

DC STEREO POWER AMPLIFIER

MODEL NO. SA-P22K

- OPERATING INSTRUCTIONS
-

AIWA®

FEATURES

- **Toroidal power transformer for a compact size and high output power**

The large-capacity power supply is composed of a toroidal transformer with particularly high efficiency and two 10,000 μ F large-sized design capacitors. This exhibits ample margin, and more than enough power is supplied for an effective output of 30 W + 30 W. This enables dynamic, high quality sound reproduction.

- **Wide-band DC amplifier for reproducing the original sound faithfully**

This DC power amplifier design has eliminated any capacitors which cause phase distortion in the negative feedback loop. In order to suppress DC drift, a newly developed monolithic IC which makes up a differential amplifier is employed for the first stage. This circuitry ensures that operation is stable over a wide range of temperatures. The final stage is a pure complementary SEPP OCL circuit featuring RETs (ring emitter transistors) with excellent linearity for minimum distortion.

- **Protection circuits**

The protection circuit employs a newly developed IC and a relay eliminates "pop" noise produced when the power is switched on and off. Other features protect the transistors from short-circuits in the output and also the speakers which are isolated when leakage of DC is detected in the output.

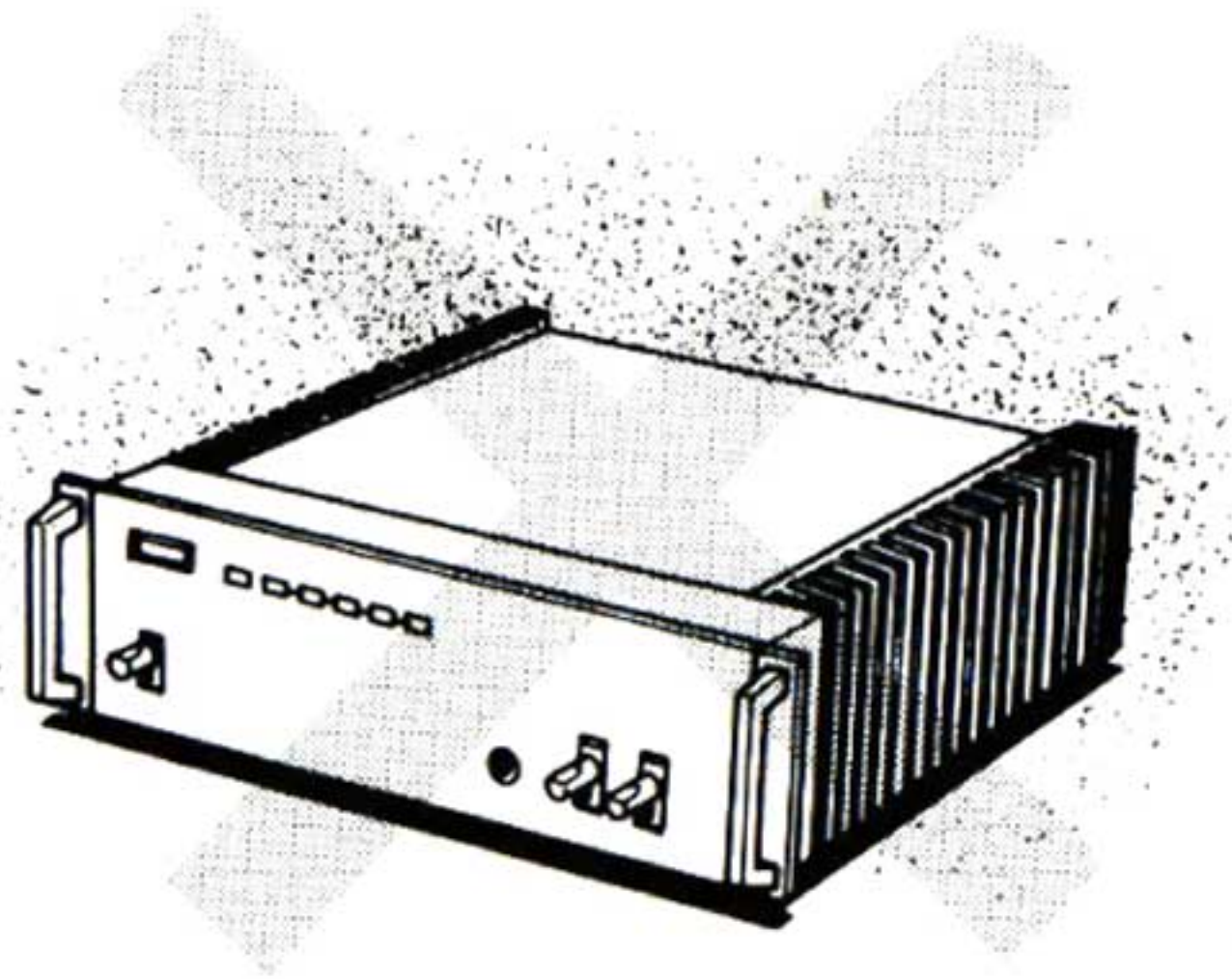
- **LED bar graph display to indicate the output level**

