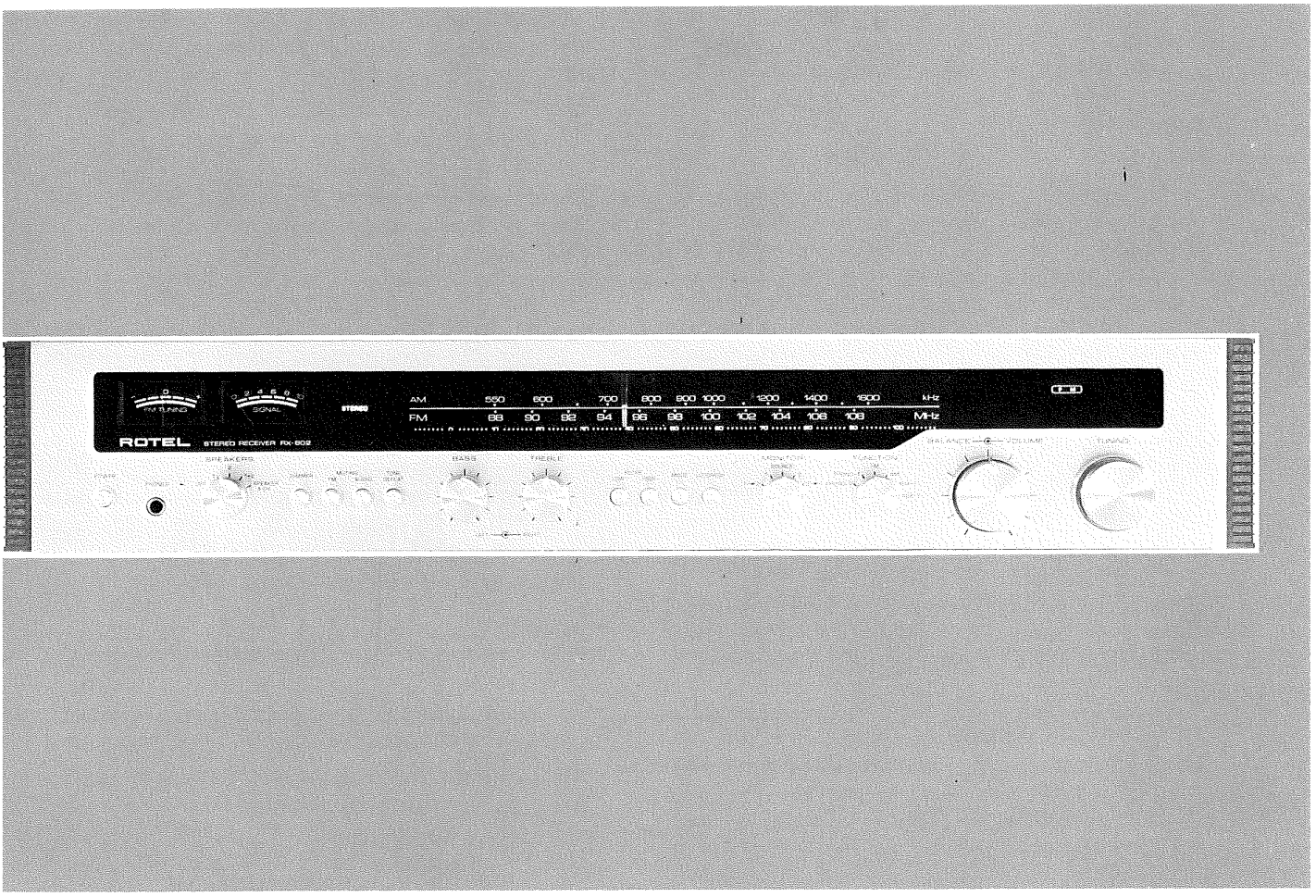
ROTEL®



RX-802

AM/ FM STEREO RECEIVER

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

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OWNER'S MANUAL

INTRODUCTION

We would like to take this opportunity to thank you for purchasing our audio component. With the high quality design and workmanship that goes into making this equipment, you can be assured of its flawless performance for many years to come.
We have fitted every control and feature you could conceivably need. Built for both versatility and ease of operation, this piece of equipment will add professional studio flexibility to your Hi-Fi sound center. The performance is exceptional; it will allow you to experience true high fidelity as never before. Its full and natural sound reproduction offers you musical entertainment approaching that of live performances. We sincerely hope you will treasure this professional-type component.
The operations are really simple if you read at least the first two sections of this manual. The third section covers additional components such as a record player and a tape recorder that can be connected to this equipment, and is recommended to be followed if you wish to realize the full potential of this advanced and superbly engineered equipment.

INSTALLATION

Caution: Do not apply power to the equipment without first making sure that speakers are connected properly and that the unit's VOLUME is set to minimum.

LOCATING THE UNIT

Although the unit normally does not develope high heat, it should be placed in such a way that its ventilation system will not be impeded. Place the unit on a hard surface – any conveniently located shelf or table where not affected by heat. Leave at least 2 inches (5 cm) clearance on each side and in the rear of the unit, and about 3 inches (8 cm) above the unit. Never directly place an object on the ventilation at the top of the unit, if there is such a ventilation.

LOCATING SPEAKERS

Caution: Check that each speaker's rated impedance is 8 ohms or higher. (The value should be marked near its connecting terminals or indicated in its instruction book or, if not, consult your dealer.) If any speaker is rated at 4 ohms, and if you have four speakers, severe overload and distortion may be incurred when all four speakers are played simultaneously. In the event you have speakers rated at 4 ohms, make sure that only two speakers are played at a time.

A. STEREO OPERATION

1. MAIN SPEAKERS – Two speakers are required for stereo operation. Place both speakers against a wall or on a shelf so that they face your selected listening position and are equal distance from you. For optimum stereo effect, they should be 10 to 15 feet (3 meters) apart and, if possible, at about ear level height. You may determine best locations to suit your personal tastes and listening conditions.

