

*Solid State AM/FM Stereo Tuner*  
**RT-322**  
 ROTEL®

## owner's manual

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## INTRODUCTION

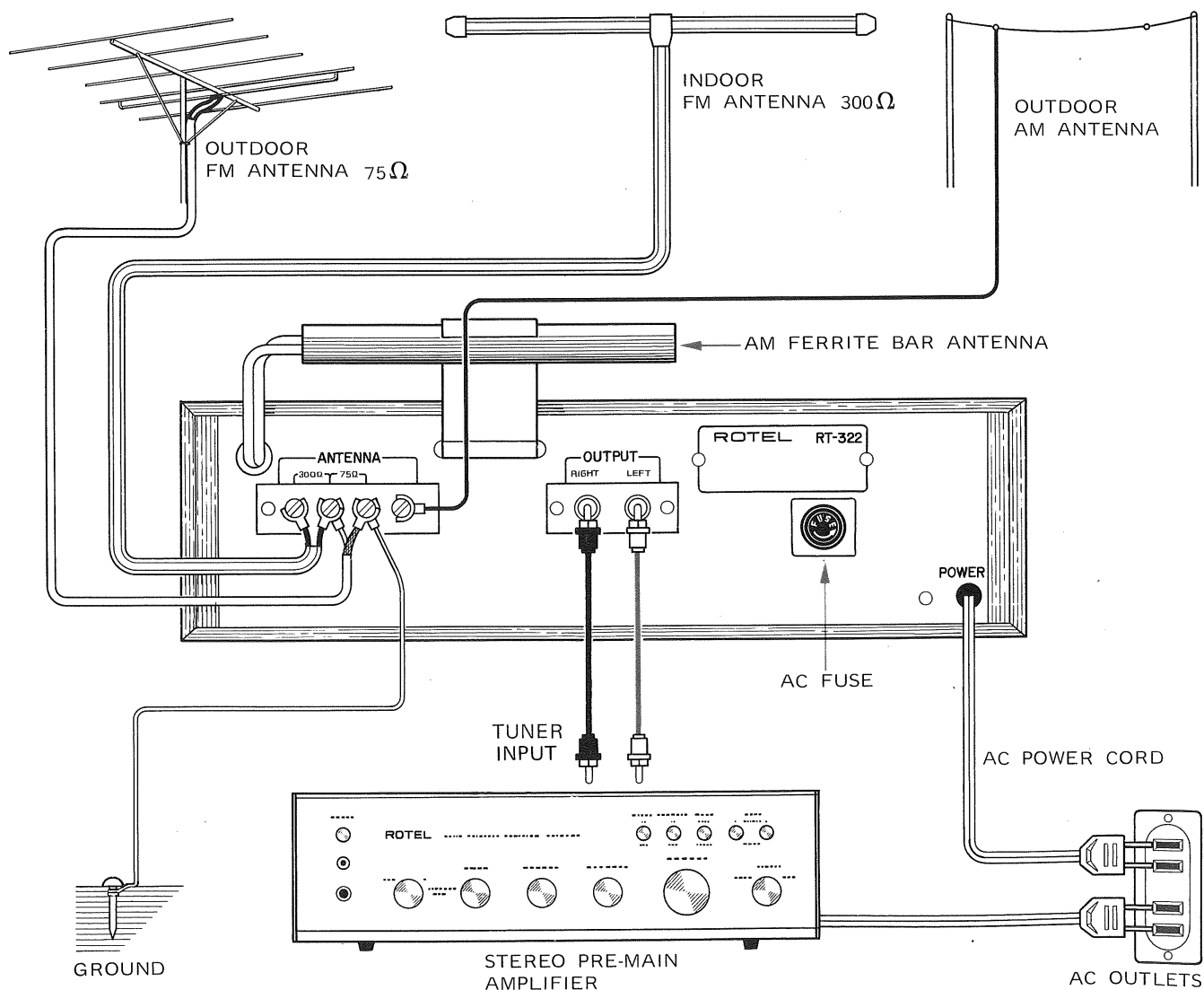
We would like to take this opportunity to thank you for purchasing our Stereo Tuner. With the high quality design and workmanship that goes into making this equipment, you can be assured of its flawless performance for many years to come.

We have fitted every control and feature you could conceivably need. Designed 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 ex-

perience true high fidelity as never before. Its full and natural stereophonic reproduction offers you musical entertainment approaching that of live performances. We sincerely hope you will treasure this professional equipment. In order to obtain the maximum use out of your unit, please read the following pages of this Owner's Manual carefully.

