

ODEON
MULTICHANNEL AMPLIFIER
INSTRUCTION MANUAL

PLINIUS
THE HEART OF MUSIC



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All operational, technical and descriptive material in this publication is subject to change at any time without notice. For further product information or queries, please contact your Plinius dealer.

Plinius products are designed and manufactured by
Plinius Audio Limited, New Zealand.

Introduction

Congratulations on your decision to become the proud owner of this Plinius Odeon Multichannel 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 Odeon Multichannel Amplifier will provide years of high-quality, trouble-free performance.

Please take the time to read this manual thoroughly before using your amplifier.

SERIAL NUMBER _____

FINAL TEST CERTIFIED BY _____

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 that looks, feels and genuinely is robust.

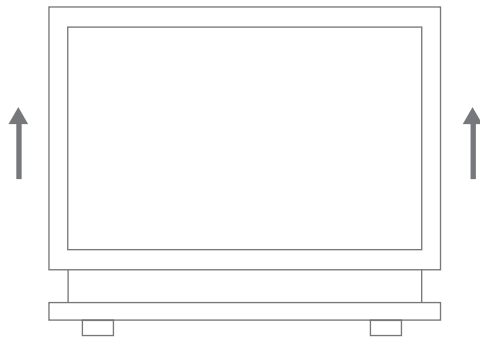
As with music that you are not familiar with, truly innovative new designs can take time to understand and enjoy. How often have you heard music that you were first unsure of, that over repeated listening, has become a firm favourite?

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

Unpacking



Open the box from the top and remove the accessories and polystyrene sheets. Once you have removed all polystyrene sheets you may now proceed to lift the unit from the box. You will require help with this, as this unit is very heavy. Retain the packaging for future transportation of this unit.

Placement & Ventilation

Your Plinius Odeon Multichannel Amplifier may operate at a moderately high temperature, especially during extended listening sessions. With this in mind, we recommend the following guidelines for placement and ventilation:

- The ideal location is upon a rigid stand, away from direct contact with any temperature sensitive materials, furniture or deep pile carpets.
- Ventilation through and around the amplifier should be kept unimpeded.
- Ensure heat vents (slots in the base and lid) are not covered or restricted in any way.
- Equipment racks should be of an open type with no closed side panels and no closed front or rear panels. Ensure a minimum of 400mm clearance on all sides of your Plinius unit to other equipment and the shelf above. Ensure the space between the chassis and shelf below the unit is unobstructed at all times.
- DO NOT place this unit in an enclosed cabinet.
- DO NOT stack other audio components on top of this unit.
- NOTE: This unit has been designed for use in moderate climates only, not for tropical conditions.

The Plinius Odeon 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.

Care & Maintenance

With simple care and maintenance your Plinius product can be kept looking and operating like new for many years to come.

MAINTAINING THE CONNECTORS

Exposed connectors such as the RCA connectors will be subject to environmental factors, and over time the surface may degrade. This can be greatly reduced by fitting readily available 'RCA caps' to reduce the effects of environmental elements on the RCA connectors. These RCA caps or RCA shorting caps can also provide sonic benefits. Connector cleaning products are also available to clean the RCA and cable connectors and frequent checks and cleaning will help maintain a good signal connection.

NOTE: DO NOT use RCA shorting caps on output connectors or power amplifier input connectors. Use RCA shorting caps on unused preamplifier stage input connectors only. Standard RCA shielding caps can be used on any unused input or output connectors.

MAINTAINING THE SWITCHES

Switches should be maintained by using each various switch setting periodically. Even if a switch or a switch setting is not used, it is a good idea to toggle small switches and turn rotary switches through the full range of the switch several times in succession to keep the contacts active. Performing this simple action will promote longevity of the switch contacts.

SURFACE CLEANING

From time to time you may wish to clean the surface of your Plinius equipment to remove dust, or any material build up from the atmosphere or on commonly used controls. Your Plinius product is made up of parts that have a hard anodised or a powder coat finish and will clean easily without being damaged.