The display consisting of five LEDs and the logarithmic compression circuit serve to indicate the total output power of both channels with levels ranging from 0.1 W to 60 W (when load impedance is 4 ohms).

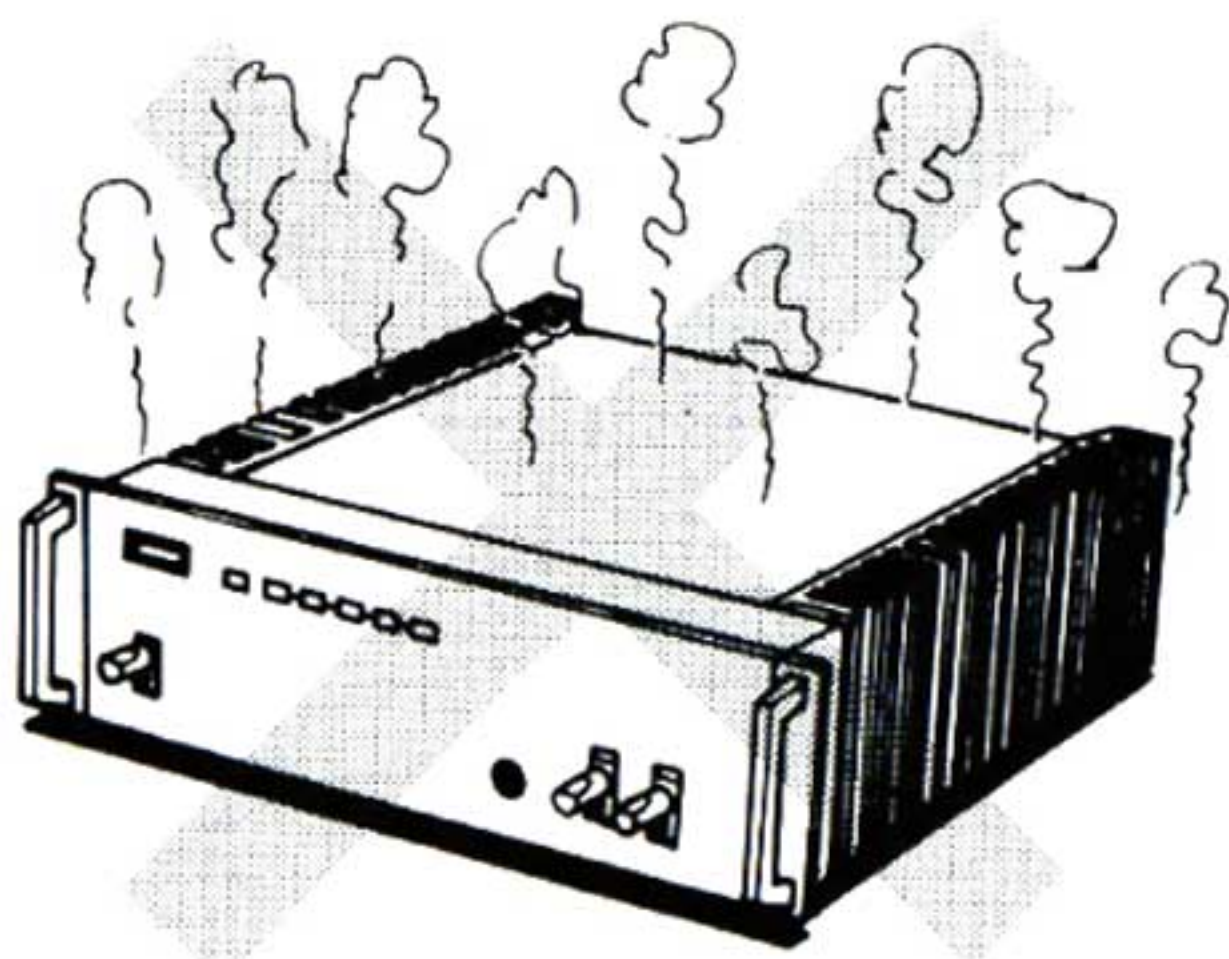
OPERATION PRECAUTIONS

Bear in mind the following suggestions: Following the instructions will allow the power amplifier to make the most of its performance and ensure many long years of use.

