



**AVID HIFI**

# **PULSARE II**

REFERENCE PHONO PRE-AMPLIFIER



**USER MANUAL**

## Table of Contents

| <b>Section</b>                | <b>Page</b> |
|-------------------------------|-------------|
| Introduction                  | 3           |
| Warnings                      | 3           |
| Packing                       | 3           |
| Parts Checklist               | 3           |
| Servicing                     | 3           |
| Cleaning                      | 3           |
| Controls and Connections      | 4           |
| User Notes                    | 4           |
| Custom Loading Facility       | 5           |
| Warranty-Terms and Conditions | 6           |
| Specifications                | 7           |

### **Extended 5-Year Warranty**

AVID is pleased to extend the normal warranty duration to 5-Years from the date of original shipping. This warranty is transferable in the unlikely event that you would sell this unit onto another party. Register your product at;

**[www.avidhifi.com/register](http://www.avidhifi.com/register)**

## Introduction

AVID has long been recognised as a leading force in engineering British high-end turntables. What might surprise some though, is the technology and engineering involved in our Power supplies alone, surpasses that inside most amplifiers.

AVID have applied their engineering ability to design a phono-amplifier capable of realising the full potential of not only their own, but all the current breed of world-class turntables.

Employing extremely high quality components and a fully balanced architecture, which applies these principles, even with an unbalanced source, the Pulsare II has a genuinely novel topology.

AVID's 'No-Compromise' engineering in this case means that all adjustments are controlled via relays to fully preserve the fragile source signal integrity; a passive RIAA (*with Neumann HF correction*) circuit using capacitors with a tolerance within 1%; and an external double regulated 300va power supply providing dedicated power to each channel.

Whilst the uncompromising approach obviously means a necessarily commensurate price tag, the resulting improvement to vinyl replay will be immediately apparent. The clean, distortion-free performance, dynamic ability and good old-fashioned 'Grip' more than justifies the outlay and in high-end terms, represents a veritable bargain.

Designed, manufactured and tested entirely within our Huntingdon facility, the Pulsare II components, PCBs and casework have all been optimised to create a product with the performance, longevity and flexibility to provide a lifetime of service to the most discerning audiophiles.

We hope that you enjoy this product for many years!

## Warnings

1. Do not expose either the power supply or phono unit to rain or moisture.
2. All components, even the wiring loom inside, have been specifically optimised for the best quality reproduction. Tampering will invalidate any warranty.
3. The Power Supply contains voltages, which can cause serious injury or death and there are no user serviceable parts and there is no reason to open it. In situations of failure return to an approved dealer or service agent or contact AVID directly.
4. The Pulsare II has a possible high output voltage and may overload pre-amplifiers if the wrong gain setting is selected. Please check product manuals or your dealer for advise.
5. Ensure the power supply is switched off before connecting the Power Umbilical Cable.

## Packaging

Save all the packing in a dry place away from fire hazard. The Pulsare II is a precision instrument and the packaging has been especially designed so that all component parts are safe during transportation.

You should not have occasion to return your unit to us, but if you need to, the unit must be shipped in its original packaging to keep it from damage.

## Parts Checklist

- 1 x Instruction Manual
- 1 x Pulsare II Phono Stage
- 1 x Pulsare II Power Supply
- 1 x Power Umbilical Cord
- 2 x RCA Plug
- 1 x Power Cord

## Servicing

Because of the careful design of this product, general servicing is not required.

## Cleaning

To maintain the visual appearance, occasionally dust the surfaces with a normal duster - no need for any sprays or polishes. Never use cleaners containing abrasives, as this will damage the surface.

## Controls and Connections



### FRONT PANEL Controls

- INPUT SELECTOR (XLR – RCA (b) – RCA)
- GAIN LEVEL (MM – MC (low) – MC (med) – MC (high))
- RESISTANCE (10R-30R-100R-300R-500R-1K-5K-10K-47K-Custom)
- CAPACITANCE (100pF-200pF-500pF-1.5n-10n-20n)
- MONO SWITCH
- SUBSONIC FILTER SWITCH
- POWER SWITCH (under psu next to right front foot)

### User Notes

The Pulsare II phono stage has an all balanced internal circuitry designed to minimize hum and noise while maximizing the signal headroom.