2. REMOTE SPEAKERS – If you wish to enjoy stereo sound in another room in your home, you can connect a pair of speakers to the SPEAKER 2 terminals located on the unit's rear panel. Though you will need long cables between the unit and the speakers in another room, make sure they are not longer than 50 to 60 feet (15 to 20 meters) in length and that they are of heavy duty type in order to prevent loss of volume.
Follow the procedure described above in the item (1) for placing the remote speakers.

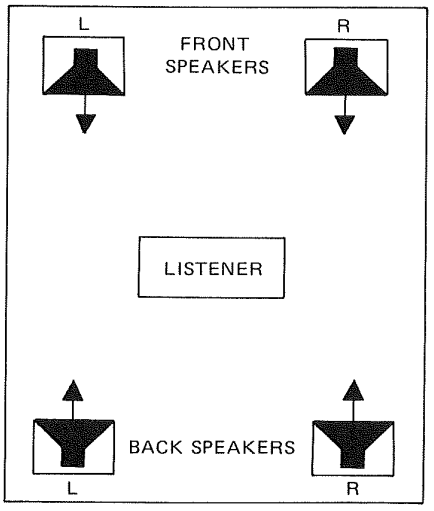


Fig. 1 Suggested speaker location for 4-channel operation

B. SIMULATED 4-CHANNEL OPERATION

Four speakers are required to be set in one room for this simulated 4-channel operation made possible by use of a special speaker matrix circuit and turn the speaker control of front panel to the position SPEAKER 4-CH.
Place a pair of speakers connected to SPEAKER 1 terminals in the same manner as described above in the item (1) of STEREO OPERATION section. They will be referred to as the FRONT speakers.
Placement of the speakers connected to SPEAKER 2 terminals (referred to as the BACK speakers) will vary with your room size, seating arrangement and acoustic conditions. If possible, provide allowance on the length of cables as later on you may wish to locate the speakers differently from the original positions. We have suggested

a common way of placing the BACK speakers as illustrated in Fig. 1, but you may arrange them in any way to suit your tastes and listening conditions. Try some experimentations to locate optimum positions for best sound dispersion and ambience.

SPEAKER CONNECTION

Caution: Do not apply power to the unit until the speakers are connected properly as described below.

A. If your unit has push-insert type speaker terminals.

As shown in Fig. 2, the speaker terminals are quick-connect push-insert type, and are arranged into two boards, one for SPKR-1 (main) and the other for SPKR-2 (remote). Push back the tab on each terminal, slip the bare wire at the free end of the speaker lead into the opened jaw of the terminal, and release the tab to grip the bare wire in the jaw. (Note: if necessary, after stripping each end of speaker leads to obtain a bare wire, twist the bare strands together so it will be easy to insert and also prevent shorting among stray strands.) Make sure the positive (+) lead of each speaker is connected to the (+) terminal and the ground (—) lead to the (—) terminal, and right to RIGHT and left to LEFT.

B. If your unit has DIN-type speaker terminals.

When connecting the speakers to the DIN-type terminals, make sure that the speaker cables have DIN-type 2-prong plug on their ends. Simply plug these cables to the corresponding SPKR 1 terminals, right to RIGHT and left to LEFT.

If you have another pair of speakers, connect to the SPKR 2 terminals in the same manner as the above.

See Fig. 2 and Fig. 3.

AM ANTENNA CONNECTION

A ferrite-core AM loopstick antenna is affixed on the back of the unit for optimum reception by adjusting the loopstick.

Usually, swinging the antenna as far away from the chassis will give the best possible reception.

If you live in a difficult reception area and the AM loopstick does not give sufficient reception, an external antenna may be required. There is a terminal on the rear panel for such antenna connection, so refer to the ANTENNAS section of this manual for installing external antenna.

FM ANTENNA CONNECTION

Due to the high sensitivity of the FM tuner section of the unit, a "T"-shape dipole antenna (or sometimes even a 48-inch long single wire) is sufficient for most locations. Connect this to both FM antenna terminals marked 300 ohms and fasten the short arms of the antenna horizontally to a non-metallic surface, for instance by tacking to the shelf on which the unit is mounted or to the wall where reception is optimum.

In extremely difficult reception areas, an outdoor antenna may prove necessary. Refer to the ANTENNAS section of this manual for installing outdoor antenna.

COMPONENTS CONNECTIONS

This unit is designed to handle two record players with magnetic cartridges, two stereo tape recorders and two additional auxiliary components such as 8-track cartridge deck.

We recommend that you familiarize yourself with basic operations before connecting any such units. Refer to the ADDITIONAL COMPONENTS section provided in this manual for connections and operations of these components.

PRE AMP OUT AND MAIN AMP IN RECEPTACLES

There are pairs of terminals marked PRE AMP OUT and MAIN AMP IN on the back of the unit. Normally with the Separation Switch in UNITE, your receiver is the combined equipment of integrated pre-amplifier and main-amplifier sections. However, by sliding the switch to SEPARATE, your unit in essence becomes two independent components consisting of one pre-amplifier and one main-amplifier.

These receptacles are intended for use with any necessary equipment designed to be installed between the pre-amplifier and the main-amplifier or for separate use of either section alone. Such equipment as electronic audio equalizer or reverberation unit can be used; or, another pre-amplifier or main-amplifier may be hooked up. Simply set the switch to SEPARATE and follow the instructions supplied with the accessory equipment. When no auxiliary equipment is being used, the Separation Switch MUST be left in UNITE position in order to use your receiver.

AC OUTLET

The outlets marked SWITCHED on the rear panel provide power and switching control to whatever component you may wish to connect to the unit. For example, if you connect the power cord of your record player to the outlet, the record player will be activated and deactivated by the power switch on the unit. In addition, one unswitched AC outlet is supplied but without switching control by the POWER switch.

