



# Data and Installation Instructions

## Mains Powered DAU (COMPACT-MAINS-DAU) for Vigilon Compact VA System



# Contents

Notes on system installation -	- - - - -	4
Installation requirements -	- - - - -	4
Installation -	- - - - -	4
Fixture and fittings -	- - - - -	4
As fitted drawings -	- - - - -	4
Cable type and routing -	- - - - -	4
Speakers fitted on ceiling tile -	- - - - -	4
Earth continuity -	- - - - -	4
Power supply -	- - - - -	4
Mains supply -	- - - - -	4
System wiring -	- - - - -	5
Cables -	- - - - -	6
Cable separation -	- - - - -	6
Requirements of cables -	- - - - -	6
Audio loop and Speaker circuit cables -	- - - - -	6
Background music circuit cable -	- - - - -	6
Loop circuit cable -	- - - - -	6
Enhanced cables -	- - - - -	6
Standard cables -	- - - - -	6
Mains Supply cable -	- - - - -	6
Mains Powered DAU -	- - - - -	7
Features -	- - - - -	7
Technical data -	- - - - -	7
Control panel -	- - - - -	7
Power supply -	- - - - -	8
Audio Pack 1 -	- - - - -	9
Installation -	- - - - -	10
How to mount the DAU Enclosure -	- - - - -	10
Wiring test -	- - - - -	12
Mains supply -	- - - - -	13
Mains and battery supply connections -	- - - - -	13
Battery supply -	- - - - -	14
Terminals for external circuits on Main Control Board -	- - - - -	15
Device and Audio loop circuits -	- - - - -	16
Speaker Circuits -	- - - - -	17
Use of multiple End-of-Line Resistors -	- - - - -	18
Balanced 'Audio Out' application -	- - - - -	19
Fault relay output -	- - - - -	20
Auxiliary relay output -	- - - - -	20
Local Background music -	- - - - -	21
Completion of installation -	- - - - -	22
System Parts -	- - - - -	23
Spares -	- - - - -	23
Speakers -	- - - - -	23

## Preface

This is the first issue of the Installation instructions for the **Mains Powered Distributed Amplifier Unit**. The booklet covers information on how to mount and wire the unit.

These instructions must be read in conjunction with the recommendations in BS5839: Part 8, which is the *Code of practice for the design, installation and servicing of voice alarm systems* and BS5839:Part 1, which is the *code of practice for Fire detection and alarm systems for buildings and site specific Project requirement*.

## Associated Documents

- 4188-954 Part 2  
Vigilon Compact Mains Powered DAU - Commissioning instructions

## Conventions



This is a note to highlight important text that is normally hidden in the main text.



This is either a caution to prevent damage to the equipment or a warning to inform of dangerous conditions that may result in injury or death.

## Abbreviations

COM	Common
DAU	Distributed Amplifier Unit
DEV	Device (Loop device)
DIL	Dual in Lline
EMIC	Emergency Microphone
EMC	Electromagnetic Compatibility
EOL	End ofLine
IP	Ingress Protection
LED	Light Emitting Diode
LPCB	Loss Prevention Certification Board
LVD	Low Voltage Directive
MCB	Main Controller Board
MIC	Microphone
MICC	Mineral-Insulated Copper-Covered
MPDAU / MDAU	Mains-Powered Distributed Amplifier Unit
MS	Message Store
N/C	Normally closed
N/O	Normally open
PA	Public Address
PCB	Printed Circuit Board
PSU	Power Supply Unit
PTT	Press To Talk
S/C	Short circuit
T	Anti-surge (fuse)
VA	Voice Alarm

# Notes on system installation

The power-up of the Mains DAU and commissioning of the system is done by the Servicing organisation.

## Installation requirements

It is recommended that the installer follow the general requirements of BS5839:Part 1:2002, which is the code of practice relating to fire detection and alarm systems for buildings and BS5839:Part 8:1997, which is the code of practice for the design installation and servicing of voice alarm systems and BS EN 60849 (1998) Sound systems for emergency purposes. The installer must follow the relevant parts of BS7671 : 1992 Requirements for Electrical installations, IEE wiring regulations 16th edition if installation is in the United Kingdom, UK.

## Installation

To prevent the possibility of damage or dirt degrading the performance or appearance of the product, the installation should be delayed until all major building work in the area is complete.



The installation of all outstanding parts supplied with the product are carried out during system commissioning.

## Fixture and fittings

It is the installer's responsibility to provide adequate fixtures and fittings for the type of construction surface onto which the product is to be mounted, whilst utilising the fixing points on the product. As an aid to this decision, the weight and overall size of each full assembly together with implications on cable entries and routing should be taken into consideration.



All these procedures assume that the cable, gland, steel box (BESA box) and other related accessories are provided by the installer.

## As fitted drawings

The installer should acquire site specific information from the interested parties, for details on the location of products for installation. The acquired information together with this guide and the relevant standards should be used to assist the work.

Each product assembly can be identified from its package label. The contents of all packages should be checked for any discrepancies.

## Cable type and routing

Appropriate attention must be given to ensure the correct cable type is installed in accordance with 'as fitted drawings', site specific information and recommendations of applicable standards. The cables must be installed using cable manufacturers recommended fixing and accessories.

## Speakers fitted on ceiling tile

The installer should provide where required a suitable backing board that is fixed behind the ceiling tile to support the installed ceiling speaker assembly.

## Earth continuity

All earth connection points should be clean to provide a good electrical conductivity path. To maintain the earth continuity: all earth leads and fittings provided should be installed. The loop cable screen must be continued through each system device on the loop circuit, whether the earth is connected to the device or not.



**Do not use any part of building structure for earthing.**

Some of the system products having metal enclosure with zinc coating around the cable termination points, the coating provides a good electrical conductivity path for cable earth termination. The zinc coating on metal enclosures should not be damaged. Any damage will expose bare metal, which can corrode and make a poor earth connection.

## Power supply

The power to the system is derived from the mains and battery supplies. Before removal of the boards from the panel or disconnection of any cable from the boards ensure both mains and battery supplies are disconnected.

## Mains supply

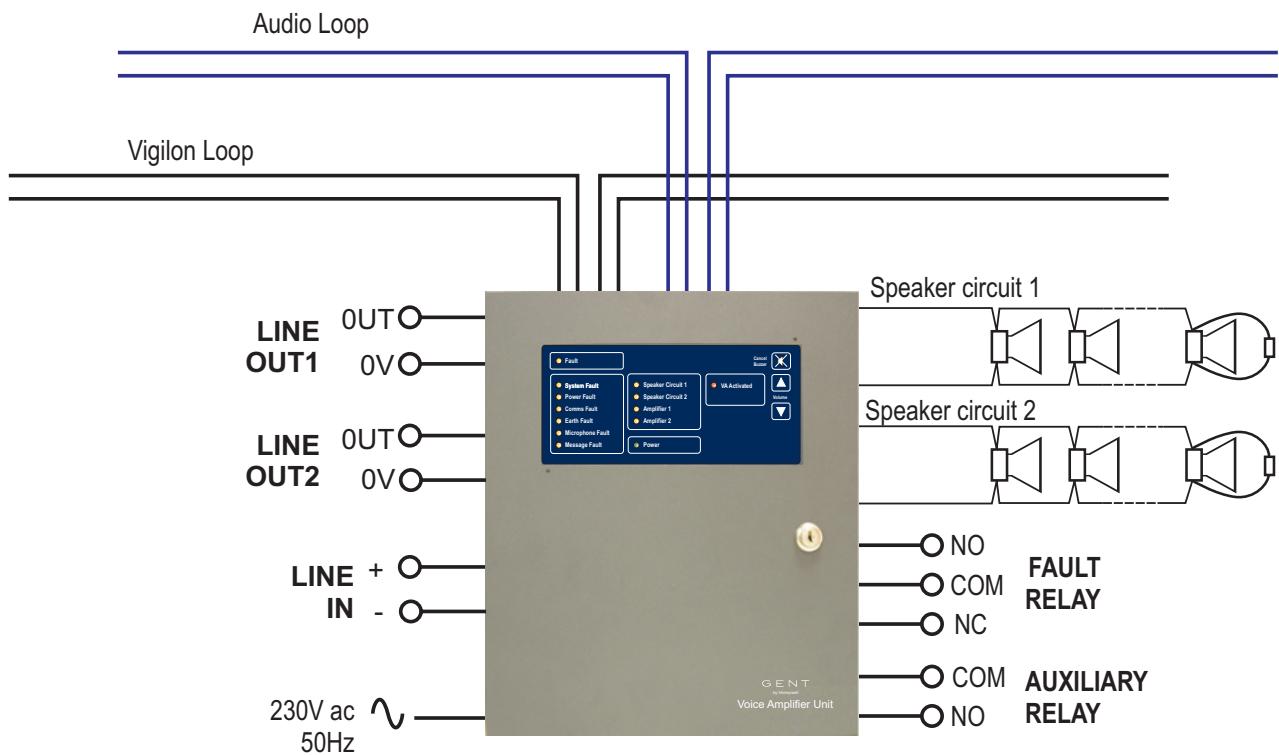
Mains supply to any fire alarm control and indicating equipment must be via an unswitched 5A fused spur unit. A disconnect device must be provided to disconnect both poles and must have a minimum gap of 3mm. The disconnect device should be available as part of the building installation and must be easily accessible after installation is complete.



**All mains powered equipment must be earthed.**

# System wiring

The external circuits of the Mains Powered DAU are shown below.



# Cables



If instructed, the installer may need to terminate as well as connect the cables to the appropriate terminal blocks.

