



# SYNFONIA SERIES Phono Preampfier MKII

User's manual

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# 1. Introduction

## 1.1 Contact

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## 1.2 Document overview

This document is the user manual for the Orpheus Media Synfonia series Phono Preamplifier MKII.

## 1.3 Unpacking

First check and identify the contents of your Phono Preamplifier package as listed below:

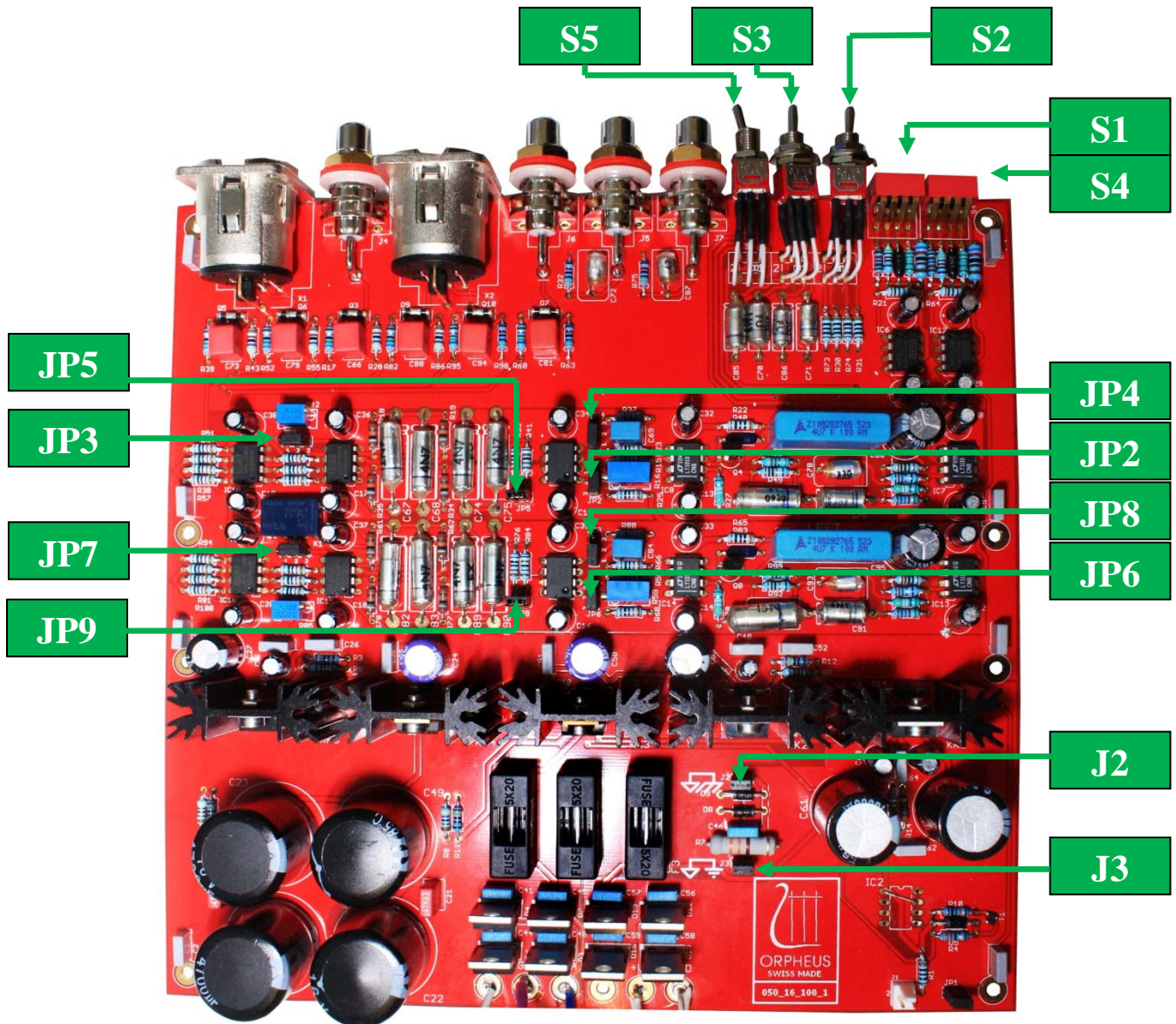
- ☒ Phono Preamplifier Synfonia series
- ☒ Power cord
- ☒ User's manual

## 1.4 Aim of the Synfonia PPA

The PPA MKII from the Orpheus Media Synfonia series is a phono preamplifier for moving magnets (MM) and moving coil (MC) cartridge. The rear panel has switches to select the correct gain, input impedance and input capacitance corresponding to your cartridge type.

