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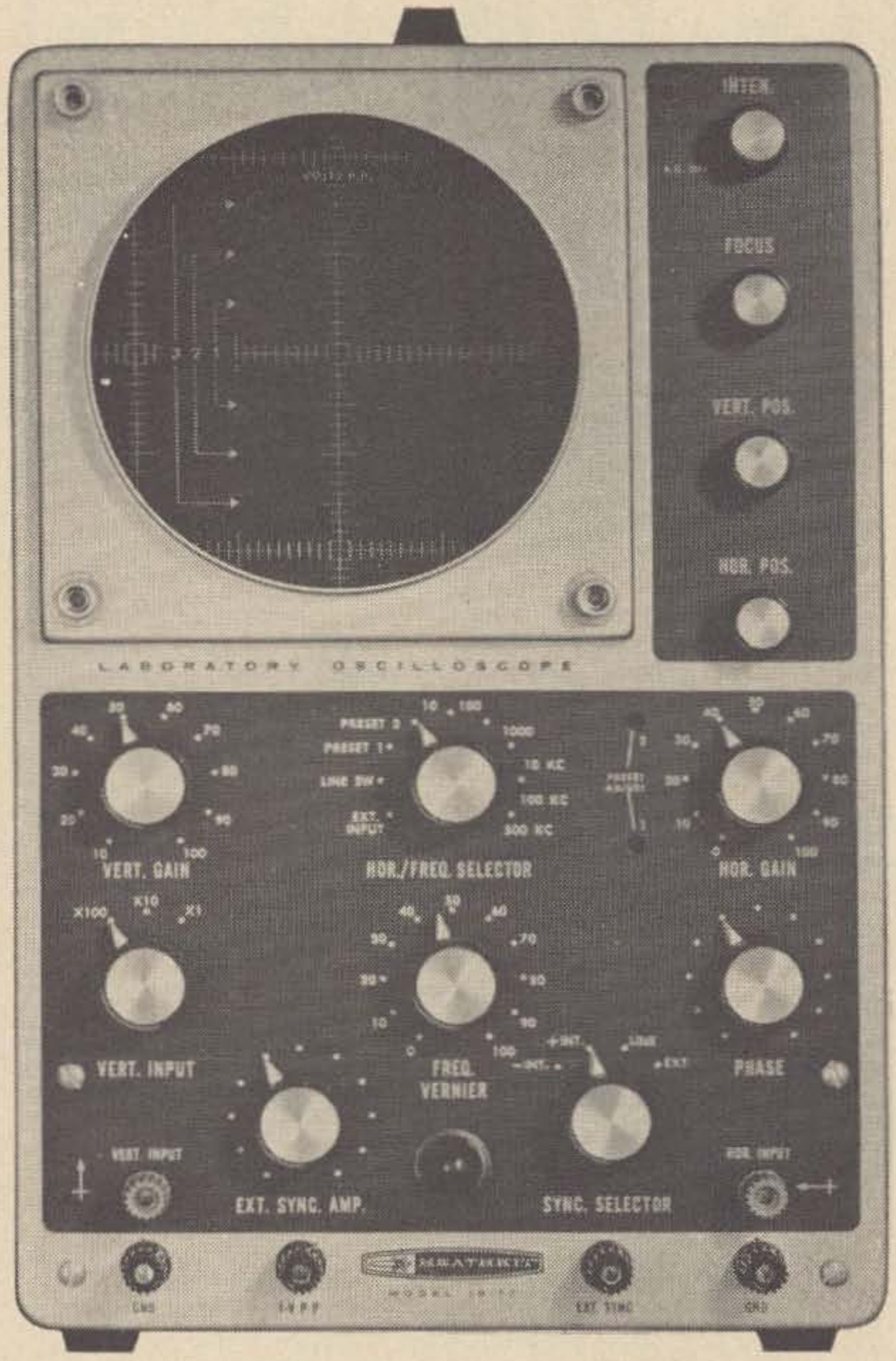
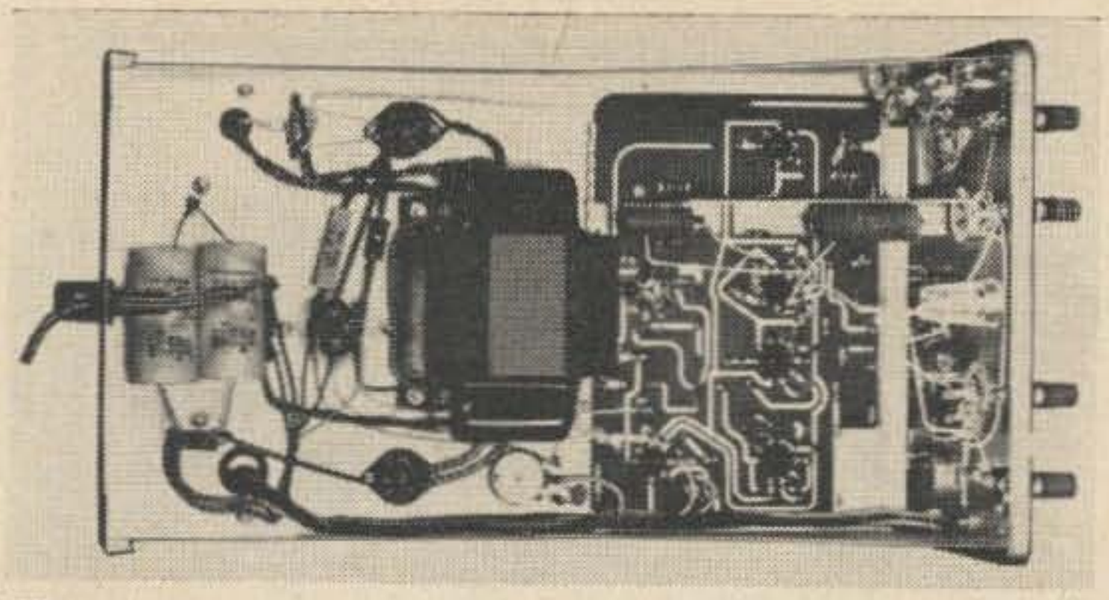
Twelve Centimeter Heathscope



