

# KORU

*Phono Preamplifier  
Instruction Manual*



**PLINIUS**

*The heart of music*  
[www.pliniusaudio.com](http://www.pliniusaudio.com)



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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 Koru Phono Preamplifier.

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 Koru Phono Preamplifier will provide years of high-quality, trouble-free performance.

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

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.

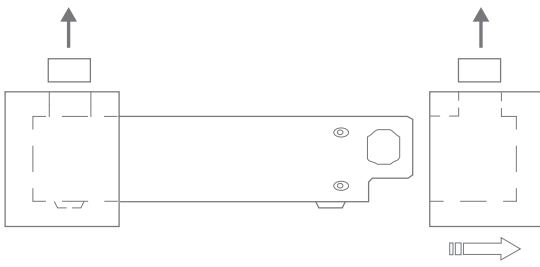
As with music that you are not familiar with, truly innovative new designs can take time to understand and enjoy. How often have you heard music that you were first unsure of, that over repeated listening, has become a firm favourite?

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 from the foam end caps. You may now proceed to lift the unit from the box. Once the unit is removed you can proceed with the removal of the foam end caps. These caps are designed to fit on the front and back of the unit for maximum protection. Retain the packaging for future transportation of this unit.

# Placement & Ventilation

This Plinius product 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 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 100mm clearance on all sides of your Plinius unit to other equipment and the shelf above.
- If the unit is in an enclosed cabinet, the clearance should be greater than 200mm on all sides. Ensure the space between the chassis and shelf below the unit is unobstructed at all times.
- When stacking separate audio components, apply the minimum clearances above, as well as a minimum of 400mm clearance above the top unit for suitable airflow.
- NOTE: This unit has been designed for use in moderate climates only, not for tropical conditions.

The design of this Plinius product 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 PHONO PREAMPLIFIER.

- DO NOT leave flammable material on the phono preamplifier whilst running, as this could pose a serious fire risk.
- This phono preamplifier 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 preamplifier 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 phono preamplifier 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 audio preamplifiers) to the phono preamplifier output terminals.
- DO NOT connect any voltage source, short circuit, earth/ground or appliance (other than suitable phono turntable) to the phono preamplifier input 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

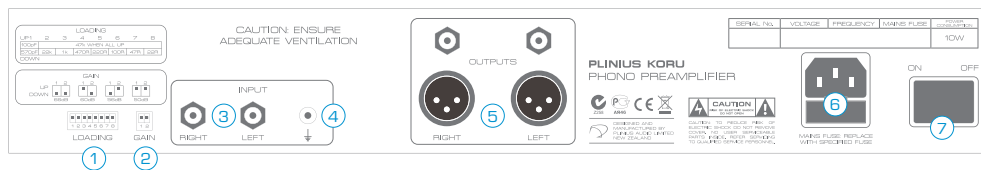
## 1. DISPLAY LED

An LED on the front panel indicates that the power is on. When first switched on, the display LED will immediately light and will remain lit during the time the preamplifier is powered on.



# Rear Panel Functions

This panel incorporates the terminals for connecting the input signal from a turntable, outputs to the preamplifier, loading and gain switches and also the mains supply. Please remember that your Plinius Koru Phono Preamplifier is a high quality electronic instrument. Be sure that you understand your system's requirements fully before you make any connection to this phono preamplifier.



## 1. LOADING SWITCHES

The phono input capacitance and cartridge load can be adjusted to suit your particular phono cartridge, using the 8-way mini-switches at the lower left of the diagram. These switches can be used to set the input capacitance to 100pF or 570pF, and the cartridge load to 22R, 47R, 100R, 220R, 470R, 1k, 22k or 47k.

## 2. GAIN SWITCHES

The phono gain can also be set to your phono turntable specifications using the 2-way mini-switches next to the loading switches. The Gain settings are 50dB, 56dB, 60dB or 66dB.

## 3. INPUT TERMINALS

The input terminals of your Plinius Koru Phono Preamplifier are easily accessible at the lower right channel side of the rear panel.

