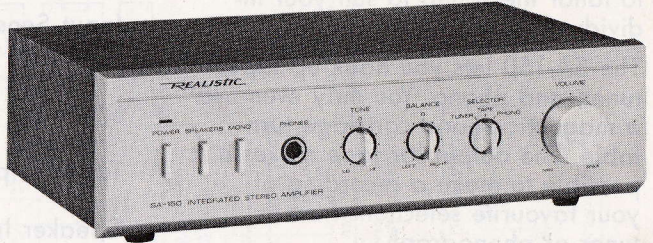


# OWNER'S MANUAL

## INTEGRATED STEREO AMPLIFIER



PLEASE READ  
BEFORE USING  
THIS EQUIPMENT

# SA-150

CAT. NO. 31-1955

CUSTOM  
MANUFACTURED  
FOR RADIO SHACK,  
A DIVISION  
OF TANDY  
CORPORATION

**REALISTIC**<sup>®</sup>

# SPECIFICATIONS

Your SA-150 is the ideal amplifier for the compact or secondary sound system. This amplifier brings full-range tone control that allows you to tailor the sound to suit your individual taste.

The SA-150 lets you hook up tape, tuner, and phono. You may even use a magnetic phono cartridge turntable. The output for tape makes it possible to make a recording of your favourite selections from a tuner or phonograph.

Designed to team up with Radio Shack's TM-150 Mini Tuner, this unit is molded in the same brushed-aluminum front panel with walnut-grained vinyl-veneer cabinet.

The silicon solid-state construction is precision engineered for enduring performance and superb sound control, to provide you many years of magnificent sound.

Output Power, 1% Distortion,  
1 kHz, Both Channels Driven:  
1.8 Watts/channel (RMS)

Frequency Response:  
20 — 25,000 Hz

Input Sensitivity  
Phono: 2.5mV (Magnetic)  
200mV (Ceramic)

Tuner: 160mV

Tape: 160mV

Tape Output:  
150mV

Speaker Impedance:  
8 to 16 ohms

Tone Control Response:  
— 18.0 dB

Crosstalk at TAPE IN at 2W Power:  
50 dB at 1kHz

Semiconductors:  
4 Silicon Transistors,  
2 Diodes, 1 LED, 1 IC

Size:  
3-1/2" × 9-1/4" × 6-7/8"  
8.9 × 23.6 × 17.5cm (HWD)

Power Requirements:  
120V AC, 60 Hz, 25 Watts  
(U.S.A., Canada)  
(220/240 Volts, 50 Hz, for the  
units purchased in Europe/UK  
& Australia)

## WARNING:

To reduce the risk of fire or electric shock, 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.

