

# STEREO INTEGRATED AMPLIFIER

## MODEL NO. SA-A22G

- OPERATING INSTRUCTIONS

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# AIWA®

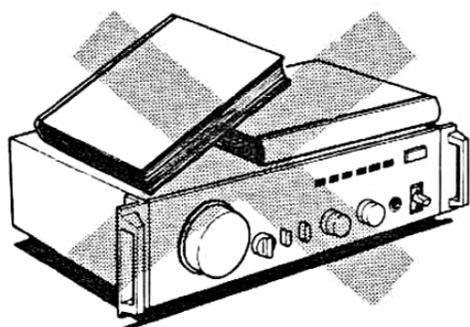
## FEATURES

- This amplifier contains a low-noise equalizer amplifier featuring an RIAA deviation of  $\pm 0.2$  dB (20 Hz to 20 kHz), a signal-to-noise ratio of 80 dB and a precise frequency response. The phono overload level of 150 mV (1 kHz) shows that this is an amplifier with plenty to spare.
- Despite its small size, it delivers a power punch of 18 W + 18 W (8 ohms).
- The power indicator employs a 5-LED bar graph display and a logarithmic compression circuit to display the total power of both channels from 0.1 W right up to 40 W (with a load impedance of 8 ohms).
- Tape deck input and output jacks are also provided.
- The separate bass and treble controls allow the sound quality to be adjusted. When they are set at the "0" position, the signals do not pass through the tone circuits but yield a flat frequency response.
- The single-push-to-connect speaker terminals allow the speakers to be connected both easily and securely.
- The headphone jack permits private listening.

## OPERATION PRECAUTIONS

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

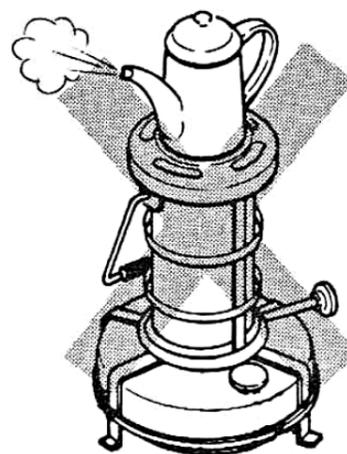
1. Do not obstruct the ventilating holes. Avoid placing other components or objects on top of this set, as the increased internal temperature may affect the electronic parts. Also note that considerable heat is produced when operating under high power for extended periods of time.



