

AEV MMS 3000

On Air Broadcast Console



Guarantee

The equipment is warranted for a period of 2 years from the date of invoice (ex-works). The

warranty does not cover faults provoked by carelessness, natural causes and parts subject to wear. In addition, the cost of shipment is not covered. The warranty will be voided if the equipment is mishandled.

Technical Support

If you require technical support, contact AEV SERVICE giving a clear and concise account of your specific problem. Quote the serial number of your equipment by referring to the AEV nameplate attached to the equipment itself as this is the most important piece of information to be provided.

Telephone: 39+051 6630904 Fax: 39+051 893605

Factory Service and Repairs

If problems arise while the equipment is being installed, consult this manual and check that the installation is being carried out properly. If the problems still cannot be solved, call the AEV SERVICE Department for further information. If the problem is a minor one we can a telephone call will probably suffice. If, on the other hand, the equipment is to be shipped to AEV for service or repairs.

Shipping Instruction

When shipping the equipment to AEV, use the original package in order to be certain that it will be fully protected during handling. If you need the original package, call us for a new one. If you ship the equipment in a different packing container, take care to provide a double package by interposing padding material between the two containers in order to fully protect the equipment during shipment. The package should be marked "FRAGILE" in red. Remember that the RMA number must be clearly visible on the package. If it is not, the equipment will not be accepted.

IMPORTANT: Carefully read this paragraph as it contains important instructions concerning operator safety and directions regarding the installation, operation and maintenance of the equipment.

Failure to observe the safety instructions and information given in this manual **constitutes an infringement of the safety rules and design specifications provided for this piece of equipment.**

AEV Broadcast Srl declines all responsibility if any one of the safety rules given herein is not observed.

AEV Broadcast Srl declines all responsibility if the end-user resells the product.

The equipment is to be used by people capable of operating it in a trouble-free manner and **it is assumed that they are aware of the following safety rules.**

- Keep this manual with the utmost care and close at hand so that it can be consulted whenever needed
- After unpacking the equipment, check it for condition.
- Avoid banging the equipment.
- The packing material (plastic bags, polystyrene, nails, etc.) must never be left within the reach of the children, as **these items are potential sources of danger.**
- Do not use the equipment in places where the temperature is not within the recommended range, as specified by the manufacturer.
- Before connecting the equipment, make sure the nameplate specifications correspond to the mains electricity supply (the nameplate is located on the equipment enclosure).
- Do not remove the sticker from the equipment as it contains important specifications and the relevant serial number.
- To join the equipment to the mains supply, use the power cord purchased with the equipment.
- The equipment must be used only for the purpose it was designed for.
- Abuse or misuse of the equipment is **extremely dangerous** for people, pets and property. The manufacturer declines all responsibility for damage and injury resulting from **improper use and mishandling.**

- Certain basic safety rules must be observed when using electrical equipment, in particular: -
Never touch the equipment with wet and/or damp hands or other parts of the body.
- Keep the equipment away from drops of water or sprinkling systems.
- Never use the equipment near high heat sources or explosive material.
- Do not introduce any extraneous matter into the equipment.
- Do not allow children or untrained people to use the equipment.
- Before cleaning or servicing the equipment outside, disconnect it from the supply and wait at least 2 seconds before working on it, as recommended by current safety regulations.
- In the event of faults and/or improper operation, turn off the equipment, shut off the electrical power and call your dealer.
- Do not attempt to make repairs and/or adjustments when covers/guards or circuit boards are to be removed.
- Blown fuses inside the power supply indicate that there may be a fault in the power supply itself. The fuses must be replaced by qualified and authorised persons. It is advisable to call your nearest dealer.
- Call your dealer for any repairs and be certain original spare parts are used.

Failure to observe this rule may adversely affect the safety level of your equipment.

- The equipment is to be connected to the mains supply and provided with adequate and efficient earth conductors.
- The electrical wiring must be done in compliance with current electrical codes CEI 64-8 "Electrical specification for domestic buildings".
- When installing, leave a clearance of at least 1 cm around the equipment to allow air to pass freely.

NOTE. This piece of equipment has been manufactured to the highest standards of workmanship. It must be used properly and serviced as recommended to ensure long-term dependable operation.

The installation must be done in order to be able to guarantee an easy access to the cable of feeding.

The device of dissection of the equipment is the cable of feeding, so it must be unconnected from the equipment every time it is necessary to do any type of maintenance.

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Features

16-channels audio inputs:

Transformer balanced Micro inputs- electronically balanced Line inputs- Phone Inputs

Faders:

Faders (100 mm) with A/B input selector 2 bands tones control on each input module.

Input functions and channels

(All settings are independent for each input, via dip-switches (A/B).

- Input source selection
- Level adjustment
- Phantom Power supply (only for Micro inputs)
- Insert (only for Micro inputs)
- Bus assignment
- Tally 1
- Logic control for the START-STOP functions
- Intercom

Outputs

PGM: Analog stereo **UTL:** Analog Stereo

CONTROL ROOM: Analog Stereo **CONTROL STUDIO:** Analog Stereo

HEADPHONES: Analog Stereo

External controls

- Remote Fader with logic controls, (TB, On-Off, Cough)
- GPI Opto-isolated logic inputs
- GPO Opto-isolated logic outputs
- ON AIR Tally
- TalkBack Output

Monitoring

- Level control for headphones, Control Room, Control Studio
- 2 External inputs for Monitor
- Headphones with integrated amplifier
- Cue loudspeaker with built-in amplifier
- VU-Meter on 4 instruments

Input Configuration

Three different types of inputs are available: microphone, analog lines and telephone.



Micro - Line Module



All connectors and controls on the Micro-Line input module are described below.

1 – 15-pole microphone input connectors, for the pin-out configuration, see the technical section;

2 – 15-pole line input connectors, for the pin-out configuration, see the technical section.

3 – Trimmer adjusting the input level from 0 ÷ to +30 dB for very low volume microphones.

4 – Dip-switch for setting up the microphone channel (Insert, Talk Back, Mute, Tally and Remote).

5 – GAIN Potentiometer.

6 – TREBLE Potentiometer.

7 – BASS Potentiometer.

8 – BALANCE L/R Potentiometer.

9 – Button for selecting the input source (Micro or Line).

10 – Button for routing the channel to the PGM bus.

11 – Button for routing the channel to the UTL bus.

12 – Button for routing the channel to the AUX bus.

13 – Button enabling the preview CUE.

14 – Fader.

Where condenser microphones are used, Phantom supply is available on connector 1, see the relevant technical section.

Line - Line Module

All connectors and controls on the Line-Line input module are described below.



1 – 15-pole Line A input connectors, for the pin-out configuration, see the technical section.

2 – 15-pole Line B input connectors, for the pin-out configuration, see the technical section.

3 – Dip-switch for setting up the microphone channel (Insert, Talk Back, Mute, Tally and Remote).

4 – GAIN Potentiometer.

