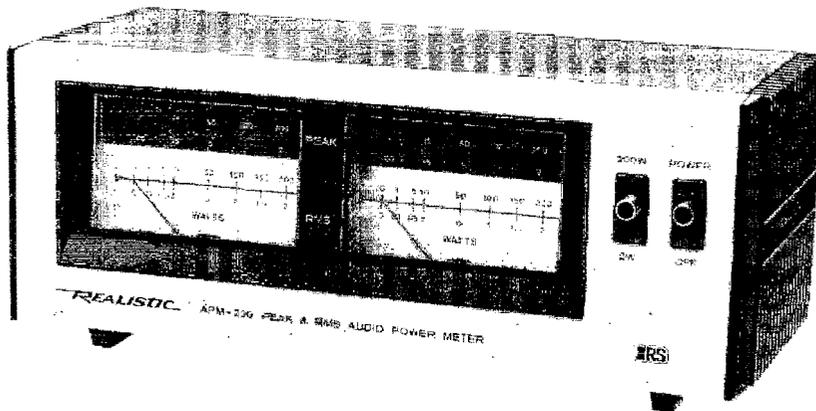


REALISTIC[®]

MODEL APM-200

AUDIO POWER METER

INSTRUCTION MANUAL

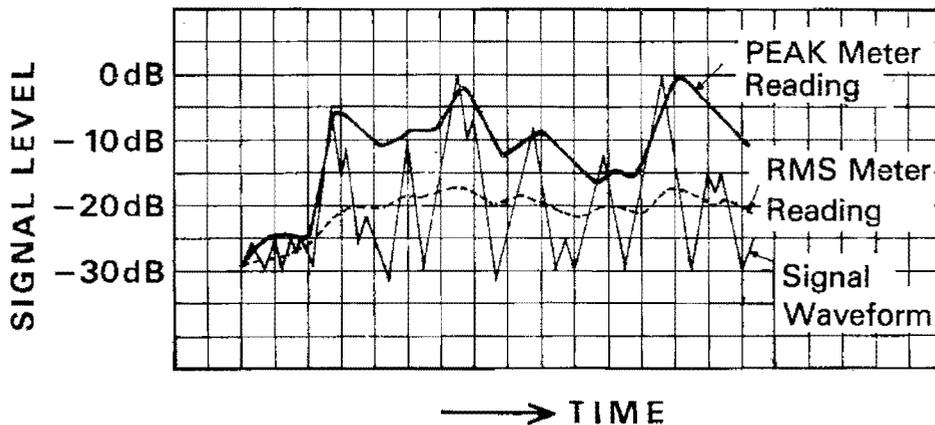


Catalog Number: 42-2102

CUSTOM MANUFACTURED FOR RADIO SHACK  A DIVISION OF TANDY CORPORATION

The APM-200 Audio Power Meter is designed to give you BOTH peak and average indications of the **real** output power of your stereo system — under actual operating conditions. The little row of red lights (LEDS) on the APM-200 will track short bursts of music energy that occur too quickly for a conventional meter to follow. The RMS (or averaging) meters keep track of the rest of the music. This dual system assures you of the highest possible fidelity, with the lowest possible distortion, and at optimum (or desired) sound power levels.

The Graph below will help you understand the readings that PEAK and RMS Meters provide, as compared with the signal.



RADIO SHACK LIMITED WARRANTY

This equipment is warranted against defects for 90 days 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

SPECIFICATIONS

RANGE	0 to 2 or 0 to 200 Watts (2 Ranges)
LED INDICATION	RMS scales of the Peak values 0 — 0.05 — 0.15 — 0.5 — 1 — 2 Watts 0 — 5 — 15 — 50 — 200 Watts
METER INDICATIONS	RMS scales of the Average values 0 — 0.01 — 0.05 — 0.1 — 0.5 — 1 — 1.5 — 2 Watts 0 — 1 — 5 — 10 — 50 — 100 — 150 — 200 Watts
FREQUENCY RESPONSE	30 Hz to 20,000 Hz \pm 1 dB
INPUT	Stereo, 4 or 8 ohms impedance
ACCURACY	RMS Meter accuracy for reading specified: \pm 0.5 dB at 0.5/50 Watts \pm 1.5 dB at 2/200 Watts LED accuracy for reading specified: \pm 1 dB at 0.5/50 Watts \pm 1.5 dB at 2/200 Watts

LED PEAK Indicators

The LED PEAK Indicators can respond *10 Times faster* than a conventional meter. Because music is made up of many different instruments, all playing at once, the final sound can be very complex. Some instruments let their sound out slowly, while others just explode (a cymbal, for example). They release a lot of energy in a short time. These bursts (or peaks) cause most of the speaker blow-out problems in high powered systems, as well as producing clipping distortion. Only the LED PEAK Indicating Meters can follow these short peaks, so that you can avoid dangerous levels.

