

Owner's Manual

EA-1500

PHONO AMPLIFIER

Phasemation

Thank you for purchasing Phasemation product.

Read your Owner's Manual thoroughly for proper operation before starting to use your equipment.

Please keep your Owner's Manual with care.

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Safety Instructions

Before starting to use In this owner's manual and on the product, various pictures are used to show our customers how to use Phasemation EA-1200 safely and properly in order to avoid the loss of our customer's assets and to protect our customers from harm.

SAFETY PRECAUTIONS

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	
<p>CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.</p>		
	The lightning flash with 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 appliance.	
<p>WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.</p>		

IMPORTANT SAFETY INSTRUCTIONS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings.
Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
10. Only use attachments/accessories specified by the manufacturer.
11. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Batteries shall not be exposed to excessive heat such as sunshine, fire or the like.



▪ DECLARATION OF CONFORMITY

We declare under our sole responsibility that this product, to which this declaration relates, is in conformity with the following standards:

EN60065, EN55032, EN55020, EN61000-3-2 and EN61000-3-3.

Following the provisions of Low Voltage Directive 2014/35/EU and EMC Directive 2014/30/EU

Usage Cautions

CAUTION:

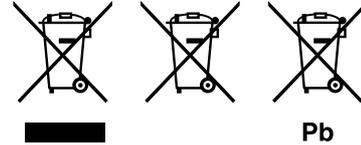
To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet. The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

A NOTE ABOUT RECYCLING:

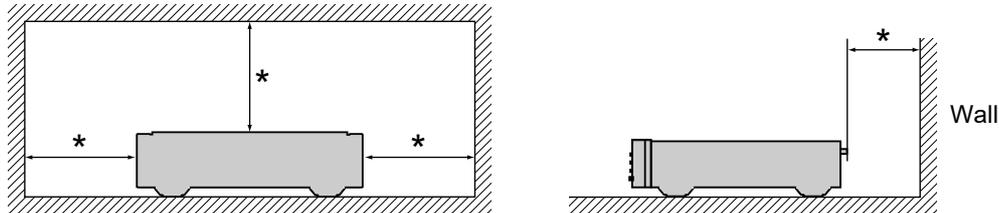
This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with the local recycling regulations.

When discarding the unit, comply with local rules or regulations.

This product and the supplied accessories constitute the applicable product according to the WEEE directive.



Cautions on installation



* For proper heat dispersal, do not install this unit in a confined space, such as a bookcase or similar enclosure.

- More than 0.1 m is recommended.
- Do not place any other equipment on this unit.

NOTE ON USE

WARNINGS

- Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.
- Handle the power cord carefully. Hold the plug when unplugging the cord.
- Keep the unit free from moisture, water, and dust.
- Unplug the power cord when not using the unit for long periods of time.
- Do not obstruct the ventilation holes.
- Do not let foreign objects into the unit.
- Do not let insecticides, benzene, and thinner come in contact with the unit.
- Never disassemble or modify the unit in any way.
- Ventilation should not be impeded by covering the ventilation openings with items, such as newspapers, tablecloths or curtains.
- Naked flame sources such as lighted candles should not be placed on the unit.
- Observe and follow local regulations regarding battery disposal.
- Do not expose the unit to dripping or splashing fluids.
- Do not place objects filled with liquids, such as vases, on the unit.
- Do not handle the mains cord with wet hands.
- The equipment shall be installed near the power supply so that the power supply is easily accessible.
- Do not keep the battery in a place exposed to direct sunlight or in places with extremely high temperatures, such as near a heater.

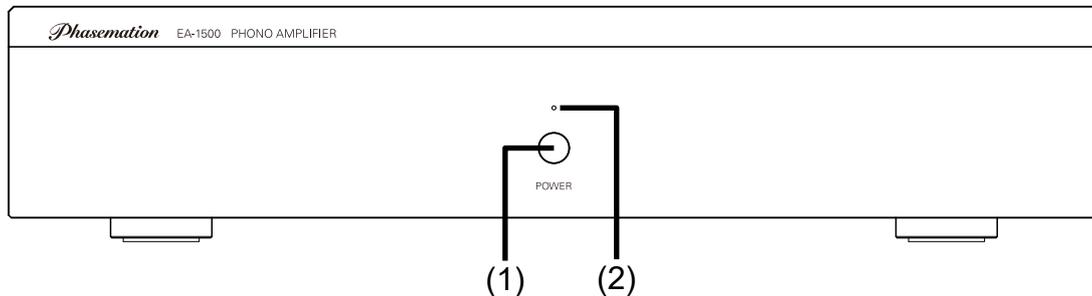
Care of Equipment

- ⊙ If the equipment is covered with dust or dirt, clean it with a soft cloth.
- ⊙ If the equipment is very dirty, put detergent which is thinned very well with water on a soft cloth. Wring the cloth and wipe off the dust and dirt. Then clean with a dry soft cloth.
- ⊙ Never use chemical agents such as thinner, naphtha or alcohol when cleaning it. If any of them is attached to the equipment, the silk printing can be flaked or the surface can lose metal luster.