5 – TREBLE Potentiometer.

6 – BASS potentiometer.

7 – BALANCE L/R Potentiometer.

8 – Buttons for selecting the input source (Line A or Line B).

9 – Button for routing the channel to the PGM bus.

10 – Button for routing the channel to the UTL bus.

11 – Button for routing the channel to the AUX bus.

12 – Button enabling the preview CUE.

13 – Fader.

Dip-Switch Functions



- 1 Pulse / Stable
- 2 Private enable
- 3 CS / CR enable
- 4 Control Room mute
- 5 Control Studio mute
- 6 Insert

dip n°	FUNZIONE (OFF/ON)	description
1	S/S STAB S/S IMPULS	In an OFF position, the logic outputs are stable, in ON they are pulsed (~ 1 sec.), where this option is available.
2	PRIVATE Enable	With the channel in a STOP position, the audio signalis routed to the TEL BUS (private phone call)
3	CS/CR Enable	With the channel in a STOP position, press the TB, and the microphone signal is routed to the Control Room, Headsets and Speaker outputs, while the Control Studio Mute is disabled.
4	CR Mute	When the channel switches to START, the Control Room output is disabled
5	ST Mute	When the channel switches to START, the Control Studio output is disabled.
6	Insert	In ON position is activate the IN/OUT Insert for the MICROPHONE INPUT

TB to CONTROL ROOM

Module MIC on STOP, dip3 ON (CS/CR Enable) and TB jumper closed (pin9 on earth)

PHONE CALL in PRE-VIEW

Module MIC on STOP, dip2 ON (PRIVATE Enable), and TB jumper closed (pin9 on earth), Module TEL on CUE.

TB to CONTROL STUDIO

Module MIC on STOP, dip2 ON (PRIVATE Enable), Module MIC enabled to start, Master Module TB pressed.

Enabling startup

TB to CONTROL STUDIO – Hold the CUE button of the module to be enabled pressed, then, switch the Mixer on. The Module is communication enabled via the TB button of the Master on the Control Room output.

ON AIR TALLY- Hold the PGM button of the module to be enabled pressed, then, switch the Mixer on. The Module is enabled to manage the Tally logic output.

Instructions on startup**B (Input Modules) or CALL (Phone Modules) on:**

The optional remote control is on the Module.

PGM on:

The Module is enabled to manage the Tally logic output..

CUE on:

The Module is communication enabled via the TB button of the Master on the Control Room output.

Signals during operation**A or B flashing:**

Select Input A or B with Module on STOP.

A or B light on:

Select Input A or B with Module on START.

Telephone module

Let's now examine the connectors and controls on the telephone input module.



- 1 - Connector RJ45 for telephone line.
- 2 - Connector RJ45 for telephone service.
- 3 - Button for GAIN adjustment.
- 4 - Button for Frequency Filter adjustment.
- 5 - Button for Filter GAIN adjustment
- 6 - HOOK button for telephone hook-up.
- 7 - Button for assigning the channel to the PGM bus.
- 8 - Button for assigning the channel to the UTL bus.
- 9 - Button for assigning the channel to the AUX bus.
- 10 - Button for enabling CUE pre-listening.
- 11 - Fader.

Operation

When the CALL Led is lashing, this means that a telephone call is being received. Press the HOOK button to hook up the telephone line; the respective Led lights up.

To disable the telephone line, press the HOOK button again.

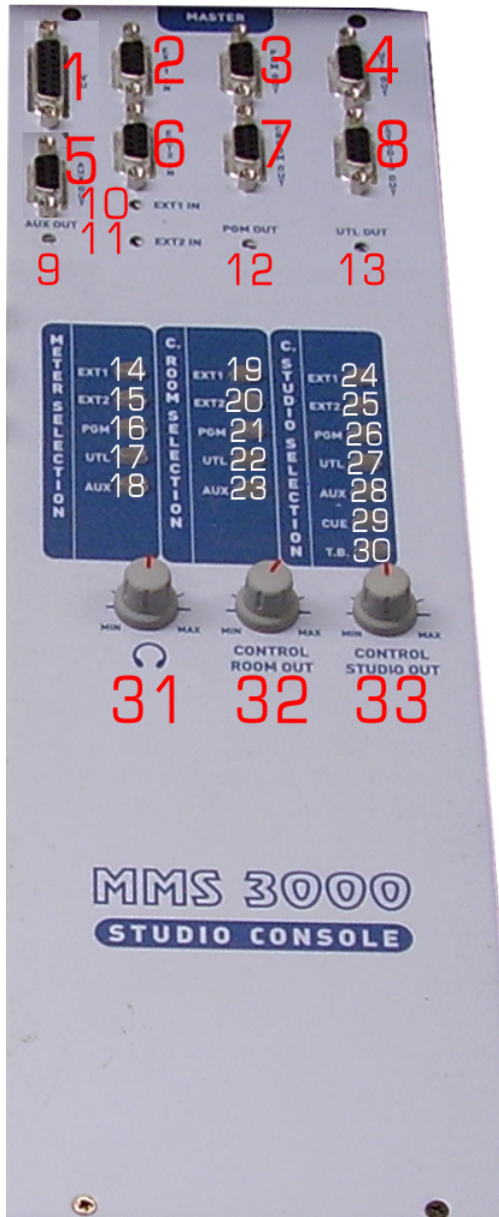
The "Meeting" function to connect two telephone users is enabled only if the respective telephone modules are in PGM or UTL mode.

To speak privately:

Set the MIC Module in STOP position, dip2 in ON position, TB in active position (MIC connector enabled), TEL module in CUE position.

Master module

All connectors and controls on the Master module are described below.



- 1 - Service connector for Vu-meters connection.
- 2 - 9-pole connector for EXT 1 IN external input.
- 3 - 9-pole connector for Master PGM output.
- 4 - 9-pole connector for Master UTL output.
- 5 - 9-pole connector for Master AUX output.
- 6 - 9-pole connector for EXT 2 IN external input.
- 7 - 9-pole connector for Control Room output.

