



PERREAUX VP4

Owner's Manual V1.0



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THANK YOU LETTER

Congratulations on your VP4 phono pre-amplifier purchase!

From the entire team, we thank you for choosing a PERREAUX audio product. You can expect many years of high-quality listening pleasure from this unit. The following owner's manual has been written to assist in the setup, operation and care for your PERREAUX VP4 phono pre-amplifier.

Please read thoroughly.

I. IMPORTANT SAFETY INSTRUCTIONS

Caution

- To reduce the risk of electric shock, do not remove the cover.
- No user serviceable parts inside.
- Refer servicing to qualified service personnel.

Warning

To reduce the risk of fire or electric shock, do not expose this device to rain or moisture. Shock hazard - do not open.

Mains Plugs

- This device is supplied with a non-rewireable mains plug for the intended country.
- Replacement mains leads can be obtained from your Perreux dealer. Should you need to change the plug please dispose of it carefully. A plug with bared conductors is dangerous if engaged in a live socket.
- The Brown wire must be connected to the Live (Line) supply pin.
- The Blue wire must be connected to the Neutral supply pin.
- Please contact your dealer or a competent electrician if you are in any doubt.
- Refer to the rear of the product for mains voltage information.

This product is designed to comply with international directives on the Restriction of Hazardous Substances (RoHS) in electronic equipment. The wheellie bin logo indicates compliance and that these products must be recycled or processed as according to these directives.





II. FEATURES

Easy setup via App

The VP4 Phono preamplifier comes complete with a powerful user App (iOS/Android) to provide maximum flexibility and versatility allowing precise adjustment of the VP4 to match the gain and loading requirements of the user's chosen phono cartridge. During daily use, the APP can be used to toggle between Black Mode and Charge, Mono and Stereo, or select the right RIAA curve to match your taste.

BLACK Mode

When BLACK Mode is enabled, via App or control panel, the VP4 is completely galvanically isolated from the AC Mains resulting in noise-free operation. This is possible as the VP4 is equipped with an integrated lithium power cell that provides up to 30 hours playback on full battery charge, freed from the interference and hum often prevalent in AC Mains powered amplifiers. The lithium power cell is of the highest quality providing the lowest possible internal impedance (about 150 milliOhm), which ensures the most stable power supply under varying load.

Uncompromising Design

Cartridge settings are done by Bi-stable relays, which means that once configured these will no longer consume any current. This prevents any relay current noise from bleeding into the signal path. An additional benefit of our relay design is that it yields a better PCB layout which helps with signal integrity.

Dual connection

The VP4 Phono preamplifier can accommodate the simultaneous connection of two turntables. One pair of VP4 inputs can be assigned to use a Moving Magnet (MM) or high output Moving Coil cartridge (MC) and the second VP4 input pair can be set up for a low output Moving Coil (MC) cartridge. Possible options are: 1 x Moving Magnet (MM) turntable and 1 x low output Moving Coil (MC) turntable. 1 x High output Moving Coil (MC) turntable and 1 x low output Moving Coil (MC) turntable.

Quick access control panel

The VP4 features a physical push button control panel capable of switching the unit in and out of standby and toggling between Mono and Stereo, Black Mode and Charge, or selecting either Moving Coil (MC) / Moving Magnet (MM) inputs.

Compatibility

The VP4 is compatible with both high / low output Moving Coil (MC) and Moving Magnet (MM) phono cartridges. Most 78rpm cartridges are supported as well.

Normal RIAA or IEC RIAA Equalisation Profiles

User-configurable, App (iOS/Android) provides the user with the ability to easily select between normal RIAA and IEC RIAA equalisation profiles.



Low distortion

The VP4 generates a diminutive Total Harmonic Distortion (THD) figure of only 0.002% at 1KHZ @ rated output, providing a clean, clear and precise reproduction of vinyl recordings.

Balanced and unbalanced outputs

The VP4 phono preamplifier features both balanced (XLR) and unbalanced (RCA) analog audio output pairs. Both balanced and unbalanced output pairs can be used simultaneously without interference or degradation of signal performance.

Fully mirrored internal layout

The internal layout has been laid out in full mirror fashion to ensure maximum channel separation and minimal system noise.

