



Palladium VPA series v2

VPA-060
VPA-150
VPA-250

ORDERCODE D4141
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SHOWELECTRONICS FOR PROFESSIONALS

Congratulations!

You have bought a great, innovative product from DAP Audio.

The DAP Audio VPA series brings excitement to any venue. Whether you want simple plug-&-play action or a sophisticated show, this product provides the effect you need.

You can rely on DAP Audio, for more excellent audio products.

We design and manufacture professional audio equipment for the entertainment industry.

New products are being launched regularly. We work hard to keep you, our customer, satisfied.

For more information: iwant@dap-audio.info

You can get some of the best quality, best priced products on the market from DAP Audio.

So next time, turn to DAP Audio for more great audio equipment.

Always get the best -- with DAP Audio !

Thank you!



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WARNING

**FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY
BEFORE YOUR INITIAL START-UP!**

Unpacking Instructions

Immediately upon receiving this product, carefully unpack the carton and check the contents to ensure that all parts are present, and have been received in good condition. Notify the dealer immediately and retain packing material for inspection if any parts appear damaged from shipping or the carton itself shows signs of mishandling. Save the carton and all packing materials. In the event that a fixture must be returned to the factory, it is important that the fixture be returned in the original factory box and packing.

Your shipment includes:

- DAP VPA amplifier
- IEC cable (175 cm)
- User manual

WARNING

 **CAUTION!** 
Keep this system away from rain and moisture!

SAFETY INSTRUCTIONS

Every person involved with the installation, operation and maintenance of this system has to:

- be qualified
- follow the instructions of this manual

 **CAUTION! Be careful with your operations.** 
**With a dangerous voltage you can suffer
a dangerous electric shock when touching the wires!**

Before you initial start-up, please make sure that there is no damage caused by transportation. Should there be any, consult your dealer and do not use the system.

To maintain perfect condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this manual.

Please consider that damages caused by manual modifications to the system are not subject to warranty.

This system contains no user-serviceable parts. Refer servicing to qualified technicians only.

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorized modification to the system.

- Never let the power-cord come into contact with other cables! Handle the power-cord and all connections with the mains with particular caution!
- Never remove warning or informative labels from the unit.
- Never use anything to cover the ground contact.
- Never leave any cables lying around.
- Do not insert objects into air vents or bassreflex ports.
- Do not connect this system to a dimmerpack.
- Do not switch the system on and off in short intervals, as this would reduce the system's life.
- Do not open the device and do not modify the device.
- Do not drive the inputs with a signal level bigger, than required to drive the equipment to full output.
- Only use system indoor, avoid contact with water or other liquids.
- Avoid flames and do not put close to flammable liquids or gases.
- Always disconnect power from the mains, when system is not used. Only handle the power-cord by the plug. Never pull out the plug by tugging the power-cord.
- Always operate the unit with the AC ground wire connected to the electrical system ground.
- Make sure you don't use the wrong kind of cables or defective cables.
- Make sure that the available voltage is not higher than stated on the rear panel.
- Make sure that the power-cord is never crimped or damaged. Check the system and the power-cord from time to time.
- Please turn off the power switch, when changing the power cord or signal cable, or select the input mode switch.
- Extreme frequency boosts in connection with a high input signal level may lead to overdriving your equipment. Should this occur, it is necessary to reduce the input signal level by using the input control.
- Avoid ground loops! Always be sure to connect the power amps and the mixing console to the same electrical circuit to ensure the same phase!
- If system is dropped or struck, disconnect mains power supply immediately. Have a qualified engineer inspect for safety before operating.
- If the system has been exposed to drastic temperature fluctuation (e.g. after transportation), do not switch it on immediately. The arising condensation water might damage your system. Leave the system switched off until it has reached room temperature.
- If your Dap Audio device fails to work properly, discontinue use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Dap Audio dealer for service.
- Repairs, servicing and electric connection must be carried out by a qualified technician.
- For replacement use fuses of same type and rating only.
- WARRANTY: Till one year after date of purchase.

OPERATING DETERMINATIONS

This system is not designed for permanent operation. Consistent operation breaks will ensure that the system will serve you for a long time without defects.

If this system is operated in any other way, than the one described in this manual, the product may suffer damages and the warranty becomes void.

Any other operation may lead to dangers like short-circuit, burns, electric shock, etc.

You endanger your own safety and the safety of others!

