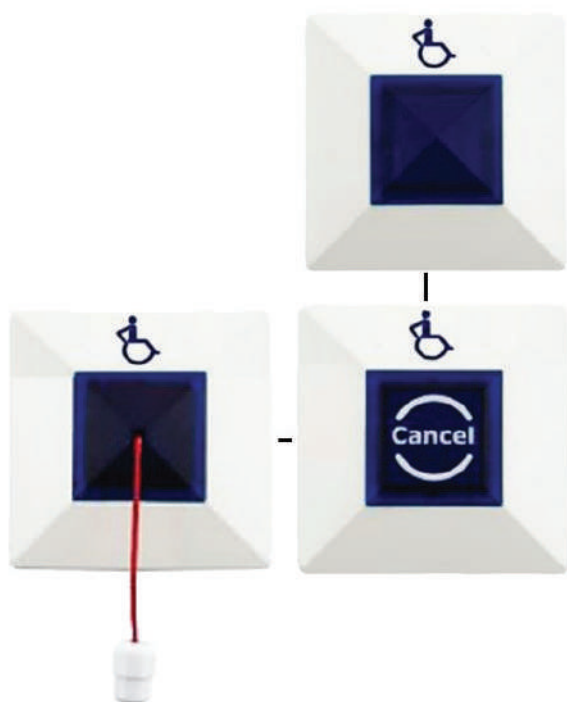
Description	Code
Type B outstation (green, surface mount)	TB16-GS
Type B outstation (green, flush mount)	TB16-GF
Type B outstation (red, flush mount)	TB16-RF
Type B outstation (red, surface mount)	TB16-RS
Type B outstation (stainless steel, surface mount)	TB16-SS
Type B outstation (stainless steel, flush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

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 - Loop interface	EAA16-LS
Emergency assist kit	CFEAPULLKIT
Over door indicator	CFEAODI
Cancel button	CFEARSP
Pull cord accessory pack	CFEACORD

Emergency assist alarm Digital interface EAA16-LS

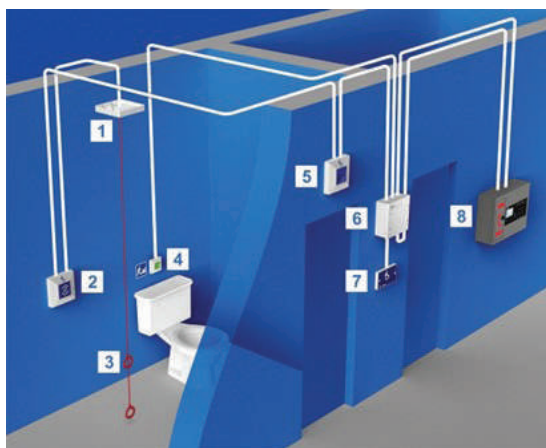
System installation

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

The VoCALL Digital EAA interface enables you to easily connect your VoCALL 16 panel to your Emergency Alarm Assist (EAA) kit. Using Eaton's popular CFEAPULLKIT, the system is powered locally and is easily extendable with it being possible to add up to 16 EAA units to the loop.



- The Ceiling Pull should be positioned so that its readily accessible from the WC or bath (where applicable).
- The cancel button should be positioned so that it is reachable from the WC and a wheelchair.
- The upper cord pull should be located between 800mm & 1000mm above floor level. The lower cord pull should be exactly 100mm above the floor level (remove excess cord).
- A reassurance sounder/indicator (not included) can be added along with visual notification sticker (included with the EAA interface)
- The over door indicator provides an audible and visual signal to indicate the area where assistance is required.
- The VoCALL 16 EAA interface (EAA16-LS) is connected to the VoCALL 16 panel and the power supply
- The power supply is situated in the corridor and supplied via a switched fuse spur.
- The VoCALL 16 digital emergency voice communication panel is available as flush or surface mount.

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.

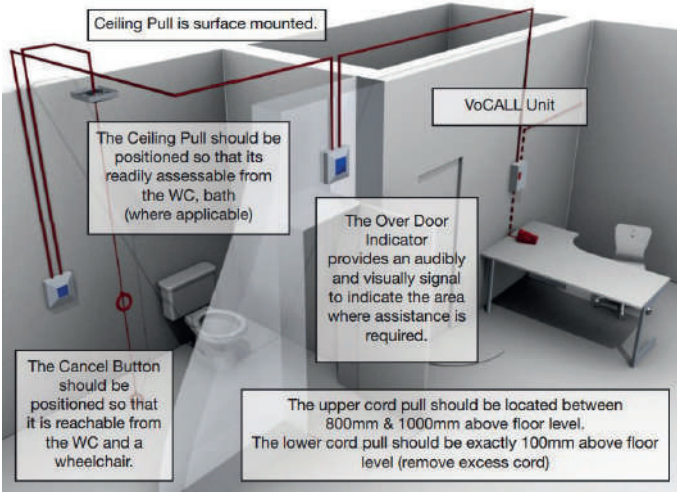
System operation

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

The VoCALL panel will indicate emergency assist alarm activations. Once the call is accepted a signal will be sent to the EAA interface which will then power a reassurance beacon or sounder if required

To reset call - press the cancel button supplied with the emergency assist alarm kit

If a call is made and not accepted at the VoCALL panel, then a user variable timer function is activated which will activate a relay on the main panel once timed out this can be used to sound an alarm or trigger a dialler.