Due to the recording technology of vinyls, the phono preamplifier has to use a reverse filter to obtain a flat frequency response at the output of the phono preamplifier. This reverse filtering allows you to hear the music as the sound engineer recorded it in the studio. The R&D engineers used low tolerance components to get a very precise filter to achieve best performance. The phono preamplifier has also to amplify a signal with a phono voltage and convert it to a line level to become compatible with all the audio systems.

## 1.5 Overview of the Synfonia Phono Preamplifier MKII



### Legend

Name	Description	Default position
S1	Sensitivity selector (right channel)	According cartridge type
S4	Sensitivity selector (left channel)	According cartridge type
S2	impedance selection (both channels)	According cartridge type
S3	Input capacitance selection (both channels)	According cartridge type
S5	Main gain selection 40dB/60dB (both channels)	According cartridge type
JP4	RIAA Filter / IEC RIAA Filter ( right channel)	Pin 1 & 2 shorted
JP8	RIAA Filter / IEC RIAA Filter ( left channel)	Pin 1 & 2 shorted
JP2	Offset (right channel)	Pin 2 & 3 shorted
JP6	Offset (left channel)	Pin 2 & 3 shorted
JP5	Extra 20dB gain (right channel)	Shorted
JP9	Extra 20dB gain (left channel)	Shorted

JP3	Notch filter (right channel)	Pin 1 & 2 shorted
JP7	Notch filter (left channel)	Pin 1 & 2 shorted
J2	Digital ground and analog ground	Shorted
J3	Earth ground and analog ground	Shorted

## 1.6 Recommendations before operating your unit

- ⌘ Please read this manual carefully, to assure proper operation and the possible performance.
- ⌘ Switch off the unit before connecting or disconnecting any input or output cables.
- ⌘ Do not touch the inner pins of rear panel connectors, electrostatic discharge may cause permanent damage to the unit.
- ⌘ Choose the installation location for the unit carefully. Avoid placing it in direct sunlight or close to a source of heat. Avoid also locations subject to vibration and excessive dust, heat, cold or moisture.
- ⌘ To reduce the risk of fire or electric shock, do not expose the unit to rain or moisture.
- ⌘ Do not use force when operating switches, knobs and other controls.
- ⌘ Do not open the chassis or attempt to make repairs by yourself, as this may result in damage to the unit or electrical shock. If a foreign object should get into the unit, contact your local dealer.
- ⌘ When planning not to use the unit for a long period of time, it is advisable to disconnect the power plug from the wall outlet.
- ⌘ To prevent lightning damage, disconnect the power plug when there is an electrical storm.
- ⌘ When moving the unit, be sure to first disconnect the power plug and all wires connected from the unit to other equipment.
- ⌘ When disconnecting the power plug from the wall outlet, always pull directly on the plug, never pull the cord itself.
- ⌘ Do not attempt to clean this unit with water or chemical solvents, as this may damage the unit or the finish. Use a clean, dry cloth.
- ⌘ Keep this manual in a safe place for future reference.