Improper installation can cause serious damage to people and property !

Connection with the mains

Connect the device to the mains with the power-plug.

Always pay attention, that the right color cable is connected to the right place.

International	EU Cable	UK Cable	US Cable	Pin
L	BROWN	RED	YELLOW/COPPER	FASE
N	BLUE	BLACK	SILVER	NUL
	YELLOW/GREEN	GREEN	GREEN	EARTH

Make sure that the device is always connected properly to the earth!

Return Procedure

Returned merchandise must be sent prepaid and in the original packing, call tags will not be issued. Package must be clearly labeled with a Return Authorization Number (RMA number). Products returned without an RMA number will be refused. Highlite will not accept the returned goods or any responsibility. Call Highlite 0031-455667723 or mail aftersales@highlite.nl and request an RMA prior to shipping the fixture. Be prepared to provide the model number, serial number and a brief description of the cause for the return. Be sure to properly pack fixture, any shipping damage resulting from inadequate packaging is the customer's responsibility. Highlite reserves the right to use its own discretion to repair or replace product(s). As a suggestion, proper UPS packing or double-boxing is always a safe method to use.

Note: If you are given an RMA number, please include the following information on a piece of paper inside the box:

- 1) Your name
- 2) Your address
- 3) Your phone number
- 4) A brief description of the symptoms

Claims

The client has the obligation to check the delivered goods immediately upon delivery for any shortcomings and/or visible defects, or perform this check after our announcement that the goods are at their disposal. Damage incurred in shipping is the responsibility of the shipper; therefore the damage must be reported to the carrier upon receipt of merchandise.

It is the customer's responsibility to notify and submit claims with the shipper in the event that a fixture is damaged due to shipping. Transportation damage has to be reported to us within one day after receipt of the delivery.

Any return shipment has to be made post-paid at all times. Return shipments must be accompanied with a letter defining the reason for return shipment. Non-prepaid return shipments will be refused, unless otherwise agreed in writing.

Complaints against us must be made known in writing or by fax within 10 working days after receipt of the invoice. After this period complaints will not be handled anymore.

Complaints will only then be considered if the client has so far complied with all parts of the agreement, regardless of the agreement of which the obligation is resulting.

Description of the device

Features

The Palladium VPA is a 100V amplifier from DAP Audio. There are 3 different versions: VPA-060, VPA-150, VPA-250.

VPA-060
60 Watt

VPA-150
150 Watt

VPA-250
250 Watt

Overview Frontside

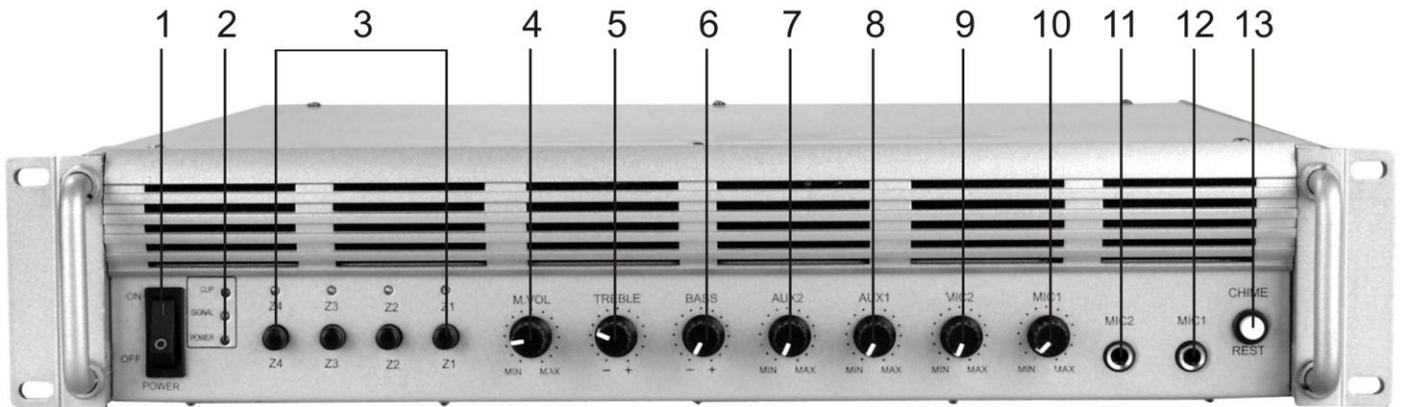


Fig. 1

- | | |
|----------------------------------|-------------------------|
| 1) ON/OFF | 8) Aux 1 Control |
| 2) CLIP / SIGNAL / POWER LEDs | 9) Mic 2 Control |
| 3) Z1, Z2, Z3, Z4 Switches +LEDs | 10) Mic 1 Control |
| 4) M. Volume Control | 11) Mic 2 Input Jack |
| 5) Treble Control | 12) Mic 1 Input Jack |
| 6) Bass Control | 13) Chime / Rest Button |
| 7) Aux 2 Control | |