Mono capability

The VP4 Phono preamplifier accepts signals from mono recordings, selected from the front mounted touch panel or App.

III. INSTALLATION

Unpacking

The VP4 Vinyl Preamplifier is supplied with the following accessories:

- Ultra-quiet power supply
- Quick Start Guide

We recommend you retain the packaging for reuse in case you need to transport the unit at a later date.

Placement

Your VP4 Vinyl Preamplifier should generally be placed close to your turntable and preamplifier keeping interconnect cabling short. Although when using balanced interconnects, the amplifier may be placed further away from the preamplifier without degrading the sound.

Ventilation Requirements

Your VP4 Vinyl Preamplifier should be placed in a position that does not restrict the airflow around it. Do not place directly onto a carpeted surface as it will reduce air circulation and the heat will not dissipate as intended.

If the device is used in a cabinet, air must be able to flow through. An enclosed cabinet will severely restrict heat dissipation. Ensure that nothing is placed above or below the unit that might block or restrict the vents.

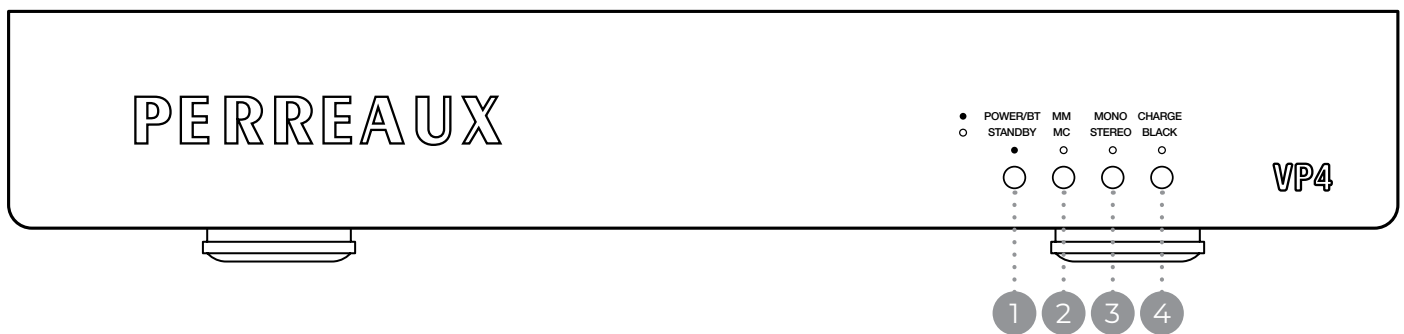


Other Devices

Ideally, your VP4 Vinyl preamplifier should not be located directly above or adjacent to other heat-producing products such as radiators, other power amplifiers, etc. If multiple amplifiers are being used and space is restricted, placing them side by side is preferable to stacking.

It is advisable to position your VP4 Vinyl Preamplifier close to your turntable and away (and if possible, connected to a power socket on a different circuit) from powerful electrical or electronic products such as TV sets, computers, cookers, fridges etc. This will prevent the possibility of the strong electrical and electromagnetic emissions or interference given off by such devices adversely affecting the performance of your preamplifier.

IV. FRONT PANEL



1. Standby Button / BT status
2. Source Button (MM / MC)

3. Stereo/Mono Button
4. Charge/Black Button

1 Standby Button / BT status The Standby Button switches the unit between On (indicated by white LED) and Standby mode (indicated by LED off). The unit should be left in Standby mode when not in use to recharge the battery between listening sessions. Whenever the VP4 is connected to the Perreaux App in your mobile device, the LED will turn blue.

2 Source Button (MM / MC) The Source Buttons allow you to select the source component that you wish to listen to; MM (indicated by white LED) or MC (indicated by LED off).



3 Stereo/Mono Button

The Stereo/Mono Selection Button switches between Mono (indicated by white LED) and stereo (indicated by LED off) output to allow playback of mono LPs. A press of the button will toggle the mono selection on and off with the current selection conveniently stored for each input.