## Cable separation

The outgoing and return cables of a Vigilon device loop and Audio loop circuits must **not** run together, for example, either close to the **Unit** or in a **service duct**. There should be as much physical separation as possible between the cables and the mechanical protection of the cable should be to a particularly high standard. This is to minimise the risk of accidental damage to both cables.

## Requirements of cables

The *British Standard BS5839 Part 1 : 2002 Code of practice for system design, installation, commissioning and maintenance* states the requirements for standard and fire resisting cables in Clause 26.2 section d and e.

"d) **Standard fire resisting cables** should meet PH 30 classification when tested in accordance with EN50200 and maintain circuit integrity if exposed to the following test:

- a sample of the cable is simultaneously exposed to flame at a temperature of 830°C- 0+40°C and mechanical shock for 15min, followed by simultaneous exposure to water spray and mechanical shock for a further 15min.

e) **Enhanced fire resisting cables** should meet the PH120 classification when tested in accordance with EN 50200 and maintain circuit integrity if exposed to the following test:

- a single sample of the cable is simultaneously exposed to flame at a temperature of 930°C - 0+40°C and mechanical shock for a period of 60min, followed by simultaneous exposure to water spray and mechanical shock for a further 60min."



The cables listed in this manual have been tested for EMC compliance with the system products.

## Audio loop and Speaker circuit cables

Any one of the recommended Vigilon device loop cable may be used to wire the Audio loop and speaker circuits. Cable usage:

- must not exceed 1Km per audio loop circuit
- must not exceed 1Km per speaker circuit.



There is a maximum limit of 1Km speaker circuit cable usage allowed. This maximum limit is the sum of the cable used on main speaker loop circuit plus spurs off main loop circuit.

## Background music circuit cable

The recommended cable for the connection of the Entertainment system must be a screened audio cable, such as:

- Belden No. 9842 EIA RS485 Applications, O/A Beldfoil® Braid
  - The cable usage must not exceed 100m.

## Loop circuit cable

The Vigilon device loop cables carries data and power, therefore its selection is important. Note the following:

- In countries where the European EMC directive is in force, only **EMC Compliant** cables are to be used.
- The loop cable usage must not exceed **1Km**. This includes the cable used on main loop and spur circuits.
- Single pair cable must be used. It is **NOT** permissible to run mixed loops or outgoing and return pairs in a multi core cable, due to inadequate separation and possible electrical interference problems.
- Each core of the loop cable must be **1.5mm<sup>2</sup>** cross section area.
- The cable screen must be **capable** of being earthed at each system device.
- Red** is the preferred cover sheath for fire applications.
- The specified loop circuit cables are **also suitable** for wiring mains supply, fault and auxiliary relay circuits.

## Enhanced cables

- Mineral insulated cable (MICC) to BS6207:Part 1
- Approved Enhanced cable:  
Draka Firetuf Plus Enhanced **FTPLUS2EH1.5RD**

## Standard cables

### Approved EMC cables for loop wiring

- Draka Firetuf EMC Standard 1.5mm<sup>2</sup> **FTEMC2EH1.5RDR**
- Draka Firetuf **FTZ2E1.5 FIRETUF OHLS \*** fire resistant data cable
- Raydex CDT **FG950 \***
- Cavicel SpA **FIRECEL SR 114H \*** distributed by Cables Britain
- AEI Cables **FIRETEC \***
- BICC Pyrotenax **FLAMESIL FRC \***
- Datwyler **LIFELINE \***
- Alcatel cable **PYROLON E \*** distributed by Winstonlead
- Huber & Suhner **RADOX FR \***
- Pirelli **FP200 FLEX \***
- Pirelli **FP200 GOLD \***



The cables marked \* utilise laminated aluminium tape with a tinned drain wire for electrostatic screening. Under certain environmental conditions **galvanic action** may take place between the aluminium and the drain wire. This will severely **degrade EMC performance** as the foil to drain wire **impedance will increase**. Armoured variants of these can also be used for wiring a loop circuit.

## Mains Supply cable

The mains supply cable must be a standard fire resisting type and should meet PH30 classification, such as any of the standard and enhanced loop cable. Requires a minimum conductor cross sectional area of 0.75mm<sup>2</sup>.

# Mains Powered DAU



The Mains Powered Distributed Amplifier Unit also called Mains DAU or Amplifier Unit (Part number: COMPACT-MAINS-DAU) is designed for the Vigilon Compact Voice Alarm system and connects to its Device loop and Audio loop circuits. The unit has twin Class D amplifiers to drive 100V loudspeaker circuits delivering 60W maximum output. The unit has local message store for output to the speaker circuits for announcement of emergency and auxiliary event messages. The centralised and live messages from the main control panel are received via the audio loop for output to the speaker circuits. The unit is locally powered by mains and battery supplies.

## Features

- Connectability to the device loop and audio loop of the Vigilon Compact Voice Alarm system for voice alarm, live speech, public address, background music and centralised message announcements.
- Class D amplifiers
- Up to 10 Mains Powered DAUs can be connected to the a loop circuit of a Vigilon Compact Voice Alarm panel with a maximum of up to 20 per system.
- 2 speaker circuits that can accommodate 100V loudspeakers.
- Fault redundancy with local message store
- Local volume adjustment of centrally and locally supplied background music.
- LED lights for event indication.
- Local audible buzzer for event announcement.

## Compatibility

The Mains Powered DAU is compatible with system:

- Control panel having Main Controller at V4.41 or higher and Loop Processor at V4.39 or higher**
- Commissioning tool at V1.26 or higher**

## Technical data

### Control panel

Standard	Designed to EN54-16 : 2008 (Mains Powered DAU is part of Compact VA system)
Approval	LPCB approval pending
Panel dimensions in mm	height 377 x width 325 x depth 120
Panel weight	approximately 10.84Kg with batteries
	2 - 12V 7Ah batteries are required (each battery weighing 2.54Kg)
Storage temperature	-10°C to 55°C
Operating temperature	0°C to 40°C
Relative Humidity (Non condensing)	up to 90% Temperature 5°C to 45°C
Emission	BS EN 61000-6-3:2007 Residential, Commercial & Light Industry <b>Class B limits</b>
Immunity	BS EN 50130-4: 1996: Part 4 Alarm systems: <i>Electromagnetic compatibility</i>
Ingress Protection	IP31
Colour	Graphite Grey (RAL 7024)
Mains DAUs	A maximum of up to: <input type="checkbox"/> 10 Mains DAU per loop of a Vigilon Compact VA system <input type="checkbox"/> 20 Mains DAU per Vigilon Compact VA system
Amplifier	Two Class D amplifiers
Audio Bandwidth	80Hz to 18KHz
Speaker Circuits	Nominal (both channels driven). 100V rms into a 330 Ohm load. (30W per channel).  Maximum output (one channel only driven). 100V rms into 225 Ohms. (45W).  The two 100V speaker circuits have flexible power sharing of 60W maximum load. A maximum output of 40W is allowed on any one of the speaker circuit.
Device label	Each Mains DAU can be given 32 character device label for display at a Vigilon Compact VA panel.

## Installation instructions

Local Audio Input	0dBu. Input impedance 10KΩ. Accepts balanced line level signals	<b>Power supply</b>	
		Standard	Designed to EN54-4 : 1998
Audio Output	0dBu. Input impedance 10KΩ. Two unbalanced line level outputs suitable for 3rd party VA amplifier or induction loop.	Mains supply voltage and fuses	230V 50Hz +10% -6% protected by: FS3 Fuse - 3.15A (T) 250V Ceramic 20mm x 5mm, located on PSU. Input current - 0.6A
Fault Relay	Voltage-free changeover contacts rated 1A @ 24Vdc. The relay is normally energised when the system is powered up and will de-energise with a fault event.	Nominal supply voltage	24V +/- 4V
Auxiliary Relay	Relay voltage-free contacts are rated 1A @ 24Vdc. During the commissioning of the system the relay can be configured to operate with any of the following and in any combination.  <input type="checkbox"/> Central Emergency microphone operation <input type="checkbox"/> Local message activation <input type="checkbox"/> Central message activation <input type="checkbox"/> Central PA activation <input type="checkbox"/> Background music <input type="checkbox"/> Local Auxiliary input (background music) <input type="checkbox"/> Local microphone operation	PSU voltages and fuses  43V (quiescent) supply  24V supply	FS6 Fuse 1.6A (T) TE5 on PSU board  FS4 Fuse 1.0A TE5 on PSU board
Audio Pack 1	A local store of tones and messages which are actioned in the event of audio loop failure.	Battery	Powersonic PS-1270 F1 2- 12V 7Ah sealed lead acid batteries to provide 24 hours standby and 30 minutes full alarm load.
Indicators	VA Activated (red) Power (green) Fault 'Common' (amber) System Fault (amber) Comms Fault (amber) Earth Fault (amber) Microphone Fault (amber) Message Fault (amber) Speaker Circuit 1 (amber) Speaker Circuit 2 (amber) Amplifier 1 (amber) Amplifier 2 (amber)	Storage temperature  Operating temperature  Relative Humidity (Non condensing) Temperature 5 to 45°C	-10 to 55°C  0 to 40°C  up to 90%
Internal sounder	Used for audible announcement of Fire and Fault events.  An audible beep is given out on each press of the Cancel buzzer, Volume control buttons.	Indicators on PSU	Left LED (amber): Indication 43V supply fault Centre LED (amber): Indication of battery circuit 1, 24V supply Right LED (green): Indication of mains supply fault.
Controls	  <input type="checkbox"/> 'Cancel Buzzer' <input type="checkbox"/> 'Volume Controls' for central and local background music. During commissioning the 'Volume Control buttons can be permanently disabled by setting a check box in the Vigilon Commissioning tool.	 <b>Hazardous voltage remains after operation of a protection fuse. Take appropriate action to guard against the risk of equipment having exposed live mains supply.</b>	

## Audio Pack 1

A Message Store Card is fitted in the Mains DAU is identical to those fitted in the Vigilon Compact VA panel and in the micro Distributed Amplifier Units, it contains the messages and tones of the Audio Pack. A factory supplied Mains DAU is fitted with Message Store Cards having Audio Pack 1. During commissioning it is possible to re-configure the factory set messages by selecting an alternative centralised and distributed messages and pre tones for Alert, Evacuate, Bomb and Auxiliary 1, 2 and 3 controls.

