

50

HIGH FIDELITY TV TUNER



TV-20

OWNER'S MANUAL

PLEASE READ BEFORE
USING THIS EQUIPMENT

REALISTIC[®]

CAT. NO.
31-1950

CUSTOM MANUFACTURED FOR RADIO SHACK

A DIVISION OF TANDY CORPORATION

Now you can enjoy TV sound through your hi-fi system with your new REALISTIC TV-20 !
It also enables you to use TV sound as a program source for recording or playback.

FEATURES INCLUDE:

- * IF stage uses a single IC chip, giving high output, low noise and minimum distortion.
- * Fine Tuning knob lets you precisely tune to weak and distant stations.
- * Two types of antenna jacks let you use either 300-ohm or 75-ohm lead-in.
- * Output level controls match the output of your TV-20 with other signal sources (discs, FM, etc.) connected to your Amplifier/Receiver.

SPECIFICATIONS

Channels	:	ch 2 – ch 13 (59.75 – 215.75 MHz)
IF Frequency	:	41.25 MHz
IHF Sensitivity	:	7.0 μ V
S/N ratio (1mV, ch8)	:	60 dB
3 dB Limiting Sensitivity (ch 8)	:	3.0 μ V
IF Rejection ratio (ch 8)	:	45 dB
Image Rejection ratio (ch 8)	:	58 dB
Distortion (1mV)	:	0.5%
AFC Holding Range (1mV, ch 8)	:	500 kHz
AM Suppression	:	46 dB
Maximum Signal Handling Capacity	:	200m V
Output level (1mV input, Level Control at MAX.)	:	1.5V

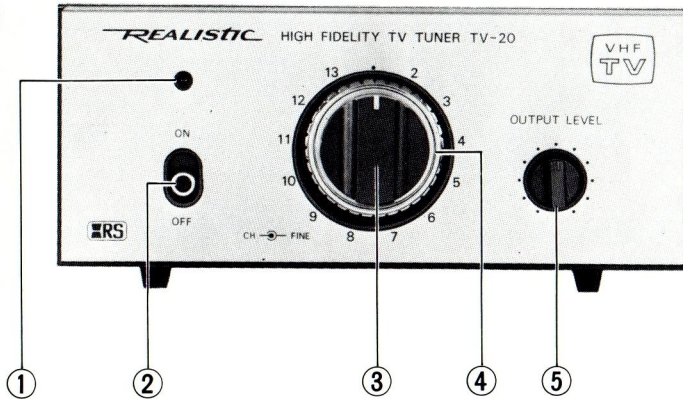
RADIO SHACK LIMITED WARRANTY

This equipment is warranted against defects for 2 years from date of purchase. Within this period, we will repair it without charge for parts and labor. Simply **bring your sales slip** as proof of purchase date to any Radio Shack store. Warranty does not cover transportation costs. Nor does it cover equipment subjected to misuse or accidental damage.

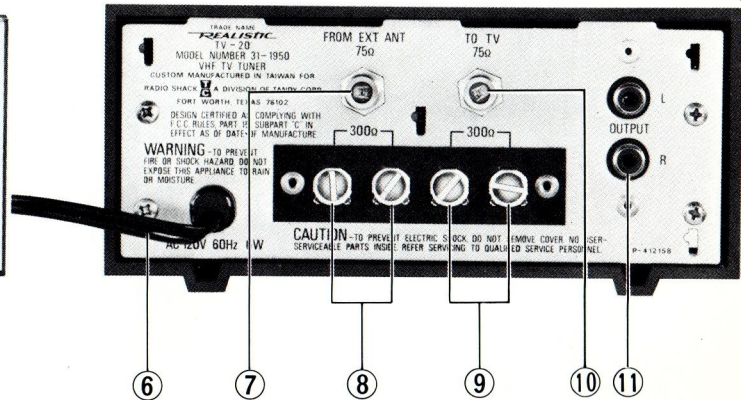
This Warranty gives you specific legal rights and you may also have other rights which vary from state to state.

