

## THE **PLINIUS P7** STEREO POWER AMPLIFIER

**CONGRATULATIONS** on your decision to become the proud owner of the **PLINIUS P7** power amplifier.

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

We have designed and manufactured this amplifier to faithfully and accurately reproduce music. This hand built instrument should give a lifetime of pleasure and with a little care and a full understanding of the operating recommendation in this manual the **PLINIUS P7** should provide trouble free performance.

Every component used within the P7 has been chosen for sonic excellence.

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

**Manufactured in New Zealand by:  
AUDIBLE TECHNOLOGIES LIMITED.**

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## **WARNING**

The P7 power amplifier can be operated in excess of 100 Watts into 8 Ohms. This amplifier is also capable of a very large peak current delivery.

This P7 power amplifier operates in Class AB and is therefore capable of generating a moderate temperature and requires careful placing to avoid any effect this heat may have on other equipment, furniture and fittings etc.

DO NOT remove the top cover from this amplifier. Hazardous voltages are present. Any repair work should be referred to a suitable qualified and experienced service person.

DO NOT attempt to connect any input of this amplifier to any of its 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 HiFi quality loudspeakers ) to any output terminal.

## AMPLIFIER FACILITIES AND FEATURES FRONT PANEL

The front panel of the P7 power amplifier incorporates a panel fitted with one switch, this controls the amplifier.

**MAINS SWITCH.** This heavy duty rocker switch to the left of this panel switches the MAINS / LINE Power to the amplifier ON or OFF. A LED immediately adjacent to the switch illuminates to indicate that the power is ON.

It is not good practice to repeatedly activate this switch ON and OFF rapidly.



### FRONT PANEL LAYOUT SHOWING CONTROLS

## REAR PANEL

**RCA INPUTS LEFT & RIGHT.** These standard type **RCA** terminals are for use with unbalanced signals, coming from either a source component, or more usually a Pre-amplifier ( such as the **PLINIUS M7** )

### OUTPUT TERMINALS STEREO:

**OUTPUT CONNECTIONS** For the loudspeakers are provided on the left and right hand side of the rear panel.

A pair of heavy duty, gold plated five way binding posts for each channel are supplied.

**CONNECT** your Right hand loudspeaker positive terminal to the amplifiers Right channel + output terminal. Connect your Right hand loudspeaker negative terminal to the Right channel - output terminal. Signals for the LEFT channel should receive corresponding attention.

**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 a 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** / loudspeaker dealer for advice.

**QUALITY** of the connections must be examined to ensure a high performance, trouble free operation is enjoyed. Check that the connections are tight, but do not overtighten with excessive use of spanners etc. If bare wires are used, make sure that no loose strands of wire short across to the other terminals or the amplifier chassis.

When using plugs such as Banana, be sure to use good quality one's with a firm fit.

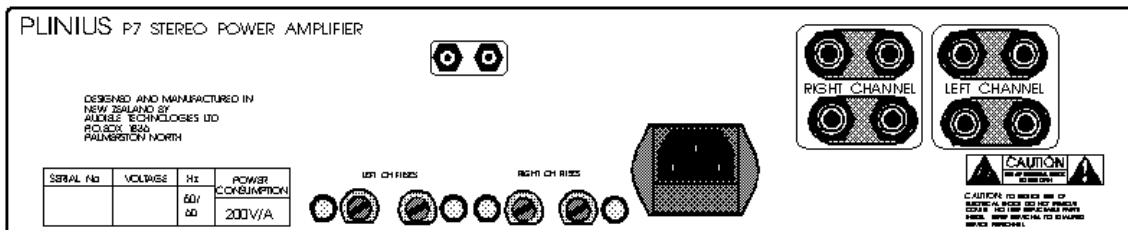
Output connections are provided to allow the use of most types of high quality loudspeaker cables.

The terminals are very robust 5 way binding posts which allow the use of banana plugs, bare wires, pins, spades and looped wire or terminals. Do not over tighten these terminals.

**STEREO.** This P7 is a dual channel or stereo amplifier.

Both left channel and right channel signals are amplified and output to a stereo pair of loudspeakers. This is the most common use of this power amplifier.

**UNBALANCED** or single-ended or RCA or coaxial leads are the most common of all and are used in the majority of audio signal systems. The terminal plug and socket are most commonly called RCA and can be found on the P7 for use as the standard input terminals for both Left and Right inputs.



**REAR PANEL LAYOUT**

## INSTALLATION & OPERATION

### MAINS VOLTAGE.

**CHECK** that the mains voltage printed on the rear of this amplifier is similar to the mains voltage normally supplied to your area.

If in doubt, please consult your **PLINIUS** dealer.

## PLACEMENT AND VENTILATION.

This P7 is designed to operate at a moderate temperature.

The ideal location is on a rigid stand or floor mounted away from direct contact with any objects, materials or deep pile carpets which may interrupt the flow of air around and through the amplifier.

Make sure that no objects are placed on top of the amplifier and that the ventilation holes are not covered or restricted in any way. Always ensure adequate ventilation.