- 8 - 9-pole connector for Control Studio output.
- 9 - Trimmer for AUX adjustment.
- 10 - Trimmer for EXT 1 adjustment.
- 11 - Trimmer for EXT 2 adjustment.
- 12 - Trimmer for PGM adjustment.
- 13 - Trimmer for UTL adjustment.
- 14 - Button for selecting the EXT 1 input on Switched VUMeters.
- 15 - Button for selecting the EXT 2 input on Switched VUMeters.
- 16 - Button for selecting the Master PGM output on Switched VU-Meters.
- 17 - Button for selecting the Master UTL output on Switched VU-Meters.
- 18 - Button for selecting the Master AUX output on Switched VU-Meters.
- 19 - Button for selecting the EXT1 input to be sent to the Control Room.
- 20 - Button for selecting the EXT2 input to be sent to the Control Room.
- 21 - Button for selecting the Master PGM output to be sent to the Control Room.
- 22 - Button for selecting the Master AUX output to be sent to the Control Room.
- 23 - Button for selecting the Master UTL output to be sent to the Control Room.
- 24 - Button for selecting the EXT1 input to be sent to the Control Studio.
- 25 - Button for selecting the EXT2 input to be sent to the Control Studio.
- 26 - Button for selecting the Master PGM output to be sent to the Control Studio.
- 27 - Button for selecting the Master UTL output to be sent to the Control Studio.
- 28 - Button for selecting the Master AUX output to be sent to the Control Studio.
- 29 - Button for selecting the CUE output to be sent to the Control Studio.
- 30 - Button for enabling the Talk Back control, when this button is pressed the duty microphone enables and it is possible to speak to the Speaker; this button lights up when there is a call from the Speaker to the Dj.
- 31 - Potentiometer for adjusting the Control Studio output level.
- 32 - Potentiometer for adjusting the Control Room output level.
- 33 - Potentiometer for adjusting the headset outputs level.

General functions

Insert

This function enables to route the microphone signal towards the INSERT output and no longer to the analog bus; the signal can therefore be used as an input on an external audio processor, and, once processed, it is subsequently re-introduced on the INSERT input and distributed on the analog bus. This function is available on connector 1 (pin 4 and 5, if this function is not used, it will be necessary to place a jumper between the above pins).

Phantom

This function enables the condenser microphones supply and is available on all microphone inputs. Its relevant enabling is carried out on connector 1 (simply by placing a jumper between pins 6 and 7).

Start

The slider is switched with a micro-switch enabling the module START .

Stop

The slider is switched with a micro-switch enabling the module STOP.

Slider

Beside the channel audio level control standard function, the Slider enables the Start mode when turned up and the Stop mode when turned down. As regards the remote controls, please, refer to the information above.

Tally

When a channel has this function enabled at startup, a stable contact is set on, it is on Start and routed to the PGM bus; the function is enabled by pressing PGM at startup.

OUT/AUX Configuration

The following inputs and outputs are available on the mixer: - two external analog inputs EXT 1 and 2 - a PGM analog output - a UTL analog output - an AUX analog output.

Direct controls

Control Room Area

The Control Room audio output level may be adjusted via the C. Room potentiometer located on the panel.

Ext1

When the EXT1 button is pressed, the following functions are set on: the EXT1 input signal is sent to the Control Room output, and the function previously set on the Control Room bar is disabled. The adjustment of Ext1 auxiliary input level can be set via the related potentiometer, within a range of -12 ÷ +12 dB.

Ext2

When the EXT2 button is pressed, the following functions are set on: the EXT2 input signal is sent to the Control Room output, and the function previously set on the Control Room bar is disabled. The adjustment of Ext2 auxiliary input level can be set via the related potentiometer, within a range of -12 ÷ +12 dB.

PGM

When the PGM button is pressed, the following functions are set on: the PGM input signal is sent to the Control Room output, and the function previously set on the Control Room bar is disabled.

UTL

When the UTL button is pressed, the following functions are set on: the UTL input signal is sent to the Control Room output, and the function previously set on the Control Room bar is disabled.

AUX

When the AUX button is pressed, the following functions are set on: the AUX input signal is sent to the Control Room output, and the function previously set on the Control Room bar is disabled.

When any module CUE button is pressed, the selection lashes and the output signal is replaced by the signal of the module on which Cue was pressed.

Control Studio Area

The Control Studio audio output level may be adjusted via the C.Studio potentiometer located on the panel.

Ext1

When the EXT1 button is pressed, the following functions are set on: the EXT1 input signal is sent to the Control Studio output, and the function previously set on the Control Studio bar is disabled.

Ext2

When the EXT2 button is pressed, the following functions are set on: the EXT2 input signal is sent to the Control Studio output, and the function previously set on the Control Studio bar is disabled.

PGM

When the PGM button is pressed, the following functions are set on: the PGM input signal is sent to the Control Studio output, and the function previously set on the Control Studio bar is disabled.

When the UTL button is pressed, the following functions are set on: the UTL input signal is sent to the Control Studio output, and the function previously set on the Control Studio bar is disabled.

AUX

When the AUX button is pressed, the following functions are set on: the AUX input signal is sent to the Control Studio output, and the function previously set on the Control Studio bar is disabled.

CUE

When the CUE button is pressed, the following functions are set on: the signal on the CUE bus is sent to the Control Studio output, and the function previously set on the Control Studio bus is disabled.

TB

When the TB (talk back) button is pressed, the signal of the enabled microphone is sent to the Control Studio output.

Notice: the Microphone signal replaces the signal that, up to that moment, had been sent to the pre-selected output. When the TB button is released, all switches back to the previous status. Any PRIVATE conversation with a hybrid telephone can only be carried out by using the TB microphone signal, with the channel "TELCO" on "STOP" and the CUE enabled.

Headsets Area

The Headsets audio output level may be adjusted via the "Headset" potentiometer located on the panel. As a standard, the signal routed on Control Room is sent to the Headset output. When a CUE button of any channel is enabled, this CUE replaces the Control Room signal.

Using the Talk Back

There are two types of Talk back:

TB from Control Room (Producer) to Control Studio (DJ); TB from Control Studio (DJ) to Control Room (Producer).

Talk Back from Control Room (Master control)

The TB from Control Room (Master control) can be sent to the Control Studio (DJ), TELEPHONE, UTL and PGM.