No.	Type of message	Voice	Message
1	Mains DAU Test	Male	The voice alarm volumes are being adjusted there is no need to take any action.
2	Alert <i>(default - Emergency 1)</i>	Female	Your attention please, the fire alarm has been activated in another area, please remain where you are and await further instructions.
3	Evacuate <i>(default - Emergency 2)</i>	Male	Attention please, attention please, this is an emergency, please leave the building by the nearest available exit. Do not use the lifts or escalator.
4	Bomb <i>(default - Emergency 3)</i>	Female	May I have your attention please, an incident has been reported in the area, as a precaution please move away from the windows, I repeat, please move away from all windows, further information will follow shortly.
5	Alert <i>(alternative)</i>	Female	May I have your attention please, may I have your attention please, an incident has been reported in the building, whilst this report is being investigated, please remain at your workplace.
6	Evacuate <i>(alternative)</i>	Male	Ladies and gentlemen, due to unforeseen circumstances we are required to evacuate the building, please leave the building immediately by the nearest available exit.
7	Gas Carbon Monoxide	Male	May I have your attention please, may I have your attention please, excessive carbon monoxide levels have been detected, please leave the area immediately by the nearest available exit.
8	Gas Fixed Extinguisher	Male	May I have your attention please, may I have your attention please, extinguisher gas release imminent, please evacuate the area immediately by the nearest available exit.
9	Fire alarm test <i>(default - Auxiliary 1)</i>	Female	Attention please, attention please, this is the test of the fire and voice alarm system, there is no need to take any action.
10	Fire alarm test end <i>(default Auxiliary 2)</i>	Female	The test of the fire and voice alarm system has now been completed.
11	Coded message	Female	Would Mr Sands please report to reception.
12	Class change	Female	Class change
13	Gent Limited advertisement	Female	Ladies and gentlemen this speech message is produced by Gent Limited's Vigilon Compact Voice Alarm system. This product integrates voice alarm functions into an analogue fire alarm system ideal for small to medium sized buildings.
14	Stand down <i>(default - Auxiliary 3)</i>	Female	May I have your attention please, the cause of the alarm has been investigated and the system reset. There is no cause for concern. Thank you.
15	Navy radiological attack	-	Beep beep beep (950Hz 80ms beep every 420mS)
16	Navy bandit attack	-	Beep beep beep (950Hz 50ms beep every 80mS)
17	Nursery Rhyme 1		Boys & Girls
18	Nursery Rhyme 2		Twinkle Twinkle
19	Factory test	-	Frequency sweep (300Hz to 10KHz in 3s)

### Attention tone

No	Description of tone	No	Description of tone
1	Nee Naw x 8	6	Pulse
2	Two tone (Bing bong)	7	Continuous
3	Four Tones - ascending	8	Bong
4	Four Tones - descending	9	Chopin
5	Bell	10	Jingle

# Installation

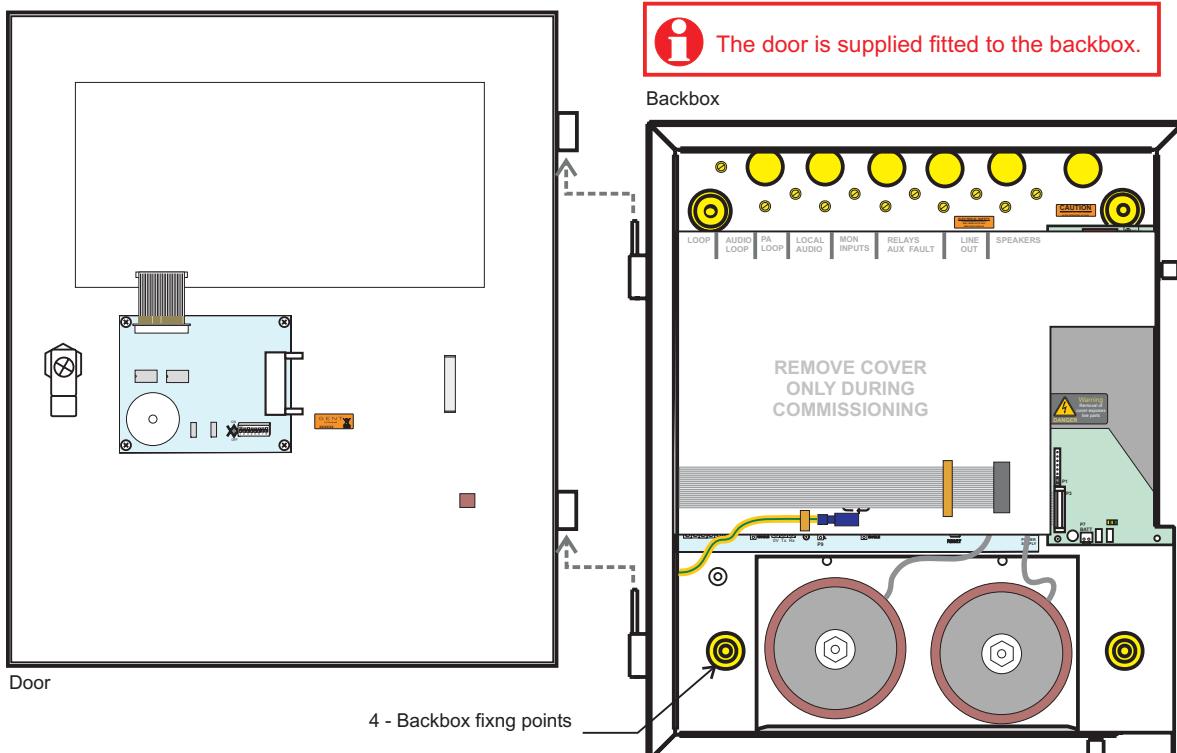
The Mains Powered DAU is supplied fully assembled, it is important to check the contents to ensure all the parts are supplied. Note the 2 x 12V 7Ah batteries are supplied in a separate pack.

Parts in the Spares packages		Quantity
①	Fuse 3.15A AS Ceramic (20mm x 5mm)	1
②	Fuse 1A QB Glass (20mm x 5mm)	2
③	Fuse 1A AS TE5	2
④	Fuse 1.6A AS TE5	1
⑤	Fuse 3.15A AS TE5	2
⑥	10K Ohms 0.5W Resistor	2
⑦	Battery Link	1
⑧	Battery Lead	1
⑨	Keys#	1
⑩	Drill Template and Instructions	1

# - part supplied in a plastic bag fitted to the enclosure.

## How to mount the DAU Enclosure

- Find the Mains DAU (COMPACT-MAINS-DAU) package and check the enclosure.

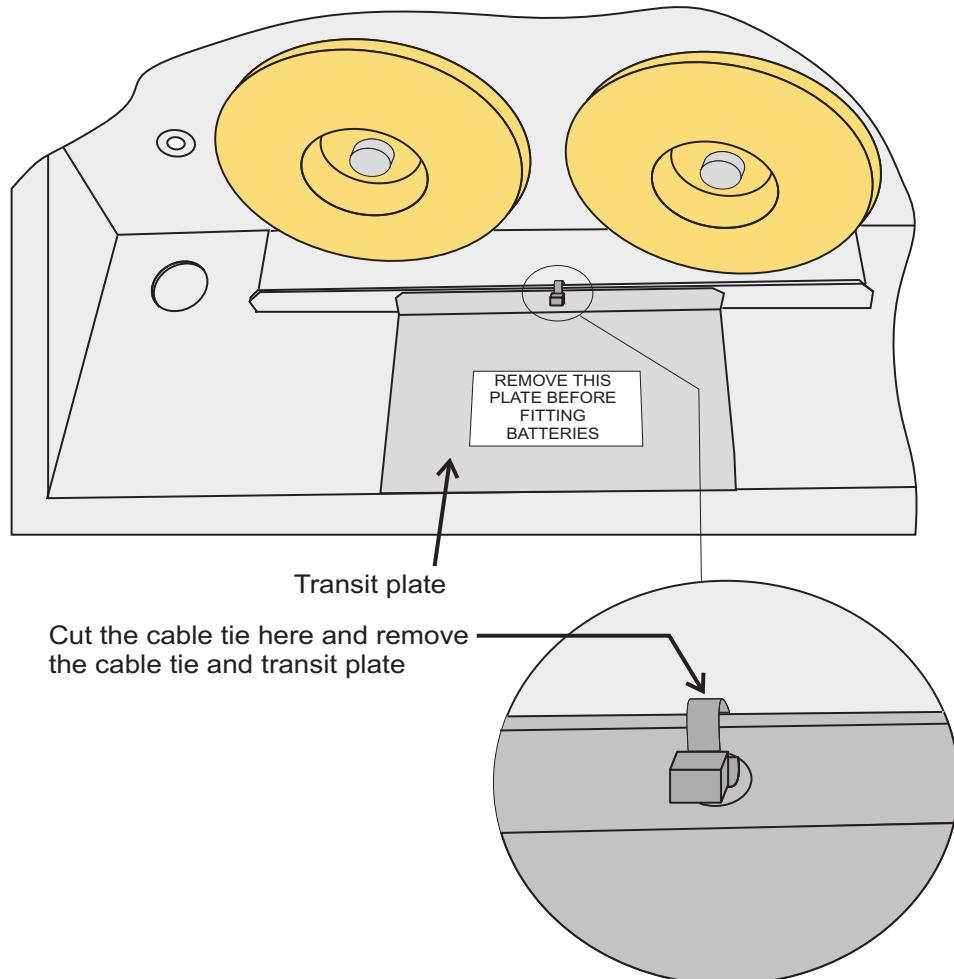


- Using a key ⑨ supplied with the unit open the Door to just over 90° and lift it up and out. Keep the door in a safe place until required.