Reassurance

The VoCALL EAA interface has a powered output which changes state when the call from the EAA is acknowledged at the VoCALL Digital panel. This allows the installer to install a reassurance light or sounder as required (not supplied) along with a self-adhesive pictogram to identify the meaning of the light or sounder (supplied)

Wiring multiple alarm points from the EAA16-LS

Using the 12v PSU, which is included within the CFEAPULLKIT, allows the EAA16-LS to run single or multiple CFVCEA units in a local area such as a toilet cluster or corridor. The addressable nature of the EAA16-LS allows it to identify the locality of the alarm, (Corridor C for example) and the overdoor light which is part of the CFVCEA pinpoints the room or toilet in alarm. This configuration also allows multiple reset points and pull cords to be used.

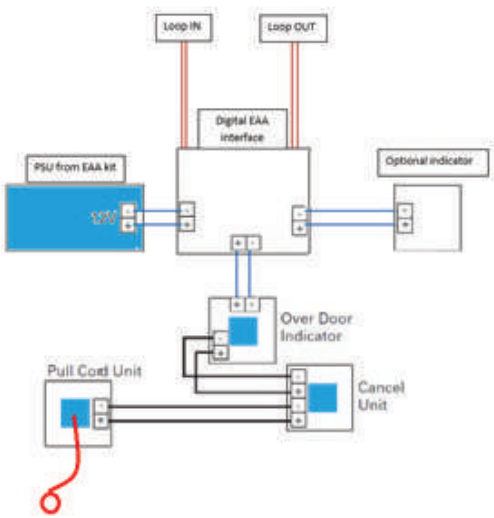
Wiring

The wiring from the VoCALL EAA interface consists of a single pair in for alarm and a single pair out for reassurance if required, this does not have to be fire rated cable, although this may be used,

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.

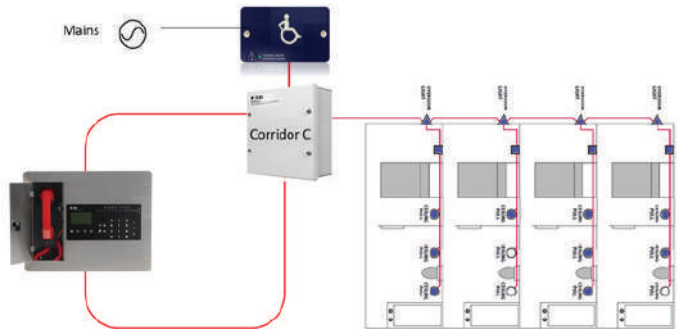
Always segregate Extra Low Voltage (ELV) wiring from the mains wiring. System requires minimum 2 core 0.4mm2 cable. All wall mounting devices should be mounted onto a back box of the required depth



Panel Disablement

The VoCALL 16 Digital panel has a disablement function which disables the system from making or receiving calls until it has an external input such as a fire relay, this is often used to stop nuisance calls, it should only be used after discussion and documentation by all interested parties.

The EAA interface will override this panel disablement and allow calls from the EAA through to the VoCALL panel in the normal manner



Description	Code
Emergency assist alarm Digital interface	EAA16-LS
Emergency assist kit with PSU	CFEAPULLKIT
Emergency assist kit without PSU	CFVCEA

VoCALL 16 accessories

Stainless steel panel front

MX16-SSC



Semi-flush grey bezel

MX16-BEZ



Public Address Voice Alarm Range



Contents

Voice alarm systems

Panels

DAU500 panel

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GUI Software

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Microphones

Microphone range

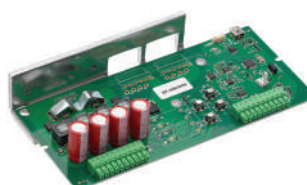
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Ancillaries

Network components & accessories

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Loudspeakers

Loudspeaker Range

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Compact DAU500 networked and decentralised voice alarm and public address paging system

The networked voice alarm and public address system Compact DAU500 is based on the concept of a standalone or decentralised network topology with multi-channel amplifier and built-in local power backup.

This state-of-the art, digital technology offers an audio distribution system which is a compact, all-in-one, wall-mounted solution, where a flexible and easy to operate voice system installation.

Compact DAU500 can be configured as a standalone or networked voice alarm system comprising of 6 loudspeaker circuits and consists of a central control unit with embedded amplifier cards: 3 dual-channel amplifier cards, EF-DA200T, for 6 zones, plus one dual-channel amplifier, EF-DA200S, for active back-up with integrated emergency power manager in accordance with EN54-4.

It has a front control panel with 6 x configurable zone buttons and indicators such as, zone evacuation / failure warning / busy LED displays at access level 2 and integrated fireman's microphone with priority and electrical monitoring in a protective cover.

The Compact DAU500 is an optimised voice alarm and/or public address system designed for small and medium-sized applications. A standalone central control unit, together with three EF-DA200T two-channel amplifiers, forms a complete voice alarm system for venues such as schools, smaller hotels, etc. The overall system achieves the performance requirements for voice alarm systems in accordance with EN54-16 and electro-acoustic emergency warning systems EN 50849.