1. Use or storage of the power amplifier in a dusty or sandy place will cause deterioration of performance.



2. Avoid placing the power amplifier near a stove or similar appliance or location where the temperature is high.



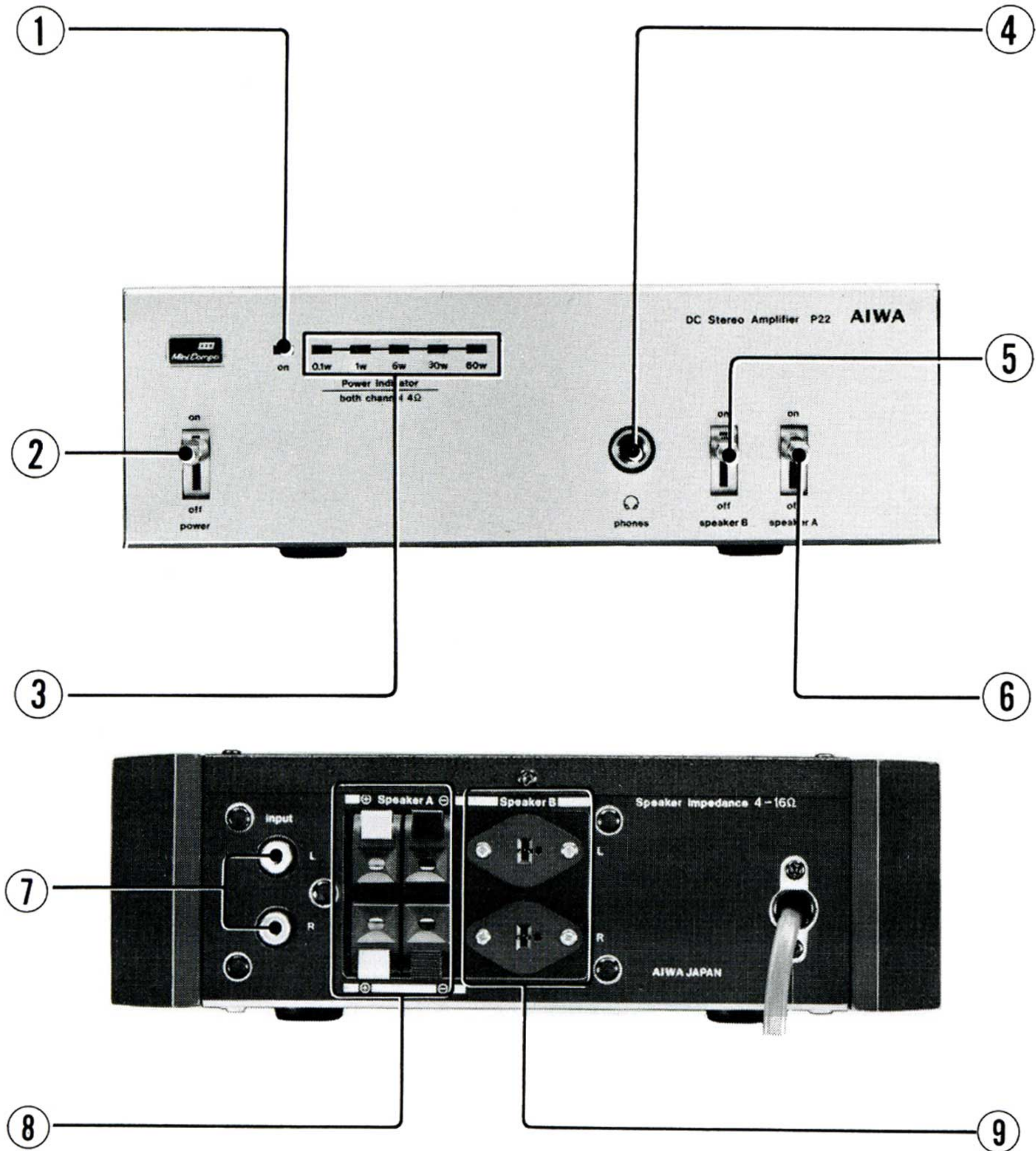
- **Handling the AC cord**

When connecting and disconnecting the AC cord, take hold of the plug section and not the cord. Pulling the cord may cause damage to the cord and create hazards.

- **Preventing electric shocks and fire hazards**

If the AC cord is broken or damaged, or if the wires are exposed, contact your dealer or an AIWA service station and have it replaced or repaired.

NAMES OF PARTS AND THEIR FUNCTION



① Power ON/OFF Indicator

This comes on when the power is switched on.

② "Power" Switch

③ "Power Indicator"

This lights up to indicate the power output level (with an 4 ohm load).

