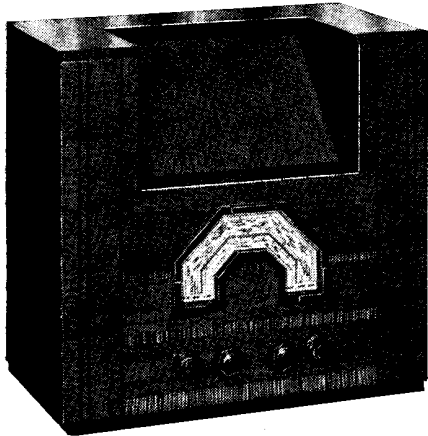


SERVICE ENGINEER

AERODYNE 51 ALL-WAVE BATTERY SET



The Aerodyne Model 51 battery three.

RESISTANCES		
R.	Purpose.	Ohms.
1	V1 bias decoupling ...	50,000
2	Volume control ...	10,000
3	V1 screen decoupling ...	2,000
4	V2 grid leak ...	2 meg
5	V2 anode feed ...	40,000
6	V3 grid stopper ...	250,000
7	V2 anode decoupling ...	10,000

CIRCUIT.—A three-valve battery receiver using manual reaction and operating on three wave bands.

The aerial input is through a wavetrapp which incorporates an iron-cored coil to a band-pass filter. This uses iron-cored coils on medium and long waves, and feeds V1 and H.F. pentode.

Signals then pass through an H.F. coil to the triode detector valve V2, reaction being employed in the orthodox manner.

The output of V2 is then fed through an L.F. transformer to the output pentode of V3, and after amplification to the permanent-magnet speaker through a matching transformer.

Volume is controlled by varying the bias to the grid of V1.

H.T. and grid bias are obtained from

batteries and L.T. from a two-volt accumulator.

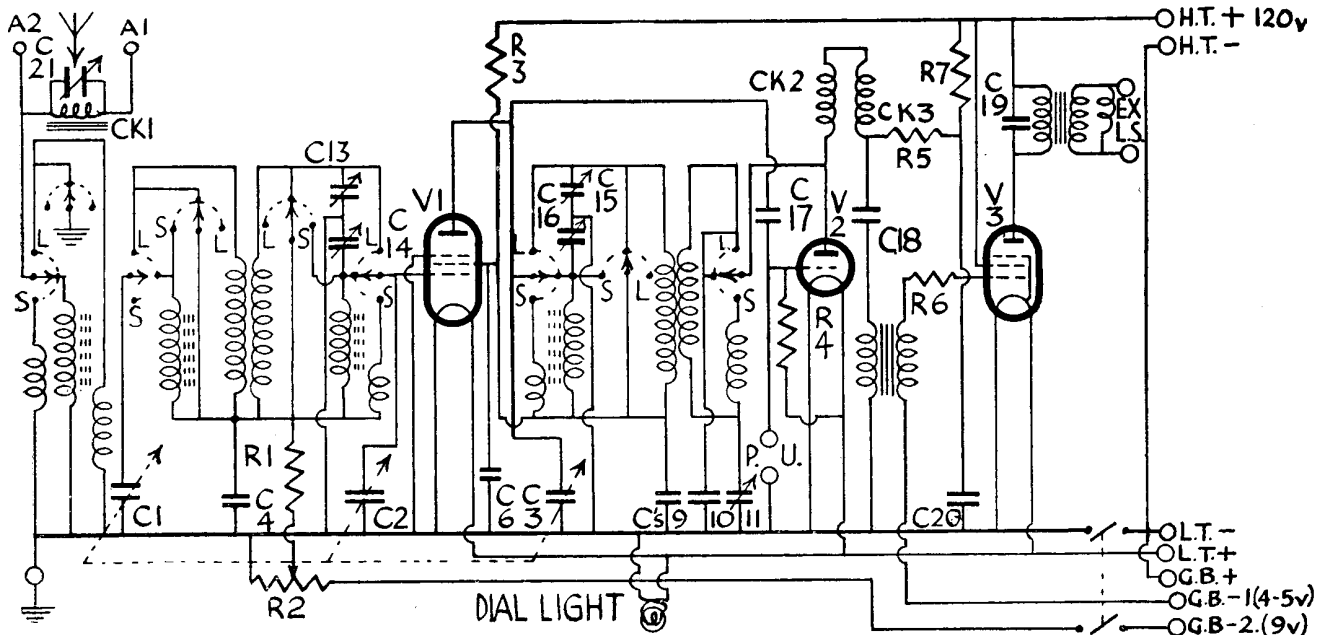
Special Notes.—The dial lamp is rated at 3.5 volts, .15 amp. To remove it turn the dial pointer until it is vertical, and it may then be unscrewed from its holder.

The external speaker is connected on the secondary of the output transformer, and should be of low impedance. The sockets are on a paxolin strip on the speaker transformer.

