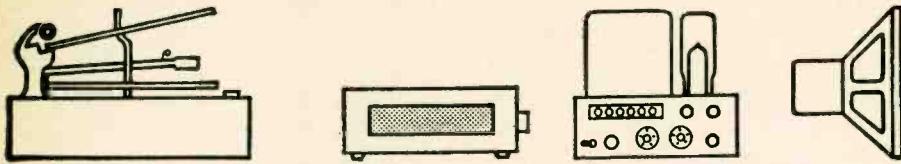


# EQUIPMENT



# PROFILE

## ERRATUM

In the PROFILE on the Viking Studio 96/RP 120 which appeared in the November issue, we inadvertently stated that the outputs from the RP 120 were at high impedance and unbalanced, with plug-in accessories to convert to broadcast-line applications. Actually, the standard RP 120 output is at an impedance of 600 ohms, and is balanced; a plug-in transformer is available to provide balanced 150/200 ohm outputs when required. For feeding into unbalanced high-impedance circuits, such as the usual aux input of a hi-fi amplifier, the output could be terminated with 600 ohms, and either terminal could be used to feed into a high-impedance input. This would give a nominal maximum output of around 0.6 volts. Our thanks to Viking for suggesting this correction.

## SCOTT 2300 SYSTEM

As Fig. 1 indicates, this is really a complete music system rather than individual components. True, the speakers are in separate enclosures and the tuner section is an option, but these units are tailored to each other, rather than for general component use. As a result we have decided to look at this unit as an entity, rather than as a number of component parts.

However, a description must mention these parts. The record player is the Garrard AT60, the cartridge is the Pickering V-15/AT-1. This is built into a handsome wood shelf-type cabinet that also contains the control amplifier and the FM-Stereo tuner. Covering the record player section is a smoked-grey lift-up top of lucite-type plastic that, to us at least, enhances significantly the appearance of this set.

The speakers are in separate, matching walnut boxes. Each is a two-way system with a tweeter level control. They are supplied with RCA-type jack connections. Long cords and similar connectors are on the underside of the parent unit. Phasing of speakers is, as a result, automatic.

We have made some measurements on the system if only to offer some comparative evaluation method. Actually, there is nothing with which to compare this system—other than other similar-type systems on which we do not yet have comparative

figures. And, in any case, what matter the relative bench measurements? Any such system will not be any better than its weakest part and that part is likely to be the speakers.

This is indeed what we have found here. Our measurements indicate a good amplifier of moderate power (just under 10 watts per channel into 8 ohms) with a wide power bandwidth (3 dB down at 20 and 20,000 Hz at full power) and moderately low IM distortion (under 1 per cent at listening levels and 2.4 per cent at full power). Over-all frequency response is +0, -2 db from 10 to 28,000 Hz.

The tuner offers excellent fringe sensitivity and low-distortion mono or stereo performance. Separation is equally excellent.

But all of these figures are still meaningless since you will buy this system, and listen to it, as a total package. As such we made extensive listening tests. A test record test proved most interesting. With this we were able to measure cartridge-to-amplifier-output response of  $\pm 3$  dB from 15,000 Hz down to 50 Hz. *Listening* tests with the speakers indicated that the overall system could handle this range with good quality. The high end was smooth and well extended to about 15,000 Hz. The mid-range was smooth, slightly depressed, not at all grating or harsh. The bass end did not hump as we would have expected from the tiny speakers. Instead it smoothly descended to about 120 Hz, began its rolloff, was still making sounds at about 60 Hz and finally lapsed into total silence below that. Not bad, not bad at all.

This is actually tailored response since at normal volume settings the amplifier is not flat. The volume control is in fact a bass-compensated loudness control with this bass contouring designed to complement the normal losses of the small woofer. At full-volume setting the compensation is defeated. This is, of course, much louder than any sort of normal listening level.

Listening tests with *standard program material* offer the only true evaluation of this system. As a whole, H.H. Scott offers a package which is in keeping with the reputation which this firm has built through the years. The 2300 listens well. Musical balance is good. High-frequency dispersion is also good and contributes considerably to

the excellent stereo effect this system offers. Granted, if this set is judged by absolute standards against the best componentry, the Scott suffers. Sound is comparatively tubby, rather heavy on the mid-bass side. But these are *relative* terms.

Let's put the 2300 where it belongs—as a complete music system of moderate price (\$399.90 including tuner) that offers legitimate high-fidelity sound. Certainly what is offered is miles ahead of what we have heard from the bulk of packaged consoles offered to the mass market. And this, we suspect, is exactly what this set is intended to be.

Circle 201

## EICO MODEL 250

### A.C. V-T VOLTMETER

Perhaps the most basic tool in the audiophile's test gear collection is the ac-vtm. This instrument is called upon to make more meaningful measurements than any other. However, run-of-the-mill vtvm's will not do a proper job. Rarely does a general-purpose instrument have the bandwidth and linearity necessary for audio measurements. Thus, the EICO 250.

This meter is designed to measure alternating current voltages over a wide amplitude and frequency range. Specifically, it offers a maximum sensitivity of 1 mV full scale with accurate 10-dB increments up to a full scale of 300 volts. This is accomplished in twelve steps: 1 mV, 3 mV, .01 V, .03 V, 0.1 V, 0.3 V, 1.0 V, 3.0 V, 10 V, 30 V, 100 V, and 300 V.

An audio instrument must measure decibels. So the EICO is calibrated from -60 dB to +50 dB. The total measurable range is -80 to +52 dB in the same twelve ranges available for voltage ranges. The meter is face calibrated to read directly in dbm across 600 ohms. The instruction manual contains a nomograph for dbm conversions *vs.* load.

A good audio measurement instrument should be able to cover, with minimum variations, the full width of audio frequencies likely to be encountered. The EICO is specified as +0, -3 dB from 8 Hz to 800,000 Hz. We did not completely verify this since our generator only reaches to 600,000 Hz. Thus, we actually measured our sample as down 2 dB at 6 Hz. and down 1.5 dB at 600,000 Hz. Between these extremes the meter is flat to the thickness of its meter pointer.

This instrument has one other useful feature; one not usually found on a vtvm. Reasoning that the instrument contains a high-gain and wide-band amplifier, EICO has provided a meter movement by-pass switch and a pair of output binding posts that convert the meter to an amplifier. A gain-control pot is provided in the output. In this position, of course, the meter movement is stilled.

Our tests of this feature showed that this instrument could indeed provide this service of up to 60 dB gain with outputs up to 5 volts. However, it is necessary to attenuate the incoming signal with the range switch in order to avoid overloading