Cleaning should be carried out using a soft cleaning cloth, dry or with either a small amount of water or a very mild surface cleaner, while observing the following guidelines:

- As a safety precaution, always switch the equipment off prior to cleaning
- Always use a cloth that is soft and clean
- Never use abrasives or polishing compounds anywhere on the unit
- Never apply liquid directly to the surface of the unit
- Use the cloth dry or with mild surface cleaners of either liquid or foaming type
- Apply only small amounts of cleaner to the cloth
- DO NOT rub the surface but wipe clean only. Excessive rubbing may dull powder coat or wear the screen printed text.

Precautions

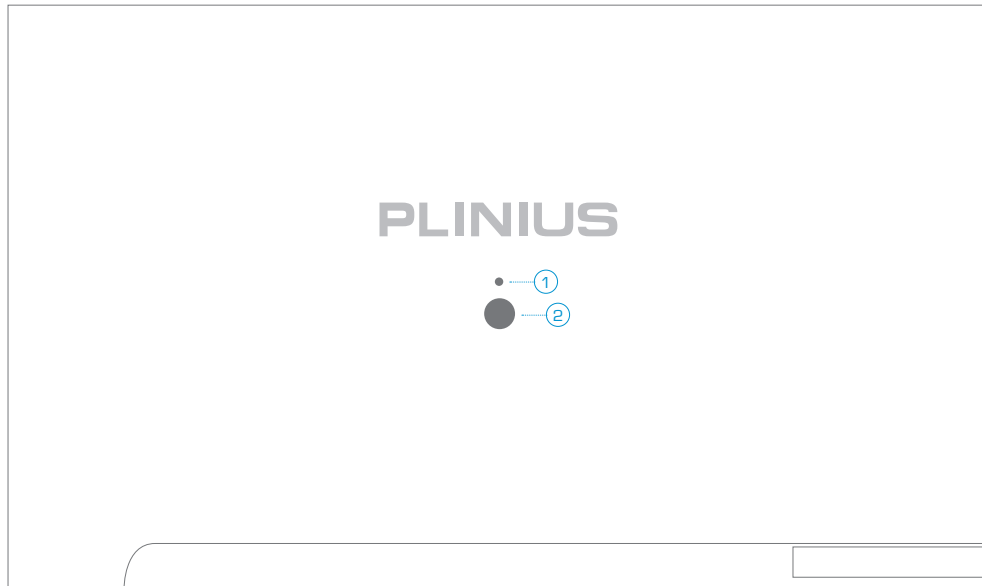


PLEASE TAKE SPECIAL NOTE OF THE FOLLOWING PRECAUTIONS
BEFORE OPERATING YOUR NEW AMPLIFIER.

- The Plinius Odeon Multichannel 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 Odeon Multichannel 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. There are some alterations that may be made by you, the owner. However, 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.
- DO NOT expose the unit to dripping or splashing.
- DO NOT place objects filled with liquids on the unit, e.g. vases.
- DO NOT place sources of naked flame on the unit, e.g. candles.

Front Panel Functions

The front of the Plinius Odeon Multichannel Amplifier incorporates all the facilities you will require on a daily basis.



1. DISPLAY LED

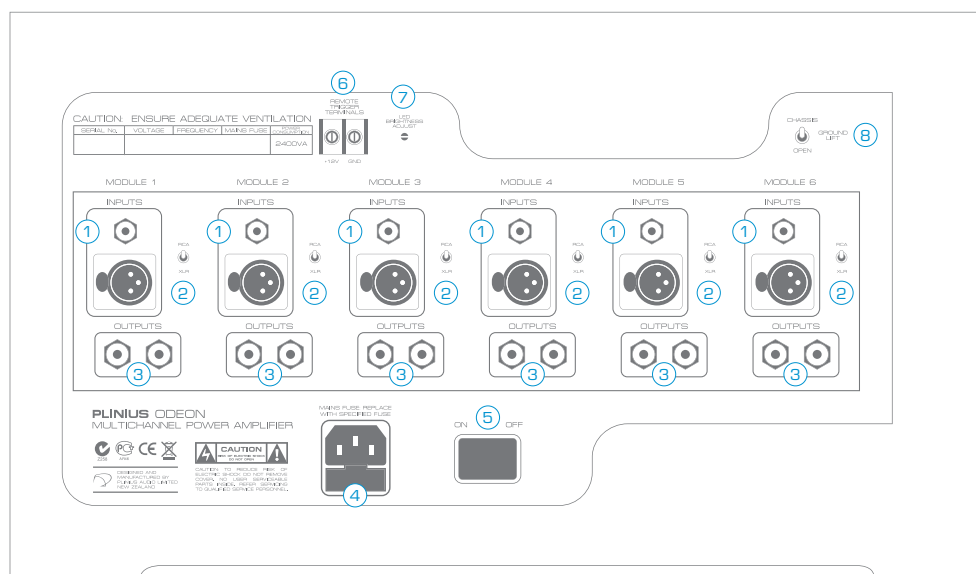
An LED on the front panel indicates the mode of operation. When first switched on the unit will go into standby and the LED will vary in brightness. When the unit is taken out of standby the LED will flash for a short time as part of the initialisation sequence, then remain lit. LEDs in the lid of the Odeon will also light to show how many modules are fitted and operating correctly.

