Phasemation

T-500

MC STEPUP TRANSFORMER

Owner's Manual

Safety Instructions

⚠ WARNING	This picture indicates that a person can be caused serious injury or death.
⚠ CAUTION	This picture indicates that a person can be caused serious injury or an object can be damaged.

⚠ WARNING

- When feeling abnormal operation about this equipment
  In case this equipment falls or is damaged, or the abnormal sound is brought, stop it and consult your dealer. If continuing using without measure, it can be caused to malfunction. Never repair it because that the user repairs it is very dangerous.
- Never disassemble or remodel this equipment.
  Never disassemble or remodel it not only because it can be caused to malfunction but also because another device can be affected to this.
- Place where this equipment should not be installed
  - Do not install it at a humid or dusty place.
  - Do not install it at a slope because falling or flopping can cause a risk of injury.
  - Do not install it at a place near heater, stove, or motor, or a vibrating place.
  - Do not install it at the place where it can be exposed to a rain, such as a window.
- Never pour liquid on this equipment
  - In case liquid is poured or a rain falls to it, it can be caused to malfunction; so, consult your dealer
  - Never utilize it in a water side or bath room.
- Never let a foreign object infiltrate into this equipment.
  If continuing using without measure in the status that a foreign object exists in it, it can be caused to malfunction; so, consult your dealer.
- Connection with other audio equipment
  Please utilize them in accordance with the respective equipment's instruction manuals.

  Note: When removing stains, wipe dry with a clean cloth without using alcohol, benzin thinner, and so on.

Safety Instructions

Installation

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

- Do not install this equipment near any heat source such as direct sun light, stoves and other equipment that produces heat.
- Do not use this equipment in poorly-ventilated, humid, and dusty places.
- Do not install this equipment in unstable places such as slopes and vibrating places.
- Do not install this equipment near the window where it can be exposed to rain.
- Do not install this equipment in hot environments.
- Avoid using this equipment on equipment generating heat such as an amplifier.
- Remove this equipment from a power supply transformer or motor of other equipment.

Repair of this equipment

- If the equipment is in need of repair, refer servicing to qualified service personnel.

Main Features

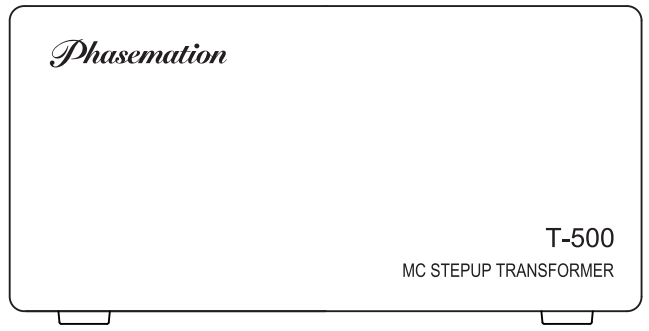
1. Employing the high-performance step-up transformer having the special coil winding-structure which has been developed in-house
   - We introduce the special winding structure having been adopted to the upper grade model to the mass-production model. The 0.32mm thick copper wire which is low in loss, is winded to the gigantic EI core made of 78% super-Perm alloy; so, the excellent phase characteristic, the best linearity for lower band, and higher efficient (lower loss) step-up are realized. As a result, the high quality sound having full of vitality is brought out in all bands.

2. Equipping with Full Balanced Input Portion
   - The general RCA terminals for unbalanced input are equipped with; however, the XLR terminals for balanced input are also equipped with. An MC cartridge operates in the balanced circuit because the reversed phase signals are generated at the both ends of coil.
     This equipment, T-500, has the special split winding structure in which the current flows through the middle point to the earth ground; thereby the balanced transmission with good sound image and without being affected to an external noise is realized. (The phono cables compatible to the balanced connection are required.)

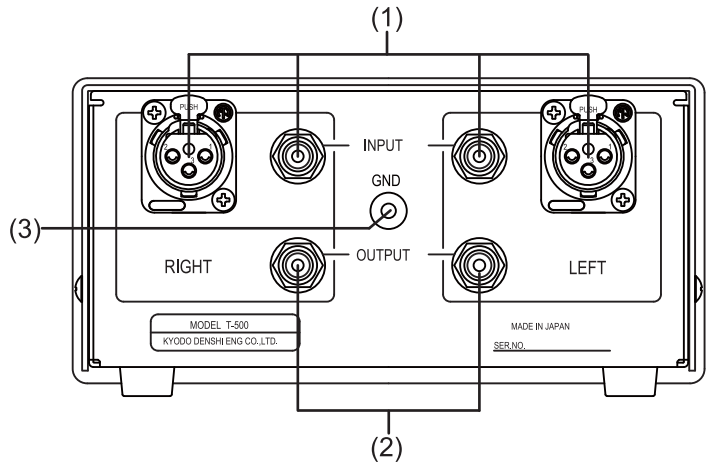
3. Materializing a Resonance Free and Vibration Free structure
   - The step-up transformer is supported with the polyethylene foam, which prevents it from conveying any external vibration to inside the step-up transformer. A reproduced sound with good S/N impression has been realized.
   - For the chassis base and cover making of 1.2mm and 1.6 mm steel plates, copper plating and coating to prevent it from vibrating in finishing process are conducted. The parts are assembled with the stainless-steel non-magnetic screws to minimize the influence of the magnetic distortion; thereby the clear sound has been realized. Furthermore, by adding a shield board at the center of chassis to divide the left from the right, the separation on audibility has been substantially improved.