Do not attempt to operate the unit until you have made all the necessary connections.

## REAR PANEL CONNECTIONS



## INSTALLATION

first making sure that all the necessary connections are properly made.

### AM ANTENNA CONNECTION

No external antenna will generally be required for AM, since a ferrite loopstick antenna is supplied at the rear of the unit. For best possible reception, extend the loopstick fully away from the tuner chassis.

If you live in a difficult reception area, the use of an external or outdoor antenna may be desirable. Connect a single wire antenna lead to the terminal marked AM on the rear chassis. The wire antenna should be as long as possible, and oriented for best reception. It must be kept away from large metal objects, power lines or electrical machinery to insure reception without extraneous noise.

### FM ANTENNA CONNECTION

Owing to the high sensitivity of the FM tuner section of the unit, the antenna wire supplied is sufficient for most locations. Connect this to both FM antenna terminals marked 300 ohms, and mount horizontally, for instance by tacking to the shelf on which the receiver is mounted. In difficult reception areas, the use of an outdoor antenna may prove necessary. Follow its instructions for proper connection.

When using a 75-ohm unbalanced coaxial cable for antenna, connect between 75-ohm and G terminal posts with the outer conductor or shield of the cable connected to the G terminal.

### GROUND

Although it is not necessary to do so, but if you wish to ground the tuner, connect a wire from the terminal designated GND on the rear chassis to the ground terminal on your amplifier or to a nail driven into the earth.

### AC POWER INPUT CORD

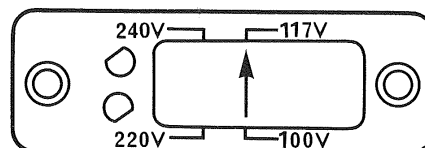
Your tuner has been specially designed so that it may be connected to a variety of power sources. You may connect the AC Power Input Cord directly to a wall plug, in which case the power will be supplied to the tuner independent of your amplifier. Or, you may connect it to your amplifier's switched or unswitched AC outlet. If it is connected to a switched outlet, by leaving the Power

button of the tuner on, you will be able to maintain switching control for the tuner with your amplifier. If it is connected to an unswitched outlet, like connecting to a wall outlet you must use the tuner's own power button for switching control.

### VOLTAGE SELECTION

The tuner 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 below). 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.



