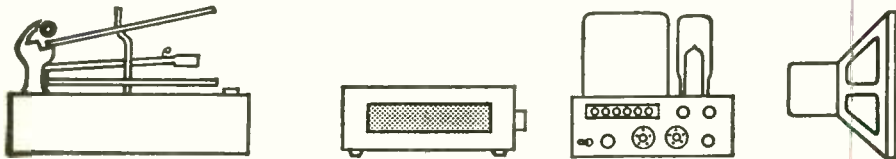


EQUIPMENT



PROFILE

H. H. SCOTT FM-STEREO TUNER, MODEL 350B

We had forgotten how comfortable it feels to twirl that distinctive circular tuning knob, it's like visiting an old friend. We first became acquainted with the 350 series years before, with the advent of FM stereo; it was one of the first stereo tuners with a built-in multiplex adapter. At that time, it filled a special niche in the hierarchy of FM tuners; moderate price with performance level just a smidgin below the most elaborate units. The 350 was a good value way back then, and has remained in that niche during the intervening years. The 350B carries on that tradition.

The 350 series reflects the small amount of technological improvement that has been necessary since FM stereo; sensitivity has been improved by about 10 per cent and a method of determining the presence of a stereo broadcast has been incorporated. In other words, the improvements are primarily refinements. This speaks rather well for the original Scott multiplex design; it was the first of its type to become hardware and still works well with only minor refinements.

The stereo broadcast indicator is certainly one of the simplest available. All one does is switch to the "monitor" position and dial across the band; a tone will be heard if a stereo broadcast is being transmitted. Simple. Scott calls it the "Sonic Monitor."

Another convenience feature of the 350B is the tape output jack on the front panel. This jack permits one to record "off the air" using a portable recorder, or one that is not built in without pulling out the tuner to get at the jacks on the rear panel. This is an especially valuable feature for those who

use a built-in deck for playback, keeping their best "recorder" out of the system and available for remote recording. We think it is a good idea—good enough to be incorporated in the control center.

Circuit

The circuit of the 350B is time-tested. It features the well known Scott front end, three i.f.'s, and a wideband ratio detector. The multiplex circuit utilizes the time-division approach and was described by the engineer who developed it, Daniel R. von Recklinghausen, in our June, 1961, issue. We recommend that you read his description, if you haven't done so already. In any case, the circuit he described in that article is virtually the same as the one in the 350B. We must commend Scott for the daring and ingenuity (they were the only manufacturer to use this approach at the outset) exemplified by this circuit.

As we noted before, the rest of the circuit is time tested; Scott has used virtually the same configuration in the mono 314 tuner. The 350 is different, however, in that it must handle stereo. That means dual audio sections and special filters to take care of the special noise problems involved with multiplex reception. Now, two years after the introduction of the 350, the entire circuit is time tested.

Performance

We must admit at the outset that we have never tested an H. H. Scott product that did not meet its published specifications. We point this out to explain why we don't bother to provide a lengthy list of performance figures (also of what use are those fig-

ures to the consumer if the unit he buys isn't guaranteed by the manufacturer to perform at least as well as he says it will?).

Instead, we will focus our attention the relative performance of this unit; that is, we will place it in the scheme of things. For instance, it is clear that this tuner is intended to be up next to the top in performance, but towards the middle in price. This is done by economizing more on luxury features than on performance features. Thus, the 350B has a simple tuning meter rather than a super-sensitive unit, pots to control output level instead of calibrated attenuators and VU meters, and so forth. On the other hand, sensitivity might be improved 10 per cent but that's pretty much all. In other words, the H. H. Scott 350B is an excellent stereo tuner. It pulled in a large number of stations—without distortion and with excellent signal-to-noise. Also, it did not drift even though it does not have a.f.c.

In sum, the 350B is intended for the music lover with a medium budget. It is a good value. G-18

REVERE/3M STEREO TAPE CARTRIDGE SYSTEM

Some three years ago—in May, 1960—we carried an article by Dr. Peter Goldmark and others of CBS Labs describing a 1 $\frac{7}{8}$ -ips tape cartridge system which had been developed by the Labs for the 3M Company. Having heard some of the original demonstrations and listened to the data on the machine, we were constrained to register our comments in the EDITOR'S REVIEW. These comments indicated considerable skepticism as to the attainable quality of reproduction relative to both frequency response and to flutter, and as to the practicability and reliability of such a system.

How wrong we were!

We still feel that information about new devices should not be given to the public until they are on the market or very nearly so, and accordingly we have not even mentioned this unit heretofore, even though it was released in one U. S. market late last fall. Since it will be in general distribution throughout the country within a month or so, we now feel that we should publicly "eat crow" with respect to the performance we had expected. The unit compares well with many a 7 $\frac{1}{2}$ -ips reel-to-reel machine.

Description

The Revere Stereo Tape Cartridge System is contained in an attractive metal and plastic case 14 $\frac{1}{4}$ in. wide, 16 in. deep over the plugs at the rear, and 7 $\frac{1}{2}$ in. high with two cartridges in place. It contains two 5 \times 8 in. speakers, one on each side, and is entirely self contained.

The tape cartridge itself is 3 $\frac{3}{4}$ in. square and 9/16 in. thick, and is of molded plastic with projections and slots for stacking. Each cartridge plays for a maximum of 48 minutes. The tape, 0.146 in. wide and 1.5 mils thick, is carried on a plastic reel. Attached to the starting end of the tape is a relatively heavy (10-mil) leader tape, $\frac{1}{4}$ in. wide, which rides on the flanges of the tape reel so it can be driven by a rubber idler from the outside of the reel. Up to 20 cartridges may be loaded onto the left platform.

With a cartridge in place, one presses the PLAY button. The operating cycle then commences with the left platform lowering the cartridge to the playing position; an idler drives the reel, pushing the leader outward until it engages with the take-up reel; notches in the leader actuate the mechanism so that when the tape is in front of the heads a guide moves and contacts



Fig. 1. H. H. Scott Model 350B FM-Stereo tuner.