REDGUM

Black-Series

RGi35ENR
RGi60ENR
RGi120ENR

Stereo Integrated Amplifiers

OWNER'S MANUAL

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We know that you are impatient to start playing tunes through your new amplifier. However, please take the time to read this owner's manual thoroughly before connecting the amplifier to the rest of your playback system and powering it up.

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A Word from the Designer

Dear Customer,

I would like to thank you for your faith in and purchase of one of my very carefully designed amplifiers for the dedicated audiophile.

The Black-Series integrated amplifiers are sonically identical to the integrated amplifiers in the REDGUM Amplifolia range, whilst being manufactured in order to reduce their cost to value price points. Regardless, use this amplifier to drive high-quality loudspeakers in a good listening room and you will be listening to a system that is comparable in performance to the best available at at many multiples of the price.

Like all of my designs these are minimalist amplifiers, that is, where the amplifier is essentially a 'straight wire with gain'. The preamplifier is passive and for many years has been notable for its use of Dual Mono volume controls. Its controlling microprocessor is able to balance the channel levels to within 0.1dB.

For power amplification I use audiophile-quality MOSFETs. This allows me to avoid vacuum tubes and transistors, both of which are problematic in their own ways.

All three models in the Black-Series are visibly identical. There are absolutely no compromises in their basic design. All are high-current audiophile devices that use my UltraFlex Power Supply, and are therefore capable of driving any loudspeaker impedance load without distress. In fact they are stable down to loads of 0.7Ω! Their transient power delivery is way above their rated WRMS. Bass control is extremely tight because of their very high damping factor. EMI mains filtering is standard, as it has always been since my earliest designs.

Despite their modest price points, all Black-Series amplifiers offer superb transient capabilities, amazing sonic transparency, and accurate imaging.

This Owner's Manual guides you through the amplifier's simple set-up process. Please read it through thoroughly in order to ensure that you have a trouble-free journey to enjoying your music as you have never heard it before.

Once again, thank you for your purchase.

Yours faithfully,

Ian Robinson

What's in the Carton

Your Black-Series amplifier comes packed in a heavy-duty, export-quality cardboard carton. Please keep this carton—it is the safest way to ship your amplifier should you have to do so in the future.

The carton should contain the following items:

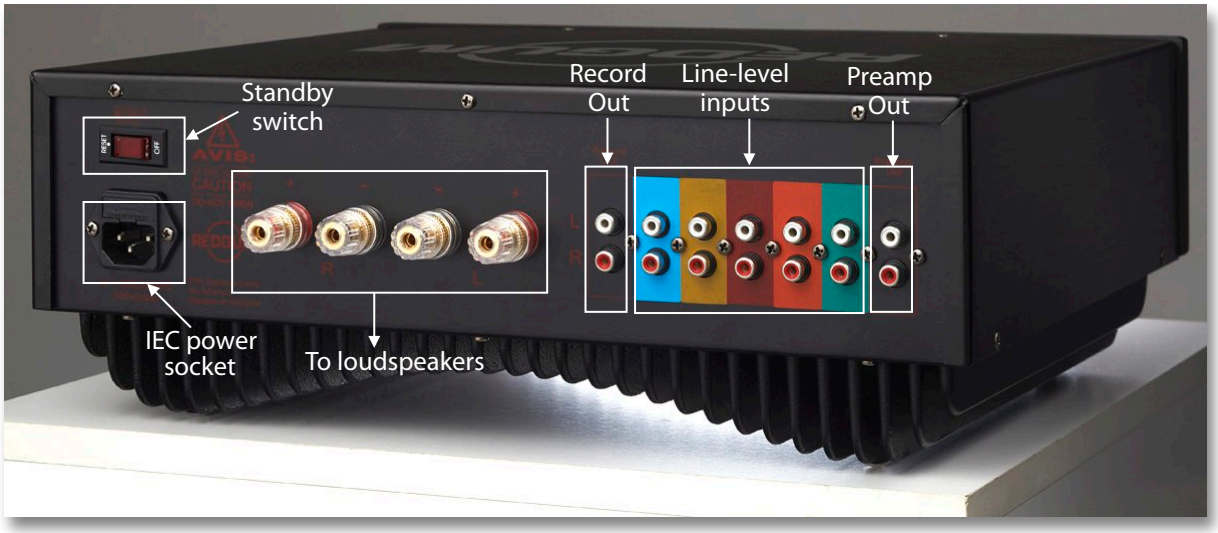
- The amplifier, covered with a red microfibre bag;
- AC power cord;
- 2x remote controls;
- This instruction manual.