Caution: Do not connect components whose total power consumption exceeds 150W for switched outlets and 200W for unswitched outlet.

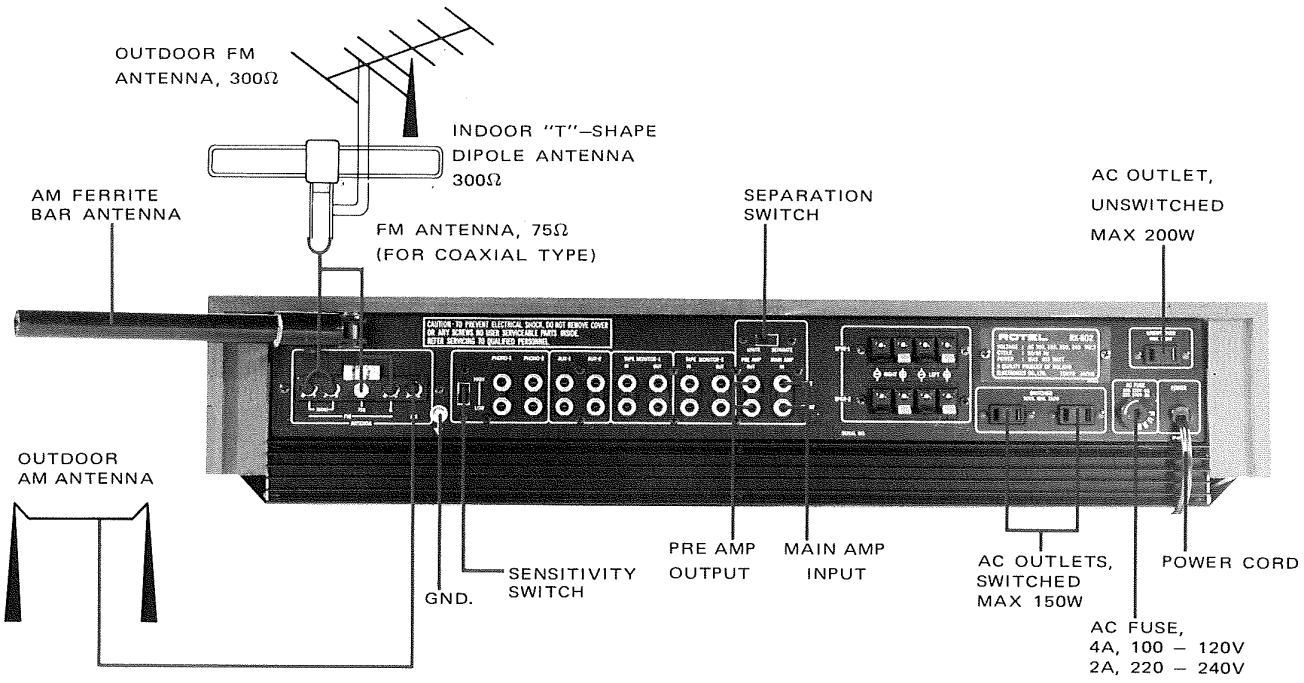
POWER SUPPLY CONNECTION

For power the unit requires the normal house AC electrical current.

Before connecting up ensure that the unit has a suitable plug fitted. If you need to fit a plug, ensure live, neutral and (where appropriate) earth leads are connected to the proper terminals. In some cases there is an instruction to fit a plug attached to the power cord, so follow the instruction before fitting the plug.

If in any doubt about connecting to the power source, consult a qualified electrician.

REAR PANEL CONNECTIONS (RCA-TYPE)