There are two input connector types. A standard "RCA" connector that will work with all types of turntable and an "XLR" connector designed for balanced inputs.

A front panel switch can select between the XLR connectors that gives a balanced input and the RCA connectors that are available either as a balanced or unbalanced input. The position of this switch for RCA inputs will depend on the type of Cartridge, Arm and Signal lead that is being used. Some Turntable combinations will ground one of the cartridge signal wires and is likely to give more hum if it is used with the switch set to Balanced.

A front panel switch selects between the four different gain options. For a normal high output moving magnet cartridge the switch should be set to "MM". When using moving coil cartridges the switch position will depend on the cartridge output voltage and the preamp it is used with. Some experimentation will be needed to give the best results. As a general rule the MC(high) setting is for cartridges with outputs from 100 to 300uV. The MC(med) setting for cartridges with outputs from 250 to 750uV and the MC(low) setting for cartridges with outputs from 600uV to 3mV.

Two front panel switches adjust the input resistance and capacitance that the cartridge sees as a load. Most cartridge manufacturers give a recommended loading for their product. The loadings can be experimented with to achieve the desired sound. No harm can come to the Cartridge or phono stage by deviating from the manufacturers recommended settings.

Internally there are two phono-sockets, which can be used to set the resistance to a customized value. If you wish to use this facility please see the additional notes on the last page of this manual.

Additionally two push button switches operate Mono and Subsonic Filters.

There is a switch on the rear of the power supply used to float the 0volts or connect it to chassis ground. If there is a hum problem with a Hi-fi setup floating the ground can often remove the hum.

The phono stage has both a balanced output available on XLR connectors and an unbalanced output on a RCA connector. Both outputs are available together so there is no need for a switch.



### REAR PANEL Connections and Controls

#### PHONO

- INPUT RCA L/R
- INPUT XLR L/R
- EARTH POST
- POWER INPUT
- OUTPUT RCA L/R
- OUTPUT XLR L/R

#### PSU

- GROUND LIFT
- POWER OUTPUT
- MAINS IEC INPUT



For users who have to use two-pin mains sockets, please note that on a standard IEC mains female plug, the right hand pin (see image) is the 'Live' pin—always make sure this is connected to the live pin on the wall socket. Failure to do so will mean that the neutral feed will pass through the mains switch rather than the live feed, which is less safe and should be avoided.

## Custom Loading Facility

The custom loading facility allows the user to select the precise resistance loading value to any given cartridge. It's important to remember however that the resistance value that your cartridge sees is not just the value set by the phonostage, but also includes the arm lead (both internal and external) and other factors such as the connectors themselves.

If you're not totally sure about using the internal resistance phono connections you should consult with your dealer. To gain access to the internal resistance phono connections you will need to remove the cover from the phono section. Be careful not to damage the retaining screws.

Purchase the value of resistor required and fit to a plastic body style RCA phono plug. We recommend the use of a metal-film resistor with a 1/4 watt power rating.

Two plugs are supplied (other can be purchased) and the resistor should be fitted across the live and earth connections of the RCA plug. Then refit the plastic cover and inset into internal phono connection. The resistance switch on the front panel should be set to 47k (custom).

Do not use a metal body style RCA plug (even though more expensive) as the metal screen can interfere with the electronics.

## Selection of Resistor Value

The custom load resistor works in conjunction with the built-in 47k resistor, For values below and near 1k this has no real impact, so if you require a load value below 1k just purchase a resistor nearest the value you require..

