KENWOOD

STEREO POWER AMPLIFIER

KM-208

INSTRUCTION MANUAL

KENWOOD CORPORATION

B50-9449-10 (JA)
B50-9623-10 (SI) (K, P, M, X, U, UE)(T)
90/12 11 10 9 8 7 6 5 4 3 2 1

Introduction

Your choice of this product indicates that you are a devotee to excellence in sound reproduction.
We appreciate your patronage and take pride in the long tradition of quality components, that our company represents.
So that you can get the most out of your unit, we suggest that you take the time to read through this manual before you hook up and operate your system. This will acquaint you with operating features, and system-connection considerations, so that your listening pleasure will be enhanced right from the start.
You will notice that in all aspects of planning, engineering, styling, operating convenience and adaptability, we have sought to anticipate your needs and desires.
Keep this manual handy for future reference.

For your records

Record the serial number, found on the back of the unit, in the spaces designated on the warranty card, and in the space provided below. Refer to the model and serial numbers whenever you call upon your dealer for information or service on this product.
Model _____ Serial Number _____

Unpacking

Unpack the unit carefully and make sure that all accessories are put aside so they will not be lost.
Examine the unit for any possibility of shipping damage. If your unit is damaged or fails to operate, notify your dealer immediately. If your unit was shipped to you directly, notify the shipping company without delay. Only the consignee (the person or company receiving the unit) can file a claim against the carrier for shipping damage.
We recommend that you retain the original carton and packing materials for use should you transport or ship the unit in the future.

Contents

Caution : Read the following pages marked in ⚠ carefully to keep your safety.

Before applying power

For the U.S.A. and Canada

Important!

Units shipped to the U.S.A. and Canada are designed for operation on 120 volts AC only.

Safety precaution for a Polarized AC plug

CAUTION: TO PREVENT ELECTRIC SHOCK DO NOT USE THIS (POLARIZED) PLUG WITH AN EXTENSION CORD. RECEPTACLE OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

For the United Kingdom

Important!

Units shipped to the U.K. are designed for operation on 240 volts AC only.

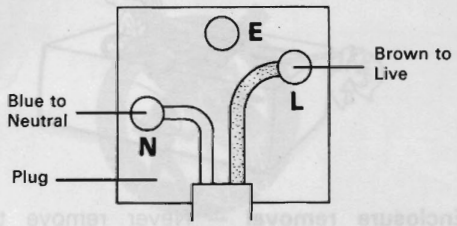
The mains plug must be removed from the wall socket prior to any internal examination.

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

Blue ..... Neutral
Brown ..... Live

The wires in this mains lead must be connected to the terminals in the plug as follows:

Wire colour	Plug terminal marking
Blue	N or Black
Brown	L or Red



Notes:

1. If a 13-amp plug is used, this must be fitted with a 5- amp fuse.
2. If a 3-pin plug with earthing contact is used, no wire must be connected to the E terminal.

For Australia and Europe

Important!

Units shipped to Australia are designed for operation on 240 V AC only.

Units shipped to Europe are designed for operation on 220 V AC only.

For other countries

Important!

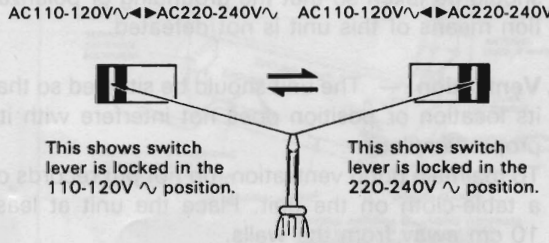
Units shipped to countries other than the above countries are equipped with an AC voltage selector switch on the rear panel. Refer to the following paragraph for the proper setting of this switch.

AC voltage selection

This unit operates on 110-120 or 220-240 volts AC. The AC voltage selector switch on the rear panel is set to the voltage that prevails in the area to which the unit is shipped. Before connecting the power cord to your AC outlet, make sure that the setting position of this switch matches your line voltage. If not, it must be set to your voltage in accordance with the following directions.