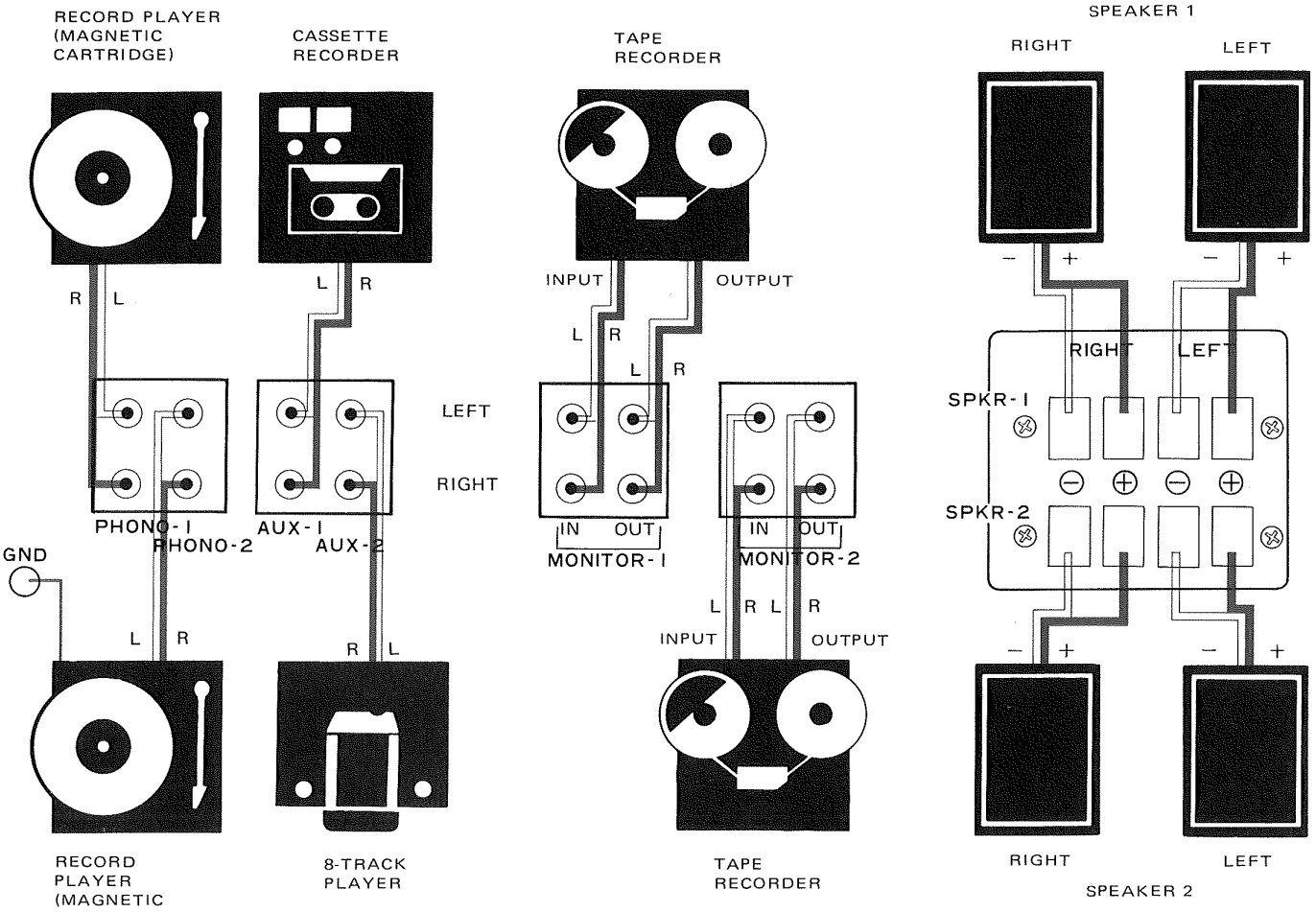


Fig. 2 Connections for RCA-type

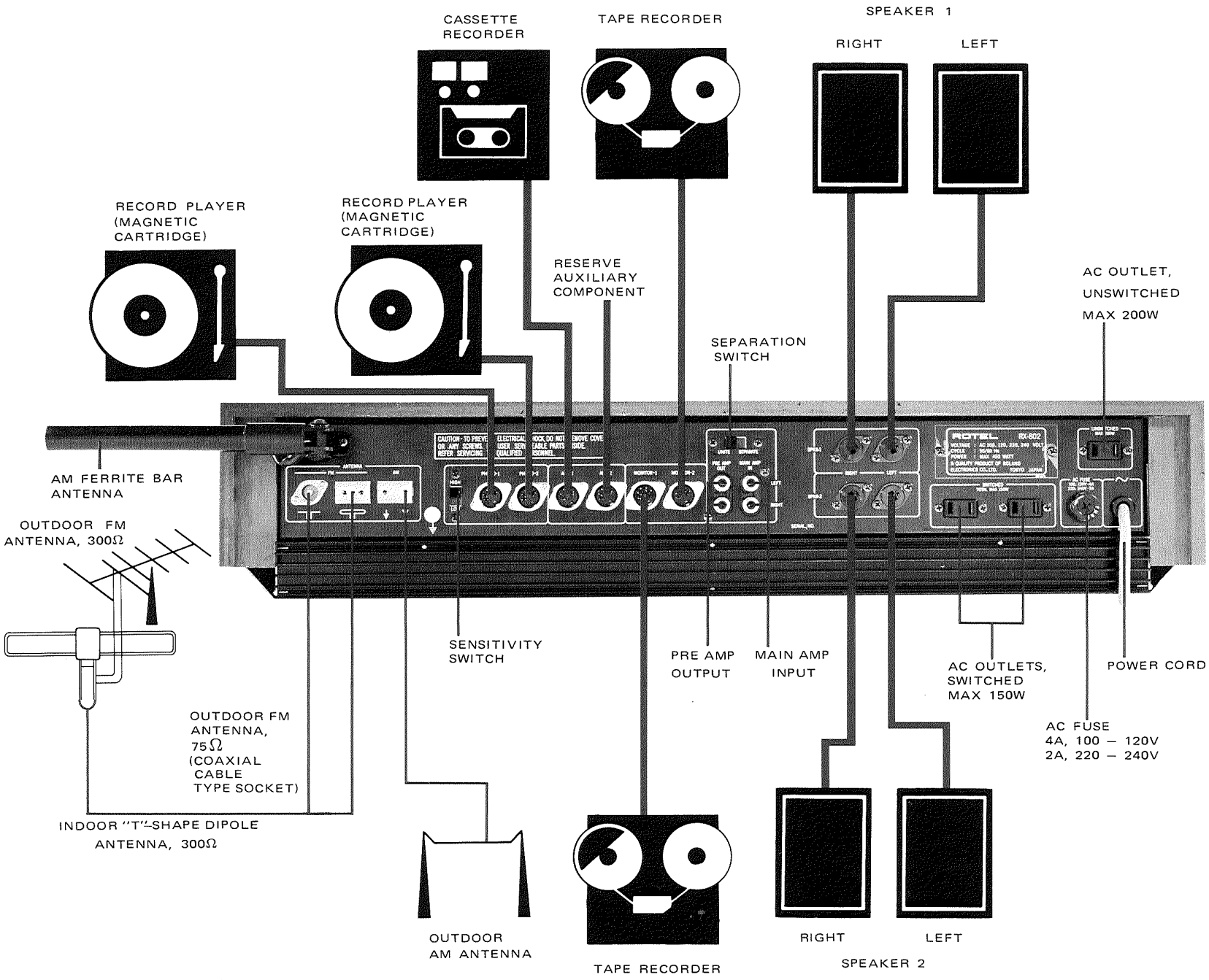


Fig. 3 Connections for DIN-type

OPERATION

Refer to Fig. 4 for the locations of the switches and the controls of the unit, and follow the instruction below carefully in order to master complete operation of the unit.

