
OWNER'S MANUAL


PLEASE READ BEFORE OPERATING THIS EQUIPMENT

TM-1001

SOLID STATE am/fm stereo tuner

CATALOG NO.31-1961



CUSTOM MANUFACTURED FOR RADIO SHACK  A DIVISION OF TANDY CORPORATION

REALISTIC[®]

REALISTIC®

THE BRAND WITH OVER 10,000,000 CUSTOMERS

In choosing this fine Realistic product you have demonstrated a rather acute awareness of the good old American custom called "getting the most for your money". With Realistic this is not an idle boast.

The "line" was born in Boston, long famous for Yankee ingenuity—and thrift. Its original intent was to bridge a gap between \$100 equipment and \$25 equipment where, at the time, there was a real void in hi-fi merchandise.

Early products were a \$39.95 FM tuner, a \$29.95 preamp/amplifier, a \$19.95 speaker. Soon we found ourselves a unique niche as manufacturing retailers.

Capacity and ability grew simultaneously. Soon Realistic hi-fi products—loudspeakers, receivers, tape decks, even table radios—began receiving critical acclaim for faultless performance as well as value. Dealers and franchises from all over the world began requesting a Realistic franchise.

Today you can shop The Nationwide Supermarket of Sound with the confidence that you're getting the widest selection of quality hi-fi equipment available anywhere—whether you're looking at budget-priced extension speakers or true audiophile amplifiers, tuners and receivers.

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

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

Your new REALISTIC TM-1001 is a solid-state high-sensitivity AM-FM Stereo Tuner, with unique features and modern styling. It has the solid look and feel of high-quality professional equipment. Normally, you'd expect to have to pay far more for this kind of stereo component—but that's what Radio Shack's all about—giving you more for your money. And, you even get a luxuriously finished real wood cabinet—at no extra cost!

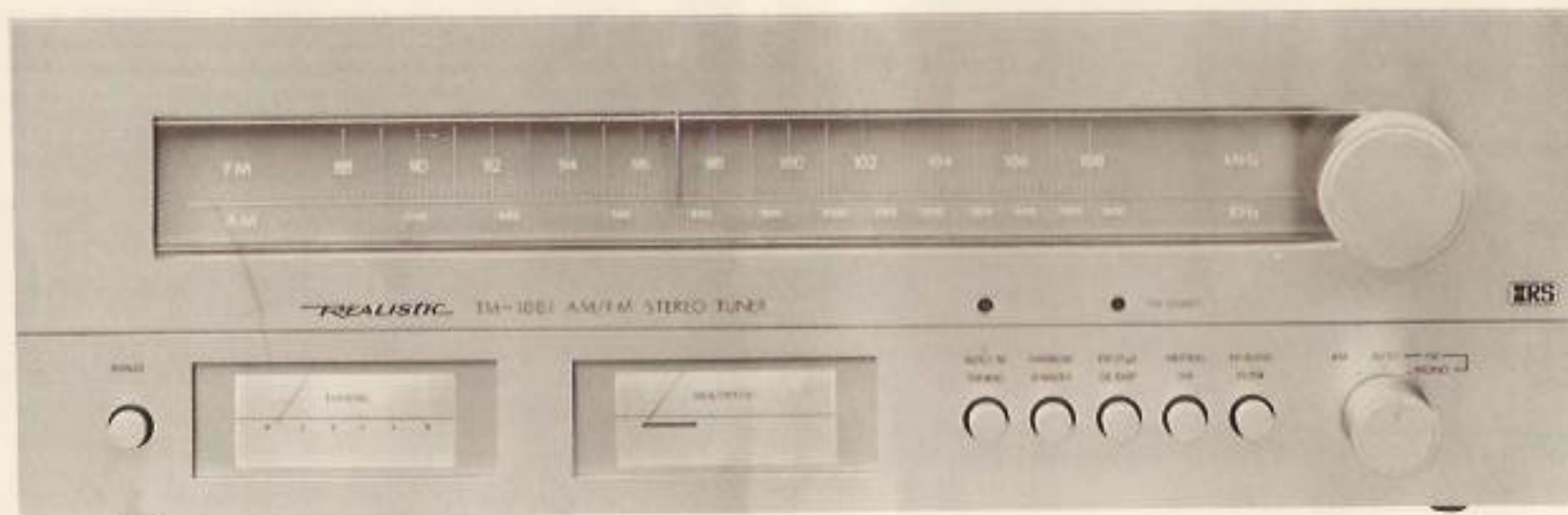
The four-gang FM front-end section utilizes a state-of-the-art device, called a "dual-gate Metal-Oxide-Semiconductor Field Effect Transistor". Engineers shorten this mouthful to MOSFET (or IGFET for "insulated gate" FET). What it means to you is that your Tuner has extra-high sensitivity, combined with exceptionally low noise and an 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 AM circuitry is specifically designed for wide-band-width response. This means that you get the maximum sound fidelity of which AM broadcast technology is capable.

