

REDGUM Audio

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Phono Preamplifier

range

RGPH2

RGPH2ENR Signature Series

Owner's manual

REDGUM Audio Pty Ltd
401 Belgrave - Gembrook Rd
Emerald, VIC, 3782, Australia
Ph: +61 3 9001 6788
redgumaudio.com

ABN 45 093 132 515

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Why REDGUM?

The River Red Gum is Australia's most widespread and recognised tree, and it produces a wood that is truly unique. It yields the second hardest timber in the world, and this strength saw its widespread use in the railway lines that sprang up to connect the rapidly expanding colonies of early 20th century Australia. Its resistance to termites also made it the natural choice for building foundations, and to this day it continues to support some of our most historic structures.

The River Red Gum can be found on most river banks in mainland Australia, where its roots tap into water stored in the sands and its leaves provide food for the indigenous wildlife. Its presence is synonymous with the Australian outback, at once a symbol of life sustaining water and the struggle against a harsh climate. When conditions turn dry, the Red Gum will adapt by shedding huge branches from its trunk in an effort to conserve moisture. As anyone familiar with camping in the Australian bush will tell you... don't ever pitch your tent underneath a Red Gum tree!

A celebrated part of our culture, it has perhaps been made most famous through the landscape paintings of Hans Heysen and Ronald Bull.

And while Red Gum wood was in wide use throughout Australia's history, it was not until the invention of the carbide saw that it was possible to cut the wood accurately. And only then could the real beauty of this unique hardwood be unveiled.

When polished it reveals a deep red lustre, highlighted by an intertwining and tightly packed grain structure. Fine irregularities add to this beauty, and it is highly sought after as a decorative wood for these unique aesthetic properties. No two pieces of Red Gum will match exactly, and this is as it should be. Like our products, each piece is outstanding and unique.

Now that you've heard the story of the Australian River Red Gum, it's time to listen to your very own REDGUM. We've carefully selected and lovingly crafted each piece before coupling it to some of the finest audio engineering that money can buy. The results? *Stunning!*

Once heard on a REDGUM, such expectations cannot be unheard!

Unpacking

Carefully unpack and inspect your new **RGPH2** Phono Preamplifier.

In the carton there should be:

- the Phono Preamplifier
- REDGUM RGAP 05 OFC interconnect
- a 9V power pack
- an Owner's manual

Carefully unpack and inspect your new **RGPH2ENR** Phono Preamplifier.

In the carton there should be:

- the Phono Preamplifier
- the Ultra-low Noise Power Supply
- REDGUM RGAP 05 OFC interconnect
- an IEC power cord
- low voltage interconnect
- an Owner's manual

If there is any damage to the Preamplifier, contact your dealer immediately. It is a good idea to keep the shipping carton and packing materials, as they can be used to protect your amplifier whenever you need to move it again in the future.

Hook-up of your REDGUM Phono Preamplifier

Note: For safety reasons, before making any connections, always ensure that your Phono Preamp and other components are turned off and/or disconnected from mains power. Failure to do so may result in an electrical shock and/or damage to your equipment.

Hook-up

At the rear of your Phono Preamplifier, connect the high quality Twin RCA lead (the RGAP interconnect supplied) from the 2 sockets marked as Output to any high level input of your amplifier. Connect the RCA leads from your turntable to the Preamp's sockets marked as Input.

Depending on the earthing system used in your turntable, you may need to attach the thin (optional) earth wire to the Earth terminal beside the Input sockets.

N.B. Should there be any "buzzing" sound, it is a common consequence associated with the earthing method of the turntable (rather than the Phono Preamplifier).

For the RGPH2 model, a 9v power pack/"wall wart" is required to connect power to the Preamp. (Should this not have been able to be supplied to any overseas market, any basic electronic/electrical store should have such a unit in stock. The current required is less than 100mA and the connector type is 2.1mm (0.85in). (For additional detail, see Power Supply section.)

For both models, the Power On/Off is controlled from the wall socket switch. Alternatively for the RGPH2ENR, the rocker switch on the rear can also be used to apply power. (N.B. When the power is Off, the red light within the rocker IS visible.) The presence of power is confirmed by LED indication. On the RGPH2ENR, both the + and - LEDs should be lit indicating that both power supplies are functioning.

Connect the RGPH2ENR Preamplifier stage to its separate Ultra-low Noise Power Supply via the supplied low voltage interconnect.

Once powered on, no warm-up time is required. However, the general belief is that audio improves with use, so feel free to leave the Preamp running at all times. The total power drain is 3W (approx.) for the RGPH2 or 6W (approx.) for the RGPH2ENR.

