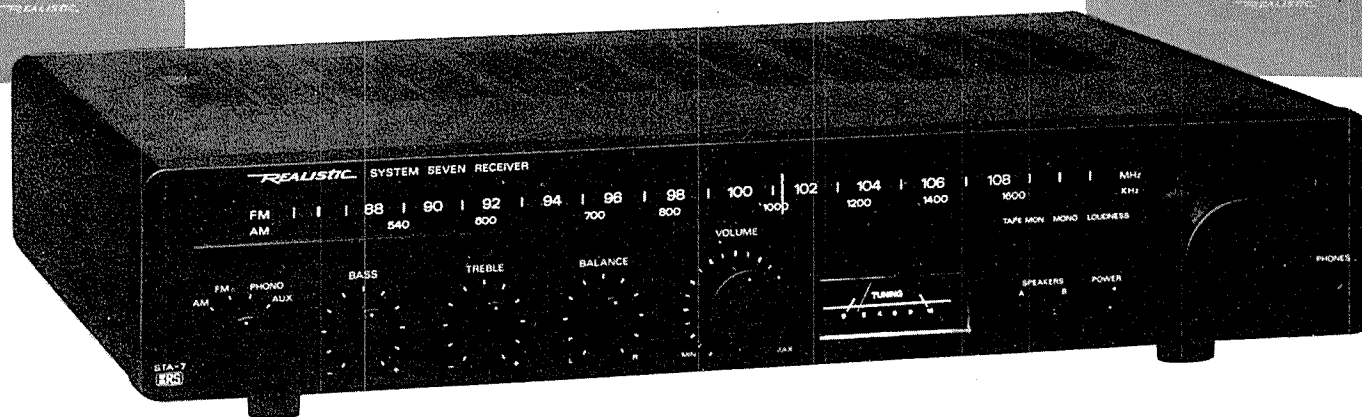

OWNER'S MANUAL

PLEASE READ BEFORE OPERATING THIS EQUIPMENT.

SYSTEM SEVEN STA-7 SOLID STATE am/fm stereo receiver

31-1968



For your own protection, we urge you to record the Serial Number of this unit in the space provided. You'll find the Serial Number on the back panel of the unit.

Serial Number **H 625392**

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 labour. 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.

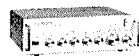
WE SERVICE WHAT WE SELL



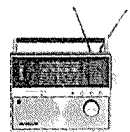
Speakers



Components



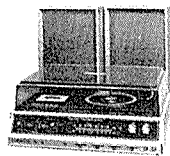
P.A. Products



Radios



Recorders



Phonographs

REALISTIC AUDIO PRODUCTS are the proud result of Radio Shack engineering, research, development, and over 50 years of experience in electronics. Laboratories are maintained in Boston, Ft. Worth, Los Angeles and abroad. The Realistic label is worn with equal distinction by our highly original Communications and Citizens Band (two-way radio) products, and numerous other items including: tape, headphones, antennas, intercoms, and tubes.

REALISTIC®

**IN PURCHASING THIS
REALISTIC PRODUCT,
YOU HAVE MADE
AN EXCELLENT CHOICE**

Realistic is Radio Shack's exclusive brand name for our world-famous line of audio products. You are assured of quality, because every item we carry is built to rigid specifications and stringently quality controlled. And, as further reassurance, in the event that something should go wrong, Radio Shack has repair depots right across Canada so that this, or any of our products, can be serviced quickly through any Radio Shack store. We also carry a complete line of parts for all of the products we sell. Our number of Repair Depots and our parts availability is one of the main differences between Realistic and other National Brands. This fact, along with our quality merchandise, at affordable prices, have made us one of Canada's fastest-growing retail chains.

We know that you will be well satisfied with this product. And next time you're looking for an electronic product, check through our big annual catalogue, for a wide selection of items, many of which, you just won't find anywhere else in Canada.

Radio Shack®

RS A DIVISION OF
TANDY ELECTRONICS LIMITED

SPECIFICATIONS

PRE-AMPLIFIER & AMPLIFIER

Audio Output Power at no more than 0.5% Total Harmonic Distortion into 8 ohms, over the audio spectrum 20 to 20,000 Hz.	:	10 watts (Minimum RMS Power, Both channels driven)
Frequency Response (AUX input at 1 watt)	:	15–30,000 Hz (± 2 dB)
Sensitivity (for full output) PHONO	:	2.2 mV
AUX/TAPE IN	:	160 mV
Tape Output Level	:	150 mV (3.3 mV for DIN Output)
PHONO Overload	:	100 mV
Signal-to-Noise Ratio AUX/TAPE	:	65 dB
PHONO	:	60 dB
Tone Control Action BASS	:	± 10 dB @ 100 Hz
TREBLE	:	± 10 dB @ 10,000 Hz
Frequency equalization response for SYSTEM mode	:	+ 6.5 dB @ 100 Hz

FM TUNER

Sensitivity (IHF)	:	2.2 μ V typical (2.8 μ V [14.2 dBf])
Limiting Sensitivity (-3 dB)	:	3.2 μ V
Signal-to-Noise Ratio (1 mV)	:	60 dB
Total Harmonic Distortion Mono	:	0.5%
Stereo	:	0.6%
Stereo Separation (1 kHz)	:	34 dB
Image Rejection	:	50 dB
IF Rejection	:	80 dB
Selectivity	:	45 dB
Capture Ratio	:	3 dB

AM TUNER

Terminal Sensitivity	:	10 μ V for 20 dB S/N
Radiated Sensitivity	:	200 μ V/m for 20 dB S/N
Image Rejection	:	45 dB
IF Rejection	:	32 dB
Total Harmonic Distortion	:	1.5% (5 mV/m)
A.G.C. Figure of Merit	:	45 dB
Selectivity (10 kHz)	:	28 dB
RF Interference Rejection	:	Rated excellent
Dimensions	:	3½" x 16½" x 12" 8.9 x 42 x 30 cm
Shipping Weight	:	18 lbs 11.8 oz 8.5 kg

