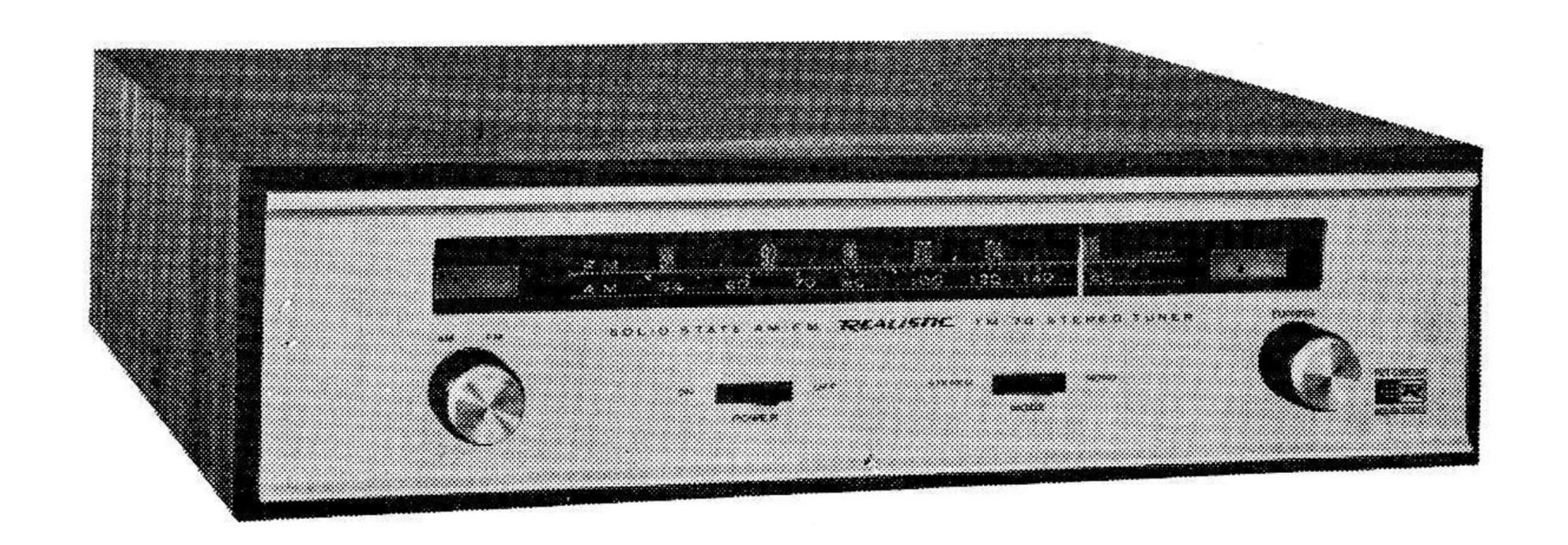
# TREALISTIC®

# SOLID STATE HI-FI COMPONENTS

Operating Instruction and Service Data

Model TM-70

Cat. No. 31-2015



A PRODUCT OF RADIO SHACK® DIVISION OF TANDY CORPORATION The REALISTIC® Solid State TM-70 AM/FM MULTIPLEX TUNER embodies the finest engineering and craftmanship for maximum listening pleasure and enjoyment. Observance of the following simple instructions will enable you to realize the utmost performance from it.

www.hifiengine.com

#### SPECIFICATIONS

#### FM SECTION

Frequency Range: 88 MC—108 MC

Sensitivity: (75 KC deviation, 400 cps

for 20 db S/N)  $2.5 \mu V$ 

Image Rejection: (at 98 MC) 50 db

I. F. Bandwidth: (at -6 db down) ± 150 KC

DE Emphasis:  $75 \,\mu\text{s} \, (50-10,000 \, \text{cps} \, \pm \, 1 \, \text{db})$ 

Output Voltage:

Stereo Separation: (at 1000 µV input)

100 cps 27 db

1000 cps 35 db

10000 cps 21 db

Signal to Noise Ratio: ((1000 \mu V input) 60 db

Distortion: <2%

#### AM SECTION

Frequency Range: 535 KC-1605 KC

Sensitivity:  $(400 \text{ cps } 30\% \text{modulation}) 100 \mu\text{V/m}$ 

Output Voltage: 200 mV

Image Rejection: (at 1400 KC) 35 db

Power Requirement: 117 volts AC, 50/60 cps

#### INSTALLATION


Use two shielded cables and connect R (RIGHT) CONTROLLED output of tuner to the "right" tuner input of stereo amplifier; connect the L(LEFT) CONTROLLED output of tuner to "left" tuner input of stereo amplifier. The jacks marked DIRECT are to be used in conjunction with a tape recorder. To make off the air recordings: connect L(LEFT) DIRECT output of tuner to "left" aux. or tuner input of recorder; connect R (RIGHT) DIRECT output of tuner to "right" aux. or tuner input of recorder.