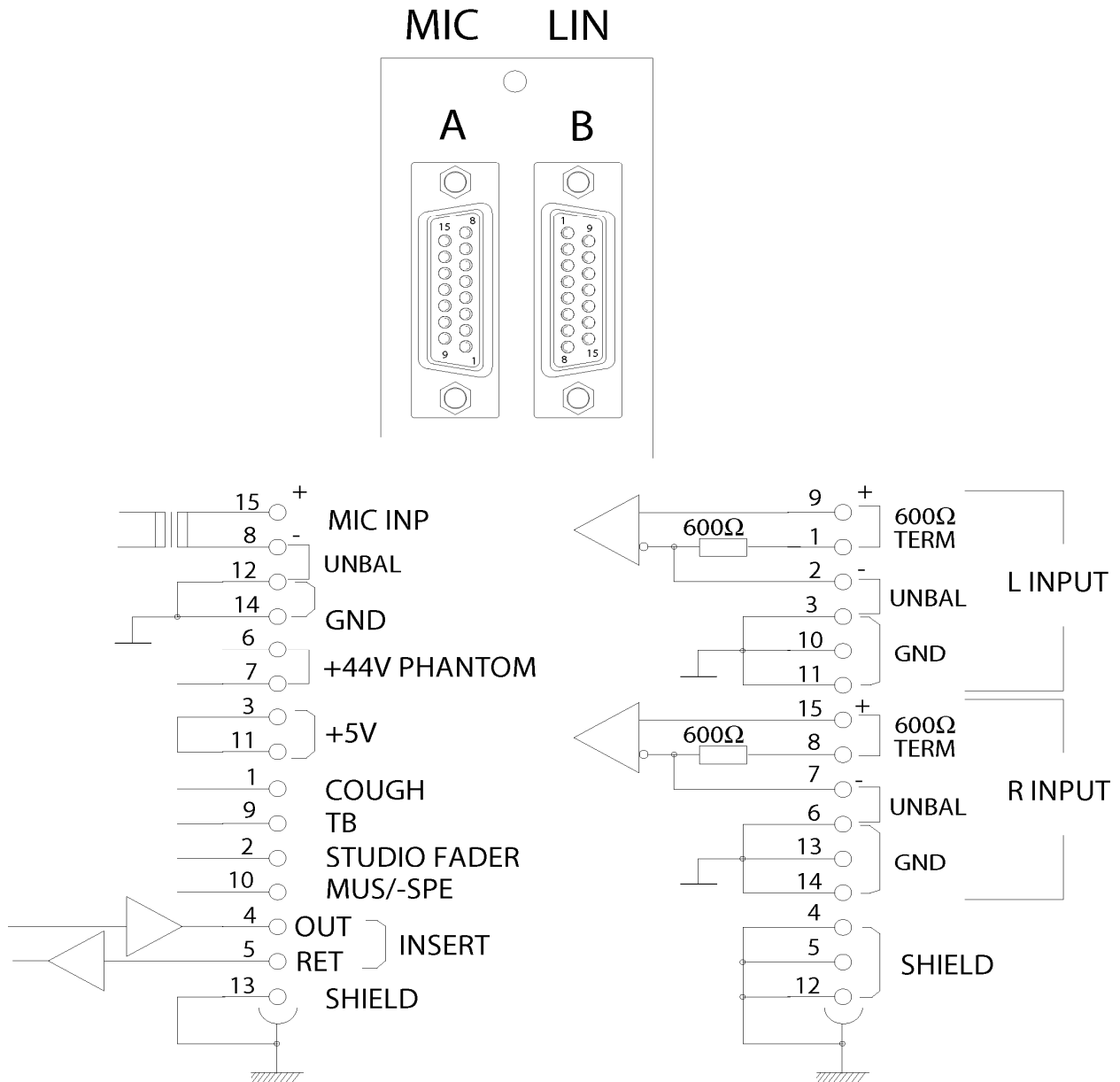
When a TB from Control Room is received, the signal of the enabled microphone is sent to the studio (Speaker) and it will replace the previously selected audio.

The same TB from Control Room enables the Mute on the Control Room output to prevent any Larsen effects.

Talk Back from Control Studio (DJ)

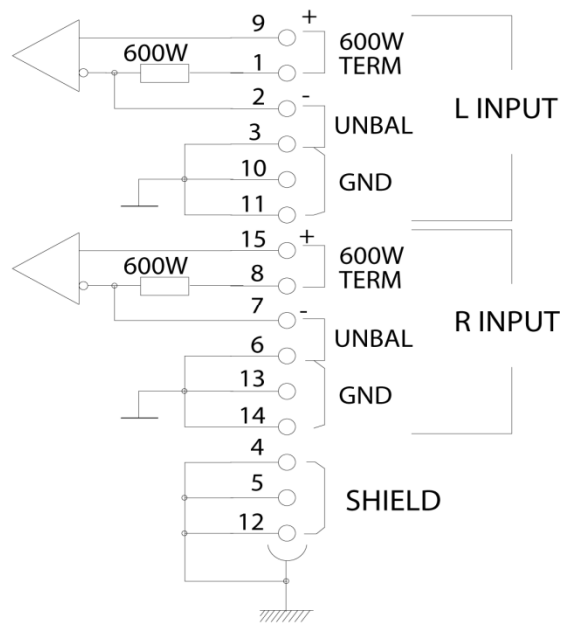
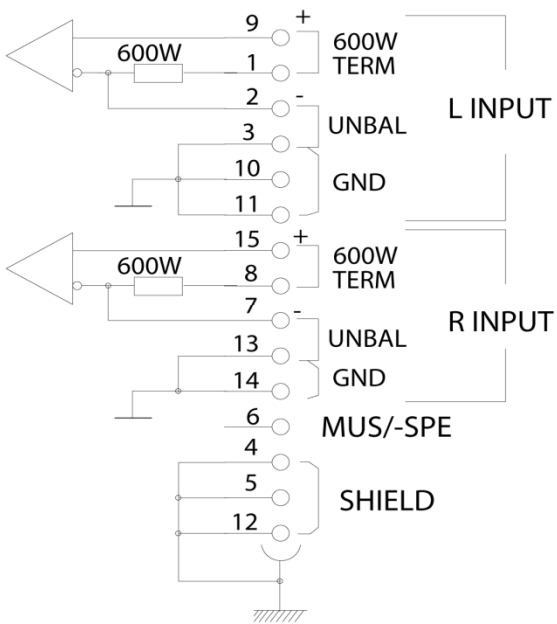
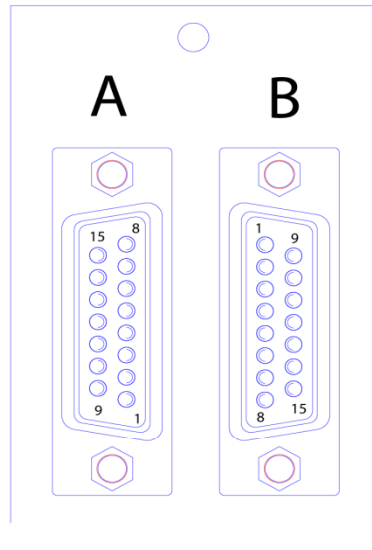
The TB from Control Studio (DJ) is sent to the Control Room (Master control) and to the Telephone Bus, when the telephone module is on STOP (private conversation with telephones)

