

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.









Table of Contents





Safety Instructions.....	4
Usage Cautions.....	5
Care of Equipment.....	5
Names and Functions.....	6, 7, 8
Connections.....	9
Trouble Shooting Guide.....	10
User Support.....	11
Specifications.....	11

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 customer's assets and to protect our customers from harm.

 WARNINGS	<ul style="list-style-type: none"> ■ Do not use the equipment being broken. 	 	<ul style="list-style-type: none"> ● In case of using the equipment in an abnormal state, such as seeing smoke, having strange smell and hearing unusual sounds or noise, this can result in a risk of fire or electric shock. If such an abnormal state occurs, turn the power switch off, and endure to disconnect the AC plug from the outlet. After no smoke is confirmed, ask dealer for the repair.
	<ul style="list-style-type: none"> ■ Never remodel the equipment. 		<ul style="list-style-type: none"> ● Do not disassemble the equipment or do not remodel it. This can result in a risk of fire.
	<ul style="list-style-type: none"> ■ Never install the equipment near water. 	 	<ul style="list-style-type: none"> ● Do not use the equipment in the bathroom. This can result in a risk of fire or electric shock. ● The equipment is designed for using indoors. Do not expose the equipment to water. This can result in a risk of failures, fire and electric shock.
	<ul style="list-style-type: none"> ■ Never put an object filled with water on the equipment. 		<ul style="list-style-type: none"> ● Do not put a vase, flower pot, glass or any object filled with skin lotion, chemical or water, or small metal object on the equipment. In case the liquids are spilled or the small objects fall inside the equipment, this can result in a risk of fire or electric shock.
	<ul style="list-style-type: none"> ■ Never put an object inside the equipment. 		<ul style="list-style-type: none"> ● If a foreign object has fallen inside the equipment, turn the amplifier's power switch off, and contact the dealer. To keep using the equipment can result in a risk of fire and electric shock.

 CAUTIONS	<ul style="list-style-type: none"> ■ Cautions of Installation 		<ul style="list-style-type: none"> ● Do not install the equipment on the unstable tables or unstable places. In case the equipment falls, it can result in a risk of injury of customers. ● Pay attention to the wiring of the cord so that a foot is not caught, or the person can stumble or the equipment can fall, which is so dangerous. ● When moving the equipment, turn the power switch off, and endure to disconnect the power plug from the outlet and remove the connecting cord. The cord can be damaged and this can result in a risk of fire and electric shock.
	<ul style="list-style-type: none"> ■ Places which are not suitable for installation 		<ul style="list-style-type: none"> ● Do not install the equipment in the humid or dusty environment. This can result in a risk of fire or electric shock.
	<ul style="list-style-type: none"> ■ Connection 		<ul style="list-style-type: none"> ● When connecting with other audio equipment or a television set, read the manual of equipment, turn the power switch off, and connect according to the instructions.

Usage Cautions

Installation place

In order to use the equipment for a long time, follow the instructions shown in below:

- Do not install this equipment near a heat source such as direct sun light, a stove and so on.
- Do not use this equipment at a poorly-ventilated, humid or dusty place.
- Do not install this equipment at an unstable place such as slope or vibrating place.
- Do not install this equipment near the window where the equipment can be exposed to rain.
- Do not install this equipment in high humidity environment.
- Avoid using this equipment on equipment generating heat such as an amplifier.
- Keep this equipment away from a power supply transformer or motor of other equipment.

Note

Avoid covering the equipment with the cloth or installing it in enclosed space because radiation and air convection from the chassis surface can be hindered.

To prevent external sound pressure, grit and dust from entering the equipment, inspiratory/exhaust ports to radiate the heat are not arranged against the equipment consciously. Radiating the heat from the equipment is realized by cooling with air convection in the chassis and with radiation and air convection from the chassis having high thermal conductivity.

Useable AC power supply voltage and frequencies

- AC 230V power supply must be supplied.
- The equipment operates normally in the both areas of 50Hz and 60Hz power supply frequencies.

Handling of AC power cable

- Do not touch the AC power cable with the wet hands.
- Do not pull the cable strongly or do not bend the cable. The cable can be damaged and can result in a risk of fire and electric shock.
- Use the AC power cable of the accessories.

