PRE116/126

User Manual

AUDAC

www.audac.eu

ADDITIONAL INFORMATION

This manual is put together with much care, and is as complete as could be on the publication date. However, updates on the specifications, functionality or software may have occurred since publication. To obtain the latest version of both manual and software, please visit the Audac website @ www.audac.eu.

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Introduction

6-Channel stereo preamplifiers

The PRE1xx series are simple but versatile preamplifiers, offering a multifunctional solution for installations where multiple voice and music sources need to be mixed to one or two (only PRE126) output zones. The stereo design with six inputs allows connecting any type of audio source such as microphones, portable devices with Bluetooth and various balanced or unbalanced line level audio sources.

Channels one and two are balanced inputs, allowing connection of microphone and line level audio sources. They feature 3-band tone control, phantom power and talk over for priority announcements. The other inputs are one balanced and three unbalanced stereo line inputs allowing connection of any line level audio sources.

An integrated Bluetooth receiver and a front panel 3.5mm jack offers convenient wired or wireless connection possibilities for mobile and portable devices including laptops, smartphones and tablets.

A master volume control for the output(s) including 2-band tone control and LED VU bar is located on the front panel, also accommodating each inputs mixing dial. On the back of the preamplifier is a priority mute contact that suppresses all (non-priority) music sources in case of contact closure, allowing linking autonomous alarm systems.

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.
Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:
—Reorient or relocate the receiving antenna.
—Increase the separation between the equipment and receiver.
—Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
—Consult the dealer or an experienced radio/TV technician for help.
Note: The Grantee is not responsible for any changes or modifications not expressly approved by the party responsible for compliance. such modifications could void the user's authority to operate the equipment.

Precautions

READ FOLLOWING INSTRUCTIONS FOR YOUR OWN SAFETY

ALWAYS KEEP THESE INSTRUCTIONS. NEVER THROW THEM AWAY

ALWAYS HANDLE THIS UNIT WITH CARE

HEED ALL WARNINGS

FOLLOW ALL INSTRUCTIONS

NEVER EXPOSE THIS EQUIPMENT TO RAIN, MOISTURE, ANY DRIPPING OR SPLASHING LIQUID. AND NEVER PLACE AN OBJECT FILLED WITH LIQUID ON TOP OF THIS DEVICE.

DO NOT PLACE THIS UNIT IN AN ENCLOSED ENVIRONMENT SUCH AS A BOOKSHELF OR CLOSET. ENSURE THERE IS ADEQUATE VENTILATION TO COOL THE UNIT. DO NOT BLOCK THE VENTILATION OPENINGS.

DO NOT STICK ANY OBJECTS THROUGH THE VENTILATION OPENINGS.

DO NOT INSTALL THIS UNIT NEAR ANY HEAT SOURCES SUCH AS RADIATORS OR OTHER APPARATUS THAT PRODUCE HEAT

DO NOT PLACE THIS UNIT IN ENVIRONMENTS WHICH CONTAIN HIGH LEVELS OF DUST, HEAT, MOISTURE OR VIBRATION

THIS UNIT IS DEVELOPED FOR INDOOR USE ONLY. DO NOT USE IT OUTDOORS

PLACE THE UNIT ON A STABLE BASE OR MOUNT IT IN A STABLE RACK

ONLY USE ATTACHMENTS & ACCESSORIES SPECIFIED BY THE MANUFACTURER

UNPLUG THIS APPARATUS DURING LIGHTNING STORMS OR WHEN UNUSED FOR LONG PERIODS OF TIME

ONLY CONNECT THIS UNIT TO A MAINS SOCKET OUTLET WITH PROTECTIVE EARTHING CONNECTION

THE MAINS PLUG OR APPLIANCE COUPLER IS USED AS THE DISCONNECT DEVICE, SO THE DISCONNECT DEVICE SHALL BE READILY OPERABLE

CAUTION – SERVICING

This product contains no user serviceable parts. Refer all servicing to qualified service personnel. Do not perform any servicing (unless you are qualified to)

EC DECLARATION OF CONFORMITY

This product conforms to all the essential requirements and further relevant specifications described in following directives: 2014/30/EU (EMC) and 2014/35/EU (LVD)

WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT (WEEE)

The WEEE marking indicates that this product should not be disposed with regular houshold waste at the end of its life cycle. This regulation is created to prevent any possible harm to the environment or human health.