The amplifier is enclosed in the microfibre cloth bag to protect its surfaces during handling and shipping, avoiding use of the more usual plastic bag. This lens-cleaning quality microfibre cloth can be used for dusting your amplifier, or for any other purpose to which microfibre cloths are suited.

Connections

The amplifier is heavy. Place it on a sturdy and stable surface.

The rear panel is equipped with five sets of line-level inputs, each identified with a different colour. Insert the RCA cables for each source device into the input you have chosen for it. The bottom RCA socket (red) is for the right channel, and the top RCA socket (white) is for the left channel.



If you have a turntable ensure that the signal from its pickup cartridge is first connected to a phono pre-amp such as the REDGUM *RGPH2ENR*. The output of the phono pre-amp can be connected to any of the inputs on the back of your amplifier.

Connect 'Record Out' to an audio recording device. Connect 'Preamp Out' to other amplifiers such as a pair of power amplifiers, a single active subwoofer, or a pair of active subwoofers.

Note: Any of the line-level inputs can be used to provide a Home Theatre ByPass.

The coloured line-level inputs on the back of the amplifier correspond to the indicator lights on the front panel. These indicator lights show you ***by colour*** which source input has been selected.

Always use high-quality interconnects such as REDGUM ***Audio Pipeline*** or REDGUM ***OCC Pure Silver***.

Use a high-grade speaker cable (such as REDGUM's ***Expressive-Line***) to connect the amplifier's terminals marked 'R' and 'L' to your speakers. The '+' and '–' signs indicate the polarity of the signal. By convention the red lead should be connected to '+' while the other lead (typically black) is connected to '–'. At the other end of the cable, connect the red and black leads to the speaker terminals marked '+' and '–' respectively.

You are now ready to power-on the amplifier.

Connecting to Mains Power

1. Ensure that both volume control knobs on the front of the amplifier are fully turned down, i.e., turned fully ***counter-clockwise***.

2. Set the red standby rocker switch (above the power socket on the rear of the amplifier) to the 'OFF' position.

3. Insert the IEC power connector into the power socket.

4. Plug the mains power cord into a wall socket (or your AC power distributor, if you are using one) and switch it on. Note that the rocker switch is lit from within.

5. Now, set the standby rocker switch to the 'RESET' position. This energises the microprocessor that manages and monitors the amplifier's health and functions. After two seconds the amplifier will go through the following Power-On Self-Test sequence:

    - The red LED within the REDGUM logo on the lower right of the front panel will be lit.

    - The amplifier will emit a beep tone followed by a rising tone.

    - The amplifier will emit three rapid beeps, three times. On the front panel, the red LED at the top of the vertical array of Source Input LEDS - indicating the 'Mute' function - will flash with each beep.

    - The source input LEDs will flash in sequence from top to bottom. Each flash is accompanied by a clicking sound. These are the source input selector switches being 'cleaned'.

    - Two soft thumps will be heard from the loudspeakers, first from one speaker then from the other speaker. This is *normal and safe*, and due to the controlled energising of amplifier's left and right output stages.

    - The volume controls are moved to the setting previously in use when the amplifier was last powered off. If that volume position was very high then the amplifier will move the volume controls to a safe lower level.