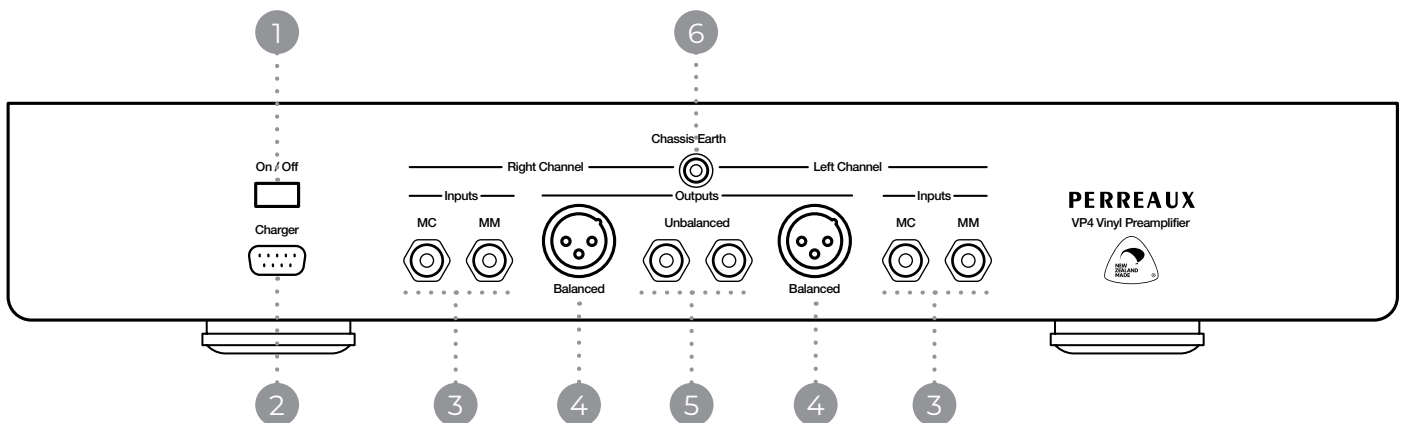
4 Charge/Black Button

The Charge/Black Selection Button switches between Charge Mode (indicated by white LED) and BLACK Mode (indicated by LED off). For the best listening experience, enable BLACK Mode.

Note:

- When not in use, leave the VP4 in standby mode to allow the battery to recharge; Charge LED will turn on.
- If the battery is full, Charge Mode will not be available and will revert back to Black Mode.
- If the battery is depleted, Charge Mode will be enabled automatically.

V. REAR PANEL / CONNECTIONS



1. Power On/Off

2. Charger socket

3. Phono Inputs

4. Balanced Outputs

5. Unbalanced Outputs

6. Phono Earth Terminal

1 Power On/Off

The Power switch turns power to the unit on and off. The switch should be left in the ON position when installed in your cabinet or media rack. During transport or shipping, the switch should be turned to OFF; this disengages the battery as a precautionary measure.



2 Charger socket

Use only the provided charger.

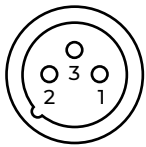
Note: If a non-Perreux charger is used, warranty will be void.

3 Phono Inputs

The VP4 Vinyl preamplifier has two separate input sections specifically designed to cater for moving magnet (MM) and moving coil (MC) cartridges. Each set of phono inputs accept standard unbalanced (RCA) analogue outputs from the corresponding cartridge type. The output of the Mono cartridge can be connected to either the right or left channel of your VP4 Vinyl Preamplifier.

Note: High output MC cartridges can be connected to the MM input if the MC input results in excessively high sound output.

4 Balanced Outputs



Pin 1: Shield
Pin 2: +ve signal (hot)
Pin 3: -ve signal (cold)

The balanced (XLR) outputs provide a balanced audio signal for connection directly to a preamplifier or integrated amplifier. The pin assignments of the balanced XLR output connectors are:

Please refer to the owner's manual of your preamplifier to verify that the pin assignments of the input connectors correspond as above. If this is not the case, wire the cables so that the appropriate VP4 Vinyl Preamplifier output pin connects to the equivalent preamplifier input pin.

Note: The balanced outputs employ entirely separate buffer stages to the unbalanced outputs, allowing both outputs to be used simultaneously without degrading the performance of each other.

5 Unbalanced Outputs

The unbalanced (RCA) outputs provide a single-ended audio signal for connection directly to a preamplifier or integrated amplifier.

