



R35 PHONO PREAMPLIFIER

User Guide



CAUTION

TO REDUCE THE RISK OF FIRE, REPLACE WITH THE SAME TYPE AND RATING OF FUSE.

ATTENTION

UTILISER UN FUSIBLE DE RECHANGE MÊME TYPE.

Safety compliance

This product has been designed to meet the IEC 60065 international electrical safety standard.

CAUTION

RISK OF ELECTRIC SHOCK DO NOT OPEN

ATTENTION

RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR



The lightning flash with an arrowhead symbol within an equilateral triangle, is intended to alert the user to the presence of uninsulated 'dangerous voltage' within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: To reduce the risk of electrical shock do not remove cover (or back). No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To reduce the risk of fire or electrical shock, do not expose this apparatus to rain or moisture.

CAUTION: In Canada and the USA, to prevent electric shock, match the wide blade of the plug to the wide slot in the socket and insert the plug fully into the socket.

This product is designed and manufactured to meet strict quality and safety standards. However, you should be aware of the following installation and operation precautions.

1. Take heed of warnings & instructions

You should read all the safety and operating instructions before operating this appliance. Retain this handbook for future reference and adhere to all warnings in the handbook or on the appliance.

2. Water and moisture

The presence of electricity near water can be dangerous.

Do not use the appliance near water – for example next to a bathtub, washbowl, kitchen sink, in a wet basement or near a swimming pool, etc.

3. Object or liquid entry

Take care that objects do not fall and liquids are not spilled into the enclosure through any openings. Liquid-filled objects such as vases should not be placed on the equipment.

4. Ventilation

Do not place the equipment on a bed, sofa, rug or similar soft surface, or in an enclosed bookcase or cabinet, since ventilation may be impeded. We recommend a minimum distance of 50mm around the sides and top of the appliance to provide adequate ventilation.

5. Heat

Locate the appliance away from naked flames or heat producing equipment such as radiators, stoves or other appliances (including other amplifiers) that produce heat.

6. Climate

The appliance has been designed for use in moderate climates.

7. Racks and stands

Only use a rack or stand that is recommended for use with audio equipment. If the equipment is on a portable rack it should be moved with great care, to avoid overturning the combination.

8. Cleaning

Unplug the unit from the mains supply before cleaning.

The case should normally only require a wipe with a soft, damp, lint-free cloth. Do not use paint thinners or other chemical solvents for cleaning.

We do not advise the use of furniture cleaning sprays or polishes as they can cause indelible white marks if the unit is subsequently wiped with a damp cloth.

9. Power sources

This appliance must be connected to a mains socket outlet using the supplied power cord. To disconnect this apparatus from power, you must disconnect the power cord. Make sure the power cord is always easily accessible.

Only connect the appliance to a power supply of the type

described in the operating instructions or as marked on the appliance.

This is a Class 1 device and **must** be earthed.

The power switch is a single-pole switch. When the switch is in the "Off" position, the appliance is not completely disconnected from the main power.

10. Power-cord protection

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords and plugs, and the point where they exit from the appliance.

11. Grounding

Ensure that the grounding means of the appliance is not defeated.

12. Power lines

Locate any outdoor antenna/aerial away from power lines.

13. Non-use periods

If the unit has a stand-by function, a small amount of current will continue to flow into the equipment in this mode. Unplug the power cord of the appliance from the outlet if left unused for a long period of time.

14. Abnormal smell

If an abnormal smell or smoke is detected from the appliance, turn the power off immediately and unplug the unit from the wall outlet. Contact your dealer immediately.

15. Servicing

You should not attempt to service the appliance beyond that described in this handbook. All other servicing should be referred to qualified service personnel.

16. Damage requiring service

The appliance should be serviced by qualified service personnel when:

- A. the power-supply cord or the plug has been damaged, or
- B. objects have fallen, or liquid has spilled into the appliance, or
- C. the appliance has been exposed to rain, or
- D. the appliance does not appear to operate normally or exhibits a marked change in performance, or
- E. the appliance has been dropped or the enclosure damaged.