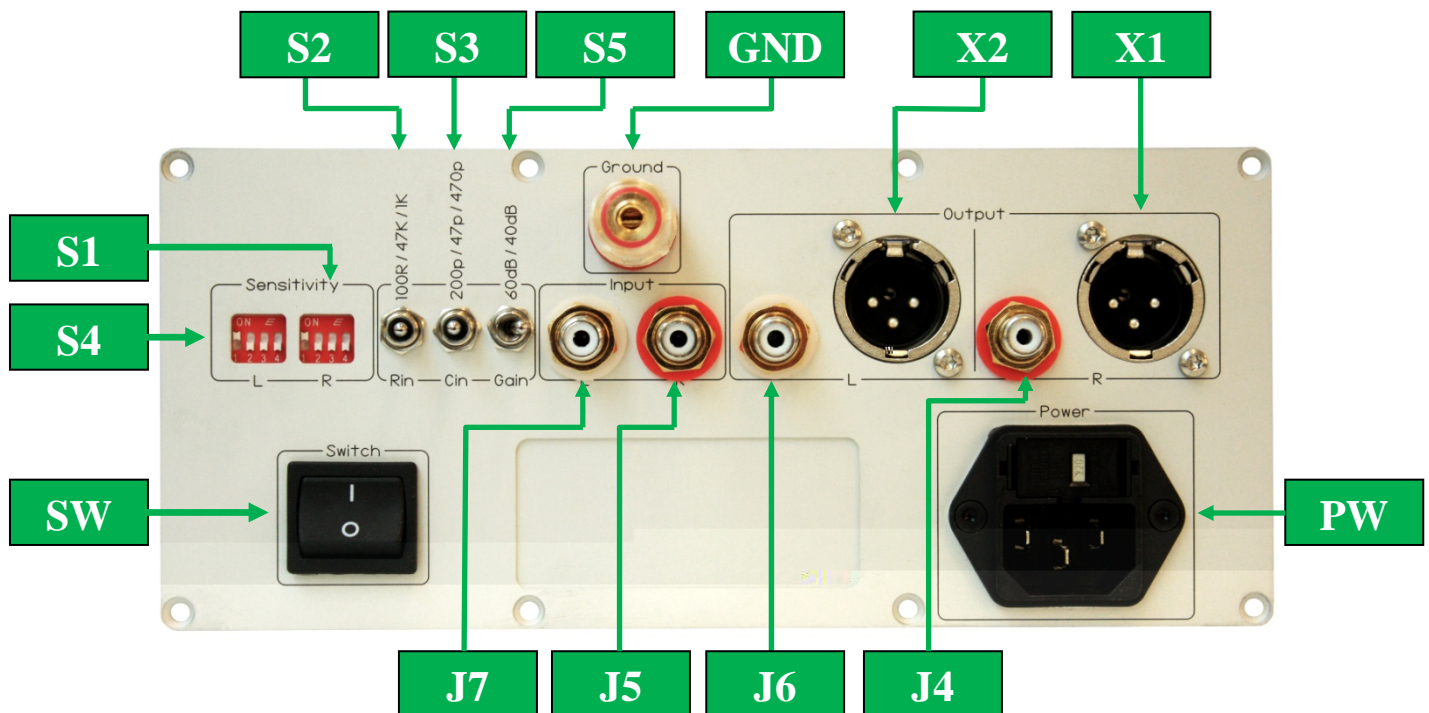
## 2. Front panel



### 1. MAIN POWER INDICATOR

When the Orpheus logo turns into blue, the unit is supplied and ready to work.

### 3. Rear Panel



#### INPUTS (J7 / J5)

Stereo unbalanced inputs

#### OUTPUTS (J6, X2 / J4, X1)

Unbalanced and balanced outputs

#### GROUND (GND)

One connector is provided to interconnect your turntable with the phono preamplifier to reduce the unwanted noise.

#### SWITCHES ( S2 / S3 / S5 / S4 / S1)

You can set four parameters with the switches placed on the rear panel:

- **S2**: Input impedance (100R / 47K / 1K)
- **S3**: Input capacitance (200pF / 47pF / 470pF)
- **S5**: Main gain selection (60dB / 40dB)
- **S4 & S1**: Sensitivity selection (See the table at section 4.1 for more informations)

#### POWER SUPPLY, INPUT VOLTAGE SELECTOR, FUSE RECEPTACLE POWER SUPPLY (PW)

This part has several goals:

1. It is where the power cord is connected
2. You can select the voltage of your country (100V, 115V, 230V)
3. You can change the main fuse

The main fuse is located in the fuse receptacle. If it has to be changed, replace it by a T10A slow-blow fuse. Other fuses are directly placed on the power supply printed circuit board. Before doing any manipulation, you have to disconnect the main power cord from the unit.

#### POWER SWITCH (PW)

Main power switch

## 4. Detailed informations

### 4.1 Sensitivity selection table

A lot of different phono cartridge are available on the market, that is why we tried to integrate each single cartridge with the PPA MKII. They can have different sensitivities and that is why to have a sensitivity selection is really important. The goal is to have a line voltage level with all the cartridges.