At this point the Power-On Self-Test sequence has been completed. The amplifier is now in Standby mode. The red LED within the REDGUM logo will remain lit as long as the Standby switch (on the rear) is in the 'RESET' position, This is regardless of whether the amplifier has been powered on or off via the remote controller.

Using the Remote Controller

Prepare the remote controller for use by pulling out the clear plastic tab from the bottom edge. This allows the battery to supply power to the controller's electronics.

Powering On/Off

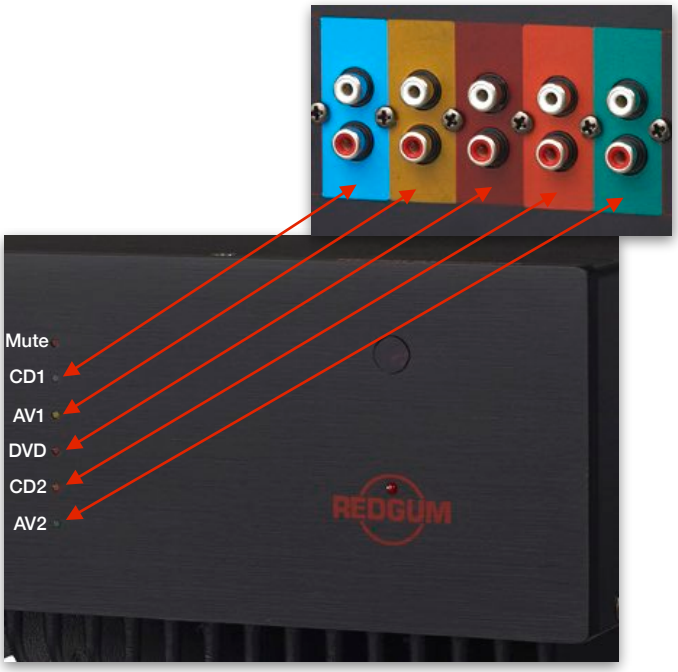
- To power-on the amplifier, point the remote controller at the amplifier's front panel, then press the red 'Amp Power' button on the top-left of the controller. The LED indicating the source last selected will light up, and the volume controls will be moved to the position they were at when that source was last in use. As a Power-On indicator, the light of a blue LED underneath the amplifier can be seen through the SignWave heat sink.

- To power off the amplifier, point the remote controller at the amplifier's front panel then again press the red 'Amp Power' button (i.e., this button toggles on/off). The unit will go back into Standby mode, and the blue LED underneath the amplifier will turn off.

  The amplifier draws very little power (between 0.1W to 0.25W) when in standby mode, so there is no need to turn off the mains power.

Selecting the Input Source

The picture below shows how the colour-coded line-level inputs on the rear of the amplifier correspond with the LEDs on the front panel (if read from the top down), and with the source labels on the remote controller (read from left to right).



SOURCE INPUT LABEL ON REMOTE CONTROLLER	COLOUR OF LINE-LEVEL INPUT AND LED
CD1	Blue
AV1	Yellow
DVD	Red
CD2	Orange
AV2	Green

Volume & Balance Control

The instructions below refer to the cluster of remote controller buttons containing the four blue-coloured arrow buttons.

Increase volume	Press the blue 'up' arrow button.
Decrease volume	Press the blue 'down' arrow button.
Shift the audio image left	Press the blue 'left' arrow button.
Shift the audio image right	Press the blue 'right' arrow button.
Centre the audio image	Press the silver 'Bal' button.
Mute the volume	Press the silver 'Mute' button. Note: Mute is partial (-15dB).
Un-mute the volume	Press the silver 'Mute' button.
Check if the remote controller's battery needs to be replaced	Press the silver 'Magic' button while the amplifier is powered on. With a healthy battery, the 'Mute' indicator should flash and click continuously as long as the button is held down. If this is not the result, replace the battery with one from a quality "name" brand.