Names and Functions

Front Panel



Rear Panel

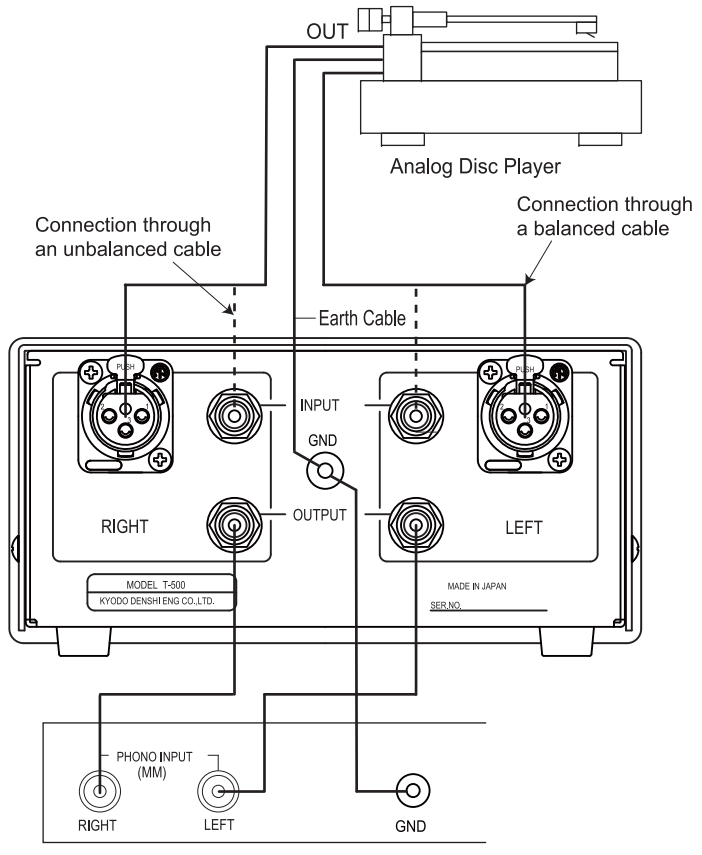


(1) Phono Input Terminals
Connect the audio cables, L and R, from your analog disc player. There are RCA terminals (unbalanced) and XLR terminals (balanced). If the both of them are connected at a time, the sound quality may lose and the noise may be increased.
* For balanced connection, the compatible phono cables should be connected to the XLR terminals.
* No.1 of XLR terminal is GND, No.2 is HOT and No.3 is COLD.

(2) Phono Output Terminals
Connect them with the MM input terminals of pre-amplifier or phono amplifier.
* Never connect them with the MC terminals or the excessive input distorts the sound.

(3) GND Terminal
Connect the earth cables from at the GND terminals of analog disc player and the phono amplifier or others.
* The earth cable shall essentially be connected between the transformer and the pre-amplifier or phono amplifier. However, you should judge whether connecting to the earth is good, or not, because it is not good uncommonly.

Connections



Pre-amplifier or Phono amplifier

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, contact the dealer.

Troubles	Causes	Measures
The sound does not come out.	● The signal wires are not plugged in completely.	● nsert the audio wires completely.
Sound is distorted.	● The OUTPUT terminals of this equipment are connected to the MC input terminal of pre-amplifier or phono amplifier.	● Connect to the MM input terminal of pre-amplifier or phono amplifier.
Hum sound comes out.	● The audio wires are not plugged in completely. ● The earth cable from the analog disc player is not connected. ● A power supply transformer or motor of other electric device is placed nearby. ● Both of XLR and RCA are connected to the input terminals. ● A phono amplifier is utilized.	● Plug in the audio wires completely. ● Connect the earth cable completely. ● Place this equipment apart from a power supply transformer or motor of another electric device. ● Connect only one of them to the input terminals. Try to connect the earth ● cable between the phono amplifier and pre-amplifier. (Essentially it is not necessary.)

Specifications

Model	MC stepup transformer
Applicable Cartridge's Output Impedance	1.5 to 40 ohms
Secondary Impedance Loading	47k-ohms
Step-up ratio (Voltage gain)	26dB
Frequency range	10Hz to 50kHz (±2dB)
Dimensions	W:174mm x H:88mm x168mm
Weight	2kg
INPUT/OUPUT terminals	Machined gold-plated terminal

● Dimensions and specifications 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.