ANTENNAS

AM : Built-in ferrite FM: Linecord, plus terminals for External Antennas

POWER REQUIREMENTS

120 V AC, 60 Hz (150 watts max.)

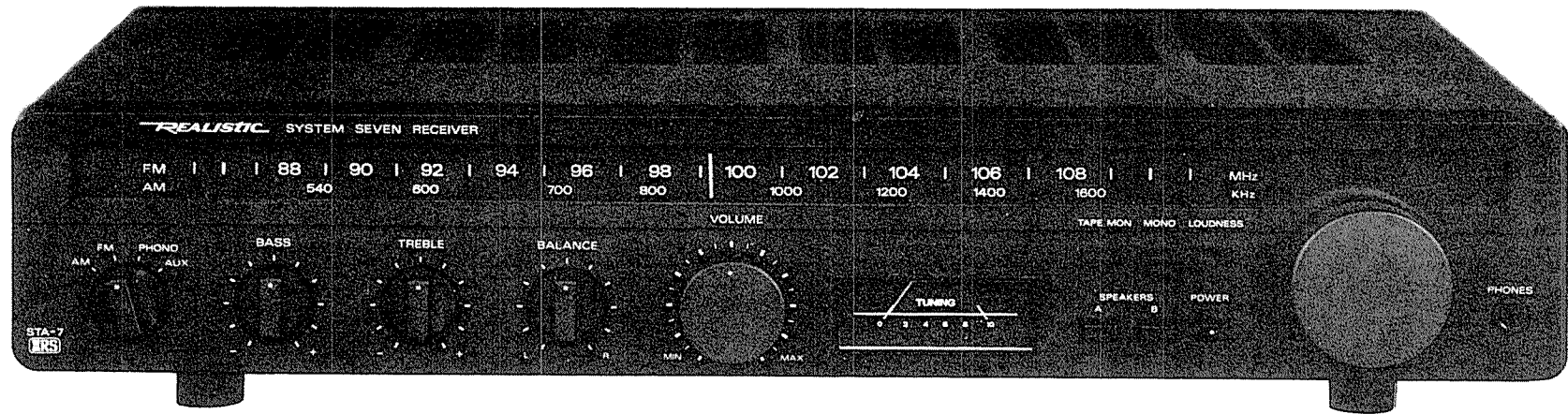
The STA-7 represents what we believe to be the finest value available in the hi-fi market today. It is the proud result of over 2 years of development, plus our many years of experience as designers, manufacturers and retailers. Careful design considerations match the STA-7 to our famous MINIMUS-7 speaker systems — electronically as well as decoratively. With special circuit equalization (SYSTEM switch on the back), the resulting sound is truly astounding — from a system so small! You hear every note from 15 to 30,000 Hz.

Compare it with systems selling for four times the price and you'll agree — *SYSTEM-SEVEN is the Greatest!*

- 10 watts of clean "honest" power will drive almost any speaker system — even two sets of speakers!
- The FM front-end section utilizes a "Field Effect Transistor". This means that your tuner has extra-high sensitivity combined with exceptionally low noise, plus unusual immunity to distortion caused by electrical interference at these high frequencies and minute signal levels. Maybe that's a little too "technical" for you — but it's all solid up-to-the-minute engineering technology.
- The FM multiplex section employs a high-technology Phase Lock Loop IC (P.L.L. IC) which assures stable stereo separation even if internal temperatures rise or drop.
- Main Power Amplifier uses a newly developed Linear Power IC which assures high-gain and low distortion.
- Power Output Stages include two overload protection circuits. These circuits assure complete protection from over-driving, thermal and speaker problems (shorting or otherwise).

NOTE: Before connecting the STA-7, please read the following instructions. They will insure your getting the most enjoyment from your new Receiver.

REALISTIC[®]



CONTROL FUNCTIONS

Selector

Chooses one of four input positions.

- AM — Activates the built-in AM tuner.
- FM — Activates the built-in FM tuner.
- PHONO — For any turntable equipped with a magnetic cartridge.
- AUX — For any high-output source — a second tuner, a crystal or ceramic phono cartridge, a second tape deck, TV, Ham radio, etc.

BASS

Controls low frequencies. At the center position, it does not affect the sound. Turn towards + to boost bass response; towards — to de-emphasize the low frequencies.

TREBLE

Controls high frequencies. At the center position, it does not affect the sound. Turn towards + to boost treble response; towards — to de-emphasize the high frequencies.

REALISTIC[®]

BALANCE

Adjusts balance of sound between left and right channels. At the center position (you'll feel a slight "catch" there) sound will be equal from both channels.

VOLUME

Adjusts volume of sound from both channels — from MIN. to MAX.

TUNING Meter

Indicates the relative strength of FM and AM signals. Tune for the highest reading.

TAPE MONitor

Push in to play tapes or to monitor a tape as it is being recorded.

MONO

When pressed in, switches the amplifier and tuner from stereo to monaural operation. In the "out" position, the amplifier operates in stereo and the FM tuner automatically switches to stereo when there is a stereo signal.

LOUDNESS

With the button in, boosts low frequencies to compensate for the ear's reduced sensitivity to bass at low volume. With button out, removes the compensation.

SPEAKERS A/B

Determines which speakers are connected. Press in to connect the appropriate Speakers. For private listening with stereo headphones, leave both buttons out.

POWER

Is another push-button. Push — it's on. With POWER on, the dial will be lighted. Push again — it's off. You'll appreciate the fact that the Power switch is not part of the Volume control; you can leave Volume at the desired setting when turning the Receiver "off". A solid feature — not a gadget!

Tuning Knob

Tunes AM and FM stations.

