

**PLINIUS**  
THE HEART OF MUSIC

P10  
POWER  
AMPLIFIER

INSTRUCTION MANUAL



**CONGRATULATIONS** on your decision to become the proud owner of this  
Plinius P10 Power Amplifier.

This manual has been prepared to help you understand the operation of your amplifier, and to provide information about its design and the variety of ways it may be used.

We have designed and manufactured this amplifier to reproduce your favourite music faithfully and accurately. With a little care and a full understanding of the operating recommendations in this manual, your Plinius P10 Power Amplifier will provide years of high-quality, trouble-free performance.

Serial Number: .....

Final Test Certified By: .....

**IMPORTANT:** PLEASE TAKE THE TIME TO READ THIS MANUAL  
THOROUGHLY BEFORE USING YOUR AMPLIFIER.

## DESIGN PHILOSOPHY

From a distance you can see that the design of the Plinius products is more than an applied styling exercise to the front panel. We have started from the ground up to produce a casing for our electronics that is unrivalled in its physical strength and visual simplicity. Wherever possible we have reduced the number of parts needed and then invested massively in refining and producing the remaining parts to the highest quality achievable with state of the art computer controlled machines allied with expert craftsman. Examples of this approach include the hydraulically formed corners on the amplifiers giving much greater strength and the one piece housing for the remote control unit that eliminates large joints and potential creaks.

The very process of holding the remote tells you that you are controlling both a powerful and precise product. It is designed specifically for the act of listening to music, not channel surfing on a television or changing the room temperature. The distinction is important because we believe that listening to music is a highly selective and emotional experience that requires a much greater level of concentration and precision to fully appreciate and enjoy.

As with music that you are not familiar with, truly innovative new designs can take time to understand and enjoy. How often have you heard music that you were first unsure of, that over repeated listening, has become a firm favourite. Our designs are fundamentally different to many other companies, and we hope that you will take the time to explore their unique character and qualities because we have not made them different simply to be different. We genuinely believe that their visual and tactile qualities do improve the experience of listening to music and that is our design goal!

Ross Stevens  
Design Director.

A handwritten signature in black ink that reads "ROSS.S". The signature is written in a bold, slightly slanted, sans-serif font. Below the signature is a thick, horizontal blue underline.

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# PRECAUTIONS

Please take special note of the following precautions before operating your new amplifier:

- The Plinius P10 Power Amplifier can deliver in excess of 200 watts into 8 ohms. This amplifier is also capable of a very large peak current delivery.
- The Plinius P10 Power Amplifier operates in Class AB. It is capable of generating heat that could have an adverse effect on other electronic equipment, furniture, etc. DO NOT leave flammable material on the amplifier whilst running, as this could pose a serious fire risk.
- This amplifier operates at hazardous voltage levels. We recommend that any work requiring removal of the lid be referred to a suitably qualified and experienced service technician.
- DO NOT attempt to connect any input of this amplifier to its own outputs.
- DO NOT earth any output terminal or connect any of these terminals together without following the instructions in this manual or seeking qualified assistance.
- DO NOT place this amplifier in any position where liquids, or any foreign material may accidentally enter it.
- DO NOT connect any voltage source, short circuit, earth/ground or appliance (other than suitable high fidelity loudspeakers) to the amplifier output terminals.

# AMPLIFIER FEATURES – FRONT PANEL



*FRONT PANEL LAYOUT SHOWING DISPLAY LED*

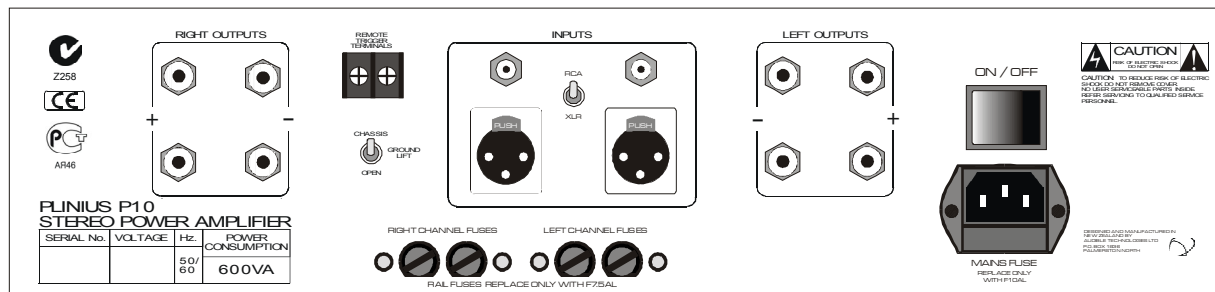
## *DISPLAY LED*

An LED on the front panel indicates that the power is on. When first switched on, the display LED will pulse for ten seconds - this is an initialisation sequence, after which the LED remains lit during the time the amplifier is powered on. Whenever remote trigger is activated the LED will dim.