This product is developed and manufactured with high quality materials and components which can be recycled and/or reused. Please dispose this product at your local collection point or recycling centre for electrical and electronic waste. This will make sure that it will be recycled on an environmentally friendly manner, and will help to protect the environment in which we all live.

CAUTION

The symbols shown are internationally recognized symbols that warn about potentional hazards of electrical products. The lightning flash with arrowpoint in an equilateral triangle means that the unit contains dangerous voltages. The exclamation point in an equilateral triangle indicates that it is necessary for the user to refer to the users manual.

These symbols warn that there are no user serviceable parts inside the unit. Do not open the unit. Do not attempt to service the unit yourself. Refer all servicing to qualified personnel. Opening the chassis for any reason will void the manufacturer’s warranty. Do not get the unit wet. If liquid is spilled on the unit, shut it off immediately and take it to a dealer for service. Disconnect the unit during storms to prevent damage.

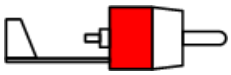
The device has been evaluated to meet general RF exposure requirement. To maintain compliance with FCC's RF exposure guidelines, the distance must be at least 20 cm between the radiator and your body, and fully supported by the operating and installation configurations of the transmitter and its antenna(s).

Chapter 1
Pin connections and connectors

CONNECTION STANDARDS

The in– and output connections for AUDAC audio equipment are performed corresponding to international wiring standards for professional audio equipment.

Cinch (RCA):
For unbalanced line input connections

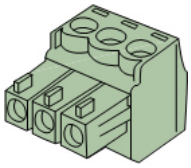


Tip:	Signal	**Sleeve:**	Ground
White:	Left	**Red:**	Right

XLR:
For balanced signal input connections

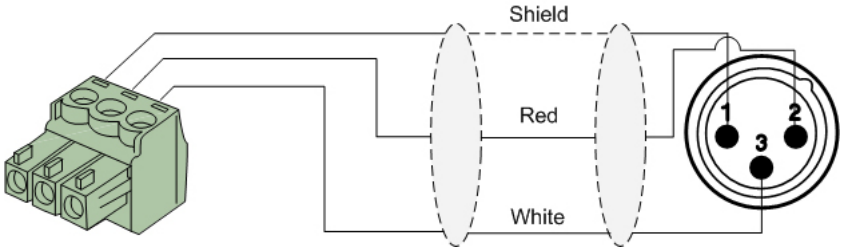
Pin 1: Ground
Pin 2: Signal +
Pin 3: Signal –

3–Pin Terminal Block:
For balanced signal input & link output connections.

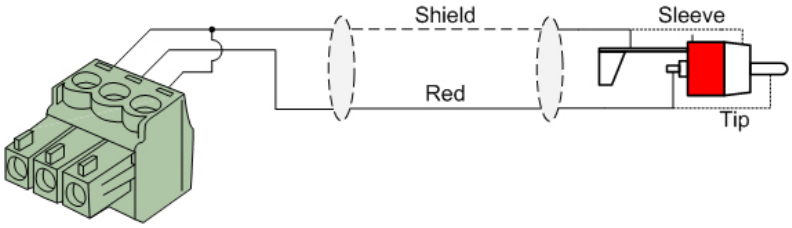


Left:	Signal –	(XLR Pin 3)
Center:	Signal +	(XLR Pin 2)
Right:	Ground	(XLR Pin 1)

For balanced line output connections:



For unbalanced line output connections:



Chapter 2
Front & rear panel

Front panel overview

Front panel description

Input mixing controls:
Using the input mixing controls, the individual level for each input can be adjusted. Each input control is provided with a clip indicator LED which illuminates when the maximum level (clipping) is almost reached. To ensure the best signal–to–noise ratio, illumination of this indicator should only occur at peak levels. When it illuminates frequently, the channel will be overdriven and a distorted ‘clipping’ sound will occur.

Signal routing selection buttons (only PRE126):
The signal routing buttons located on the right side of each input mixing control (indicated with ‘Z1’ and ‘Z2’) are used for selection for routing each input to one or both output channels (only PRE126). Press this button to enable the input routing to the corresponding output. The corresponding routing indicator LED illuminates when routed.