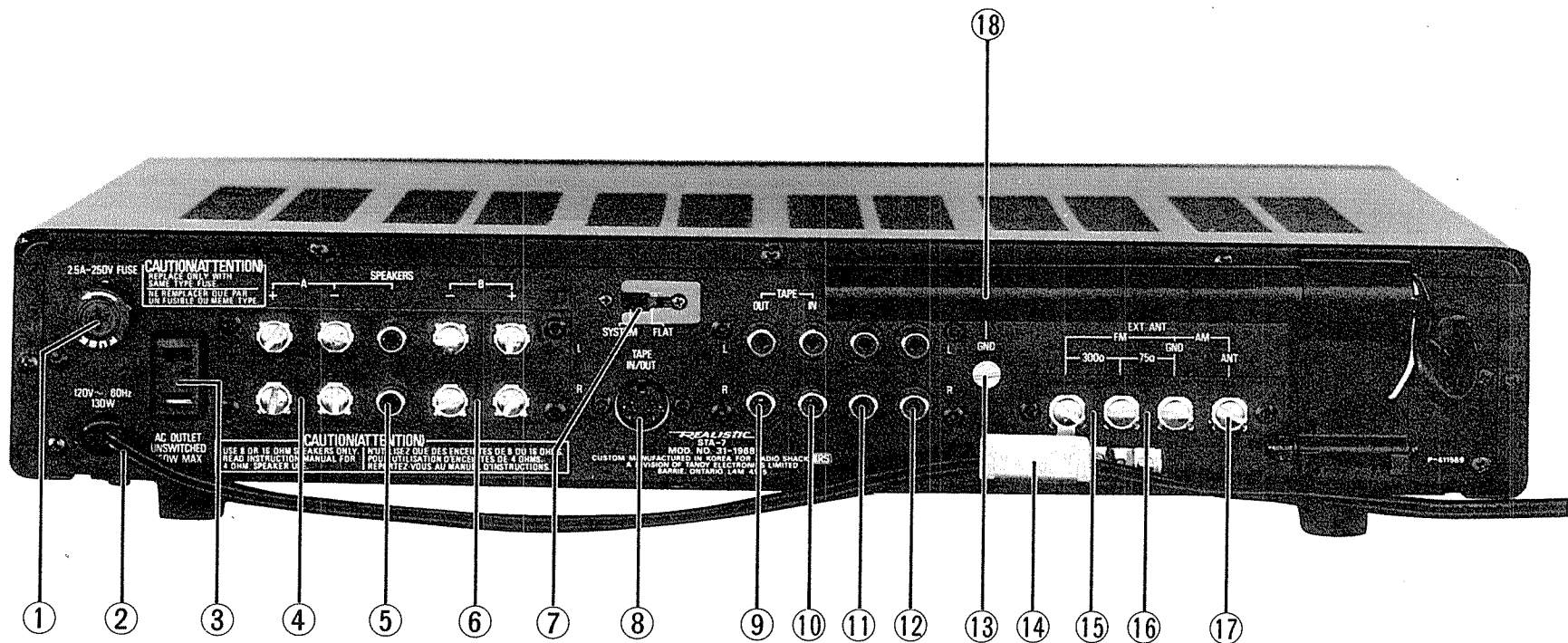
PHONES

Accepts any pair of low impedance stereo headphones. The jack is always "live".

STEREO Indicator

When the MONO button is out and you are tuned to a stereo FM signal, the word STEREO lights up.

REALISTIC[®]



REAR PANEL

① Power FUSE

Protects the Receiver from voltage surges, short circuits and other abnormal operating conditions. If the dial light does not go on when **POWER** is on, check the fuse. If it is blown, replace it with an identical size and value (2.5 A).

② AC Cord

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

③ UNSWITCHED Convenience Outlet

Powers any audio accessory up to 150 watts. The front panel **POWER** switch does not affect this receptacle.

REALISTIC[®]

④ A SPEAKERS Screw Terminals

Powers main speakers which do not have phono jack connectors.

NOTE: Use either phono jack or screw terminals for A speakers, **not both**.

⑤ A SPEAKERS Phono Jacks

Powers main speakers which have phono jack connectors.

NOTE: Use either phono jack or screw terminals for A speakers, **not both**.

⑥ B SPEAKERS Screw Terminals

Powers remote Speakers.

⑦ SYSTEM/FLAT Switch

Set to SYSTEM when you use our Minimus-7 Speakers (or when using speakers which rolls off at lower frequencies). Otherwise leave it in FLAT position.

When set to SYSTEM, the equalization of STA-7 is tailored to match the Minimus-7 impedance and frequency characteristics — resulting in full dynamic range and high-fidelity sound over the complete audio spectrum.

⑧ TAPE IN/OUT DIN Jack

If your Tape Recorder has a DIN-type socket, use a cable with DIN-type connectors and plug into the DIN-type socket on the Receiver.

NOTE: If you use the DIN connector, do not use separate connections for the TAPE OUT/TAPE IN RCA-type jacks.

⑨ TAPE OUT

Permits tape recording any source chosen by the **Selector**. The output from these jacks is unaffected by the front panel controls.

⑩ TAPE IN

Accepts output from any tape deck or recorder for tape playback. These jacks are active only when front panel **TAPE MON** switch is pressed in.

⑪ AUX

Accepts output from any high-level source — a second tape deck or tuner, a ceramic or crystal phono cartridge, etc. These jacks are active when **Selector** is set to AUX.

⑫ PHONO MAG

Accepts output from any turntable equipped with a magnetic cartridge. These jacks are active when **Selector** is set to PHONO.

⑬ PHONO GND

Accepts the green or black ground wire found on most turntables. Making this "ground" connection reduces or eliminates hum.

⑭ FM Line Cord Antenna

Connect to the 300 Ω FM screw terminal illustrated to provide FM reception in most metropolitan areas. Disconnect the line cord antenna when using an external FM antenna.

⑮ FM ANTenna 300 Ω Screw Terminals

Connect antennas using standard 300-ohm lead-in to these screws.

⑯ FM ANTenna 75 Ω Screw Terminals

Connects to antennas using 75-ohm coaxial lead-in. Coaxial cable provides extremely high resistance to static and other noise.

⑰ AM ANTenna Screw Terminal

Connect an external AM/short-wave antenna to this screw for long-distance AM reception. In most areas the built-in antenna will provide excellent reception.