Note:

Our warranty does not cover damage caused by excessive line voltage due to improper setting of the AC voltage selector switch.



Move switch lever to match your line voltage with a small screwdriver or other pointed tool.

AC voltage selector switch

Safety precautions

WARNING: TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

	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.
	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.

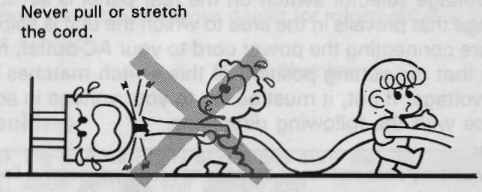
IMPORTANT SAFEGUARDS

⚠Caution : Read this page carefully to keep your safety.

Please read all of the safety and operating instructions before operating this unit. For best results, follow all warnings placed on the unit and adhere to the operating and use instructions. These safety and operating instructions should be retained for future reference.

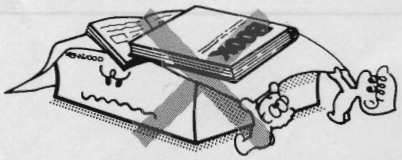
1. **Power sources** — The unit should be connected to a power supply only of the type described in the operating instructions or as marked on the appliance.

2. **Power-cord protection** — Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, pay particular attention to cords at plugs, convenience receptacles, and the point where they exit from the unit.

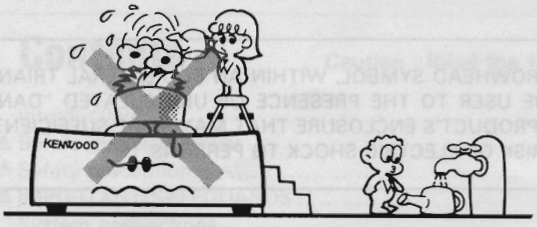


3. **Grounding or polarization** — The precautions should be taken so that the grounding or polarization means of this unit is not defeated.

4. **Ventilation** — The unit should be situated so that its location or position does not interfere with its proper ventilation.
To maintain good ventilation, do not put records or a table-cloth on the unit. Place the unit at least 10 cm away from the walls.
Do not use the unit on a bed, sofa, rug or similar surface that may block the ventilation openings.

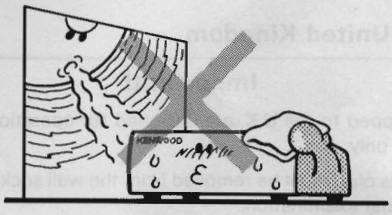


5. **Water and moisture** — The unit should not be used near water — for example, near a bathtub, washbowl, kitchen sink, laundry tub, in a wet basement, or near a swimming pool, etc.

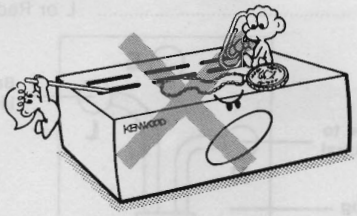


6. **Temperature** — The unit may not function properly if used at extremely low, or freezing temperatures. The ideal ambient temperature is above +5°C (41°F).

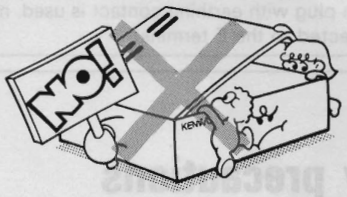
7. **Heat** — The unit should be situated away from heat sources such as radiators, heat registers, stoves, or other units (including amplifiers) that produce heat.



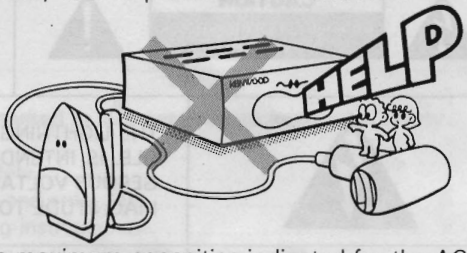
8. **Electric shock** — Care should be taken so that objects do not fall and liquid is not spilled into the enclosure through openings. If a metal object, such as a hair pin or a needle, comes into contact with the inside of this unit, a dangerous electric shock may result. For families with children, never permit children to put anything, especially metal, inside this unit.