## AM ANTENNA

The AM section of this tuner is equipped with a ferrite loop-stick mounted on the rear of the chassis. This type of antenna is designed for reception of local and semi-distant stations. When the tuner is situated at a great distance from broadcast stations, an external antenna fifteen feet or longer will sometimes give better reception. It should be connected to the binding post terminals marked AM AN-TENNA, G. However, where a neighborhood contains many man-made electrical noises, such as from neon signs, fluo-rescent lights, motors, etc., the external antenna may pick up more local noise than additional signal. Loop-stick should be oriented to give best reception.

# FM ANTENNA

A short length of ordinary wire, approximately four feet in length, will serve as a highly effective antenna for all but the most difficult reception conditions. Connect one end to either terminal marked FM ANTENNA 300 OHMS on the rear of the chassis and extend the wire in any convenient direction. In fringe areas, either an indoor or outdoor dipole antenna may be used. Excellent results can be obtained by



using a TV antenna. Connect FM antenna lead to terminals marked FM ANTENNA 300 OHMS. Balanced twin lead antenna system should be used.

#### **OPERATION**

Plug tuner power cord into any convenient 117V AC 50/60 cycles outlet. To turn power on, place POWER switch in ON position.

Pilot lamps located behind the dial opening will illuminate the dial scale indicating that power has been turned on.

#### AM OPERATION

Place selector switch in AM position. Rotate TUNING knob so that the dial pointer indicates the frequency of the desired station. Tune for maximum deflection of illuminated tuning meter.

# FM MONAURAL OPERATION

Place selector switch in FM position and MODE switch in MONO position. In the FM position, both tuning meters will illuminate. The left meter is for signal strength and the right meter is for tuning. Rotate tuning control knob so that dial pointer indicates the frequency of the desired station. Tune for zero deflection (center scale) on right meter. Left meter will now indicate relative strength of incoming signal. Antenna should be positioned so that deflection of left meter will be maximum.

## FM STEREO OPERATION

Place MODE switch in STEREO position and tune as outlined above. If, after proper tuning is achieved, the stereo beacon is illuminated, it may be determined that

station is broadcasting stereo.

The components in the multiplex section of this tuner have been carefully selected to eliminate the need of an additional balance control. Any slight balance adjustments can be made using the balance control of the stereo amplifier.

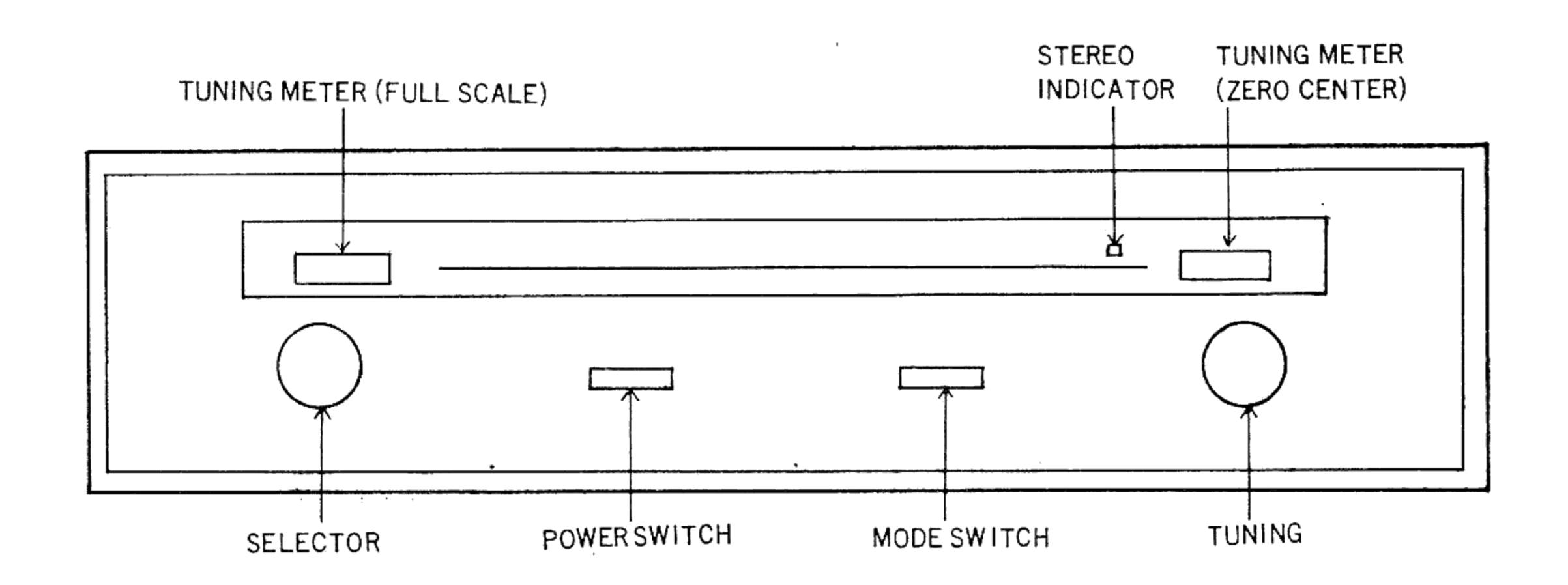
All adjustments of critical tuned circuits in the TM-70 have been made at the factory. No attempt should be made to alter same unless by qualified technician or service personnel who has the proper test equipment and experience.