RCA INPUTS LEFT & RIGHT: These standard RCA terminals are for use with unbalanced signals from Turntable.

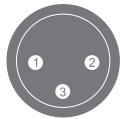
#### 4. EARTH POST

This is a chassis connected gold-plated earth post for use with most vinyl turntables.

#### 5. OUTPUT TERMINALS

Connections for line level preamplifiers are provided in the centre of the rear panel. Connections are available for both single ended RCA and balanced XLR cables.

The XLR output 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 balanced XLR outputs are configured it is not possible to connect both XLR and RCA at the same time.

#### 6. MAINS SWITCH

The heavy-duty rocker switch on the right of the panel diagram turns the Mains/ Line Power to the preamplifier ON or OFF. For your safety, this switch should remain accessible at all times in case of an emergency.

#### 7. MAINS POWER CORD IEC CONNECTOR

This connector is where the mains supply cable from your wall connects to the preamplifier. 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 preamplifier.

# Installation & Operation



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

This preamplifier 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 phono preamplifier in any position where liquids or any foreign material may accidentally enter it.



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

## CONNECTIONS

Connections to your Plinius Koru Phono Preamplifier should be made in the same order as they are listed in this section. DO NOT attempt to connect your Koru Phono Preamplifier until you have read and fully understood these instructions. Although these instructions refer to the connection of the Plinius Koru to a preamplifier, the Koru 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.

## PHONO TURNTABLE INPUTS

Connect your Turntable to the input on the back the Plinius Koru using suitable single-ended RCA interconnect cables only. Make sure you connect the red coded cable to the red RIGHT RCA input, and the black (or white) cable to the white LEFT RCA input. Also make sure the RCA connectors are a snug fit and inserted all the way in. If your phono turntable has an earth cable, this can be connected to the GROUND post next to the input terminals.



TURNTABLE OUTPUT



KORU INPUT

## OUTPUT TERMINALS

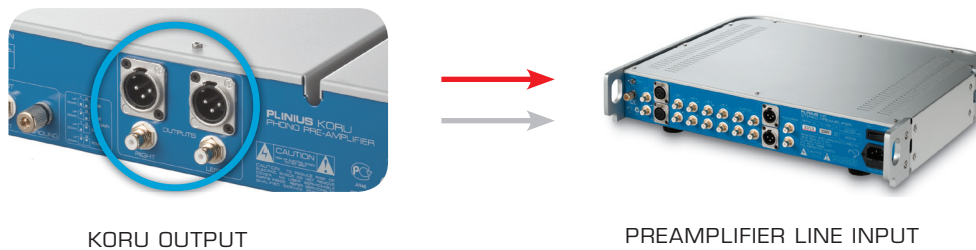
The connection of the outputs of the Koru Phono Preamplifier must be made by an 'instructed person' or by suitable ready made interconnect cables only.

Connections for preamplifiers are provided at the rear of the unit. If using single-ended RCA outputs connect your Koru to the 'line level' RCA inputs on the back of

the preamplifier. Make sure you connect the red coded cable to the red RIGHT RCA output, and the black (or white) cable to the white LEFT RCA output. Also make sure the RCA connectors are a snug fit and are inserted all the way in.

For XLR output connection, make sure you connect the RIGHT XLR output and LEFT XLR output to the right and left 'line level' inputs of your Preamplifier respectively. Also make sure the XLR connectors click into place.

NOTE: DO NOT connect XLR and RCA at the same time, use only one or the other. DO NOT connect the output of the Plinius Koru to a preamplifier phono input. Connect only to line level inputs such as CD, Tuner, Aux, etc.



### **CONNECTING THE MAINS SUPPLY**

Firstly, check that the mains supply voltage printed on the rear of this preamplifier 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 Koru. 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 Koru is switched OFF, and connect the IEC end of the cable to the IEC socket at the back of the Koru. With the cord fully connected, switch the wall outlet ON.

Now that the Plinius Koru is configured correctly, switch the power switch on the rear panel to ON. You can now enjoy your new Plinius Koru Phono Preamplifier.