9. **Enclosure removal** — Never remove the enclosure. If the internal parts are touched accidentally, a serious electric shock might occur.



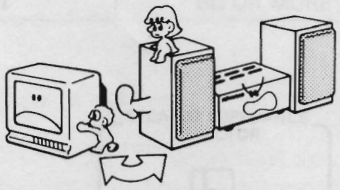
10. **AC outlets** — Do not connect other audio equipment with a power consumption larger than that specified to the AC outlet on the rear panel. Never connect other electrical units, such as an iron or toaster, to it to prevent fire or electric shock.



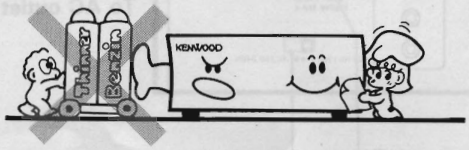
The maximum capacities indicated for the AC outlets on the rear panel of the this unit are as follows.

1. SWITCHED outlets ; 100 W
2. UNSWITCHED outlet ; 100 W

11. Magnetic fields — Keep the unit away from sources of magnetic fields such as TV sets, speaker systems, radios, motorized toys or magnetized objects.



12. Cleaning — Do not use volatile solvents such as alcohol, paint thinner, gasoline, or benzine, etc. to clean the cabinet. Use a clean dry cloth.

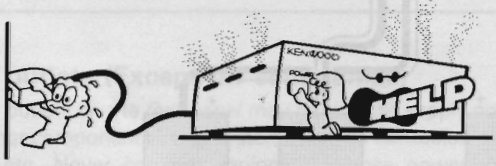


13. Carts and stands — An appliance and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the appliance and cart combination to overturn.

14. Nonuse periods — The power cord of the unit should be unplugged from the outlet when left unused for a long period of time.

15. Abnormal smell — If an abnormal smell or smoke is detected, immediately turn the power OFF and pull out the power cord. Contact your dealer or nearest service center.

POWER OFF!



16. Damage requiring service — The unit should be serviced by qualified service personnel when:

A. The power-supply cord or the plug has been damaged; or

B. Objects have fallen, or liquid has been spilled into the unit; or

C. The unit has been exposed to rain; or

D. The unit does not appear to operate normally or exhibits a marked change in performance; or

E. The unit has been dropped, or the enclosure damaged.

17. Servicing — The user should not attempt to service the unit beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.

18. Outdoor antenna grounding — If an outside antenna is connected to the receiver, be sure the antenna system is grounded so as to provide some protection against voltage surges and built up static charges. Section 810 of the National Electrical Code, ANSI/ NFPA No. 70—1984, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna-discharge unit, connection to grounding electrodes, and requirements for the grounding electrode. See Figure.

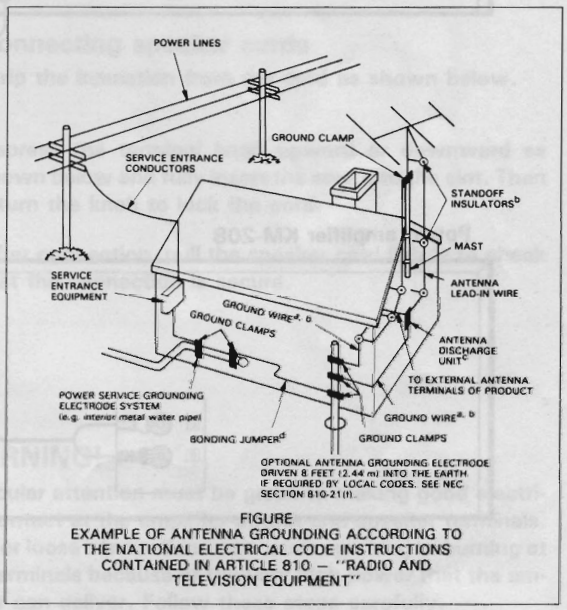


FIGURE
EXAMPLE OF ANTENNA GROUNDING ACCORDING TO THE NATIONAL ELECTRICAL CODE INSTRUCTIONS CONTAINED IN ARTICLE 810 – "RADIO AND TELEVISION EQUIPMENT"

[a] Use No. 10 AWG (5.3 mm²) copper, No. 8 AWG (8.4 mm²) aluminum, No. 17 AWG (1.0 mm²) copper-clad steel or bronze wire, or larger, as a ground wire.