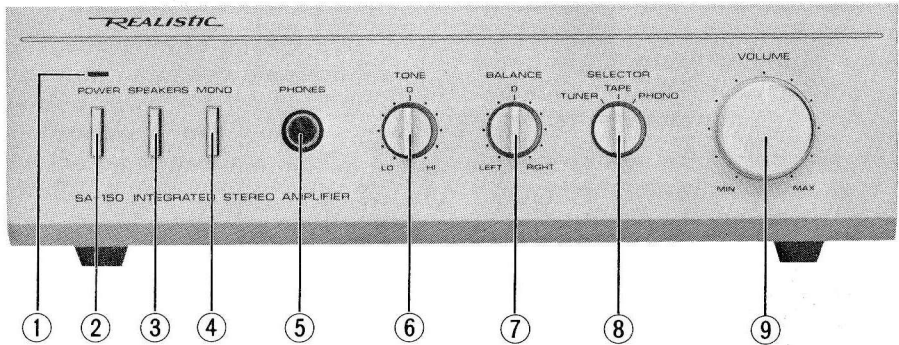


The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

Copyright Tandy Corporation, 1984

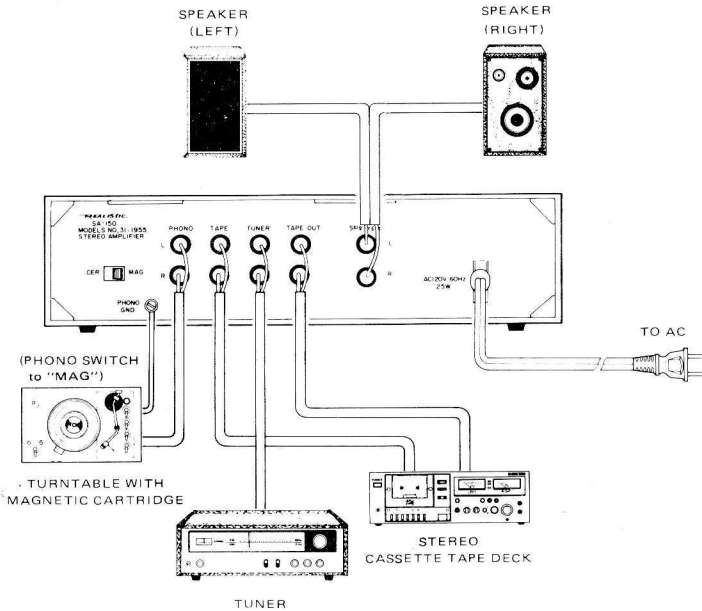
# CONTROLS AND FUNCTIONS

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- ① **LED (Light Emitting Diode)** — indicates when the amplifier is on or off.
- ② **POWER Button** — turns the amplifier on and off.
- ③ **SPEAKERS Button** — turns the speakers on or off.
- ④ **MONO Button** — defeats normal stereo operation. The result is a composite signal of left and right on both channels.
- ⑤ **PHONES Jack** — accepts any pair of 1/4" (6.4mm) low impedance stereo headphones.
- ⑥ **TONE (Lo, Hi)** — adjusts the relative balance of high and low frequencies. Set this control for your listening preference.
- ⑦ **BALANCE (Left and Right)** — adjusts the relative volume of the left and right channels. Normally, it remains at the center position for equal balance between channels. You will feel a subtle catch as the control reaches this point.
- ⑧ **SELECTOR** — chooses the source you wish to listen to (or record from) — TUNER, TAPE or PHONO.
- ⑨ **VOLUME** — increases or decreases the audio level.

# CONNECTIONS



## Before Making Connections

Be sure you have the necessary wiring and correct connectors. Use **shielded** audio cables for all connections except speakers.

For speakers, use **unshielded** cable with the correct connectors. You will need a phono plug at one end to connect to your amplifier.

At the other end, your speaker may require a phono plug, a lug connector, or stripped wire. Determine which kind of connector your speakers need.

Radio Shack has a complete selection of cable assorted connectors for you to choose from.

When you are ready to do the actual hookup...

- first be sure the amplifier is unplugged.
- and be sure the **POWER** switch is off (button out) and that the **VOLUME** control is turned fully counterclockwise.

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## Speakers

For best results, use a matched pair of 8-ohm speakers.

If your speakers have phono jacks, insert one of the phono plugs on the **unshielded** cable into the back of the right speaker. Then insert the plug on the other end into the **SPEAKER R** jack.

Repeat the process for the left speaker and **SPEAKER L** jack.

**If the coded wire is connected to the wrong terminal on either speaker, the bass may seem "soft" and without presence.**

## Tuner

Hook up your connections between the tuner and the **TUNER** jacks on the back of the amplifier.

## Phono

Plug the leads from the changer or turntable into the **PHONO** jacks. If the changer has a separate ground wire (usually green or black), connect it to the **GND** screw on the amplifier's rear panel.

If the turntable has a magnetic cartridge, slide the switch on the rear panel to **MAG**. If the cartridge is crystal or ceramic, slide the switch to **CER**.

## Tape

Connect the output from the tape recorder to the **TAPE** jacks on the amplifier. Connect the amplifier's **TAPE OUT** jacks to recorder's aux or line inputs.

**Before operating the equipment, double-check all connections to be sure they are correct.**

# OPERATION

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Connect the AC line cord to a source of standard power.

Push the POWER button in. Turn the SELECTOR to the desired source.

If the source is monaural, press the MONO button in. Otherwise, leave it in the out position.

If you want the speakers on, press the SPEAKERS button in.

## Headphones

If you want to listen through the headphones, insert the plug into the PHONES jack.

If you care to cut the speakers off while listening through your headphones, press the SPEAKERS button to the out position.

## Tape Recording

To make a tape recording, set the SELECTOR to the source you want to record.

# MAINTENANCE

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Clean the cabinet and the front panel with a soft, lightly dampened cloth. Never use harsh cleaning agents.

Ventilation can be of utmost importance. Be sure that your SA-150 is placed where air can circulate freely around it, front, back, above and below the cabinet.

## Speaker Placement

For the compact or secondary system, speaker placement is a relatively simple matter. Your SA-150 system can be used effectively in areas such as office, dormitory room, kitchen, or den.