Mic - Line Input & Insert Pin-out / Setup

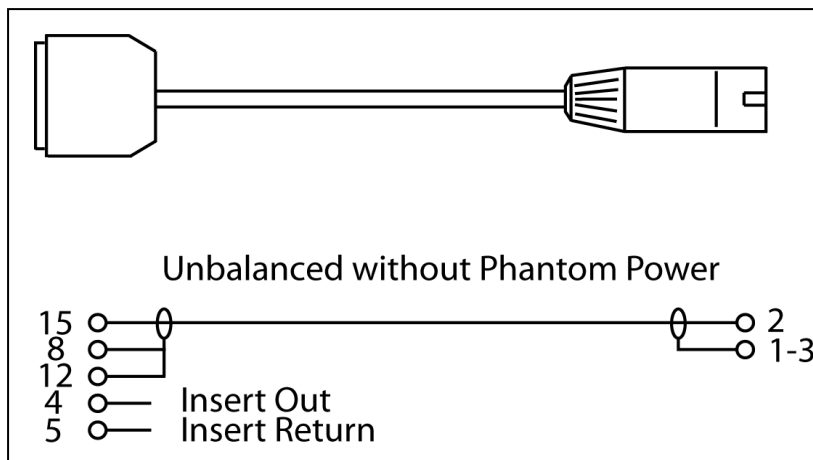
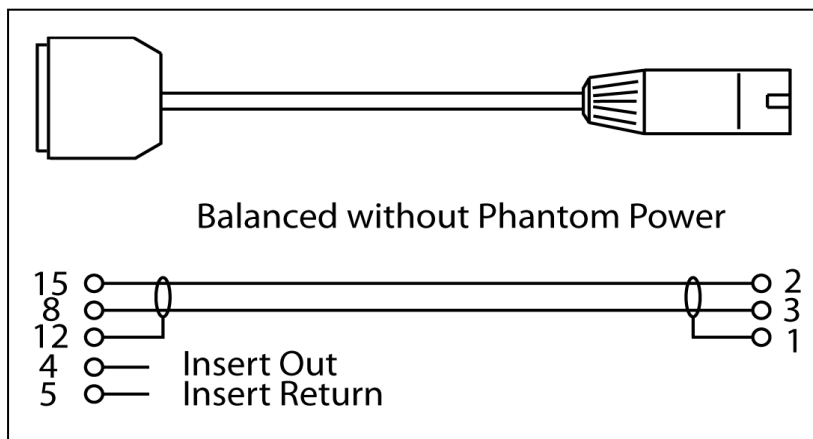
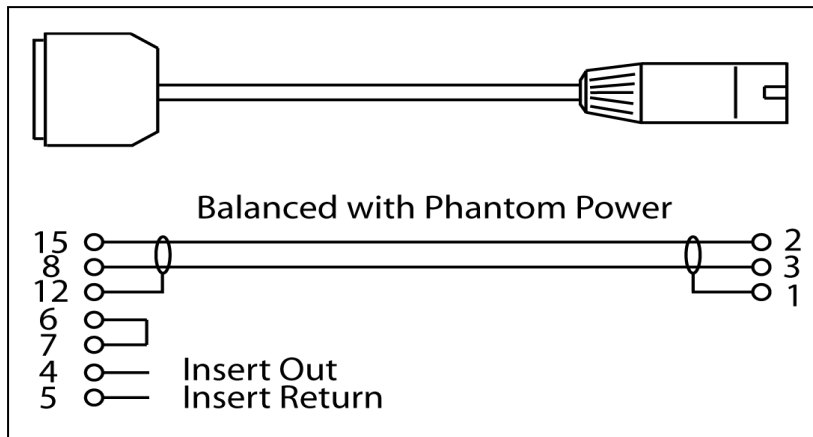


Line - Line Input Pin-out

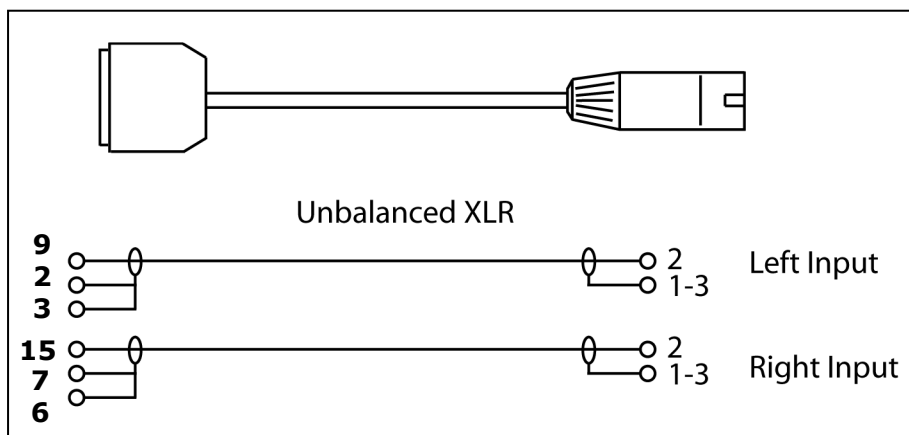
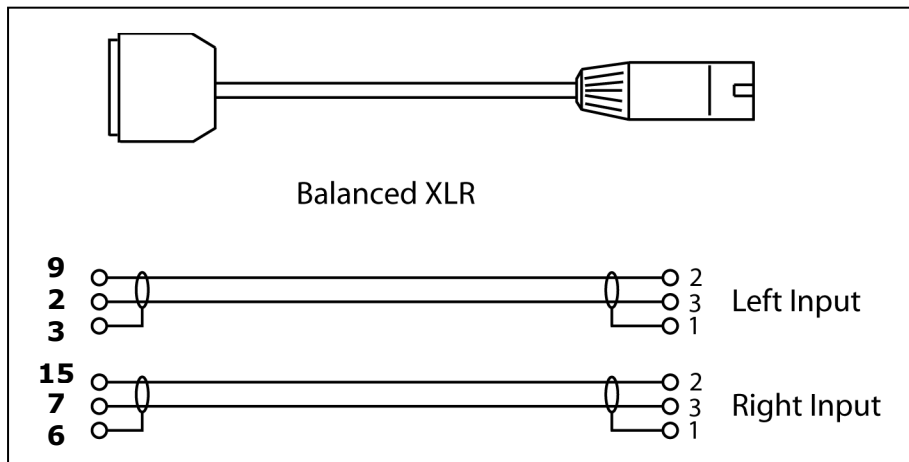
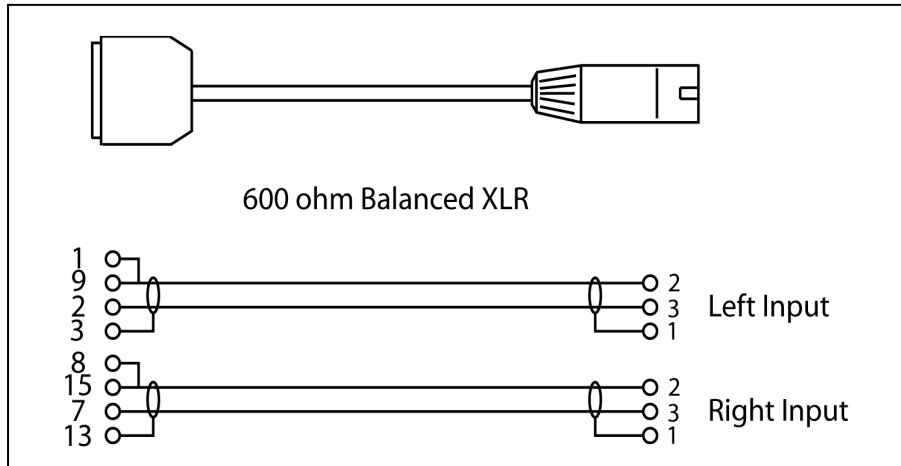
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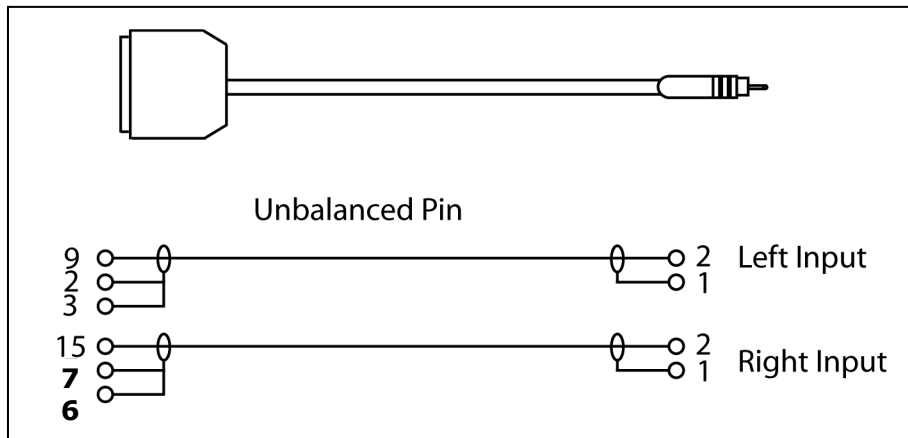


