

D-1, D-2, D-6 HB-1 (see text)
 D-3, D-4 1N191
 D-5, D-7, D-8, D-9 HB-1 zener (see text)
 D-10 1N466 or 1N703

Resistors:

R-1 2.2 k	R-11 10 k	R-21 47 k
R-2 22 k	R-12 100 k	R-22 270
R-3 4.7 k	R-13 1 meg.	R-23 1.5 k
R-4 680	R-14 10 k	R-24 1.5 k
R-5 1.5 k	R-15 8.2 k	R-25 8.2 k
R-6 270 k	R-16 10 k	R-26 3.9 k
R-7 270 k	R-17 6.2 k	R-27 4.7 k
R-8 .5 meg.	R-18 68 k	R-28 18—1 w.
R-9 5.6 k	R-19 1.2 k	R-29 50—2 w.
R-10 270 k	R-20 2.2 k	R _M , R _S 1 meg.

Capacitors:

C-1 10 mfd. 30 v.	C-6 .002 mfd.
C-2 10 mfd. 10 v.	C-7 mfd. .5 mfd.
C-3 10 mfd. 10 v.	C-8 mfd. .5 mfd.
C-4 .005 mfd.	C-9 .001 mfd.
C-5 .005 mfd.	

Switches:

SW- DPDT SW-2 SPST SW-3 DP3T
 61G401, Stancor A3332

Transformers:

T-1 2000 ohm voice coil Allied Radio
 61G401, Stancor A3332
 T-2 115 v./26 v.c.t. Allied Radio 61G476,
 Triad F-40 X
 T-3 115 v./6.3 v.



73 Test

Donald A. Smith W3UZN
 Associate Editor
 Kent A. Mitchell W3WTO

The Hallicrafters SX-140K

Are you in the market for a receiver in the \$100 to \$125 price range, but undecided whether to purchase a commercially built set or one in kit form? Why not combine the advantages of both and consider the Hallicrafters SX-140K? This is the companion receiver for the HT-40K transmitter kit as described in the May 1962 issue of 73 Magazine.

A ham band only receiver, the SX-140K covers 80 through 6 meters. Priced at \$104.95 in kit form (also available factory wired and tested for \$124.95), this receiver offers many features not usually found within this price range.

Lest you have misgivings concerning constructing a receiver because of the usual associated task of rf and oscillator stage alignments,

let us hasten to mention that the SX-140K receiver kit is supplied with a completely aligned and prewired bandswitch assembly.

The receiver incorporates a pentode rf amplifier, one half of a 6AZ8, with a manual rf gain control in series with its cathode. A 6U8A is used as the local oscillator-mixer stage, its output fed to a 6BA6 *if* amplifier. The oscillator frequency is varied by a main tuning capacitor. No fine tuning control is necessary due to the 25-to-1 tuning ratio of the main tuning, which is very adequate for the 6 inch per band of slide-rule dial provided. The selectively-bfo control in the suppressor grid of the *if* stage is actually a regeneration control and effectively varies the selectivity of the stage from approximately 8 kc to approximately 2 kc. Ad-

LAFAYETTE RADIO ELECTRONICS

THE CHOICE OF VALUE-CONSCIOUS AMATEURS THE WORLD OVER

DELUXE 8-TUBE COMMUNICATIONS RECEIVER MODEL HE-30



7995

\$5 MONTHLY
On Easy Pay Plan

Imported

• Tunes 550 KCS to 30 MCS in Four Bands • Built-In Q-Multiplier for Crowded Phone Operation • Calibrated Electrical Bandspread • Superheterodyne Circuit • Stable Oscillator and BFO for Clear CW and SSB Reception • Built-in Edgewise S-Meter

Sensitivity is 1.0 microvolt for 10 db. Signal to Noise ratio. Selectivity is ± 0.8 KCS at -65 db with Q-MULTIPLIER. Available in a semi-kit version with all major components premounted. Model KT-320 — only 64.95 Complete

PROFESSIONAL-QUALITY 14-TUBE COMMUNICATIONS RECEIVER MODEL HE-80



12950

\$7 MONTHLY
on Easy Pay Plan

Imported

• Dual Conversion on 6 Meters • 5-Bands: 550KC-54MC • Product Detector Circuit for Improved SSB Reception • Separate BFO and Q-Multiplier Circuits (can be used simultaneously) • Crystal Calibrator • Efficient Superheterodyne Circuit • Effective Automatic Noise Limiter • Voltage Regulated Power Supply

Features outstanding sensitivity, Q-Multiplier selectivity and electrical bandspread, makes a handsome addition to your ham shack. Calibration crystal is sold optionally.