The Compact DAU500 central control unit has built-in EN54-4 certified power supply equipment, complete with a 4-ampere intelligent charger and battery compartment. All power amplifiers are constantly monitored. In the event of a defective power amplifier, the backup amplifier will replace it dynamically. Switching takes place automatically and without interruption from the central control unit.

The loudspeaker lines are constantly monitored for short circuits, interruptions, and impedance deviations with support of an end-of-line module. Faulty loudspeaker lines are isolated without affecting other zones. Each DAU500 panel supports memory storage for 22 pre-recorded messages of max. 5 minutes each; they can be configured for alarm messages and signals (evacuation alarm, warning siren) and attention signals (siren, chime).

The volume of each source and each amplifier channel can be regulated using the 5-point parametric audio filter which is available for each input and output. Faults are recognized, displayed, and logged in compliance with standards within a few seconds.

The Compact DAU500 central unit features 2 analogue balanced inputs for background music or an external analogue priority signal that can trigger an evacuation status.

As standard, the DAU500 panel is equipped with 6 independent amplifier channels which can operate a total of 6 loudspeaker circuits, each loaded with a maximum of 100W. Amplifier channels can be bridged in pairs, creating more powerful loudspeaker lines, each capable of driving a 200W loudspeaker load. It is also possible to mix branch and loop line technology on the same central control unit.



The number of loudspeaker circuits can be further expanded using the EF-HEXAPOD6 multiplexer units, for phased evacuation applications, the maximum number of loudspeaker circuits possible from a single DAU500 panel is 18 lines, this limit can be extended further to 36 loudspeaker lines in non-phased evacuation applications.

The Compact DAU500 directs two live stream audio channels and a serial data channel (RS422) into remote zones via a redundant global network loop and controls a 6-channel message player that sends synchronized audio signals to the local zones. In this way, each Compact DAU500 can play multiple audio messages simultaneously in the local zones.

All announcement memory modules are synchronized between several Compact DAU500 panels supporting a wide area of warning message playback. Compact DAU500's central unit features 16 programmable discreet triggering inputs onboard, of which 8 are monitored. 3 dual-state potential-free system status output relays together with 8 programmable open collector GPO outputs, take care of feedback signals to external systems and control over auxiliary devices.

With up to 254 decentralized all-in-one Compact DAU500 units each with a control and display panel serving six zones or using an additional EF-FMTC touchscreen microphone accessing up to 254 zones, this creates a single voice alarm system which can reach over 1500 loudspeaker lines in total, where architecture and priorities can be individually programmed in each of 254 evacuation zones.

Built-in Local Network ports, dedicated for local peripherals such as microphone stations, extend the physical range of the system and expand functionality. The redundant dual ring network structure offers a fail-safe communication platform for alarm messages, control and information exchange that does not require central processing and in case of link failure remains fully functional.

The DAU500 is a powerful, all-in-one, EN54-16 wall mounted voice alarm solution suitable for a range of centralised and decentralised PAVA applications. It ships network ready in a compact single cabinet with the ability to connect up to 254 panels on its global audio network, which offers flexibility and optimisation for a range of voice applications

Each EF-DA200T can be impedance matched to the intended loudspeaker line voltage by coupling to the appropriate transformer; in the case of 100v line speaker circuits, there is the EF-T100 toroidal transformer available and for 70v line speaker circuits, we recommend the EF-T107 toroidal transformers.

- 600W per EFDAU500 panel
- Switchable 100 Volt Line or 70 Volt Line compatibility
- 3 x 2 channel audio amplifier
- 1 x 2 channel backup amplifier
- AC surveillance continuously or pulse 20 kHz signal with EOL
- Battery charger included for 10-55AH
- Battery space inside enclosure
- Built-in fire microphone with front end controls
- Local Audio Network: 3 x L-NET for remote control devices
- Global Audio Network: 2 x G-NET for ring connectivity of up to 254 panels
- Background music input BGM



- 100 v line configuration, supports up to 100W
- 70 v line configuration, supports up to 100W in standard mode and 200W when bridged
- Used to couple the DAU500 transformers to the speaker lines
- Each DAU500 amplifier supports a connection to up to 2 output transformer
- Max 6 transformers per DAU500 panel



- 100 v line configuration, supports up to 100 W in standard mode and 200 W when bridged
- 70 v line is not supported
- Used to couple the DAU500 transformers to the speaker lines
- Each DAU500 amplifier supports a connection to up to 2 output transformer
- Max 6 transformers per DAU500 panel