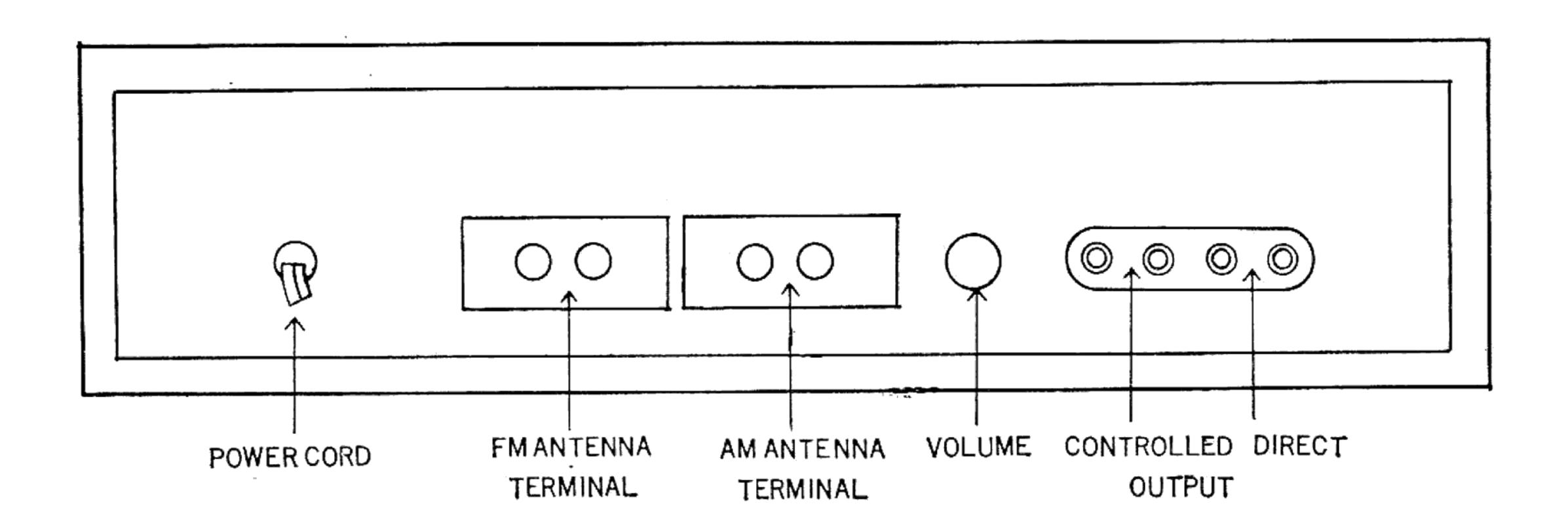
#### **VOLUME**

The output level of the TM-70 tuner may be adjusted by rotating VOLUME control on rear panel to desired point. This control should be set so that output level of amplifier remains constant when switching between phono and tuner inputs.

# NOTES

If, after installation of your system, you find hum to be excessive, reverse the power cable plug in the AC outlet. Do this successively with the tuner and amplifier and leave plug in position that results in minimum hum. If you are using an outside antenna, try to locate it as far as possible from such sources of man-made noise and interference such as telephone cables, electric wiring, or heavily travelled streets.





#### WARRANTY and SERVICE

Your REALISTIC TM-70 is warranted to be free from defects in materials and workmanship for a period of 1 year from date of purchase. To assure your rights under this warranty, be certain to mail the enclosed Warranty Registration Card within 10 days of your purchase.

Your Warranty may be voided for any of the following reasons:

1. Damage in transit due to inadequate packing for shipment, or shipment by any carrier other than prepaid REA Express.

DO NOT SHIP BY PARCEL POST.

2. Abuse in handling or repair by unqualified persons.

To obtain service under the warranty, contact the store from which purchased, giving Model Number and Serial Number and a description of the fault in operation. If your tuner was purchased by mail send this information instead to:

> Service Department RADIO SHACK 730 Commonwealth Avenue Boston, Massachusetts 02215

Instructions for obtaining warranty service will be sent to you. If factory service is judged necessary, a letter authorizing you to send tuner for repair will be sent to you, together with shipping instructions. DO NOT SHIP YOUR TUNER WITHOUT FIRST OBTAINING WRITTEN AUTHORIZATION from Radio Shack.

If service is required after the free warranty service period has expired, follow same procedure as above for warranty service. Fair charges will be made for factory service by skilled personnel using original parts.