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

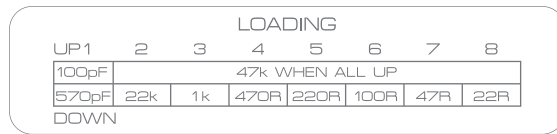
### **WARM-UP PERIOD**

You will find that the Plinius Koru will become noticeably 'warmer' 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 preamplifier.

# Product Features

## PHONO CARTRIDGE LOADING ADJUSTMENT

The phono cartridge load can be adjusted to suit your particular phono cartridge, using the 8-way mini-switches labelled 'LOADING'.



For all individual mini switches, when UP, the corresponding loading is OFF. When DOWN, the corresponding loading is ON.

Switch '1' is the adjustable input capacitance. With switch '1' OFF the input capacitance is 100pF for use with higher output Moving Magnet (MM) cartridges. With switch '1' ON the total input capacitance is 570pF. This is an optional setting as there may be some additional interference rejection for lower output Moving Coil (MC) cartridges with switch '1' ON.

Switches '2' through to '8' allow the load impedance to be set to suit your particular phono cartridge. Once the correct loading value has been determined, use the corresponding mini-switch to set the load value to one of 22k, 1k, 470R, 220R, 100R, 47R, or 22R. With none of the switches ON, the loading will be set to 47k.

Please consult your cartridge manufacturer for specific recommendations.

## PHONO GAIN ADJUSTMENT

The Koru Phono Preamp can also be set to one of four gain settings to suit your phono turntable specifications using the 2-way mini-switches labelled 'GAIN'. These 2-way mini-switches allow the gain to be adjusted as low as 50dB, to suit high output Moving Magnet (MM) cartridges, or as high as 66dB for low output Moving Coil (MC) cartridges. The four possible gain configurations are as follows:



For both individual mini switches, when UP, additional gain is OFF, when DOWN, additional gain is ON.

Switch '1' is the 6dB adjustment. With Switch '1' ON there is an additional 6dB. Used within the 50dB range this will increase the gain from 50dB to 56dB. Used within the 60dB range it will increase the gain from 60dB to 66dB.

Switch '2' is the 10dB adjustment. With switch '2' ON the gain will be increased from the 50dB range to the 60dB range.

### **MAINS/LINE FUSE**

A Mains/Line fuse is fitted within the IEC socket on the rear of the power supply pack. 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 at no greater than that specified on the rear panel.



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

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

# Troubleshooting

## **NO SOUND FROM THE UNIT**

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

- Check the source is correctly connected to the Koru Phono preamplifier. Refer to the Installation & Operation section on page 9.
- Check the source is playing. Check the tonearm is lowered fully onto the record.
- Check the preamplifier is set to select the correct source input. Adjust the source selector for the Koru as the source component.
- Check the volume. Turn the volume 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.

## **POWER FAILURE**

- The unit may have suffered mains fuse failure. Check the mains fuse and replace if needed.
- Check the system is working with another source to confirm the fault is not due to the preamplifier or power amplifier stages.

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

# Specifications

## **INPUT**

RCA Unbalanced

## **GAIN**

User adjustable, 50dB, 56dB, 60dB, 66dB

## **LOAD**

User adjustable, 47k ohms, 22k ohms, 1k ohms, 470 ohms, 220 ohms, 100 ohms, 47 ohms, 22 ohms

## **INPUT CAPACITANCE**

User adjustable, 100pF, 570pF

## **FREQUENCY RESPONSE**

20Hz to 20kHz +/-0.2dB  
within RIAA spec

## **SIGNAL TO NOISE RATIO**

-80dB wrt 5 mV input, A weighted

## **DISTORTION**

<0.01% THD at all levels below clipping

## **OUTPUTS**

RCA Unbalanced

XLR Balanced

## **POWER/CURRENT CONSUMPTION**

10VA

0.03A (7W) Idle/Standby

## **DIMENSIONS**

Height: 80mm (3.5")

Width: 450mm (17.75")

Depth: 400mm (15.75")

Weight: 5.5kg (12lbs)



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