We Service What We Sell

FRONT PANEL



REAR PANEL



CONTROLS AND FUNCTIONS

(1) Indicator LED

Lights up when power is "on".

(2) Power Switch

Turns your TV-20 "on" and "off".

(3) TV Channel Selector Switch and

(4) Fine Tuning Knob

These two controls are combined on one dual concentric Knob. The inner portion of the Knob selects TV channels 2 to 13. The outer portion of the Knob lets you "fine tune" the desired channel for best reception.

CONNECTIONS

Before making connections,

be sure the POWER switch is "OFF" and the AC line cord is not connected.

Installing your TV Tuner is very simple.

Use shielded cables (not provided) and connect the OUTPUT L and R jacks on the back to any Auxiliary input jacks on a Stereo Amplifier/Receiver.

ANTENNAS

Your TV-20 has two sets of antenna inputs/outputs - 300-ohm terminals and 75-ohm connector. Use either one depending on your current existing antenna system - but don't use both at same time.

Many new homes and apartments have built-in 75-ohm TV antenna lead-in systems. The 75-ohm connector on the TV-20 is an F-61 type which accepts both F-59 and F-56 connectors. Also most new color TV sets use 75-ohm lead-in cable; thus many antennas are set up for 75-ohm lead-in.

In this case, connect the external antenna to the 75-ohm connector labeled from EXT. ANT.

If your antenna system uses a twin-lead 300-ohm type, connect to 300-ohm terminal.

Use antenna cable (not provided) and connect "TO TV" antenna terminals/connector to your TV set's antenna terminals/connector.

The antenna lead-in to your TV-20 and the antenna cable between TV-20 and your TV set need not be of same kind. You may use 300-ohm leads to connect to the external antenna and 75-ohm cable between TV-20 and your TV set, or vice versa.

Stop by your local Radio Shack store for leads/cable to make such connections.

(5) OUTPUT LEVEL Control

Controls the output level from the TV-20. Set to the position which yields about the same level as other signal sources.

(6) AC Cord

Supplies the Tuner's power. Plug the cord into any 120V AC, 60 Hz outlet.

(7) TV Antenna 75Ω Connector (FROM EXT. ANT.)

If you use 75-ohm coaxial lead-in, connect it here. Coaxial cable helps reduce interference from electrical noise.

(8) TV Antenna 300Ω Screw Terminals (FROM EXT. ANT.)

Connect an external TV antenna using standard 300-ohm lead-in here.

Note: Use either 300-ohm terminals or 75-ohm connector from external antenna input, **NOT BOTH.**

(9) TV Antenna 300Ω Screw Terminals (TO TV)

Connect to TV antenna terminals on Television using standard 300-ohm lead-in.