RMS Meters

The RMS Meters indicate how hard your amplifier is working **over a period of time**. You can see the actual average power being used. You might be surprised to find out how loud a sound is, with just a small fraction of the total amplifier power being used. (As a rule of thumb, peaks, and very low notes require the most amplifier power.)

You can also use the RMS Meters to balance your stereo system. Set your stereo system to the "mono" mode, then adjust the various balance, level and tone controls to obtain equal readings on both meters.

Power Selector

The APM-200 has two power ranges: from 0 to 2 watts and 0 to 200 watts. The 2-position switch on the right of the Meters selects the power range.

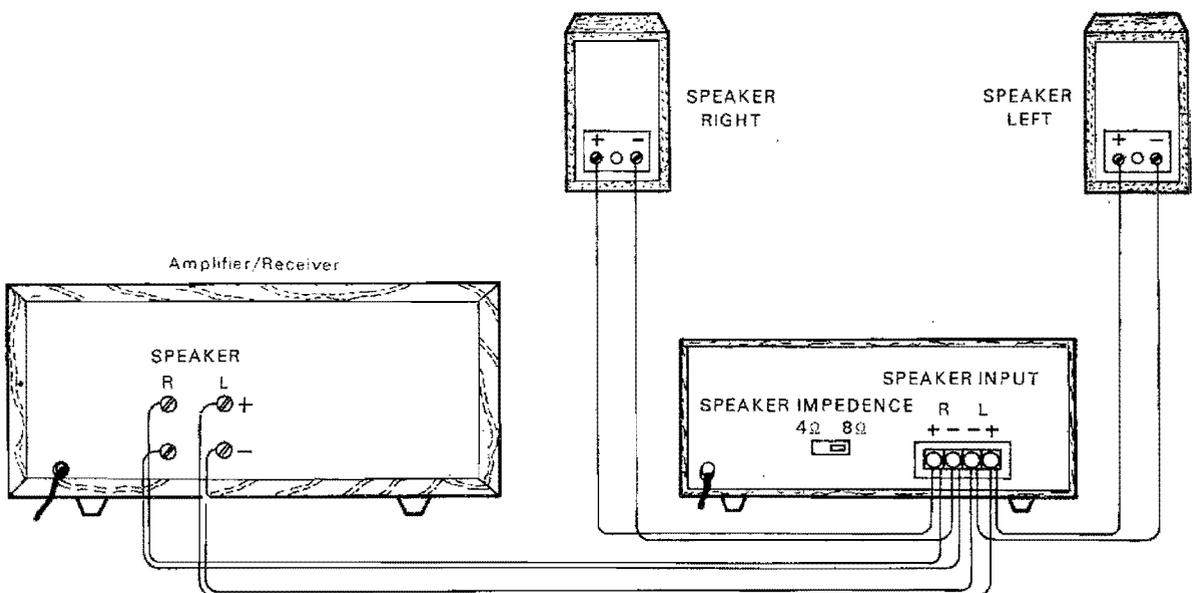
INSTALLATION

As with other quality sound equipment, adequate ventilation will extend the trouble-free life of your Audio Power Meter. You should not install this unit in the area confined with other heat generating equipment.

Connect the line cord to a standard 120V/60Hz (or 240V/50Hz for Australian Models) AC Outlet. The power consumption is 7 Watts. You may want to connect to the switched outlet of your Amplifier/Receiver so that you can turn the unit "on" and "off" with your system's main power switch.

CONNECTION

1. Disconnect power from your Amplifier/Receiver.
2. Disconnect the left speaker wires from the back of your Amplifier/Receiver and connect to the "L" push terminals on the back of the APM-200. Be sure to observe correct polarity. (+ to + and - to -). Do the same for right channel.
3. Use additional speaker wires to connect the speaker outputs of your Amplifier/Receiver to the push terminals on the back of the Audio Power Meter. Be sure to connect Right channel to Right terminals and Left to Left.
4. Set the switch on the back of the Audio Power Meter to match the impedance of your speaker (normally marked on the back of your speaker), either 4 ohms or 8 ohms.
5. Plug in the power cord of your Amplifier/Receiver to an AC outlet. Plug Audio Power Meter into the switched AC outlet on your Amplifier/Receiver or into the wall outlet.