④ "Phones" Jack

This is for headphones which allow private listening.

⑤ "Speaker B" Switch

This selector switch switches on and off the speakers which are connected to the speaker B terminals.

⑥ "Speaker A" Switch

This selector switch switches on and off the speakers which are connected to the speaker A terminals.

⑦ "Input" Jacks

These are for connections to the output jacks of the pre-amplifier.

⑧ "Speaker A" Terminals

These are for connecting the speaker A system.

⑨ "Speaker B" DIN Connectors

These are for connecting the speaker B system.

CONNECTICNS

Preamplifier

Connect the input jacks on the power amplifier to the output jacks on the preamplifier using stereo pin cords.

Speakers

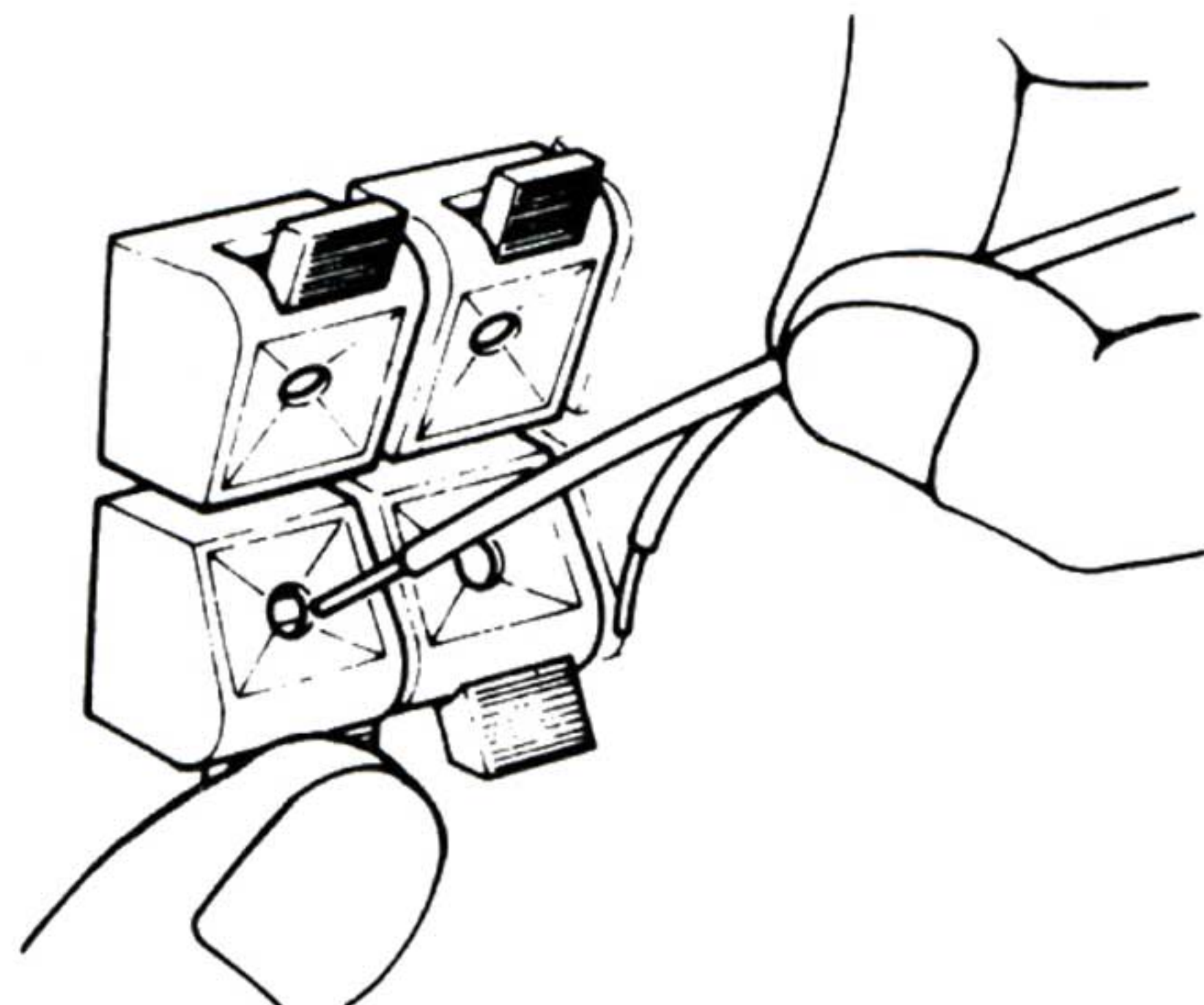
Two pairs of stereo speakers can be connected to this power amplifier. Set the power switch to "off" before connecting the speakers.