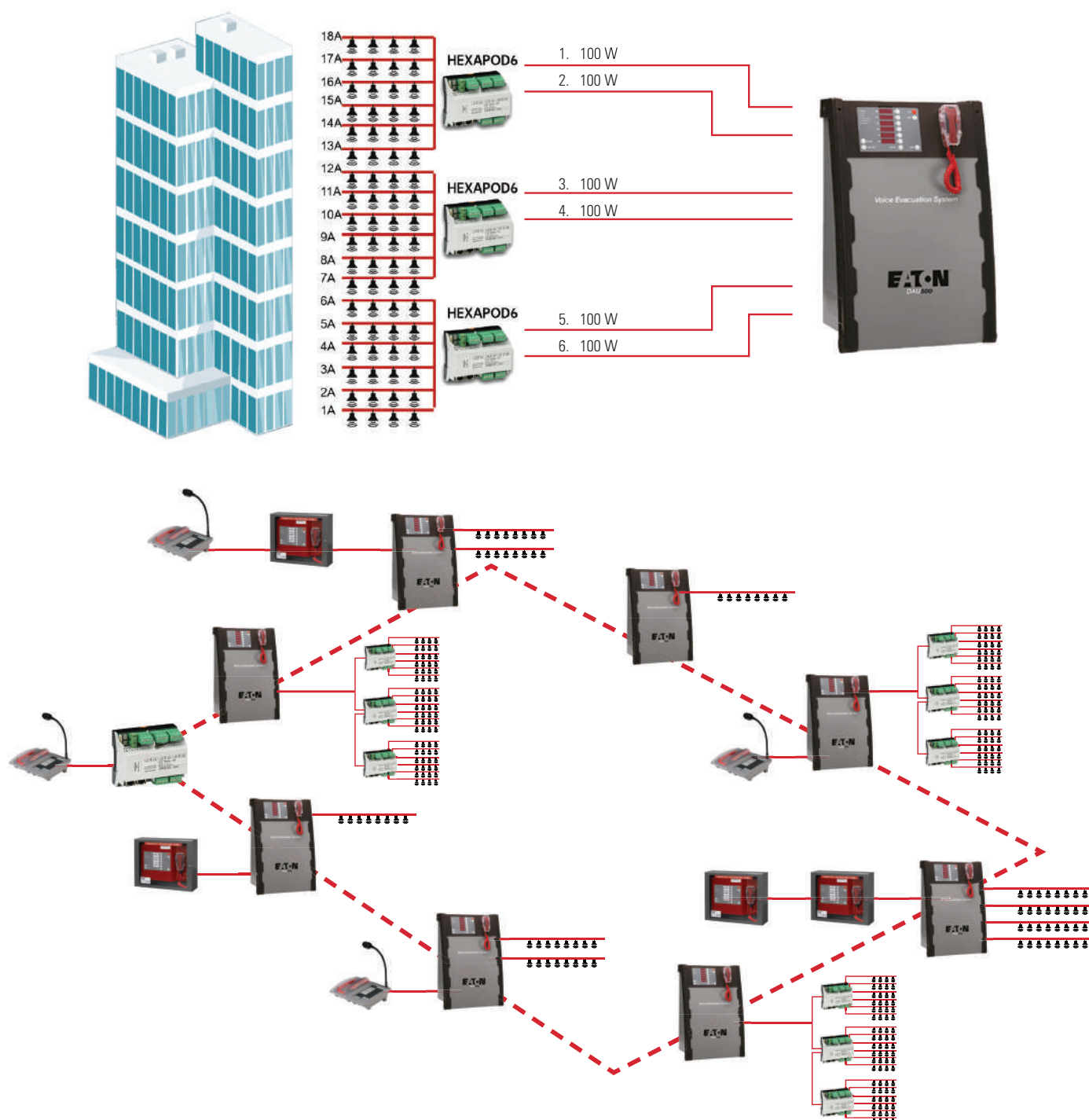
- Directly connected to a single/dual output line of the EFDAU500
- The HEXAPOD6 Zone Extender & Switching module sub-divides the signal path A & B into 6 x additional monitored speaker-line outputs
- All HEXAPOD6 -outputs can be individually addressed and are carrying signal path A or B
- Each output can switch to internal 20kHz line surveillance generator (path C)
- Each switched output zone requires an EOL-device for line-integrity detection
- Max. of 3 x HEXAPOD6 sharing 1x L-Net connection for communication and power (Without additional 24VDC)
- The HEXAPOD6 can be remotely powered in case more than 3 x HEXAPOD units need to be linked to a single L-Net line
- Max. load: 800 W
- Redundant L-Net link: 2 x RJ45

Speaker line multiplexer example using 3 x EF-HEXAPOD6

(3 per EFDAU500 panel advised)

With the ability to connect up to 254 panels on its global audio network which offers flexibility and optimisation for a range of voice applications. This will permit broadcasts from any location to any combination of selectable zones

The system can be used with its integrated microphone, however there are a number of alternative microphones available



EFDAU500 Voice View Control Station Software

Eaton's Voice View Control Station is a Windows PC application dedicated to Eaton's DAU500 Voice Alarm & Public Address system. Thanks to a simple graphical user interface (GUI), Control Station provides easy to operate control surface, optimized for touchscreens.

Zone controls, message triggering, background music management and voice paging as well as feedback information, creates a combination ideal for a user-friendly experience within a powerful workstation