Names and Functions

Power Supply Unit

Front Panel



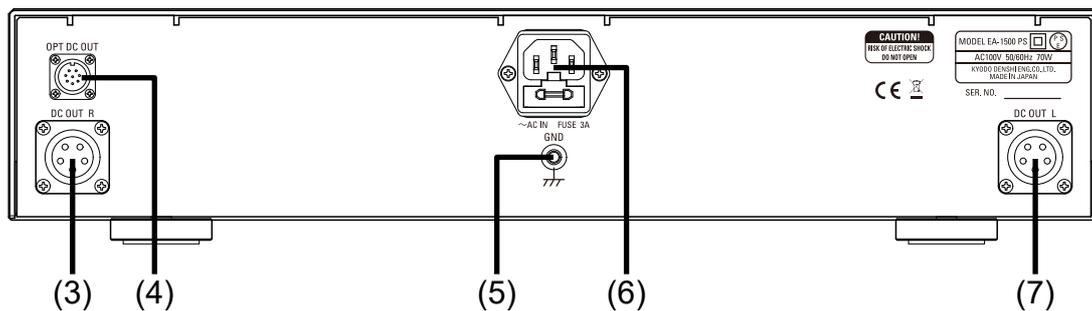
(1) POWER Switch

The power supply can be turned on or off by pressing the POWER switch.

(2) POWER Indicator

The POWER indicator lights up blue when the power supply is supplied.

Rear Panel



(3) DC OUT R Connector

This is the output connector that supplies DC power to the phono equalizer section. Connect it to DC IN R on the phono equalizer section using the DC power cable of accessories.

(4) OPT DC OUT Connector

This is the output connector that supplies DC power for the optical cartridge to the phono equalizer section. Connect it to OPT DC IN on the phono equalizer section using the power cable of accessories.

(5) GND terminal

Chassis GND (Ground)

(6) AC IN

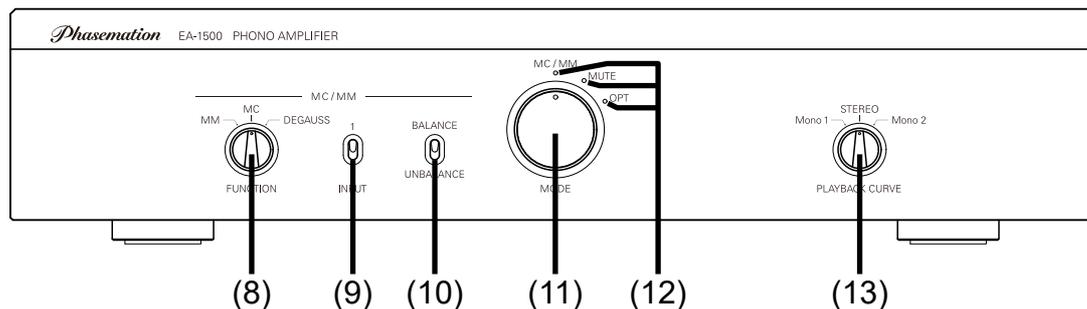
Connect the AC power cable of the accessories to the AC INLET of the power supply unit, and plug it in an outlet.

(7) DC OUT L Connector

This is the output connector that supplies DC power to the phono equalizer section. Connect it to DC IN L on the phono equalizer section using the DC power cable of accessories.

Phono Equalizer Unit

Front Panel



(8) FUNCTION Switch (MC/MM mode)

Change according to the type of cartridge used.

- MM Select this when using a MM cartridge.
- MC Select this when using an external MC stepup transformer.
- DEGAUSS This can degauss the MC cartridge that contains magnetized iron core. Select the input that is not connected to the MC cartridge with the INPUT switch and let the record play for about 30 seconds. No sounds will come out during this time.

Notice

- Demagnetization of the built-in step-up transformer
When the power is turned on, select INPUT1, FUNCTION DEGAUSS, and connect a demagnetizer (DG-100 sold separately) to the RCA terminal of INPUT1 to demagnetize it. At this time, please turn off the connected preamplifier for safety.