Using your MM/MC switchable Preamplifier

General description of the MM/MC switches

On the underside of the unit there is a rubber plug. Beneath the rubber plug, 4 DIP (Dual In-line Parallel) switches are visible. The "ON" position is marked on one side of the DIP switches; on the opposite side, the numbers "1, 2, 1, 2" can be seen.

Before changing the switches

The Factory standard setting (MM) is with all 4 DIP switches on the side away from the marked "ON" position. Thus, if the cartridge in use is a MM cartridge, there is no need to change the switches before initial listening tests.

Setting the switches

If the cartridge to be used is an MC type, the customer is able to adjust the DIP switches so they are set for that type of cartridge. Thus, to move from the MM to the MC setting, all 4 switches need to be operated together and slid over to the "ON" position. on the earthing system used in your turntable, you may need to attach the thin (optional) earth wire to the Earth terminal beside the Input sockets.

N.B. The 4 DIP switches are not made for vigorous & many multiples of setting changes! However, they are structurally sound for the few changes required in a unit's lifetime. It is strongly suggested that for the action of moving the switch, the frame is supported by the tip of a pair of pliers.

In terms of their internal connections, the four DIP switches are set to be moved in pairs in the formation of an inner pair for input/load impedance, and an outer pair for gain adjustment. They act as a pair, with one switch acting per channel, hence they need to be moved together, and gently (as per note above).

Choosing the "ON" position for all 4 DIP switches is the best starting point for a MC cartridge setting. If additional gain could be of benefit, gently moving just the inner pair of switches to the opposite position may give the sonic result sought. Gentle experimentation will cause no harm to the unit, the cartridge or the user!

RGPH2 Power Supply

The 'quietest' power supply will be a DC one. In other words, although an AC unit will work satisfactorily, the hum level will be slightly higher. The best suggestion would be a Regulated power supply of 9v. This will give absolute minimum hum, and allow the internal regulator in the RGPH2 to run at its coolest.

The RGPH2 is supplied to Australian customers with a 9VDC 300mA AC-DC Adaptor as a "plug pack". International customers will need to source a suitable adaptor for their product. In fact, any adaptor providing 9v at 300mA (minimum current) through to 12v at 300mA will be suitable. (Current RGPH2 models are rated as 6v to 30v AC or DC, hence the commonly available standard 6v, 9v or 12v adaptors sit perfectly within the stated ratings.) To make life easy, polarity is irrelevant.

The reason that the actual voltage supplied is non-critical is that the power supply of the RGPH2 is double-isolated from the moment it enters via the rear socket!!

The Adaptor / "plug pack" supplies an isolated (Floating) DC Power (like a battery). When this power comes into the RGPH2, it is treated as 'unknown' raw power and is rectified and filtered, then regulated and filtered again. Then it is 'sliced up' at ultrasonic speed and passed through an isolating transformer where it is totally isolated a second time from the mains supply.

N.B. When setting up from the range of connection plugs that the Adaptor pack offers, make very sure that the plug size chosen does make a full connection BOTH with the OUTER surround and the INNER pin. Without both connections made, an apparent product "death" will result.

Choice of Turntable

As to whether your current combination "might not be good enough?" ... what repeatedly impresses listeners so much when they connect a less expensive (not exotic) turntable to the RGPH2 Phono Preamp is how much of an improvement they hear in the sound quality!! Everyone expects an expensive turntable to sound good with a quality Phonostage. (Of course!!) But they do not expect such a great improvement from a more basic turntable. A very positive experience.

Sound Characteristics of the RGPH Design

The RGPH's design is unusual for such a product in that its frequency response follows the industry standard (RIAA) curve to within 1/4 dB from end to end. This demonstrable balance at any point of the frequency range results in a very even spread of sound throughout. As a consequence of this, you will hear something quite interesting! Normally, the typical surface noise "pops!" and crackles of vinyl form a distracting barrier between you and the music. A layer, all the more intrusive to our sensitive "spoiled-rotten-by-CD" ears!

In contrast, what the REDGUM Phono Preamp does is, somehow, distance the listener from that layer such that the noises remain anchored "around" the speakers but disappears as a focus. In other words, the noise on the disc surface just does not distract in the old way! What remains for your enjoyment is the full soundstage of just the music. Old vinyl records regain their magic! A return to really "clean" levels of vinyl reality.