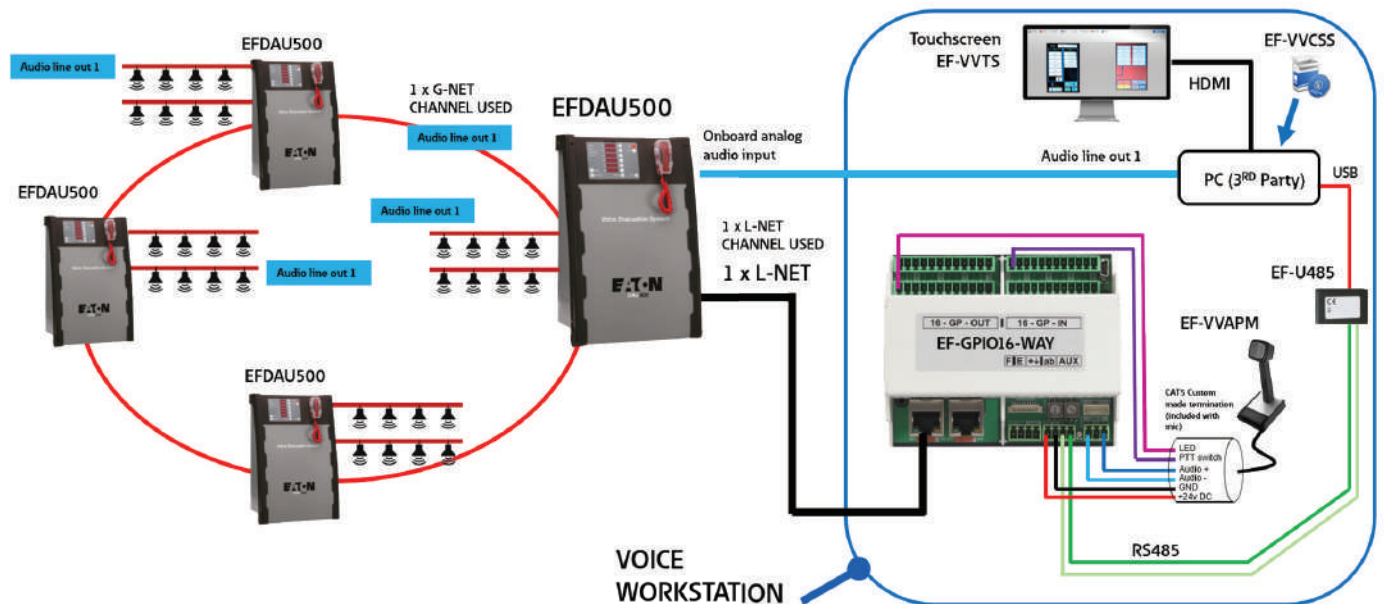
Connectivity

The Voice View Control Station computer is connected to the DAU5000 voice system through a serial RS485 link on the EF-GPIO-16WAY module.

In order to complete the RS485 interface connection, on the PC side, it is required to use a USB to RS485 converter (EF-U485, available from Eaton).

If live audio / voice functionality is required, the audio source or microphone is connected to the analogue line level audio input located on the same EF-GPIO-16WAY device.

Where additional security measures are required for link integrity, L-Net bus may be optionally installed as a redundant link



Firefighter's microphone for DAU500 PAVA system

The Firefighter's Microphone EF-FMWB is a wall-mounted microphone paging station, with the push-button panel and fireman microphone, for use with Eaton's DAU500 voice alarm system. It can address up to 6 zones for emergency EVAC paging. It includes a fist microphone with built-in PTT button, which can be pre-programmed to access a certain zone or group of zones. EVAC and ALERT messages may be triggered on the front of the panel by means of dedicated buttons.

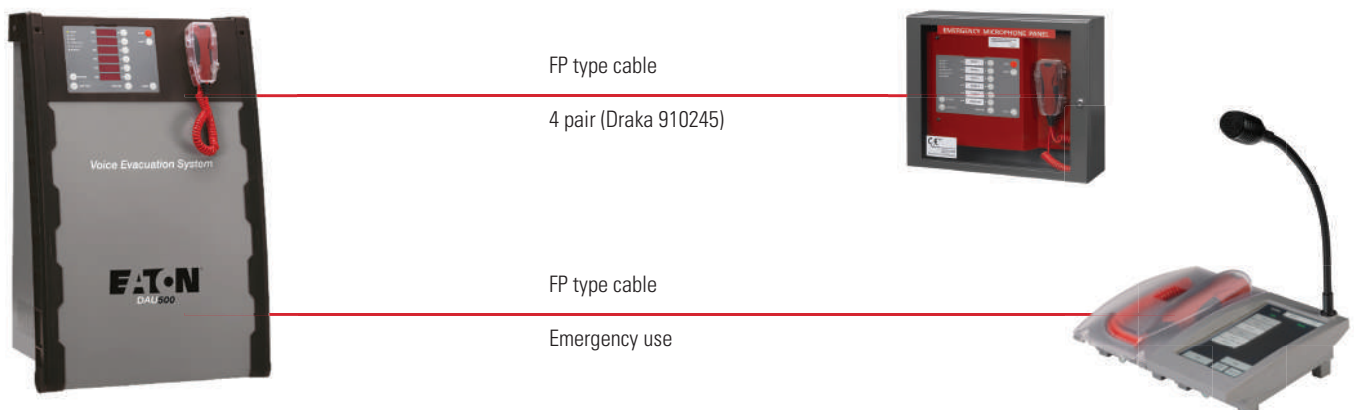
Additionally, the firefighter's microphone incorporates mandatory EN-54-16 system indications, as well as fault/emergency buzzer and mandatory manual controls, including Lamp Test and system reset.

It is easily connected to L-Net interface of the public address and voice alarm system's main DAU500 panel and can be daisy-chained with more L-Net devices.