- Switchable 25 μ s FM de-emphasis lets you decode Dolby® FM broadcasts through standard Dolby NR equipment.
- FM Multiplex circuit is a Phase Lock Loop IC (PLL-IC) which provides rock-stable stereo separation even with temperature changes.
- Selectable FM-IF bandwidth—narrow or wide—to let you optimize either high-frequency response or selectivity, depending on signal conditions.
- High Blend Multiplex filter switch lets you reduce high-frequency noise on FM stereo broadcasts.
- Multipath Meter indicates whether reflected-wave interference is present in an FM signal.
- Our exclusive Auto-Magic® dramatically simplifies FM tuning. When you touch the tuning knob, it lets you dial stations easily. Then as you release the knob, Auto-Magic fine-tunes the station and locks it in for drift-free listening.

The TM-1001 is an ideal match for either of our superb stereo amplifiers, SA-2001 or SA-1001. In performance and styling, either of these units will help you enjoy the full capabilities of your new Tuner.

REALISTIC®



CONTROL FUNCTIONS

POWER

Turns the tuner on when pushed in—off when pushed a second time.

TUNING METER

Shows the strength of the signal you are tuned to. Always adjust Tuning for maximum reading on this meter.

MULTIPATH METER

Shows the interference of multipath waves reflected by buildings, mountains, etc.) in FM reception (see illustration on facing page). Adjust antenna direction for minimum reading on this meter with TUNING meter at maximum reading.

AUTO-Magic TUNING

When pressed in, special circuitry simplifies FM tuning. With the button out, FM tuning is manual.

AUTO-Magic Indicator

In AUTO-Magic mode, the green LED will light up. While you touch the Tuning knob, the light will go out.

REALISTIC[®]

NARROW B/WIDTH

When pressed in, switches the FM IF circuitry to narrow bandwidth and selectivity will be improved.

FM 25 μ S DE-EMP

Switches in a special 25 μ S de-emphasis to let you decode Dolby FM broadcasts (you must also have a Dolby NR component or tape deck with Dolby NR). For normal, non-Dolby FM (or if you do not have a Dolby processor) leave this button in "out" position.

MUTING FM

When pushed in, activates the built-in FM muting circuit and eliminates interstation hiss.

HI BLEND FILTER

In FM Stereo reception, minimizes hiss of high-frequency noise when pressed in. However, stereo separation at high-frequencies will be reduced.

Selector

Chooses one of three functions.

AM – Activates the built-in AM tuner.

FM AUTO – Activates the built-in FM tuner: when you tune to a station broadcasting in stereo, the red FM STEREO Indicator LED will light up (for monaural FM and AM, the red LED does not light). If you are listening to a weak Stereo signal and the sound flutters, or separation is intermittent, switch to FM MONO (you will not have stereo, but the noise will probably stop).

FM MONO – Use this position to receive monaural FM radio signals.

FM STEREO INDICATOR – This bright red LED lights up when the Selector switch is set to FM AUTO and you are tuned to a stereo FM signal.

Tuning Knob

Adjust for the desired station as indicated on the tuning dial. Adjust for maximum reading on the TUNING meter.