2. Use or storage in a dusty or sandy place will cause deterioration of performance.



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



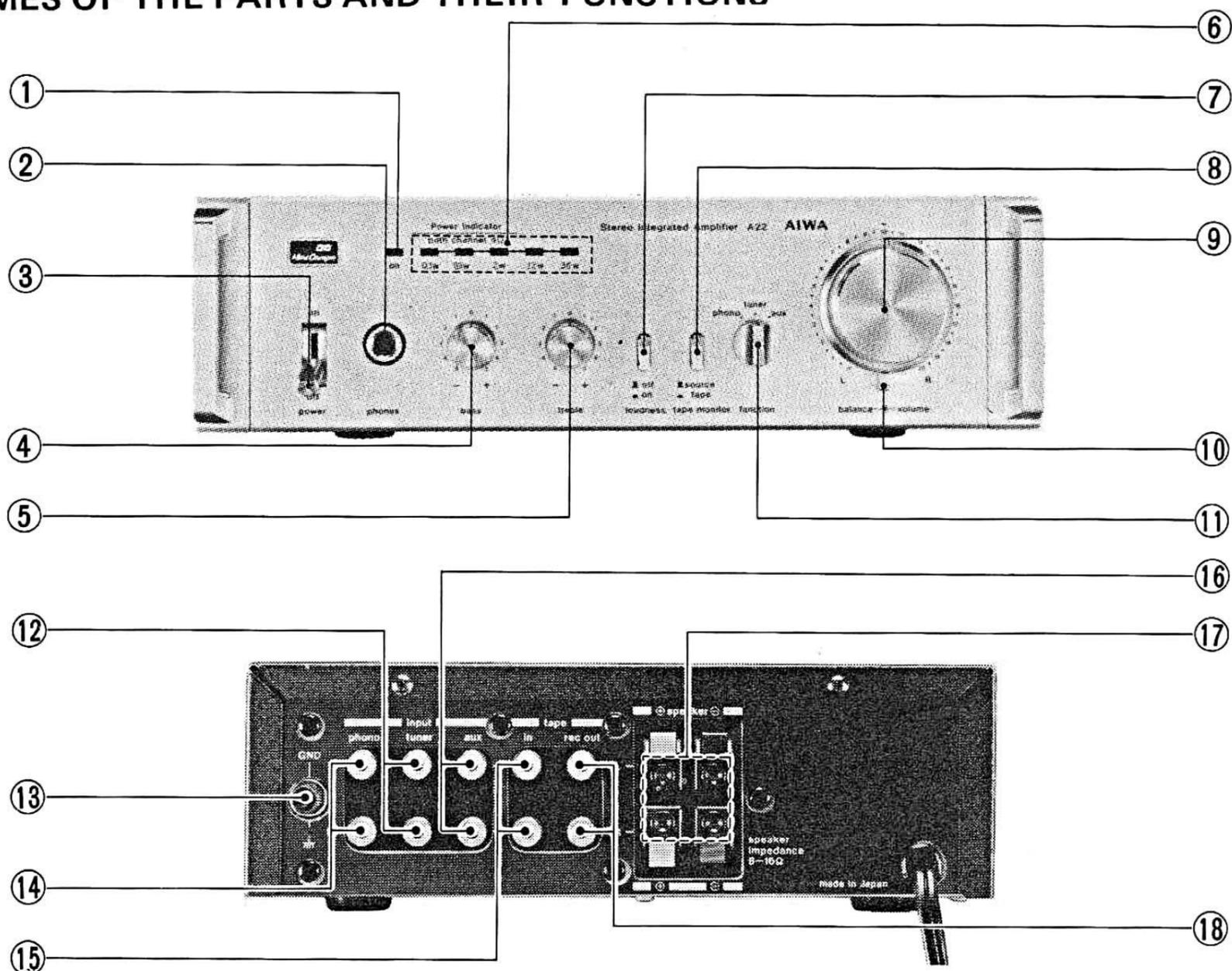
### • Handling the AC cord

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 THE PARTS AND THEIR FUNCTIONS



### ① Power lamp

This comes on when the power is supplied to the amplifier.

### ② Headphone jack (phones)

Plug your headphones into this jack for private listening.

### ③ Power switch (power)

### ④ Bass control (bass)

Use this to adjust the bass sound.

### ⑤ Treble control (treble)

Use this to adjust the treble sound.

### ⑥ Power indicator (power indicator)

This lights up to indicate the power of the output signals. (With an 8-ohm load)

### ⑦ Loudness switch (loudness)

Use this to compensate for the bass and treble sound when listening to a program with the volume control turned down.

### ⑧ Tape monitor switch (tape monitor)

Set this switch to "tape" when listening to tape playback or when monitoring the quality of a tape recording.

### ⑨ Volume control (volume)

Use this to adjust the volume.

### ⑩ Balance control (balance)

Use this to attain a balance between the left and right channels.

### ⑪ Function switch (function)

Set this switch to the position that corresponds to the sound source you want to listen to.

### ⑫ Tuner jacks (tuner)

These are for connecting the tuner output.

### ⑬ Ground terminal (GND)

This is for connection to the ground wire on your turntable.

### ⑭ Phono jacks (phono)

These are for connecting the turntable output.

### ⑮ Tape input jacks (tape in)

These are for connecting to the LINE OUT/PLAY jacks on your tape deck.

### ⑯ Auxiliary input jacks (aux)

Use these for connecting a tape player or a stereo TV tuner.

### ⑰ Speaker terminals (speaker)

These are for connecting the speaker systems.

### ⑱ Tape output jacks (tape rec out)

These are for connecting to the LINE IN/REC jacks on your tape deck.

## CONNECTIONS

### Tuner

Connect the tuner jacks (tuner) with the output jacks on your tuner using the stereo pin cord (connect L to L and R to R).

### Turntable

Use a turntable with a moving magnet (MM) cartridge with this amplifier and connect the turntable's output jacks to the amplifier's phono jacks (phono), taking care to connect the channels properly. Then connect the turntable's ground wire to the amplifier's GND terminal.

### Tape deck

Use the stereo pin cord to connect the amplifier's tape input jacks (tape in) with the LINE OUT/PLAY jacks of the tape deck.

Then connect the amplifier's tape output jacks (tape rec out) with the LINE IN/REC jacks on your tape deck using the stereo pin cord.

### Auxiliary input jacks (aux)

Use these jacks for connecting a second tuner or a playback-only tape deck.