# AMPLIFIER FEATURES – REAR PANEL

This panel incorporates the terminals for connecting the input signal from the preamplifier, outputs to the loudspeakers, and mains supply.

Please remember that your Plinius P10 Power Amplifier is a high quality electronic instrument capable of an exceptional level of performance. Be sure that you understand your system's requirements fully before you make any connection to this amplifier.



*Rear Panel Showing Input And Output Terminals, Remote Trigger, Ground Lift Switch, Mains Switch And Mains Socket.*

## **MAINS SWITCH**

The heavy-duty rocker switch in the centre of the panel turns the Mains/Line Power to the amplifier ON or OFF. The amplifier draws a moderately high current when switched on, so it is not good practice to rapidly turn the Mains switch on and off repeatedly.

## **INPUT TERMINALS**

The input terminals for your Plinius P10 power amplifier are easily accessible at the centre of the rear panel.

**RCA INPUTS LEFT & RIGHT:** These standard RCA terminals are for use with unbalanced signals from most signal sources such as audio preamplifiers.

**XLR BALANCED INPUTS LEFT & RIGHT:** XLR connectors fitted to this amplifier are for use with balanced line signals from audio preamplifiers. Balanced signals are carried via a three way cable.

The XLR pin configuration used in all Plinius product is:

**PIN 1 to GND**  
**PIN 2 to +Signal**  
**PIN 3 to -Signal**

**NOTE:** Because of the way our XLR and balanced inputs are configured it is not possible to connect both XLR and RCA at the same time.

### ***INPUT SELECTION SWITCH***

This switch at the centre of the inputs is used to select the pair of input sockets required as described above. Up selects the RCA input connections, while down selects XLR input.

### ***OUTPUT TERMINALS***

Connections for the loudspeakers are provided on the left and right sides of the rear panel. Two parallel pairs of five way binding posts for each channel are fitted – these provide ease of use with bi-wiring and multiple cables requiring a large contact area.

### ***GROUND LIFT SWITCH***

This switch is located below the remote trigger terminals, and allows the signal ground to be disconnected from the chassis. In some installations a hum loop may exist due to duplicate ground paths from different equipment. Use this switch to remove the connection from 0V to ground thus allowing some flexibility in your particular set-up.

### ***REMOTE TRIGGER TERMINALS***

In order to integrate more effectively into a home theatre system, the Plinius P10 has remote trigger terminals fitted to the rear panel. By connecting a processor with a remote trigger signal to these terminals, the P10 can be put in and out of standby/mute by the processor to which it is connected. When in standby/mute the amplifier draws less current and will operate at minimum temperature. The output relays are also open, disconnecting the loudspeakers. This may be of advantage in a multi-amplifier and/or remote installations. The standby/mute mode can only be activated via the remote trigger terminals. Polarity of the connections to the remote trigger is not important.

### ***MAINS POWER CORD IEC SOCKET***

This connector is where the mains supply cable from your wall connects to the amplifier. You will notice that a fuse holder is mounted within this connection, and it holds a mains fuse to provide surge and overload protection for your amplifier.

### ***RAIL FUSES***

These tubular fuse holders house the positive and negative rail protection fuses. Depress and turn anti-clockwise to open. An LED is fitted next to each fuse holder to indicate a blown fuse.

# INSTALLATION AND OPERATION

## ***PLACEMENT AND VENTILATION***

Your Plinius P10 may operate at a moderately high temperature, especially when being driven hard. The ideal location is upon a rigid stand, or floor mounted away from direct contact with any temperature sensitive materials or deep pile carpets. Ventilation through and around the amplifier should also be kept unimpeded, so ensure that the heat vents (slots in the lid and base) are not covered or restricted in any way.