(9) INPUT Changing Switch (MC/MM mode)

This switch changes the input terminal

- 1) Input Terminal 1 (INPUT1) is selected RCA (unbalanced) / XLR (balanced)
- 2) Input Terminal 2 (INPUT2) is selected RCA (unbalanced) / XLR (balanced)

(10) BAL/UNBAL Switch (MC/MM mode)

You can select either RCA (unbalanced) or XLR (balanced) matching the terminal of the phono cable that is to be connected.

Caution

- When using the RCA connector, set the switch to BAL and if there are no hums or noises with the system being used, it is recommended that you continue to use it with the switch at BAL for high sound quality.
- RCA and XLR cannot be used connecting both of them at the same time.

(11) MODE Switch

Switch to the following mode according to the type of cartridge you are using.

- 1) MC/MM Select when using an MC or MM cartridge.
- 2) MUTE When selected, the output is shorted, and no sound is produced at this time.
- 3) OPT Select when using the optical cartridge.

(12) MODE Indicator

- 1) MC/MM The indicator lights up blue when selected.
- 2) MUTE The indicator lights up red when selected.
No sounds will output while this indicator is lit in other modes as well.
- 3) OPT The indicator lights up white when selected.

(13) PLAYBACK CURVE Switch

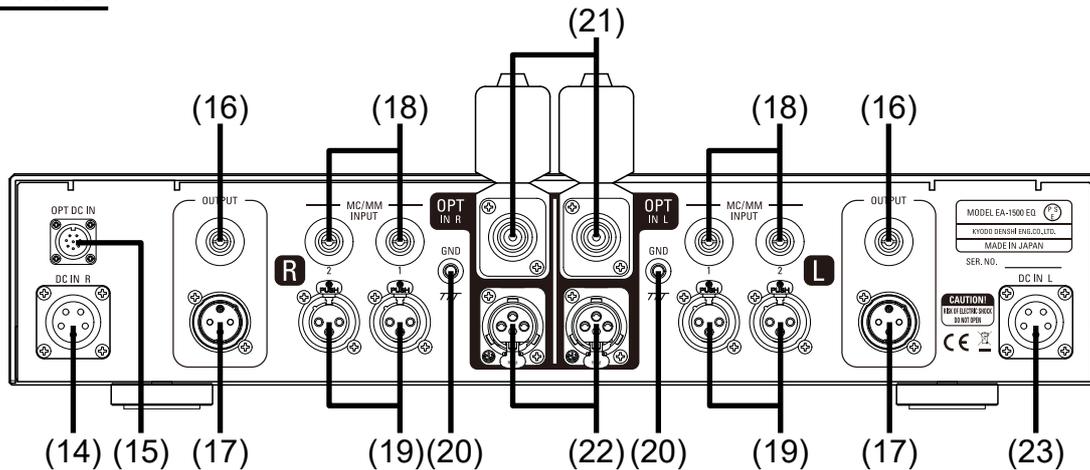
The playback equalizer curve can be selected with this switch.

The respective Phono Equalizer Unit has three built-in playback equalizer curves.

You can switch it to the selection matching the type of your record.

- STEREO: RIAA curve for playing a stereo LP record
- MONO 1: Curve 1 for playing a Monaural LP record (For DECCA label and so on: FFRR)
- MONO 2: Curve 2 for playing a Monaural LP record (For Columbia label and so on)

Rear Panel



(14) DC IN R Connector

Connect to DC OUT R on the power supply using the DC power cable of accessories.

(15) OPT DC IN Connector

Connect to OPT DC OUT on the power supply unit using the DC power cable of accessories.

(16) OUTPUT (RCA) connector

This is an unbalanced equalizer output (RCA) terminal. It connects to the RCA input terminal of the line level (150-250mV) such as AUX terminals of a preamplifier.

(17) OUTPUT (XLR) Terminal

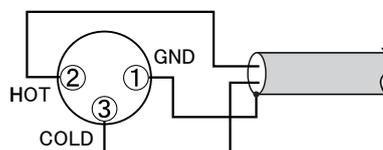
This is a balanced equalizer output (XLR) terminal. It connects to the XLR input terminal of the line level (150 - 250mV) such as AUX terminals of a preamplifier.

Caution

Do not connect to a phono input terminal of a preamplifier that has a phono amplifier inside. It may go to maximum input and distort the sounds.

