



**VACIE range
Serenity Voice
Installation instructions**

Ref: 596386
Date: 04/11/2015
Version: 1

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CHANGE HISTORY

Edition	Date	Written by	Remarks
1	04/11/2015	P. ROSSI	



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1. OBJECT

This document presents the different steps required to install the products in the Serenity Voice VACIE range; safety sound systems compliant with standard EN54-16-16 (VACIE) and EN54-4 (PSE).

The following steps are described:

- general description
- installation and connection
- putting into service

The Serenity Voice range includes several different versions differentiated by the number of loudspeaker lines, the maximum power of the amplifiers associated with each loudspeaker line; the table below recaps the different configurations and describes how they differ.

Several commercial versions are offered:

Reference	Total power	No. of loudspeaker lines	No. of AA- 0300 modules	No. AA- 0060 modules
CSR1-620	560W	2	2	0
CSR1-630	560W	2	2	0
CSR1-412	400W	3	1	2
CSR1-621	620W	3	2	1
CSR1-930	840W	3	3	0
CSR1-722	680W	4	2	2
CSR1-931	900W	4	3	1
CSR1-1240	1120W	4	4	0
CSR1-305	300W	5	0	5
CSR1-514	520W	5	1	4
CSR1-723	740W	5	2	3
CSR1-1032	960W	5	3	2
CSR1-1241	1180W	5	4	1
CSR1-1550	1400W	5	5	0
CSR1-366	360W	6	0	6
CSR1-615	580W	6	1	5
CSR1-824	800W	6	2	4
CSR1-1033	1020W	6	3	3
CSR1-1342	1240W	6	4	2
CSR1-1551	1460W	6	5	1
CSR1-1860	1680W	6	6	0



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2. APPLICABLE AND REFERENCE DOCUMENTS, TERMINOLOGY

2.1. Glossary

VACIE: Voice Alarm Control and Indicating Equipment

PSE: Power Supply Equipment

CIE: Control and Indicating Equipment

2.2. Related documents

- Vulca Voice and Serenity Voice User's Manual: 584385



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3. GENERAL DESCRIPTION

3.1. Introduction

In accordance with standard EN54-16-16, the VACIE manages a voice alarm zone.

The optional functions with requirements included in the VACIE are:

- emergency microphone
- sound signals
- interface with the external control system
- redundant power amplifiers
- voice alarm manual control
- voice alarm condition manual reset

The extra functions are:

- public address sound system (1 Aux input, 1 Telephone input, 1 Animation input, 1 Public Address Console input, 1 USB input)
- external interfaces (1x Ethernet interface, 4xGPI, 4xGPO)
- impedance measurement



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3.2. Equipment

The VACIE includes the following equipment and components:

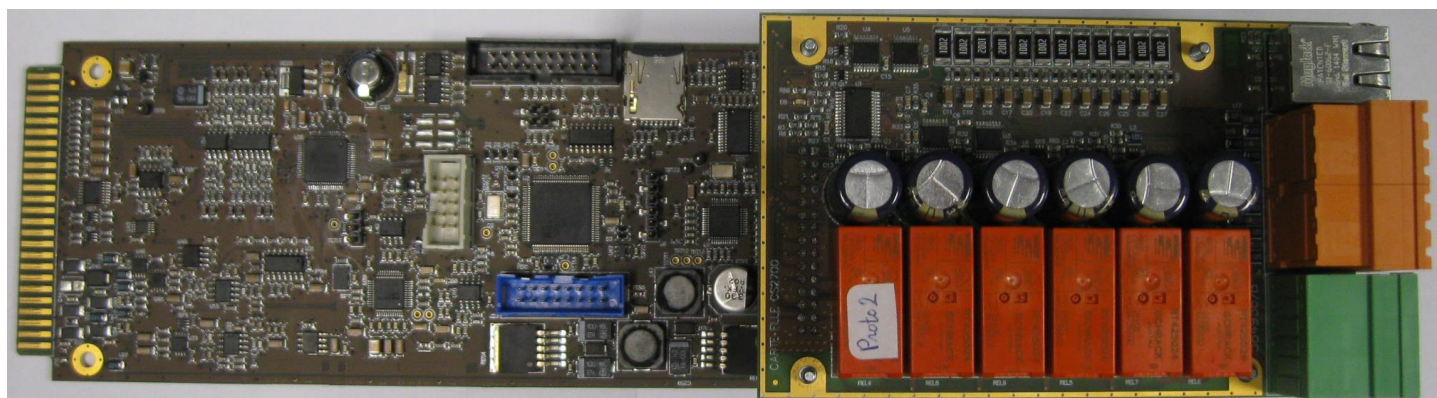
3.2.1. Emergency microphone

The microphone is a palm-held microphone with a telephone-type lead and a male XLR 4-pin connector.



3.2.2. Safety sound system

CS2700: Monitoring unit





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3.2.3. Amplification

3.2.3.1. AA-0300 amplifier modules (280 Watts)



3.2.3.2. AA-0060 amplifier modules (60 Watts)



3.2.4. EN54-24 loudspeakers

The following Bouyer own-brand loudspeakers can be used:

RB2035-EN54: sound projector 20W

RB2033-EN54: spherical sound projector 20W

RB6501-EN54: ceiling loudspeaker 10W

RB6502-EN54: ceiling loudspeaker 20W

RB6504-EN54: ceiling loudspeaker 40W

MHE-50T/EN5424: horn speaker 50W

ML-260/EN5424 B: loudspeaker 30W

ML-260/EN5424-N: loudspeaker 30W

VOICE-15T/EN5424: horn speaker 15W

DESIGN-230/EN5424: wall-mounted speaker 6W

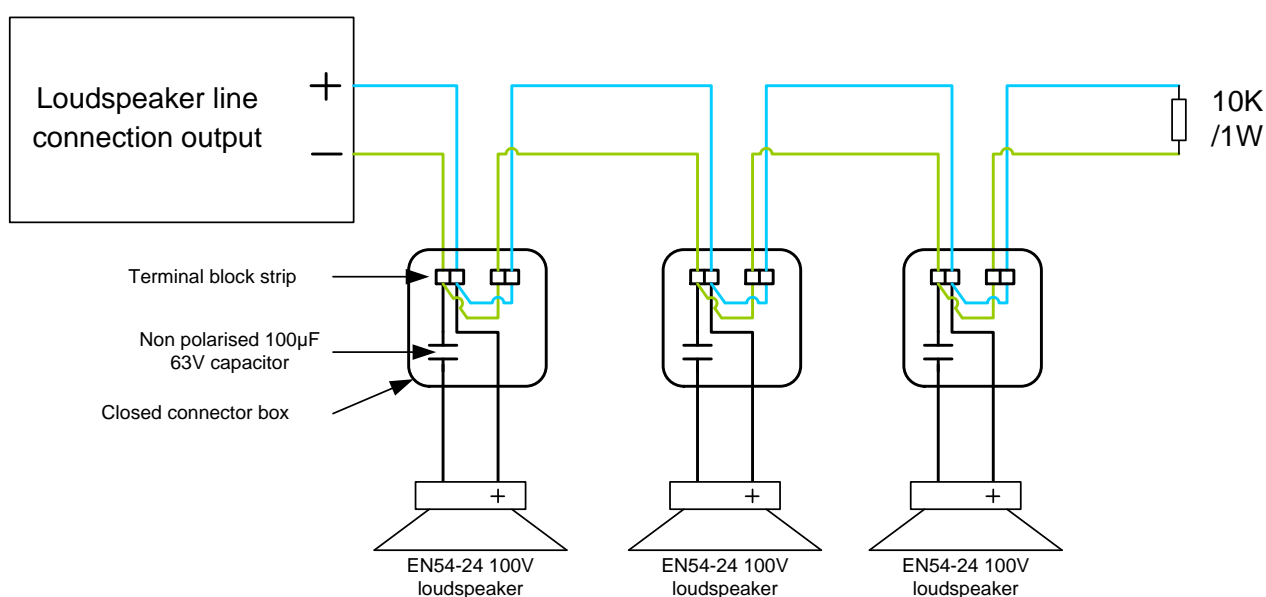
SPOT-2010/EN5424: sound projector 20W

KM-180T/EN5424: spherical loudspeaker 10W

CS-50-WA/EN5424: column speaker 50W

Remark: it is possible to use other 100V loudspeakers that meet EN54-24 subject to the following wiring instructions being followed:

- addition of a closed connector box
- addition of an interconnection strip
- addition of a non polarised 100µF 63V capacitor