[b] Secure antenna lead-in and ground wires to house with stand-off insulators spaced from 4 – 6 feet (1.22 – 1.83 m) apart.

[c] Mount antenna discharge unit as close as possible to where lead-in enters house.

[d] Use jumper wire not smaller than No. 6 AWG (13.3 mm²) copper, or the equivalent, when a separate antenna-grounding electrode is used. See NEC Section 810-21(j).

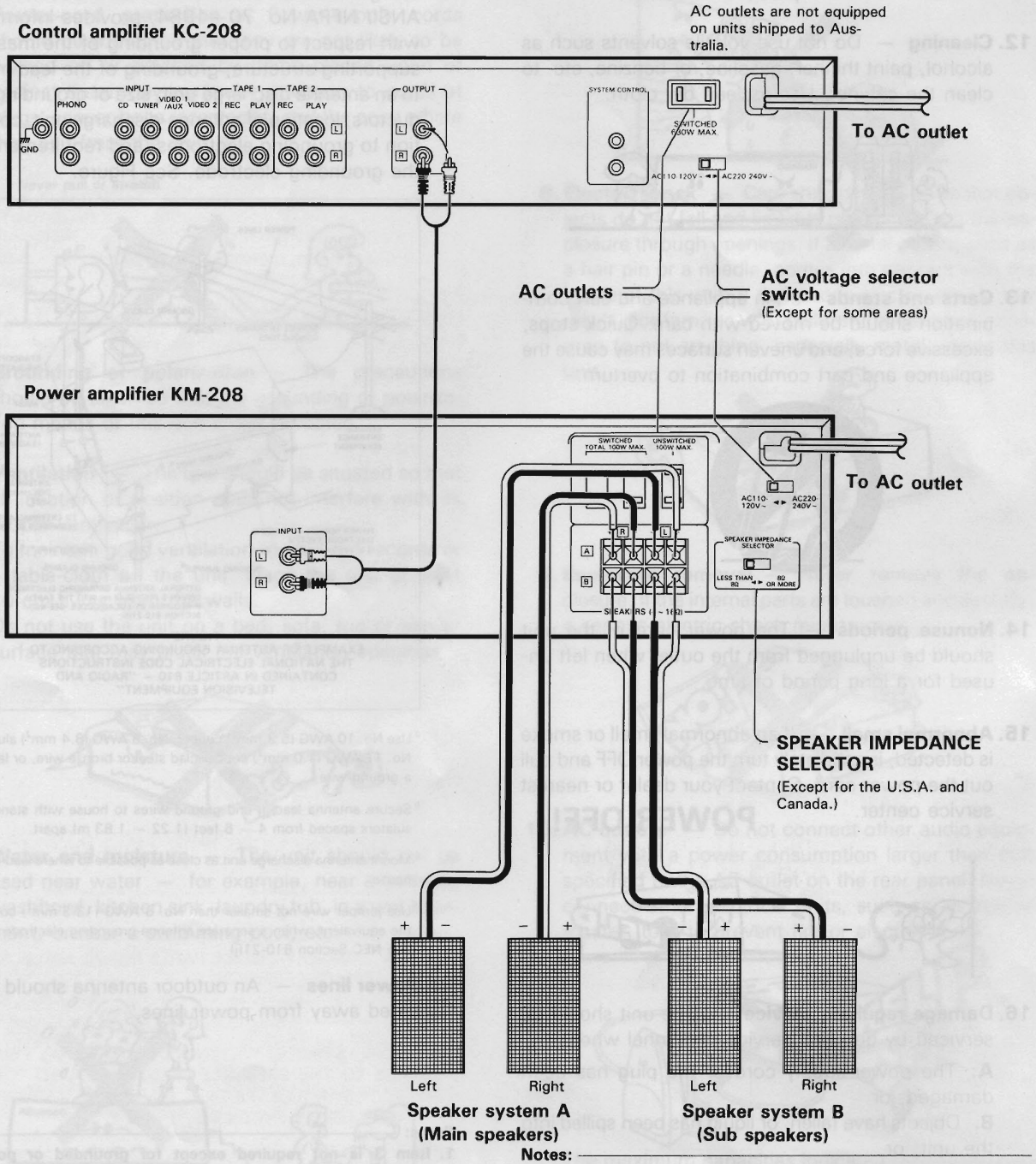
19. Power lines — An outdoor antenna should be located away from power lines.