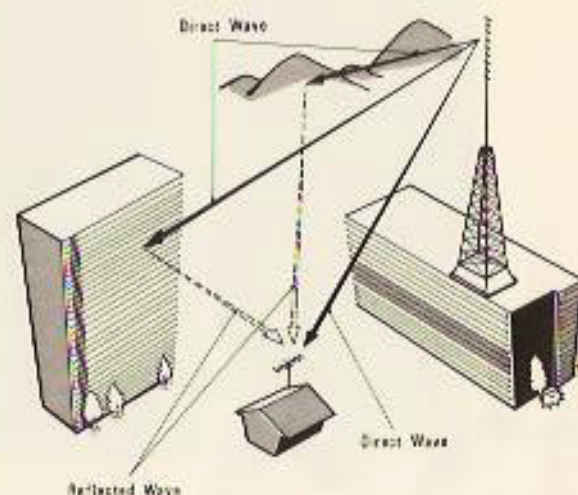


Illustration of Multipath Wave

REALISTIC®



REAR PANEL

Line Cord—plug into a source of 120 volts, 60 Hz AC power (220/240 volts 50 Hz AC power where the sets are so marked on the rear for European and Australian models).

Fuse—this provides protection from internal electrical shorts and excessive line voltage surges.

NOTE: If the dial lights fail to come on when **POWER** is pressed, check the line cord and this fuse. If the fuse is blown, replace only with a 0.5 ampere fuse of the same size.

R-L-OUTPUT Jacks—these are the output jacks for the Tuner. Connect these jacks to the Tuner input or Aux input of a stereo Amplifier/Receiver. Be sure to connect R (for Right channel) to R and L (for Left channel) to L jacks.

LEVEL Control—this controls the output level from your Tuner. Adjust to match the input requirements of your stereo Amplifier/Receiver.