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3.2.5. Attenuators

ZR1110 EN54: attenuator 100V 10W, Bouyer

ZR1130 EN54: attenuator 100V 30W, Bouyer

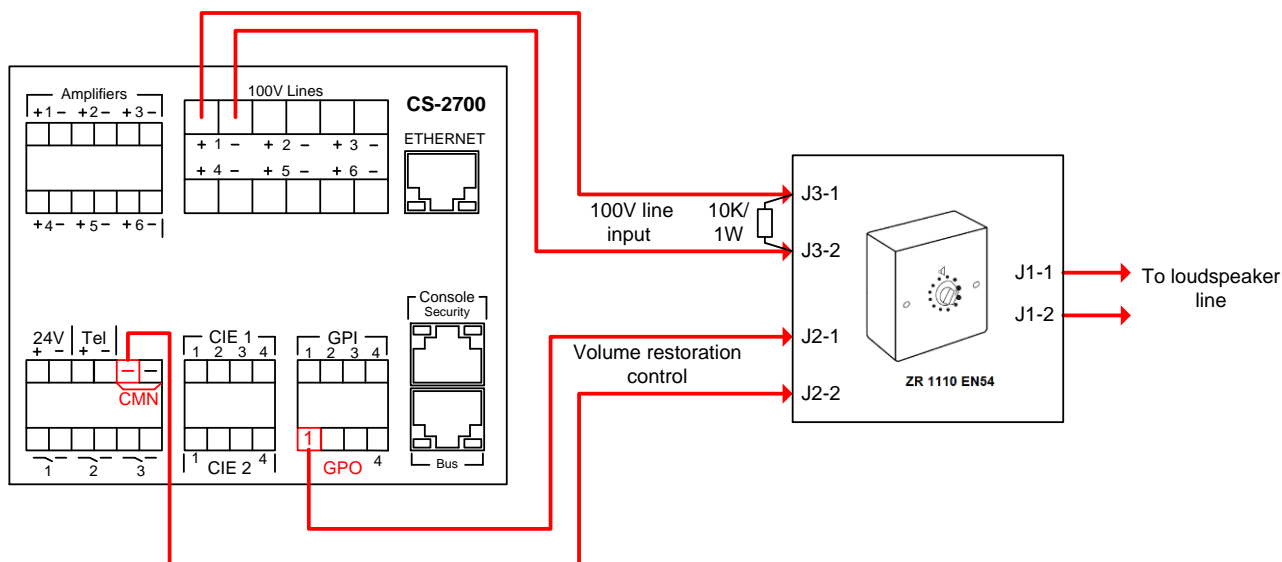
ZR1160 EN54: attenuator 100V 60W, Bouyer

The attenuators can only be used outside the framework of EN54-16.

Under standard EN54-16, the attenuators are controlled by using the GPOs on the CS2700; the diagram below shows an example of the control of a ZR1110 EN54 attenuator on LS line no. 1, the attenuator being controlled via GPO no. 1.

The control logic is positive logic: outside the voice alarm condition, the GPO delivers a +24V DC voltage that continuously supplies the attenuator, which enables the attenuation function to be used by turning the rotary switch; in voice alarm condition or if the link between the GPO and the attenuator is lost the latter directly switches over to "volume restoration" mode, which transmits the 100V signal coming from the CS2700 to the loudspeakers without attenuation.

The link between the LS output on the CS2700 and the 100V input on the attenuator is also at the same time subject to the same monitoring as a loudspeaker line without an attenuator; a 10K Ω /1W resistor must be placed on the incoming 100V signal terminal.





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3.2.6. PSE power supply

SLAT SON24V6AMS40RK: 24V DC 6A output on primary source / 40A on batteries

SLAT SON24V12AMS150RK: 24V DC 12A output on primary source / 150A on batteries

3.2.7. Batteries

3.2.7.1. References of batteries that can be used

The batteries that can be used with the PSEs referenced above are: YUASA, Powersonic, ABT, Enersys, Effekta, Long.

The battery capacities that can be used are:

- from 24Ah to 110Ah for the SLAT SON24V6AMS40RK PSE
- from 65Ah to 225Ah for the SLAT SON24V12AAMS150RK PSE

The impedance of the batteries (view of the PSE, wiring included) used must be less than:

- 50m Ω ($\pm 10\%$) with the SLAT SON24V6AMS40RK PSE
- 13m Ω ($\pm 10\%$) with the SLAT SON24V12AMS150RK PSE

For other references, please check with Bouyer.

3.2.7.2. Determination of battery capacity

The capacity of the batteries is determined using the Excel document "*Dimensionnement batteries Vulca Voice et Serenity Voice EN 54-4 ed-1.xls*" (Battery dimensioning for Vulca Voice and Serenity Voice EN 54-4).



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4. INSTALLATION AND CONNECTION

4.1. Equipment rack

The different components in the system are assembled in a rack designed to receive 19-inch equipment.

The rack size is between 14 U and 42U inclusive.

The use of a rack requires the installation of a forced ventilation system (with fans).

When several of the racks described above are required, they must be placed next to each other and mechanically fastened to each other so they form a solid unit.

The connections between the equipment in the different racks must not protrude outside the volume of the racks: consequently the sheet metal sides of adjacent units must be removed or holes made in them to pass the connections.

IP rating: the single rack or set of adjoining racks must meet IP 30.

As a result any holes, openings, slits, cut-outs, etc. on the sides and top must not let a rod with a diameter of 2.5 mm through.

4.2. User connections

4.2.1. Power

4.2.1.1. Energy connections

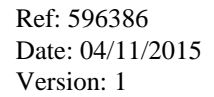
The power supply for an installation compliant with EN54-16-16 is based on the use of a 24V PSE; the configuration corresponds to an installation that does not include any components whose backup voltage is 24V (CS2700, AA-0300 module, AA-0060 modules).

For the maximum configuration including a CSR1-1860 + 6 attenuators and for a standby period of 12 hours followed by an evacuation period of 5 mins, the following power supply equipment must be used:

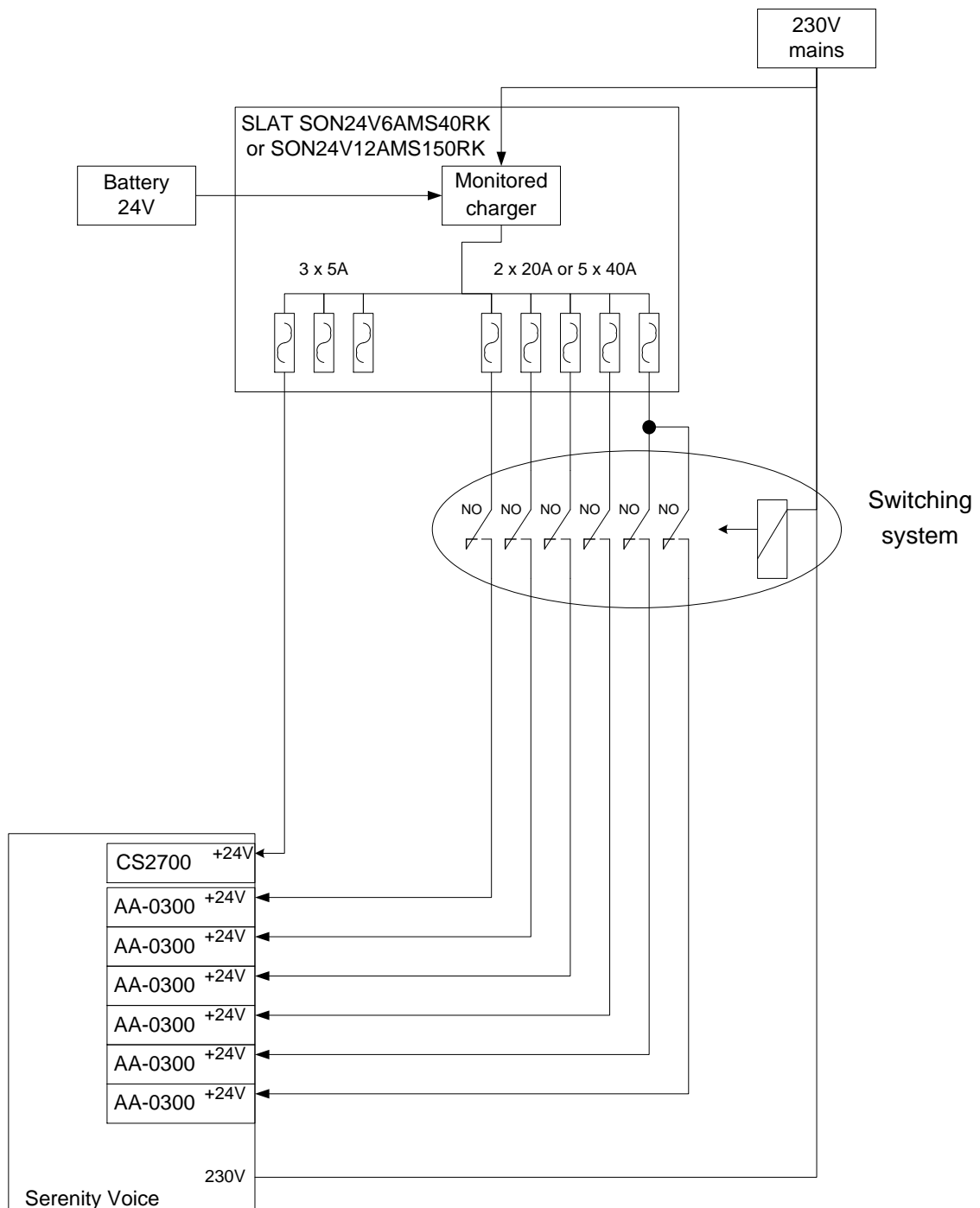
1 x PSE ref. SLAT: 24V6AMS40RK

2 x 12V 38Ah batteries

For longer standby and evacuation periods, see document “*Dimensionnement batteries Vulca Voice et Serenity Voice EN 54-4 ed-1.xls*” (Battery dimensioning for Vulca Voice and Serenity Voice EN 54-4).