Notes:

1. **Item 3 is not required except for grounded or polarized equipment.**
2. **Item 10 is not required except for units provided with AC outlets.**
3. **Item 18 and 19 are not required except for units provided with antenna terminals.**
4. **Item 18 complies with UL-1270 in the U.S.A.**

System connections

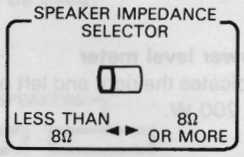
Connect the control amplifier and speaker systems to the KM-208 power amplifier as shown below.



Notes:

1. **To prevent possible problems, always disconnect the power plug or turn off the POWER switch before connecting or disconnecting the audio cables.**
2. **Be sure to connect the speaker cords before connecting the AC power cord.**

Speaker impedance	Selector position
4Ω, 6Ω	"LESS THAN 8Ω"
8Ω, 16Ω	"8Ω OR MORE"

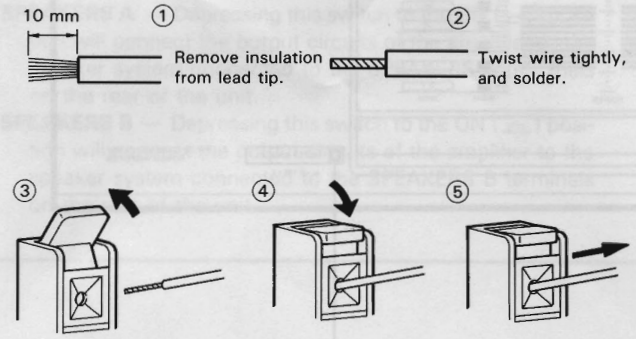


■ Setting the SPEAKER IMPEDANCE SELECTOR (Except for U.S.A. and Canada)

According to the impedance of the speakers used, set the SPEAKER IMPEDANCE SELECTOR on the rear plug as shown in the table.

Notes:

1. **During speaker system connection and operation of the SPEAKER IMPEDANCE SELECTOR, set the POWER switch to OFF.**
2. **Check that the connected lead wires of the speaker systems do not come into contact with other jacks or terminals.**
3. **When only one set of speakers is used, use the SPEAKERS A terminals.**
4. **Even when only one of speaker systems A and b uses 4-ohm or 6-ohm speakers, be sure to set the SPEAKER IMPEDANCE SELECTOR to "LESS THAN 8 Ω".**



Speaker lead connection

■ Connecting speaker cords

1. **Strip the insulation from the cord as shown below.**
2. **Depress the terminal knob upward or downward as shown below and fully insert the cord into the slot. Then return the knob to lock the cord.**
3. **After connection, pull the speaker cord lightly to check that the connection is secure.**

WARNING!

Particular attention must be given to making good electrical contact at the amplifier-output and speaker terminals. Poor or loose connections can cause sparking or burning at the terminals because of the very high power that the amplifier can deliver. Follow these steps carefully.

■ AC outlets (Except for some areas)

The AC outlets on the rear panel may be used to supply power to other components in the system, such as turntables, tape decks, etc. Never connect equipment whose power consumption exceeds the maximum value shown at each outlet.