Bluetooth (CH3):
The integrated Bluetooth receiver is mixed with channel 3, and contains a pairing button besides the input mixing control. This allows connection of the pre–amplifier with any supporting audio source device such as smartphone or tablet. The LED positioned on top of this button indicates the current operation mode. When non illuminating, the device cannot be discovered by (new) Bluetooth devices. When blinking, the device is not connected but can be discovered by Bluetooth devices, and when illuminated it is connected and doesn’t allow pairing with another device.

When pairing with your device for the first time, the ‘PAIR’ button should be pressed and the LED will start blinking for about 2 minutes. During this period, the device can be discovered and is indicated as Bluetooth ID ‘AUDAC PRE series xxxx’ (where the xxxx stands for a unique ID for each single device). When both devices have been paired before, the transmitter will be recognized by the receiver and it will allow continuous pairing without pressing the ‘PAIR’ button.

3.5 mm Jack input (CH4):
A 3.5 mm jack input connection is provided on the front panel of the unit besides the channel 4 mixing control. This input is an unbalanced stereo line input, mixed with the rear panel input of channel 4. Any portable device (such as laptop, smartphone or tablet) with 3.5 mm jack audio output can be connected to this easy accessible input.

Output master control:
Each output section (only one for PRE116) contains a master volume control, two band tone control and 6–segment VU LED bar. The master volume control allows regulation of the overall output level, while two–band tone control allows bass / treble adjustment within a range of ± 15 dB and the VU LED bar indicates of the overall output level.

Power switch:
Allows to power the system ON and OFF. The blue indicator LED illuminates when switched on.

Rear panel overview

Rear panel description

AC Power inlet with fuse:
The mains power supply (100–240V AC – 50/60 Hz) has to be applied to this AC power inlet. The connection is made by an IEC C14 power connector and is fitted with a fuse. When replacing the fuse, make sure that the value of the replacement fuse matches the value of the original fuse. (T500mAL/250V)

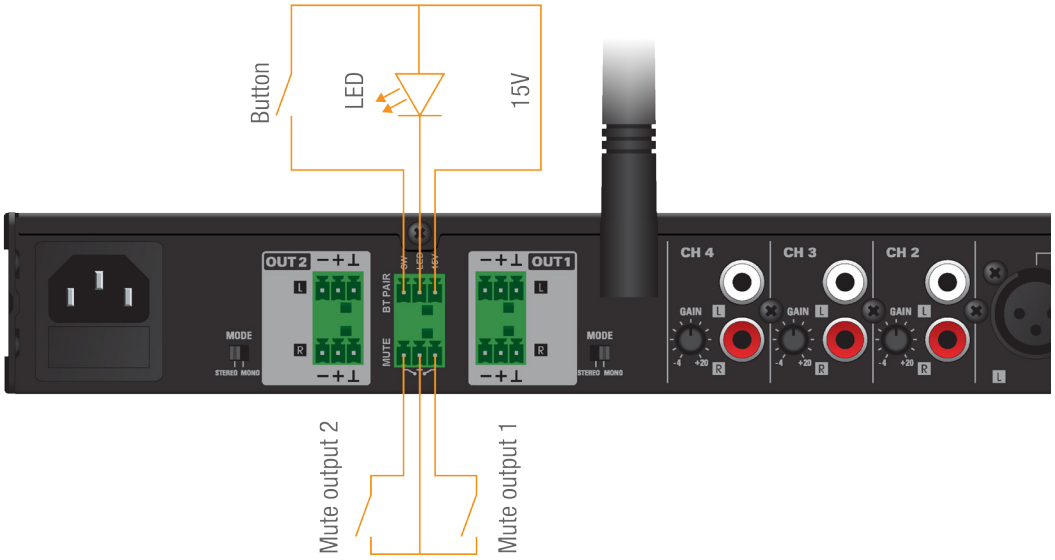
Balanced stereo line output:
The balanced stereo line output(s) is implemented using two 3–pin terminal block output connectors. The audio signal available on these connectors allows it to be fed to any amplifier. A mode switch allows to convert the output between stereo and mono. In mono mode, a summed mono signal will be available on both left & right outputs, allowing the signal be fed to mono systems such as 100V PA systems.