The CE symbol indicates that this Primare product complies with the EMC (Electromagnetic Compatibility) and LVD (Low Voltage Directive) standards of the European Community.

The WEEE symbol indicates this Primare product complies with the European Parliament and Council Directive 2002/96/EC concerning Waste Electrical and Electronic Equipment (WEEE). This product must be appropriately recycled or processed in accordance with these directives. Consult your local waste disposal authority for guidance.

The RoHS symbol indicates that Primare products are designed and manufactured to comply with the Restriction of Hazardous Substances (RoHS) as stated in the European Parliament and Council Directive 2002/95/EC.

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WELCOME!

Congratulations on selecting your new R35 Phono Preamplifier

This user guide describes the features and explains how to set up the preamplifier for ideal system matching to virtually any moving magnet or moving coil phono cartridge.

For additional support and assistance please contact your local authorized Primare dealer, or visit our website at www.primare.net.



GETTING STARTED

1 Unpack the R35

Your R35 is supplied with the following components:

- Mains cable
- IR/Trigger cable
- AC Polarity Pen (with batteries)

If any of these items are missing please contact your supplier. We recommend you retain the packaging in case you need to transport the unit at a later date.

2 Connect the cartridge

The R35 accepts either a moving-magnet cartridge or a moving-coil cartridge:

- Set the MM/MC selector to the appropriate position for your cartridge.

The gain can be selected between three options using a switch on the back panel.

- Set the gain selector to the appropriate position for your cartridge.
- Connect the cartridge to the RCA inputs.
- If the turntable provides a ground connection, connect this to the Ground terminal on the back panel to minimise hum pickup.

By default the R35 is configured for an input impedance of $47\text{k}\Omega$ (MC input) or $2.5\text{k}\Omega$ (MM setting), and an input capacitance of 1nF (MC setting) or 100pF (MM setting), but you can adjust this using the DIP switches under the plates on the back panel. For more information see *Setting the impedance and capacitance*, page 10.

3 Connect to a preamplifier

- Connect the R35 to the preamplifier or processor using either the left and right RCA outputs, or the left and right XLR outputs.

If you are using the RCA outputs use high quality stereo RCA leads.

If you are using the XLR outputs use balanced XLR cables.

4 Connect power

- Plug one end of the mains cable supplied with the R35 into the power connector on the back panel, and connect the other end to a wall socket.

If this cable is not suitable for your power outlets please contact your supplier for an alternative cable.

Note: See *Phase*, page 10, for information about getting the best sound from your R35.



WARNING: Always disconnect the R35 from the mains power before connecting or disconnecting any cables.

- Switch on the R35, using the switch on the back panel.

The R35 will go into standby mode, indicated by the front panel light dimly illuminated.

5 Switch on

- Press the front panel standby switch, in the middle of the Primare logo.

The indicator light will blink for a few seconds before staying on.

If no signal is present for 20 minutes the R35 will automatically go into standby to save power.

Automatic standby

By default, if no signal is present for 20 minutes the R35 will automatically go into standby to save power.