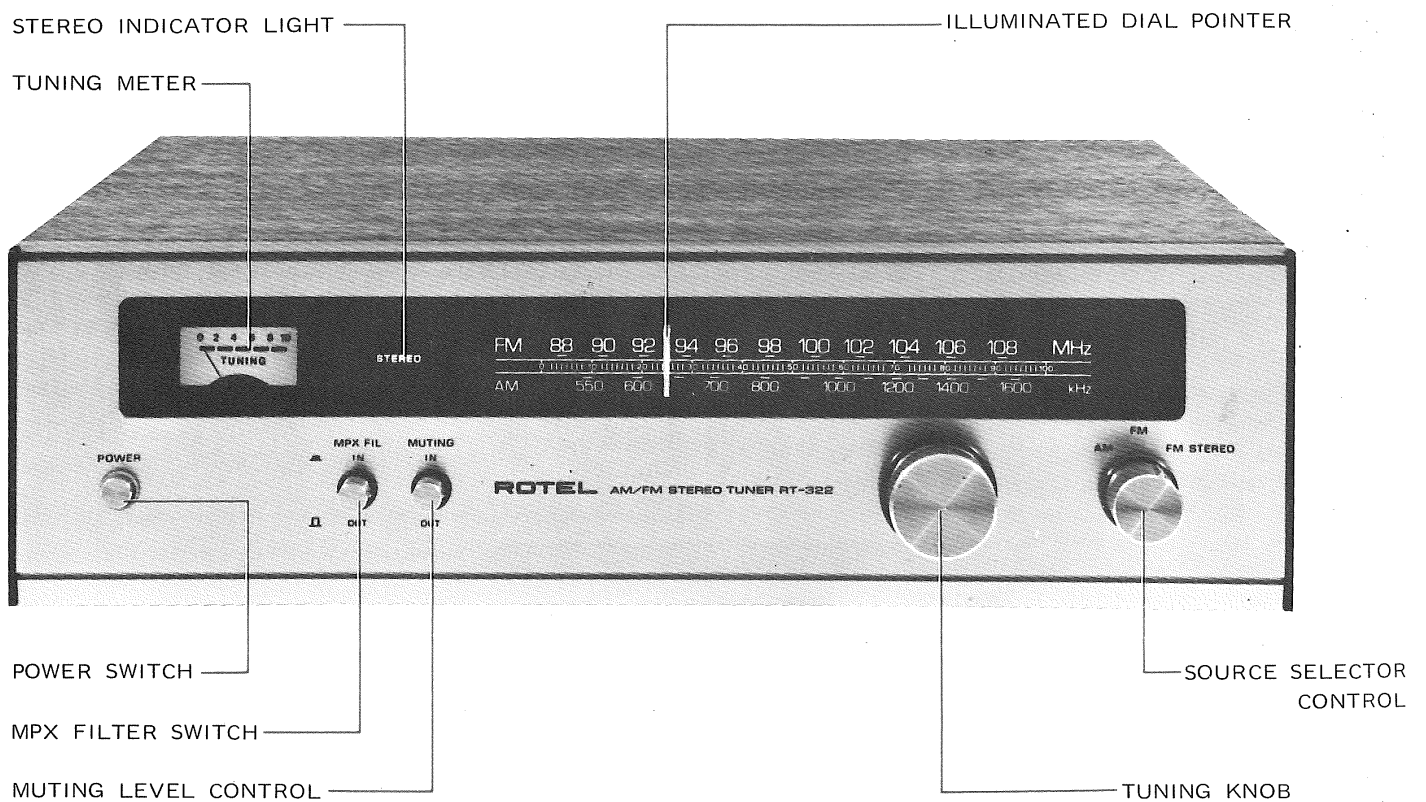
### CONNECTING TO POWER SUPPLY

Before connecting up ensure that the voltage selector is set correctly for your supply, and 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.

The unit is protected with a 1 amp. fuse in the AC input circuit. When replacing a fuse, be sure to use a fuse of the same rating. **DO NOT** replace with a fuse of higher rating. Protection will be lost, and severe damage to the unit may result.

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

## FRONT PANEL CONTROLS



**TUNING KNOB:** heavy flywheel action allows easy and precise tuning on both AM and FM stations.

**SOURCE SELECTOR CONTROL:** enables you to select the program you desire from AM, FM and FM STEREO.

**MPX FILTER SWITCH:** allows you to reduce annoying noise mixed in with signal. This switch, however, should not be always left at IN position unless it is necessary.

**MUTING SWITCH:** in IN 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 OUT position when you wish to pick up a very weak station.

**POWER SWITCH:** supplies power to the tuner and to any component connected to the switched AC outlet on the rear chassis. When the switch is ON, dial scale will be illuminated.

**STEREO INDICATOR LIGHT:** automatically lights up on the dial glass to visually indicate whenever an FM stereo broadcast is tuned.

**SIGNAL STRENGTH TUNING METER:** shows the level of the incoming signal. When used with the TUNING KNOB tune for maximum pointer deflection to the right for best possible reception of AM or FM broadcast.

## OPERATION

Having made all connections according to the preceding instructions and become familiar with the functions of the unit, you are ready to operate the equipment. Apply power by plugging into the power source and pushing in the POWER button.

**PRELIMINARY CHECK:** If the dial scale has failed illuminate, remove and check the AC fuse. If the fuse is blown, check possible reasons for the blow-out (e.g. defective AC power cord, etc.) and replace the fuse with same rating-type fuse.

### RECEIVING FM AND AM BROADCASTS

#### 1. FM STEREO

Under normal use for all FM broadcasts the source selector control should be placed in the FM STEREO position. This tuner is equipped with a stereo sensing circuit which will automatically determine whether your unit is receiving monophonic or stereophonic broadcasts, and then automatically adjust the mode of operation. If

the station is transmitting stereo, your tuner will automatically switch on the multiplex section and you will hear the broadcast in full stereo. Should the station conclude broadcasting in stereo, your tuner will automatically switch back to monophonic reception.

#### 2. FM

Should you wish to receive monophonic signal, or weak stereo signal whose quality has been degraded by noise and poor signal conditions and so may be necessary to be heard in mono, turn the source selector control to FM. Tune for the desired station with the tuning knob, using the tuning meters to assure the strongest possible reception.

#### 3. AM

Should you wish to listen to AM broadcasts, turn the source selector control to AM. Though AM gives only monophonic signal, the tuner will convert the signal to two channels (each channel with same signal) enabling you to listen from two speakers as in stereo.