⑱ Built-in adjustable ferrite AM antenna

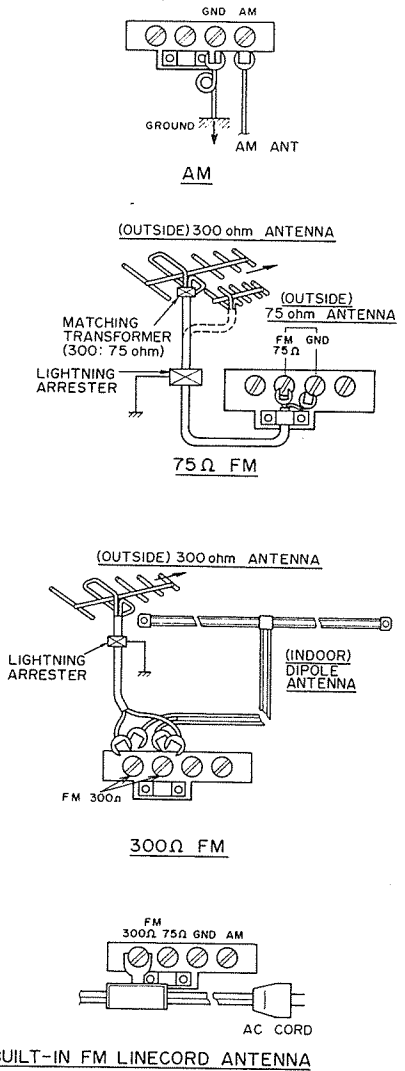
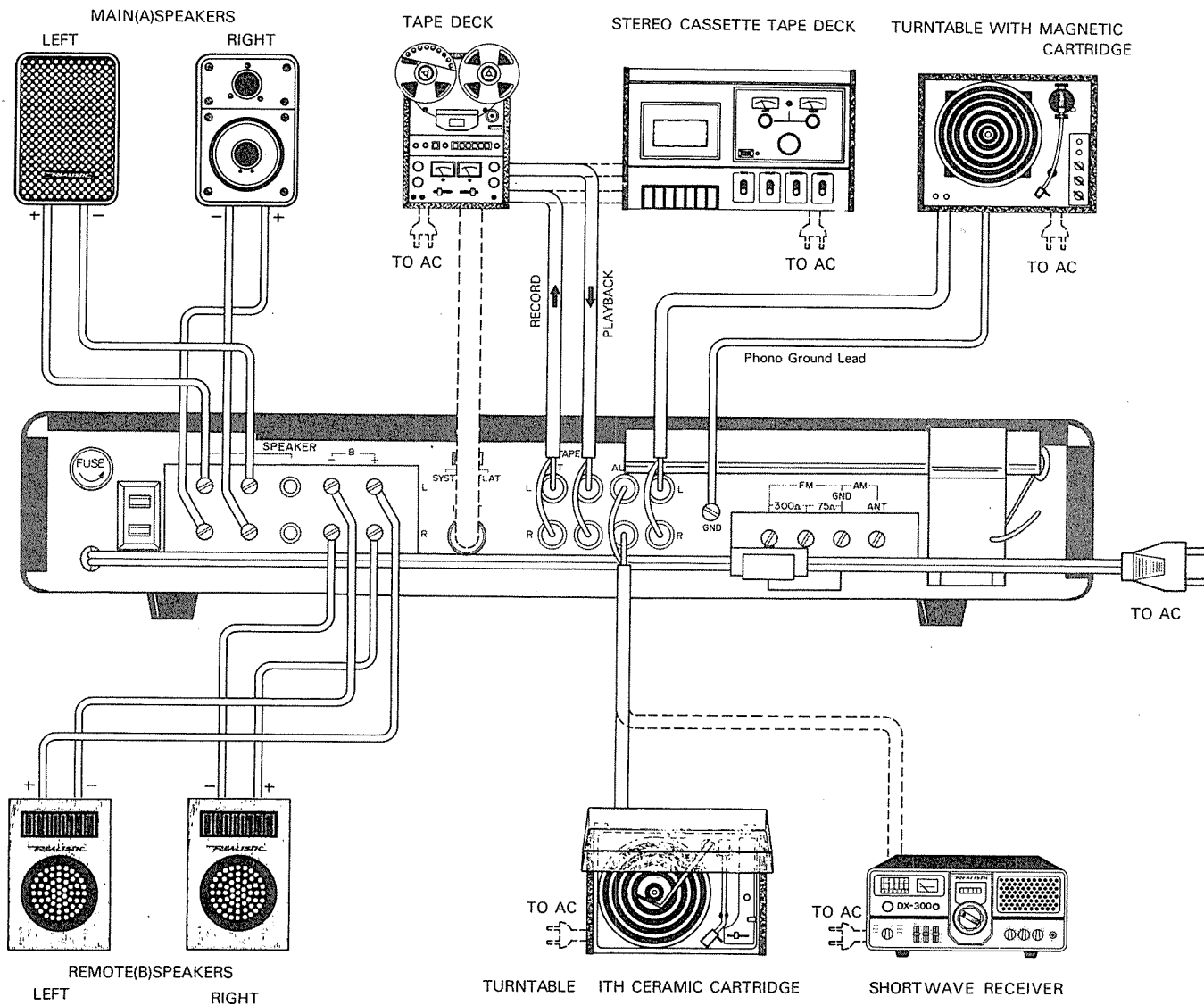
Is adequate for most areas for AM reception. Adjust for best reception.

REALISTIC[®]

A Typical System

STA-7, Turntable, 4 Speakers, Tape Decks and Extra Shortwave Receiver

ANTENNA CONNECTIONS



REALISTIC®

CONNECTIONS

BEFORE MAKING CONNECTIONS:

1. Do not plug in the Receiver's power cord.
2. Be sure **POWER** is off.

NOTE: To reduce hum, use shielded audio cables for all connections except speakers.

Speakers

To fully realize the STA-7 system's capability, we urge you to use the **MINIMUS-7 Speaker systems**. Of course you can use standard speakers or other types of compact speakers too.

The STA-7 has two sets of A (main) speaker outputs — use only one set. If your speakers have phono plug inputs, use the Receiver's phono plug **SPEAKERS** outputs and a set of unshielded speaker cables. Otherwise use the Receiver's screw terminal outputs.

For maximum bass response, be sure to observe proper phasing. Connect the + Receiver speaker output to the speaker terminal labeled A, 1 or +; and the — output to the speaker terminal labeled B, 2 or —. Most speaker wire is marked with a ridge along one conductor or has one color-coded conductor. If you use pre-assembled phono plugs, phasing will automatically be correct.

Connect B (remote) speakers following the instructions above. Be sure the speakers are phased properly.