Backside

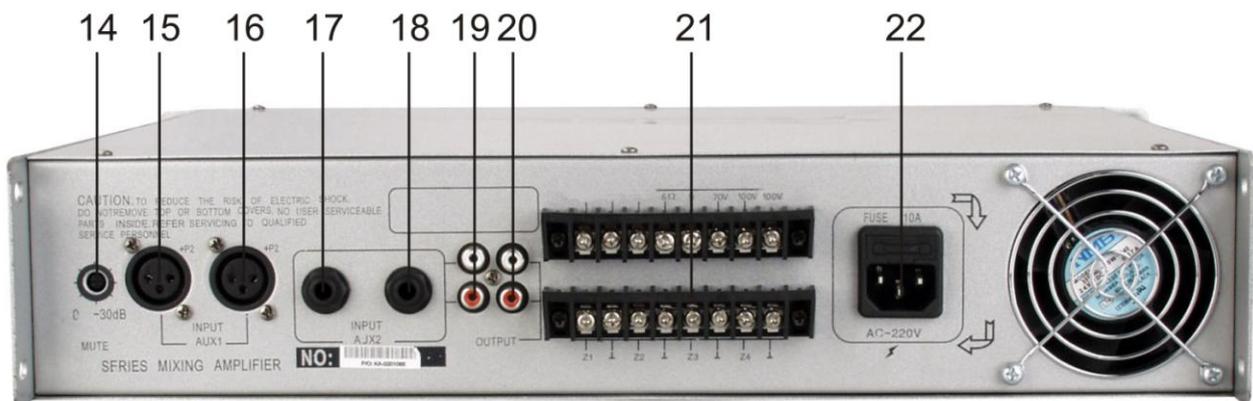


Fig. 2

- | | |
|----------------------|---|
| 14) Mute (0/-30dB) | 19) Record In L/R |
| 15) XLR Input Aux 1 | 20) Record Out L/R |
| 16) XLR Input Aux 1 | 21) Output terminals: connect to the speakers |
| 17) Aux 2 Input Jack | 22) IEC Connector + Fuse |
| 18) Aux 2 Input Jack | |

Installation

Palladium VPA series II Installation

Remove all packing materials. Check that all foam and plastic padding has been removed. Screw the equipment into a 19" rack. Connect all cables.

Always disconnect from electric mains power supply before cleaning or servicing.
Damages caused by non-observance are not subject to warranty.

Set Up and Operation

Before plugging the unit in, always make sure that the power supply matches the product specification voltage. Do not attempt to operate a 120V specification product on 240V power, or vice versa. Do not supply power before all components of the system are set up and connected properly.

Low Impedance Speaker Output: 8Ω

The low impedance 8Ω terminal is for connecting of a few large-output speakers, when constant-voltage speaker systems are unnecessary or the distance between the amplifier and the speakers is below 50m. The total speaker load impedance must be matched to the output impedance (8Ω) of the amplifier for the most efficient power-transfer.

Be sure that total impedance of speakers is above 8Ω however; do not raise the amplifier's output power above the allowable input power of the speaker. If the amplifier's output power should be raised above the maximum, the speakers could be damaged.