Mic Input connection

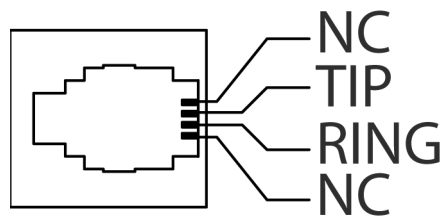


Line Input connection

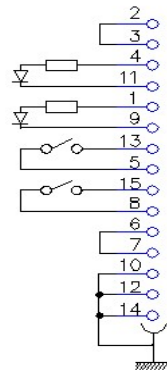




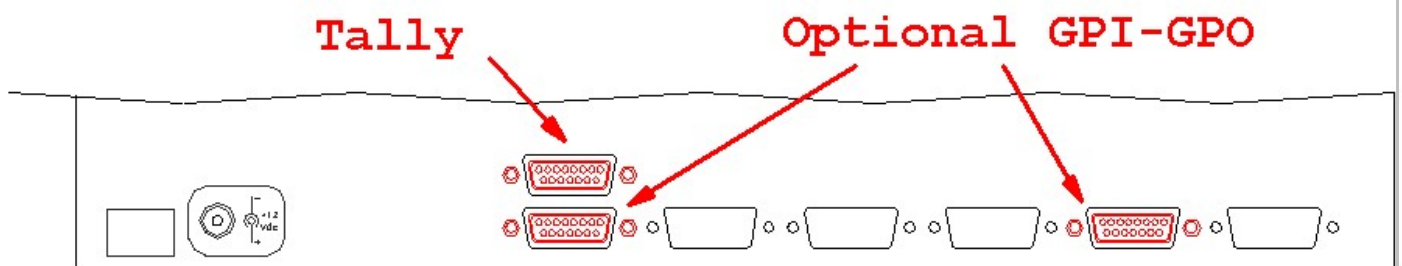
TELEPHONE Pin-out / Setup



GPI - GPO Pin-out (Pulse commands)

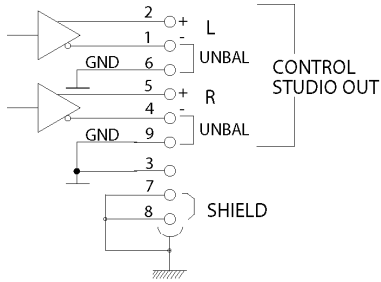
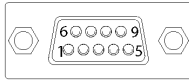


pin n°	Mic/Line	Telephone	Tally
2 - 3	+5 Vdc	+5 Vdc	+5 Vdc
4 - 11	IN START A	IN HOOK	N.C.
1 - 9	IN STOP A	START/STOP	N.C
13 - 5	OUT START A	HOOK	PGM
15 - 8	OUT STOP A	CALL	PGM/UTL/AUX
6 - 7	GND	GND	GND
10 - 12 - 14	SHIELD	SHIELD	SHIELD

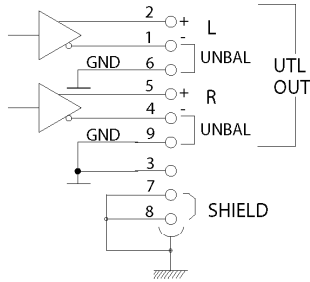
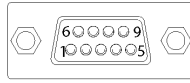


Master Pin- out

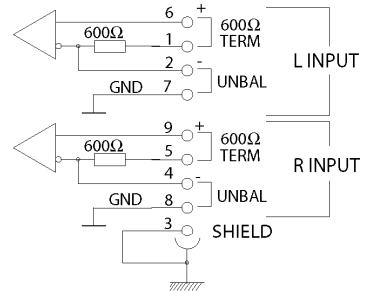
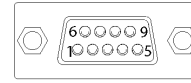
CONTROL STUDIO OUT



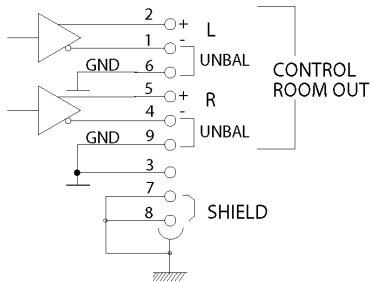
UTL OUT



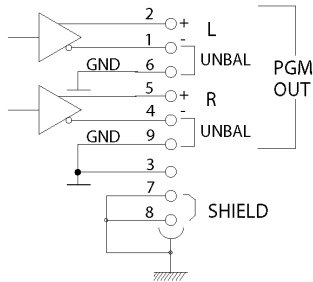
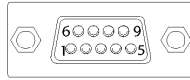
EXT 2 IN



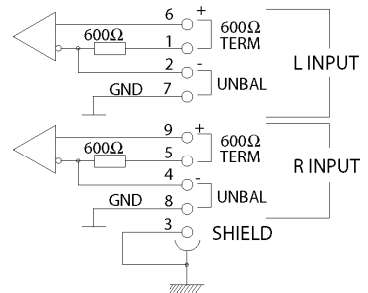
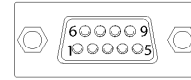
CONTROL ROOM



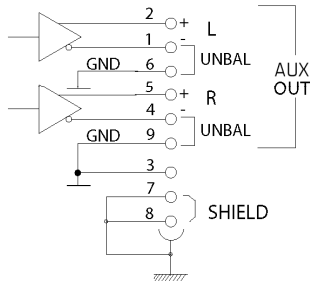
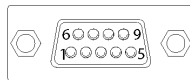
PGM OUT