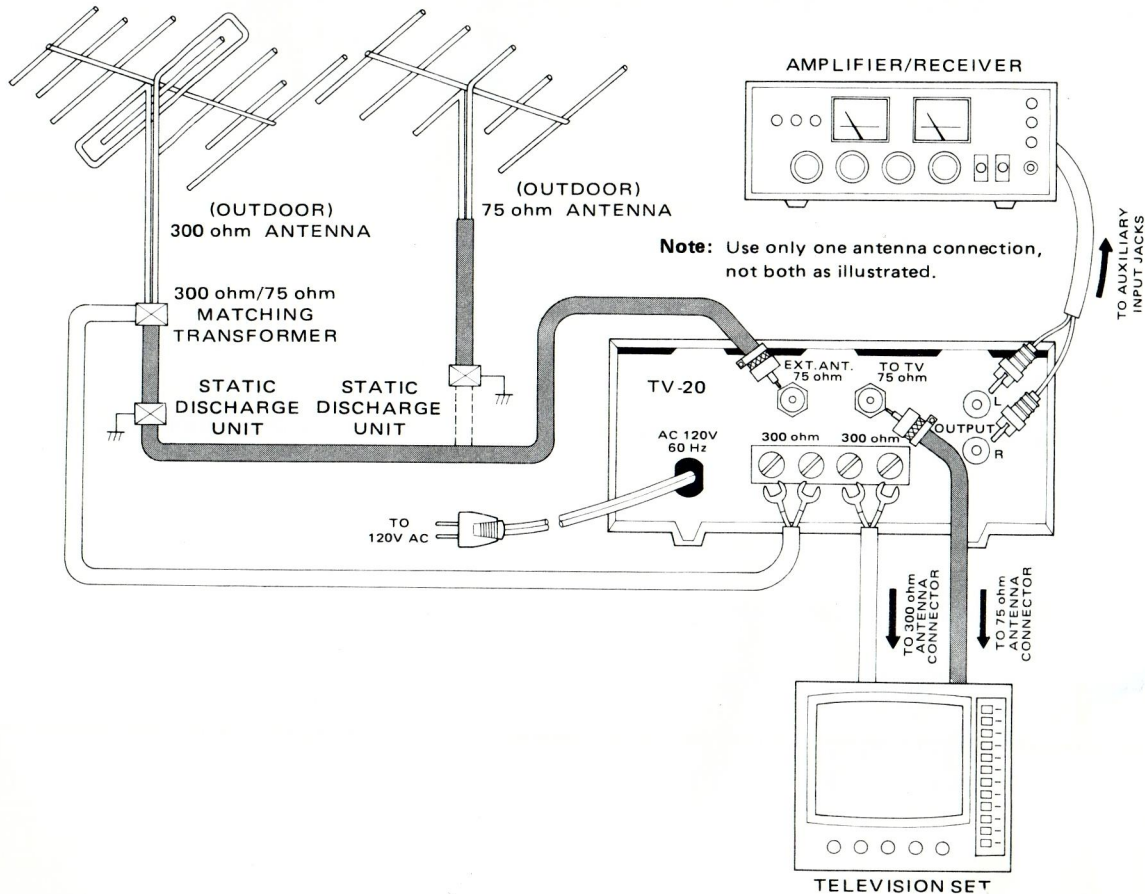
(10) TV Antenna 75Ω Connector (TO TV)

Connect to TV antenna connector on Television if you are using 75-ohm coaxial lead-in connector.

(11) OUTPUT Jacks

Connect to your Amplifier/Receiver Auxiliary Input.

TYPICAL SYSTEM DIAGRAM



OPERATION

Once you've made the connections, operation is very simple.

Set POWER "ON", indicator LED will light.

Rotate TV Channel Selector to the desired position and Fine-Tune for the best reception.

Adjust OUTPUT LEVEL Control to match the level of other sources on your Amplifier/Receiver.

You can listen to TV sound over your audio system or use it as a program source for recordings, etc.