2. STANDBY BUTTON

Pressing this button toggles between operate and standby modes. On exiting standby the power LED will flash for a short time as part of the initialisation sequence, then remain lit and the incoming signal will be amplified. In standby mode the power LED will vary in brightness.

Rear Panel Functions

This panel incorporates the terminals for connecting input signals from the source, as well as outputs to the loudspeakers, power switch, and mains supply. Please remember that your Plinius Odeon Multichannel 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.



1. INPUT TERMINALS

The input terminals for your Plinius Odeon Multichannel Amplifier are easily accessible at the top of the channel module panels. Depending on the configuration of your amplifier when it was purchased, there will be up to six modules fitted, each with its own input connection/s. The Dual Amp modules have two RCA input connectors, one for each of the two amplifier channels on the module itself.

- **RCA INPUT:** This standard RCA terminal is for use with unbalanced signals from most signal sources such as home theatre processors and stereo preamplifiers.
- **XLR BALANCED INPUT:** 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 that connects all three pins at each end of the interconnect cable.

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.

2. RCA/XLR SELECTOR SWITCH (MONO MODULE ONLY)

Each fitted module incorporates a switch that selects the input terminal to be used. It is possible to use different input types for each channel. Note that there should never

be an RCA input and XLR input connected to one module at the same time, and the selector switch should correspond with the input that is in use.

3. OUTPUT TERMINALS

Connections for the loudspeakers are provided on each module panel. A pair of five way binding posts are fitted – these provide ease of use with cables requiring a large contact area. The Dual Amp modules have two pairs of binding posts, one for each of the two amplifier channels on the module itself.

4. 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.

5. MAINS SWITCH

This heavy-duty rocker switch in the centre of the panel turns the Mains/Line Power to the amplifier ON or OFF. An LED in the centre of the front panel indicates that the power is on. When first switched on the unit will go into standby and the LED will vary in brightness. The amplifier draws a moderately high current when switched on. Despite the "Soft Start Circuit" within the amplifier reducing current demand on the mains as the amplifier is switched on, it is not good practice to rapidly turn the Mains switch on and off repeatedly.

6. REMOTE TRIGGER TERMINALS

In order to integrate more effectively into a home theatre system, the Plinius Odeon has remote trigger terminals fitted to the rear panel. By connecting a processor with a remote trigger signal to these terminals, the Odeon can be put in and out of standby by the processor to which it is connected. When in standby 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. Polarity of the connections to the remote trigger is not important.

7. LED BRIGHTNESS ADJUST

This small variable resistor can be adjusted from the rear panel, which will alter the brightness of all external blue LEDs at the same time.

8. GROUND LIFT SWITCH

This switch is located to the top right of the rear panel, 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.

Installation & Operation



WARNING: RISK OF ELECTRIC SHOCK. TERMINALS MARKED WITH ⚡ SHOULD BE CONSIDERED HAZARDOUS LIVE AT ALL TIMES.

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 place this amplifier in any position where liquids or any foreign material may accidentally enter it.



PLEASE READ & UNDERSTAND THE PRECAUTIONS WITHIN THIS MANUAL FOR PLACEMENT & OPERATION OF THIS PRODUCT.

CONNECTIONS

Connections to your Odeon Multichannel Amplifier should be made in the same order as they are listed in this section. DO NOT attempt to connect your Odeon Multichannel Amplifier until you have read and fully understood these instructions.