LAFAYETTE MAIL ORDER
& L. I. SALES CENTER
111 Jericho Turnpike,
Syosset, L.I., N. Y.

OTHER LOCATIONS

Jamaica, N. Y. Newark, N. J.
Scarsdale, N. Y. Plainfield, N. J.
New York, N. Y. Paramus, N. J.
Bronx, N. Y. Boston, Mass.
Natick, Mass.

Free!



Send for
Big New
422 page
1964 Catalog

LAFAYETTE RADIO ELECTRONICS
Dept. 73K-3 P.O. BOX 10
SYOSSET L. I., N. Y. 11791

☐ Please send me new 1964 Catalog 640
☐ Ship Stock No. \$..... enclosed.

NAME

ADDRESS

CITY ZONE STATE

vancing the control until the stage breaks into oscillation provides a beat note for CW and SSB reception. Operation and adjustment of this control is both simple and effective.

The *if* output signal is coupled to a 6T8A, which not only functions as the detector and first audio amplification stages, but performs as noise limiter and avc control stages as well. Noise limiting is by diode action and avc by the conventional feedback method.

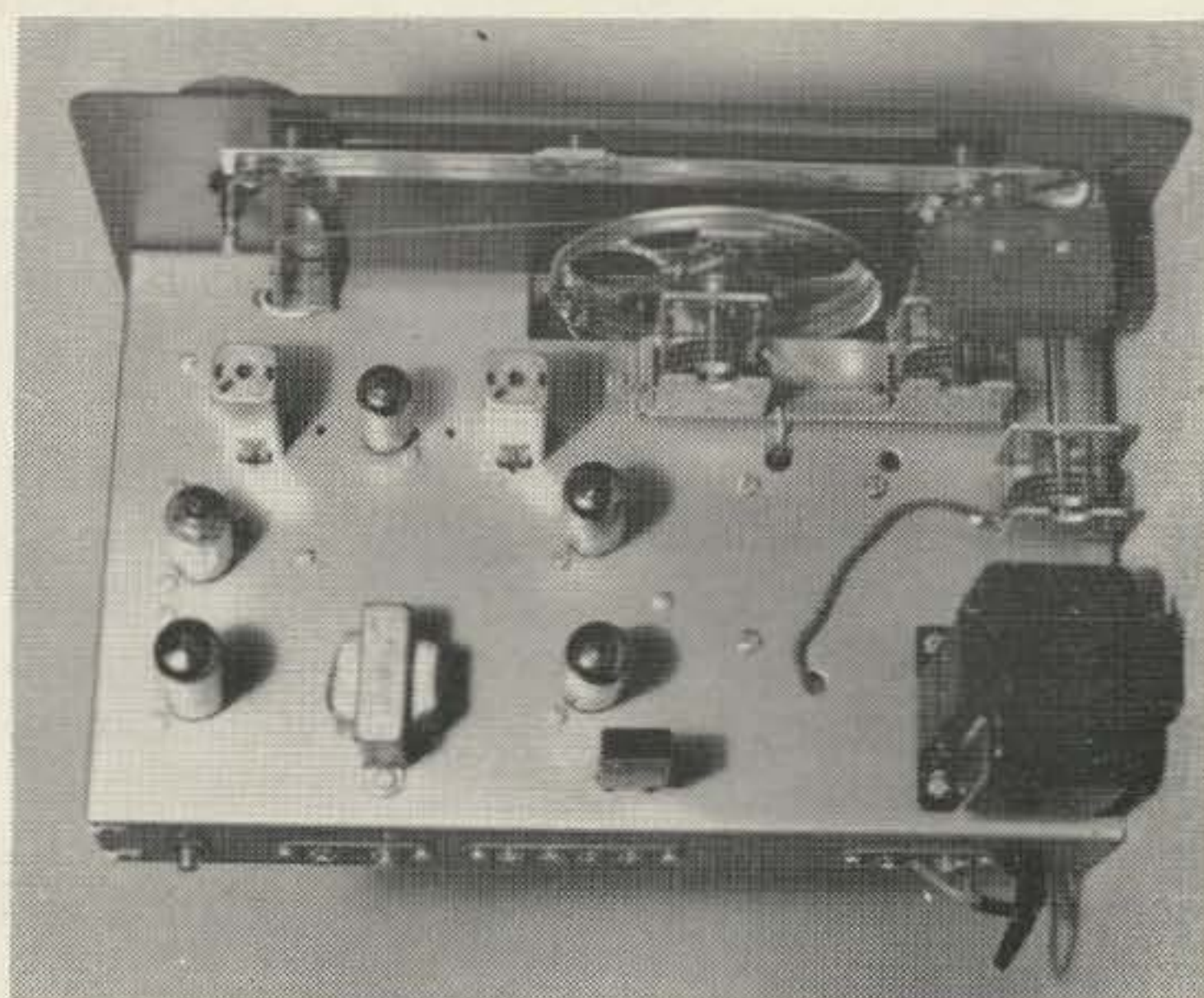
The tetrode section of a 6AW8A is the audio output stage and is connected through an output transformer to a pair of terminals on the rear chassis apron and to a headphone jack on the front panel. Though there is no built-in speaker, there is enough cabinet space for a 3" x 5" speaker to be mounted on the top of the receiver cabinet by the more enterprising builder.