## MUTING

Whenever you tune for an FM station, you will hear rather loud interstation noise; this is normal for all highly sensitive FM tuners and is not peculiar to this tuner.

To reduce this bothersome interstation noise, your tuner is equipped with a MUTING SWITCH. The switch should

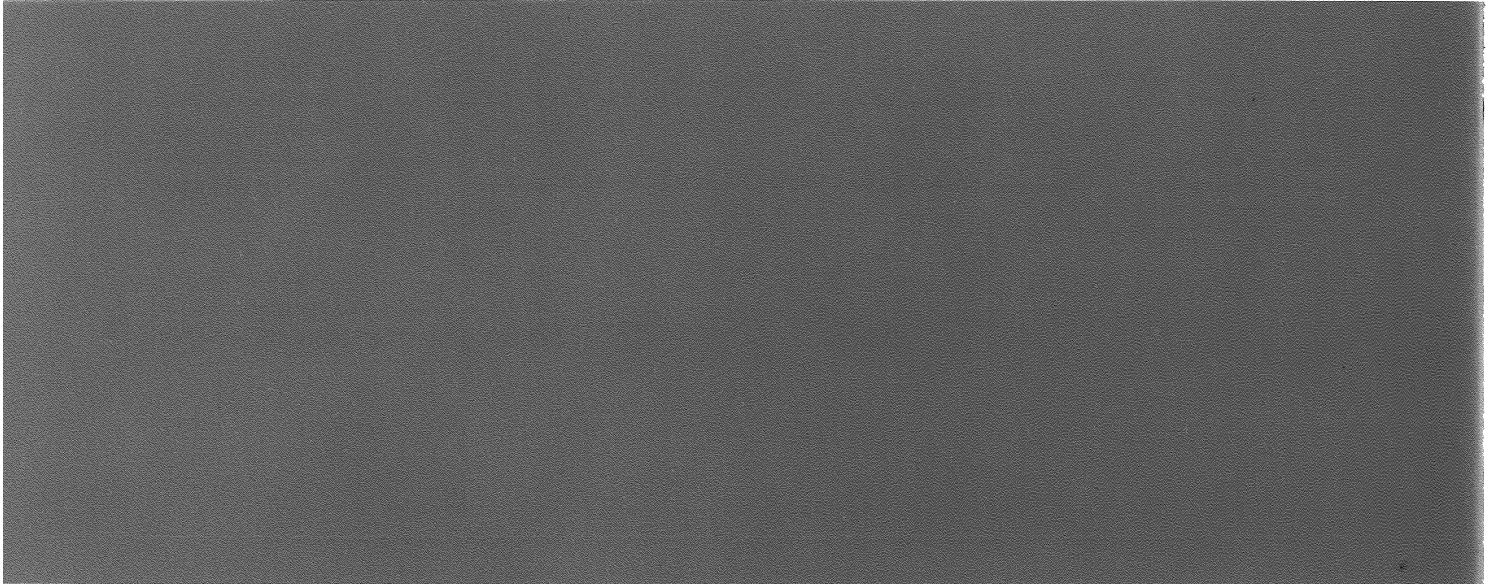
normally be turned OUT when you have tuned in the desired station, but it may be left IN without causing perceptible effect upon program reproduction. Again, however, the switch should be turned OUT to assure strongest possible signal reception if you wish to listen to a station of very weak signal.

## SPECIFICATIONS

<b>FM</b>	Sensitivity (IHF) .....	2.0 $\mu$ V
	Frequency Range .....	88 - 108 MHz
	Harmonic Distortion .....	less than 0.5%
	Signal to Noise Ratio .....	65 dB
	Capture Ratio .....	1.5 dB
	Selectivity .....	50 dB
	Stereo Separation .....	40 dB at 1 kHz
	Image Rejection .....	60 dB
	IF Rejection .....	80 dB
	Spurious Response Rejection....	80 dB

<b>AM</b>	Sensitivity (IHF) .....	250 $\mu$ V/m
	Frequency Range .....	535 - 1605 kHz
	Image Rejection.....	50 dB at 1 MHz
	IF Rejection .....	40 dB at 1 MHz
	Signal to Noise Ratio .....	50 dB
	Selectivity .....	30 dB

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



**Roland Electronics Co., Ltd.** 1-36-8 Ohokayama, Meguro-ku, Tokyo, Japan