Although these instructions refer to the connection of a Processor, the Odeon can also be safely installed into multimedia systems by following the same installation guidelines. Should you require any further assistance, please contact your Plinius dealer.



DO NOT POWER UP YOUR AMPLIFIER UNTIL YOU HAVE CONNECTED YOUR INPUT/OUTPUTS CORRECTLY FOR YOUR SYSTEM.

Note: Module 3 and Module 4 have the shortest ground return paths and will give the best audio performance. It is recommended that these be used for front left and right. Any fitted stereo modules should be used as rear channels.

PREAMPLIFIER/PROCESSOR INPUTS

Connect your preamplifier or processor to the input of the Plinius Odeon using suitable single-ended RCA or Balanced XLR interconnect cables only. If using single-ended RCA inputs, connect your preamplifier to the RCA inputs on the back of the Plinius Odeon. Make sure the RCA connectors are a snug fit and are inserted all the way in. For XLR input connection, make sure the connectors are inserted all the way and latch into place. NOTE: DO NOT connect XLR and RCA at the same time, use only one or the other.



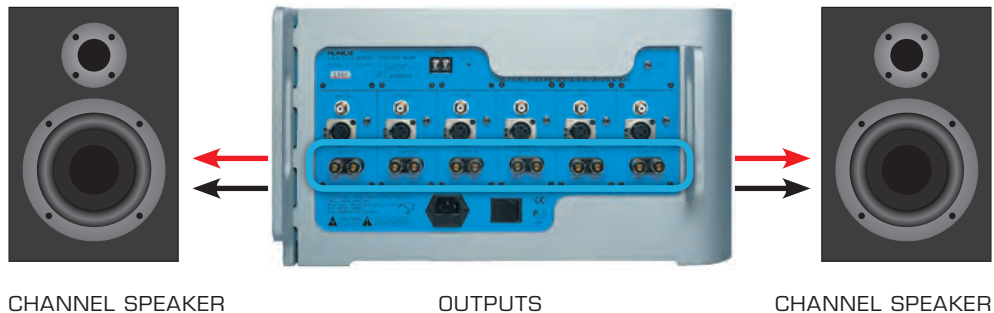
PLINIUS PREAMPLIFIER



ODEON INPUTS

LOUDSPEAKER OUTPUTS

The connection of your loudspeakers to the output posts of the Plinius Odeon must be made by an 'instructed person' or by ready made loudspeaker cables only. Connect the loudspeakers to the output terminals, making note of which input is connected to the module. For example the module with left front input signal should have the left front speaker connected. Repeat so each module has the appropriate speaker connected in relation to the input signal, 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 cross the other terminals or the amplifier chassis. When using plugs such as bananas, be sure to use good quality plugs with a firm fit.

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.

To achieve a sound performance that is correctly aligned to your room, make sure all of 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

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 plug-in lead supplied with your Plinius Odeon.

Where possible, check the wall outlet is switched OFF, then connect the local mains plug end of the lead to the wall outlet. Check the Odeon is switched OFF, and connect the IEC end of the cable to the IEC socket at the back of the Odeon. With the cord fully connected, switch the wall outlet ON.

Now that your Plinius Odeon is configured correctly, switch the power switch on the rear panel to ON. The display LED will cycle in brightness to indicate the unit is in Standby mode. Use the STANDBY switch on the front panel to take the unit out of standby and you can now enjoy your new Plinius Odeon Multichannel Amplifier.

NOTE: This unit must be connected to a mains socket outlet with a protective earthing connection. The wall outlet socket or Odeon mains switch must be accessible at all times in case of emergency.

WARM-UP PERIOD

You will find that the Plinius Odeon 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.

Product Features

ERROR DETECTION

The Plinius Odeon Multichannel Amplifier has in-built error detection. This will function under the following conditions:

- When the amplifier is overdriven/clipped
- If any internal fuse is damaged.

Should either of these circumstances arise the amplifier will disconnect the output of the channel/s that have an error condition. This condition will remain until the input signal level is reduced or the damaged fuse replaced. Whenever error detection is triggered, the power LED and the lid LED of the module that is going into error will flash on and off.