LOW IMPEDANCE OUTPUT

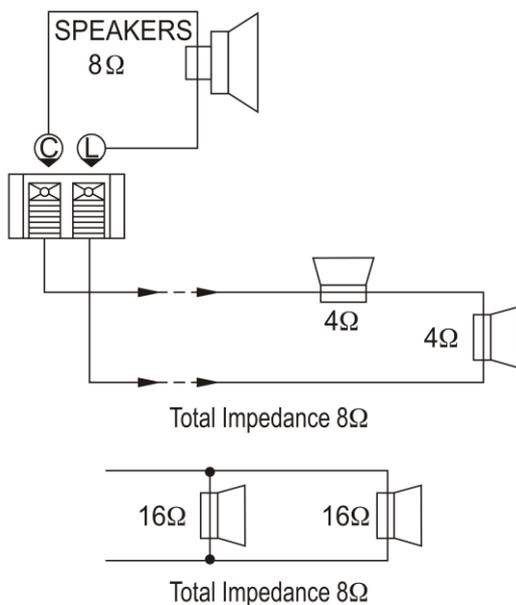


Fig. 4

Connection Input

The balanced phone jack inputs have a nominal impedance of 20 KΩ (10KΩ with unbalanced wiring) and will accept the line level output of most devices. The correct input depends on 2 factors: (1) whether the input signals are balanced or unbalanced, and (2) whether the signal source floats or has ground reference.

Connecting Power

The actual current draw, the amplifier demands from the AC mains, depends on many factors (its load, output level or the crest factor of its program material).

The power requirement is rated under typical music conditions, with both channels driven so those peaks are just at the clipping point.

Indicators

The Palladium features 3 front LED indicators per channel: Clip, Signal and Power. These LED indicators inform the user of each channel's operating status and warn of possible abnormal conditions.

Clip LED

A channel's red clip LED will light dimly at the onset of clipping and increase in brilliance, as clipping becomes more severe, staying on until the clipping ceases. If the LED is flashing quickly and intermittently, the channel is just at the clip threshold, while a steady, bright glow means the amp is fully clipped. Reduce the gain to prevent severely clipped waveforms reaching the speakers.

Signal LED

This LED will light more intense if the input signal increases.

Power LED

This indicator LED lights, when the amplifier has been turned on, AC power is available and the low-voltage power supply and fan are operational

Protection Features

Every amplifier incorporates several circuits to protect themselves and the speakers under virtually any situation. Dap Audio has attempted to make the amplifier as "foolproof" as possible by making it impervious to short and open circuits, DC Voltage and overheating.

When a problem occurs, that causes a channel to go into a protection mode, the Power LED will dim. DC voltage on the output, excessive subsonic frequencies, or thermal overloads will cause the channel's output relay to disconnect the speaker load, until the problem is corrected or the amplifier cools down.

The internal fan will keep the amplifier operating well within its intended temperature range under all normal conditions.

When a channel's heat sink temperature reaches 90 °C, which may indicate an obstructed air supply, clogged air filter, etc, the channel will disconnect its load. Normal operation will resume automatically once it cools to 80 °C. During this time, the channel's Power LED will dim.

Short Circuit

If an output is shorted, the protection circuit will be more sensitive, than in the normal protection situation and will protect the channel's output transistors from the current stress. The channel's Power LED will dim. If the short circuit remains, the channel will eventually thermally protect itself by disconnecting the load.

DC Voltage Protection

If an amplifier channel detects DC voltage at its output, its output will immediately open to prevent speaker damage. The channel's Power LED will dim.

Subsonic Frequencies

All amplifiers have a built-in subsonic frequency protection circuit, cornered at 10Hz, for each channel. An additional feature is a special high frequency protection technology, which enables you to automatically disconnect speakers, when excessive high frequency energy appears at the output.