The Heath Model 10-12 five inch scope is particularly easy to assemble and wire. Accessibility for testing and repair would please the most hot-tempered servicemen. Two circuit boards are used, and should it ever be necessary either of these can be purchased as individual kits which include the sockets and components mounted on the boards.

Two pre-set sweep frequencies (adjustable from the front panel) are provided—vertical and horizontal TV sweeps were what Heath had in mind, but the two frequencies can be set anywhere within the range of the internal sweep generator. An additional feature allows the operator the choice of having the sweep start on either the positive or negative slope of the input signal. Good frequency response for a wide range of input voltages is achieved by a simple compensation adjustment of individual attenuators, after the scope is completed and operating. For measurement of peak-to-peak values a binding post provides a calibrating voltage, and although the source is a simple, unregulated divider network across the filament supply stability is satisfactory.

No problems arose in assembly or wiring, with one minor exception. When I turned the scope on the beam was well off the screen vertically and the trouble turned out to be an open peaking coil. The break was right at the terminal and required only a touch of solder. It might have been caused by excessive tension during the winding process, but more likely it was the result of my own impatient handling. The kits I've put together would fill a Microbus but I can't resist the temptation to accelerate from a crawl to a full gallop at the finish line. When I squeeze those last eight leads through the last solder lug and add a final ounce of 60-40 the feeling of relief and the happy reunion with my family make it all worthwhile. I remember the anticipation that