The wiring diagram is as follows:





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4.2.2. Loudspeaker lines

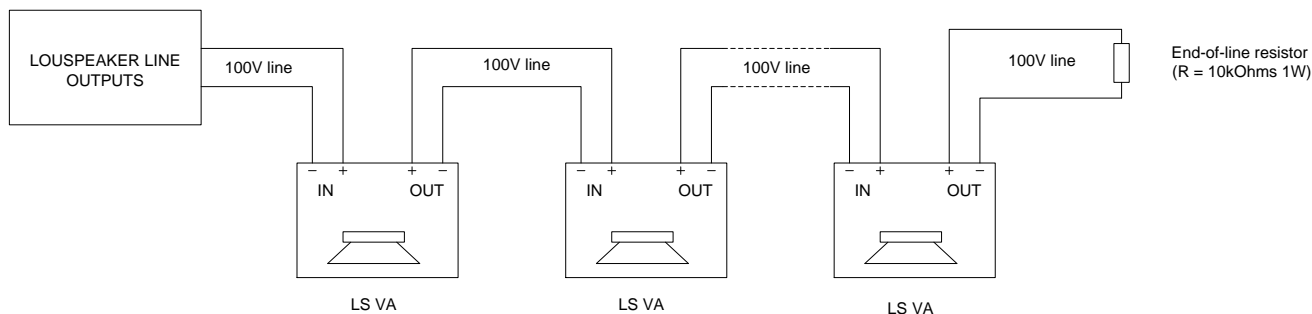
For its safety sound system, BOUYER has adapted all its range of 100V line loudspeakers.

In order to detect any loss of a loudspeaker, the installer will wire the loudspeakers in series with an end-of-line resistor (10kOhm – 1Watt).

The loudspeaker lines will be connected to the system via the plug-in connectors of the CS2700.

The loudspeaker lines will be wired in a daisy chain configuration.

- line open detection
- short circuit detection



4.2.2.1. Number of loudspeaker lines

The VACIE is connected to a CIE system; this system constitutes a single alarm zone. This alarm zone is divided into 1 to 6 elementary loudspeaker lines for this version in a rack.

4.2.2.2. Minimum power of connectable LSs

The principle of monitoring the loudspeaker lines does not impose a minimum power for the LSs connected to the installation.

4.2.2.3. Maximum number of LSs per loudspeaker line

The maximum number of LSs per line is imposed by the maximum power supported by the amplifier modules (280W or 60W).



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4.2.2.4. Maximum length of LS lines

The table below summarises the maximum lengths of the loudspeaker lines according to the power consumed on the line, the cable cross section and assuming a 15% power loss.

Diameter of copper wire	Cable cross section	Loop resistance per km	Power consumption on line				
			30W	60W	120W	240W	280W
14/10ths	1.50mm ²	22 Ω	2000 m	1000 m	500 m	250 m	200 m
18/10ths	2.50mm ²	15 Ω	3000 m	1500 m	750 m	375 m	300 m

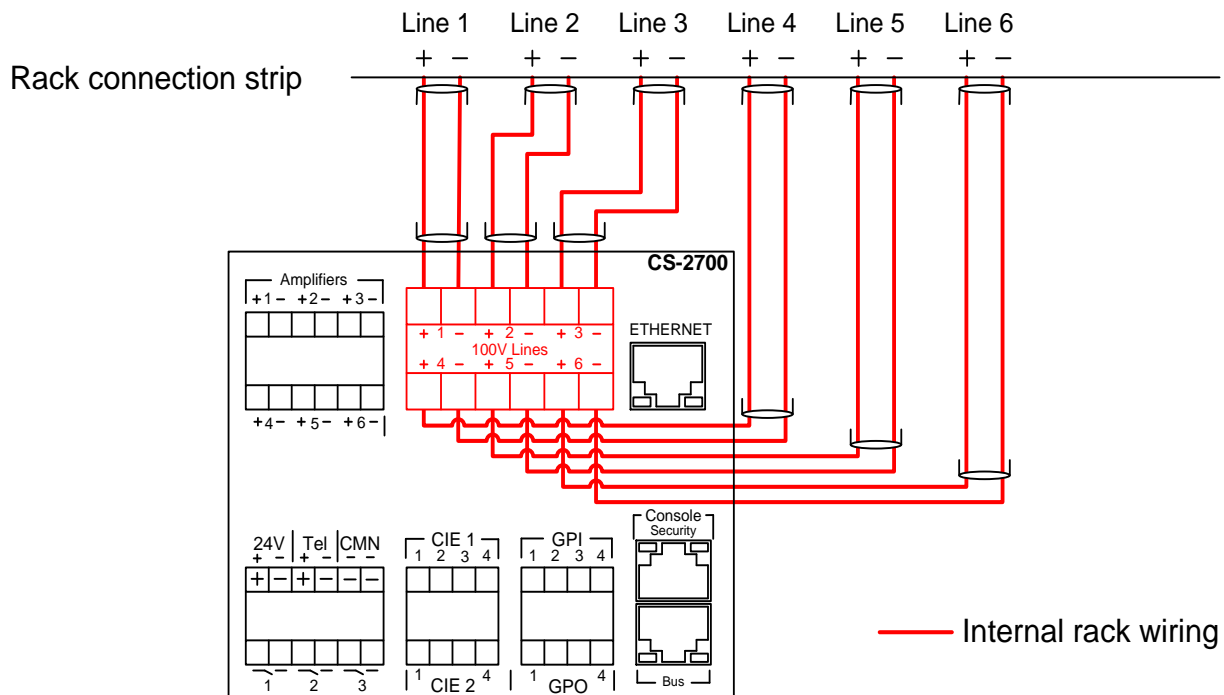
4.2.2.5. Cable type for LS lines

Independently of the power and line loss considerations described in the previous paragraph, from the sound broadcasting viewpoint, there is no requirement regarding the type of cable to be used. In practise, it is the site requirements (installation, safety considerations, etc.) that will decide the choice of the type of cable.

For example, industrial RO2V cables and cables certified with C1, CR1-CR1-C1 fire resistance are commonly used.

4.2.2.6. Connections

The connection of the 6 loudspeaker lines is made via the plug-in connectors at the back of the CS2700, connected to the connection strip in the rack.



4.2.3. CIE link

4.2.3.1. Maximum length of CIE link

The cable used for the connection between the VACIE and the CIE must guarantee that the level of the triggering voltage coming from the CIE is within the range permitted by the VACIE, i.e. from 15V to 58V DC. The cross section of the cable must be dimensioned to guarantee compliance with these values for a maximum cable length of 300 m.

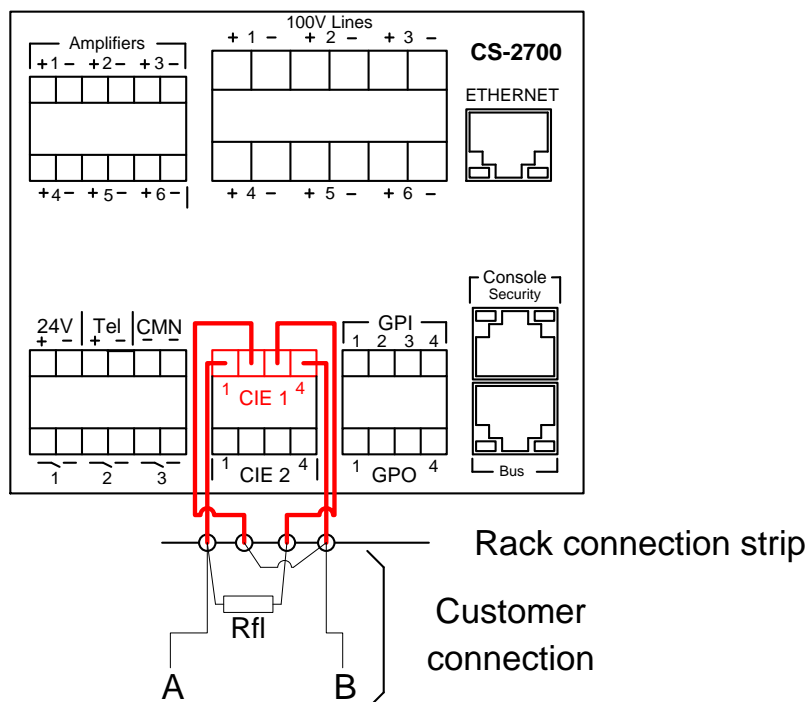
The monitoring voltage ranges are 1.5V to 58 V DC for Inverse, from 1.5V to 10V for Direct.