- NOTES:**
1. The STA-7's outputs are designed for 4-16 ohm speakers. However, when more than one set of speakers is being connected, use only 8-16 ohm systems. This will prevent the amplifier from being overloaded.
 2. When using the screw terminals, be sure no stray strands of wire touch a second terminal or the chassis — a harmful short could result.
 3. Connect no more than two sets of speakers to the Receiver.
 4. Use only as much wire as necessary to connect the speakers.

If you are using 4-ohm speakers, connect only one set of speakers, or use only one set of speakers at a time. That is, don't use **A** and **B** if one set is 4 ohms. This will keep the amplifier circuitry from being overloaded. See also **Overload Protection** on page 12.

Turntable

Connect the turntable leads to the **PHONO** inputs. If the turntable has a ground wire (usually green or black), connect it to the **PHONO GND** screw. Plug the turntable's power cord into an **AC** outlet or Receiver's **UNSWITCHED** convenience outlet.

(NOTE: If the turntable has a ceramic or crystal cartridge, connect it to the **AUX** jacks.)

Tape Deck

For recording, connect the Receiver's **TAPE OUT** jacks to the recorder's Aux or Line input. For playback, connect the deck's Line or Output jacks to the Receiver's **TAPE IN** jacks.

If your tape deck has a DIN-type socket, use a cable with DIN-type connectors and plug into the DIN-type socket on the Receiver. Use either phono jacks or DIN jack, **not both**.

Antennas

Be sure the line cord FM antenna is connected to the **FM ANT 300 Ω** terminal. The built-in AM antenna requires no attention other than to swing it down and rotate it for best AM reception.

If you think you need an external antenna, see **HINTS FOR BETTER SOUND**.

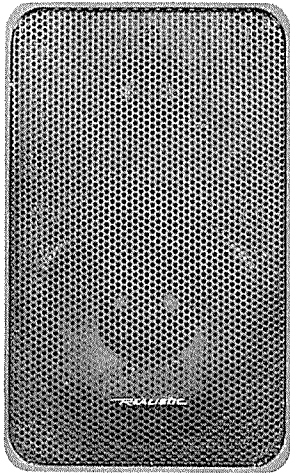
Auxiliary

Plug the output from any high level source into the **AUX** jacks. This input is ideal for a second tuner, TV audio, ceramic or crystal phono cartridges, a tape player, shortwave radio, etc.

REALISTIC®

CHOOSING THE REST OF YOUR SYSTEM

Speakers



Since the STA-7's design is specifically tailored to be used with our MINIMUS-7 speakers, we recommend that you use these. Purchase either one or two pairs.

Note: When using MINIMUS-7 speakers, be sure to place rear panel switch in SYSTEM position.

Of course, you can use a type of speaker that you desire, for the STA-7 is designed to operate as a normal (unequalized) amplifier when the rear panel switch is set to FLAT.

For remote use, there is a wide variety of speakers; some are weather-proofed for outdoor installations and others offer the convenience of a built-in volume control.

Your nearest Radio Shack has a complete selection of speakers for every application and budget.

Turntable

For convenience, most people prefer a record changer to a manual turntable. A changer will play an entire stack of records and return the tonearm to its rest at the end of the last record.

For the best sound, your turntable should be equipped with a magnetic cartridge. Cartridges equipped with conical styli (needles) are usually inexpensive and provide good sound. But a cartridge with an elliptical stylus follows the record groove more accurately, and so, produces better sound. Your Radio Shack store has a selection of changer systems which come with factory-mounted bases and cartridges.

Tape Decks

Until very recently, reel-to-reel tape decks were the only possible choice for those interested in true high-fidelity. However, recent technological advances have made 8-track and cassette recorders approach the sound quality of reel-to-reel machines.

Reel-to-reel decks are a must for those who want to edit their own tapes, and they still have marginally the best performance.

The best cassette decks, equipped with special tape bias settings and noise reduction circuitry, will out-perform many reel-to-reel decks. They have the additional advantage of compactness and convenient pop-in loading. In addition, cassettes can be used in the car as well as at home.

8-track cartridges provide slightly less fidelity than cassettes or reels but have several advantages. An 8-track recorder plays pre-recorded car tapes at home and you can save money by recording new auto tapes. In addition, an 8-track cartridge uses a continuous tape loop which can provide hours of uninterrupted music. Many 8-track playback decks are less expensive than record changers and let you use car tapes at home.

Headphones

Any system can benefit from a good pair of stereo headphones. They provide convenient private listening and many people find the heightened stereo very exciting.

Your STA-7's front-panel headphone jack will accept any low impedance stereo headphones. When shopping, wear each pair of headphones long enough to be sure they will be comfortable.

Antennas

Under most conditions your Receiver's built-in antennas should provide adequate AM and FM reception. If you have difficulty, see HINTS FOR BETTER SOUND.

REALISTIC[®]

OPERATING THE STA-7

NOTE

BEFORE PLUGGING IN THE STA-7

1. Double-check all connections — especially the speaker connections — to assure that all connections are firm and that there are no shorts.
2. Set **VOLUME** to MIN.
3. All pushbuttons should be out.

Now, plug in Receiver and push **POWER** button in to turn it on.

SPEAKERS/HEADPHONES

If you have Main speakers connected, press in **SPEAKERS A**; to activate Remote speakers, press **SPEAKERS B**. To activate both speaker pairs, press both buttons.

The **PHONES** jack permits headphone listening with any or all of the speakers. For private listening, press the **SPEAKERS** switches to "out".

Speakers and SYSTEM-FLAT Switch

When using MINIMUS-7 speakers, set the rear panel **SYSTEM-FLAT** switch to the **SYSTEM** position. This way you are taking full advantage of the special equalization circuitry built into the STA-7 for the MINIMUS-7 systems.

If you use large speaker systems, use the **FLAT** position. You can use the **SYSTEM** position with *any* speaker, but the sound results may not be suited to your taste. Speaker systems which are similar in size and quality to our MINIMUS-7 systems might give very excellent results with the **SYSTEM** position.

Neither your speakers nor the STA-7 will be damaged by using either position of this switch. However, we recommend that you do not change the switch position unless **POWER** is off.

VOLUME

Increase or decrease the **VOLUME** control setting for a pleasant listening level.

BALANCE

If necessary, adjust **BALANCE** for best stereo effect and channel balance, or to compensate for slightly off-center listening positions.

Selector

Choose the input you want by turning the **Selector** switch.