Notice

An XLR connector is adopted on the OUTPUT for this unit (balanced connection)
The pins are set as shown in the diagram pin①= GND pin②= HOT pin③= COLD.



(18) INPUT 1, 2 (RCA) connectors

Use when the phono cable connector is an unbalanced (RCA) type connector.

(19) INPUT 1, 2 (XLR) connectors

Use when the phono cable connector is balanced (XLR) type connector.

Notice

- A compatible phono cable is required for balanced connections using XLR terminals.
- The XLR connector has pin 1 as GND, pin 2 as HOT, and pin 3 as COLD.
- Even when connected via balanced XLR terminals, switching the Function to MM will result in an unbalanced connection.

Caution

- Do not connect RCA and XLR connectors simultaneously to INPUT 1, 2.
- Do not insert a shorting pin into the RCA terminals when using XLR terminals.

(20) GND terminals (2 locations)

Connect the ground wire from the analog player to either one of the GND terminals.

(21) OPT IN (RCA) connector (in OPT mode)

Use when the cable connector is RCA type while using the optical cartridge.

(22) OPT IN (XLR) connector (in OPT mode)

Use when the cable connector is XLR type while using the optical cartridge.

Caution

Never connect an MC/MM cartridge to the input terminals for the optical cartridge.

Current flowing through the coil inside the MC/MM cartridge may damage the cartridge.

Caution

Do not connect the RCA terminals and XLR terminals for the optical cartridge at the same time.

Notice

The XLR connector for OPT input is not compatible with phono cables having separate power supplies.