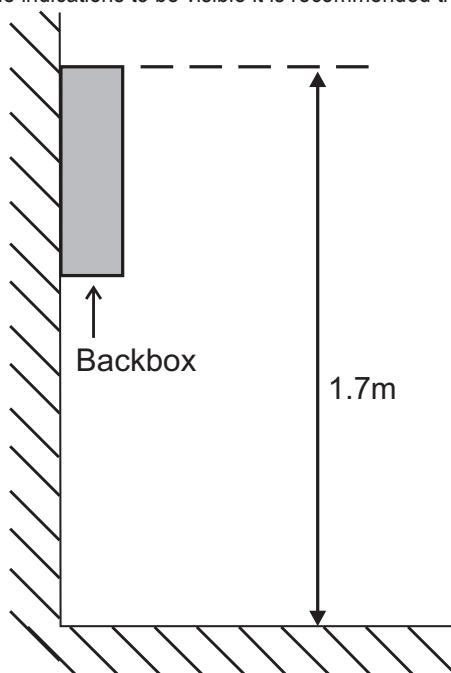


Unused knockouts that have been removed should not be left open.

- c Remove the 'transit plate' from the base of the 'backbox'. The plate is held in place via a cable tie, cut the cable tie and remove the plate.

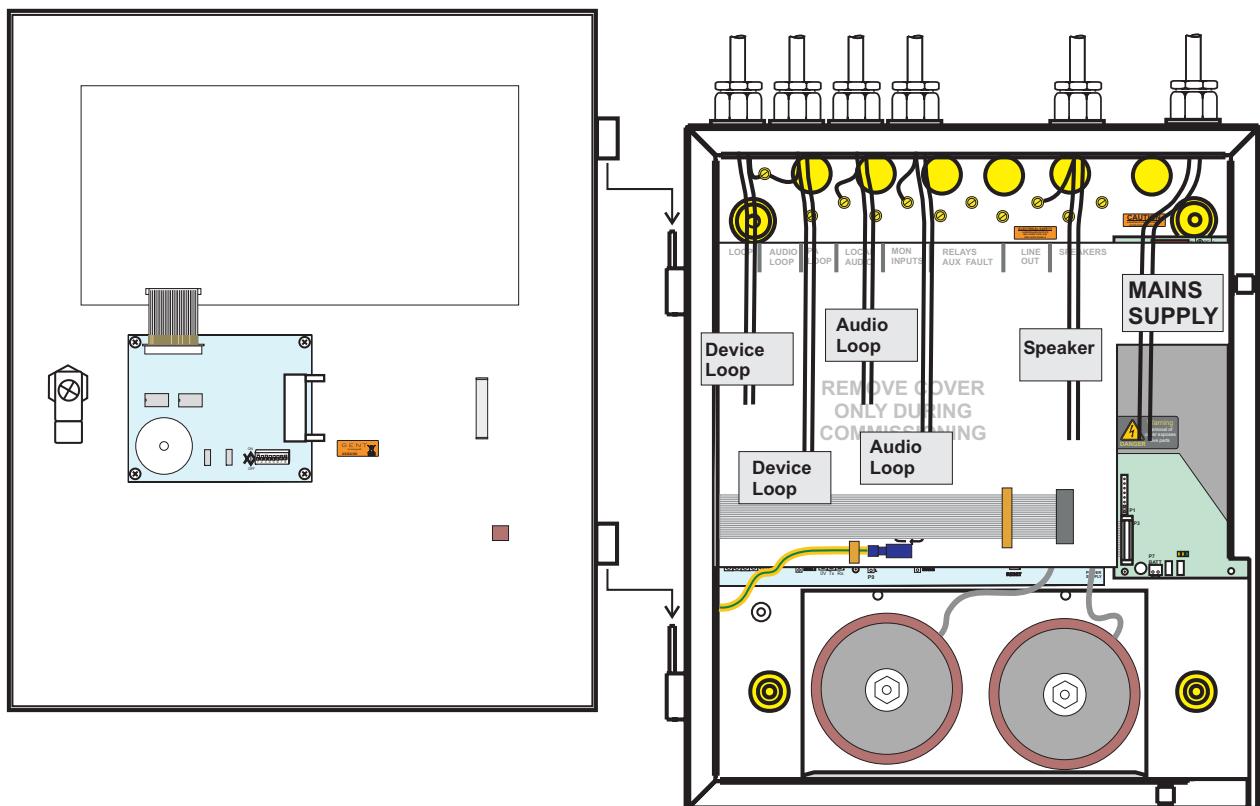
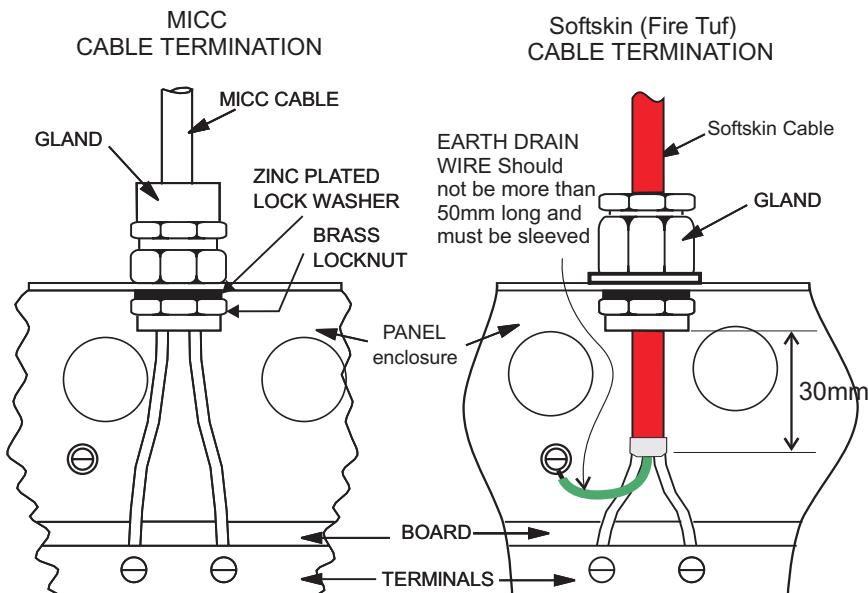


- d Knockout the required cable entry points from the back box.
- e Using the Drill template ⑩ mark out the backbox fixing points on the wall surface to which the unit is to be mounted. Use suitable fixings to secure the back box to the wall. Below is a typical mounting position for the Unit. If the product is to be mounted in an accessible area and requires the indications to be visible it is recommended that these mounting instructions are followed:



## Installation instructions

- f Terminate the cables at the entry point leaving 400mm tail wire length.



If mains supply cable ends are not required to be connected to the mains terminal block then ensure the ends are insulated for safety.

- g Refit the 'Door' to the 'Backbox'.

### Wiring test



**DO NOT** undertake high voltage insulation tests WITH THE CABLES CONNECTED to the Mains DAU and external equipment. Such a test may damage the electronics circuitry in external equipment and in the Mains DAU.

**Mains supply**

See page 6 for information on recommended mains supply cable.