You may use speakers with an impedance of 4 ~16 ohms.

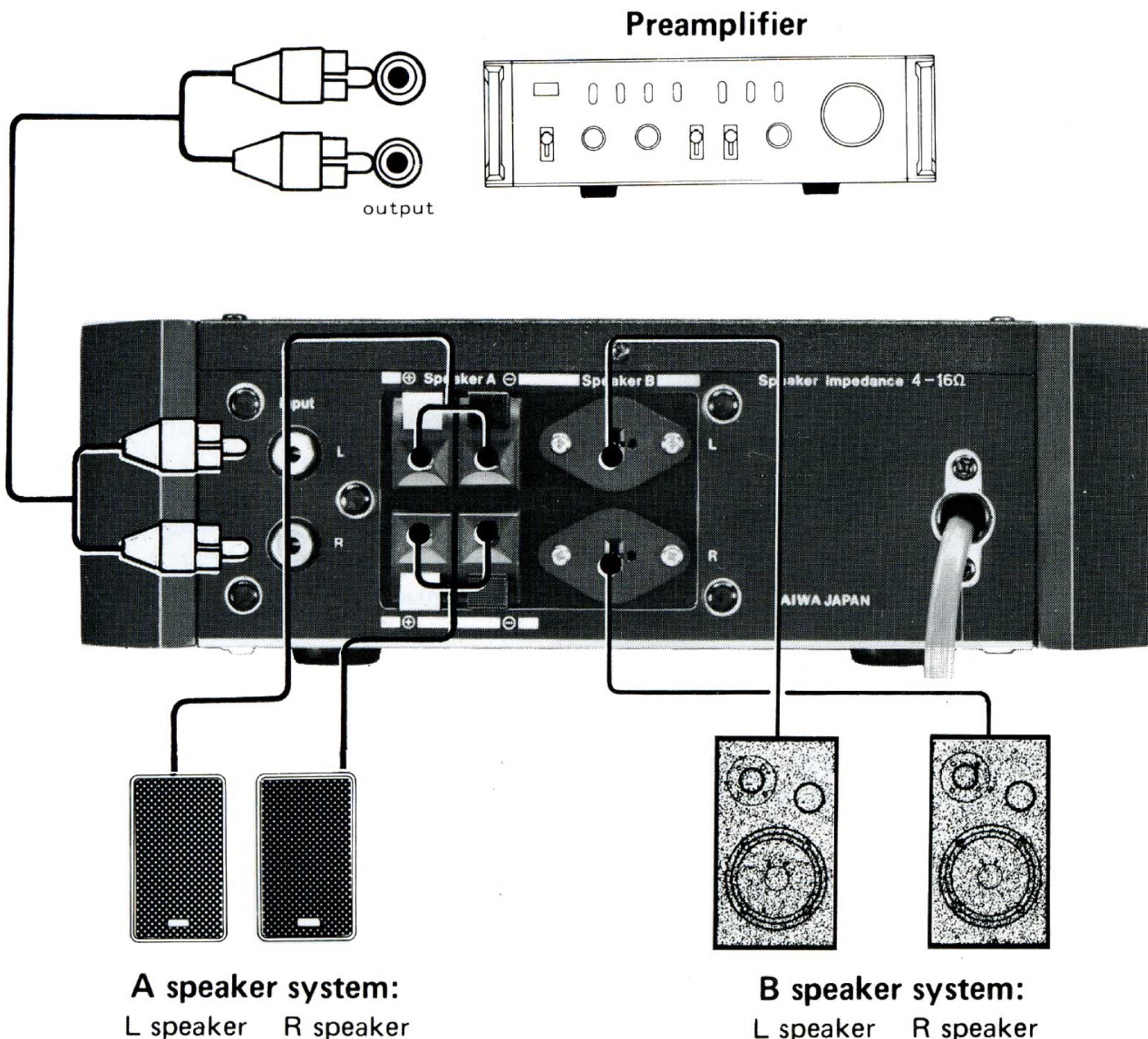
When connecting the speakers, align the left and right channels, A and B systems and the ⊕ and ⊖ polarities correctly.