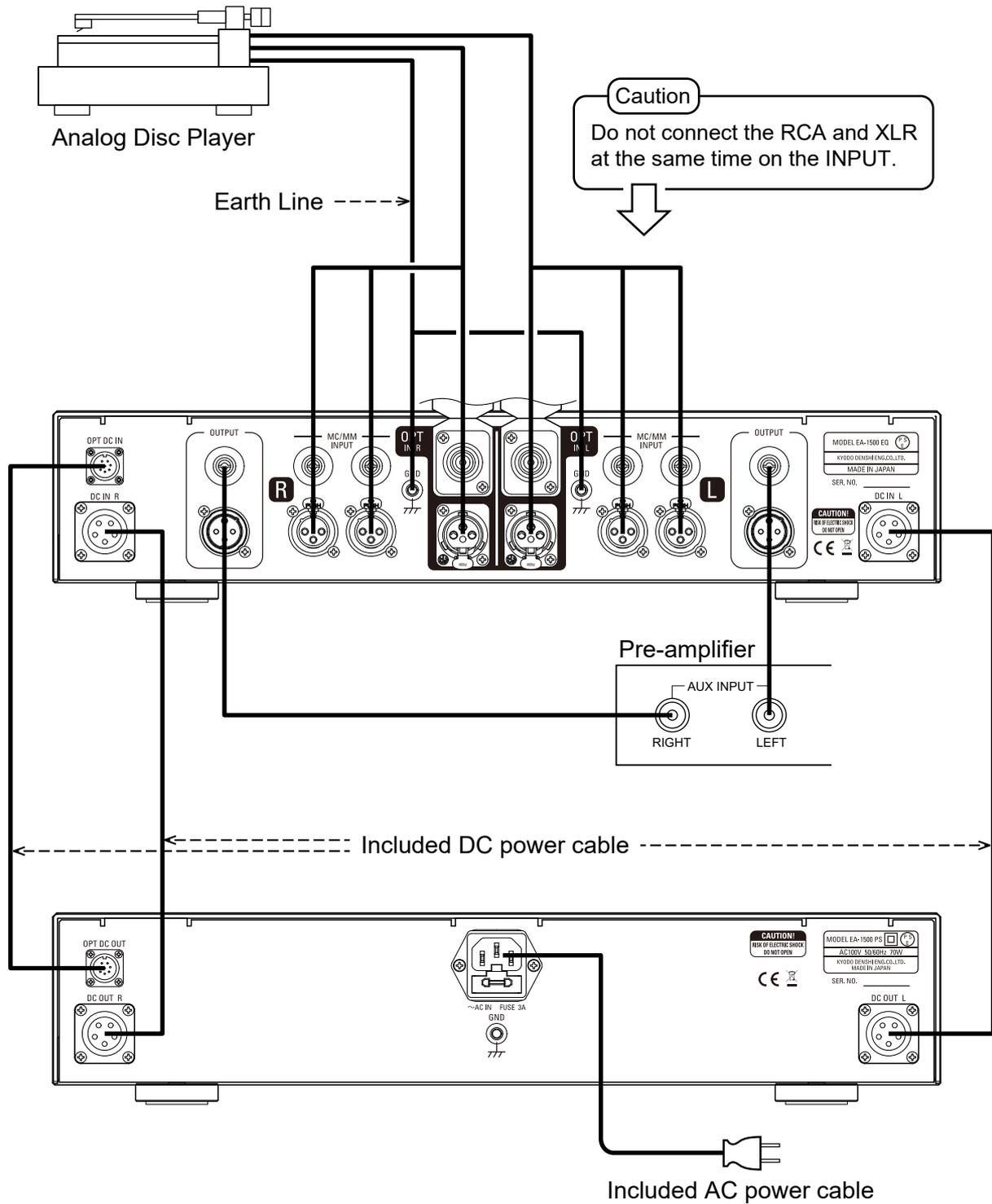
(23) DC IN L Connector

Connect to the DC OUT L port on the power supply unit using the DC power cable of accessories.

Caution

Do not plug or unplug the DC cable when the power is on.

Connections



Trouble Shooting Guide

In case the equipment does not operate properly, check out the followings.

If it does not operate properly even after checking the advised points, then remove the electric plug from the socket outlet and contact the dealer.

Trouble	Causes	Measures
The power does not turn on	<ul style="list-style-type: none"> ● The electric plug is not entirely inserted. 	<ul style="list-style-type: none"> ● Properly insert the electric plug to the socket outlet. ● Properly insert the AC power cable to the power inlet of this unit.
No sounds come out	<ul style="list-style-type: none"> ● The signal wire is not entirely inserted. ● The MC/MM cartridge output is connected to the optical cartridge input. ● The optical cartridge output is connected to the MC/MM cartridge input. 	<ul style="list-style-type: none"> ● Insert the signal wire properly. ● Connect each cartridge output to the correct input.
Cannot play sounds at high bands	<ul style="list-style-type: none"> ● An MM cartridge is used. 	<ul style="list-style-type: none"> ● Select the MM with the FUNCTION changing switch.
Sounds warp	<ul style="list-style-type: none"> ● This unit's output is connected to the phono amplifier input terminal of the pre-amplifier. 	<ul style="list-style-type: none"> ● Connect to the line level input terminal (such as AUX) of the pre-amplifier
When the INPUT switch is operated, it makes a clicking noise	<ul style="list-style-type: none"> ● Due to the principle of switching, it makes a clicking noise to a certain level. 	<ul style="list-style-type: none"> ● Turn the power switch of this unit off or operate after using up all the amplifier's volume control.
A hum noise is heard	<ul style="list-style-type: none"> ● The signal wire is not entirely inserted. ● The analog disc player and earth line are disconnected. ● There is a power transformer or a motor of another device nearby ● Both the XLR and RCA are connected to the input terminal. 	<ul style="list-style-type: none"> ● Properly insert the signal wire ● Properly connect the earth line ● Place it away from the power transformer and/or the motor. ● Connect either one to the input terminal
Sounds do not come out right after the power is on.	<ul style="list-style-type: none"> ● This unit uses a vacuum tube. Sounds do not come out right away until the inner circuit is stable. 	<ul style="list-style-type: none"> ● Wait for 1 minute after turning the power on.

User Support

As for unclear matters with regard to the after service, please contact the dealer.

Specifications

Format	Tube-type LCR-type non-feedback phono amplifier
Input Sensitivity	2mV (MM), 0.1mV (MC)
Compatible Cartridge Output Impedance	47k Ω or less (MM), 1.5 to 40 Ω (MC)
Gain	40dB (MM), 66dB (MC)
Input-Equivalent Noise	-120dB (MC), -146dBV (MC)
Rated Output Voltage	200mV (1kHz)
RIAA Curve Deviation	\pm 0.5dB (20Hz to 20kHz)
Power Consumption	70W (120VAC 60Hz) for each ch (USA) 70W (230VAC 50/60Hz) for each ch (Europe)
External Dimensions	Amplifier section: 430 (W) \times 93 (H) \times 369 (D) mm Power Supply Unit: 430 (W) \times 93 (H) \times 346 (D) mm
Mass	Amplifier: 9kg, Power Supply: 12kg

<Accessories>

•AC power cable x1, DC power cable x2, OPT power cable x1

- The specifications and appearance of this equipment are subject to change without notice due to improvements.

Phasemation

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Phasemation is the original audio brand of Kyodo Denshi Engineering Co., Ltd.