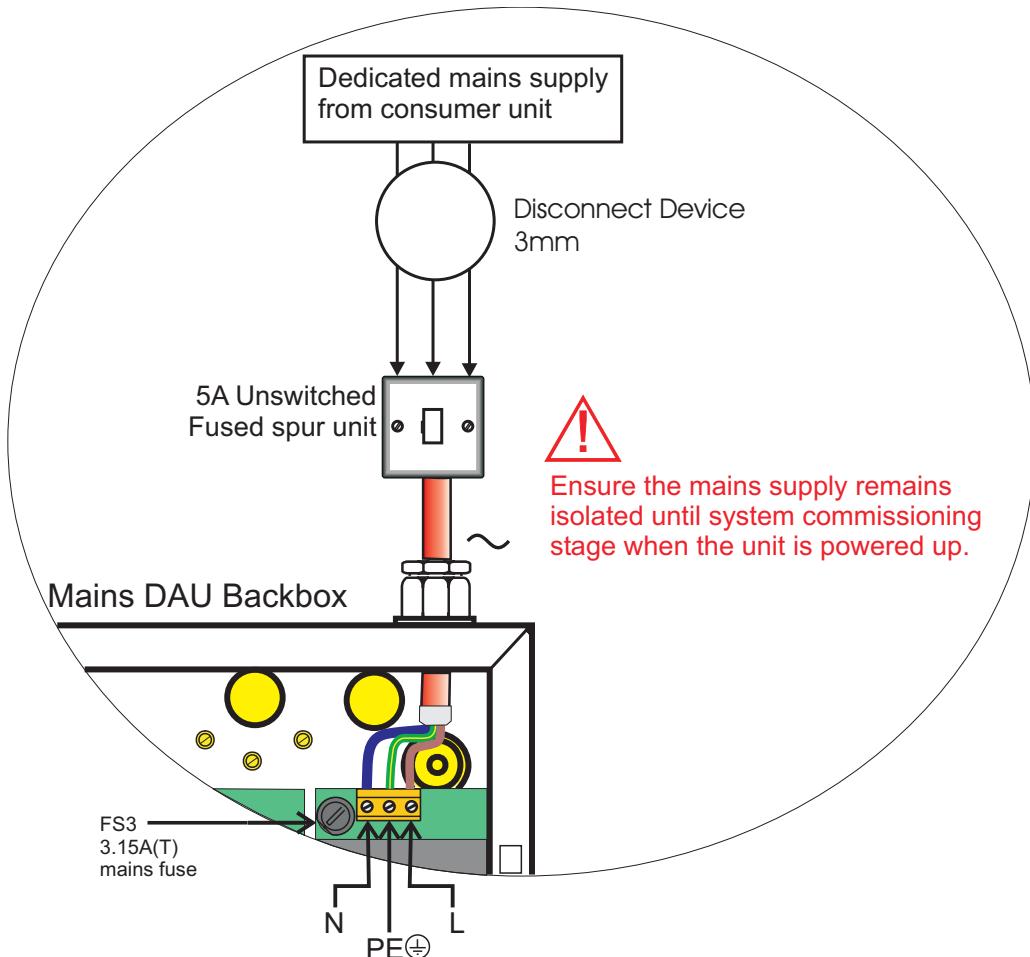


**Ensure that the mains supply cable enters the enclosure through a dedicated cable entry, located adjacent to the mains terminal block and that is also segregated from loop wiring.**



**These fire alarm system products are not designed to be powered from IT Power systems.**

All mains powered equipment must be earthed. Mains supply to any fire alarm control and indicating equipment must be via an unswitched 5A fused spur unit. A disconnect device must be provided to disconnect both poles and must have a minimum gap of 3mm. The **disconnect device** should be available as part of the building installation and must be easily accessible after installation is complete.



The fused spur isolator cover should be marked:

**FIRE ALARM - DO NOT SWITCH OFF**

The fire alarm equipment's fused spur unit must be fed from a dedicated switch or protective device at the local mains supply distribution board.

**Mains and battery supply connections**

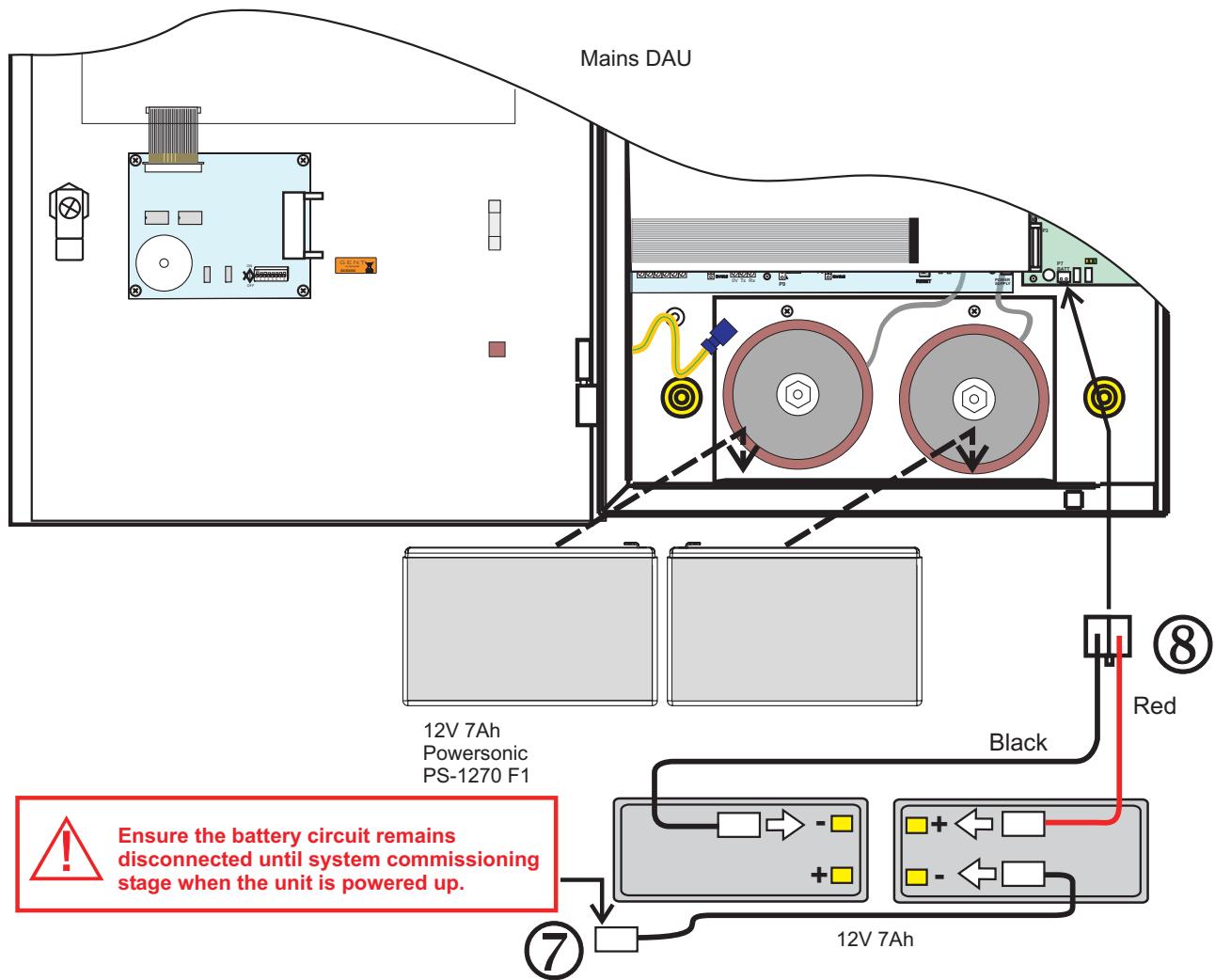
The mains and battery supply cables must be installed to the stage to **facilitate the power up** for commissioning, which is carried out by the Servicing organisation.

## Installation instructions

### Battery supply

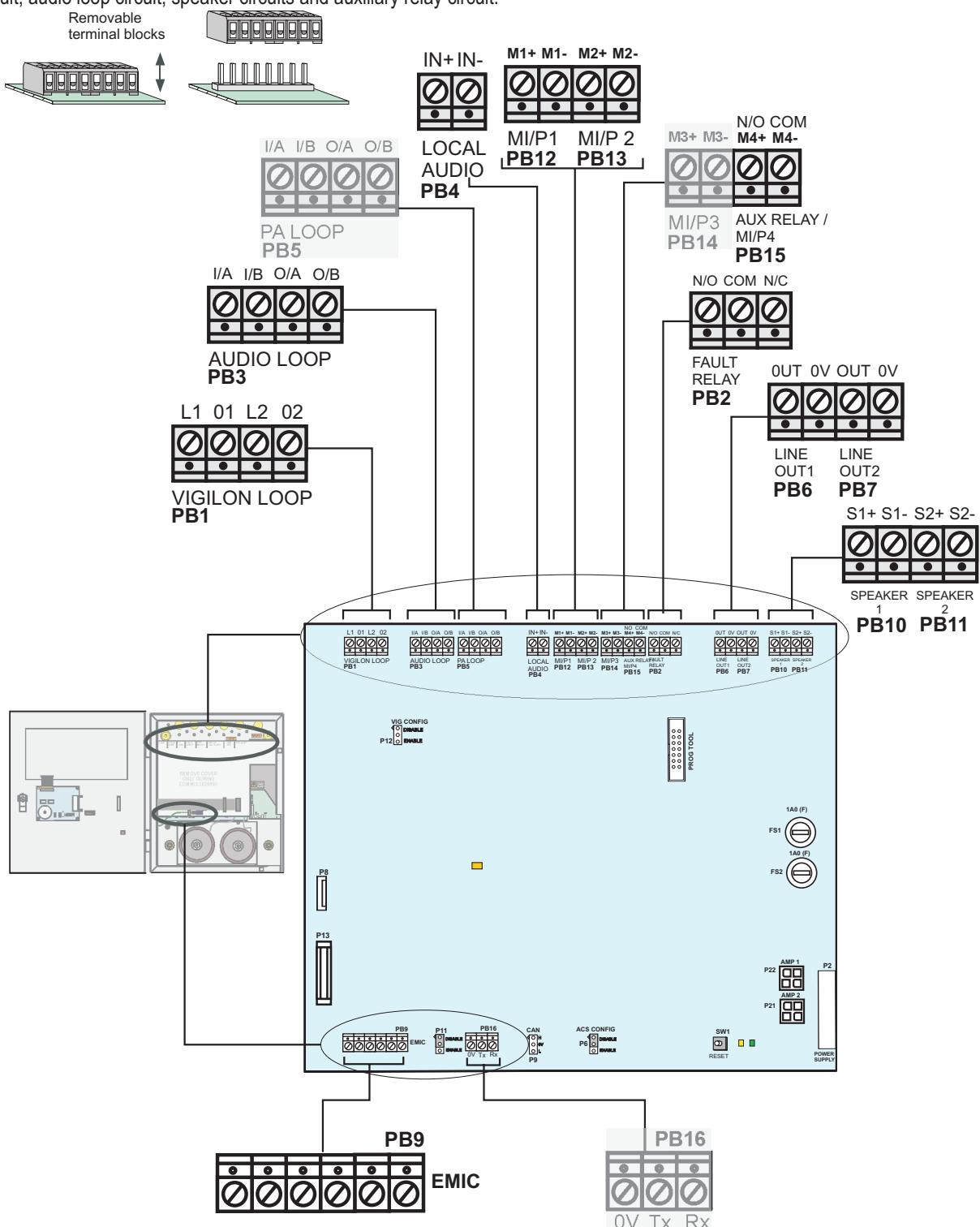


Ensure the 'transit plate' fitted on the base of the enclosure has been removed before fitting the batteries, see page 11.



