

Owner's Manual

EA-300

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 caution.

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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-300 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.



Usage Cautions

CAUTION:

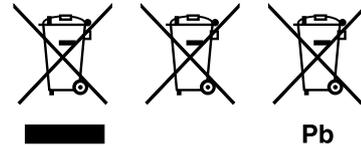
To completely disconnect this product from the mains, disconnect the plug from the wall socket outlet. The mains plug is used to completely interrupt the power supply to the unit and must be within easy access by the user.

A NOTE ABOUT RECYCLING:

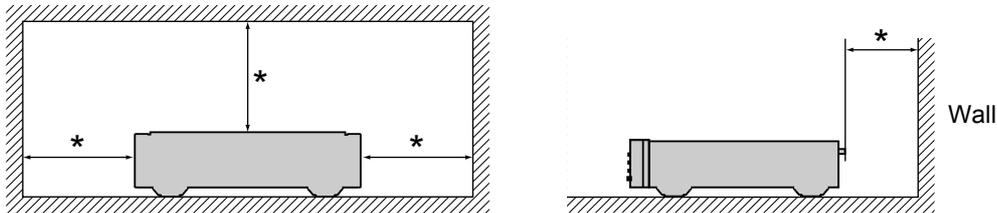
This product's packaging materials are recyclable and can be reused. Please dispose of any materials in accordance with the local recycling regulations.

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

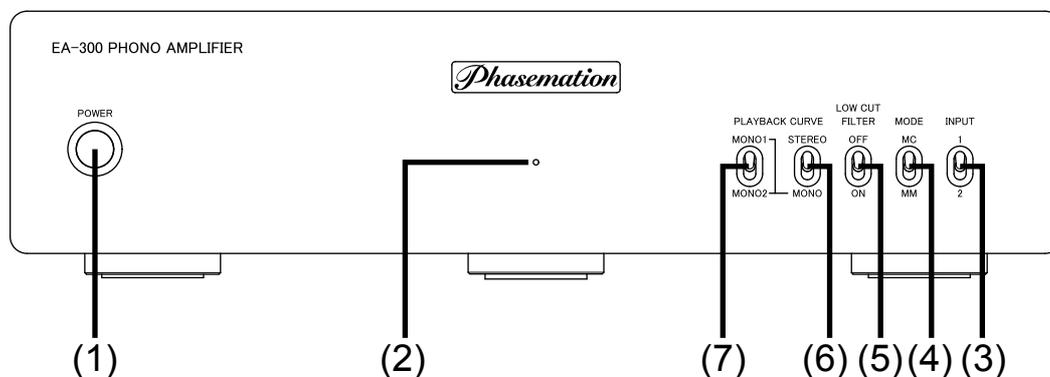
- | | | |
|--|--|--|
| <ul style="list-style-type: none">• Avoid high temperatures. Allow for sufficient heat dispersion when installed in a rack.• Handle the power cord carefully. Hold the plug when unplugging the cord.• Keep the unit free from moisture, water, and dust.• Unplug the power cord when not using the unit for long periods of time.• Do not obstruct the ventilation holes.• Do not let foreign objects into the unit. | <ul style="list-style-type: none">• 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. | <ul style="list-style-type: none">• 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

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.

The POWER indicator starts to flash immediately after turning the power on and it keeps flashing until the circuits become stable operation; and an audio sound is not outputted for the time.

(3) INPUT switch

The input signal can be selected by switching the INPUT switch between INPUT1 and INPUT2.

(4) MODE switch

Set the MODE switch to the MC position when an MC cartridge is used.

Set it to the MM position for an MC cartridge outputting voltage more than 1.5mV.

Set it to the MM position when an MM cartridge is used.

Before switching it to MC or MM, the power supply must be turned off by pressing the POWER switch or the volume of amplifier connected with the equipment must be decreased.

(5) LOW CUT FILTER switch

When a bent record is played, an uncalled infrasonic signal which is not the audio signal can be inputted to the phono amplifier, the diaphragms of speakers for low frequency signal can be concussed, which can result in a risk of damaging the speakers or distorting the sound.