Features

- Handheld firemen's microphone with ALL-CALL button
- Coiled cord working length: 1.10 m
- Fully monitored fault system
- Access level 2 protected wallbox with STANDARD keylock
- Zone selection and busy indicators
- Power, Evac, Fault, Power supply, System fault & Network status indicators
- Lamp test, Silence, Function, Reset, Evac & Alert buttons
- Addressable
- Redundant L-Net link, 2 x RJ45
- 2 x RJ45 for ring, spur or daisy-chain interfacing with the EFDAU500
- Dimensions: 385 H x 440 W x 140 D



EF-FMT - Fire Microphone with Touchscreen

The desktop/wall mounted microphone station (EF-FMTC) with touchscreen panel has been designed for use with the DAU500 voice alarm system. It can address up to 255 zones and trigger every source or message available in the entire system. It features gooseneck microphone for general paging and a separate, fully monitored fireman microphone.

The EF-FMTC desktop microphone offers dual mode operation: paging mode (fireman's door closed), where only general messages and paging features are available; emergency mode (fireman's door open), where emergency messages and fireman's microphone is available.

The microphone is connected to L-Net interface of DAU500 panel and may be daisy-chained with more L-Net devices. It is dedicated for call points where both general-purpose paging and emergency evacuation management is necessary. Fault monitoring and EVAC functionality are included, making it suitable as an emergency microphone.



Fireman-Microphone, wall and desktop version:

- 100 v line configuration, supports up to 100W
- 70 v line configuration, supports up to 100W in standard mode and 200W when bridged
- Used to couple the DAU500 transformers to the speaker lines
- Each DAU500 amplifier supports a connection to up to 2 output transformer
- Max 6 transformers per DAU500 panel



EF-FMP – Replacement DAU500 Panel Microphone

- Handheld firefighter's microphone
- Service replacement part for DAU500 panel
- Curl cord working length: 1.10m
- Supervised for fault
- Access level 2 protected



EF-FM – All Call Microphone

- Firefighter's microphone
- Desktop or wall mounted
- Wall-brackets included
- Handheld microphone with ALL-CALL button
- Curl cord working length: 1.10m
- Supervised for fault

Voice alarm systems

Microphones & Ancillaries



EF-CMT – Paging Microphone with Touch-screen

- Desktop non-emergency paging microphone with touchscreen
- Addressable: 0-255
- 2 x RJ45 for ring, spur or daisy-chain interfacing with DAU500
- Configurable 7" touchscreen for paging control and status information
- 30cm gooseneck with dynamic hyper-cardioid microphone
- Redundant L-NET link, 2 x RJ45



EF-CMP – Paging Microphone with Buttons

- Desktop non-emergency paging microphone
- 6 zone selectable buttons plus a PTT (push-to-talk) button
- 30cm gooseneck with dynamic hyper-cardioid microphone
- Addressable: 0-255
- Redundant L-NET link, 2 x RJ45
- 2 x RJ45 for ring, spur or daisy-chain interfacing with DAU500

Interfacing

EF-GPIO16WAY is a DIN-rail mounted I/O interface with input surveillance and redundant network link, dedicated for the DAU500 Public Address and Voice Alarm System.

It features programmable 16 in / 16 out pins, mandatory EVAC and FAULT status output contacts, monitored analogue audio input and monitored RS-485 interface for integration with third-party external control panels.

EF-GPIO16WAY can trigger any user defined event to any zone or set of zones in the entire system. It can also transmit audio signal from built-in local audio input to any zone over system network.

EF-GPIO16WAY is connected to L-Net interface of the DAU500 main unit and may be daisy-chained with more L-Net devices. EF-GPIO16WAY may be used for emergency signals transmission, as well as for commercial purposes. As a component compliant with EN54-16, EF-GPIO16WAY features built-in surveillance of all input contacts, surveillance of serial port, monitoring of audio input and network link surveillance. It also offers redundant L-Net connection for backup of the critical transmission path.



EF-GPIO-16WAY – Programmable Input/Output module

Remote contact interface with following hardware configuration:

- DIN-RAIL
- 16 programmable monitored inputs
- 16 programmable outputs
- RS485 datalink with 2W DC aux output
- Balanced analogue audio input
- General Fault and EVAC status output
- Redundant L-NET link, 2 x RJ45
- Addressable

Networking

The EF-FSC-MM is DIN-rail mounted; optical multi-mode fibre signal adapter dedicated for DAU500 Voice Evacuation System. EF-FSC-MM is dedicated for use with only the G-Net (Global Network) of the DAU500 system, interconnecting main units of the system. It extends a single link range up to 2km.

Each fibre adapter is powered directly over the G-Net port.