The Plinius P10 design incorporates a very high level of mechanical de-coupling of the input and output. It can however still be influenced by acoustical feedback in the operating environment. The use of acoustic cones, or a suitably spiked amplifier stand or table, may further enhance the performance of this amplifier. Consult your **PLINIUS** dealer for further advice if required.

## ***MAINS VOLTAGE CONNECTION***

Firstly, check that the mains supply voltage printed on the rear of this amplifier is similar to the mains supply voltage in your area. If in doubt, please consult your **PLINIUS** dealer.

Mains supply power connection is via the supplied plug-in lead. A standard IEC socket connects the mains power at the amplifier end, while a local mains plug is required at the wall end.

The wiring code used inside all Plinius product is:

**Green to Earth/Ground**  
**Blue to Neutral**  
**Brown to Phase/Live**

Should a 'local' plug need fitting to the wall end of the lead, ensure that a suitably qualified service technician wires the plug correctly.

**IMPORTANT:**      **DO NOT POWER UP YOUR AMPLIFIER UNTIL YOU HAVE CONNECTED YOUR INPUT/OUTPUTS CORRECTLY FOR YOUR SYSTEM, (AS EXPLAINED IN THE NEXT SECTION).**

# INPUT / OUTPUT CONNECTION

It is important that you connect your loudspeakers (outputs) and preamplifier (inputs) to the Plinius P10 Power Amplifier correctly to ensure the amplifier is not damaged, and sounds its best with your system. Now that you have read and familiarised yourself with the connections on the back of the amplifier, as covered in the previous section, we will describe in detail how to connect the amplifier to your system.

If using single-ended or RCA inputs, connect your preamplifier to the RCA inputs on the back of the Plinius P10. Make sure you connect the red coded cable to the red RIGHT RCA input, and the black (or white) cable to the black LEFT RCA input. Also make sure the RCA connectors are a snug fit and are inserted all the way in. For XLR input connection, make sure you connect the RIGHT XLR input and LEFT XLR inputs to the right and left outputs from your preamplifier respectively. Also make sure the XLR connectors click into place. Use the input selection switch to select RCA if you are using unbalanced RCA inputs or to select XLR if you are using balanced XLR inputs.

Next, connect your loudspeaker wires to the output posts. Connect your right loudspeaker (i.e. the one on the right of you when seated in your normal listening position) to the right output terminals, ensuring that the red positive (+) terminal is connected to the red terminal on your loudspeaker. Do the same with the black or negative (-) terminals.

## ***TERMINATION QUALITY***

Quality of the connections must be examined to ensure that high-performance, trouble-free operation is enjoyed. Check that the connections are tight but do not over tighten. If bare wires are used make sure that no loose strands of wire short across the other terminals or the amplifier chassis. When using plugs such as bananas, be sure to use good quality plugs with a firm fit.

## ***BI-WIRING***

Bi-wiring uses two pairs of loudspeaker cables for each channel loudspeaker. You will notice that the rear panel of your Plinius P10 has two pairs of output terminals for this purpose. When using bi-wires, always connect positive (+) to positive (+) and the same for the negative (-) terminals.

### ***PHASING (OR POLARITY)***

It is important to achieve good stereo imaging in your listening room. By observing the wiring instructions above, each power amplifier/loudspeaker combination should be in phase. If you experience poor stereo image and/or a lack of bass, check that the loudspeaker wiring has been connected correctly. We recommend that you use one of the easily obtainable 'test discs' to help you ensure both phasing and channel orientation are correct. If in doubt, consult your **PLINIUS** dealer for advice.

Naturally it is also important to make sure all the leads carrying signals for the RIGHT channel loudspeaker are connected to the RIGHT input to the amplifier from your preamplifier or CD player etc. Signals for the LEFT channel should be wired in a similar fashion.

### ***CONNECTING THE MAINS SUPPLY***

Now that your Plinius P10 Power Amplifier is configured correctly, the mains cable can be plugged into the IEC socket on the back of the amplifier. Turn on the power switch on the rear panel. The power LED will cycle in brightness for approximately ten seconds as the internal circuitry stabilises. You can now enjoy your new Plinius P10 Power Amplifier.