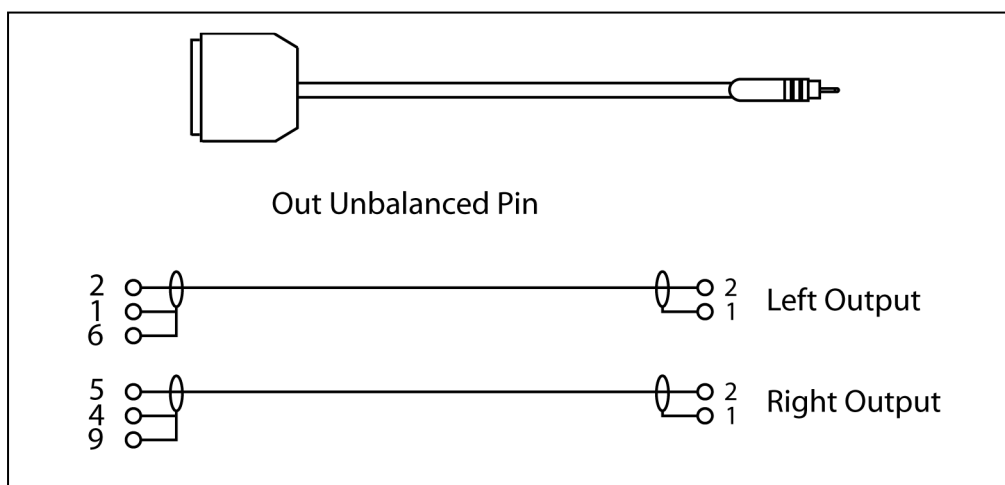
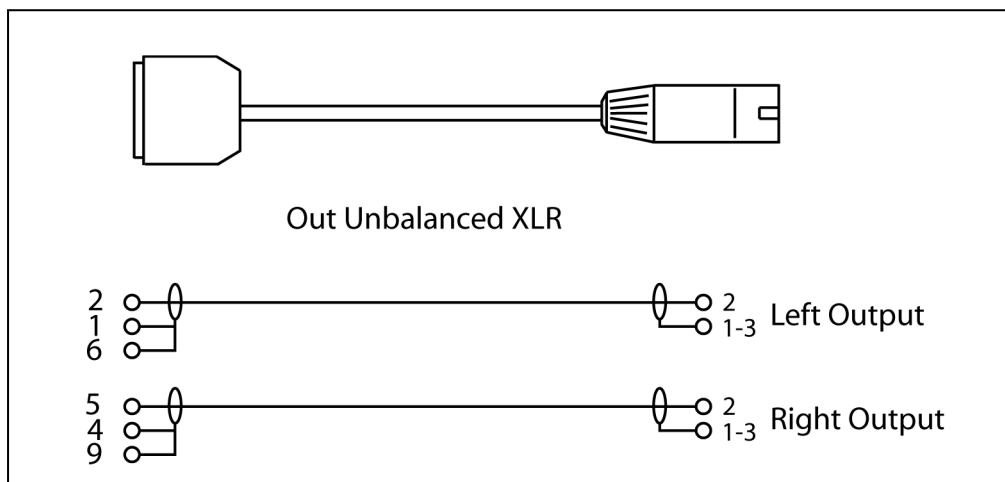
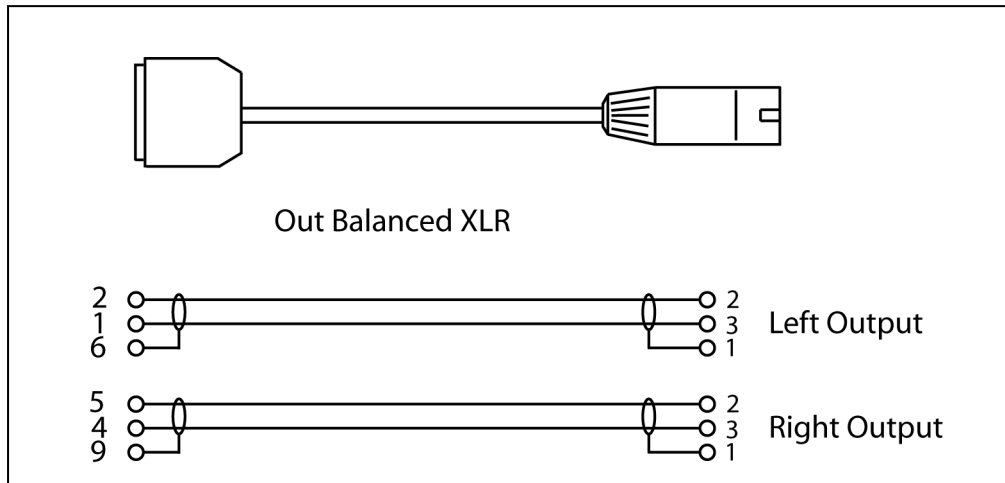
EXT 1 IN



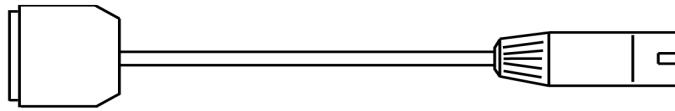
AUX OUT



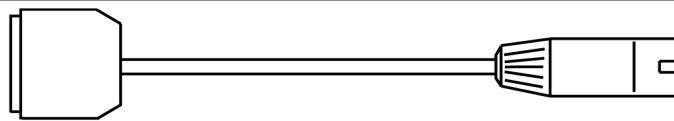
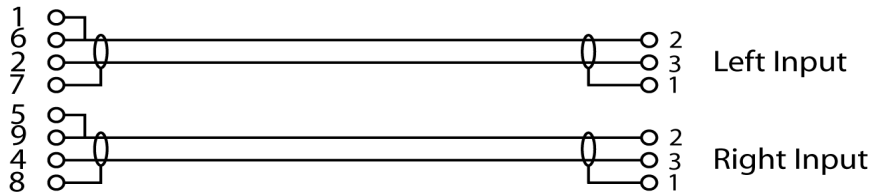
Master Output connection (PGM - UTL - C.STUDIO - C.ROOM)



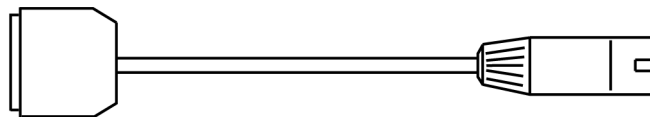
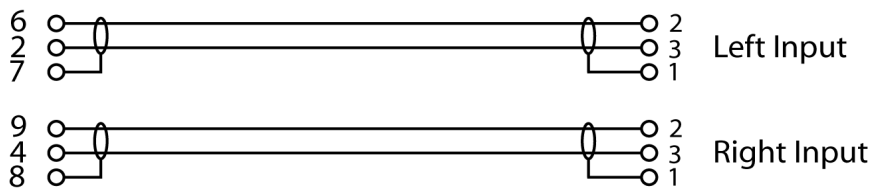
Master Input connection (EXT 1 - EXT 2)