## Terminals for external circuits on Main Control Board

The Main Control Board (MCB) holds all the terminals for the connection of external circuits, such as the fire alarm device loop circuit, audio loop circuit, speaker circuits and auxiliary relay circuit.



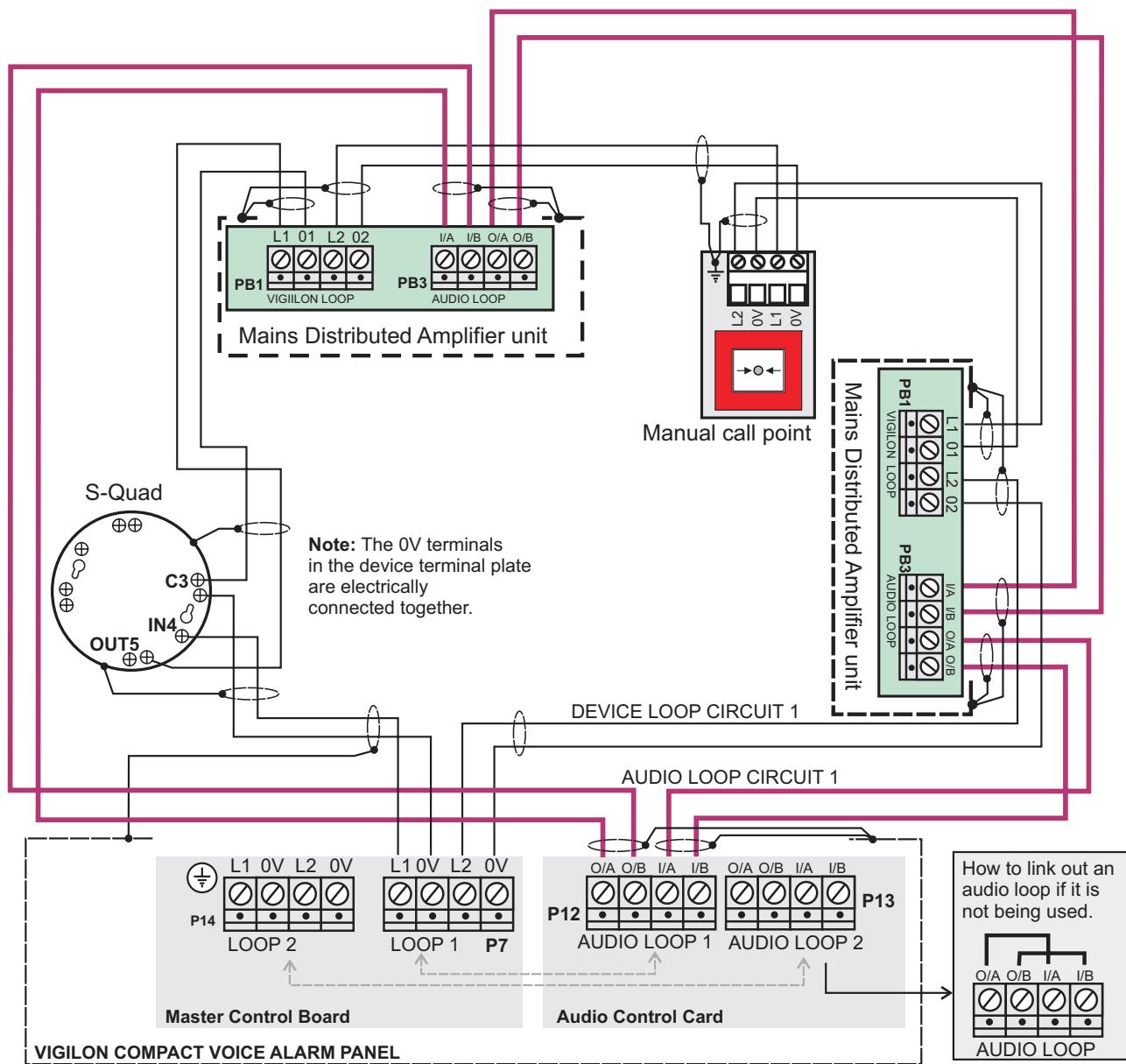
Note: The Greyed out terminals are for future use.

## Installation instructions

### Device and Audio loop circuits

See page 6 for information on recommended loop circuit cable.

The device loop circuit and audio loop circuit are connected to each Mains Powered DAU in the manner shown. To maintain earth continuity on the loop, the **loop cable screen** must be continued through each system device, whether the earth is connected to a device or not.



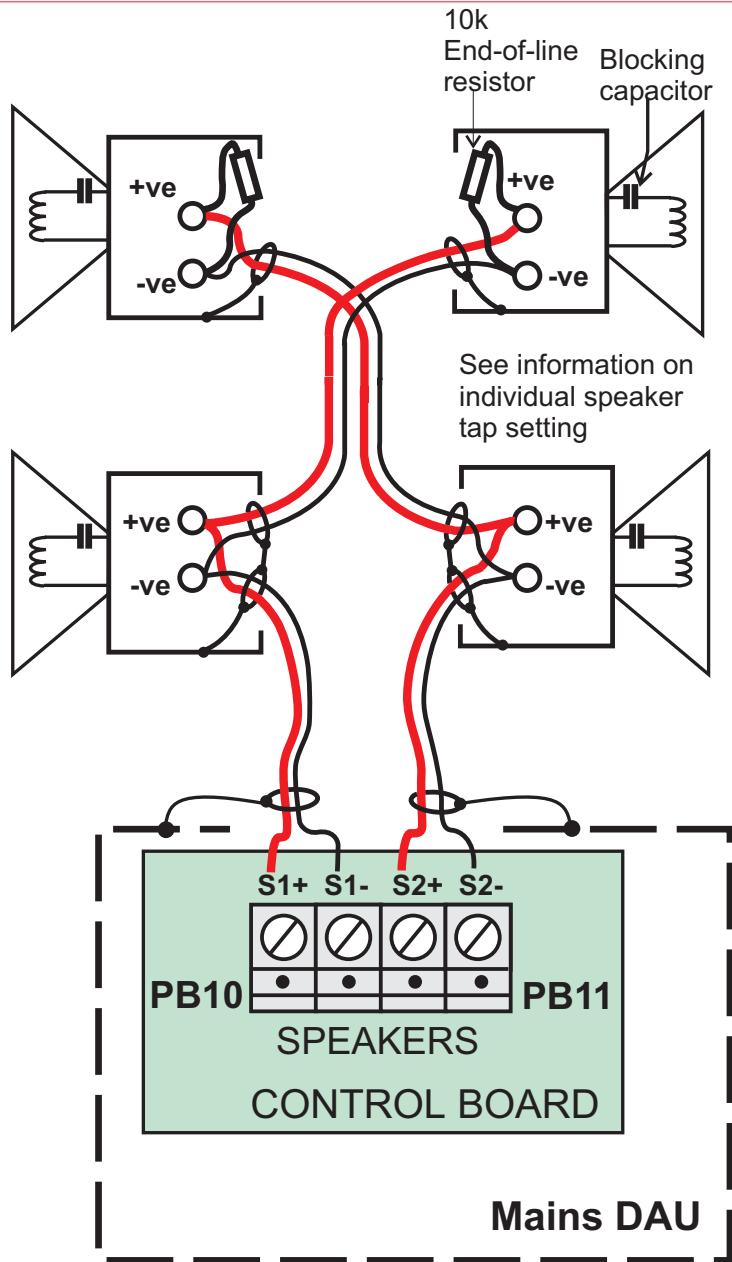
## Speaker Circuits

See page 6 for information on recommended Speaker circuit cable.

The wiring of the two 100V speaker circuit is interleaved to maximise coverage in the event of a circuit failure. The speaker circuit and spur off must be terminated with a 10k Ohms end-of-line (EOL) resistor. The speaker circuits are interleaved in the manner illustrated to alleviate the loss of output to areas if one speaker circuit should fail.