### ***WARM-UP PERIOD***

You will find that the Plinius P10 will become noticeably 'purer' in sound after being on for a period of time. We usually recommend waiting at least 24 hours before expecting the best quality of sound reproduction from your amplifier. Also, as the Plinius P10 uses very little power while on, we suggest leaving the unit turned on so that it will always be at it's sonic best.

# P10 FEATURES

## ***FUSE PROTECTION***

When any rail fuse is damaged one or more fuse warning LED's will light. These LED's are located next to the fuse that has blown. To replace the fuse, steady the amplifier, then firmly push in the round fuse cap with your fingers. When the cap cannot push in any further, rotate the cap anticlockwise (to the left) until it comes to a stop. Release inward pressure on the fuse cap and it can now be removed from the amplifier. If any of the rail fuses need to be replaced, do so only with 7.5 amp normal blow fuses.

To re-fit the fuse, insert the fuse and gently turn it as far as possible anticlockwise (to the left). Now push the fuse cap in firmly, then turn clockwise (to the right) until it comes to a stop. Release inward pressure on the cap and the fuse will be fitted securely.

**IMPORTANT:        DO NOT FIT A FUSE WITH A HIGHER RATING.**

Note that fuse failure may indicate a severe problem. Check all speakers and speaker cables for damage/short circuit, etc. Should the amplifier continue to suffer rail fuse failure, contact your **PLINIUS** dealer.

## ***MAINS/LINE FUSE***

A Mains/Line fuse is fitted within the IEC socket on the rear of the amplifier. A small drawer at the bottom of this socket may be removed (after the IEC plug is removed) by levering it out with a flat blade screwdriver. The fuse fitted should be rated as specified on the rear panel.

**IMPORTANT:        DO NOT FIT A FUSE WITH A HIGHER RATING.**

In the unusual event that this fuse should blow, you must first establish the cause of this failure (such as power surges, damaged mains cable, etc.) before replacing the fuse with one of the same rating and type. Should the amplifier continue to suffer mains fuse failure, contact your **PLINIUS** dealer.

# LOUDSPEAKER SELECTION

Your Plinius P10 Power Amplifier is designed for use with high fidelity loudspeakers. It should not be used to operate any other type of appliance or equipment.

Choice of loudspeakers is one of personal taste, providing the chosen loudspeakers are suitable for use with your amplifier. Be certain that your loudspeakers can handle most of the rated output power of this amplifier. You may find loudspeaker specifications confusing or misleading, so you should discuss this with your audio dealer prior to purchase. As a general rule, the use of high power (200 Watt RMS or greater) loudspeakers is recommended and desirable. However, our experience indicates that medium to low power loudspeakers (100 to 200 Watt RMS) are quite often suitable for use on this amplifier, provided the volume is maintained at a level where no distortion is audible.

Impedance of the loudspeaker load is important to ensure the rated performance of this amplifier. Any combination of loudspeakers may be used, but the total average impedance load for each channel should be within a range of 4 to 8 ohms. Again, if you have doubts about the impedance of your loudspeaker configuration, we recommend you speak to your **PLINIUS** dealer.

# SPECIFICATIONS

**200-WATTS RMS PER CHANNEL INTO 8 OHMS.**

**BOTH CHANNELS DRIVEN FROM 20Hz TO 20kHz AT LESS THAN 0.2% TOTAL HARMONIC DISTORTION.**

- **FREQUENCY RESPONSE:** 20Hz to 20kHz  $\pm 0.2$ dB. -3dB at 5Hz and -3dB at 70kHz.
- **DISTORTION:** Typically  $< 0.05\%$  THD at rated power. 0.2% THD and IM worst case prior to clipping.
- **4 OHM POWER:** 300 Watts per channel or greater.
- **CURRENT OUTPUT:** 40A short duration peak per channel. Fuse protected.
- **SLEWING:** 50V/ $\mu$ s.
- **HUM & NOISE:** 90dB below rated output 20Hz to 20kHz unweighted.
- **GAIN:** RCA unbalanced: 32dB, XLR balanced 38dB.
- **INPUT IMPEDANCE:** 47k $\Omega$ .
- **HEIGHT:** 120mm (4 3/4")
- **WIDTH:** 450mm (17 3/4")
- **DEPTH:** 385mm (15 1/4")
- **WEIGHT:** 14kg (30lbs)

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