4.2.3.2. Cable type for CIE link

See local regulations for the type of cable.

4.2.3.3. Connection

To comply with EN 54-16 standard, the connection of the CIE must be made as shown in the diagram below:



Remark: the connection must **IMPERATIVELY** be made on the terminals of the input marked CIE1. The CIE2 input is not operational for the link with the CIE.



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The table below summarises the different configurations enabling the activation of the "Voice Alarm" condition as well as the monitoring of the VACIE link by the CIE:

Voltage in A	Voltage in B	Function
+15V to +58V DC	0V	"Voice Alarm" condition
Monitoring voltage whose level and polarity depend on the CIE		Monitoring of the presence of the end-of-line resistor R_{fl} (defined by the CIE manufacturer)

The value of R_{fl} depends directly on the reference of the CIE connected.

Remark concerning General Fault information:

In the connection diagram above, this information is available on the terminal block marked CIE1 between points 3 and 4; it is also available between points 3 and 4 of the terminal marked CIE2.



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4.2.4. Attenuators

Reminder: attenuators are used outside the framework of EN54-16.

The attenuators are controlled using the GPOs on the CS2700.

The control logic is positive logic: outside the voice alarm condition, the GPO delivers a +24V DC voltage that continuously supplies the attenuator, which enables the attenuation function to be used by turning the rotary switch; in voice alarm condition or if the link between the GPO and the attenuator is lost the latter directly switches over to "volume restoration" mode, which transmits the 100V signal coming from the CS2700 to the loudspeakers without attenuation.

The link between the LS output on the CS2700 and the 100V input on the attenuator is also at the same time subject to the same monitoring as a loudspeaker line without an attenuator; a 10K Ω /1W resistor must be placed on the incoming 100V signal terminal.

4.2.4.1. Maximum length for the link with attenuators

4.2.4.1.1. 100V link

The table below summarises the maximum lengths of the 100V links with the attenuator according to the power of the attenuator, the cable cross section and assuming a 15% power loss.

Diameter of copper wire	Cable cross section	Loop resistance per km	Type of attenuator	
			10W/30W	60W
14/10ths	1.50mm ²	22 Ω	2000 m	1000 m
18/10ths	2.50mm ²	15 Ω	3000 m	1500 m

4.2.4.1.2. Volume restoration link

The table below summarises the maximum lengths of the "volume restoration" links with the attenuator depending on the cross section of the cables, assuming that the attenuator input voltage is 20V DC from a starting voltage of 21.6V DC for a consumption of 10mA.

Diameter of copper wire	Cable cross section	Loop resistance per km	Length
6/10ths	0.28mm ²	135 Ω	600 m
9/10ths	0.63mm ²	60 Ω	1350 m
12/10ths	1.13mm ²	34 Ω	2350 m
15/10ths	1.76mm ²	22 Ω	3600 m



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4.2.4.2. Cable type for link with attenuator

4.2.4.2.1. 100V link

Independently of the power and line loss considerations described above, from the sound broadcasting viewpoint, there is no requirement regarding the type of cable to be used. In practise, it is the site requirements (installation, safety considerations, etc.) that will decide the choice of the type of cable.

For example, industrial RO2V cables and cables certified with C1, CR1-CR1-C1 fire resistance are commonly used.

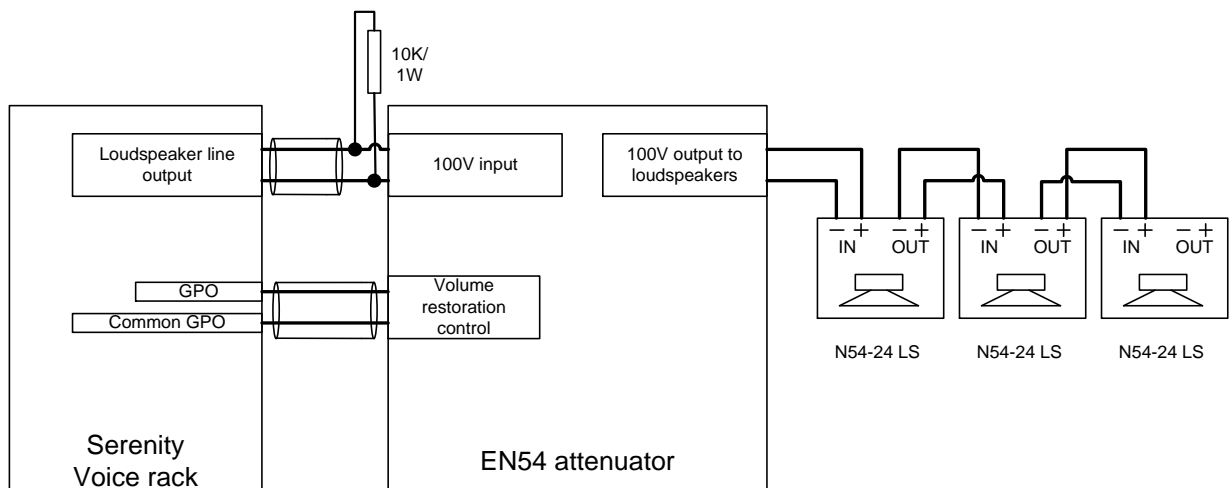
4.2.4.2.2. Volume restoration control

Independently of the power and line loss considerations described above, there is no requirement regarding the type of cable to be used. In practise, it is the site requirements (installation, safety considerations, etc.) that will decide the choice of the type of cable.

For example, industrial RO2V cables and cables certified with C1, CR1-CR1-C1 fire resistance are commonly used.

4.2.4.3. Connection

The connection principle for an attenuator on a loudspeaker line is as follows:



The 10K Ω /1/4W resistor must be placed on the incoming terminal block of the EN54 attenuator.

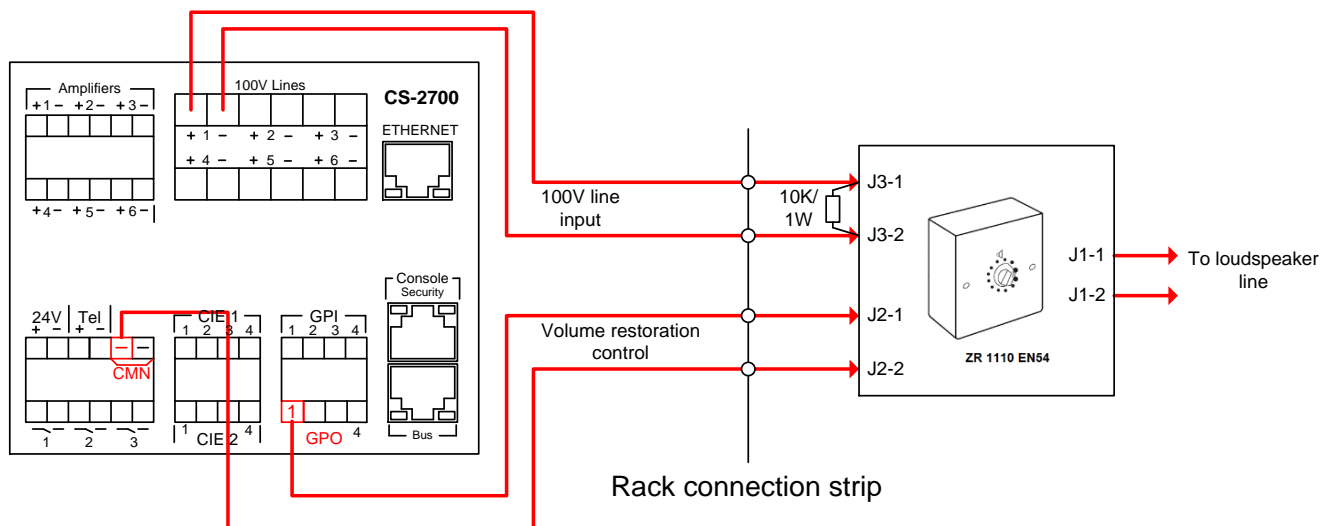
The two 100V and volume restoration control links must be made by 2 separate cables.



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Example of the connection of an attenuator with control via GPO No.1.



See attenuator notice for the details of the connections.



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4.2.5. Auxiliary Input

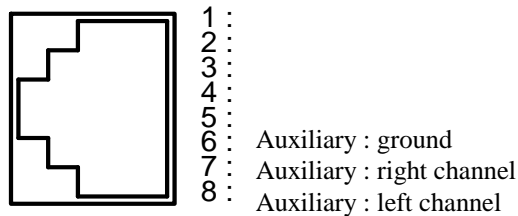
The system has one Auxiliary input, stereo type , asymmetric, 0dBu.

4.2.5.1. Cable length and type

The cross section of the cable must be at least 0.28mm^2 and the connection distance must be less than 3 m. There is no particular specification for the type of cable to be used.