SWITCHED outlets:

These outlets supply power only when the unit is turned on. The maximum total capacity (both outlets) is 100 watts.

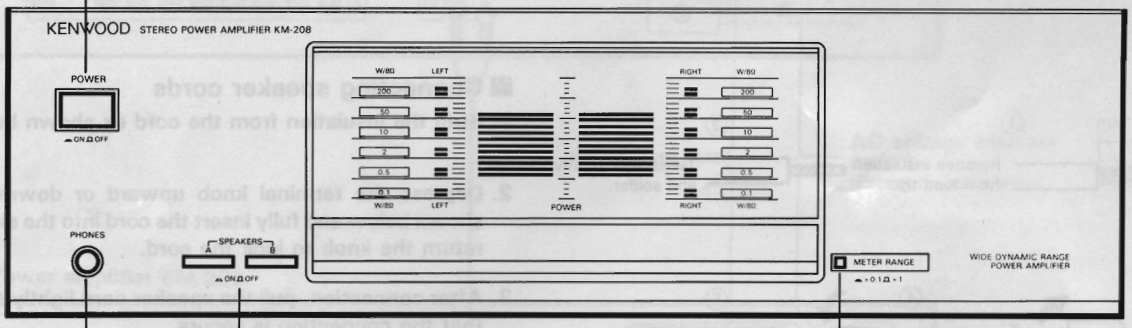
UNSWITCHED outlet:

This outlet provides power when the unit is plugged into an active AC wall outlet, regardless of the setting of the POWER switch. The maximum capacity of the outlet is 100 watts.

Controls and indicators

Power level meter
Indicates the right and left output power levels up to 200 W.

POWER switch



METER RANGE switch
Boosts the sensitivity of the POWER LEVEL METER by tenfold.

SPEAKERS A/B switches
Selects the speaker system to be used for listening.

PHONES jack
This jack accepts the standard stereo headphone plug. When you wish to listen through headphones alone, set both SPEAKERS switches (A and B) to the OFF ( ) position.

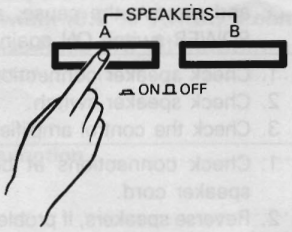
Operating instructions

■ To listen to the program source

1. Press the POWER switch to the ON (⎓) position.

- The display on the center of the Power Level Meter lights up.
- To turn the power OFF, press the switch again to set it to the OFF (⎍) position.

2. Select the speakers to be used.



SPEAKERS A — Depressing this switch to the ON (⎓) position will connect the output circuits of the amplifier to the speaker system connected to the SPEAKERS A terminals on the rear of the unit.

SPEAKERS B — Depressing this switch to the ON (⎓) position will connect the output circuits of the amplifier to the speaker system connected to the SPEAKERS B terminals on the rear of the unit.

- To activate the speaker systems connected to both the SPEAKERS A and B terminals, depress both the SPEAKERS A and B switches to the ON (⎓) position.

Note:

When speakers are connected only to the SPEAKERS A terminals, sound will not be heard if both the SPEAKERS A and B switches are depressed to the ON position.

3. The control amplifier outputs the signal from the source component connected to it.

4. Adjust the output level with the VOLUME control of the control amplifier.

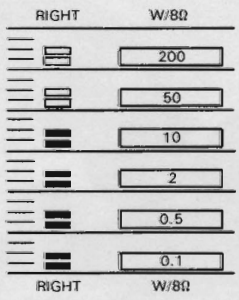
- The sound with an optimized level is output from the selected speakers.
- The output level is displayed on the left and right sections of the POWER LEVEL METER.

■ For efficient utilization of the POWER LEVEL METER

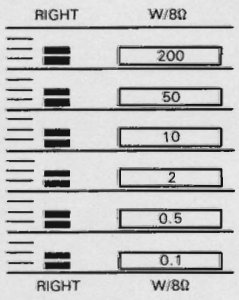
The range of the POWER LEVEL METER is indicated up to 200 W. However, in general home listening, it is very rare to use output levels as high as 50 W or 200 W. In such cases, the meter sensitivity can be boosted tenfold to allow use of the full range of the meter for displaying more detailed levels.