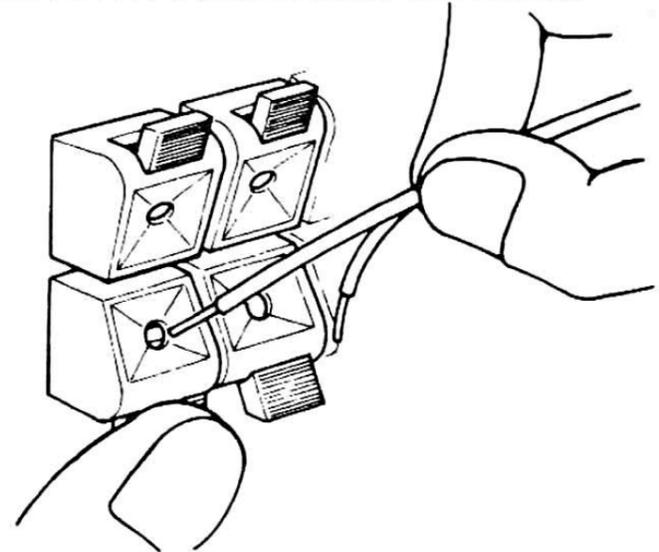
### Speakers

Set the power switch (power) to "off" before connecting the speakers. Use speakers with an impedance ranging from 8 to 16 ohms.

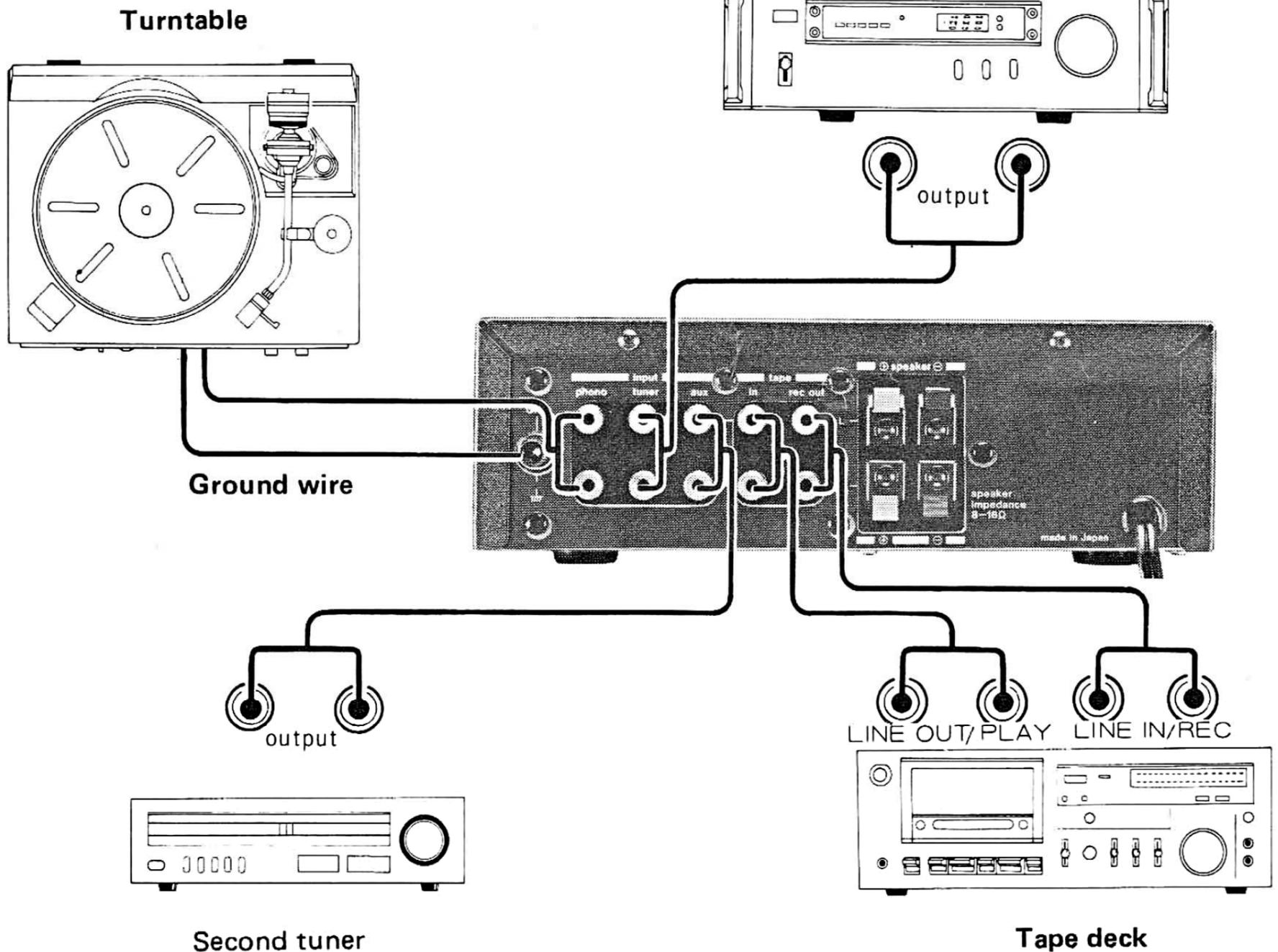
When connecting, make sure that the polarities ( $\oplus$  to  $\oplus$ ,  $\ominus$  to  $\ominus$ ) and the left and right channels are aligned properly.