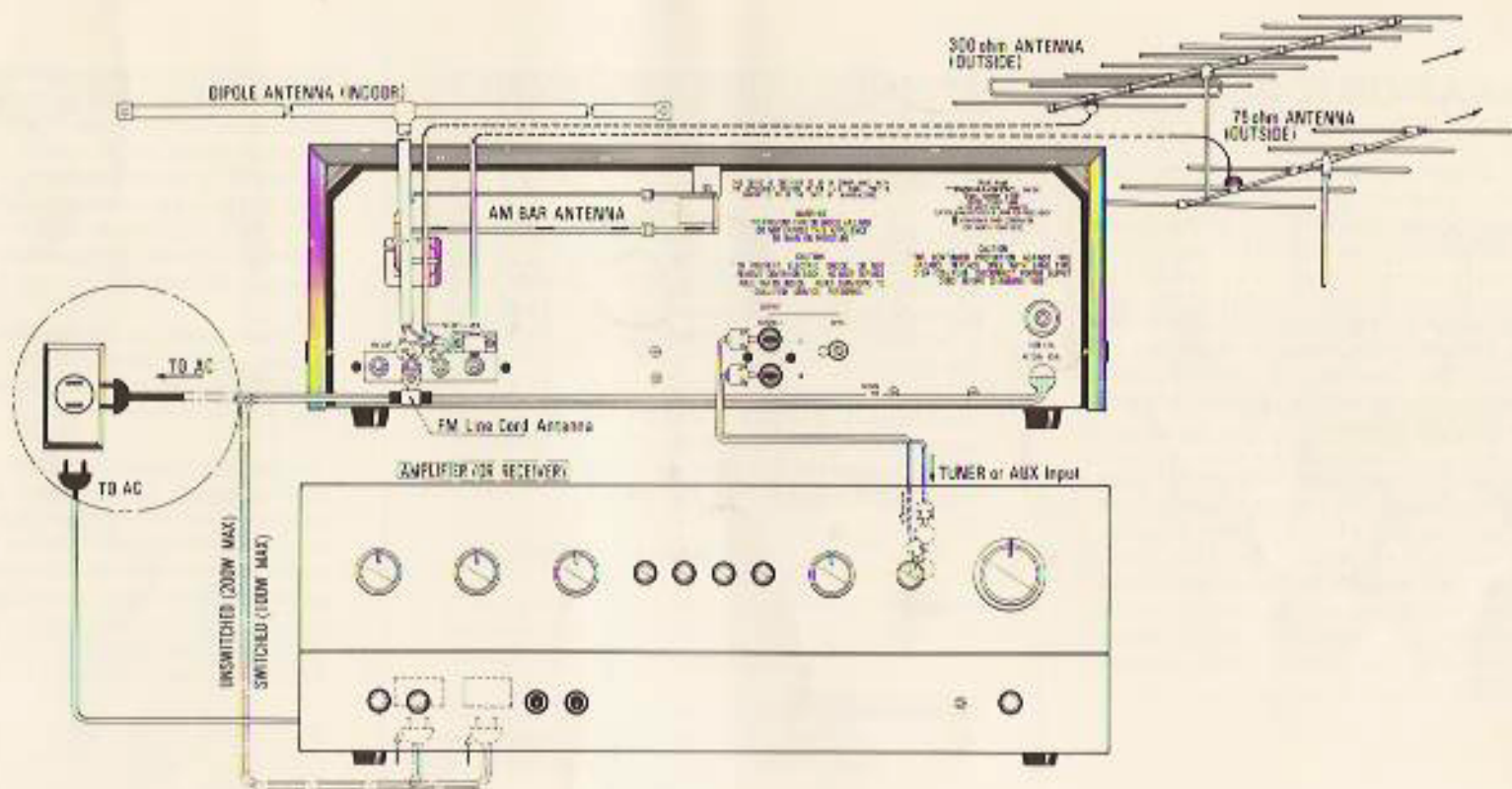
Antenna Screw Terminals

Your Tuner comes with internal antennas for both AM and FM. However, we have made provisions for external antenna connections via these screws.

As delivered, your Tuner has the FM Line Cord Antenna connected as shown. For superior FM reception, you can disconnect this antenna and connect either a 300-ohm or 75-ohm type. See Antennas section later on.

For most needs, the internal AM antenna will be adequate. If you want the optimum reception of even very distant AM stations, connect an external antenna to the AM ANT screw.

REALISTIC®



INSTALLATION

Installing your tuner is very simple. Use shielded audio cables provided and connect the R and L OUTPUT jacks on the back to Tuner or Aux input jacks on a stereo Amplifier/Receiver.

NOTE: If you are using this Tuner with an Amplifier/Receiver which has a "switched" AC outlet on the back (such as the Realistic SA-1001), plug the Tuner's line cord into this AC outlet and use the Amplifier/Receiver's power switch to turn your Tuner on and off. This way you can leave the Tuner's a POWER switch on all the time and pre-set Tuning for either AM or FM.

Location is no problem—place it where most convenient and where you can make cable connections. Avoid areas of high dust concentrations and don't place it directly in the path of a hot air or air conditioning vent.

After you have made the connection of Output cables and Antennas, adjust the rear panel LEVEL control as follows: Set Amplifier/Receiver to operate from another source (phono, tape or other input); adjust volume for normal listening level. Now, switch the Amplifier/Receiver to listen to the TM-1001 and adjust the LEVEL control on

the rear of TM-1001 to obtain the same speaker or headphone output level as before. Switch back and forth between tuner and other source and adjust LEVEL until the levels match.

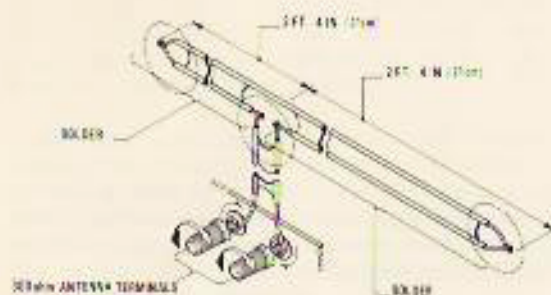
REALISTIC®

INSTALLATION (CONT.)

ANTENNAS

In most metropolitan areas you will find the built-in antennas will provide adequate reception of both AM and FM. However, we have provided screw terminals for connecting external/outside antennas for superior reception.

As supplied, your Tuner comes with an FM Line Cord Antenna connected to one of the screws on the back. If you are going to use another antenna, loosen the screw and release the Line Cord Antenna. You can build a simple folded-dipole antenna illustrated below and connect it to the 300Ω terminals. An assembled folded-dipole antenna is available from Radio Shack, Catalog Number 42-2385.