Here is a table where you can select the closest value to the sensitivity of your cartridge:

Sensitivity [mV]	S1&S4 Pos 1	S1&S4 Pos 2	S1&S4 Pos 3	S1&S4 Pos 4	Main gain [dB]	Overall gain [dB]
20	ON	OFF	OFF	OFF	40	40
13	OFF	ON	OFF	OFF	40	44
8	OFF	OFF	ON	OFF	40	48
5	OFF	OFF	OFF	ON	40	52
3.5	OFF	OFF	OFF	OFF	40	56
2	ON	OFF	OFF	OFF	60	60
1.3	OFF	ON	OFF	OFF	60	64
0.8	OFF	OFF	ON	OFF	60	68
0.5	OFF	OFF	OFF	ON	60	72
0.35	OFF	OFF	OFF	OFF	60	76

### 4.2 Inside the PPA MKII

The main part of the configuration to match the PPA MKII with your phono cartridge can be directly done on the rear panel. But other features are available directly on the circuit.

#### **JP4 & JP8: Onboard RIAA filter selection**

When pin 1 & 2 are shorted on the connectors JP4 and JP8, the PPA MKII uses the standard RIAA equalization filter. Otherwise if pin 2 & 3 are shorted, the PPA MKII used the IEC RIAA filter.

#### **JP2 & JP6: Onboard Offset voltage adjustment**

By default the PPA MKII has no Offset voltage and pin 2 & 3 are shorted together, but in some case an offset adjustment can be needed and in that case short pin 1 & 2 of the connectors JP2 and JP6 and finally adjust the trimmer R16 and R59.

#### **JP5 & JP9: Onboard extra 20 dB gain**

When using a really low-sensitivity cartridge, this feature can be usefull to have an extra 20dB gain. Normally both pin of connectors JP5 & JP9 are shorted together, but if needed just remove the jumper and you have 20dB more the main gain you select with the switch S5.

#### **JP3 & JP7: Onboard notch filter**

A notch filter is also available to lower the noise capture by the PPA MKII. You can select it by placing the jumper of the connector JP3 and JP7 between pin 1 & 2, or disable it by shorting together pin 2 & 3.

## 5. Technical data

### Physical data:

**Weight :** 8.68 Kg

**Dimensions (W / L / H):** 25cm x 27.5cm x 12cm

### Electrical data :

**Main voltage :** selectable with the fuse holder PW

95 – 105 VAC @ 50Hz – 60Hz

115 – 135 VAC @50Hz – 60Hz

220 – 240 VAC @ 50Hz – 60Hz

**Power consumption:** 10W

**Voltage gain:** selectable with switch S5

40dB or 60dB @1KHz

**Analog input impedance:** selectable with the switch S2

47K $\Omega$

1K  $\Omega$

100 $\Omega$

**Analog input capacitance:** selectable with the switch S3

220pF

47pF

470pF

**Analog output impedance:**

75 $\Omega$  on XLR and RCA connectors

**Maximal recommended output voltage:**

2 Vrms on RCA connectors

4 Vrms on XLR connectors

**Total Harmonic Distortion + Noise**

Measurements conditions:

Frequency of 1KHz / Input Voltage of 20mV / Gain 40dB

THD+N (40dB / RCA): 0.7% (Output voltage 2Vrms)

THD+N (40dB / XLR): 0.1% (Output voltage 4Vrms)

**Residual noise:** (Inputs shorted)

581uVrms for a 40dB gain on RCA connectors

1mVrms for a 40dB gain on XLR connectors

## Comments

Constructive feedback is always welcome.

Please feel free to forward us your comments at the address listed on last page or to your local dealer or distributor.

## TECHNOLOGY & DESIGN

The unit has been entirely manufactured and assembled in Switzerland; conceived by ORPHEUS Media sàrl.

## IMPORTANT NOTICE

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This limited warranty is contingent upon proper and normal use and installation, and does not cover damage due to external causes, including but not limited to, accident, careless handling, improper installation or connection, problems with electrical power, electrical contact or electrical grounding, liquids, chemicals, oxidation, corrosion, exposure to the elements, service or repair not authorized by ORPHEUS Media, usage not in accordance with product instructions, failure to perform required preventive maintenance, and problems caused by use of parts and components not supplied or authorized by ORPHEUS Media. Removing, altering, tampering with serial number voids the limited warranty. The limited warranty does not extend to or include consequential damage, and does not apply in any case for damage occurring during shipping or installation.