**Only install a Speaker fitted with a d.c. blocking capacitor to the Speaker circuit, this ensures correct monitoring of wiring fault on the speaker circuit.**

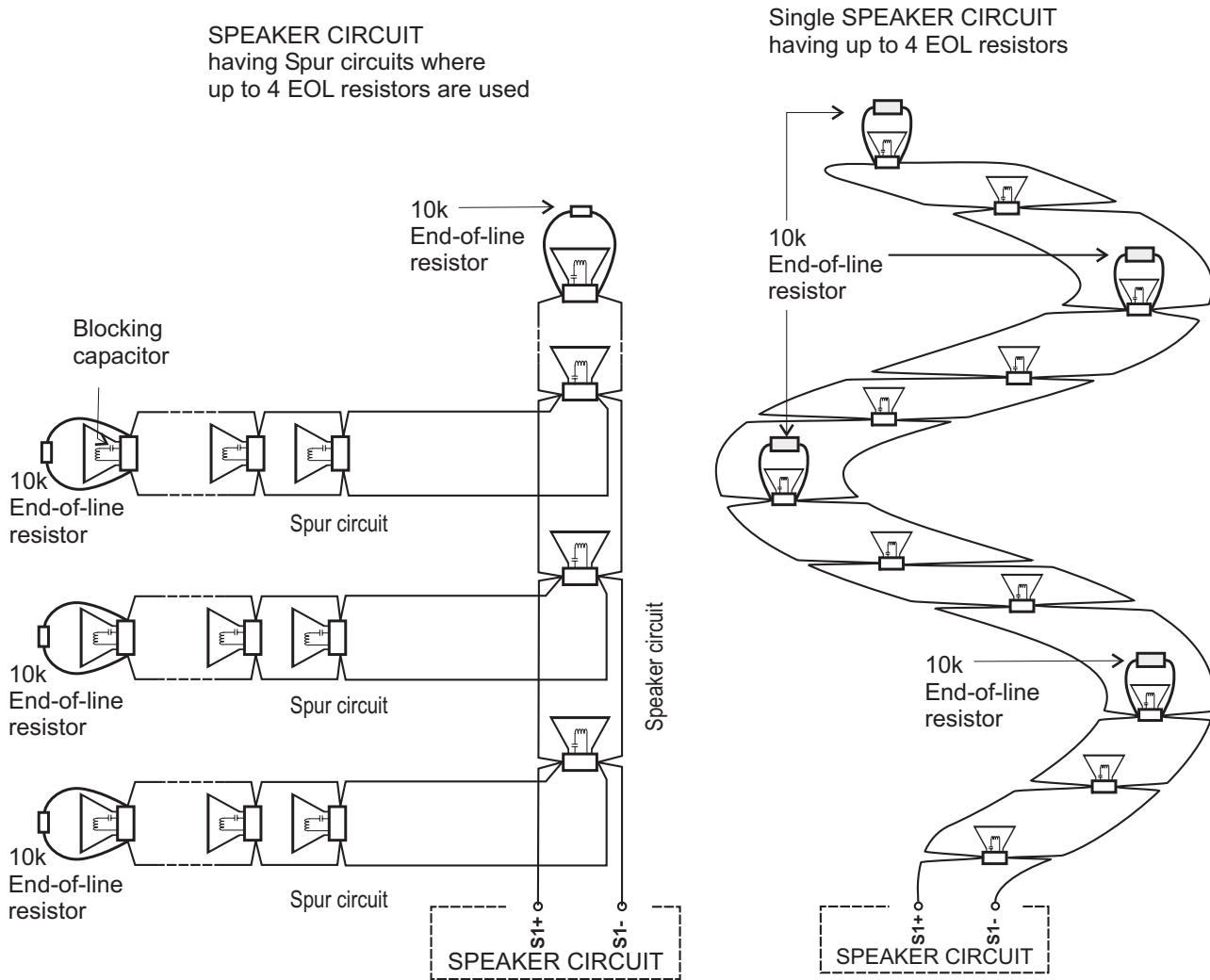


## Installation instructions

### Use of multiple End-of-Line Resistors

A maximum of up to four end-of-line resistors can be connected to a speaker circuit. This is to ensure a wiring failure on a speaker circuit is automatically detected.

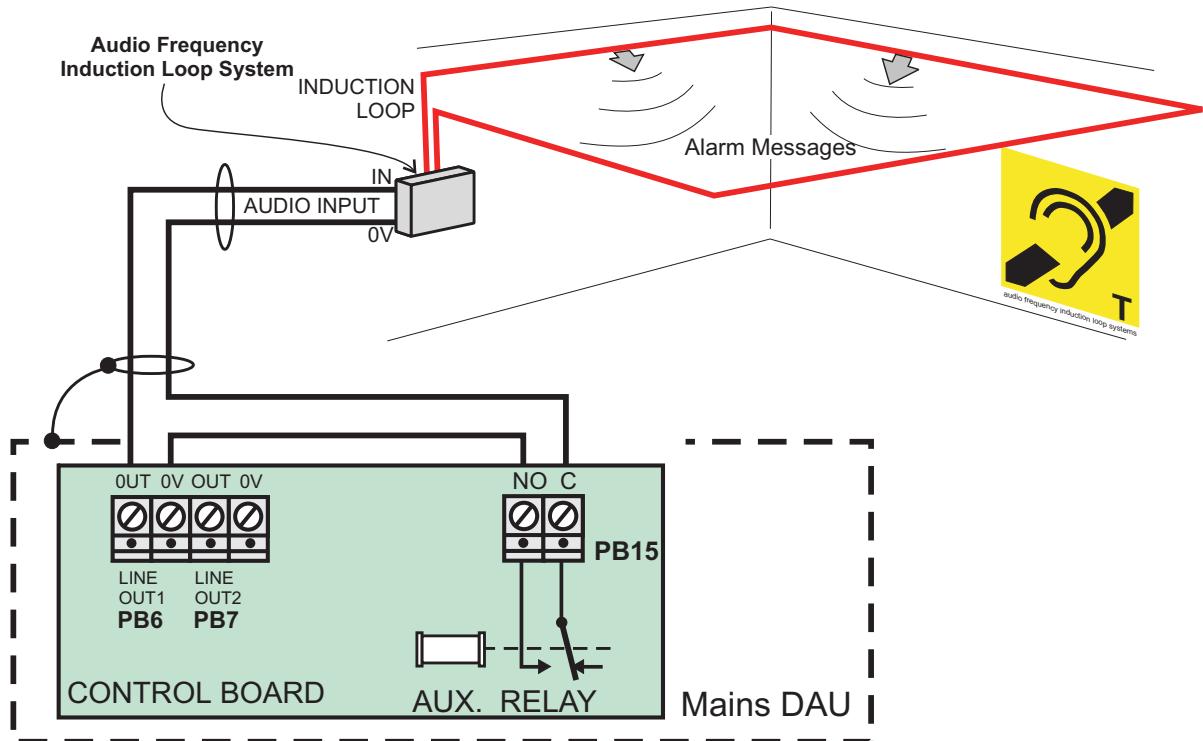
An entry of the number of end-of-line resistors connected to each speaker circuit is made during the commissioning of Vigilon Compact VA panel. This number is entered in the commissioning tool and is referenced to the respective Mains DAU in the system.



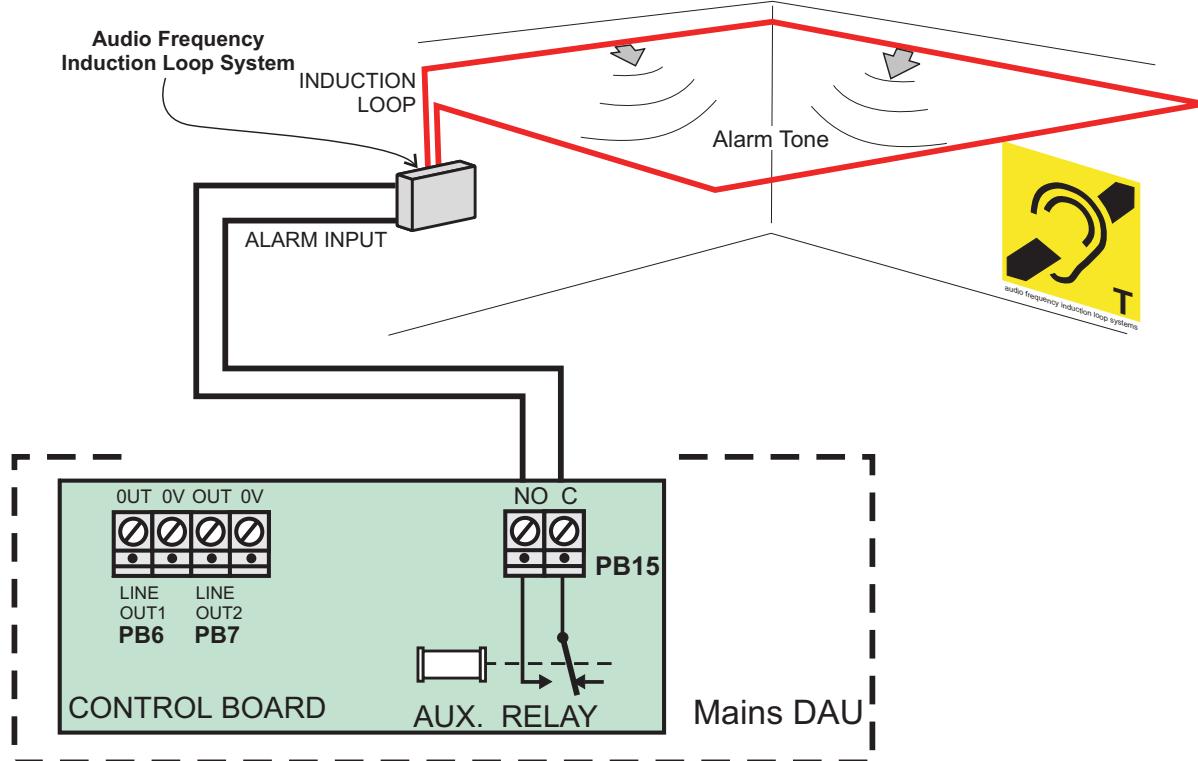
### Balanced 'Audio Out' application

A typical application of the unbalanced 'Audio Out' coupled with 'Auxiliary Relay' contacts of Mains Powered DAU is to permit fire alarm output to hearing impaired people within an area having an induction loop installed. The 'Audio Output' is also suitable for connection to 3rd party VA amplifier.