In this case by switching this switch to "ON" position, the infrasonic signal can be attenuated, which can weaken the above-described phenomenon.

(6) PLAYBACK CURVE switch STEREO/MONO

- STEREO: RIAA curve for playing a stereo LP record
- MONO : MONO1 or MONO2 for playing a Monaural LP record

Note

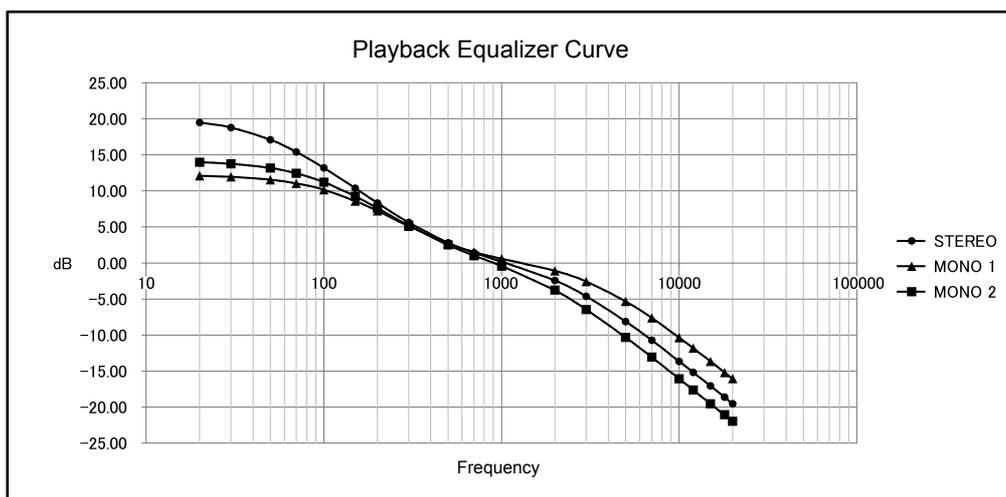
A recording correction curve made by each label, which is not RIAA curve for recording correction of uniform international standard, is applied for some LPs pressed in the mid-1960. Two kinds of typical recording correction curves to cope with this situation are adopted for this equipment.

(7) PLAYBACK CURVE switch MONO1/MONO2

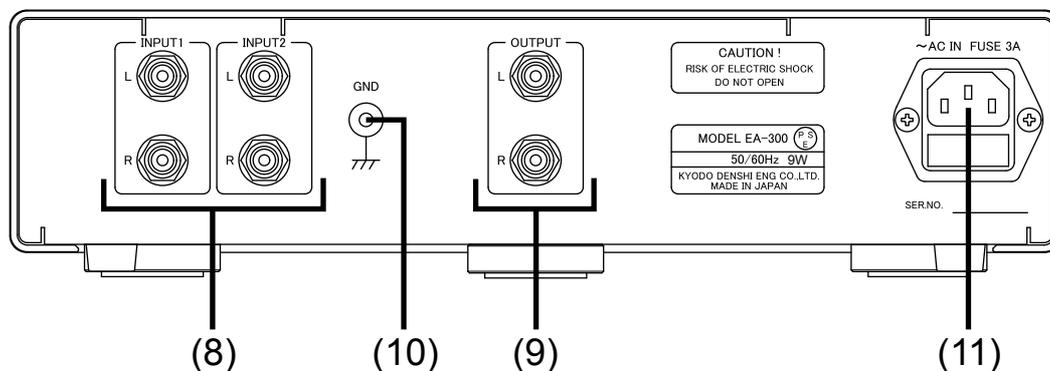
- MONO 1: Curve for playing a Monaural LP record (For DECCA label and so on: FFRR)
- MONO 2: Curve for playing a Monaural LP record (For Columbia label and so on)

Playback Equalizer Curve Settings

Curve	Turnover/Low limit	Roll off
STEREO	500Hz/50Hz (+20dB)	75μs-2120Hz (-13.75dB at 10kHz)
MONO 1	500Hz/125Hz(+12 to12.5dB)	50μs-3000Hz (-10.5dB at 10kHz)
MONO 2	500Hz/100Hz(+14dB)	100μs-1590Hz (-16dB at 10kHz)



Rear Panel



(8) Phono Amplifier INPUT terminals

There are two systems, INPUT1 and INPUT2 for the input terminals.
Connect respective L and R wires from an analogue disc player.

