

SERVICE ENGINEER

EVER READY MODEL 5014 SUPERHET "THREE"

CIRCUIT.—The 5014 is a three-valve plus rectifier superheterodyne for operation from A.C. mains, and covers the usual medium and long wavelengths.

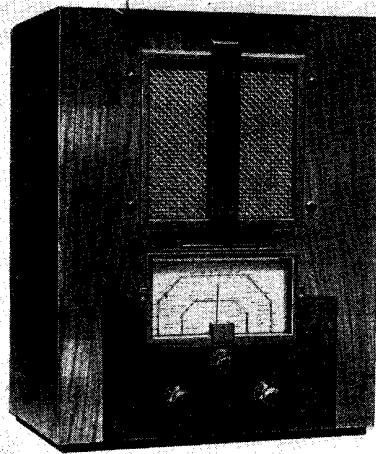
The aerial input to V1, the frequency changer, is through a small fixed condenser, C10, and an inductively coupled tuned circuit. Signals are then fed *via* an I.F. transformer tuned to 465 kc. to V2, a triode. Fixed I.F. reaction is employed.

A.V.C. bias is obtained from the rectified voltage developed across R7 and fed by R6 and C11 to the grid of V1.

The output of V2 is passed to the output pentode V3, through a resistance and capacity circuit incorporating the volume control.

Tone control is effected by C22, which may be switched in or out of circuit.

Mains equipment consists of transformer,



A three valve plus rectifier A.C. superhet, the Ever Ready Model 5014 is a two-waveband receiver with a novel circuit arrangement.

neath of the chassis of this receiver there is no need to remove it from the cabinet. Simply remove the false bottom from the cabinet. This is secured by four wood screws.

Should it be found necessary to remove the chassis, the procedure is as follows: Remove the three knobs from the front (spring clips) and four bolts from underneath the cabinet. Unplug the speech coil leads and free the field leads from the terminal strip on the speaker by undoing the two bolts. The leads are colour coded, so that reconnection is an easy matter.

The chassis may then be removed.

ALIGNMENT NOTES

I.F. Circuits.—Connect a modulated oscillator tuned to 465 kc. to the grid cap of V1 through a dummy aerial and to the chassis. The grid lead must be taken to earth through a .5 meg. resistance and a

(Continued on opposite page.)

| CONDENSERS | | |
|------------|--------------------------------------|-------|
| C. | Purpose. | Mfds. |
| 8 | Reaction adjuster | — |
| 9 | Series aerial | .0001 |
| 10 | Series aerial | .002 |
| 11 | V1 A.V.C. decoupling | .1 |
| 12 | V1 cathode bias shunt | .1 |
| 13 | V1 osc. grid | .0001 |
| 14 | V1 osc. anode and screen decoupling. | .1 |
| 15 | V2 grid | .0001 |
| 16 | H.F. by-pass | .001 |
| 17 | H.F. by-pass | .002 |
| 18 | V2 cathode bias shunt | .1 |
| 19 | L.F. coupling | .05 |
| 20 | Pentode compensating | .0025 |
| 21 | V3 cathode bias shunt | .50 |
| 22 | Tone control | .01 |
| 23 | H.T. smoothing | 8 |
| 24 | H.T. smoothing | 8 |

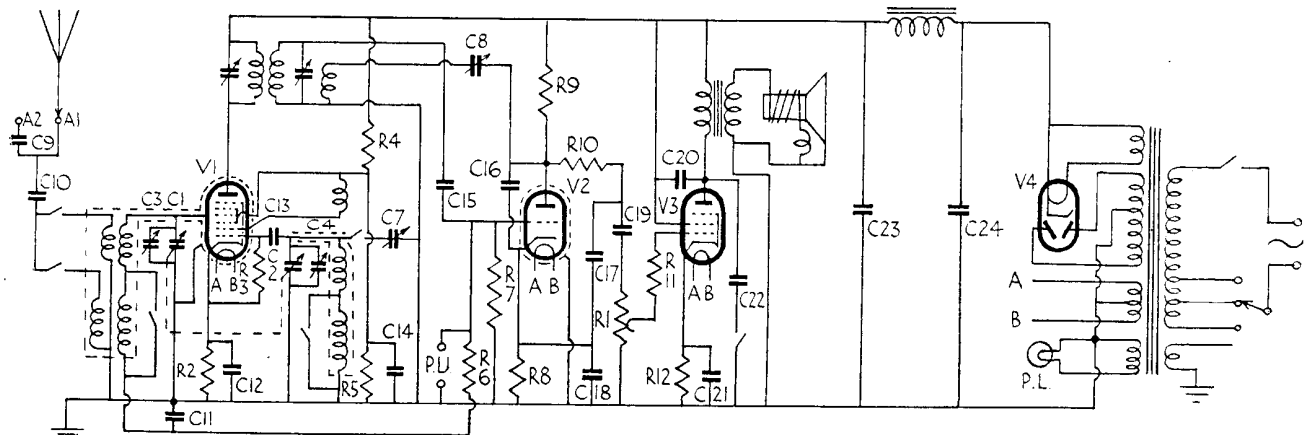
full-wave rectifier, electrolytic condensers and the speaker field.

Special Notes.—The dial lamp is rated at 3.5 volts, .3 amp., and is run from a separate winding on the mains transformer. The holder is secured to the dial assembly by a bolt. It can be reached easily, however, and replacing it presents no difficulty.

The leads to the speaker are taken from the secondary of the output transformer. If an external speaker is to be used it should have a speech coil impedance of about 4 ohms.

