



Azog-Audio

V33

Fully-Balanced Phono Preamplifier

OWNER'S MANUAL

Thank you for buying the Azog-Audio V33 fully-balanced phono preamplifier. Please read this manual carefully before operating your preamplifier to ensure that you get the most out of it and avoid installation and setup errors or loss of warranty.

UNPACKING

Do not dispose of the factory packaging material, as it is specifically designed to offer maximum protection to your preamplifier should you need to re-ship it. Inside the shipping carton you should find the following items:

- V33PS, the power supply unit
- V33, the phono preamplifier
- IEC mains power cable
- V33PS to V33 DC power cable
- This manual
- Warranty card

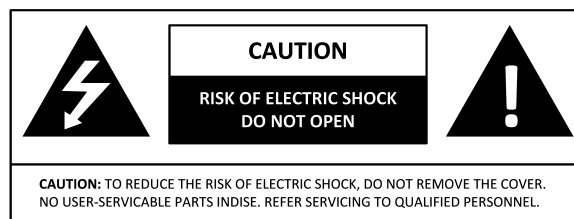
If any of these items is missing or damaged, contact your dealer to arrange for corrective actions. Retain the dated sales receipt for possible warranty claims.

CAUTION!

- Under no circumstances should the safety ground of the mains power connection to the V33PS be defeated through “cheater” adapters or other “ground lift” devices. Doing so is against the law and creates a serious accident risk. This requirement also applies to all devices V33 is connected to.
- The unit is factory configured either for 100-120VAC, or 220-240VAC and is designated

accordingly on the rear panel of the V33PS power supply. This setting can be changed only by the dealer or the factory. **Connecting the unit to the wrong mains voltage will create a fire and safety hazard and possibly damage the unit.** It will also void the warranty.

- There are no user-servicable parts inside the power supply or the preamplifier unit. If servicing is required the appliances should be serviced only by the factory or factory authorized service personnel.
- Never splash liquids to the preamplifier or its power supply, or expose them to rain or moisture. Use only a soft, dry or lightly damp cloth to clean you preamplifier. Do not use chemical solvents.
- Always replace the fuse with the same type and rating, as mared on the rear panel of the power supply unit.
- To reduce the risk of fire or electric shock, do not expose this appliance to rain or moisture, such as in a humid environment.
- Unplug the unit from the mains supply during lightning storms and extended periods of non-use.



PLACEMENT

As with all phono preamplifiers, due to the very small input signal level, to get the best possible sound reproduction the installation location is especially important. Strong magnetic fields emanating from mains cables, motors and mains transformers found in other equipment can induce considerable hum onto the audio signal. This is true of all phono preamplifiers, not just your new unit, and although V33 has been engineered specifically to offer the highest levels of immunity to common-mode noise such as mains frequency artifacts, it can still be affected by poor placement.

Physical separation is the best way to reduce as much as possible or eliminate any hum problems that such undesired coupling can create. It is usually both the radial distance and the azimuth of the sensitive phono cartridge, cabling and preamplifier input circuits in relation to the aggressor device that affects the coupling level. Experiment with off-axis placement and distancing of the aggressor to your turntable and preamplifier. This includes the preamplifier's own external power supply, which should not be placed nearer than half a meter on any axis from the sensitive preamplifier input circuitry. Placing the external power supply right next to the preamplifier, especially on its right side, will induce mains frequency noise to the audio signal and degrade audio quality.

Keep your preamplifier and power supply away from sources of heat and allow natural air circulation around it to prolong its life. Azog-Audio does not recommended leaving the unit permanently powered on, as this will reduce its useful life and consume energy. Your preamplifier contains highly-biased circuits, which get warm under normal operation. We recommend placing the unit in standby mode between different listening sessions, through the standby switch, which is located at the bottom front left side of the preamplifier enclosure, below the front panel logo. About half and hour of warm-up in the On position will bring the unit close to its maximum sound quality potential.