If the polarities are not aligned, the volume of the sound will drop in the center of the two speakers with a music program and the bass will particularly be attenuated. Moreover, the sound will not remain concentrated in the center but will fluctuate.

- * To hook up the speakers, depress the levers on the speaker terminals, insert the exposed part of the cords into the hole provided in the speaker terminals and then release the levers.



- * Connect speakers provided with DIN connectors to System B.



OPERATION PRECAUTIONS

The speaker terminals of this unit are connected in series and so please bear in mind the following points.

- When listening to either the A or B speaker system, set the speaker switch for the system through which no sound is heard to the OFF position. Failure to heed this warning will result in the sound not being heard through this speaker system.
- When listening to both the A and B speaker systems, the sound heard through one set of speakers will be lower than that heard through the other set because of the series connection. Adjust the sound to the preferred level with the volume control.

PROTECTION CIRCUITS

This power amplifier contains self-resetting voltage and current protection circuits to safeguard against accidents caused by careless handling or faulty operation.

● Voltage protection circuit

This is actuated when a DC voltage of about 2 V appears at the speaker terminals, and it serves to cut off the connections with the speakers.

● Current protection circuit

If the speaker terminals are shorted in error or if a low load is connected, this circuit is actuated.

Both these circuits are self-resetting. This means that when the faulty operation is corrected, they will immediately return to normal. However, when they are actuated, they are overloaded so try to avoid operating the power amplifier erroneously.