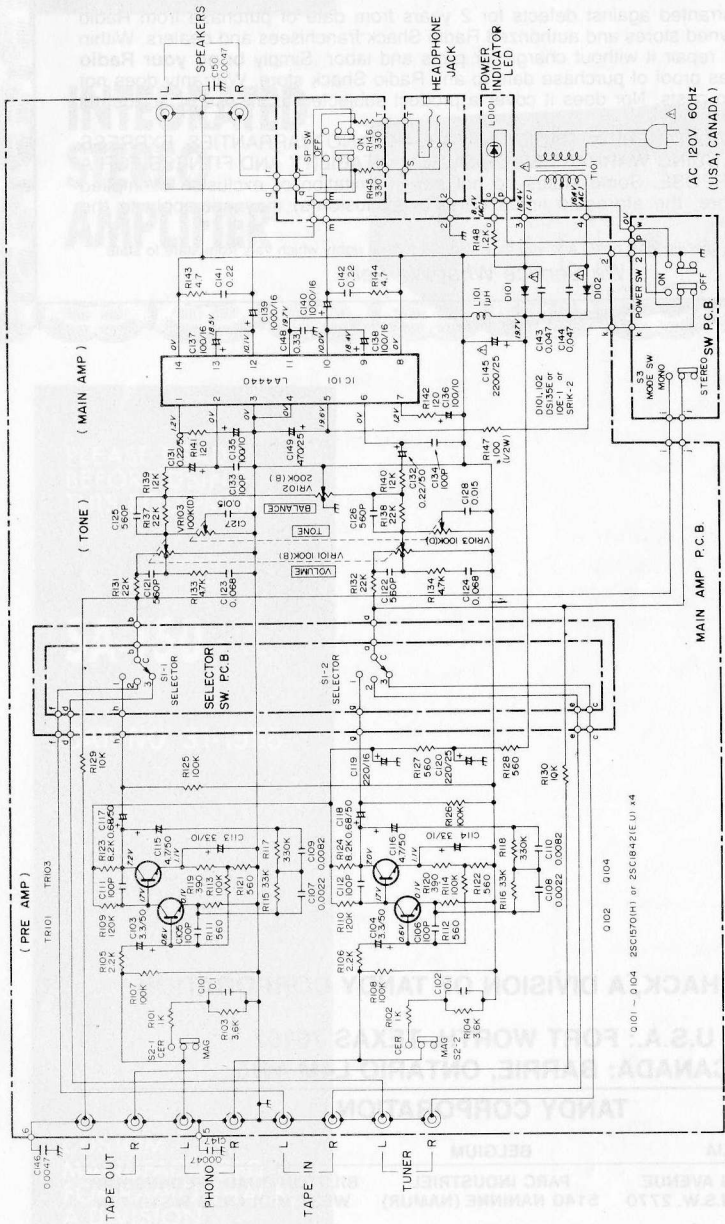
However, the distance between the two speakers is important. Too great a distance between the speakers will give you a "hole" effect. For best results, the distance between the speakers should be about two-thirds the distance between the speakers and your usual listening area.

If the speakers must be farther apart, angling them into the listening area might produce a better effect. A little experimentation will reveal the best setup for your room and system.

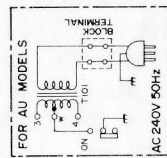
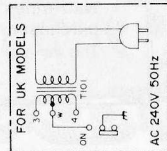
Avoid placing it on a shag rug or other material that might interfere with air circulation.

If you should have any trouble with the amplifier's performance, be sure all connections are secure. Then check for correct sequence of connections. If you still have doubts about the performance, take it to a Radio Shack store for assistance.

# SCHEMATIC DIAGRAM



CAUTION: SINCE THE COMPONENTS MARKED BY  $\Delta$  ARE CRITICAL FOR SAFETY, USE ONES DESCRIBED ON PARTS LIST.



- NOTES: (1) S2-1, S2-2 PHONO SELECTOR SW (GER. MAG.)  
 (2) S1-1, S1-2 SOURCE SELECTOR SW (1 PHONO, 2 TAPE, 3 TUNER)  
 (3) ALL RESISTANCE VALUES ARE INDICATED IN "OHM" ( $K=10^3$  OHM,  $M=10^6$  OHM)  
 (4) ALL CAPACITANCE VALUES ARE INDICATED IN "JUF" ( $P=10^{-6}$  JUF)

0101 - 0104 25C15701H1 or 25C1642E1U1 x4

## RADIO SHACK LIMITED WARRANTY

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

EXCEPT AS PROVIDED HEREIN, RADIO SHACK MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. Some states do not permit limitation or exclusion of implied warranties; therefore, the aforesaid limitation(s) or exclusion(s) may not apply to the purchaser.

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*

**RADIO SHACK, A DIVISION OF TANDY CORPORATION**

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