CONTROLS AND SWITCHES

A. PUSH BUTTON SWITCHES

The push button switches used are all of the PUSH/PUSH type; that is push in to activate the circuit and push again to release or deactivate the circuit. In describing these switches we will consider the "in" position to be "ON" and the "out" position to be "OFF".

① POWER SWITCH – performs the function as its name denotes. It supplies power to the unit and to any switched AC outlets. When the switch is ON the dial scale board will be illuminated.

Note: If the dial scale board does not light or no sound comes out of speakers, or if the unit suddenly goes off during normal operation, refer to protection section (on page 9.) in this manual

② DIMMER SWITCH – allows you to reduce the intensity level of dial illumination when in ON position, or leave at OFF position when you wish for brighter illumination.

③ FM MUTING SWITCH – in ON position activates a circuit which reduces audible interstation noise when tuning from station to station in FM band. Since very weak signals may be muted at the same time, leave the switch in OFF position when you wish to pick up a very weak signal.

④ AUDIO MUTING SWITCH – allows you to reduce the level of volume by –20db for momentary quieting when you do not wish to change the volume setting but must lower volume temporarily.

⑤ TONE DEFEAT SWITCH – permits you to deactivate the tone control circuit to provide an absolutely linear response when in ON position.

⑥ LOW FILTER – allows you to reduce the low frequency response of your unit whenever you wish to reduce annoying record and tape rumbles, etc.

⑦ HIGH FILTER SWITCH – allows you to reduce high frequency interference whenever you wish to clear annoying record scratches, tape hiss, FM background noise, etc. Normally, however, keep this switch OFF for optimum frequency reproduction of all program sources.

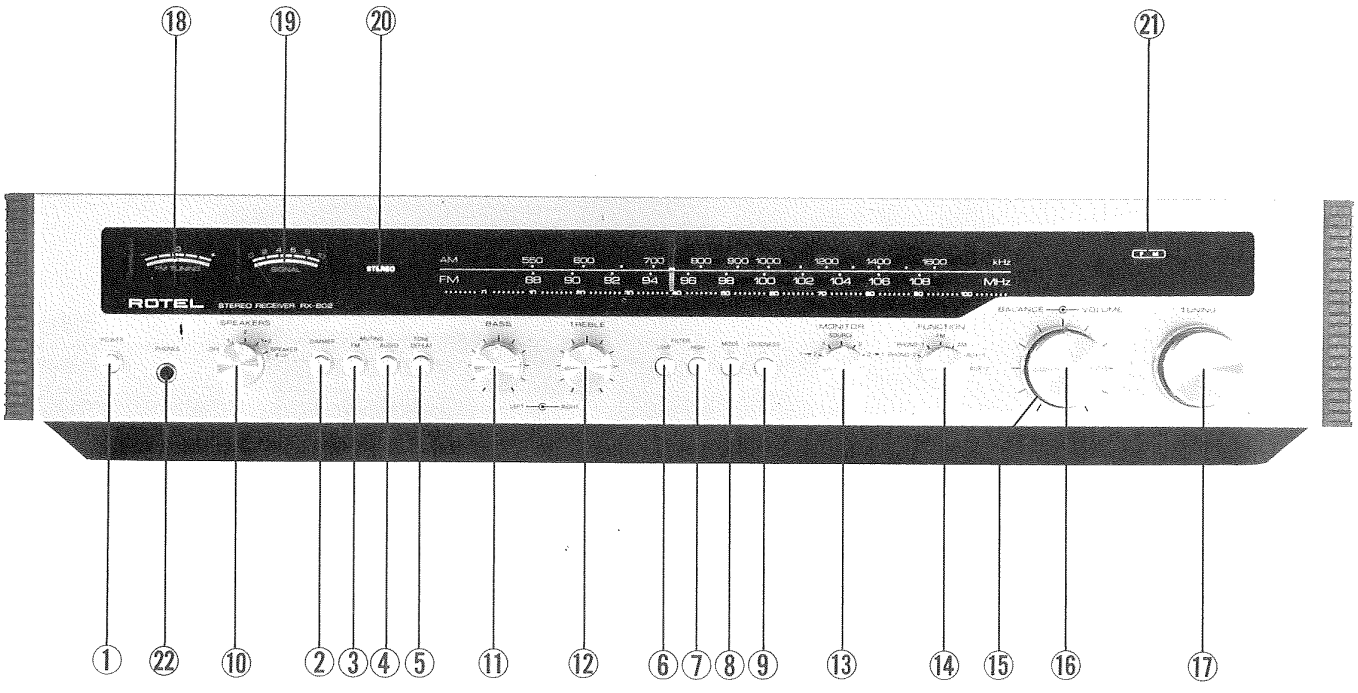


Fig. 4 Locations of the switches and controls

⑧ MODE SWITCH – selects between stereophonic and monophonic operation depending upon the program source. In ON position the program will be heard monophonic, and in OFF position it will be stereophonic. Normally, leave the switch in OFF position.

⑨ LOUDNESS SWITCH – in ON position activates a circuit which boosts low and high frequency sounds at low volume control settings. This compensates for the ears loss of sensitivity to bass and treble notes at low listening levels. However, leave the switch OFF at normal and high volume settings to prevent booming noise or overload on some speakers.

B. ROTARY CONTROLS

⑩ SPEAKERS CONTROL – allows you to select your speaker systems for activation. OFF to deactivate all speaker systems when such as listening to your headphones privately, 1 to activate your speaker systems connected to SPKR-1 terminals on the rear chassis; 2 to activate your systems connected to SPKR-2; 1+2 to activate both systems SPKR-1 and SPKR-2; SPKR 4CH to activate speaker matrix for simulated 4-channel sound using both SPKR-1 and SPKR-2.