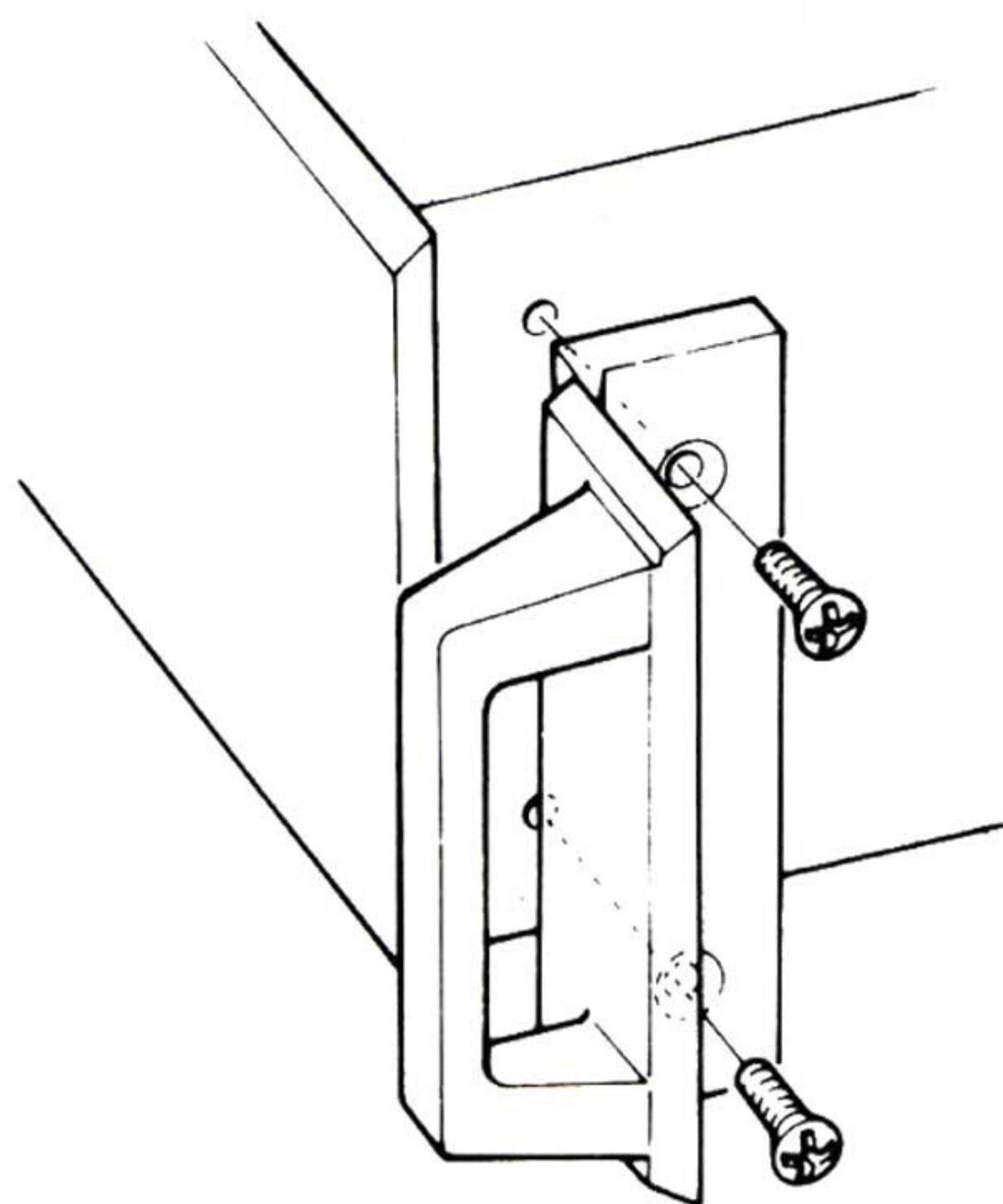
CLEANING THE AMPLIFIER

When the cabinet has become dirty or stained, dip a piece of gauze or soft cloth into a diluted solution of neutral cleanser and wipe clean. Never use thinners or benzine since they will damage the surface of the cabinet.

MOUNTING THE HANDLES (OPTION, AH-22Y)

Handles (option) can be mounted on this power amplifier. Attach at the sides of the model as shown in the figure.

* Handles are provided with model K1



SPECIFICATIONS

Power Output	30 W + 30 W with 4 ohm impedance (0.1 % distortion, 20 Hz to 20 kHz)
Distortion	0.07% at 30 W (1 kHz)
Input Sensitivity/ Impedance	0.6 V/47 kohms
SN Ratio	95 dB
Damping Factor	More than 20 (4 ohms, 1 kHz)
Circuit System	DC amp
Semiconductors	5 ICs, 12 transistors, 25 diodes, 6 LEDs
Power Requirements	AC 240 V , 50/60 Hz
Power Consumption	210 W
Dimensions	210 (W) x 72 (H) x 220 (D) mm
Weight	3.8 kg
Accessories	Handles (K1 model only)

- Specifications and design are subject to change without notice since the policy of this company is one of continuous improvement.

IMPORTANT

The wires in this mains lead are coloured in accordance with the following code:

Blue:	Neutral
Brown:	Live

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows.

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

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