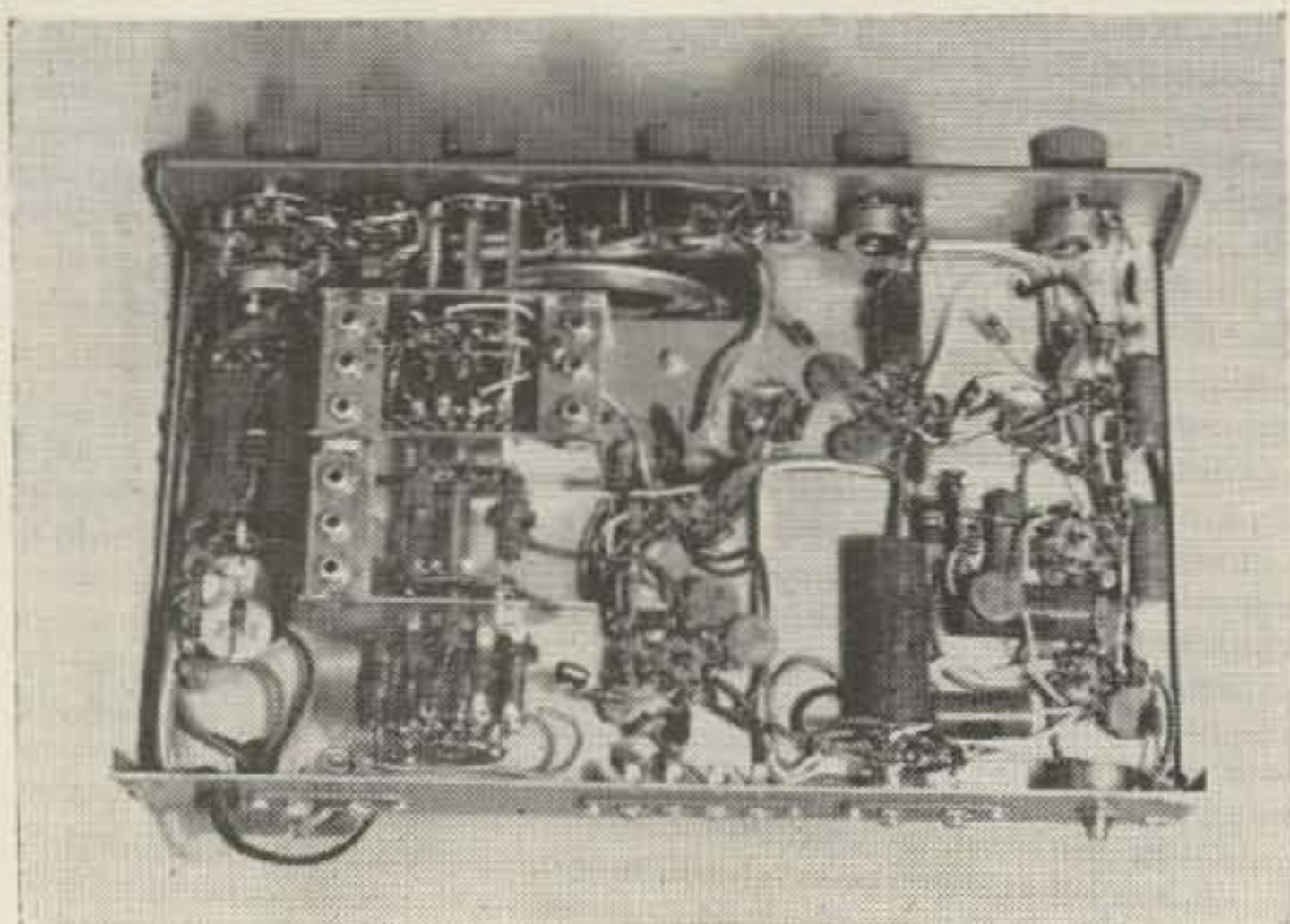
The remaining triode section of the 6AW8A is incorporated as the S-meter amplifier. It must really amplify too, as the S-meter calibration goes up to 90 db above S9! The meter is disabled in the CW-SSB mode to prevent the needle from pegging and otherwise flopping around unnecessarily.