⑪ BASS CONTROL – regulates low frequency sounds, as desired, to suit personal taste, speaker characteristics, etc. The center position gives normal (flat) frequency response. Rotating clockwise increases the bass, and counterclockwise reduces the bass.
You may adjust the bass control for each channel simultaneously or individually. The outer ring adjusts the left channel and the inner knob adjusts the right channel.
In order to adjust both channels turn both knobs together. In order to adjust one channel only, simply hold one knob while turning the other.

⑫ TREBLE CONTROL – regulates high frequency sounds, and operates in the same manner as the BASS CONTROL.

⑬ MONITOR CONTROL – allows you to playback, monitor, and dub (record each other) two tape recorders. "1 → 2" to dub the tape recorder connected to MONITOR 1 by the tape recorder connected to MONITOR 2; "2 → 1" to dub the other way around. "1" to playback the tape recorder connected to MONITOR 1, and "2" to playback the tape recorder connected to MONITOR 2. Set to "SOURCE" position whenever tape recorder is not being played but other material is being played.
If your tape recorders have separate playback heads, "1" and "2" positions can be used as monitors when recording; setting to either of this position will allow you to listen to program as actually being recorded.
So you can compare while recording program being playing ("SOURCE" position) with same program being actually recorded (monitoring).

⑭ FUNCTION SELECTOR CONTROL – enables you to select the function you desire from PHONO 2, PHONO 1, AM, FM, AUX 1, and AUX 2.

⑮ BALANCE CONTROL – regulates the relative sound outputs from each channel. Normally the control is adjusted to provide the effect of a mono signal coming from a point midway between the speakers. When balanced in this way, the optimum stereo effect will be achieved. Rotate clockwise for increase in sound level from the right channel, and counterclockwise for the left channel.

⑯ VOLUME CONTROL – regulates the volume level of all channels simultaneously. Rotate the knob clockwise to increase the volume and counterclockwise to decrease.

⑰ TUNING CONTROL – allows you to tune in, in conjunction with the dial pointer, AM or FM stations with smooth flywheel action and precision.

C. INDICATORS AND RECEPTACLE

⑱ FM CENTER TUNING METER – designed to operate on a null or "zero" center principal. Tune for the dead center position for best possible reception and minimum distortion.

⑲ SIGNAL STRENGTH TUNING METER – shows the level of the incoming signal. When used in the AM position, tune for maximum deflection to the right for best possible reception. When used in the FM position, also tune for maximum indication but operate in conjunction with the FM tuning meter.

⑳ STEREO INDICATOR – automatically lights up "STEREO" on the left side of dial scale board to visually indicate whenever an FM stereo broadcast is tuned.

Note: In some cases, very weak stereo signals may not activate the stereo indicator. In this case the program will be reproduced monaurally.

㉑ FUNCTION INDICATORS – visually indicate the selected position of the function selector switch, and are located behind the dial glass.

㉒ HEADPHONES RECEPTACLE – simply plug in your stereo headphones lead to the receptacle for private listening. Turn OFF all speaker switches if you are listening to the headphones only.

RECEIVING FM AND AM BROADCASTS

1. FM

Under normal use for all FM broadcasts the function selector control should be set at FM position. If a station you wish to listen to is transmitting stereo signal, your unit will automatically switch on the multiplex circuit and you will enjoy the broadcast in stereo. Should the station conclude broadcasting in stereo, the unit will automatically switch back to monaural reception. Use the stereo indicator light as a guide to locate stereo stations.

2. AM

Should you wish to listen to AM broadcasts, turn the function selector control to AM position. Though AM gives only monaural signal, the unit will enable you to listen to it from two speakers as if in stereo.

In all cases, tune in the desired station with the tuning knob, using the tuning meter to assure the strongest possible reception. Utilize other controls to enhance your listening conditions and pleasure.

ADDITIONAL COMPONENTS

Note: Refer to Fig. 2 and Fig. 3 for visual guide to proper connections.

RECORD PLAYER

1. CONNECTION

Make sure your record player comes with regular magnetic cartridge (if you wish to use MC – moving coil – type cartridge you need an exclusive matching transformer, so follow its instruction when using one).

a) If your unit has RCA-type PHONO jacks.
   Connect the RIGHT output cable of your record player to the RIGHT jack and the LEFT output cable to the corresponding LEFT jack. If there is another cable emerging from the record player besides the output cables, connect it to the ground terminal marked GND on the rear panel near the PHONO jacks.

b) If your unit has DIN-type PHONO socket.
   Connect the output DIN-type 5-prong plug of your record player to the DIN-type socket marked PHONO.

Note: To avoid loss of the high frequency response due to excessively long cables, shielded cables not exceeding 10 feet (3 meters) in length should be used to connect your record player. Usually, cables supplied with your record player are sufficient.

2. OPERATION

Turn the function selector control to PHONO 1 if you wish to operate the record player that is connected to the PHONO 1 terminal, or set to PHONO 2 if you wish to operate the record player that is connected to the PHONO 2 terminal. Use the sensitivity switch to match with particular input sensitivity of cartridge. HIGH (2.4mV) for the range of 1mV – 4mV and LOW (6.4mV) for the range of 5mV – 8mV.

TAPE RECORDER

1. CONNECTION

There are two connection facilities for tape recorder on the rear panel. They are called TAPE MONITOR and are used in conjunction with the monitor control on the front panel. It is also used when your tape recorder has a separate playback head (i.e., tape recorder normally equipped with three heads).

Your tape recorder can be reel-to-reel deck, cassette recorder deck or 8-track cartridge player or recorder deck.

a) If your unit has RCA-type jacks.
   Input jacks marked IN are for playing back pre-recorded tapes, and output jacks marked OUT are for recording program materials such as broadcasts, records and live sounds.
   Connect the pair of output cables of your tape recorder to corresponding LEFT and RIGHT input jacks and the pair of input cables to the corresponding output jacks.

b) If your unit has DIN-type socket.
   Connect the DIN-type 5-prong plug of your tape recorder to the socket marked MONITOR 1 and 2.