Note: The unbalanced outputs employ entirely separate buffer stages to the balanced outputs, allowing both outputs to be used simultaneously without degrading the performance of each other.

6 Phono Earth Terminal

The phono earth terminal connects to the earth lead from the tonearm cable of your turntable, if required. If your turntable does not have a separate earth lead it may be advisable to run a wire from a grounded screw on the turntable to this terminal. Turntables are very sensitive to hum and grounding the table or cartridge to the VP4 Vinyl Preamplifier can help reduce hum.

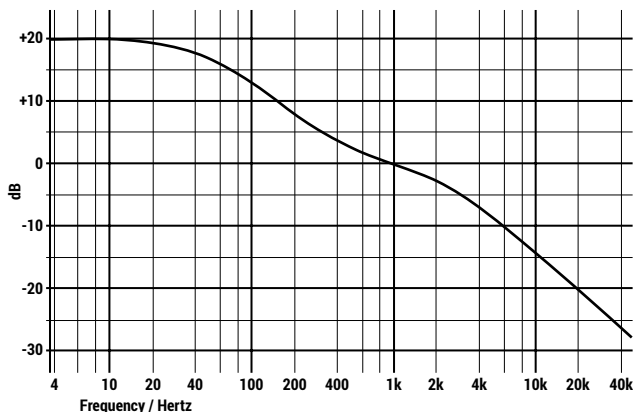
VI. SETUP

The VP4 gives you complete flexibility in customising the Vinyl preamplifier to suit your cartridge, system and personal audio preferences. This customisation is achieved by adjusting the loading and gain values, mono or stereo selection and the ability to switch between a normal or IEC RIAA equalisation curve on each input.

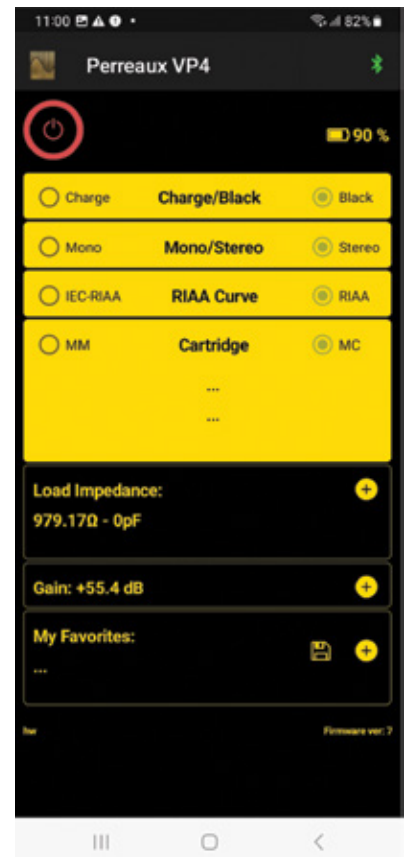
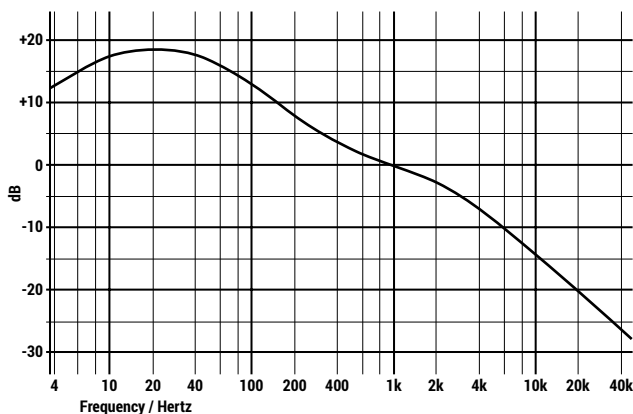
In order to setup your profile/s (i.e. cartridge/s and preferred settings), please download Perreaux's App (Android / Apple) and follow the instructions below:

1. Mono or Stereo
2. RIAA Curve: Two settings are available for RIAA Equalisation of the VP4 Vinyl Preamplifier to suit your recordings or personal preference; Normal RIAA and IEC RIAA. The latter has a lower volume for the low range which can help reduce unwanted noise (e.g. helps filter out rumble from uneven records).