Repair

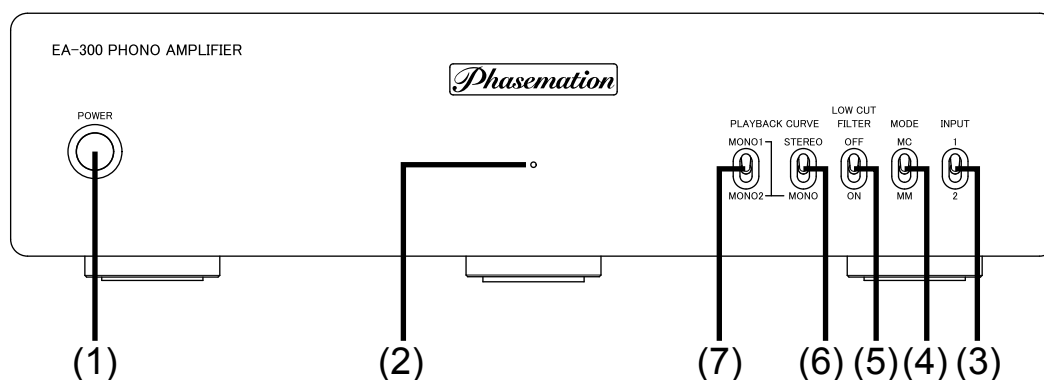
- In the case of the equipment failure, consult the dealer.

Care of Equipment

- ⊙ If the equipment is covered with dust or dirt, clean it with a soft cloth.
- ⊙ If the equipment is covered with heavy dust, put a very thin mild detergent 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 and 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

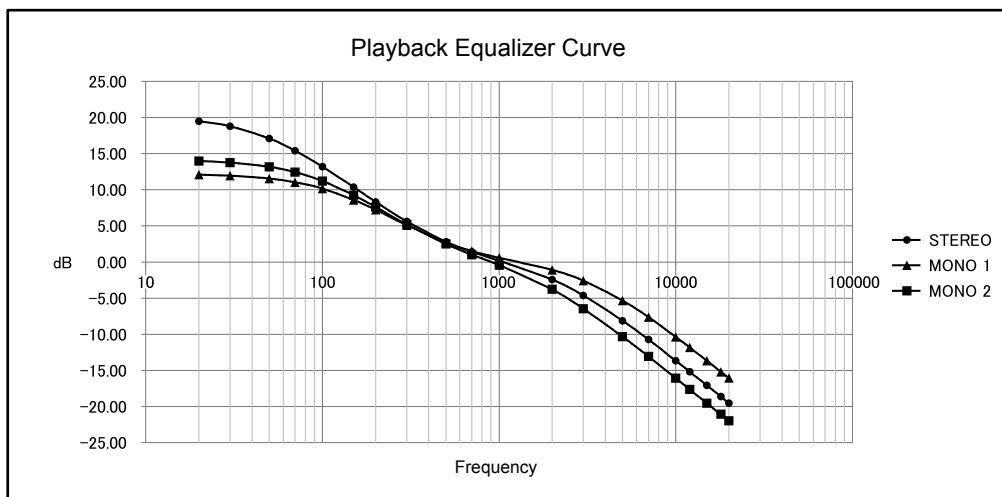
A recording correction curve made by each label, which is not RIAA curve for recording correction of uniform international standard, is applied for some LPs pressed in the mid-1960. Two kinds of typical recording correction curves to cope with this situation are adopted for this equipment.

(7) PLAYBACK CURVE switch MONO1/MONO2

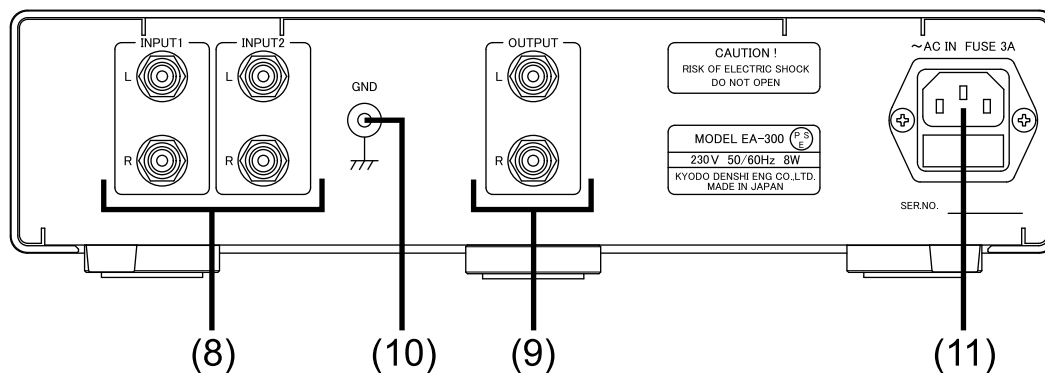
- MONO 1: Curve for playing a Monaural LP record (For DECCA label and so on: FFRR)
- MONO 2: Curve for playing a Monaural LP record (For Columbia label and so on)