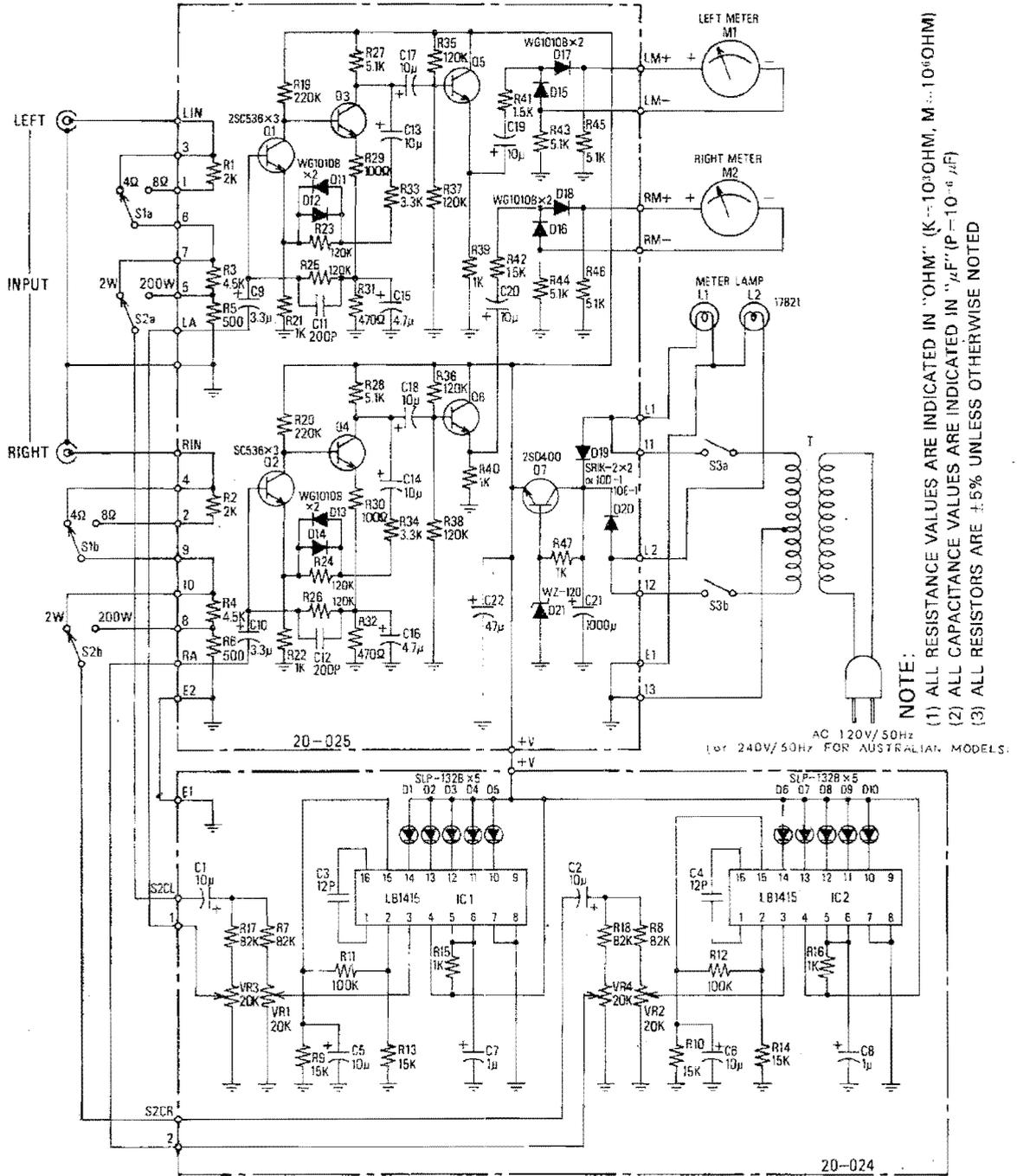


OPERATION

1. Turn your Amplifier/Receiver on.
2. Turn your Audio Power Meter on.
3. Set the range switch on the front of the Audio Power Meter to the desired position either 2 or 200 watts.
4. Now you can read the actual output power of the peak and average level being delivered by the Amplifier/Receiver. If you notice distortion on peaks of music power, your Amplifier/Receiver may be driving into the "clipping" area; if this is the case, you may want to back off on the volume slightly. The LED PEAK Indicators will show you how much power your Amplifier/Receiver will deliver without going into clipping distortion. The lit LEDs show the peak level of RMS wattage being delivered at any given instant of time.

Note: Meter Readings will be accurate only when you have a 4 or 8 ohms load connected and the Rear Panel Switch is set to the correct position.

SCHEMATIC DIAGRAM



RADIO SHACK **A DIVISION OF TANDY CORPORATION**

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