*If you require a value above 1k then use the look-up table below—find the nearest Input Load value to the one you require and purchase the respective E24 resistor to achieve the desired value.*

| Input Load | E24 resistor | Input Load | E24 resistor |
|------------|--------------|------------|--------------|
| 1k0        | 1k           | 8k3        | 10k          |
| 1k1        | 1k1          | 8k9        | 11k          |
| 1k2        | 1k2          | 9k6        | 12k          |
| 1k3        | 1k3          | 10k2       | 13k          |
| 1k5        | 1k5          | 11k4       | 15k          |
| 1k6        | 1k6          | 11k9       | 16k          |
| 1k7        | 1k8          | 13k0       | 18k          |
| 1k9        | 2k0          | 14k0       | 20k          |
| 2k1        | 2k2          | 15k0       | 22k          |
| 2k3        | 2k4          | 15k9       | 24k          |
| 2k6        | 2k7          | 17k2       | 27k          |
| 2k8        | 3k0          | 18k3       | 30k          |
| 3k1        | 3k3          | 19k4       | 33k          |
| 3k3        | 3k6          | 20k4       | 36k          |
| 3k6        | 3k9          | 21k3       | 39k          |
| 3k9        | 4k3          | 22k5       | 43k          |
| 4k3        | 4k7          | 23k5       | 47k          |
| 4k6        | 5k1          | 24k5       | 51k          |
| 5k0        | 5k6          | 25k6       | 56k          |
| 5k5        | 6k2          | 26k7       | 62k          |
| 5k9        | 6k8          | 27k8       | 68k          |
| 6k5        | 7k5          | 28k9       | 75k          |
| 7k0        | 8k2          | 29k9       | 82k          |
| 7k7        | 9k2          | 31k1       | 92k          |
|            |              | 32k0       | 100k         |

## Warranty Statement

### UK Residents

AVID HIFI Limited products are warranted against defects in materials and workmanship for a period of two years from the original date of purchase, or no later than three years from the date of shipment to an authorized AVID agent, whichever ever comes first, extending to five years subject to the product owner having submitted the Registration form

[www.avidhifi.com/register.htm](http://www.avidhifi.com/register.htm))

Also the following conditions being observed.

- The product must have been purchased through an authorized AVID dealer
- This warranty is in favour of the original purchaser only, except where...
- Warranties are transferable to subsequent owners provided the new owner completes the product registration form. Warranty obligation is passed from dealer to manufacturer.
- During the warranty period, AVID will repair, or replace any defects in material or workmanship, without charge for parts or labour.
- Should product need to be returned a written description of the defect and a photocopy of the original purchase receipt must accompany it. Receipts must show the model, serial number, date of purchase, name and address of purchaser and authorized dealer and the price paid.
- Returned product must be packed in the original packing and returned to AVID or original dealer by the customer at his/her expense. AVID will pay return freight of its choice.
- The warranty is void if the product has been used or handled other than in accordance with the instruction manual supplied, abused or misused, damage by accident or neglect or in being transported, or the defect is due to the product being repaired or tampered with by anyone other than AVID or an dealer with prior authorization.
- The warranty is void if the product serial number has been removed, altered or made illegible.
- The warranty is void if the product has been taken out of the country of purchase.
- AVID shall not be held liable for incidental or consequential damages of any kind arising from the sale or use of its products.
- The warranty applies to ex-demonstration product, using manufacture date as purchase date.
- Where the product is sold under a consumer transaction (as defined by the Sale of Goods Act 1979) the statutory rights of the purchaser are not affected by this warranty.
- Products are sold on the basis of specifications applicable at the time of sale. AVID shall have no obligation to modify or to update products once sold.

### Outside UK

- AVID has formal distribution in many countries throughout the world. In each country the AVID importer has contractually accepted the responsibility for the product warranty. Warranty should normally be obtained from the importing agent or distributor from whom you obtained your product. In the unlikely event of service required beyond the capability of the importer, AVID will, of course, back up the warranty.
- Where product has been either supplied directly or there is no current distributor, AVID accepts responsibility for the warranty period.
- Returned product must be packed in the original packing and returned to AVID by the customer at his/her expense. AVID will pay return freight of its choice.
- The warranty is only valid in the country of purchase.
- Products outside their original destination requires that units with remaining warranty be returned to the country of purchase for the warranty to be valid. Customer is responsible for freight both ways and all associated import and export charges.
- Foreign distributors are not required to provide warranty service, repair or change AC mains voltage on units that they did not originally import and sell.
- Foreign distributors may at their discretion offer service for a fee.