If the polarities are not aligned properly, the sound in the center between the two speakers will appear to be reduced when you listen to music, and the bass will be diminished. The sound will not be concentrated in the center but will fluctuate all the time.

When connecting the speakers, push down on the speaker terminal levers and insert the exposed end of the speaker cords into the terminal holes. Then release the levers.



Tuner



Turntable

Ground wire

output

Second tuner

output

LINE OUT/PLAY

LINE IN/REC

Tape deck

## OPERATION

\* Before switching the power on, set the volume switch to "0".

1. First set the function switch (function) to the position that corresponds to the sound source you want to hear.
  - phono: Set here when you want to listen to a record on the turntable you have connected to the amplifier.
  - tuner: Set here to listen to a program on the tuner.
  - aux: Set here to listen to a program on the component which you have connected to the auxiliary input jacks (aux).
2. Set the power switch (power) to "on".
3. Set the tape monitor switch (tape monitor) to "source".
  - \* Set the same switch to "tape" when listening to tape playback.
4. Set the volume control (volume) to the preferred level, and the bass control (bass) and treble control (treble) to the positions which produce the preferred sound quality. Then adjust the balance between the left and right channels using the balance control (balance).

## TAPE MONITORING

When the tape monitor switch (tape monitor) is set to "source", you can listen to the sound of the program source you have selected with the function switch (function). When the same switch is set to the "tape" position, you will be able to monitor the recorded sound when you are recording on a tape deck or hear the tape playback sound when you are playing back a tape.

## LOUDNESS SWITCH

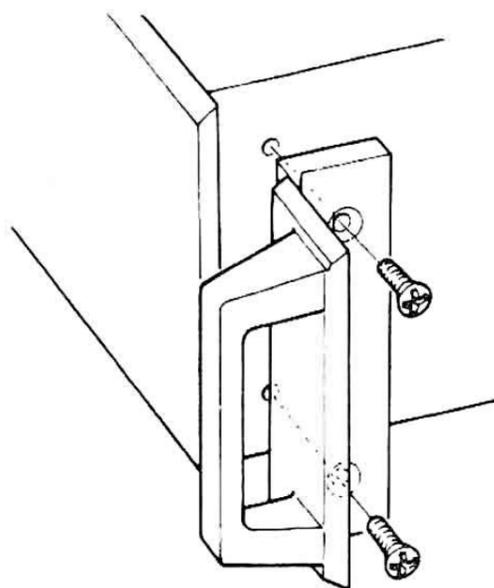
When listening at low volumes, the bass and treble appear to be deficient because of the tendency of the human ear to focus on mid-range frequencies. The loudness circuit is designed to compensate for this by emphasizing the bass and treble to give a more dynamic effect. Set this switch to "on" when listening to a program at low volume levels.

## TONE CIRCUIT

The bass and treble can be adjusted independently with this amplifier. When the two tone controls are set to "0", the signals do not pass through the tone circuit and a flat frequency response is yielded.

## MOUNTING THE HANDLES

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



## CLEANING THE PREAMPLIFIER

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.

## SPECIFICATIONS

### <Power amplifier>

Effective output power: 18 W + 18 W (8 ohms)  
Total harmonic distortion: 0.05% (1 kHz, 9 W + 9 W)  
Output bandwidth: 10 to 25 kHz (less than 1%)  
[Both channels driven, 8 ohms]  
Frequency response: 10 Hz to 30 kHz (+0/-1 dB)

### <Preamplifier>

S/N ratio: PHONO 80 dB (IHF A curve, short circuit)  
TUNER 95 dB (IHF A curve, short circuit)  
AUX 95 dB (IHF A curve, short circuit)

### Input jacks (Sensitivity/ input impedance):

PHONO 2.5 mV/47 kohms  
TUNER 150 mV/47 kohms  
AUX 150 mV/47 kohms  
TAPE 150 mV/47 kohms

### PHONO

overload level: 150 mV (MM)  
[1 kHz, THD 0.02%]  
Output jacks  
(Level/output impedance): TAPE 150 mV/1 kohm  
Headphones 4 to 16 ohms  
Speakers 8 to 16 ohms  
Tone controls: BASS ±9 dB (100 Hz)  
TREBLE ±8 dB (10 kHz)  
Loudness: +6 dB (100 Hz), +5 dB (10 kHz)  
RIAA deviation: ±0.2 dB (20 Hz to 20 kHz)

### <Common>

Used semi-conductors: 6 ICs, 8 transistors, 11 diodes, 6 LEDs  
Power requirements: AC 240 V  
50/60 Hz.  
Power consumption: 10 W  
Dimensions: 210(W) x 71(H) x 205(D) mm  
Weight: 2,7 kg  
Accessories: Handles

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

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