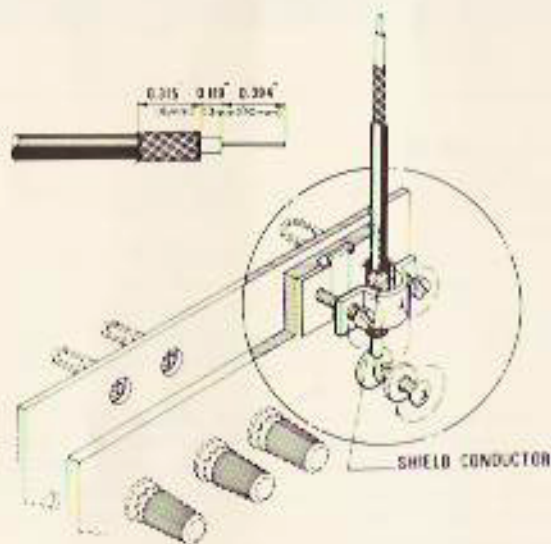


FM DIPOLE ANTENNA

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 300Ω terminals.

An outside TV antenna will provide excellent FM reception. Use an inexpensive "splitter" and you can make connections for both TV and FM from the same antenna. See your Radio Shack store for a "splitter". Connect directly to the 300Ω terminals.

For the very best FM reception, use an outdoor antenna designed specifically for FM reception. Such an antenna can pick up stations up to 175 miles (280 km) away over flat terrain.



75-ohm coaxial lead-in

Many modern homes and apartments have built-in 75Ω TV/FM antenna systems and outlets. Most new color TV sets use 75Ω lead-in cable; thus many antennas are set up for 75Ω. In these cases, make FM antenna connections to the 75Ω terminals. (Attach the braided ground wire of 75Ω lead-in to the terminal common to the 75Ω and 300Ω antenna terminals or connect the braid under the clamp as illustrated.)

You may want to use the MULTIPATH Meter to adjust your external antenna position for minimum multipath interference when tuned to your favorite FM station.

The built-in loopstick antenna provides excellent AM reception. If you want even better AM reception, install an outdoor antenna [50 feet (16 m) or more]. Mount the antenna high above ground, away from surrounding buildings and away from power lines. Connect a wire between the antenna and the AM antenna screw. Or, use one of the AM/Short wave Antenna kits available at your local Radio Shack store (Catalog Number 278-758).

Your local Radio Shack store has a complete selection of antennas and antenna accessories. Your Radio Shack salesperson knows about reception problems in your area, see him for expert advice.

NOTE: To protect your Tuner, use a lightning arrestor on every outdoor antenna.

REALISTIC®

OPERATION

After you have made connections as noted earlier, operation is very simple.

Press **POWER** to turn the Tuner on. The dial scale and meters will light up.

To Listen to FM

Set the Selector switch to **FM AUTO** or **FM MONO** and adjust Tuning for the desired station. Tune for a maximum reading on the **TUNING** meter.

To listen to Stereo FM, the Selector switch must be in **FM AUTO** position. Now, as you tune, when you come to a station which is broadcasting in Stereo, the red **FM STEREO** LED will light up.

If you are listening to a weak stereo FM signal, the stereo separation may be very poor, or the signal may be noisy. In this case, the signal is just too weak for good stereo; press the **HI-BLEND FILTER** in or turn the Selector switch to **FM MONO**—the signal will no longer be stereo, but it should be less noisy.

If you want monaural reception from a stereo FM signal or for monaural FM stations, use **FM MONO** position.

For automatic, locked-in fine tuning, press **AUTO-M TUNING** button in. Now, when you touch Tuning knob, the green **AUTO-M** Indicator LED will go out. Tune in a station and release Tuning; the Auto-Magic circuit will electronically fine-tune the station and lock it in (no chance of drifting off-station). Notice that as you release tuning, the **AUTO-M** LED will light up.

If you want normal FM tuning, press **AUTO-M** again to release the Auto-Magic circuitry.

Tuning Manually

If you are trying to listen to a weak station located between two very strong stations, it may be necessary to tune manually.

With **AUTO-M** button out, adjust Tuning until you find the station you want. Now fine-tune for the highest reading of the **TUNING** meter.

NARROW Band/WIDTH

If you are listening to a weak FM station located near a strong-signal station (for example, adjacent channels on the FM band), you may wish to push in the **NARROW Band/WIDTH** button. This will increase the Tuner's selectivity and reduce interference from the adjacent channel. For normal signal conditions where adjacent channel interference is not a problem, leave button out: high-frequency response is better in this position.