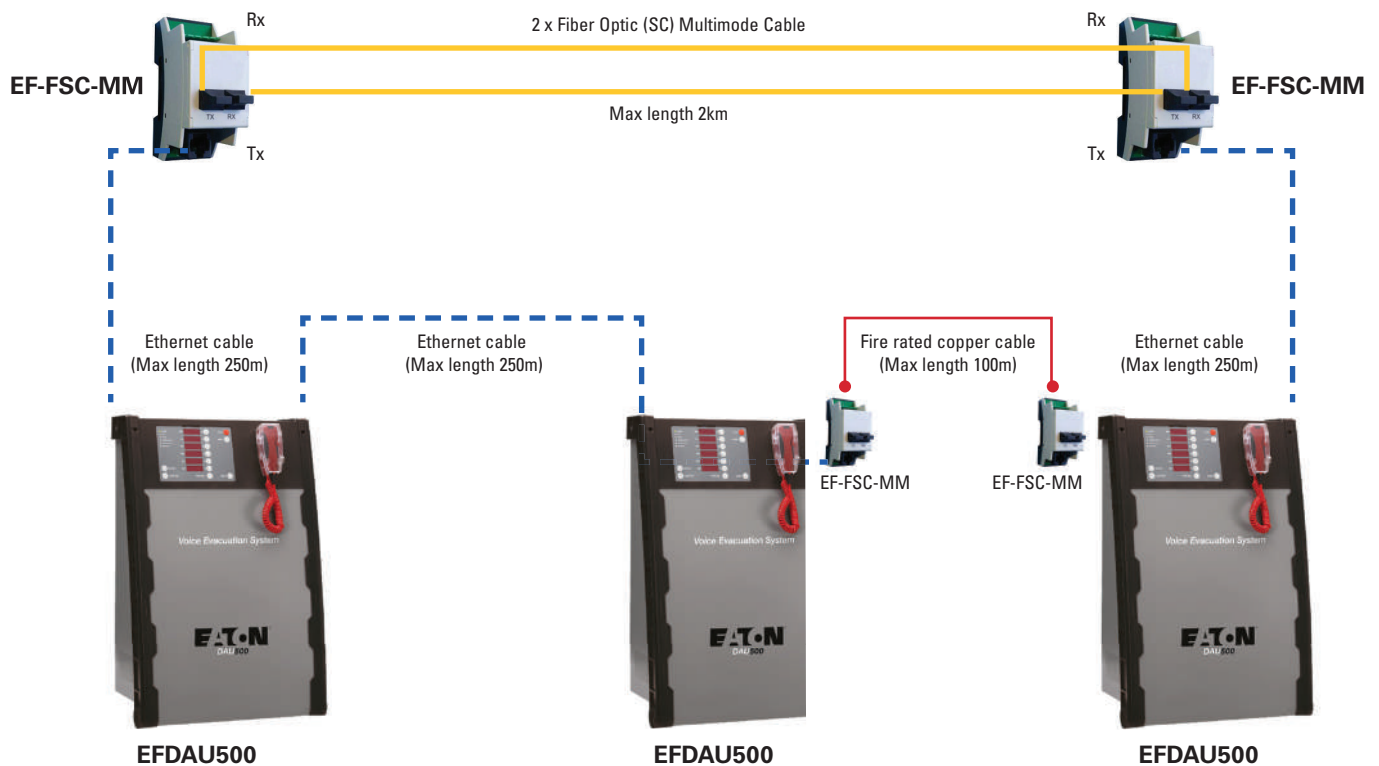
The EF-FSC-MM features standard SC connectors for the fibre cable, providing easy click-in connection.



EF-GPIO-16WAY – Programmable Input/Output module

Remote contact interface with following hardware configuration:

- DIN-RAIL
- 16 programmable monitored inputs
- 16 programmable outputs
- RS485 datalink with 2W DC aux output
- Balanced analogue audio input
- General Fault and EVAC status output
- Redundant L-NET link, 2 x RJ45
- Addressable



Loudspeaker Range

Eaton's Loudspeaker range delivers exceptional performance, reliability, and sound clarity for Voice Alarm and Public Address applications across diverse environments. Our EN54-24 certified loudspeakers—including ceiling speakers, sound projectors, horns, and column models—feature a wide frequency range, making them ideal for voice alarm announcements and background music. Ceiling speakers are available with plastic and metal fire domes, while sound projectors ensure superior speech intelligibility in hallways, car parks and Metro stations. Horn and column loudspeakers provide high sound pressure levels and robust durability for large areas such as shopping malls, storages, and transit hubs, as well as outdoor environments.

Public Address ceiling speakers feature quick-mount installation and powder-coated metal construction, offering cost-effective solutions for general announcements and background music in commercial and public spaces.

Public Address 6W 130mm Ceiling Loudspeaker

EF-CS6-130-PASB



- Quick mount with spring clamps
- 100V/70V line transformer
- Powder coated metal Chassis and Grill
- 100.0 dB at 1 meter
- IP 21

Public Address 6W 165mm Ceiling Loudspeaker

EF-CS6-165-PASB



- Quick mount with spring clamps
- 100V/70V line transformer
- Powder coated metal Chassis and Grill
- 97.5 dB at 1 meter
- IP21

EN54 6W 130mm Ceiling Loudspeaker Plastic Fire Dome

EF-CS6-130-ENP



- EN54-24 certified
- Antistatic, Shock resistant plastic housing
- Excellent sound quality
- 98.3 dB at 1 meter
- Quick mount with spring clamps
- 100V/70V line transformer
- IP21
- EASE data available

EN54 6W 165mm Ceiling Loudspeaker Plastic Fire Dome

EF-CS6-165-ENP



- EN54-24 certified
- Antistatic, Shock resistant plastic housing
- Excellent sound quality
- 100.2 dB at 1 meter
- Quick mount with spring clamps
- 100V/70V line transformer
- IP 21
- EASE data available