Playback Equalizer Curve Settings

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

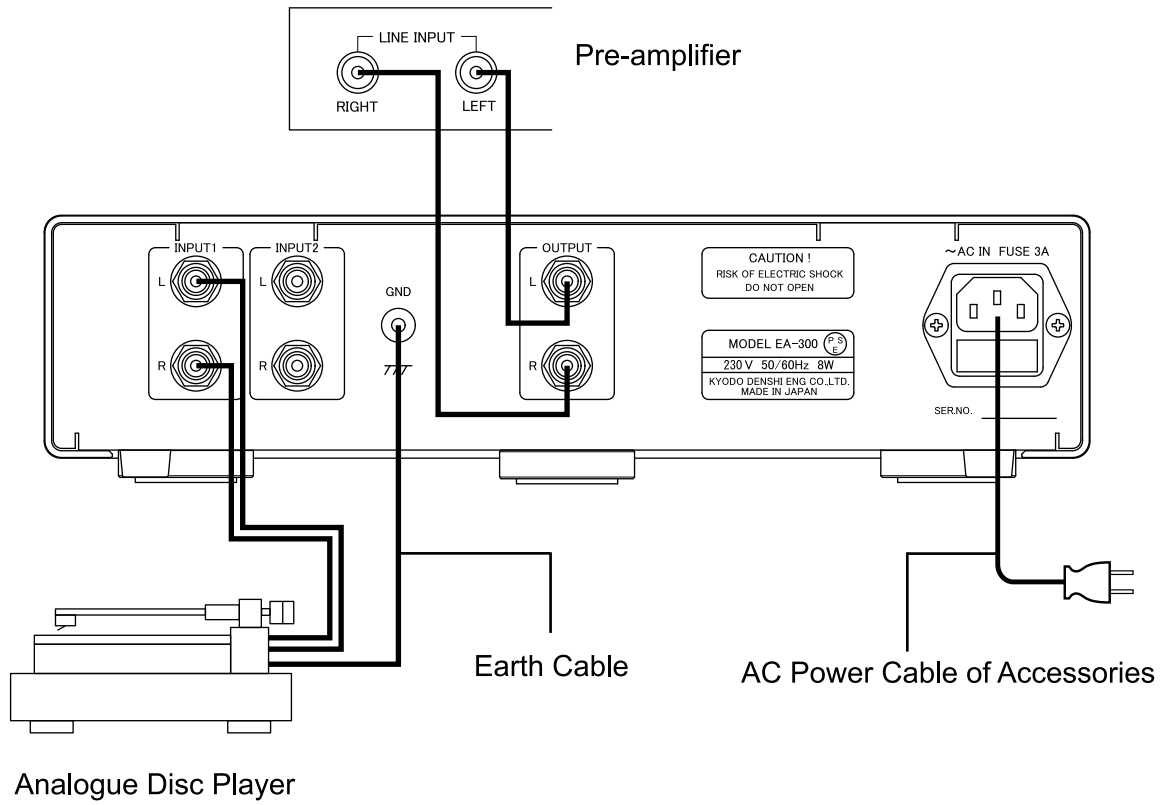
(10) GND Terminal

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

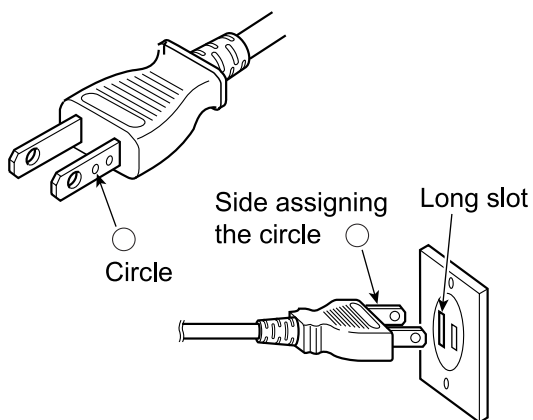
(11) AC INLET

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	
Channel separation	100 dB or more (20Hz to 20kHz, for both of MM and MC)	
Power consumption	10W (230VAC, 50 to 60 Hz)	
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 in order to improve it.

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