SERVICE AND MAINTENANCE

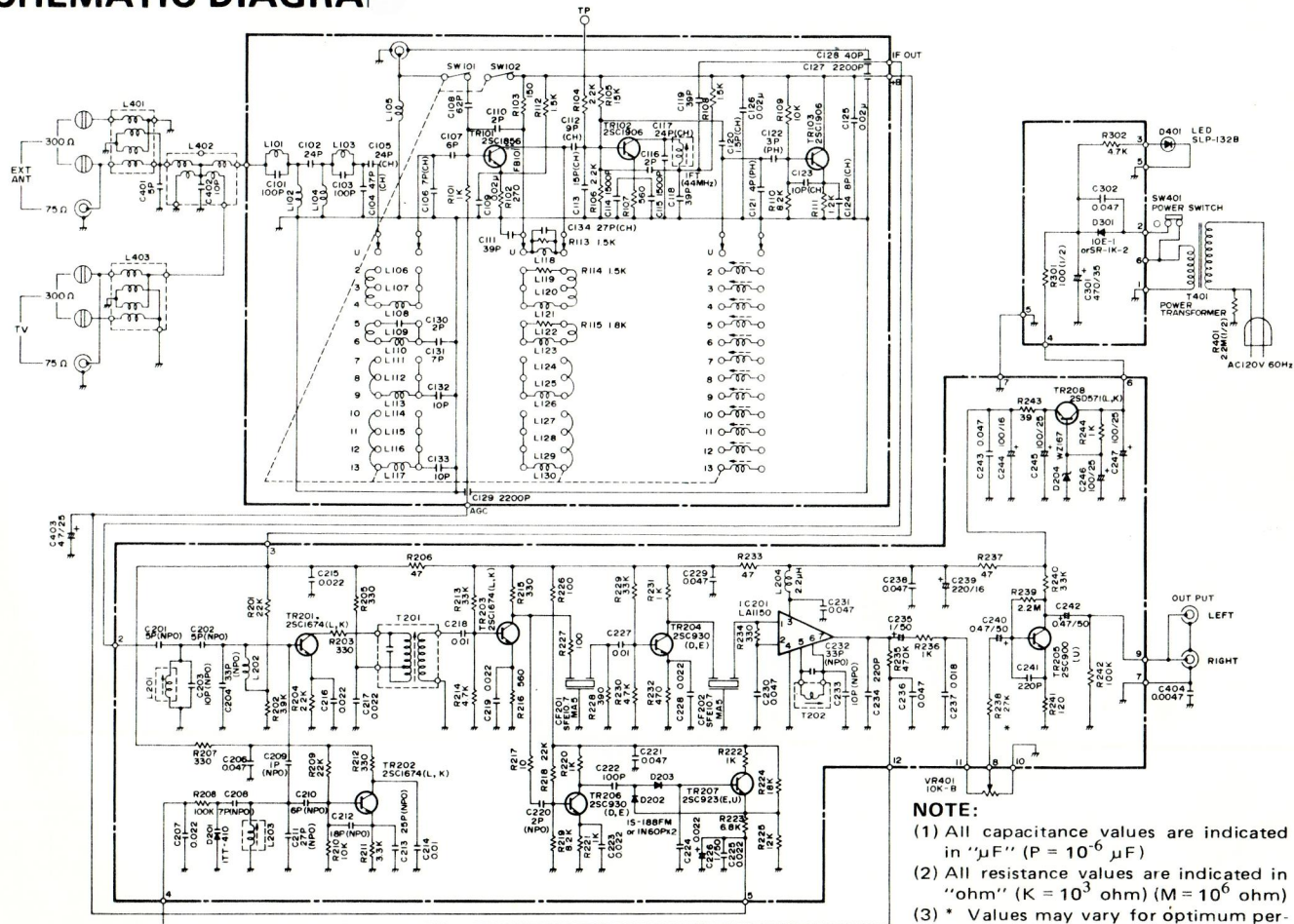
Only the highest quality parts are used in your TV Tuner, therefore it will require little or no service. However, there are a few things you can do to insure maximum life and performance.

Never leave the TV Tuner in high temperature areas. Excessive temperatures can damage internal parts.

Never clean the case with a strong thinner (nail polish remover, benzine, etc.); a slightly damp cloth will normally be adequate.


If your TV Tuner should ever require service, take it to a local Radio Shack store. They have qualified people, equipment and parts to properly service your unit.

SCHEMATIC DIAGRA



NOTE:

- (1) All capacitance values are indicated in "μF" (P = 10⁻⁶ μF)
- (2) All resistance values are indicated in "ohm" (K = 10³ ohm) (M = 10⁶ ohm)
- (3) * Values may vary for optimum performance.

RADIO SHACK  **A DIVISION OF TANDY CORPORATION**
U.S.A.: FORT WORTH, TEXAS 76102
CANADA: BARRIE, ONTARIO L4M 4W5

TANDY CORPORATION

AUSTRALIA

280-316 VICTORIA ROAD
RYDALMERE, N S W 2116

BELGIUM

PARC INDUSTRIEL DE NANINNE
5140 NANINNE

U K

BILSTON ROAD, WEDNESBURY
WEST MIDLANDS WS10 7JN