EN54 6W 130mm Ceiling Loudspeaker Metal Fire Dome

EF-CS6-130-ENMSC



- EN54-24 certified
- BS5839 part 8
- Excellent sound quality
- 98.3 dB at 1 meter
- Quick mount with spring clamps
- 100V/70V line transformer
- Metal fire dome
- Ceramic terminal
- Thermal fuse
- 1 µF capacitor
- IP21
- EASE data available

EN54 6W 165mm Ceiling Loudspeaker Metal Fire Dome

EF-CS6-165-ENMSC



- EN54-24 certified
- BS5839 part 8
- Excellent sound quality
- 100.2 dB at 1 meter
- Quick mount with spring clamps
- 100V/70V line transformer
- Metal fire dome
- Ceramic terminal
- Thermal fuse
- 1 µF capacitor
- IP21
- EASE data available

20W Plastic Sound Projector Loudspeaker

EF-SP20-130-P-ENC



- EN54-24 certified
- BS 5839 Part 8
- 99.5 dB at 1 metre
- Solid aluminum mounting bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 μ F capacitor
- IP66
- EASE data available

30W Horn Loudspeaker

EF-H30-ENC



- EN54-24 certified
- BS 5839 Part 8
- 110.1 dB at 1 metre
- Flexible mount with U-bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 μ F capacitor
- IP66
- EASE data available

20W Metal Sound Projector Loudspeaker

EF-SP20-130-M-ENC



- EN54-24 certified
- BS 5839 Part 8
- 103.2 dB at 1 metre
- Solid aluminum mounting bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 μ F capacitor
- IP65
- EASE data available

20W Metal Column Loudspeaker

EF-CL20-ENC



- EN54-24 certified
- BS 5839 Part 8
- 100.3 dB at 1 meter
- Quick mount with swivel bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 4.7 μ F capacitor
- IP66
- EASE data available

10W Horn Loudspeaker

EF-H10-ENC



- EN54-24 certified
- BS 5839 Part 8
- 106.7 dB at 1 metre
- Flexible mount with U-bracket
- 100V/70V line transformer
- Ceramic terminal
- Thermal fuse
- 2.2 μ F capacitor
- IP66
- EASE data available

CW-HMX UL voice evacuation system



Contents

UL voice evacuation system

Panels

Master panel	56	Distributed panel	56
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Fire phone equipment

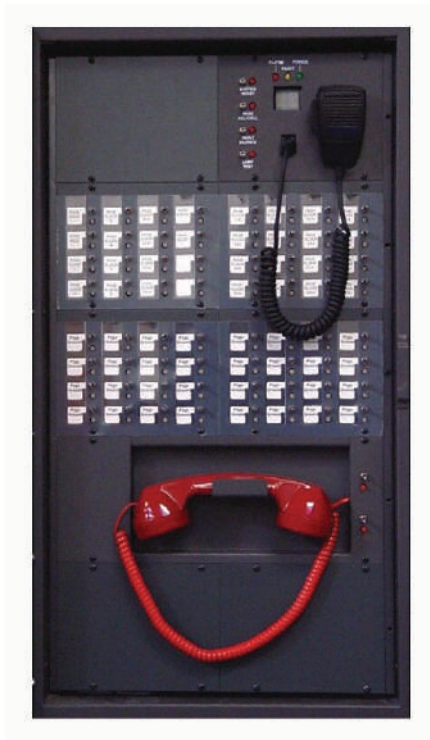
Fire phone jack plate	58	Fire phone handset	58	Fire phone handset cabinet	58	Fire phone stations	58
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Network audio system CW-HMX

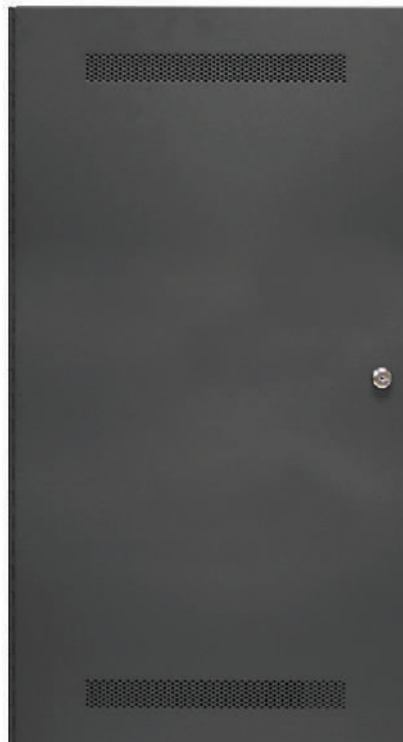
Master panel

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)

MEA
277-96-E



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



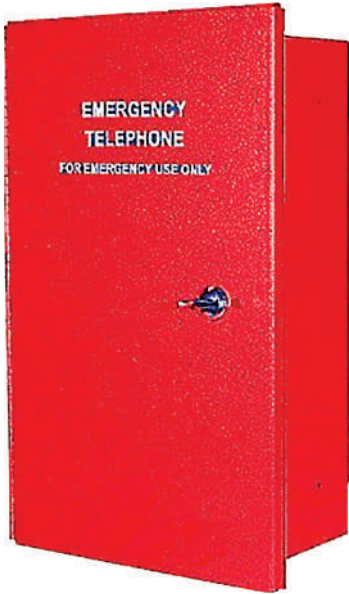
CW-MX-FJ



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





Spring Mews
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