- AM — Use the Tuning knob to find the desired station. Fine-tune for the highest reading on the **TUNING** meter.
- FM — Use the Tuning knob to select the desired station. If you're tuned to a stereo FM station, the **STEREO** light will come on. Adjust Tuning for the highest reading on Meter.
- PHONO — Adjust the **VOLUME, BALANCE** and Tone controls. For the best sound and longest record life, do not track your cartridge below the recommended force. Light tracking may actually cause more distortion than heavy tracking.
- AUX — Adjust **VOLUME, BALANCE** and Tone controls. The auxiliary inputs can be used for any high-level source such as a tape player, a second tuner, TV, ceramic or crystal phono cartridge, ham radio, etc.

NOTE: If the **TAPE MON**itor button is pressed in, the **Selector** switch will have no effect on the sound.

REALISTIC®

TAPE MONitor

Press the **TAPE MONitor** button in to play tapes or (with a three-head deck) to listen to tapes immediately after they have been recorded. IF NO TAPE IS BEING PLAYED, PRESSING THIS BUTTON WILL SILENCE THE RECEIVER.

LOUDNESS

When listening at low volume, press the **LOUDNESS** button. This overcomes the ear's reduced sensitivity to bass at low volume by boosting the low frequencies. When you've got MINIMUS-7 Speakers connected, both bass and treble are boosted at low listening levels. With the SYSTEM SEVEN set-up, **LOUDNESS** is quite dramatic and effective.

MONO

Press the **MONO** button to defeat normal stereo operation. The result is a composite signal (left + right). When you listen to weak FM stereo stations, pressing the **MONO** button will reduce the hiss, but the signal will no longer be stereo.

BASS

Turn the **BASS** control toward + to boost the low frequencies or toward - to de-emphasize them. In the center position, the control has no effect on the sound.

TREBLE

Turn the **TREBLE** control toward + to boost high frequencies or toward - to de-emphasize them. In the center position, the control has no effect on the sound.

Overload Protection

Your Receiver has built-in, automatic overload protection. If an abnormal load is presented to the speaker terminals, this protective circuit will automatically limit the output current and protect your Receiver and Speakers.

In this case, output power will drop to a very low level. If this happens, turn **POWER** "off" and check all speaker connections; be sure no pieces of wire are touching between speaker terminals and be sure you don't have 4 ohm speakers connected for both **MAIN** and **REMOTE**.

Also, read "Thermal Protection" in the next paragraph.

Thermal Protection

Your Receiver also has built-in thermal overload protection. This means it can not become abnormally hot and damage some portion of the circuitry. If internal temperatures do rise abnormally, the Receiver will automatically silence itself. If this happens, check to be sure you have not placed something over the ventilation holes - if you have, remove it. If you are using speakers with excessively low impedance, the amplifier circuit may be over-driven and thus producing excessive heat. This can be caused by using 4 ohm speakers on both **Main (A)** and **Remote (B)** speakers - if you use both pairs of speakers, be sure to use either 8 or 16 ohm types.

REALISTIC[®]

HINTS FOR BETTER SOUND

Positioning Your Speakers

Where you put your speakers does make a difference in how the system will sound, so before settling on a final arrangement, try several alternatives.

Since the SYSTEM SEVEN is so compact, the typical location will be on a shelf, book case or table. If you place the system on a shelf, try positioning the speakers towards the front, in the center or near the back of the shelf. Or, the MINIMUS-7 can be mounted right on a wall (a bracket is provided for this purpose).

Each position will affect the bass response of the system. Use the location which gives the most pleasing sound. Positioning the speakers in front of a hard wall vs a "soft" wall (covered with curtains or cork background, etc.) will also have a great effect on the sound.

If you install the speakers on a shelf in an enclosed bookcase, it is better to position them close to the forward edge of the shelf. If the shelf has an open back and is not near a wall surface, location won't be quite as important.

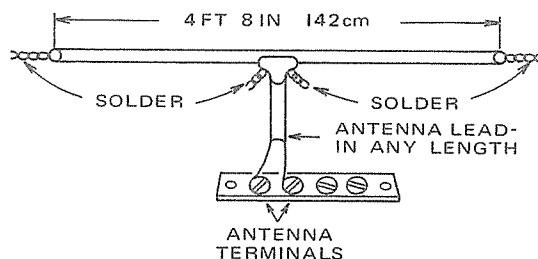
Separation of the speakers should be 6 to 8 feet 1.8–2.4 m apart for best stereo effect. Putting them too close together reduces the stereo effect, while placing them too far apart may reduce bass response and will create a "hole in the middle" sound.

For larger speakers (or speakers other than the MINIMUS-7) try different locations — on the floor, near a hard wall, in or near a corner — or even try raising them 4–12 inches 10–30 cm off the floor.

ANTENNAS

Under most conditions your STA-7's built-in antennas should be adequate for AM and FM reception. If you are not satisfied with the reception, try one of the arrangements listed below.

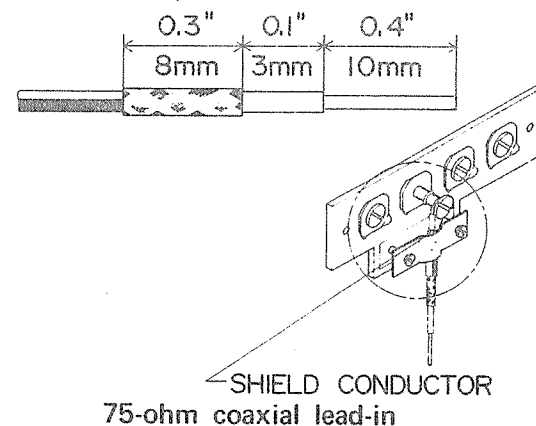
For FM, build the low-cost folded dipole (illustrated); or buy one ready-made from Radio Shack (42-2385). Just splice regular 300-ohm lead-in wire as shown. Apply a small amount of solder and heat the twisted ends until solder flows evenly over each strand of wire. Attach the lead-in to the 300 Ω terminals on the back of the Receiver. The antenna itself can be tacked to the back of a record cabinet or onto a wall — the higher the better.



A set of VHF-TV rabbit ears or ones made specially for FM reception work well in suburban areas. Some deluxe models feature electronic "tuning" for better directionality. Connect such antennas to the 300 Ω terminals.