Priority mute contact:
A priority mute contact is provided with each output, allowing to completely mute the music

at presence of a contact closure between the terminal and the ground. This contact is convenient for situations where a separate emergency system is installed and complete background music muting is required at occasion of a (fire) alarm. The emergency system contact outputs can be connected to this contact input.

Bluetooth pairing button contact:
A Bluetooth pairing button contact is provided allowing connection of an optional Bluetooth pairing button module. This way the pairing button can be integrated in a convenient location, eliminating the need to reach out to the preamplifier in order to pair a device. The button can be integrated to allow users to pair Bluetooth enabled devices while the preamplifier is mounted in a locked rack or a separate room. The button and LED will operate identical to the button and LED on the preamplifiers front panel.

The connection can be made according to this wiring diagram:



Bluetooth antenna connection:
The included Bluetooth antenna should be connected to this terminal for good signal reception. It is connected using an SMA type connector and allows antenna extension (with an optional extension cable) for mounting outside of closed rack cabinets.

Unbalanced stereo line inputs:
Unbalanced line level input sources (e.g. media–players, radio tuners, ...) can be connected to line inputs channel 2 to channel 4. These standard line inputs are implemented using RCA connectors and fitted with a gain control potentiometer whereby the input sensitivity can be controlled within a range of +4 dB ~ –20 dB.

NOTE
The gain control potentiometers for channel 3 (mixed with Bluetooth receiver) and channel 4 (mixed with front 3.5 mm jack input) are also affecting the level for these secondary inputs.

Balanced stereo line input:
Balanced line level audio sources can be connected to channel 1 which is implemented using 2 x XLR connectors. It is fitted with a gain control potentiometer whereby the input sensitivity can be adjusted within a range of +4 dB ~ –20 dB. A mode switch allows to switch the input between mono and stereo mode and mixes both channels when switched to mono, making them identically available on both output channels.

Balanced microphone inputs:
Balanced mono sources (e.g. microphones) can be connected to inputs mic 1 and mic 2 which are implemented using XLR connectors. They are fitted with a gain control potentiometer whereby the sensitivity can be adjusted within a range of –6 dB ~ –50 dB. These inputs are fitted with a three–band tone control, allowing signal equalization within a range of ± 15 dB. A phantom power switch enables 15 Volts phantom power supply for powering condenser microphones and a talk over switch suppresses (–24 dB) all other audio sources in that zone.

Chapter 3
Additional information

Technical specifications

Inputs	Mic 1 & 2	Type	Balanced microphone
		Connector	Female XLR
		Sensitivity	–6 dB ~ –50 dB
		Other	3–Band tone control Phantom power (15V DC) Talkover
	Channel 1	Type	Balanced stereo line
		Connector	Female XLR (2x)
		Sensitivity	+4 dB ~ –20 dB
		Other	Mono / Stereo switch
	Channel 2 to 4	Type	Unbalanced stereo line
		Connector	Female RCA (2x)
		Sensitivity	+4 dB ~ –20 dB
	Bluetooth	Type	Integrated Bluetooth receiver Mixed with Channel 3
		Connector	Male SMA connector
		Other	Included antenna
	Front line input	Type	Unbalanced stereo line Mixed with Channel 4
		Connector	3.5 mm stereo jack
	Priority mute contact	Type	Priority mute 3–pin terminal block (2 signal / 1 ground for PRE126) ~ 3.81 mm
	Bluetooth pair contact	Type	Bluetooth pair contact with LED 3–pin terminal block ~ 3.81 pitch
Outputs		Type	Balanced stereo line (2 x for PRE126)
		Connector	3–pin terminal block ~ 3.81 pitch
Frequency response			20 Hz – 20 kHz
Signal to Noise ratio			> 90 dB
Total Harmonic Distortion + Noise			< 0.05%
Crosstalk			> 70 dB
Controls			Front panel control
Bluetooth receiver			Bluetooth spec V4.1 Class 2 output power

Indicators		Power Clip (input & output) Output VU
Power supply	Type Range	Switching mode 100–240V AC – 50/60 Hz
Power consumption		12 Watt
Dimensions (W x H x D) Unit height		482 x 44 x 330 mm 1 HE
Weight		4.1 Kg

Notes