To disable automatic standby

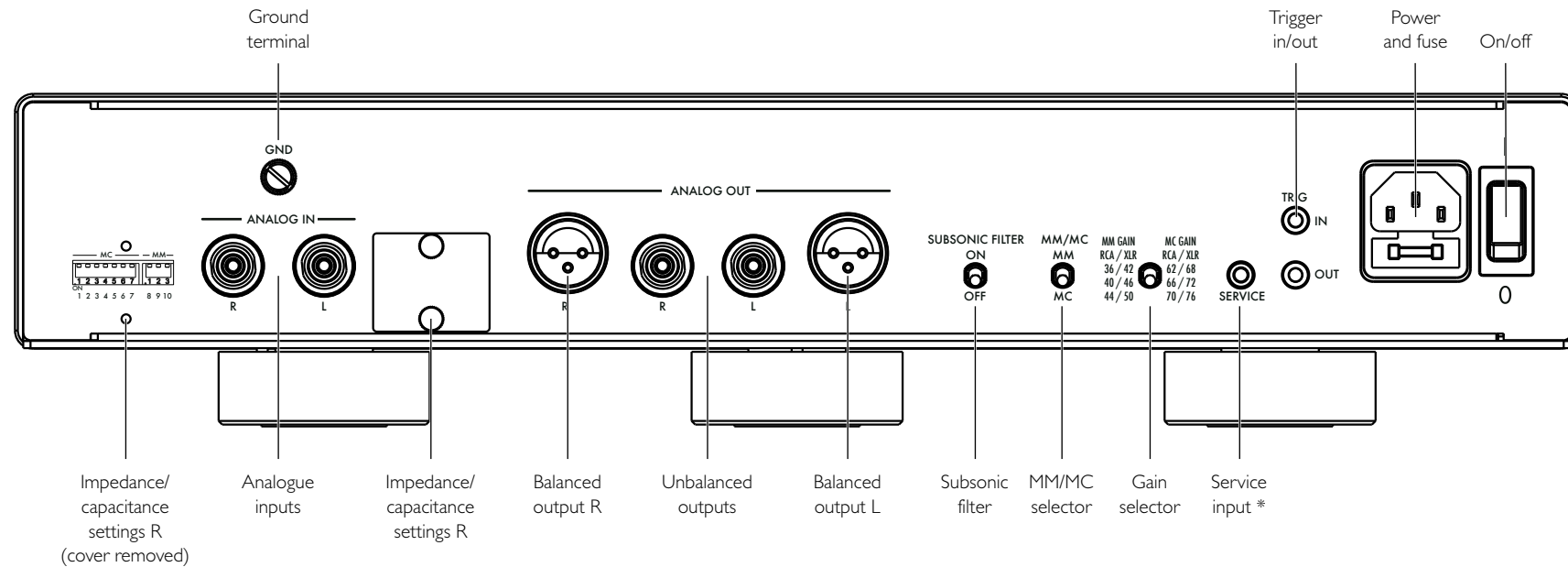
- Press and hold down the front panel button for a few seconds, and release once the indicator light has flashed two times and become steadily illuminated.

To re-enable automatic standby

- Turn the R35 off and then on again using the switch on the back panel.

BACK-PANEL CONNECTIONS

The following diagram explains the function of each of the connectors on the back panel:



* The SERVICE input is a 3.5 mini-jack for use by an authorized dealer or service technician to update or service the R35.

TECHNICAL SPECIFICATION

Outputs

Type

2 x RCA 100Ω

2 x XLR 200Ω

Maximum output level: 11V rms

Inputs

2 x RCA

Performance

Gain at 1kHz

MM RCA: Adjustable 36, 40, 44dB

MM XLR: Adjustable 42, 46, 50dB

MC RCA: Adjustable 62, 66, 70dB

MC XLR: Adjustable 68, 72, 76dB

Impedance loading

MM: Adjustable 2.5, 47kΩ

MC: Adjustable 10Ω – 47kΩ (21 steps)

Capacitive loading

MM: Adjustable 100, 200, 300, 400pF

MC: Adjustable 100pF, 1nF

Channel separation

MM: 80dB 1kHz

MC: 77dB 1kHz

THD + noise

MM: <0.02% 20Hz – 20kHz

MC: <0.03% 20Hz – 20kHz

Signal to noise ratio

MM: 85dB 1kHz A-weighted 5mV input Gain

MC: 76dB 1kHz A-weighted 0.5mV input Gain

Subsonic filter

-3dB/12Hz, 12dB/octave

RIAA correction

± 0.2dB

General

Power consumption

Standby: <0.5W

Operating: <20W

Size

430 x 384 x 92mm (WxDxH) with knobs and connectors.