#### Fire Alarm Messages



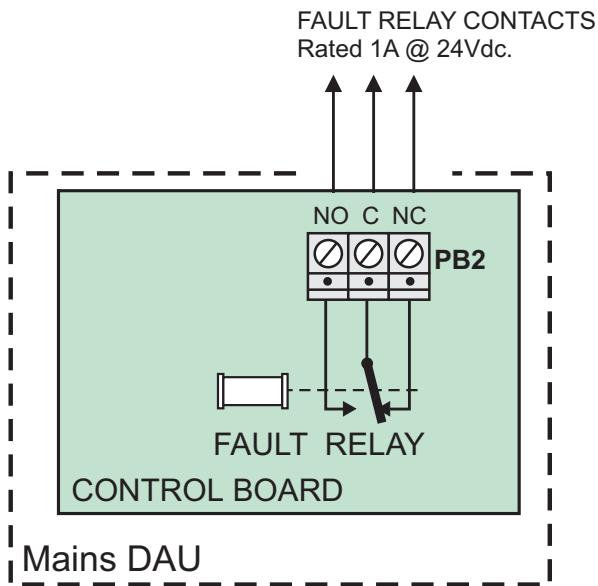
#### Fire Alarm Tone



## Installation instructions

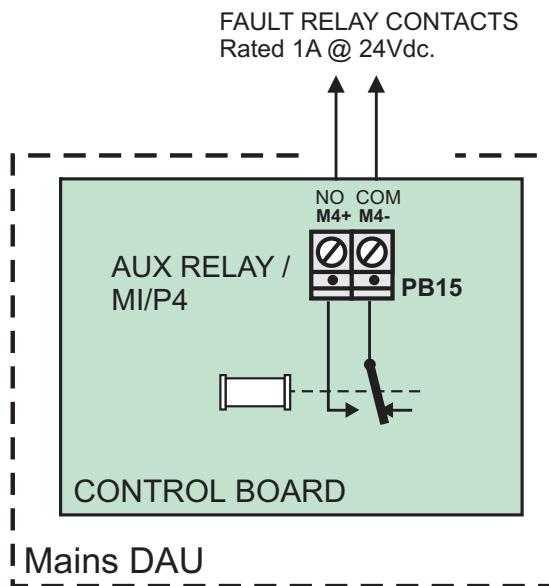
### Fault relay output

The Fault Relay Contacts are rated 1A @ 24Vdc. The relay is shown in a de-energised state, that is in a Fault condition. Note the relay contact markings are shown for a Fault condition. With no fault on the system the relay will be in an energised state.



### Auxiliary relay output

The Auxiliary Relay output contacts are rated 1A @ 24Vdc. The relay is shown in a de-energised 'normal' state. The relay becomes energised with an central audio source, like: Emergency MIC, Local Message, Central Message, PA MIC, Background Music, Local Audio Aux and/or Local MIC.



## Local Background music

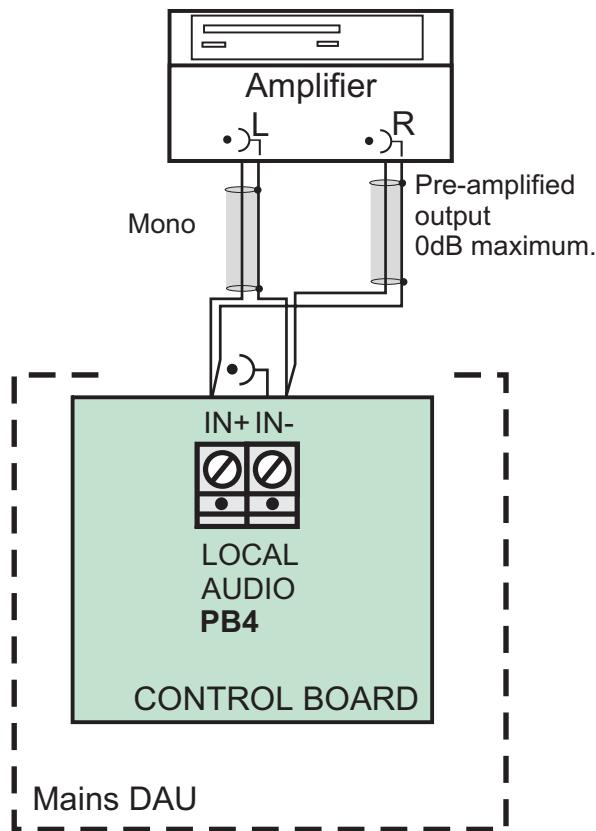
See page 6 for information on recommended cable for background music system.

There are many types of entertainment system that are commercially available for connecting to the Mains DAU for the broadcasting background music.



**DO NOT connect the Speaker outputs of the Amplifier to the Mains DAU, only connect the pre-amplified output of the amplifier to the Mains DAU.**

Amplifier volume control adjusts  
the pre-amplified output.



All remaining parts must be kept in a safe and secure place for the servicing organisation to fit during commissioning of the system.

## Installation instructions

---

### Completion of installation

On completion of all installation work close the door on the unit and lock the door using the keys supplied.



Leave all outstanding parts in a safe place for installation during commissioning.

# System Parts

This section lists parts that can be used with the Mains Powered Distributed Amplifier Unit. For further details on the availability of the parts, contact your supplier.

**COMPACT-MAINS-DAU** Vigilon Compact Mains powered Distributed Amplifier Unit  
2 x 12V 7Ah Battery

## Spares

**CVS-MDMCB** Replacement Main Controller Card - for Mains DAU

**CVS-MDAMP** Replacement Amplifier Board - for Mains DAU

**CVS-MDIDOO** Door Assembly - for Mains DAU

**CVS-MDPSU** Replacement PSU - for Mains DAU

**CVS-MDBATT** Replacement Battery pack for COMPACT-MAINS-DAU

## Speakers

**13421-10-DC** 4W 4" Round Metal Ceiling Speaker with 1uF blocking capacitor

**13421-12-DC** 6W 5" Round Metal Ceiling Speaker with 1uF blocking capacitor

**13421-14-DC** 6W 6" Round Metal Ceiling Speaker with 1uF blocking capacitor

**13421-15-DC** 10W 5" Round Co-axial Metal Ceiling Speaker with 2.2uF blocking capacitor

**13421-16-DC** 10W 6" Round Co-axial Metal Ceiling Speaker with 2.2uF blocking capacitor

**13421-17-DC** 20W 8" Round Co-axial Metal Ceiling Speaker with 4.7uF blocking capacitor

**13421-18-DC** 6W Plastic Cabinet speaker with 1uF blocking capacitor

**13421-19-DC** 4W Weatherproof Plastic Cabinet speaker with 2.2uF blocking capacitor

**13421-20-DC** 4W SENTRY Vandal proof Metal Round Cabinet Speaker with 1uF blocking capacitor

**13421-21-DC** 6W SENTRY Vandal proof Metal Square Cabinet Speaker with 1uF blocking capacitor

**13421-22-DC** 10W Plastic Bow Fronted Co-Axial Cabinet speaker with 2.2uF blocking capacitor

**13421-25-DC** 6W SENTRY Vandal proof Metal Square flush Speaker with 1uF blocking capacitor

**13421-30-DC** 6W SENTRY Vandal proof Metal bi-directional Speakers with 1uF blocking capacitor

**13421-40-DC** 20W Round Metal Horn Speaker with 4.7uF blocking capacitor

**13421-42-DC** 10W Round Weatherproof Plastic General Purpose Horn Speaker with 2.2uF blocking capacitor IP66

**13421-43-DC** 20W Round Weatherproof Plastic General Purpose Horn Speaker with 4.7uF blocking capacitor IP66

**13421-44-DC** 30W Weatherproof Plastic Music Horn Speaker with 4.7uF blocking capacitor

**13421-45-DC** 30W Round Weatherproof Plastic General Purpose Horn Speaker with 4.7uF blocking capacitor IP66

**13421-51-DC** 20W High Performance Metal Column Speaker with 4.7uF blocking capacitor c/w swivel bracket

## Installation instructions

## Main Powered DAU

13421-54-DC	20W Music quality Metal Column Speakers with 4.7uF blocking capacitor
13421-70-DC	10W Metal Projector Loudspeaker with 2.2uF blocking capacitor
13421-71-DC	20W Bi-directional Metal Projector Speaker with 4.7uF blocking capacitor
13421-72-DC	10W Bi-directional Metal Projector Speaker with 4.7uF blocking capacitor
13421-73-DC	10W Plastic Projector Loudspeaker with 2.2uF blocking capacitor
13421-74-DC	20W Plastic Projector Loudspeaker with 4.7uF blocking capacitor
13421-80-DC	20W Sculptured Polystyrene Spherical Speaker with 4.7uF blocking capacitor



At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre and in accordance with national or local legislation.



### WEEE Directive:

At the end of their useful life, the packaging, product and batteries should be disposed of via a suitable recycling centre.  
Do not dispose of with your normal household waste.  
Do not burn.

Gent by Honeywell reserves the right to revise this publication from time to time and make changes to the content hereof without obligation to notify any person of such revisions of changes.

<b>GENT</b> by Honeywell	Hamilton Industrial Park, Waterside Road, Leicester LE5 1TN, UK	Website: <a href="http://www.gent.co.uk">www.gent.co.uk</a>
	Telephone +44 (0) 116 246 2000	Fax (UK): +44 (0)116 246 2300