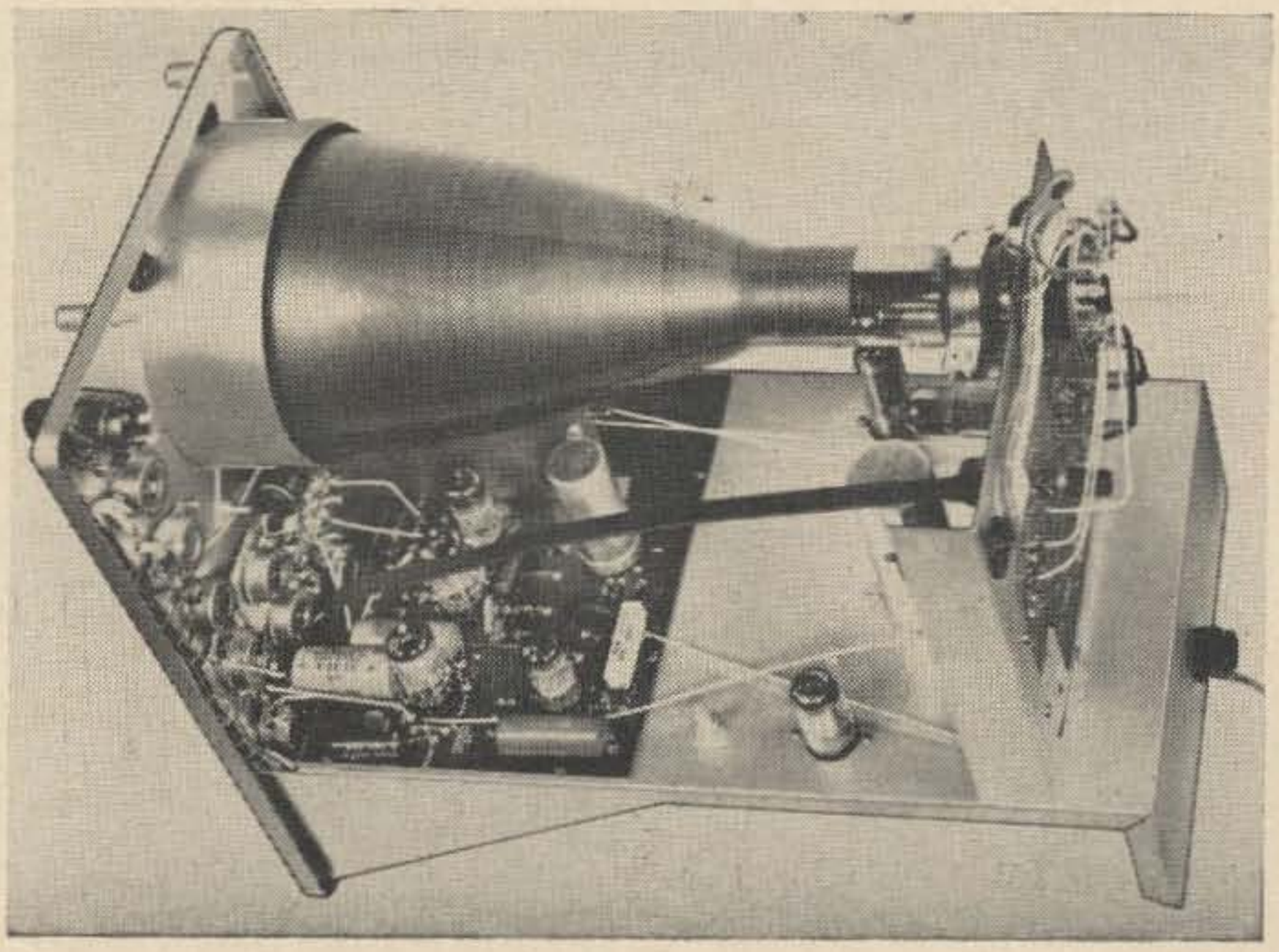
This bottom view of the Heath 10-12 shows you very little. But that's the way I like them; uncluttered and clean.

accompanies the unpacking of a new kit, forget the Solder-No Solder, strip and measure tedium, salute the geniuses who design for Everyman and enjoy my new equipment.

Maybe I've been lucky, but I can't recall a kit that through faulty engineering or overrated components turned out less than satisfactory. Not long ago I was so impressed by the performance of a relatively inexpensive FM receiver that I wrote one of those "unsolicited testimonial" letters to Heath, explaining in some detail why I was pleased with their product—and adding in some detail why I thought they should divert more of their advertising budget to 73. I didn't expect a reply and I forgot about the letter. Some time later I received a wire from Benton Harbor. Mr. Earl Broihier quoted my letter and requested that, if I would allow my remarks to be used in an advertising campaign, I reply using a release form included in the Heath telegram. This I was happy to do, of course, and I even refrained from including in my collect wire more advice about the advantages of large monthly displays in a New Hampshire technical journal. The magazine touting aside, and I harbor no illusions that it made any impression, I think my goodwill was thereby established and perhaps no personal pique will be construed from the following qualified recommendation of an optional accessory to the 10-12 scope.

The EF-2 Educational kit costs $9.95. If purchased with the $76.95 five inch scope the combination price is $84.95. The book supplied, "How to Understand and Use Your Oscilloscope," is worth the price of the kit, and you may find the chassis as useful as it is intended to be. The circuits designed to illustrate the applications of the scope all worked fine, but my feeling was that the unique, convenient approach to solderless assembly was more unique than convenient. For this kind of work the vertical plug-in spring connectors seem to me to be handier, and the parts you attach to them needn't be modified first. The EF-2 board requires that components be soldered to tiny spring clips before they can be used. I may be a minority of one here. See what you think. In any event a generous supply of parts and three transistors are included with the chassis and I'm glad I paid an extra eight bucks to get the EF-2. The book is first class. Finally, there is another text you will find worth having if you are really curious about scopery in detail. This one is *Oscilloscope Circuit Applications*—volume five of an eight volume electronics series set up for the Bureau of Naval Personnel. The Superintendent of Documents, Government Printing Office, Washington, D. C., wants a dollar and a half for this bargain and telling him you saw it in 73 won't make any difference.* . . . W7IDF

*Never Say Die. *Ed.*



The Heath 10-12 is very easy to wire. You can see that almost all the parts are on the circuit boards. It's easy to use, too.