CONNECTIONS

The V33 phono preamplifier is compatible only with so-called “low output” moving coil phono cartridges. This type of cartridge produces no more than 1mV of output voltage at 1KHz, 5cm/sec, and requires a resistive termination ranging from tens of ohms up to ~800 Ohms, depending on make and model. The reason MM cartridges are not supported by V33 is that within its cost budget corners would have to be cut in the design of the unit to support both cartridge types, resulting in suboptimal performance.

MC cartridges are inherently balanced transducers, that is they produce an electrical signal of equal amplitude on a pair of terminals in antiphase. No ground reference exists, nor is it necessary when a balanced, low differential and high common-mode impedance connection from the cartridge coils to your V33 phono preamplifier is maintained. In fact, maintaining an electrically ‘clean’ ground connection between different units is often very difficult to achieve in practice, and ground loops can be easily formed. Hence the best approach is to design interconnections and equipment such that signal transfer is as independent and least affected by ever present ground noise as possible, and have a single ground connection serving only as a common-mode reference potential between units, albeit as much decoupled from the audio signal transmission as possible.

A balanced connection between the cartridge output and the preamplifier input maintains a high common-mode impedance across the whole audio frequency spectrum and beyond. This requires suitable connectors, cabling and suitably designed preamplifier circuitry. Incidentally, RCA connectors, commonly found on many turntables, are not designed for balanced interconnection and perform relatively poorly as a balanced interface compared to connectors such as XLR or DIN.

If the cartridge or the turntable cabling shorts one of the cartridge signal connections to ground, the electrical interface is forced to become unbalanced. This approach, practiced by some turntable manufacturers, makes balanced interconnection impossible and must thus be avoided.

To detect if such a wiring scheme has been employed by your turntable manufacturer on a turntable equipped with RCA connectors, using a multimeter check for continuity both between the L and R channel RCA connector outer rings, and between each of these and the separate turntable ground wire. If there is connectivity between any of these, unless the turntable is modified accordingly, a balanced signal connection between the turntable and the preamplifier is not possible.

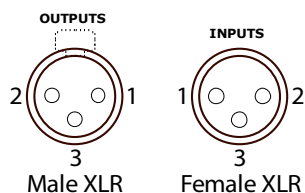
XLR Pinout


All Azog-Audio products adhere to the AES standard regarding the XLR pinout:

Pin1: Ground

Pin2: Positive

Pin3: Negative

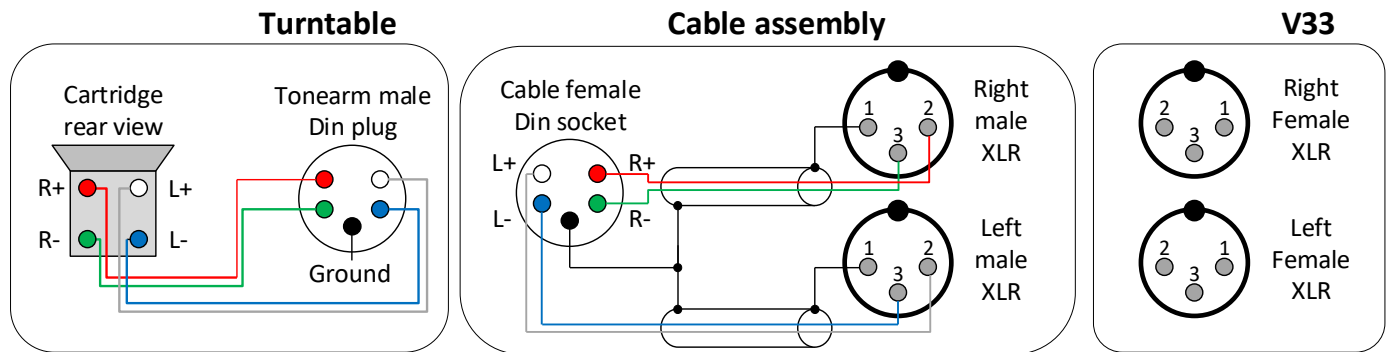


 Prior to making any connections between components in your system, always turn off all devices. This minimizes the possibility of equipment damage from transient voltage surges.