The buttons below the arrow cluster are for controlling REDGUM Audio CD players equipped with the remote control feature.

TROUBLESHOOTING

SYMPTOM	LIKELY CAUSE	RECOMMENDED ACTION
No sound.	The amplifier is not turned on, or is not connected to the power outlet.	Check that the amplifier is plugged into the power outlet, and turned on.
The sound of a particular input source is not heard.	Improper connections. If on all inputs, check Mute button status.	Make sure that the external component is connected correctly.
Stereo image is vague/bass response is lacking.	Speakers out of phase.	Check that the correct + to + and – to – connections have been made between the amplifier and your speakers.
Buzzing or crackling sound when connecting wires.	Equipment is turned on.	Turn off all equipment before making any cable connections.
Distortion at low volumes.	Speaker wires are touching each other, or another terminal, and shorting the signal. Amplifier is damaged.	Ensure that all cable connections are clean with no loose wires. Check/repair amplifier.
Distortion at high volumes.	Amplifier is overloaded.	Turn down the volume to avoid damage to your speakers and amplifier.

If the problem cannot be resolved by any of these recommended actions you should make certain that the problem lies with the amplifier, as malfunction within other components may also be the cause of the symptoms. You can do this by borrowing a CD player and speakers that you are certain are working, and replace your normal components with these to test the amplifier in isolation. Please contact your local REDGUM Audio dealer if the problem persists.

Thermal Cut-off

There are *no* replaceable thermal fuses in REDGUM amplifiers. Unlike other amplifiers, all REDGUM amplifiers are protected against internal overloads by a thermal sensor. The thermal sensor will shut down the amplifier if the heat sink's temperature reaches approximately 60ºC/140ºF. This usually happens only if the speaker leads remain 'shorted' together for a period of time.

The warning of such an event is given by the behaviour of the blue Power-On indicator LED, which shines downwards through the fins of the SignWave heat sink base.

Normal operation: This LED will be lit continuously when the heatsink is within its normal operating temperature range.

Near thermal cut-off: The blue LED will start to flash slowly at approximately 50ºC/122ºF, indicating that the heat sink's temperature is rising. The frequency of flashes increases as the temperature approaches the thermal cut-off temperature of approximately 60ºC/140ºF.

After thermal cut-off: The amplifier will emit a repeating sequence of flashes/beeps.

- A sequence of ***4 flashes+beeps*** followed by no light/sound for 4 seconds indicates that you should power down the amplifier. Once the amplifier has returned to a safe operating temperature, its operation can be resumed by using the remote controller to power-on the amplifier.

- A repeated sequence of ***5 flashes+beeps*** indicates that the thermal sensor is not able to reset itself, and that you should contact your local REDGUM dealer for a service call.

Circuit Breaker Rocker Switch

The 'Standby' switch (red rocker with RESET and OFF positions) above the IEC mains socket on the rear of the amplifier's chassis is actually a circuit breaker. In the unlikely event of a mains power overload or an internal malfunction, the circuit breaker will activate ('trip'). The switch will automatically rock to the OFF position, and will be lit from within.

In the case of a mains power overload, rocking the switch to the RESET position will turn on your amplifier again. Once reset, the red light in the 'Standby' switch will turn off, the amplifier will go through its full Power-On Self-Test sequence, and the red LED within the REDGUM logo on the front panel will be lit.

However, if there is an internal malfunction, it will not be possible to reset the switch. Attempting to do so will cause the switch to instantly flick back to the OFF position, and the switch will remain lit. Please seek professional service should this occur.

Consult your local REDGUM dealer if in any doubt whatsoever!

Not Enough Volume?

If you have pressed the Up/Down volume buttons on your remote controller but the resultant change in volume does not match previous adjustments, do a quick visual check to see if the amplifier's 'Mute' setting is On. If 'Mute' is On, the red LED at the top of the vertical array of source indicator lights will be lit. If the "Mute" is Off, no light is visible in this position.