Turn-On/Turn-Off-Protection

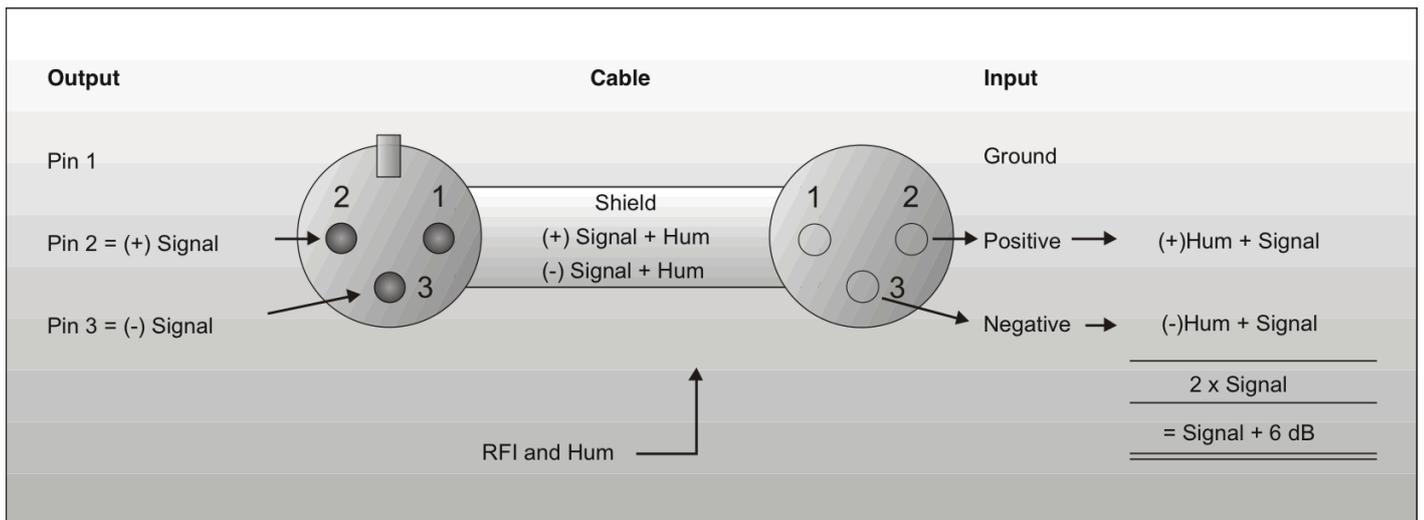
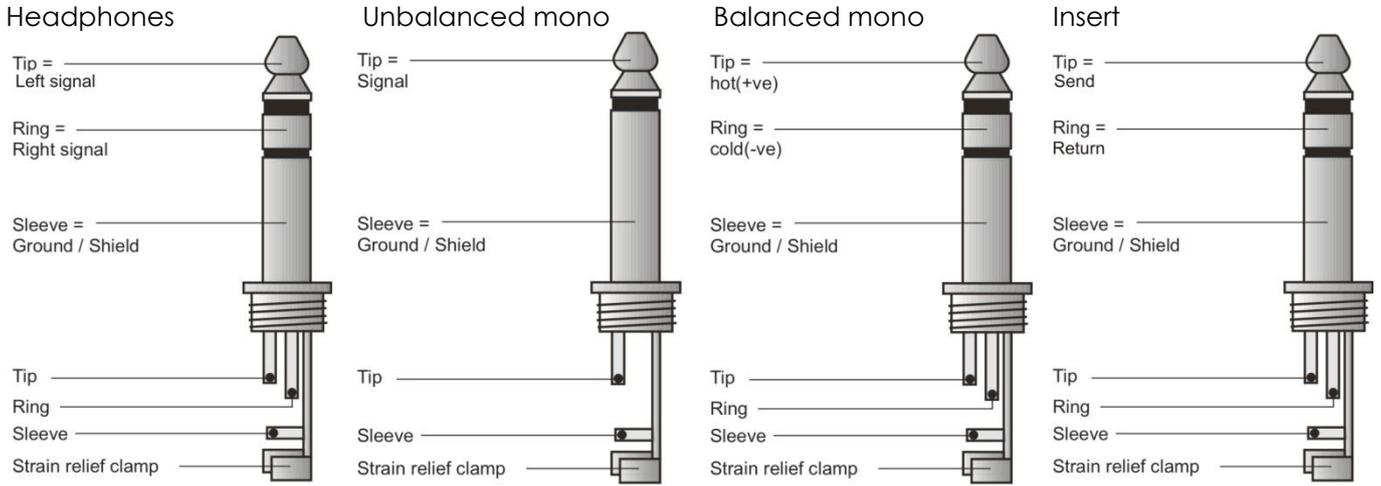
At power up, the speakers are disconnected. The power supplies charge for about 2-3 seconds and stabilize, and then the speakers are connected. When power is removed, speaker loop is synchronized with the turn off signal, therefore no thumps or pops are heard.

Speaker-Protection

All amplifiers automatically protect speakers from DC voltage, subsonic signals and excessive high frequency signal, but users should be aware of the application limits of their speakers. Be aware that the amplifiers power does not exceed the speaker's power capabilities.