4.2.5.2. Connection

The connection is made on the back of the Serenity Voice enclosure via the RJ45 socket whose connection pins are as follows:



If there are interfering signals present (noise, hum), connect the non-safety source to ground.



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4.2.6. Animation Inputs

The system has one Animation input, mono type , symmetrical, -30dBu/0dBu.

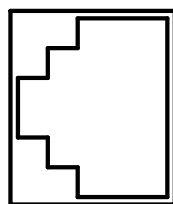
4.2.6.1. Cable length and type

The cross section of the cable must be at least 0.28mm² and the connection distance must be less than 3 m. There is no particular specification for the type of cable to be used.

4.2.6.2. Connection

The -30 dBu sensitivity enables the connection of the GZ2802 product via a 6.35mm socket; if a GZ2802 is connected, it may be necessary to earth the GZ2802 frame to avoid problems with a low frequency hum. -30dbu/0dbu is selected via a configuration item in the menu accessible in the HMI.

The connection is made on the back of the CS2700 via the RJ45 socket whose connection pins are as follows:



- 1 : Auxiliary : ground
- 2 : Auxiliary : right channel
- 3 : Auxiliary : left channel
- 4 :
- 5 :
- 6 :
- 7 :
- 8 :

If there are interfering signals present (noise, hum), connect the non-safety source to earth.



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4.2.7. Telephone Inputs

The system has one Telephone input, mono type , symmetrical, 0dBu.

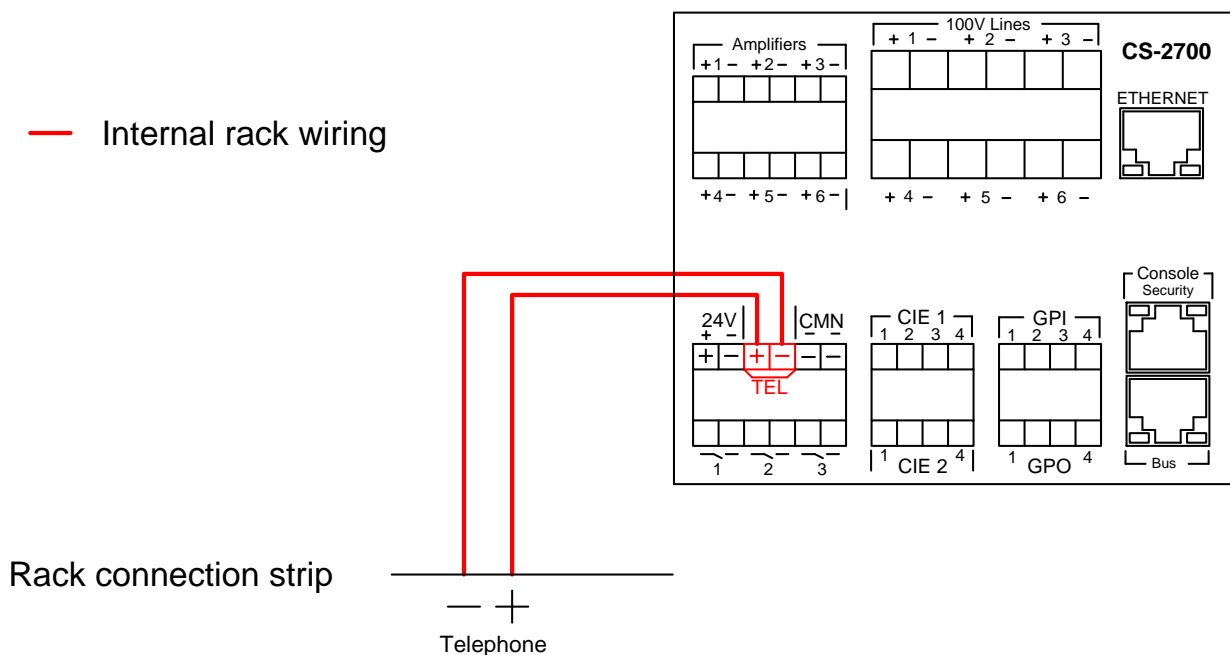
4.2.7.1. Cable length and type

The cross section of the cable must be at least 0.28mm^2 and at most 1.5mm^2 and the connection distance must be less than 50m. In there is a problem with interference (a hum for example), one solution consists of inserting a 0db/0db transformer before the telephone input.

The characteristics of the cable must guarantee a sufficient signal level on arriving in the CS2700 given the characteristics of the front end on the CS2700. There is no other particular specification for the type of cable to be used.

4.2.7.2. Connection

The connection is made at the back of the CS2700 board:



4.2.8. USB Inputs

The Serenity Voice enclosure has a USB connector situated on the front panel designed to receive mass storage devices of the "USB stick" type only. Its functioning and use are described in the instructions for use.



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4.2.9. Console for selective calls

The comfort PA console bus can take up to 4 GX3016 type consoles and 2 GXT4000 type consoles if they are powered via the bus. It is possible to add more comfort PA consoles if they are powered by another source.

4.2.9.1. Cable types for comfort public address consoles

The cable used for the comfort public address console must have the same characteristics as Cat 5e F/UTP cable (4 twisted pairs with external shielding): 1 twisted pair for the RS485 link, 1 twisted pair for the audio signal audio, 1 twisted pair for the power connection.

4.2.9.2. Maximum length for GX3016

The communication bus used for the dialogue is of the RS485 type; the maximum distance between the enclosure and the last console must be less than 500 m.

The supply voltage to the consoles is at least 12V DC. The current consumed by the console is 140mA for a supply voltage of 12V.

The table below summarises the theoretical distances to be respected to ensure a sufficient power supply to the console; the voltage supplied by the enclosure is 27.2V. The consoles are considered as being in the same place.

Diameter of copper wire	Cable cross section	Loop resistance per km	1 console	2 consoles	3 consoles	4 consoles
5/10ths	0.20mm ²	175 Ω	500m	310m	207m	155m
6/10ths	0.28mm ²	135 Ω	500m	402m	268m	201m
8/10ths	0.50mm ²	68 Ω	500m	500m	500m	397m
9/10ths	0.63mm ²	60 Ω	500m	500m	500m	452m

If it is absolutely necessary to have the consoles further away than recommended in the table, it is possible to provide a local power supply to the console and thereby eliminate the line loss problem.

4.2.9.3. Maximum length for GXT4000

The communication bus used for the dialogue is of the RS485 type; the maximum distance between the enclosure and the last console must be less than 500 m.

The supply voltage to the consoles is at least 12V DC. The current consumed by the console is 190mA for a supply voltage of 12V.

The table below summarises the theoretical distances to be respected to ensure a sufficient power supply to the console; the voltage supplied by the enclosure is 27.2V. The consoles are considered as being in the same place.



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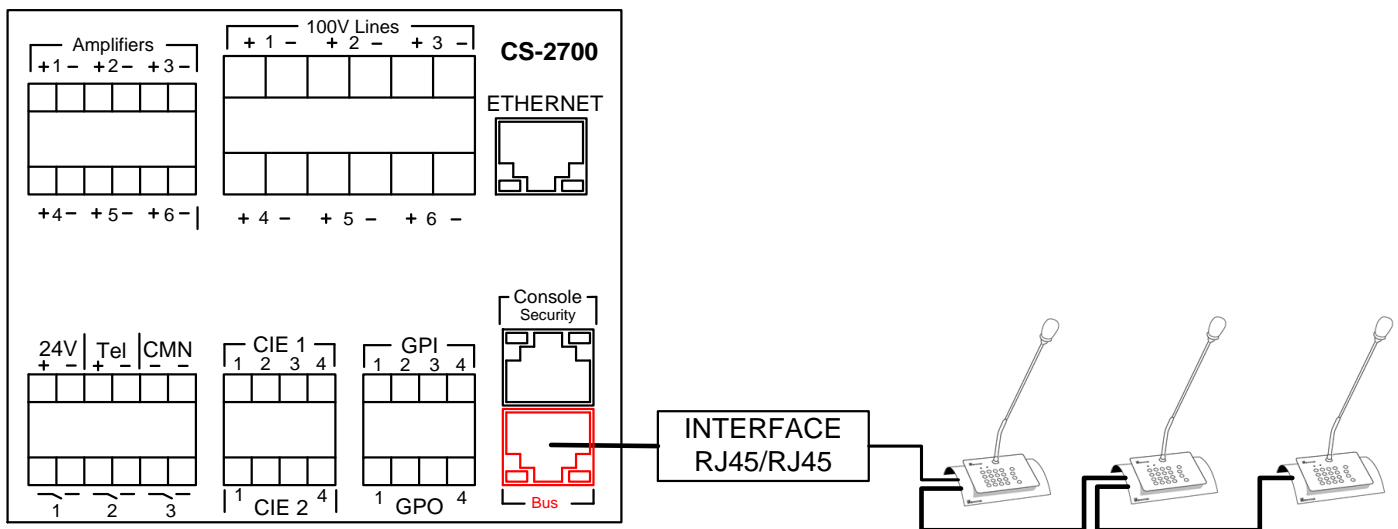
Diameter of copper wire	Cable cross section	Loop resistance per km	1 console	2 consoles
5/10ths	0.20mm ²	175 Ω	457m	228m
6/10ths	0.28mm ²	135 Ω	500m	296m
8/10ths	0.50mm ²	68 Ω	500m	500m
9/10ths	0.63mm ²	60 Ω	500m	500m

If it is absolutely necessary to have the consoles further away than recommended in the table, it is possible to provide a local power supply to the console and thereby eliminate the line loss problem.