Normal RIAA Equalisation Curve:



IEC RIAA Equalisation Curve:





3. Cartridge Loading and Gain

- a. Automatic: Click on & and select your cartridge from the database.
- b. Manual: If your cartridge is not in the database, you can manually input your cartridge loading (i.e. impedance / capacitance) and gain:

Loading:

MM Loading							
47kΩ	1kΩ	10kΩ	22pF	47pF	100pF	220pF	470pF
MC Loading							
47kΩ	10Ω	30Ω	100Ω	250Ω	500Ω	1kΩ	47pF

Note: When selecting the loading for your cartridge/s, it is possible to use more than one option to produce a cumulative value, when doing this the values will be added electrically (i.e. serial for capacitance and parallel for impedance) to give the overall load value.

Gain:

Moving Magnet				
Gain	36dB	40dB	44dB	48dB
Sensitivity	11.9mV	7.5mV	4.7mV	3.0mV
Moving Coil				
Gain	56dB	60dB	64dB	68dB
Sensitivity	1.2mV	0.7mV	0.5mV	0.3mV

Note: If more than one setting falls within $\pm 50\%$ of your cartridge output voltage, the higher sensitivity configuration will result in greater dynamic range, the lower will be less susceptible to clipping.

4. Save your profile by clicking on the diskette icon within the My Favourites section.

The APP will allow you to store multiple profiles in order to accommodate multiple cartridges and/or turntables. You can toggle between your saved profiles by clicking on the + button within the My Favourites section.

VII. BATTERY MANAGEMENT

The VP4 contains a lithium-ion battery pack that provides an ultra-clean and noise-free isolated power supply. The preferred mode of operation is 'BLACK' where power is supplied by the battery.



By default, the VP4 will charge during standby and not charge when active. Ideally the user will leave the VP4 in Standby when not in use.

The VP4 can operate while being charged, resulting in a decrease in Signal to Noise Ratio. Use the 'CHARGE' button to override the 'BLACK' mode.

If the battery becomes low during use, the 'CHARGE' light will flash as a warning. If the battery becomes flat, the VP4 will remain active and begin charging.

In case the battery becomes flat and no charger is connected, the VP4 will remain in Standby until the charger is connected. The 'POWER' light flashing RED indicates this battery over-discharge protection.

Warnings:

When shipping the VP4, slide the rear main power switch OFF to internally disconnect the battery.

Do not substitute or modify the isolated charger power supply as this may damage the VP4 and void the warranty.

VIII. TROUBLESHOOTING

There is no power

- Ensure the power supply is connected securely.
- Ensure the mains plug is fully inserted into the wall socket and is switched on.
- Check fuse in the mains plug (Type G only).

Notes:

The VP4's Black/Charge LED will flash when the battery is getting low and the power supply is disconnected.

The VP4's Standby LED will flash red when the battery has been depleted and the power supply is disconnected. The VP4 can no longer be turned ON.

There is no sound

- Check that the input and output interconnects are properly connected to the respective sockets. Confirm that the cartridge is correctly connected and fitted to the tone arm.
- Check that the turntable is turned on and that the tone arm is lowered onto the record.
- Check that your preamplifier and/or amplifier are turned on and the correct input is selected. Check that the volume on your preamplifier is set to a suitable level and not muted.
- Check that your speakers are firmly connected to your amplifier.



There is no sound on one channel

- Check interconnects.
- Check the balance setting of your preamplifier and/or amplifier is set to the middle.

There is a crackling noise coming from the speakers

- Check that the gain setting is configured correctly for your cartridge and not too high. Try a lower gain setting to ensure output is not clipping.
- Check that the needle and record are free from dust and debris.

The output from the speakers is too quiet

- Check that the gain setting is configured correctly for your cartridge and not too low. Try a higher gain setting until a suitable volume level is achieved.
- Check the cartridge loading settings are set correctly.

There is a loud buzz or hum

- Ensure no interconnects are loose or defective.
- Ensure the earth terminal from your turntable is solidly connected to the earth binding post.
- Ensure that your turntable is located close to your Vinyl Preamplifier and away from possible sources of EM and/or RF interference, for example computers, televisions etc.

IX. CARE AND MAINTENANCE

The VP4 has been designed to provide many years of trouble free enjoyment. It is important to keep the exterior of the unit clean.