Just like any REDGUM, the sound of the RGPH is crisp, clean & detailed, a special consequence of the very low levels of hiss in all REDGUM designs. Conventional designs carry both hum and hiss, but this is not usually remarked upon because the hum effectively cancels the hiss! Seems a neat solution, but sadly, all the while this cancellation is still effecting the sound quality by lessening the clarity.

When the RGPH is set up correctly, the hum level is way below the internal hiss, and both of these together are 20dB (or more) below the surface noise of the best vinyl discs tested. No wonder surface noise is no longer a distraction, and vinyl becomes a new-found treasure.

RGPH2 - Early Review

In 2001, the independent U.S. Audio magazine "Bound for Sound" tested a number of phono preamps, and the REDGUM RGPH2 (then named the RGPH1 in the U.S. market) was one of only 2 units recommended.

Though a relatively brief review*, it was placed up against the Lehmann Black Cube, the Monolith PS-1 (+ HC-1 power supply), and the Margules Audio Magenta FZ47 dB.

The REDGUM PH2 was described as having a "quick, clear sound" and being "evenly matched" with the Magenta. Chosen over and above both the Black Cube and the Monolith, the Magenta and the REDGUM PH2 were described as "two inexpensive components that will deliver the analogue message".

In more depth: "The sound is competitive with the Magenta, although its strengths are distributed differently. Like the Redgum integrated amp you might choose to plug it into, the PH-1 produces a quick, clear sound. Like the Monolithic it has the solid state virtues without the lamentable liabilities so often present in inexpensive gear. While it lacks a touch of the Magenta's richness, it compensates with a bit more clarity. The Redgum probably produces a bit less depth, but that may be a product of the Magenta's darker character. Overall, the two units were evenly matched, and the choice between them should be dictated by your sonic priorities and the system into which you will be placing it." (* Bound For Sound, #137, p8)

(* This is a copy of the complete text review and has been included for a more complete comparison.)

Achieving the best sound from your system

This section is provided to offer some general assistance to those seeking to get the very best performance from their system. You will be surprised by just how much improvement can be had by experimenting with a few simple factors. The following advice is based on our own years of trial and error, and we hope that checking through it makes a positive difference to the sound of your system.

Where to put your speakers

Deciding on the best placement for speakers is a very individual thing, as each of us has our own listening preferences. Try moving your speakers around while listening to some favourite tracks until you find the result which suits you best.

Distance from the surrounding walls

Placing your speakers right in the corners of the room can result in bass which sounds 'boomy' and unclear. Try to keep your speakers at least 30cm (12in) from both the rear and side walls. Bigger distances will usually bring about an additional improvement in the sound.

Distance between the speakers themselves

The correct distance between the speakers will depend on the size of your listening room, and your personal taste. Start by experimenting with the speakers from two to four metres (six to twelve feet) apart.

Distance between the speakers and the listening position

The best stereo imaging will be achieved when the listening position creates the point of a triangle, where the other two points are formed by the speakers themselves. Start with your listening position making an isosceles triangle, and experiment by moving forwards and backwards.

The angle ("toe-in") of the speakers

At REDGUM Audio we recommend a 30 degree "toe in" angle between the speakers. This provides a strong central image in Stereo, as well as suitable 'timing' to provide good rear projection for Home Theatre. You should experiment, however, to find the sound that suits you best.

Your listening room

Strange as this may sound, the room itself will have a profound affect on how your audio system responds. In fact, many experts consider the room to be as important to the sound as any other component in your system!

Did you ever notice how it's difficult to talk in some restaurants because you can't hear each other over all the other conversations going on around you? Yet another similarly sized restaurant is perfectly suited to intimate romantic murmuring. The difference lies in the surfaces around you. Here is a simple test - go into your bathroom and clap your hands; then clap them again in a room with carpet, curtains and other soft furnishings. Notice the difference? In a room with many hard reflective surfaces, sound waves bounce around a lot before dying out. Not even the most expensive stereo in the world is capable of sounding good in such a challenging acoustic environment.

When it comes to your listening room the same principles apply. Wooden floorboards, polished concrete and slate tiles are all highly reflective surfaces. In a room without curtains or other wall furnishings the sound may be overly 'bright' or aggressive.

Similarly, it is possible for a room to be too 'damped' or absorptive. Where there are no reflective surfaces at all, the sound may seem 'dead' or lacking in energy and excitement.

Luckily for us, most household rooms are a combination of the two. And, generally speaking, a combination of the two will bring about the best results.

Too many hard surfaces?

If your room is too 'bright', try placing a large rug on the floor between your listening position and the speakers. Or hang some soft furnishings from the walls.

Too many soft surfaces?