FUSE PROTECTION

When any rail fuse is damaged one or more fuse warning LEDs will light. These LEDs can be seen through the lid and are located next to the fuse that has blown. Should any of the internal fuses need to be replaced, ensure that the amplifier is switched OFF and disconnected from the mains supply. The lid of the amplifier will then need to be removed and the fuses located. Replace them with the same type only.



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

NOTE: Fuse failure may indicate a severe problem. Check all speakers and speaker cables for damage etc. Should the amplifier continue to exhibit rail fuse failure contact your Plinius dealer.

LED BRIGHTNESS CONTROL

Your Plinius Odeon has an LED brightness control that will adjust all lid and front panel LEDs. A small flat bladed screwdriver can be used to adjust the brightness. The LED brightness control is a small multi turn potentiometer and is located on the rear panel of the amplifier next to the remote trigger terminals.

TEMPERATURE MONITORING

The Plinius Odeon Amplifier has temperature-monitoring circuitry. When the amplifier reaches a predetermined internal temperature of 45°C (113°F) due to inadequate ventilation, the amplifier will be shut down until the temperature returns to normal. When the temperature has exceeded the set point, the power LED will flash four times in quick succession, pause then repeat. If over-temperature shutdown is occurring frequently, check whether ventilation around the amplifier is adequate.

MAINS/LINE FUSE

A Mains/Line fuse is fitted within the IEC Mains/Line 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. 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.



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

NOTE: Fuse failure may indicate a severe problem. Should the amplifier continue to exhibit mains fuse failure contact your Plinius dealer.

Loudspeaker Selection

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

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.

Troubleshooting

NO SOUND FROM THE UNIT

If the unit is not reproducing audio take the following steps:

- Check the Preamplifier, processor or AV receiver is correctly connected to an appropriate input on the Unit.
- Check the source is playing, and not paused or muted. If it has adjustable volume, check this is at the usual output level.
- Check the preamplifier is set to select the correct source input. Adjust the source selector for the correct source component.
- Check the volume. Turn the unit volume on the preamplifier up to a point just below the normal listening level. DO NOT turn the volume up to maximum in case the sound begins to come through the speakers.
- Check the unit is not in Standby. If the Display LED is varying in brightness, this indicates the unit is in Standby mode. The Display LED should be full brightness for operational mode.

SOUND IS QUIET OR DISTORTED

If the sound is quiet or distorted a rail fuse may have failed. While the unit is ON check look through the ventilation slots in the top cover. A Red LED being on will indicate a fuse failure. If the fuse has failed, see Fuse Protection in the Product Features section of this manual.

NOTE: If the unit immediately or repeatedly suffers rail fuse failure, there may be a major problem and you should contact your Plinius dealer.

POWER FAILURE

The unit may have suffered mains fuse failure or be in thermal overload protection mode.

- Mains Fuse Failure: Check the mains fuse and replace if needed.
- Thermal Overload Protection: Assess the temperature of the unit. If the unit seems excessively hot, the Over Temperature Protection may have activated.

Refer to the Product Features section for further information.

NOTE: If the unit immediately or repeatedly suffers mains fuse failure or thermal overload protection, there may be a major problem and you should contact your Plinius dealer.

Specifications

POWER

200 watts RMS per module into 8 ohms.
Each module driven from 20Hz to 20kHz at
less than 0.2% total harmonic distortion.
(6 modules fitted and driven.)

FREQUENCY RESPONSE

20Hz to 20kHz ± 0.2 dB
-0.3dB at 5Hz and -0.3dB at 70kHz

DISTORTION

Typically $>0.05\%$ THD at rated power. 0.2%
THD and IM worst case prior to clipping

CURRENT OUTPUT

40A short duration per module
Fuse protected

RISE TIME

Typically 4 μ s

SLEW RATE

50V/ μ s

HUM & NOISE

90dB below rated output 20Hz to 20kHz
unweighted

GAIN

RCA inputs: 32dB
Balanced inputs: 38dB

INPUT IMPEDANCE

47k ohms

POWER/CURRENT CONSUMPTION

2400VA
1.3A (300W) Class AB Idle
0.2A (46W) Standby

DIMENSIONS

Height: 260mm (10.25")
Width: 460mm (18")
Depth: 585mm (23")
Weight: 54kg (120lbs)

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