Exposing Chassis.—To get at the under-

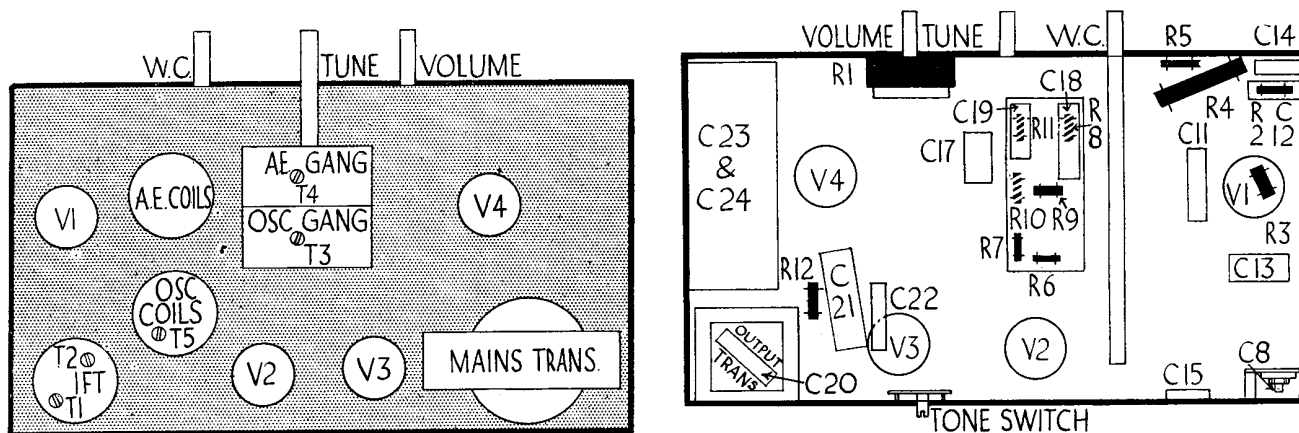
| RESISTANCES | | |
|-------------|--------------------------------------|---------|
| R. | Purpose. | Ohms. |
| 1 | Volume control | 250,000 |
| 2 | V1 cathode bias | 250 |
| 3 | V1 osc. grid leak | 100,000 |
| 4 | V1 screen and osc. anode decoupling. | 20,000 |
| 5 | V1 screen and osc. anode decoupling. | 40,000 |
| 6 | V1 A.V.C. decoupling | 2.1 meg |
| 7 | V2 grid leak | 510,000 |
| 8 | V2 cathode bias | 100 |
| 9 | V2 anode load | 40,000 |
| 10 | H.F. filter | 15,000 |
| 11 | V3 grid stopper | 26,000 |
| 12 | V3 cathode bias | 150 |



There is no I.F. amplifier in the 5014. The frequency changer is followed by a triode detector from which fixed reaction is applied to the I.F. transformer.

For more information remember
www.savoy-hill.co.uk

EVER READY 5014 SUPERHET (Continued)



These diagrams of the top (left) and bottom layouts of the Ever Ready chassis enable components to be identified rapidly. To obtain access to the underside only the baseboard of the cabinet need be removed.

.25 mfd. condenser connected between the oscillator anode (pin 1) and the chassis. Connect an output meter across the speaker terminals.

Trim T1 and T2 for maximum reading on the output meter.

Medium Waves.—Inject a signal of 200 metres to the A2 terminal and tune it in. Trim T3 and T4 for maximum reading.

Long Waves.—Inject and tune in a signal of 1,300 metres, and, while rocking the gang condenser, adjust T5 for maximum reading on output meter.

If the reaction condenser C8 requires adjusting, which is unlikely, screwing it

in slightly will increase the sensitivity of the receiver to weak signals, but may reduce the output on a strong signal if adjusted too far. A compromise between sensitivity and output should be made.

The I.F. circuits must be readjusted after any alteration of the setting of C8.

QUICK TESTS

Quick Tests are available on this receiver on the terminal strip on the speaker chassis. Volts measured between this and the receiver chassis should be:—

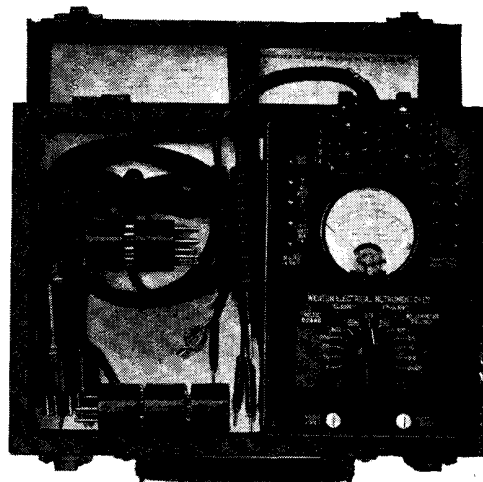
Red lead, 240 volts, smoothed H.T.
Black lead, 420 volts, unsmoothed H.T.

VALVE READINGS

No signal. Volume maximum. 200 v. A.C. mains.

| V. | Type. | Electrode. | Volts. | Ma. |
|----|--------------------------------|----------------|--------|-----|
| 1 | All Ever-Ready. A80A Met. (7). | Anode ... | 240 | 1.5 |
| | | Screen ... | 75 | 4.5 |
| | | Osc. anode ... | 75 | 2.4 |
| 2 | A30D Met. (5) | Anode ... | 81 | 4.1 |
| 3 | A70C (7) | Anode ... | 215 | 35 |
| | | Screen ... | 240 | 4.2 |
| 4 | A11B (4) ... | Filament | 420 | — |

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