Weight

9.5kg

Colour

Black or titanium

Note: features and specifications are preliminary and subject to change.

ADDITIONAL INFORMATION

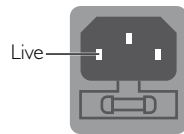
These instructions help you get the best possible sound from your R35.

Phase

The phase of the AC supply can make a significant difference to the sound.

Use the Polarity Pen supplied with the R35 to verify which pin is live on your AC power cable.

Ensure that the live pin of the AC power cable is connected to the left-hand pin of the power connector, viewed from the back panel:



Burn-in

Your Primare will start to sound best after an initial burn-in of approximately 24 hours.

You will notice a further smaller improvement in sound quality for at least another 3 days' playing.

Trigger

For convenience the R35 can be powered on and off via a remote link cable, avoiding the need to switch it on or off separately from the preamplifier in the system.

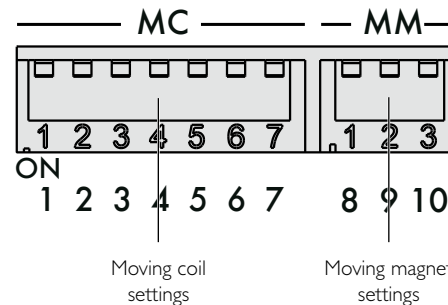
To power the R35 on and off remotely from a Primare processor or preamplifier connect the TRIG OUT signal from the processor/preamplifier to the TRIG IN socket on the R35, using a twin core cable terminated in 3.5mm jack plugs.

The TRIG OUT socket can be used to daisy-chain the remote output to further Primare products.

Setting the impedance and capacitance

By default the R35 is configured for an input impedance of 47kΩ (MC input) or 2.5kΩ (MM setting), and an input capacitance of 1nF (MC setting) or 100pF (MM setting), but you can adjust this using the DIP switches under the plates on the back panel.

- Remove both plates by unscrewing the retaining thumb screws.



- Set the switches up (OFF) or down (ON) according to the following tables.

You only need to set the switches appropriate to the type of cartridge you are using.

There are two sets of switches, one for the L channel and one for the R channel. Set the L and R switches to the same positions.

Choosing the correct settings

Details of the correct settings will be provided in the documentation for the cartridge you are using. We suggest listening to values either side of the recommended ones to choose the ideal settings for your system.

MM impedance

Switch 8	
47kΩ	OFF
2.5kΩ	ON

MM capacitance

Switch 9	10
100pF	OFF
200pF	OFF
300pF	ON
400pF	ON

MC impedance

Switch 1	2	3	4	5	6
10Ω	ON	ON	ON	ON	ON
15Ω	ON	OFF	ON	ON	OFF
18Ω	OFF	OFF	ON	OFF	OFF
20Ω	OFF	OFF	OFF	OFF	OFF
25Ω	ON	ON	ON	ON	ON
30Ω	ON	ON	OFF	ON	ON
40Ω	ON	OFF	ON	OFF	ON
50Ω	OFF	OFF	OFF	OFF	ON
60Ω	ON	ON	ON	ON	OFF
70Ω	OFF	OFF	ON	ON	OFF
80Ω	ON	ON	OFF	ON	OFF
90Ω	ON	OFF	OFF	ON	OFF
100Ω	OFF	OFF	OFF	ON	OFF
150Ω	ON	ON	ON	OFF	OFF
180Ω	OFF	ON	ON	OFF	OFF
200Ω	ON	OFF	ON	OFF	OFF
250Ω	OFF	OFF	ON	OFF	OFF
400Ω	ON	ON	OFF	OFF	OFF
600Ω	OFF	ON	OFF	OFF	OFF
1kΩ	ON	OFF	OFF	OFF	OFF
47kΩ	OFF	OFF	OFF	OFF	OFF

MC capacitance

Switch 7	
100pF	OFF
1nF	ON

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P R I M A R E

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More information at primare.net