MISCELLANEOUS. ANY IMPLIED WARRANTIES RELATING TO THE ABOVE PRODUCT SHALL BE LIMITED TO THE DURATION OF THIS WARRANTY. THE WARRANTY DOES NOT EXTEND TO ANY INCIDENTAL OR CONSEQUENTIAL COSTS OR DAMAGES TO THE PURCHASER.

**WARRANTOR. Inquiries regarding the Limited Warranty may be sent to the following address:**

**AVID HIFI Limited. Bicton Industrial Park, Kimbolton, Huntingdon. PE28 0LW ENGLAND**

## Specifications

### PULSARE II PHONO STAGE

|                             |    |   |
|-----------------------------|----|---|
| INPUT SELECTION             |    | XLR – RCA (balanced) - RCA                                    |
| OUTPUT OPTIONS              |    | XLR (balanced) – RCA (unbalanced)                             |
| GAIN                        |    | 40dB – 50dB – 60dB – 70dB                                     |
| INPUT RESISTANCE            |    | 10R – 30R – 100R – 300R - 500R – 1K – 5K – 10K – 47K - Custom |
| INPUT CAPACITANCE           |    | 100pF – 200pF – 500pF – 1.5nF – 10nF – 20nF                   |
| DISTORTION                  |    | Less than 0.001%  |
| RIAA ACCURACY               |    | + 0.5dB 5Hz – 70KHz ( <i>Neumann HF correction</i> )          |
| NOISE ( <i>A weighted</i> ) |    | MM -81dB MC -67dB ( <i>high setting</i> )                     |
| MAXIMUM OUTPUT              |    | 21V RMS   |
| MAXIMUM INPUT @1KHz         | MM | 193mV   |
|                             | MC | 6.8mV ( <i>MC high</i> )                                      |
| CHANNEL SEPARATION          |    | < -90dB 5Hz – 20KHz   |
| VOLTAGE INPUT               |    | 100-240vac 50/60Hz 10 watts max. (depending on region)        |
| DIMENSIONS (phono)          |    | 240 x 290 x 100 mm (wxdxh)                                    |
| (psu)                       |    | 230 x 290 x 100 mm (wxdxh)                                    |
| NET WEIGHT                  |    | Phono - 3.8Kg (8lb) PSU – 6.3Kg (14lb)                        |
| PACKAGING                   |    | 370x 310 x 310mm (wxdxh)                                      |
| SHIPPING WEIGHT             |    | 10.6Kg (24lb)   |

**AVID reserves the right to improve or change its products without notice at any time.**

#### EC Declaration of Conformity

28 March 2012

We declare that our Pulsare II phono-stage conforms to directives and harmonized international standards

EMC (89/36/EEC) Electromagnetic conformity

BS EN 60065: 1994 Safety requirements for mains operated electronic and related apparatus for household and similar use.

CENELEC HD21/22 Flexible cables and cords

EN 55020: 1988 Electromagnetic Immunity

EN 55013: 1990 Electromagnetic Emissions

**C. Mas - Director**

AVID HIFI Limited



## AVID HIFI Ltd

Bicton Industrial Park,  
Kimbolton, Huntingdon,  
Cambridgeshire.  
PE28 0LW  
ENGLAND

Tel: +44(0)1480 869 900 — Website: [www.avidhifi.com](http://www.avidhifi.com) - Email: [info@avidhifi.co.uk](mailto:info@avidhifi.co.uk)

Company Registered No: 5435528 — VAT Registration No: GB 694 9858 48 — Directors: C. Mas & S.J. Mas