Press the METER RANGE switch to the ×0.1 (⎓) position.

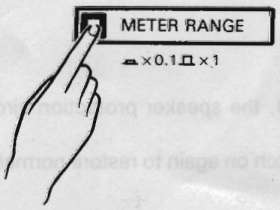
- The POWER LEVEL METER reading becomes a tenfold conversion.
- To resume normal operation, press the switch again to set it to the ×1 (⎍) position.



METER RANGE ×1:
The meter scale is from 0.1 to 200 W.



METER RANGE ×0.1:
The meter scale is from 0.01 to 20 W.



The POWER LEVEL METER displays output power in a scale from 0.1 to 200 W assuming that a pair of speakers with 8-ohm impedances are connected to the unit. Therefore, if the impedance of the connected speakers is not 8-ohm, the POWER LEVEL METER will not show the correct output power.

In case of difficulty

If your unit should not perform as expected, consult the table below to see if the problem can be corrected before seeking help from your dealer or service representative.

AM, FM, PHONO or Tape playback	Cause	Remedy
Power on but no sound. (Indicator is OFF.)	1. Power cord not plugged in. 2. Poor connection at wall outlet. Power outlet inactive. 3. Volume control set fully counter-clockwise. 4. Protection circuitry operating.	1. Check plug contact. 2. Check outlet using a lamp or other appliance (outlet may be controlled by a wall switch). 3. Turn the control clockwise to the optimum volume level. 4. Turn the POWER switch OFF, identify and remove the cause, and turn the POWER switch ON again.
No sound from either left or right speaker. (Indicator lights.)	1. Speaker cords disconnected. 2. Speakers switched off. 3. No input selector switch is in use.	1. Check speaker connections. 2. Check speaker switch. 3. Check the control amplifier switches.
Sound from left or right speaker, but not both.	1. Poor speaker connection. 2. Defective speaker. 3. BALANCE set to one extreme or the other.	1. Check connections at both ends of speaker cord. 2. Reverse speakers, if problem stays with speaker have speaker checked. 3. Check the control amplifier BALANCE control.
Indicator on but no sound.	1. Speaker cords short circuited. 2. Output cords short circuited.	Eliminate the cause and turn the POWER switch OFF and ON.

Speaker Protection Circuit

If the POWER switch of this unit is turned on with the speaker cord short-circuited, the speaker protection circuit will be activated automatically and no sound will be output.
In this case, remove the short circuit of the speaker cord and then turn the POWER switch on again to restore normal operation.

Specifications

Rated Power Output

150 watts per channel minimum RMS, both channels driven, at 8 ohms from 20 Hz to 20,000 Hz with no more than 0.03% total harmonic distortion.

Both channels driven (8 ohms, 1 kHz)	155 W + 155 W
Music Power (8 ohms)	310 W + 310 W
Total Harmonic Distortion	
20 Hz to 20,000 Hz	0.015% at 1/2 rated power into 8 ohms
1 kHz	0.002% at 1/2 rated power into 8 ohms
Inter Modulation Distortion (60 Hz:7 kHz = 4:1)	0.002% at rated power into 8 ohms
Frequency Response	5 Hz to 200 kHz, +0 dB, −3 dB
Power Bandwidth (0.2 % T.H.D., 8 ohms)	10 Hz to 50 kHz
Signal-to-Noise Ratio (IHF-A)	120 dB (MAIN IN)
Damping Factor	More than 35 at 50 Hz into 8 ohms

General

Power Consumption	5 A (USA and Canada) 350 W (Others)
Dimensions	W 440 mm (17-5/16″) H 133 mm (5-1/4″) D 269 mm (10-9/16″)
Weight (Net)	8.8 kg (19.4 lb)

Note:

KENWOOD follows a policy of continuous advancements in developments. For this reason specifications may be changed without notice.