4.2.9.4. Connection

The connection is made via the RJ45 bus socket on the CS2700.

The number of public address consoles is limited by the 24V consumption; the CS2700 can supply a maximum of 0.5A at 24V.





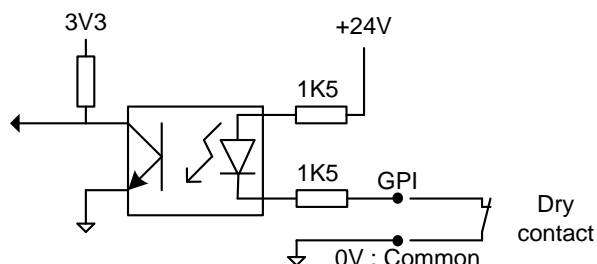
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4.2.10. GPI

The system has 4 GPIs (General Purpose Inputs) which are logic inputs intended to be used for a certain number of functions: source remote control, level change, etc.

The logic inputs are of the opto-isolated type and must be controlled by a dry contact as follows:



4.2.10.1. Cable length and type

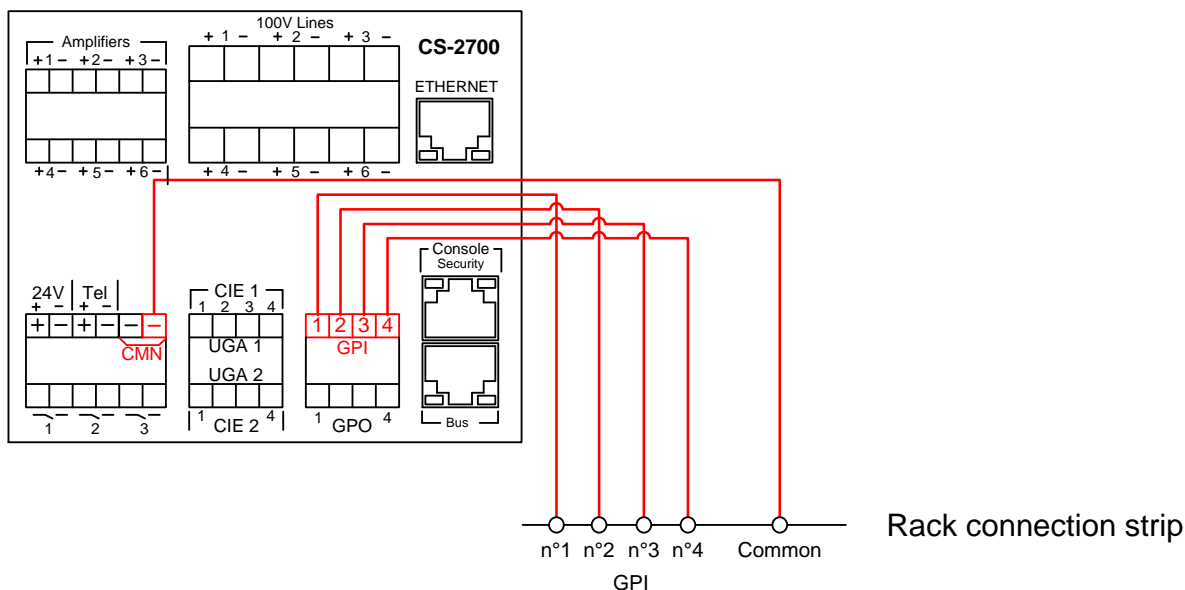
The table below gives the maximum distances between the VACIE and the peripherals connected to GPIs; the calculation takes account of a permissible ohmic loss of 100 Ohms:

Diameter of copper wire	Cable cross section	Loop resistance per km	Maximum distance on GPI
5/10ths	0.20mm ²	175 Ω	571m
6/10ths	0.28mm ²	135 Ω	740 m
8/10ths	0.50mm ²	68 Ω	1470 m

There is no particular specification for the type of cable to be used.

4.2.10.2. Connection

The GPOs are connected at the back of the CS2700 on a plug-in terminal block as described below:





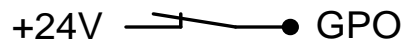
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4.2.11. GPO

The system has 4 GPOs (General Purpose Outputs) which are logic outputs intended to be used for a certain number of functions: volume restoration, fault indication, etc.

These logic outputs are of the relay type and provide information in the following way:



4.2.11.1. Cable length and type

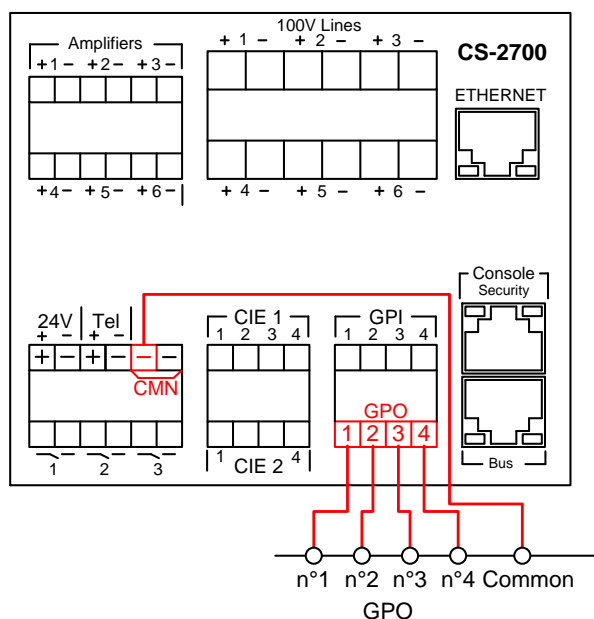
The table below gives the maximum distances between the VACIE and the peripherals connected to GPOs; the calculation takes account of an ohmic loss leading to a 15% drop in the initial output voltage, 27.2V:

Diameter of copper wire	Cable cross section	Loop resistance per km	1W GPO peripheral (24V/42mA)	5W GPO peripheral (24V/208mA)	10W GPO peripheral (24V/420mA)
5/10ths	0.20mm ²	175 Ω	555 m	112 m	55 m
6/10ths	0.28mm ²	135 Ω	718 m	141 m	72 m
8/10ths	0.63mm ²	68 Ω	1426 m	288 m	142 m

There is no particular specification for the type of cable to be used.

4.2.11.2. Connection

The GPOs are connected at the back of the CS2700 on a plug-in terminal block as described below:



— Internal rack wiring

Rack connection strip



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The length of the connection to control an external peripheral via a GPO must provide an ohmic resistance on the link that is low enough to guarantee a high enough operating voltage on the peripheral. The maximum voltage that can be delivered by all the 4 GPOs must be less than 0.4A.

4.2.12. Ethernet

The CS2700 has an Ethernet interface intended to connect maintenance devices

4.2.12.1. Cable types

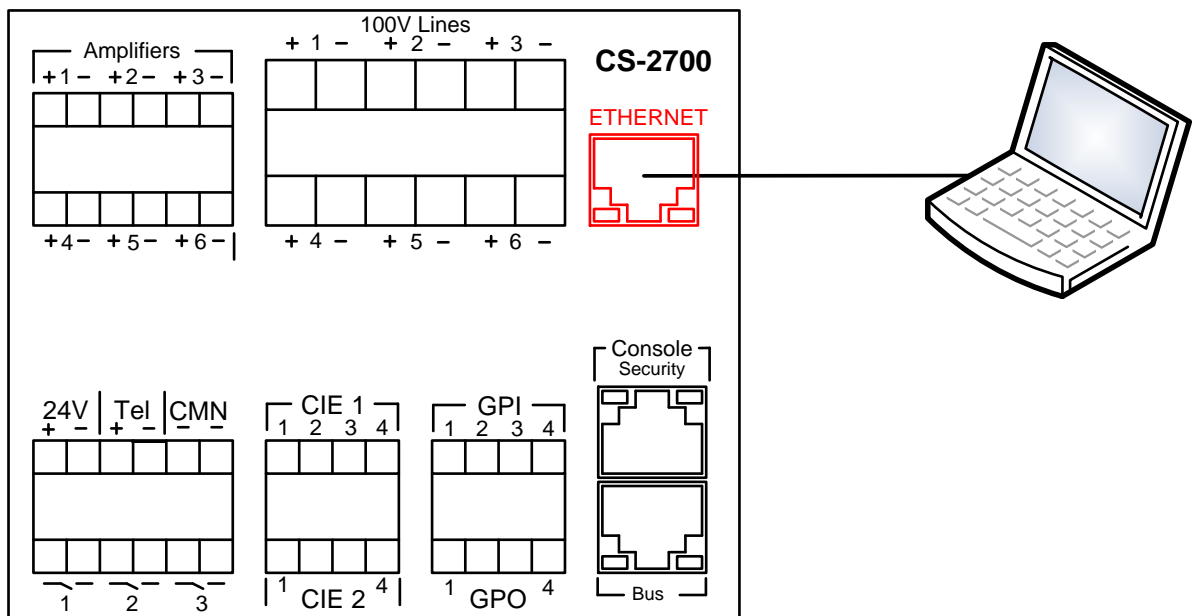
The cable used for the Ethernet interface must be Cat 5e F/UTP cable (4 twisted pairs with external shielding):

4.2.12.2. Maximum length

The length of the link must be less than 3 m. The connection of a local peripheral (maintenance PC) or to a network must therefore be made by installing suitable equipment (Ethernet switch for example) with a maximum distance of 3m.