1. CONNECTIONS TO THE V33 INPUT

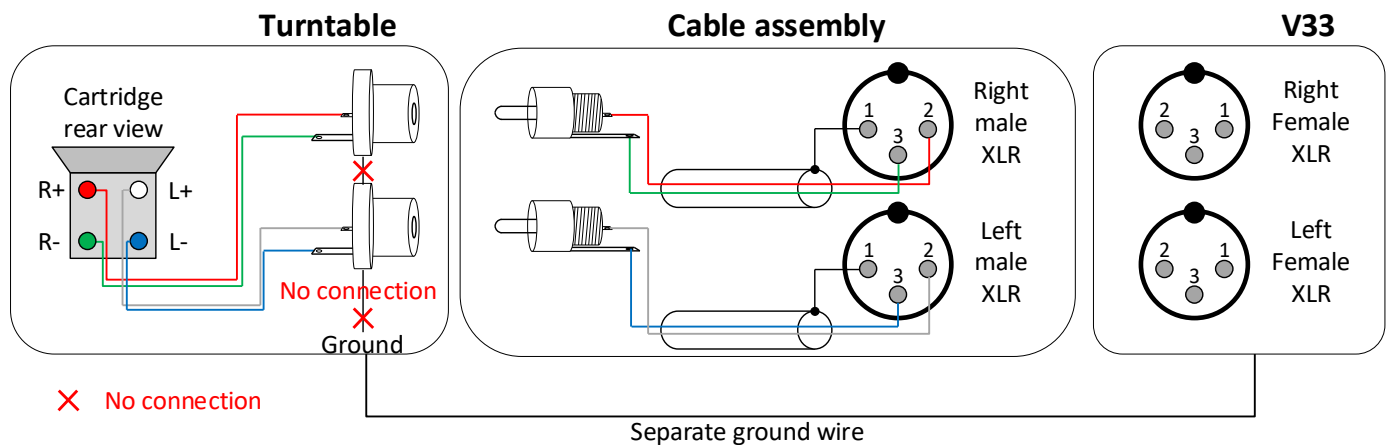
You can begin connecting your new preamplifier to the rest of your system with the turntable to preamplifier connection. Four turntable-V33 interconnection wiring options are shown in the following diagrams, in order of preference. Of these, the first two are the preferred interconnection methods. The third option may be used as a temporary measure, but it may give rise to hum and should be replaced by the first or the second method. The fourth option is only included to aid understanding of all possible interconnection methods, but it is not compatible with V33 and should not be used.

Best option: DIN-to-XLR balanced connection:



This is the preferred interconnection option. There is no need for a separate ground wire to connect the turntable ground to the V33 chassis ground, as this is accomplished through the cable assembly. This option provides the lowest differential and highest common-mode impedance, so it will yield the best sonic results.

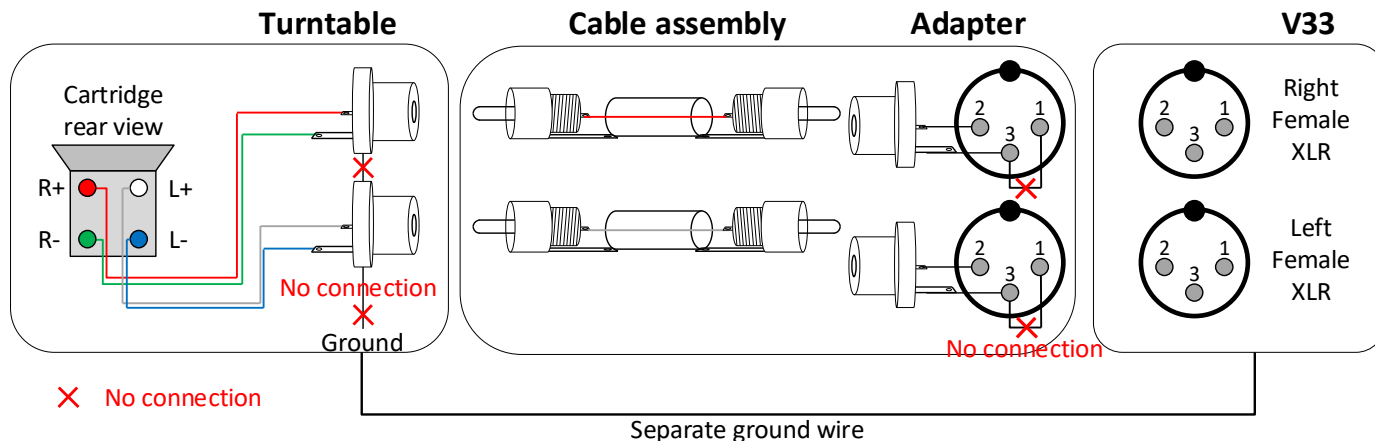
2nd best option: RCA-to-XLR balanced connection:



For turntables equipped with RCA connectors, this interconnection can produce acceptable results. With reference to the above diagram, with the cable assembly only connected to the turntable there should be no electrical continuity between pin3 and either pin1 or the shield of the XLR connectors. There must also exist no electrical continuity between the turntable ground

and the outer ring of the RCA connectors. A separate ground wire is required.

3rd option: In this option a special type of XLR-to-RCA adapter, where XLR pin 3 is connected only to the RCA connector ground contact and not to pin 1 is inserted to the input of V33.




With this option humming may occur as the exposed unbalanced cable shield carries one phase of the signal and differential impedance is high. The benefits of common-mode rejection of the balanced transducer and V33 will be severely affected, hence this interconnection method should be not be used.

4rd option: unbalanced turntable interface with RCA connectors connected to commonly encountered RCA-to-XLR adapters having XLR pins 1 and 3 shorted. This option is not compatible with V33, and should never be employed. If such an interconnection is made, the electrical interface is no longer balanced and the preamplifier's input impedance will be halved.

2. CONNECTIONS TO THE V33 OUTPUT

Having connected the turntable to V33, proceed to connect the phono preamplifier to your line level preamplifier or integrated amplifier. Best results will be obtained when the balanced V33 output is used, feeding a balanced preamplifier input. If a balanced downstream input is not available, use the V33 single-ended RCA connector output. The latter will yield 6dB reduced gain compared to a fully balanced interconnection and no common-mode noise rejection between V33 and the rest of the system. However, the benefits of a balanced turntable to V33 interconnection, as described in options 1 and 2 of the previous section, are still important to maintain.

 In general, off-the-shelf XLR-to-RCA adapters short the inverted phase signal, pin3 of the XLR connector, to pin1, the ground pin. **Under no circumstances should such an XLR-to-RCA adapter be connected to the output of V33, as it will short the output circuitry of V33 and may result in equipment damage.**

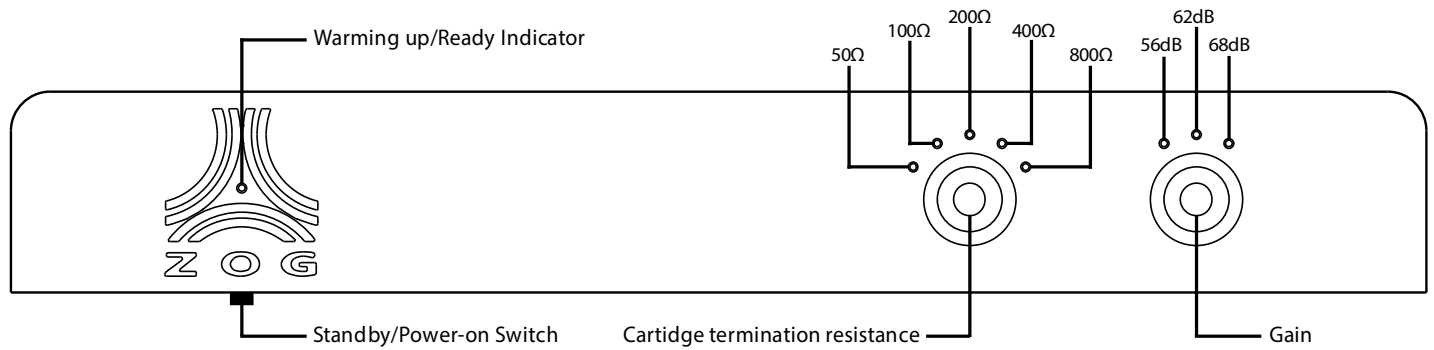
3. DC AND AC POWER CONNECTIONS

Connect the V33PS DC output to the V33 preamplifier using the supplied DC power cable. Insert and secure the connectors in place by rotating the outer metal ring of the connectors clockwise on both sides of the cable.