Removing Chassis.—Remove the four knobs from the front of the cabinet. The two outside ones are secured by spring clips and the other two by grub screws. Remove three bolts from underneath the

VALVE READINGS				
No signal. No reaction. Volume maximum. New batteries.				
V.	Type.	Electrode.	Volts.	M a.
1	All Mullard. VP2 Met. (7)	Anode ...	108	2.3
		Screen ...	108	.65
2	PM1HL Met. (4)	Anode ...	46	1.1
		Screen ...	116	2.25
3	PM22A (5)	Anode ...	116	2.25
		Screen ...	120	2.35

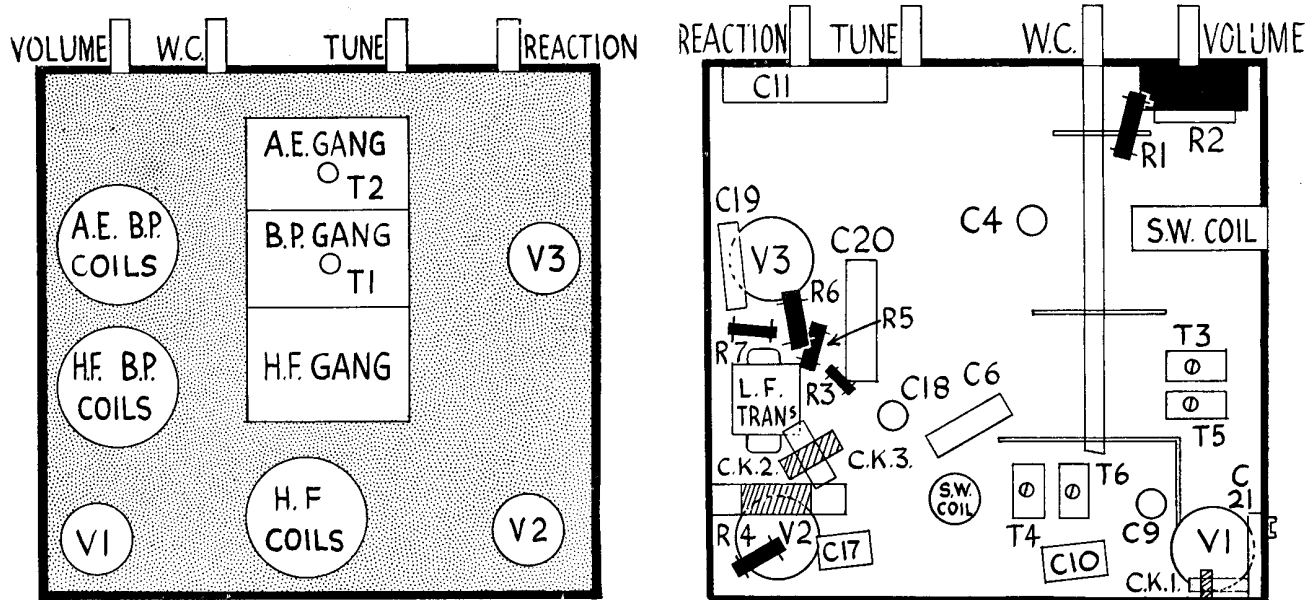
CONDENSERS		
C.	Purpose.	Ma.
1	Aerial tuning ...	.00035
2	Band pass tuning ...	.00035
3	H.F. tuning ...	.00035
4	Band-pass coupling ...	.02
6	V1 screen decoupling ...	.1
9	V1 screen and anode decoupling.	.1
10	Reaction shunt ...	.0003
11	Reaction ...	.0005
17	H.F. coupling ...	.00004
18	L.F. coupling ...	.1
19	Pentode compensating ...	.001
20	V1 anode decoupling ...	1
21	Droitwich filter ...	.002



Iron core coils are used for the medium and long waves. A band-pass aerial circuit is employed on the ordinary wave-bands and the input is also tuned on short waves. CK2 is a short-wave H.F. choke.

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

AERODYNE ALL-WAVE BATTERY SET (Continued)



These drawings enable the parts on the Aerodyne chassis to be identified. Note that resistors are shown in solid black and condensers in outline.

cabinet and unsolder the speaker leads. The chassis may then be completely removed from the cabinet.

ALIGNMENT OF CIRCUITS

Connect a modulated oscillator to the aerial and earth terminals *via* a dummy aerial and an output meter across the external speaker terminals.

Short Waves.—Inject and tune in a signal of 16.5 metres and adjust T1 for max.

Medium Waves.—Inject and tune in a signal of 250 metres, and adjust T3, T4 and T2 for maximum output.

Long Waves.—Inject and tune in a signal of 1,350 metres and adjust T5 and T6 for maximum reading on the output meter.

The WESTON SUPER-OSCILLATOR —



WESTON SUPER-OSCILLATOR complete with instructions, 6 instrument scale charts, and shielded output lead — £14. 19. 3. Net to Trade.

one of the WESTON Service Instruments. FEATURES:

- Continuous range 100 kilocycles to 25 megacycles.
- L.F. available at 400 cycles.
- H.F. available un-modulated, internally modulated (50%, 400 cycles) or modulated by a gramophone pick-up.
- Attenuator with marked dial reduces output from approx. 0.3V to below 1 microvolt.
- Adequate shielding reduces stray field to below 1 microvolt.
- Plug-in range coils eliminate switch contacts, shorten internal connections and prevent intercoil interference.
- Long dial and hairline anti-parallax cursor permit accurate adjustment—pencil hole allows marking particular points.
- L.T. volts adjustable and can be measured at pin jacks.
- Instrument scale charts eliminate the use of curves, and still permit individual calibration of each range of each coil.

Write for descriptive leaflet

Other well-known WESTON RADIO SERVICE INSTRUMENTS include:—Selective Analyzer (Model 665) £11.16.3; Valve Voltmeter (Model 669) £18.0.0; Constant Impedance Output Meter (Model 571) £7.2.6; 1,000 Ohms per Volt, Output Meter (Model 687) £4.6.3; D.C. Volt, Ohmmeter (up to 600V. and 1 megohm) (Model 564) £7.17.6.

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