(9) Phono Amplifier OUTPUT terminals

Connect the L and R OUTPUT terminals to input-terminals of equipment requiring line level (150 to 250mV) such as AUX terminals of pre-amplifier.

Caution

The L and R OUTPUT terminals must not be connected to input-terminals of pre-amplifier having a built-in phono amplifier. Because the excessive current will be generated, an audio sound will be distorted.

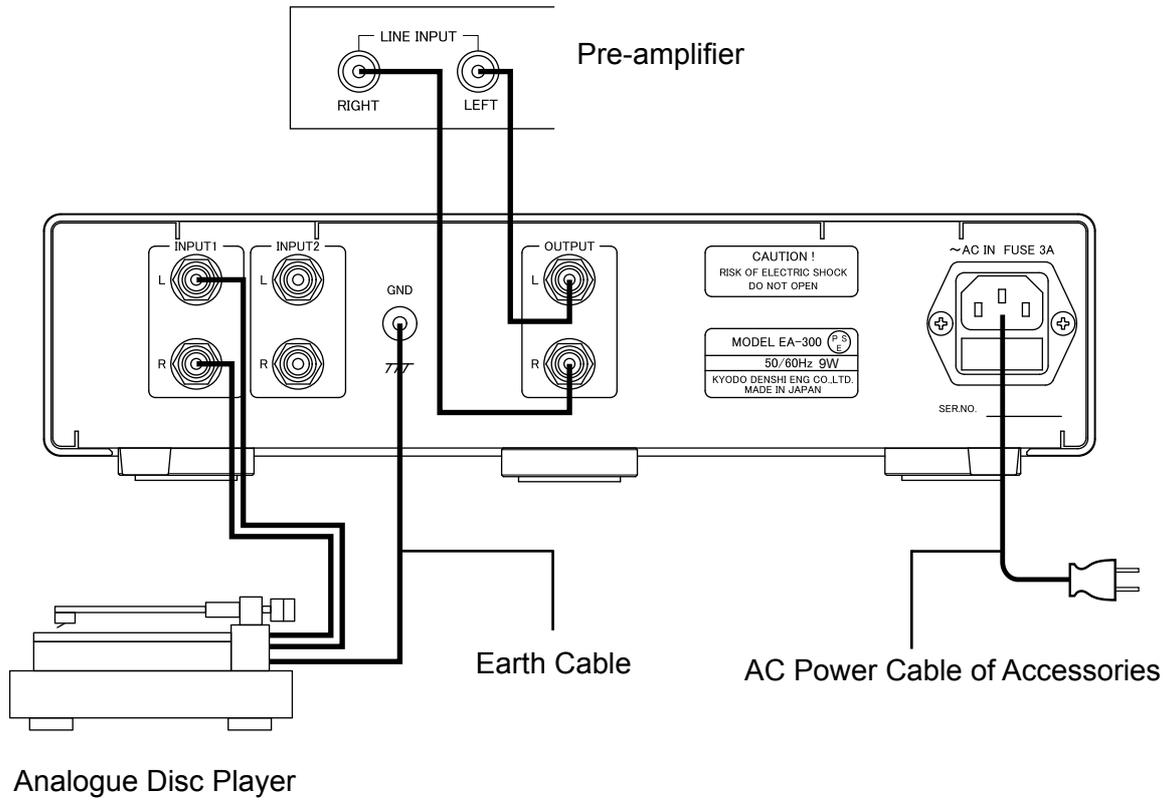
(10) GND Terminal

Connect an earth cable from analogue disc player with the GND terminal.