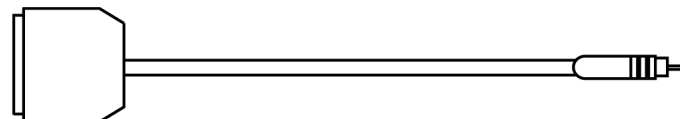
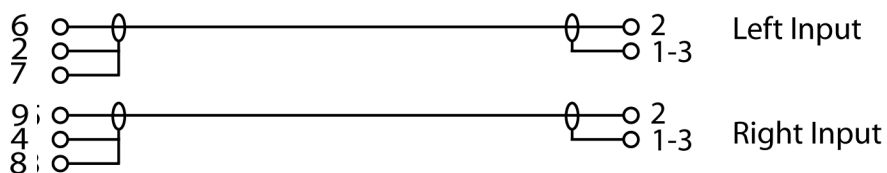
600 ohm Balanced XLR



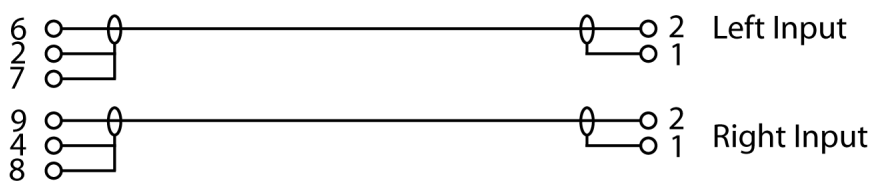
Balanced XLR



Unbalanced XLR



Unbalanced Pin



Technical Specification

MICROPHONE INPUT

Input configuration:	transformer balanced
Source Impedance:	200 Ω
Sensitivity Level Range	Adjustable from -60 ÷ -40 dBu (Pot level)
Input Level Range:	± 12 dBu (Digital adj. step 0,5 dB)
Maximum Input Level:	-30 dBu
Phantom Supply:	48 Vdc selectable, with 3k3 c.c. protection
100 mm Fader control:	VCA Digital controlled

MICROPHONE INSERT - DJ Controls

Insert Output configuration:	Unbalanced
Insert Output Impedance:	100 Ω
Insert Output Level:	0 dBu
Insert Input configuration:	Unbalanced
Insert Source Impedance:	10 K Ω
Insert Input Level:	0 dBu
External DJ Slider control - DJ Talk Back - In	Start / Stop / Cough control - Out Start / Stop control
Connector:	DSUB 15 pole female

LINE INPUT

Input configuration:	Electronically balanced
Input Impedance:	>10 K Ω (600 Ω wired selectable)
Input Level:	± 12 dBu (Digital adj. step 0,5 dB)
Headroom:	+ 18 dBu
100 mm Fader control:	VCA Digital controlled
In Start / Stop control - Out Start / Stop control	
Connector:	DSUB 15 pole female

TELEPHONE HYBRID MODULE

Input configuration:	Opto-coupled
Input Impedance:	600 Ω Balanced
Line Compensation:	Automatically (max 5 Km)
Echo canceller:	Digital (optional)
Tx Level:	+ 1 dBu
Rx Level:	± 6 dBu
Frequency response:	300 Hz ÷ 3400 Hz (-2 dB) without Echocanceller 300 Hz ÷ 3400 Hz (-1.5 dB) with Echocanceller
Distorsion:	< 1.5 %
Noise:	-60 dB
Cross-talk:	Digitally cancelled
Tone Control	Parametric 300 Hz ÷ 3400 Hz Gain ± 14 dBu
In Start / Stop control - Out Start / Stop control - In Lock / Meeting control - Out Call / Lock control	

EXTERNAL INPUT

Input configuration:	Electronically balanced
Input Impedance:	>10 K Ω (600 Ω wired selectable)
Input Level:	± 12 dBu
Headroom:	+ 18 dBu
Connector:	DSUB 9 pole female

ANALOG OUTPUTS

Output configuration:	Electronically balanced
Output Impedance:	100 Ω
PGM Output Level Range	0 ÷ +12 dBu
Connector	DSUB 9 pole female
UTL Output Level Range	0 ÷ +12 dBu
Connector	DSUB 9 pole female
AUX Output Level Range	0 ÷ +12 dBu
Connector	DSUB 9 pole female
C Studio Mut. Output Level Range	- ∞ ÷ +6 dBu
Connector	DSUB 9 pole female
C Room Mut. Output Level Range	- ∞ ÷ +6 dBu
Connector	DSUB 9 pole female

HEADPHONES (C.Room no Muted):

Configuration Type	Stereo unbalanced
Output Impedance	50 Ω
Connector	JACK 6,3 mm
Output Level Range	- ∞ ÷ +6 dBu

LOGIC INPUT

Configuration:	Opto-coupled (with internally 330 ohm protection)
Max Voltage input:	5 Vdc (for 10 mA input)
Max Reverse Voltage:	5 Vdc
Connector:	DSUB 15 pole female

LOGIC OUTPUT

Configuration:	Optic solid state relay
Max Voltage:	50 Vdc/ac
Max Current:	100 mA
Connector:	DSUB 15 pole female

GENERAL SPECIFICATIONS

FREQUENCY RESPONSE

Microphone Input to program output	20 Hz ÷ 20 KHz ±1 dB (50 Hz ÷ 20 KHz ± 0.3 dB)
Line Input to program output	30 Hz ÷ 20 KHz ±0.3 dB (20 Hz ÷ 20 KHz ± 1 dB)

NOISE

Micro Amplifier	-130 dBu RMS equivalent input noise, 200 Ω source, 20 KHz bandwidth
Line Amplifier	-120 dBu RMS equivalent input noise, 600 Ω source, 20 KHz bandwidth
Output Noise:	better than -84 dB (A-Weighted 10 Hz / 23 KHz), -72 dB (CCIR Wght) <i>with one microphone channel ON, fader at 0 dB, input sensitivity at -40 dB, 200 Ω source</i>
Output Noise:	better than -86 dB (A-Weighted 10 Hz / 23 KHz), -75 dB (CCIR Wght) <i>with one line channel ON, fader at 0 dB, input sensitivity at 0 dB</i>
Output Noise:	better than -89 dB (A-Weighted 10 Hz / 23 KHz), -78 dB (CCIR Wght) with all input channel OFF

DISTORTION T.H.D.

Microphone Input to program output:	Less than 0.018 %
Line Input to program output:	Less than 0.007 %

ASSIGN ISOLATION

1 KHz	better than -86 dB
20 KHz	better than -85 dB

CROSSTALK L/R

1 KHz	better than -78 dB
20 KHz	better than -66 dB

CROSSTALK PGM/Other OUT

20 Hz ÷ 20 KHz	better than -76 dB
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CMRR (Line Input)

60 Hz	-56 dB
1 KHz	-56 dB
20 KHz	-56 dB

GENERAL DATA

Power Supply	100 ÷ 240 VAC 50 – 60 Hz
Power Requirement	25 VA
Operating Temperature	0 ÷ 50 °C