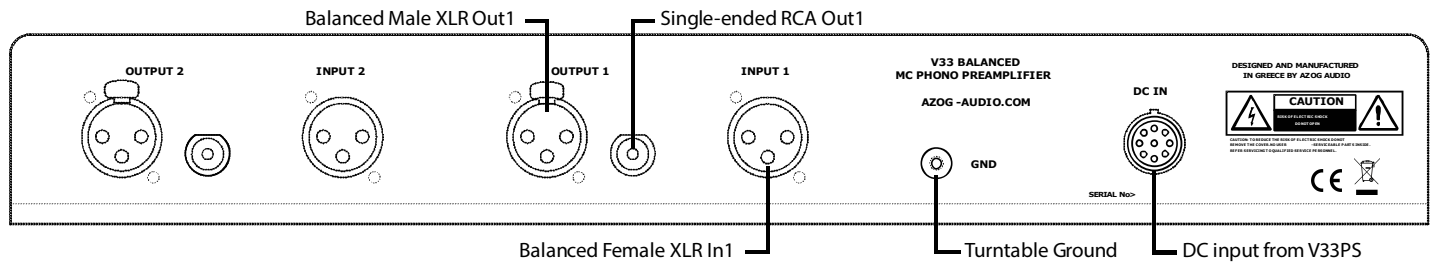
With the mains switch located at the V33PS IEC mains assembly turned off, connect the mains cable to the V33PS and then to the AC mains.

ADJUSTMENTS AND OPERATION

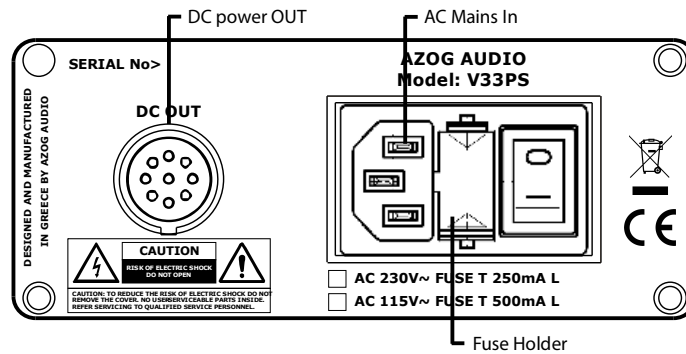
Front-Panel



Rear-Panel



V33PS





With the V33PS connected to the appropriate mains supply voltage and its mains power switch in the On position, the preamplifier can be switched from standby to on and vice-versa through the Standby/Power-On switch. This switch is located at the bottom surface of the unit towards the front left side, roughly underneath the Azog-Audio logo.

When the unit is switched on, the output signal is muted and the Warming Up/Ready indicator lights red. When the power-on sequence is completed the indicator turns yellow. Muting is automatically effected also when the gain is changed. When the preamplifier is ready for operation in the new gain setting, it will automatically unmute after a predefined timeout. Both power-on and gain change processes require this period for the internal circuits to reach their optimum operating points.

There are two rotary controls on the front side of the unit. The left one has five positions and selects the cartridge termination resistance between 50, 100, 200, 400 and 800 Ohms, respectively, in a clockwise direction. Consult your cartridge manufacturer for recommendations on the optimum cartridge loading value. You can also tailor the sound to your liking to some extent through this setting. The setting may be changed freely during unit operation, so finding the optimum setting is practical.

The rotary control to the right of the unit has three positions and sets the gain between 56, 62 and 68dB respectively. These gains refer to a fully balanced connection between the output of V33 and the preamplifier or integrated amplifier to which the unit is connected. On the single-ended RCA output the gain is correspondingly 6dB less. In general, a lower output level phono cartridge requires a higher gain setting, but this is also dependent on the entire system gain.