4.2.12.3. Connection

The connection is made on the RJ45 on the back of the CS2700 board as shown below:



4.2.13. Emergency microphone

The emergency microphone is equipped with a telephone-type lead which, when extended, measures less than 2.5m.



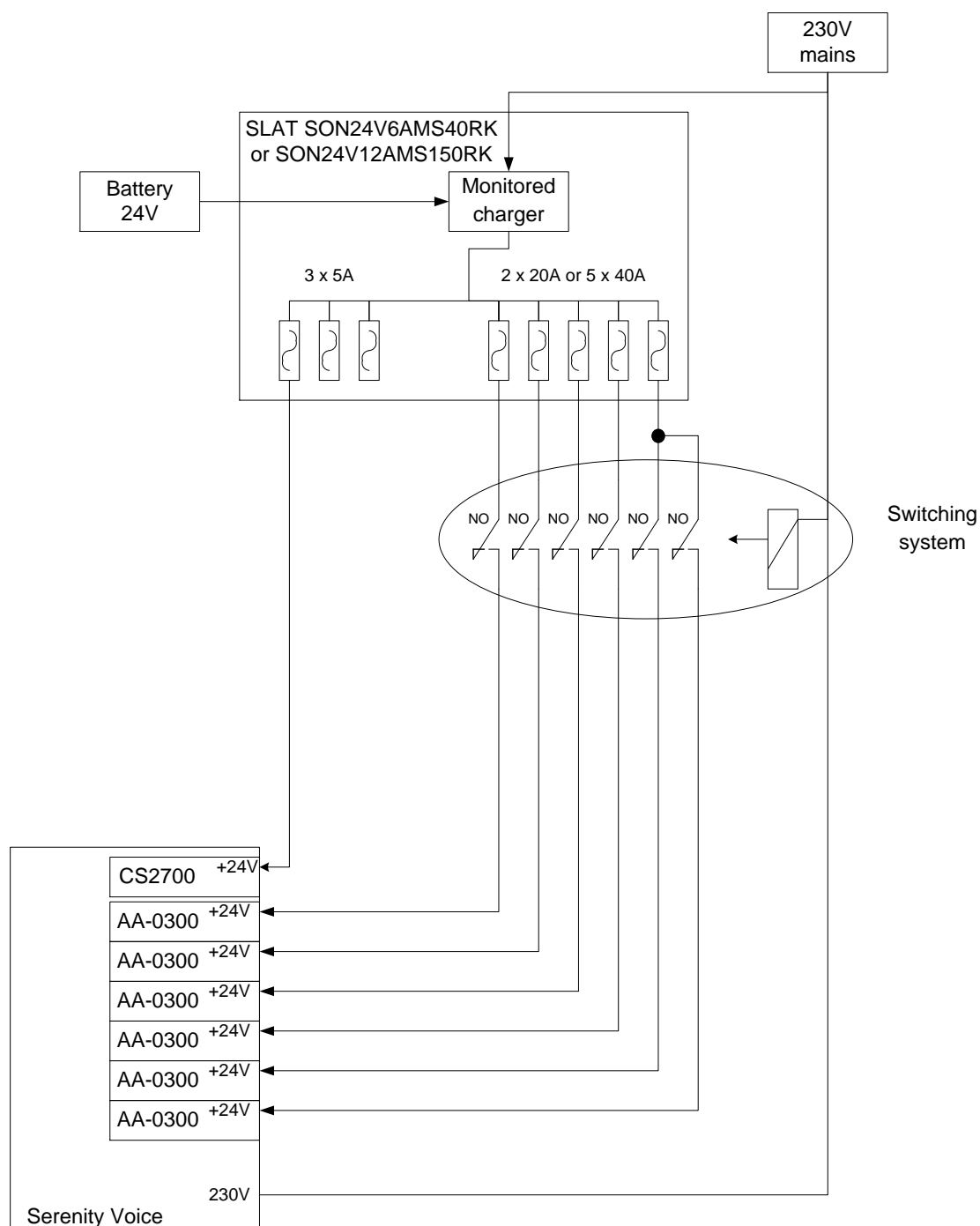
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4.3. Internal connections

All the internal connections are made in the factory and must not be modified on any account.

4.3.1. 230V and 24V power supply



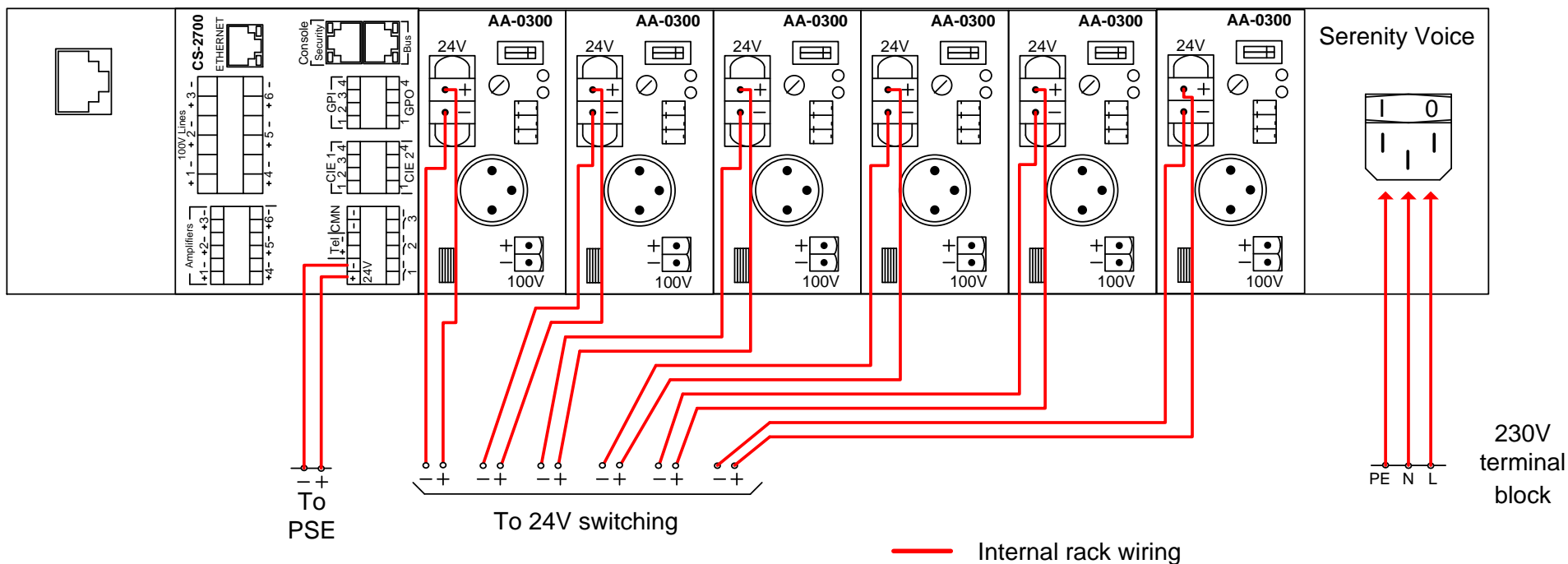


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4.3.2. 24V power supply

The CS2700 board and the amplifier modules are powered with 24V DC from the PSE as shown in the connection diagram below:





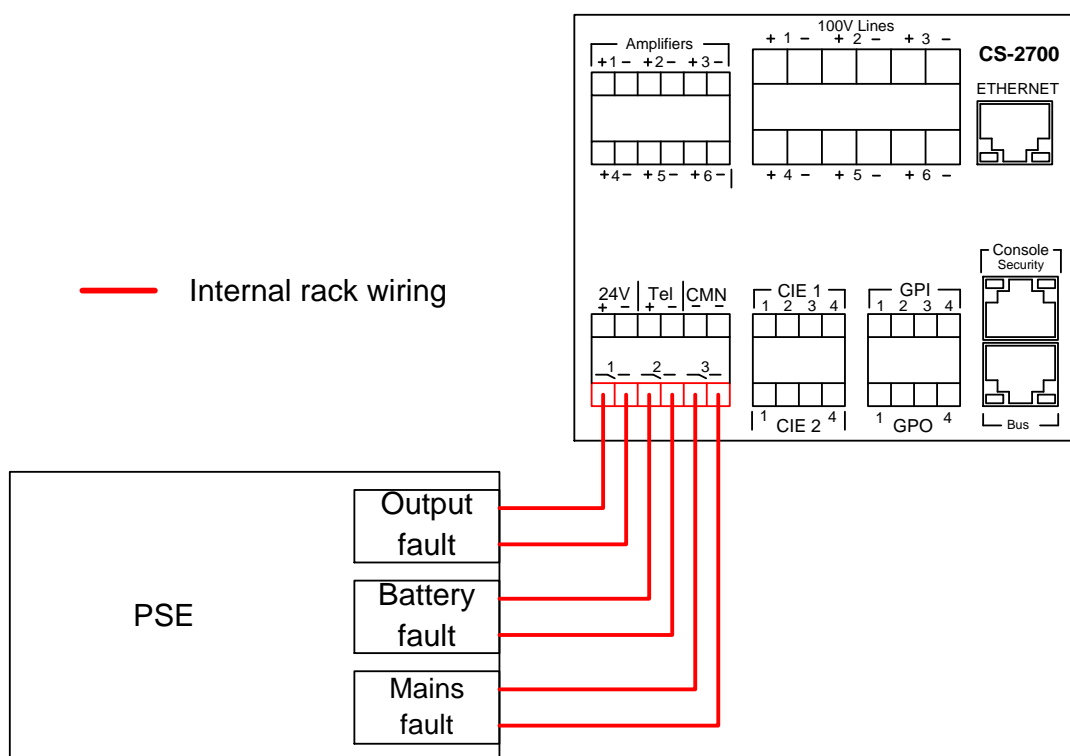
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4.3.3. PSE fault connections

Fault information must be analysed and must therefore be connected to the CS2700, which manages it.

The connection principle is as follows:



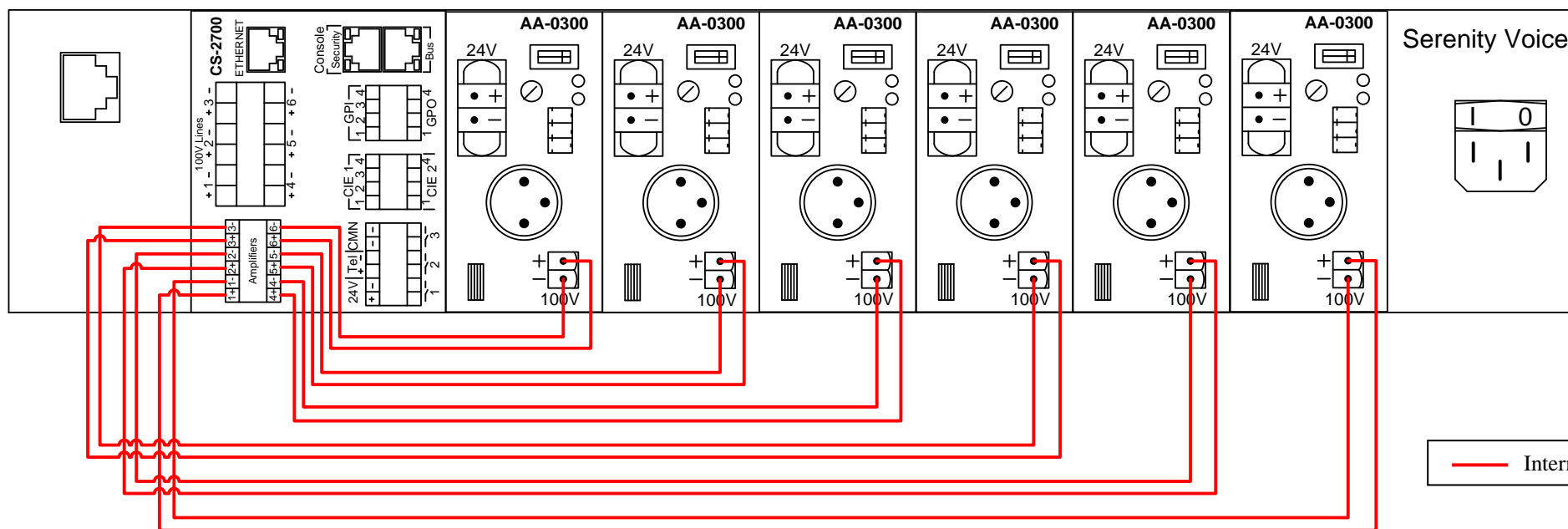


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4.3.4. Connection of power amplifier modules

The power amplifier modules are connected to the CS2700, which monitors them.



The connection of a spare amplifier module (redundant power amplifier: option with requirements) follows the wiring principle above; if the redundant power amplifier is present, it is connected to input no. 4.



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5. PUTTING INTO SERVICE

The system can be put into service after installation and connection of the components making up the system. See the Installation and Connection paragraph of this document.

It breaks down into several phases:

- a configuration phase
- an audio adjustment phase

5.1. Configuration

Configuration is only accessible at level 3 by a trained, accredited person; level 3 access requires the entry of a password. Access to configuration is only possible in STANDBY mode or in FAULT mode.

The parameters that can be configured are described in the user's manual.

5.2. Audio settings

The audio adjustment phase of an EN54-16-16 installation is broken down into several steps, which must be done in the order given below:

- Ensure each loudspeaker in the installation is correctly dimensioned (power and sound pressure)
- If possible adjust the output levels on the public address sources (0dBu max)
- If necessary adjust the input level of the public address sources on the VACIE (see user's manual)
- Also adjust the output level for each LS line (see user's manual)

IMPORTANT: the audio adjustment of this type of installation requires that all the components making up the audio chain be suitably dimensioned.

Remark: choosing a setting causing a signal that is insufficient at the outputs of the amplifier modules can cause a fault to appear on the installation; this type of problem can occur when the power selection made on the loudspeakers is not suited to the acoustic environment.



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6. DETAILED TECHNICAL CHARACTERISTICS

6.1. Serenity Voice rack mechanical properties

Enclosure dimensions: **422 mm x 88 mm x 335 mm**

Weight: **9 kg max**

Colour: **Industrial grey – RAL 7035**

IP rating: **IP30**

6.2. Environment

Operating temperature: **-5°C to +40 °C**

6.3. Power

6.3.1. Primary source

Mains voltage: **from 195V to 264V**

Mains frequency: **from 47 to 63Hz**

Primary current: depends on the configuration

6.3.2. Secondary source

Sealed lead acid accumulator batteries suited to the PSE and with the required backup capacity .

The battery capacities that can be used are:

- from 24Ah to 110Ah for the SLAT SON24V6AMS40RK PSE
- from 65Ah to 225Ah for the SLAT SON24V12AAMS150RK PSE

6.4. Public address console interface

Power supply: **24V DC – 550mA max**

6.5. Safety Console Interface

Power supply: **24V DC – 550mA max**

6.6. Aux Input

Audio input: **stereo, sensitivity 0dbu, asymmetric signal**



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6.7. Animation Input

Audio input: **mono**, sensitivity **0dbu/-30dbu**

6.8. Telephone Input

Audio input: **mono**, level **0dbu**

6.9. CIE

Voltage triggering: **from +15V to +58V DC**

6.10.PSE

Fault information: **dry contact**, max. input current **10mA**

6.11.GPIs

Opto-isolated type: **input current max. 10mA**

6.12.GPOs

Voltage/Current: **24VDC/0,1A per GPO @25°C**

6.13.Others

6.13.1. Messages

Evacuation message

Duration: 22s

Content: NFS32001 siren + message "Votre attention s'il vous plait, nous vous demandons de quitter les lieux par les sorties les plus proches. Votre attention s'il vous plait, nous vous demandons de quitter les lieux par les sorties les plus proches. Le signal d'évacuation va retentir. Attention, attention, because of a technical hitch in our building, we ask you to evacuate the premises. Please go to the emergency exit"

6.13.2. Emergency microphone

Type: **dynamic**, one direction (noise cancelling)

Sensitivity: **-68dB/μbar (-48dB/Pascal)**

Impedance: **600Ω**



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7. MARKING



BOUYER INDUSTRIE

1270 Avenue de Toulouse
ZA Albasud
82000 MONTAUBAN

15

0333-CPR-075542

EN 54-16

Voice alarm control and indicating equipment for fire detection
and fire alarm systems for buildings

Serenity Voice

Options included:

- Emergency microphone
- Audible warning
- Interface to external control devices
- Redundant power amplifiers
- Voice alarm manual control
- Manual reset of the voice alarm condition

EN 54-4

Power supply equipment for fire detection and fire alarm
systems for buildings