An outside VHF-TV antenna provides excellent FM reception. An inexpensive "splitter" permits you to connect a TV set and your Receiver to the same antenna. In fringe areas, a special outdoor FM antenna may be the only solution. Such antennas can pick up stations up to 175 miles 280 km away over flat terrain. If you use 300-ohm lead-in, connect it to the 300 Ω terminals and if you use 75-ohm lead-in, connect it to the 75 Ω terminals. (Attach the braided ground wire of 75 ohm lead-in to the terminal common to the 75 Ω and 300 Ω antenna terminals or connect the braid under the clamp as illustrated.)

For AM, a long piece of wire hung outdoors between two insulators can greatly improve long-distance AM reception.

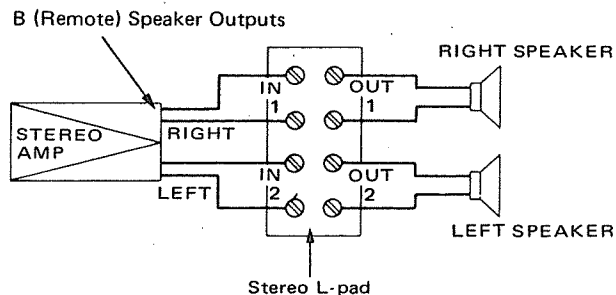


NOTE: To protect your Receiver, use a lightning arrester on any outdoor antenna.

REALISTIC[®]

Connecting an L-Pad

In some cases you may want to vary the volume of the remote speakers separately. This can be done very simply and inexpensively with a stereo L-pad, such as Radio Shack Catalog Number 40-979.



Notes on Tape Recorder Care

A clean, demagnetized recorder will give its best performance for many years, while a dirty recorder can mangle or ruin pre-recorded tapes in a very short time. An inexpensive demagnetizer (de-gausser) removes residual magnetism from the tape heads. This will insure the lowest possible hiss and distortion and the best possible high frequency response. Always clean and demagnetize your recorder before making critical recordings. Under normal conditions you should demagnetize your recorder after every 10–15 hours of play. With normal use you should clean the heads and metal tape guides once or twice a month with a special solvent such as Realistic Recorder Cleaner (catalog number 44-1010). Moisten a clean cotton

swab with fluid and rub the heads with short circular movements. Then clean oxide deposits from all metal tape guides. There are also a number of cloth cleaning tapes which can be played like a tape for fast, easy cleaning.

You can even use your demagnetizer to help remove oxide particles trapped deep in the head gaps. Place a cleaner moistened cotton swab over the gap and bring the demagnetizer into contact with it. Move the swab and demagnetizer in short, circular sweeps. Gradually withdraw the demagnetizer and remove the dirty swab.

Yearly preventive maintenance by an authorized technician reduces the possibility of expensive major breakdown and will keep your recorder in peak operating condition.

CARING FOR YOUR STA-7

Clean the cabinet with a slightly damp soft cloth. Treat the front panel with care — so you don't scratch it. A window cleaning liquid works well (a small amount on a soft cloth).

Ventilation — can be important. We merely recommend that you don't place the STA-7 on a surface which would block air circulation — air must be able to circulate freely around the back, under and over the top of the case. Avoid placing on a shag rug, etc. which would block such circulation.

If You Have Problems

We hope you don't; but if you do, here are some suggestions:

1. Check all your cable connections. Make sure all the leads and plugs are secure **at both ends**.
2. Try a different AC outlet if you don't get any indication of power (and be sure you've got the line cord plugged in!).

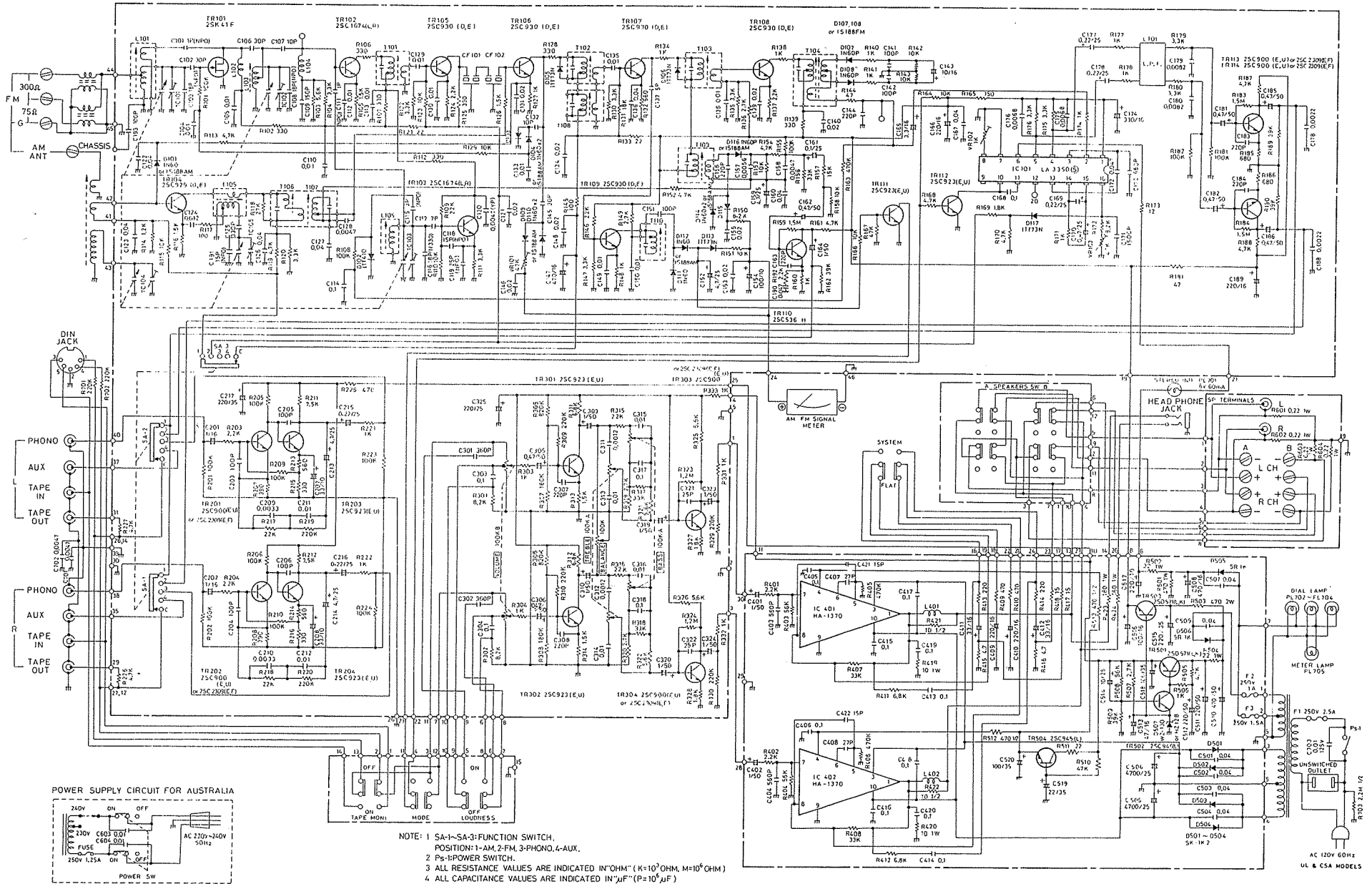
3. Try interchanging cables and connections on the rear panel — sometimes this will give you a hint of where the problem lies — and may solve the problem for you.
4. If the dial scale lights are on and Meter works — but you have no sound — make sure you don't have **TAPE MON** pressed in! If that is not the case — maybe the automatic thermal protection circuit has been activated. In such a case, turn off **POWER** and check your speaker connections.
 - A. Make sure there is no short across the speaker screw terminals (stray strand of wire touching between terminals or to the metal chassis).
 - B. If you are using more than one pair of speakers, they must be 8 or 16 ohm type (two pairs of 4 ohm speakers can overload the amplifier circuit and cause this circuit to activate).