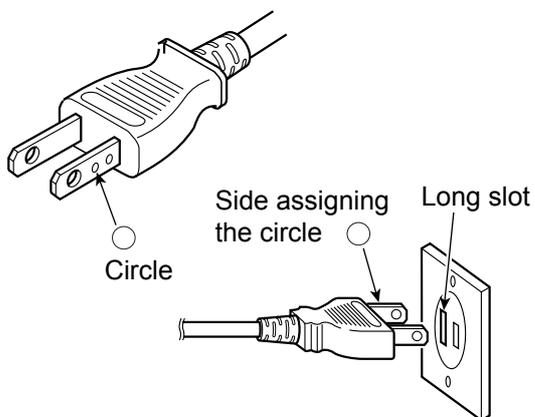
(11) AC INLET

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

Connections



Plugging the plug of AC power cable in an outlet



A circle is assigned on the one side of the plug of AC power cable so that better quality sound is reproduced by matching the power supply polarity with other equipment.

This polarity may be different because of house wiring for outlet or because of power supply condition; however, generally the side assigning the circle should be inserted to the long slot of the outlet.

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, endure to disconnect the AC plug from the outlet and then contact the dealer.

Trouble	Causes	Measures
The power is not supplied.	<ul style="list-style-type: none"> ● The plug of AC power cable is not plugged in completely. 	<ul style="list-style-type: none"> ● Insert the plug of AC cable into an outlet firmly. ● Firmly insert the outlet of AC power cable into the AC inlet of Power equipment.
The sound is not heard.	<ul style="list-style-type: none"> ● The audio wires are not plugged in completely. 	<ul style="list-style-type: none"> ● Insert the audio wires completely.
Sound is distorted.	<ul style="list-style-type: none"> ● An MM cartridge is used, but the MODE switch is set to MC1 or MC2. ● The OUTPUT terminals of this equipment are connected to the input terminals for a phono amplifier on the panel of the pre-amplifier. 	<ul style="list-style-type: none"> ● Set the MODE switch to MM. ● Connect them to line level input terminals (such as AUX) of pre-amplifier.
When operating the function switch, the click noise is heard.	<ul style="list-style-type: none"> ● Some click tone is generated because of switch principle. 	<ul style="list-style-type: none"> ● Before operating the switches, turn the power of this equipment to OFF or decrease volume of the connected amplifier.
Hum noise is heard.	<ul style="list-style-type: none"> ● The audio wires are not plugged in completely. ● The earth cable from the analogue disc player is not connected. ● A power supply transformer or motor in other equipment is installed near this equipment. 	<ul style="list-style-type: none"> ● Insert the audio wires completely. ● Connect the earth cable completely. ● Place this equipment apart from the power supply transformer or motor of other equipment.
Sound is not heard immediately after turning the power on.	<ul style="list-style-type: none"> ● Sound is not outputted until the circuits become stable operation. 	<ul style="list-style-type: none"> ● Please wait till the power indicator will change from flashing to lighting up.

User Support

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

Specifications

Product	Full symmetry & Non-Feedback Type MM/MC Phono Amplifier	
Cartridge Type	MM	MC
Input Sensitivity	2.5 mV	0.12 mV
Input Impedance	47k ohms	470 ohms
Gain	38 dB	65 dB
Input Referred S/N ratio	-124 dBV	-144 dBV
Maximum Input Voltage	125 mV	6 mV
Rated Output Voltage	200 mV (1 kHz)	
Deviation From RIAA Curve	±0.3 dB (20Hz to 20kHz)	
Output Impedance	100 ohms	
Power Requirement	AC120V 60Hz (USA) AC230V 50/60Hz (Europe)	
Power Consumption	10W	
Dimensions (mm)	W310 x H79 x D335	
Weight	5 kg	

Accessories: AC power cable

- The appearance and specifications 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.