2. OPERATION

TAPE PLAYBACK

To listen to a playback of pre-recorded tape, turn the monitor control to 1 or 2, depending on which TAPE MONITOR terminal the tape recorder is connected. The setting of the function selector control is irrelevant in this case and may be left at any position.

TAPE RECORDING

You may record with your tape recorder any program materials that can be played through this unit. Turn the function selector control to AM, FM, PHONO 1, PHONO 2, AUX 1 and AUX 2 depending on which program you wish to record, and operate the tape recorder while listening to the program.

Always leave the monitor control at SOURCE if your tape recorder has no separate playback head (look up in its instruction manual to see if the tape recorder is equipped with separate playback and recording heads).

If your tape recorder has the separate playback head, setting the monitor control to 1 or 2 will let you monitor the recording program (listening to the program as it is actually being recorded). Hence, you may compare the program as played by this unit to the same program as being recorded by the use of monitor control.

Note: You will not obtain any sound if the monitor control is set at 1 or 2 unless the tape recorder has a separate playback head. Also, volume, bass, treble and balance controls of this unit will have no effect upon the recording, so you should use the controls on the tape recorder.

TAPE DUBBING

To record off (dubbing) the tape recorder connected to MONITOR 1 by the tape recorder connected to MONITOR 2, turn the monitor control to 1 → 2. Set to 2 → 1 if the other way around.

If your tape recorder is equipped with a seaprate playback head, turning the monitor control to 1 or 2 will cause the input source to be bypassed and will permit you to listen to the recording being made on the tape. Setting at the SOURCE position will permit you to listen to the input source. Thus, with the monitor control you may monitor or compare the recording being made with the source being recorded. When dubbing, only the tape recorder that is recording will be monitored.

AUXILIARIES

1. CONNECTION

Two sets of AUX input terminals are provided for connection of equipment such as tape deck without recording facility (e.g., 8-track player deck). Connect the output cables of such equipment to input terminals in the same manner as the TAPE RECORDER section on page 7.

2. OPERATION

Turn the function selector control to either AUX 1 or AUX 2 depending on which equipment you wish to play. Adjust volume, balance, bass and treble controls to suit your personal tastes and listening conditions.

SIMULATED 4-CHANNEL OPERATION

If you wish to listen to simulated 4-channel sound created by a special speaker matrix circuit built in this unit, set the speakers controls to SPKR 4CH position. Use your remote speakers (SPKR 2) as the rear speakers of 4-channel mode.

You should be certain to enjoy a "surround effect" of this sound, placing the speakers as suggested in the INSTALLATION section of this manual.

ANTENNAS

FM ANTENNA

If a single wire antenna or a "T"-shape dipole antenna is inadequate for FM reception in your area, it may be necessary to replace it with better indoor antenna or, in some extreme case, outdoor antenna.

1. INDOOR ANTENNA – you may use an indoor antenna such as "rabbit-ears" or telescopic antenna which can be rotated for best reception of the desired signal. Connection of such antenna is exactly the same as the dipole antenna. Make sure the leads connected to the antenna terminals, if the terminals are screw-type, do not touch each other as it will impede reception performance.
2. OUTDOOR ANTENNA – in weak-signal "fringe" areas, an outdoor antenna may be necessary if indoor antenna does not give satisfactory results. If you already have an outdoor VHF television antenna, this antenna may prove suitable for FM reception as well. To test it, connect TV antenna leads to the FM antenna terminals marked 300 ohms on the rear panel. If the results are satisfactory, obtain a TV/FM splitter/coupler so that you can operate both the TV set and this unit from the antenna simultaneously. If the TV antenna does not serve the purpose, you may have to use an outdoor antenna designed specially for FM. Follow its instruction manual for information and usage.
3. The unit is also equipped with the antenna terminals for 75 ohms for FM coaxial cable antenna. If you wish to use such an antenna, follow its instruction manual for information and usage.

AM ANTENNA

if AM reception is poor because you live in a steel-frame building, or if you wish to supplement the built-in AM antenna for improved reception of weak stations, connect an insulated, flexible, single-conductor wire to the AM antenna terminal on the rear panel of this unit. The wire should be as long as possible, and should be run in a straight line along a nonmetallic surface or under a rug. In some cases, reception may be further improved by draping the wire out a window or by connecting it to an outdoor whip or rod antenna.

PROTECTION

This equipment is protected by a special automatic re-settable protection circuit and the fuses installed inside the chassis. If the unit fails to operate when plugged in and turned on or if it suddenly becomes completely inoperative while playing (i.e. one or both speakers are silent regardless of speaker switches and function selector control position), the protection circuit is probably activated due to an overload condition such as shorting by stranded speaker wires at the speaker terminals. Once the fault is found and corrected, the protection circuit will be deactivated automatically and the unit will work.

Caution: If the unit does not operate, or if it becomes inoperative within a short time, consult your dealer or a ROTEL service center. In some extreme cases, all dial, meter and indicator lamps go off and speakers are silent, the fuses installed inside the chassis may have been blown due to defection in the circuits. Do not open the cabinet and check inside the chassis by yourself, but be sure to have a qualified electrician inspect the unit.

HUM AND NOISE

In any high fidelity installation, hum may be caused by the interconnection of a record player, tuner and amplifier, and speakers as a result of the cables, different grounds or locations of components. If hum is experienced with your unit, disconnect everything but the speakers from the unit. If the hum persists, reverse the power cord at the power source. Plug in the record player and if hum or howling appears, reverse the record player power plug or relocate the record player away from the speakers as much as possible. Note hum may also be induced by defective connecting cables or by running these cables too close to a strong AC field.