The 'Mute' button does not completely cut off the volume. Instead, the 'Mute' is partial, dropping the volume by approximately 15dB. This allows you to quickly attain background music levels whilst talking, or to hear the sound cues of a TV programme returning without needing to watch a silent screen throughout an ad break.

Warranty

Your warranty can be registered directly via the REDGUM Audio website: http://www.redgumaudio.com/warranty-registration/.

If you prefer, the details (including the amplifier's Serial Number) on the next page can be scanned and/emailed to: warranty@redgumaudio.com or your local REDGUM representative.

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

REDGUM amplifiers 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 void and inapplicable under the following conditions:

A. The amplifier has not been used in accordance with the instructions in this owner's manual.

B. The amplifier has been subject to misuse or abuse, one example of which would be damage consistent with the speaker terminals being connected to another electrical source.

C. The amplifier has been modified, repaired or tampered with by anyone not specifically authorised by REDGUM or its agents in writing to do so.

D. The amplifier has been damaged by accident, intent, neglect or transportation.

Fuses, LEDs, and batteries are not covered under this warranty.

Should the product be faulty, the owner is liable for the cost of freight to the nearest REDGUM repair agent, or the REDGUM main office in Australia. The owner will be liable for the return freight should the product be found to be without fault.

Warranty Registration

All information below is required for complete warranty registration. Scan and/or email the details on this page to: warranty@redgumaudio.com or to your local REDGUM representative.

Date of Purchase		
Place of Purchase		
Model		
Serial Number		
Name	First	
	Last	
Address	Line 1	
	Line 2	
	City	
	Zip/Post Code	
	Country	

SPECIFICATIONS

Power Output (continuous) RMS per channel. Both channels driven 20Hz – 20kHz	Black RGi35ENR • 2 x 65W (8Ω) • 2 x 80W (4Ω) • 2 x 95W (2Ω) Black RGi60ENR • 2 x 120W (8Ω) • 2 x 180W (4Ω) • 2 x 244W (2Ω) Black RGi120ENR • 2 x 175W (8Ω) • 2 x 264W (4Ω) • 2 x 500W (2Ω)
Power Output (transient) RMS per channel. Both channels driven 20Hz – 20kHz	Black RGi35ENR • 2 x 140W (8Ω) • 2 x 270W (4Ω) • 2 x 560W (2Ω) Black RGi60ENR • 2 x 240W (8Ω) • 2 x 480W (4Ω) • 2 x 970W (2Ω) Black RGi120ENR • 2 x 310W (8Ω) • 2 x 630W (4Ω) • 2 x 1265W (2Ω)
Peak Current Output	Black RGi35ENR • >120A Black RGi60ENR • >150A Black RGi120ENR • >150A
Damping Factor	>800
Harmonic Distortion	0.009% (below clipping)
Intermodulation Distortion	<0.005% (below clipping)
Signal-to-Noise Ratio	>100dB
Input Impedance	10kΩ (matches 600Ω to 50kΩ)
Frequency Response	0.8Hz – 80kHz (-3dB points)
Audio Inputs	5 line-level inputs (identified by colour)
Cabinet Finish	Cast aluminium chassis & aluminium cover
Dimensions	150mm x 410mm x 330mm (H x W X D)

Net Weight	Black RGi35ENR • 15.0kg/33.0lb Black RGi60ENR • 16.0kg/35.3lb Black RGi120ENR • 17.0kg/37.5lb
Shipping Weight	Black RGi35ENR • 16.5kg/36.4lb (13.8kg cubic) Black RGi60ENR • 17.5kg/38.6lb (13.8kg cubic) Black RGi120ENR • 19.0kg/42.0lb (13.8kg cubic)

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Designed & engineered by Ian Robinson in Australia.
Manufactured in China under strict quality control and assurance programmes.