FM 25 μ S

For normal FM listening, leave **FM 25 μ S DE-EMP** button out. If you want to record a signal being broadcast by an FM station using Dolby NR, press this button in. Then, when you play back the tape, you must use a Dolby Decoder (that is, record with a Dolby-type tape recorder, but with Dolby "off") then play back with the Tape Deck's Dolby circuitry "on". If you press the **FM 25 μ S DE-EMP** button in when listening to a Dolby FM signal, its sound will be excessively "bright" (too much high-frequency emphasis). If you have a Dolby NR Decoder, you can connect it to your Amplifier/Receiver's **TAPE IN/TAPE OUT** jacks and set Tape Monitor switch to **TAPE**. Then when an FM station is broadcasting a Dolby FM signal, you will enjoy the following advantages:

- Improved signal-to-noise ratio
- Full program dynamic range, even at high frequencies
- Improved reception in weak-signal areas

REALISTIC[®]

MUTING FM

To eliminate noise between stations as you are tuning, press **MUTING FM**. You will now hear only the station signal as you tune to the center of the signal.

NOTE: To receive weak or distant stations, do not use **MUTING FM** (press again to release Muting function).

HI-BLEND FILTER

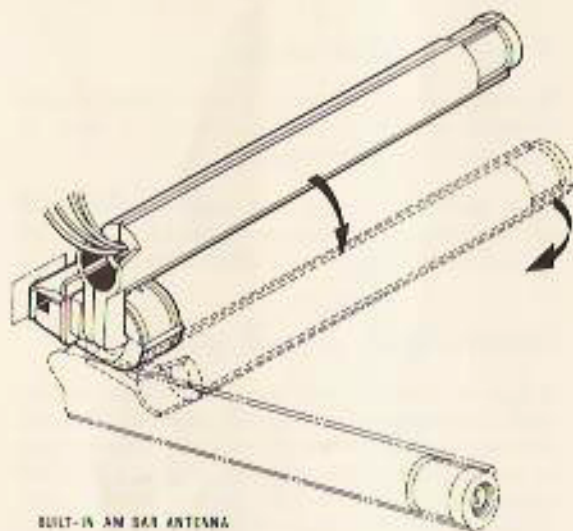
If you are listening to a weak or noisy FM stereo signal, press **HI-BLEND FILTER** button in; then the stereo signal should be less noisy. However high-frequency stereo separation will be reduced.

To listen to AM

Set the Selector switch to AM and adjust for maximum reading on TUNING Meter. With different stations you will obtain different Meter readings—the stronger the signal, the greater the meter reading.

- NOTE:**
1. Push-buttons and MULTIPATH meter do not function for AM.
 2. Swing the built-in AM bar antenna down horizontally and move around for best AM reception.

To turn the Tuner off, press **POWER** once again.



BUILT-IN AM BAR ANTENNA

MAINTENANCE

The wood cabinet should be polished periodically with lemon oil. You can use furniture wax, but it may tend to build up and result in a dull finish. Clean the front panel only with a soft, damp cloth (do not use solvents).

Since only the highest quality parts are used throughout, and they are all conservatively rated, your Tuner probably will never require service or repair. If it ever does, just bring it to your local Radio Shack store.

REALISTIC[®]

SPEAKERS — FOR THE MUSIC MINDED

OPTIMUS® SERIES

For years Radio Shack has been known for its line of speakers. Back in the days when speakers often were priced higher than a good receiver—Radio Shack brought out the Optimus line which proved a speaker didn't have to be expensive to sound expensive.

And today, we are *THE* place to go for speakers. Whether you are looking for a real-wood piece of furniture that sounds good or just a small bookshelf-type. Everything from our big sound Mach One to our sophisticated Optimus Tower to our handsome Minimus-5.

MACH™ SERIES

MINIMUS-7

NOVA®
SERIES



MINIMUS® SERIES

REALISTIC®

AUSTRALIA


280-316 VICTORIA ROAD
RYDALMERE N.S.W. 2118

BELGIUM

PARC INDUSTRIEL DE NANINNE
5140 NANINNE

U.K.

BILSTON ROAD, WEDNESBURY
WEST MIDLANDS WS10 3JN

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