The front panel and cover feature an exquisite, high-quality paint finish. To remove finger marks and dirt, simply rub the surface with a CLEAN soft cloth (e.g. microfiber). You can apply a coat of car paint wax (i.e. waterless wax detailer) to restore the original look; apply the product to a cloth and not to the amplifier.

If the dirt is not removed, use a small quantity of isopropyl alcohol on a rag and rework the affected area.

Notes: Always switch the unit off and remove the power cord from the rear of the amplifier before attempting to clean your VP4 phono Preamplifier.

- Never apply liquid directly to the amplifier.
- Never use abrasives.
- Never rub in a circular motion.



X. TECHNICAL SPECIFICATIONS

Inputs

Audio Inputs	2 Unbalanced (RCA) (selectable) pairs
Input Sensitivity	
MM input	3.0mV to 11.9mV (selectable)
MC input	0.3mV to 1.2mV (selectable)
Gain:	
MM input	36dB to 48dB (selectable)
MC input	56dB to 68dB (selectable)
Input Impedance:	
MM input	1k Ω to 47k Ω (selectable)
MC input	10 Ω to 47k Ω (selectable)
Input Capacitance:	
MM input	22pF to 470pF (selectable)
MC input	47pF (selectable)
Input Overload Margin:	16dB

Outputs

Audio Outputs	1 Unbalanced (RCA) pair 1 Balanced (XLR) pair
Output Impedance:	
Balanced:	30 Ω
Unbalanced:	100 Ω
Rated Output:	0.75Vrms
Maximum Output:	4.6Vrms (6.5Vpp)

Preamplifier

Total Harmonic Distortion (THD+N):	
Typically 20Hz to 20kHz	0.002%, 1kHz @ rated output <0.05% @ rated output
RIAA Accuracy:	\pm 0.5dB, 50Hz to 20kHz
Signal to Noise Ratio (un-weighted):	87dB (MM) 82dB (MC)

Dimensions

Width:	426mm (16.8")
Depth:	344mm (13.5")
Height:	82mm (3.2")
Weight:	5.3kg (11.7lb)



Battery / Charger

Battery	Li-ion 3.2Ah
Charger power supply	Input 90-264VAC Output 24VDC, 1A (Class II only)

Disclaimer

Perreux Audio reserves the right to change specifications or features without notice. Perreux Audio will not assume any liability for errors being made by retailers, custom installers, cabinet makers, or other end users based on information contained on this website.

XI. LIMITED WARRANTY

Perreux Audio Ltd warrants this product to be free from defects in materials and workmanship (subject to the terms set forth below). Perreux Audio Ltd will repair or replace (at Perreux Audio Ltd's option) this product or any defective parts in this product. Warranty periods may vary from country to country. If in doubt consult your dealer and ensure that you retain proof of purchase.

To obtain warranty service, please contact the Perreux Audio Ltd authorised dealer from which you purchased this product. If your dealer is not equipped to perform the repair of your Perreux Audio Ltd product, it can be returned by your dealer to Perreux Audio Ltd or an authorised Perreux Audio Ltd service agent. You will need to ship this product in either its original packaging or packaging affording an equal degree of protection.

Proof of purchase in the form of a bill of sale or receipted invoice, which is evidence that this product is within the warranty period, must be presented to obtain warranty service.

This Warranty is invalid if (a) the factory-applied serial number has been altered or removed from this product or (b) this product was not purchased from a Perreux Audio Ltd authorised dealer. You may call Perreux Audio Ltd or your local country Perreux Audio Ltd distributor to confirm that you have an unaltered serial number and/or you made a purchase from a Perreux Audio Ltd authorised dealer.

This Warranty does not cover cosmetic damage or damage due to acts of God, accident, misuse, abuse, negligence, commercial use, or modification of, or to any part of, the product. This Warranty does not cover damage due to improper operation, maintenance or installation, or attempted repair by anyone other than Perreux Audio Ltd or a Perreux Audio Ltd dealer, or authorised service agent which is authorised to do Perreux Audio Ltd warranty work. Any unauthorised repairs will void this Warranty. This Warranty does not cover products sold AS IS or WITH ALL FAULTS.

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