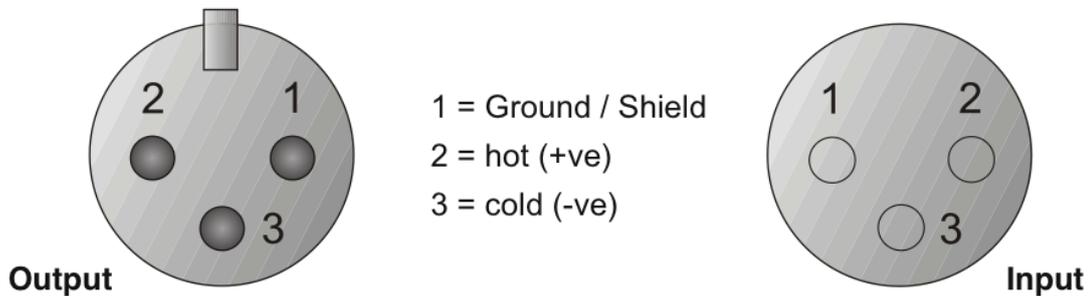
Connection Cables

Take care of your cables, always holding them by the connectors and avoiding knots and twists when coiling them: This gives the advantage of increasing their life and reliability. Periodically check your cables. A great number of problems (faulty contacts, ground hum, discharges, etc.) are caused entirely by using unsuitable or faulty cables.



Compensation of interference with balanced connections

Balanced use with XLR connectors



For unbalanced use PIN 1 and PIN 3 have to be bridged

Maintenance

The Dap Audio Palladium VPA series requires almost no maintenance. However, you should keep the unit clean. Disconnect the mains power supply, and then wipe the cover with a damp cloth. Do not immerse in liquid. Do not use alcohol or solvents.

Keep connections clean. Disconnect electric power, and then wipe the audio connections with a damp cloth. Make sure connections are thoroughly dry before linking equipment or supplying electric power.

Replacing a Fuse

Power surges, short-circuit or inappropriate electrical power supply may cause a fuse to burn out. If the fuse burns out, the product will not function whatsoever. If this happens, follow the directions below to do so.

1. Unplug the unit from the electric power source.
2. Insert a flat-head screwdriver into a slot in the fuse cover. Gently pry up the fuse cover. The fuse will come out.
3. Remove the broken fuse. If brown or unclear, it is burned out.
4. Insert the replacement fuse into the holder where the old fuse was. Reinsert the fuse cover.
Be sure to use a fuse of the same type and specification. See the product specification label for details.

Troubleshooting

DAP Audio Palladium VPA series

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

1. If you experience low output or no output at all, unplug the amplifier immediately.
2. Check power from the wall, all cables, the fuse, etc.
3. If all of the above appears to be O.K., plug the unit in again.
4. If nothing happens after 30 seconds, turn off the amplifier and unplug the device.
5. Return the machine to your DAP Audio dealer.

Product Specifications

Specification	VPA-060	VPA-150	VPA-250
Power (RMS)	60W	150W	250W
Frequency Response	100 Hz -16KHz		
Output Regulation	Less than 3dB, no load to full load		
Speaker Output	8 Ω , 70V, 100V		
Aux Output	600 Ω , 1V (0dB)		
Inputs	Mic 1, 2 / 600 Ω , 2,0 mV (-54dBV) Unbalanced Aux 1, 2 / 10 K Ω , 250 mV (-10dBV) Unbalanced		
Distortion	Less than 0,1% at 1Khz, 1/3 Power		
Input Impedance	20K Ω , balanced 10K Ω , unbalanced	20K Ω , balanced 10K Ω , unbalanced	20K Ω , balanced 10K Ω , unbalanced
Signal-to-Noise Ratio	Microphone 1, 2 66dB Aux 1, 2 70dB		
Tone	Bass +/- 10 dB at 100 Hz Treble +/- 10 dB at 10 Hz		
Muting function	Mic 1 overrides, other input signals with 0/-30dB attenuation		
Input Connectors	2 x XLR + 2 x Jack mounting socket		
Power Supply	230 V / 50 – 60 Hz		
Power Consumption	100W	200W	320W
Cooling	1 variable speed DC fans, front to rear		
Controls	Power switch, Master, Treble, Bass, Aux 1+2, Mic 1+2 attenuators		
Indicators (per channel)	CLIP LED, Signal LED, Power LED		
Protection	AC Fuse, DC Voltage, Overload, Short circuit		
Dimensions (LxWxH)	483x400x89 mm (19"x15"x3.4")		
Weight	16 Kg	20 Kg	24 Kg

Design and product specifications are subject to change without prior notice.



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