 When changing the V33 gain, always mute or lower the line preamplifier or integrated amplifier volume, as when V33 unmutes a transient noise may be present.

 We recommend that you start critical listening evaluation with the gain set to its minimum value, and increase it only if you find that the overall system gain is not enough. This helps maintain maximum overload margin. As the different gains have slightly different sound signatures, you may also want to experiment with other gain settings to tailor the sound to your preferences.

Even though each Azog-Audio preamplifier has undergone extensive functional testing and a 48 hour burn-in procedure at the factory, the units still need to be broken-in once installed in your system. We recommend about one week of running in, but expect sound quality of a new unit to keep improving roughly over the first month of operation.

DESIGN HIGHLIGHTS

- Fully-balanced circuitry from input to output
- DC coupled throughout
- Extremely low noise discrete transistor input stage
- No series connected switches or relays in the signal path
- Mundorf RIAA filter capacitors
- External discrete-regulated power supply
- No clocked digital devices, only combinational logic used in the control section
- Individual, discrete, exceptionally quiet voltage regulators per amplification stage
- RF input filtering
- Shortest signal path
- Fully dual-mono circuitry, all the way from the mains connection
- Non-magnetic metal-film resistors used extensively
- Shielded DC power cable for EMI/RFI immunity

WARRANTY TERMS

Azog-Audio offers a limited, non-transferable three year warranty from the date of purchase on the V33PS and the V33 preamplifier. This warranty covers all parts and labor charges incurred at the factory towards repair of the units should they develop a fault during the warranty. The warranty is not valid if the enclosed warranty registration card is not filled out and returned to the manufacturer within 30 days of purchase.

The warranty excludes damage caused through accident, misuse, normal wear and tear, neglect, acts of nature or through incorrect mains voltage operation, installation or connections. Disassembly, modification of the products in any way, servicing or repairing by anyone other than the manufacturer or the dealer voids the warranty.

The warranty is offered only to the original owner bearing the purchase receipt and is valid only in the country where the product was purchased. Claims under this warranty must be made through the dealer from whom the equipment was purchased, or if that is not possible through another authorized dealer or the factory. No unit shall be sent to the factory without prior communication and approval of the dealer or factory. Transportation costs to the dealer or factory and any equipment damages owing to such transportation are the responsibility of the owner. Return carriage and freight insurance is covered by the dealer or factory. If upon inspection at the factory the returned unit is found to meet the published specification, Azog-Audio will charge the customer the associated labor costs.

The warranty shall be in lieu of any other warranty, expressed or implied, including, but not limited to, any implied warranty of merchantability or fitness for a particular purpose. There is no warranty which extends beyond the warranty described in this document. If the product does not perform as warranted herein, the owner's sole remedy shall be repair. In no event will Azog-Audio, the retailer or the distributor be liable for any incidental, subsequent or consequential

damages, loss of property or injury to persons whatsoever arising from the purchase, use, inability to use this product, or product failure.

SPECIFICATIONS

Input impedance	50/100/200/400/800 Ohms, user-selectable. Custom values on request
Gain	56/62/68dB balanced output, 6dB less single-ended output, 1KHz, user-selectable
Output impedance	75 Ohms single-ended, 150 Ohms balanced
RIAA de-emphasis accuracy	+/-0.5 dB, 20Hz - 20KHz
Total Harmonic Distortion	<0.05%, 1KHz tone, 20KHz BW, 1Vrms
Maximum voltage output	20Vrms balanced, 10Vrms unbalanced @ 1KHz, 10K load
Power consumption	30W in operation, <0.5W stand-by
Dimensions (WxDxH)	430x350x75mm main unit 123x220x63mm external power supply
Net weight (approximate)	6.5Kg main unit 1.9Kg external power supply
Mains voltage	Europe: 220-240 V AC USA/Canada: 110-120 V AC
Mains fuse	250mA slow blow, 230V~ units 500mA slow blow, 115V~ units

All functions, specifications and policies are subject to change without notification.