If your room is too damped, try removing some of the soft furnishings from the walls or rugs from the floor.

Managing the bass

Sometimes, low frequency waves can also bounce around and cause problems in a listening environment. This may be the result of the shape of the room, or the materials it is constructed from. Large pieces of furniture in a room can often help to break up these 'standing waves'.

While few of us will feel the need to totally redesign a room to improve its sonic properties, sometimes a small change, like placing a rug on the floor, can make a big improvement to the sound.

Other helpful hints

Corrosion and sound system terminals

Atmospheric corrosion can build up on speaker cable and interconnect terminals over time. Should this occur, removing and re-inserting wires and cables will improve the contact and hence the quality of signal transmission. Always remember to turn off all equipment before connecting or disconnecting any wires or cables.

Doing it annually, at the very least, make it your New Year's Resolution.

Placement of components in your sound system

Lots of fresh air is important to the health of your electronics. The louder you play your music, the more important it is to ensure that components receive adequate ventilation. Amplifiers, in particular, will generate a lot of heat. Placing the amplifier at the top of the stack, and ensuring adequate ventilation, will help to ensure that the heat can be dissipated as it should.

Design Overview

RGPH2 Phono Preamplifier

RGPH2ENR

Signature Series Ultra-low Noise Phono Preamplifier

Switchable:

- between Moving magnet (**MM**) & Moving Coil (**MC**) cartridge settings
- 4 DIP switches accessible via plug on the under side of case
- outer two switches control gain/sensitivity
- inner two switches control the 'loading'

Loadings:	47kohms (MM) & 47ohms (MC)
Source impedance:	100ohms
Input Impedance:	47kohms (MM) & 47ohms (MC)
Matching Load Impedance:	can be from 10kohms down to 100ohms (Impedance figures modified upon request)
Sensitivity:	5mV (MM) & 0.5mV (MC) (Factory standard settings)
Gain:	35dB (MM) & 61dB (MC)
Input Voltage Min. (MC):	0.01mV
Input Voltage Max. (MM):	700mV
Maximum Output Volts:	+/- 14V =28V =9.9V RMS
Frequency Response:	10Hz to 35kHz (follows RIAA curve +/-0.5dB)
Channel Separation:	>60dB
Sensitivity (MM):	5mV for 300mV out (approx 35dB gain @ 1kHz)
Sensitivity (MC):	0.275mV for 300mV out (approx 61dB gain @ 1kHz)
Signal to Noise ratio:	>70dB (RGPH2); >90dB (RGPH2ENR)
Input Impedance (MM):	matches 47kohms (allows 20k - 1Mohms)
Input Impedance (MC):	matches 47ohms (allows 2 - 100ohms)
Power Supply requirements:	AC or DC input, min 6V, max 30V, 140mA
Case Finish:	black anodized aluminium case
Dimensions:	RGPH2ENR - 2 pc case, one as power supply 95mm (W) x 122mm (D) x 56mm (H) 3.7in (W) x 4.8in (D) x 2.2in (H)
Shipping weight:	RGPH2 - 0.6 kg/1.4lb; RGPH2ENR - 1kg/2.2lb

Warranty

REDGUM Phono Preamplifiers are warranted to be free of defects in material and workmanship, subject to the following conditions and limitations, for SEVEN (7) years from the date of purchase by the original owner. Warranty claims must be accompanied by proof of purchase, including date.

This warranty is subject to the following conditions and limitations. This warranty is void and inapplicable if the amplifier has:-

- not been used in accordance with the instructions contained in the manual;

- been subject to misuse or abuse, one example of which would be damage consistent with speaker terminals being hooked to another electrical source;

- been modified, repaired or tampered with by anyone not specifically authorised in writing to do so by REDGUM or its agents;

- been damaged by accident, intent, neglect or transportation.

N.B. As per industry standard, fuses, lamps (LEDs) or batteries are not covered under warranty.

Should the product be faulty, the owner is liable for the cost of freight to the nearest REDGUM repair agent, or the REDGUM Audio factory. Should the product be found to be without fault, the owner will be liable for the return freight

Warranty Registration

Complete for warranty registration:

Name

Address

City

Zip/Post Code

Country

Date of purchase

Place of purchase

Model No.

Serial Number (if any)

Scan and/or email the details on this page (including Serial Number) to warranty@redgumaudio.com.

(Not required for Factory Direct purchases.)

If you are not the original owner of this REDGUM product, feel free to send your unit's details to owners@redgumaudio.com so that you can be placed on the REDGUM Owner's Register. We welcome your feedback and would be happy to include you on our REDGUM Updates email list.