- C. Let the Receiver cool down for a few minutes and then turn **POWER** back on.
5. If output from the Receiver drops to a low level and sound is slightly distorted, it may be that the automatic current limiting protection circuit is acting to protect the Receiver and/or speakers. Turn off **POWER** and check A and B under 4 above. When you are sure everything is OK, turn **POWER** on again.
 6. If the dial lights don't come on, the fuse may be blown. Check it; replace only with a 2.5 Amp type.

If any case, if none of the above does the job and you still have a problem — help is as close as your local Radio Shack store. Bring your unit in and be ready to describe the symptoms — we will get you back into good stereo sound ASAP!

REALISTIC[®]

SCHEMATIC DIAGRAM



The MINIMUS-7.....RADIO SHACK's Little Giant of a Speaker

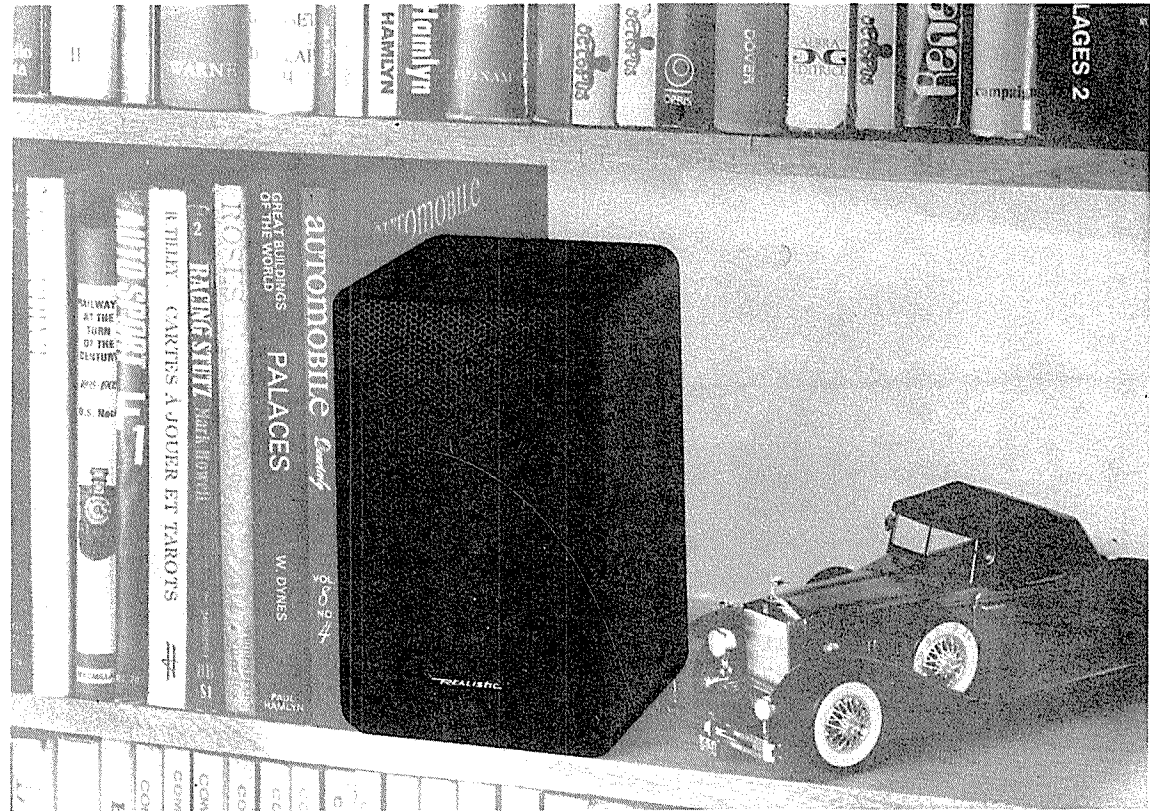
The MINIMUS-7 is little only in size — not in sound performance!

It's a real giant in concert-hall sound.

The high-compliance woofer element gives astounding bass and the dome tweeter produces crisp, clean highs. Careful acoustic design matches the two dynamic elements with the cast aluminum enclosure and damping materials . . . resulting in amazingly smooth, broad frequency response.

The "MINI-7" now teams up with the STA-7 to create a new concept in expensive sound that doesn't cost a lot!

Radio Shack's new SYSTEM SEVEN.



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