When your unit picks up noises during the reception of broadcasts, causes are mostly due to external objects such as fluorescent lamps and house appliances using motor or thermostat, or others that may induce the noises. Either relocating the unit away from the noise sources or using an improved outdoor antenna may readily solve the problem. In the event you cannot find causes, consult your dealer or a qualified electrician.

VOLTAGE SELECTION

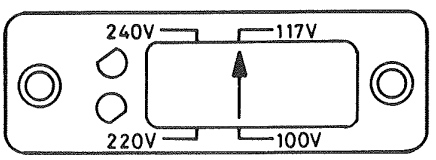
(not available for United Kingdom and Scandynavia)

VOLTAGE SELECTION

The receiver is a variable voltage equipment that can run on 100V, 117V, 220V or 240V power supply. Your unit comes already preset at the proper voltage for use in your area; however, if you move to an area where the power supply voltage is different, the voltage setting can be manually changed. BE SURE THAT YOUR UNIT IS NOT CONNECTED TO THE POWER SOURCE BEFORE ATTEMPTING TO MAKE THIS CHANGE.

To change the voltage setting, remove the name plate on the rear panel and locate the VOLTAGE SELECTOR (see figure right).

Pull up the Voltage Selector plug which has a white arrow on its top. Reinsert the Plug to the Selector Base so that the head of the arrow lines up with the pointer line of the voltage you desire.



SPECIFICATIONS

AMPLIFIER SECTION

Continuous Power Output (RMS)	50 watts/channel, min. RMS, both channels driven into 8 ohms from 20 to 20,000 Hz with no more than 0.5% total harmonic distortion
IM Distortion	less than 0.15% (8 ohms, rated power)
Frequency Response	10 to 100,000 Hz ±3db, 1W/1W
Damping Factor	40 (8 ohms, 1kHz)
Input Sensitivity/Impedance (rated power)	MAIN IN 1000mV/34k ohms TAPE MONITOR 140mV/26k ohms AUX 1, 2 140mV/26k ohms PHONO 1, 2 2.4mV/40k ohms (or 6.4mV/40k ohms)
TAPE OUTPUT	280mV/1.7k ohms
Phono Overload	150mV (1kHz)
Phono Equalization	RIAA S.T.D. ± 0.5db
Bass Control	±10db at 100 Hz
Treble Control	±10db at 10kHz
Loudness Contour	+6db/100Hz, +6db/10kHz
High Filter	12db/oct, 10kHz
Low Filter	12db/oct, 100Hz
Audio Muting	-20db
Crosstalk	50db/10kHz
Hum and Noise (S/N) (continuous power output)	PHONO 65db TAPE 80db Residual 0.5mV
Speaker Impedance	4 to 16 ohms (1 or 2) 8 to 16 ohms (1 + 2)

FM TUNER SECTION

Frequency Range	88 to 108 MHz
Sensitivity (IHF)	1.5 microvolts
Signal-to-Noise Ratio	70db
Harmonic Distortion	0.2% (mono); 0.4% (stereo)
Selectivity	80db (alternate channel)
Capture Ratio	1.0db
Stereo Separation	40db at 100Hz, 40db at 1kHz, 35db at 10kHz
IF Rejection	100db
Image Rejection	100db
Spurious Response Rejection	100db
SCA Suppression	70db
AM Suppression	55db

AM TUNER SECTION

Frequency Range	520 to 1650kHz
Sensitivity (IHF)	15 microvolts
Selectivity	50db
IF Rejection	80db
Image Rejection	80db
Signal-to-Noise Ratio	55db

GENERAL

Power Consumption	450W (maximum)
Dimensions (overall)	24"W x 15"D x 5-3/8"H
Weight (net)	13.5kg/35.2lbs

EXCLUSIVE NOTE FOR U.K.

If your unit comes with a 3-core cable without a plug, make certain live, neutral and (where appropriate) earth leads are connected to the proper terminals. Check that the terminals are screwed down firmly and no loose strands of wire are present.

WARNING: THIS APPARATUS MUST BE EARTHED

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

GREEN/YELLOW:	EARTH
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 GREEN/YELLOW must be connected to the terminal in the plug which is marked by the letter E or by the safety earth symbol ⏚ , or coloured GREEN or GREEN/YELLOW.

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLUE or BLACK. The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured BROWN or RED. The apparatus must be protected by a 3 Amp fuse if a 13 Amp (BS 1363) plug is used. If another type of plug is used a 5 Amp fuse or lower must be used, either in the plug or adapter or at the distribution board.

Note: features and specifications subject to changes for improvement without prior notice.

OPERATION CHART

Program Source	Rear Input Jacks or Terminals	Front Panel Controls and Switches						
		SPEAKERS Control	MODE Switch	TAPE MONITOR Switches	LOUDNESS CONTOUR Switch	BASS, TREBLE, BALANCE Controls	VOLUME Control	FUNCTION SELECTOR Control
Mono FM	FM ANT.	1	In or Out	Out	In or Out	"O" (Centered)	As Desired	FM
Stereo FM	FM ANT.	1	Out	Out	In or Out	"O" (Centered)	As Desired	FM
AM	Built-in AM Antenna	1	In or Out	Out	In or Out	"O" (Centered)	As Desired	AM
Mono Records	PHONO IN (1 or 2)	1	In or Out	Out	In or Out	"O" (Centered)	As Desired	PHONO (1 or 2)
Stereo Records	PHONO IN (1 or 2)	1	Out	Out	In or Out	"O" (Centered)	As Desired	PHONO (1 or 2)
Stereo Tape (Playback Only)	MONITOR IN (1 or 2)	1	Out	In	In or Out	"O" (Centered)	As Desired	Any Position
Stereo Cassette or 8-T Cartridge (Playback Only)	AUX IN	1	Out	Out	In or Out	"O" (Centered)	As Desired	AUX (1 or 2)

Please read the Operating Instructions Manual for more detailed information

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