An unusual, useful, and welcome feature, especially for a receiver in this price category, is the inclusion of a crystal controlled calibra-

tion oscillator. With the oscillator (the triode section of the 6AZ8) operating at the crystal frequency of 3.5 mc, fundamental and even harmonic signals are injected into the local oscillator to produce band edge calibration points at 3.5, 7.0, 14.0, 21.0, and 28.0 mc. For 6 meters, an odd harmonic must be used, and is heard at 52.5 mc. The Calibration Reset control on the front panel is a variable capacitor paralleled with the Main Tuning variable.

The power supply is transformer operated, thereby safely isolating the chassis from the ac line, and has silicon diode rectifiers.





Provisions are made for transmitter control and antenna changeover hook-ups via auxiliary contacts on the function switch. When placed in the standby position, two pair of terminals on the rear chassis apron are shorted, providing switch action.

Two manuals are furnished with the SX-140K; one is the assembly manual and may be discarded upon completion of the kit, and the other is an operation and service manual. Keeping these two items under separate cover is a good idea . . . would like to see some other kit manufacturers do the same.

All said and done, the authors are very impressed with this little receiver, both in design and performance. Sensitivity and especially selectivity appear to be well above average for receivers of this type. In short, it would be

hard to find a comparable receiver at this price, particularly with 6 meter band coverage to boot. It is also interesting to note that, checking the current used equipment price lists, we find that both kit and factory wired models have the same resale value . . . something to keep in mind.

. . . W3UZN . . . W3WTO

SX-140K Specifications

Frequency Coverage	80, 40, 20, 15, 10, 6 meters. (ham bands only)
Tube Complement	6AZ8 rf amplifier/calibration osc. 6U8A local oscillator/mixer 6BA6 if amplifier 6T8A detector, ANL, 1st audio 6AW8A audio output/S-meter amplifier
Controls	Main Tuning, Function (Off, Standby, am, cw-SSB), Audio Gain, Band Selector (6 posi- tion), rf gain, Selectivity/bfo, ANL(on-off), Calibrator(on- off), Calibration reset, Antenna Trim.
Antenna Impedance	50-75 ohms
Audio Output Impedance	3.2 ohms
Power supply	Transformer operated, silicon diode rectifiers in a doubler circuit.
Power requirements	117 VAC, 50-60 cycles @ 47 watts.
Dimensions	13 3/8" wide, 8 1/4" deep, 7 3/16" high
Weight	13 1/2 pounds
Price (kit)	\$104.95
(factory wired and tested)	\$124.95

The Amateur's Cape Canaveral

Matthew Russel K2YIH
131 Skycrest Drive
Rochester, N. Y.

There is probably not an amateur on the subscription list who has not felt pangs of envy at seeing pictures of the electronic installations at Cape Canaveral and other missile places. A few of you readers probably already have installations of parallel quality. Some other few of you will have looked up the prices in a catalog and promptly forgot the whole mess. The rest of you haven't even bothered to look up the prices because you *know* it is too expensive.

Well, fellow hams, take another look and compare with the photographs of what I did for less than twenty dollars!

Since every installation is different there isn't much point in giving exact constructional details. The photographs explain the methods I used and should give you some hints for your console.

The corner console shown in Fig. 1 was made to fit into a space beneath the basement stairs only 4 1/2 feet wide. It has two sloping front sections with nineteen inch rack width each and a center section with seventeen inch rack width. This is not standard but it enabled the console to be fitted into the available space.

Each of the three sections was made from