The **PLINIUS** P7 design incorporates a very high level of mechanical decoupling 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.

The **PLINIUS** P7 power amplifier should be left switched on at all times. If the P7 is switched off between listening sessions you will never hear just how good it really sounds. In our experience a 48 hour warmup period is required during which the sound quality will change quite dramatically. This change will continue for at least 72 hours after which the amplifier will be at its optimum. This warmup period is a nuisance but the results are very worth waiting for.

## MAINS / LINE POWER CONNECTION

**MAINS / LINE POWER** connection is via the supplied plug-in lead.

The standard IEC socket connects the mains power at the amplifier end while a local mains plug is required at the wall end. In the event where a "local" plug needs to be fitted to the wall end of the lead, ensure that the plug is wired correctly by a suitably qualified or experienced person.

The wiring code is;

**Green to Earth,**  
**Blue to Neutral,**  
**Brown to Phase or Live.**

Ensure the mains switch on the front of the amplifier is OFF before attempting any modification of the mains connection - by depressing the *left hand side* of the MAINS switch.

## **MAINS / LINE FUSE.**

A Mains / Line fuse is fitted within the IEC Mains / Line socket on the rear of the amplifier. A small draw at the bottom of this socket may be removed ( after the IEC plug is removed ) by levering it out with a flat blade screw driver. The fuse fitted should be rated at no greater than 5 Amps Fast-Blow. A spare fuse is located within the draw.

In the unusual event that this fuse should blow, you must first establish the cause of this failure, cure the fault and then replace the fuse with one of the same type.

DO NOT FIT A FUSE WITH A HIGHER RATING without consulting your **PLINIUS** dealer first.

In the event that your Mains / Line voltage is different to that printed on the back of the P7, it may altered by a suitably qualified or experienced person.

There are only two options, **110V - 120V** or **220V - 240V** Operation

Consult your **PLINIUS** dealer for any changes that may be necessary.

## **RAIL FUSE**

At the rear of the P7 there are four fuses, for each voltage rail of each channel. Should one of these fail, it will be indicated by the adjacent LED, which will glow ( while the power is still turned on ) to indicate a fuse failure.

Before replacing the fuse, first find out what caused the failure, cure the fault, or if in doubt consult your **PLINIUS** dealer.

To remove the fuse, push the holder in slightly, and turn counter-clockwise, the replacement fuse should be no greater than 5 Amps Fast-Blow.

## LOUDSPEAKERS

This amplifier is designed for use with HiFi quality loudspeakers. It should not be used to operate with any other type of appliance or equipment not intended or designed for use with this amplifier.

Choice of loudspeakers is one of personal taste, providing the chosen loudspeakers are suitable for use with this control 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 therefore you should discuss these fully with your audio dealer prior to purchase. The use of higher power (100 Watts RMS or greater) loudspeakers are recommended for this amplifier in stereo mode. Our experience indicates that low power loudspeakers are quite often suitable for use with 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 in stereo mode.

## SERVICING.

If the top cover of the P7 amplifier is taken off for any reason, remove the mains supply plug first. The Voltages present on the circuit board could be harmful.

In the unlikely event that your **PLINIUS** P7 should require any service please take it firstly to your Dealer in its original packaging. They will then determine if the unit should be returned to the factory. Your **PLINIUS** Dealer has a good understanding of our Amplifiers and will be able to advise on any further installation requirements.

## CLEANING.

A damp cloth is all that is required to remove dust and finger marks from the P7's anodised surface.

## **Specifications:**

100 Watts continuous power per channel into 8 ohms, both channels driven from 20Hz to 20kHz at less than 0.1% Total Harmonic Distortion from 0.25 Watts to rated output.

160 Watts continuous power per channel 20Hz to 20kHz into 4 ohms.

### **Dynamic headroom**

1dB or greater at 8 ohms with music.

### **Frequency response**

20Hz to 20kHz  $\pm$  0.2dB

-3dB at 5Hz, -3dB at 90kHz.

### **Distortion**

Typically 0.05% and IM at rated power, 0.1% THD and IM worst case prior to clipping.

### **Saturation**

120 Watts per channel or greater into 8 ohms.

### **Voltage swing**

87 Volts peak to peak per channel

### **Current output**

30 Amps short duration continuous per channel.

Fuse protected.

### **Rise time**

Typically 4 microseconds.

### **Slewing**

50 Volts/uS

90dB below rated output 20Hz to 20kHz unweighted.

### **Input sensitivity / Input impedance**

1.2V RMS 47k ohms for rated output.

### **Input overload**

5V RMS

All operational, technical and descriptive material published here is subject to change at any time without notice.

**PLINIUS** amplifiers are designed and manufactured by:

AUDIBLE TECHNOLOGIES Ltd.

P.O. Box 1836,

PALMERSTON NORTH.

NEW ZEALAND.

### **DIMENSIONS:**

Height : 100mm Width 440mm

Depth : 300mm Weight 8kg