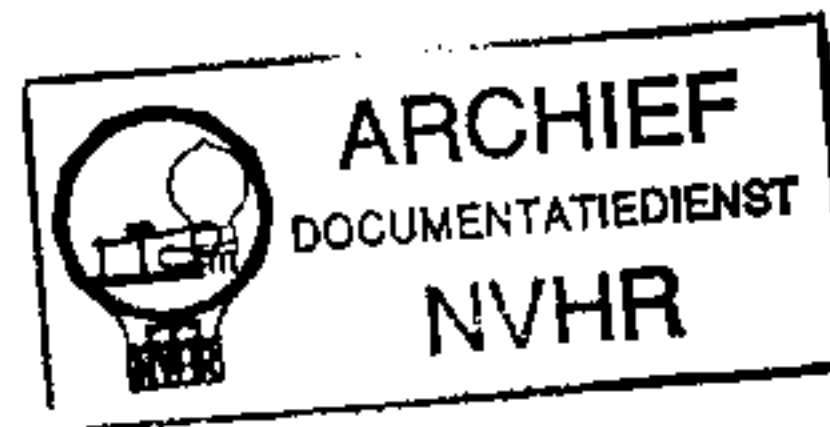


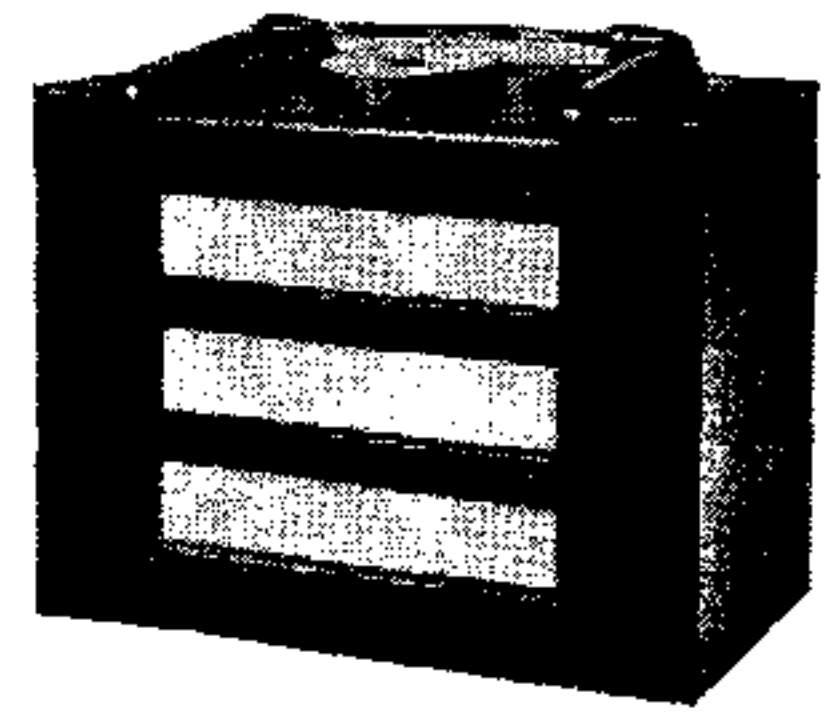
## SERVICE MANUAL



Price 6d.

CONFIDENTIAL.—For the Information  
of Ekco Registered Dealers only.

NOT TO BE COPIED.



MODEL P-148  
PORTABLE RECEIVER.

## GENERAL DESCRIPTION.

Model P148 is a battery operated light-weight portable using four Mullard valves.

Valves: V1 (H.F. amplifier)—VP2B H.F. pentode; V2 (leaky-grid detector)—PM2HL triode; V3 (L.F. amplifier)—PM2HL triode; V4 (output valve)—PM22A output pentode.

Accessories: H.T. battery—Drydex H1146; Accumulator—Exide JSK2.

Consumption: H.T.—7 m.a.; L.T.—.5 amp.

## CIRCUIT DETAILS.

Frame aerials L1 (M.W.) and L2 (L.W.) are switched separately between grid and filament of V1, which is transformer coupled to V2. C18 and R3 ensure smooth reaction.

V2 is resistance-capacity coupled to V3, V3 transformer coupled to V4. Headphone sockets are connected across primary of output transformer T2 in anode circuit of V4. (Speaker silencing switch provided.)

Bias for V1 and V3 is developed across R10, and for V4 across R10 and R11 in common H.T. negative line.

## VALVE VOLTAGE AND CURRENT READINGS.

Valve	Type	Anode	Screen	Filament	Bias	Notes.
V1	VP2B	53 v. 1 m.a.	21 v. .3 m.a.	.14 amp.	.7 v.	Voltages measured on high resistance meter. (Chassis negative). Voltage readings for V1, V2 and V3 depend on meter resistance. Current readings are more reliable. Bias measured with receiver switched on and all valves in sockets.
V2	PM2HL	58 v. .5 m.a.	—	.1 amp.	—	
V3	PM2HL	63 v. .5 m.a.	—	.1 amp.	.7 v.	
V4	PM22A	83 v. 4 m.a.	88 v. .75 m.a.	.15 amp.	2 v.	

**Resistances.** All resistances are indicated in Figs. 1—4.

**Re-ganging.** Tune receiver (preferably during daytime) to a station between 220 and 300 metres which is only just audible with maximum reaction. Adjust gang trimmer (C2) for maximum volume, meanwhile ensuring that receiver does not rotate on turntable.

If pointer reads incorrectly, loosen centre screw and move celluloid disc through appropriate angle.

**Note.** Trimmer was fitted to C8 in early receivers. This should be left fully unscrewed.

**Under-chassis service.** Moulded escutcheon can be removed for servicing underside of chassis.

Remove cabinet back, batteries, valves, station-scale and control knobs (two grub screws in large knob). The escutcheon is held by two screws (yellow washers) one inch from base of cabinet, and two nuts under top of cabinet.

If necessary, screws holding chassis corners may be removed, allowing chassis to be fully exposed.

**Note.** Ensure that pointer indicates correctly when remounting celluloid disc.

**Speaker.** If speaker requires service, remove baffle, output transformer and speaker complete, otherwise silk may be damaged in remounting speaker.

## PRICE LIST.

Gang (C1, C2, C8)	C7813	10/6	Escutcheon	F7802	4/6	C3	A3844	1/-	C14	A4109	1/-	R5	B7825	9d.
M.W. frame (L1)	DP1580	3/-	(green or red)			C4	DP1600	9d.	C15	A3844	1/-	R6	B7825	9d.
H.F. trans. (L3/6)	DP1569	5/-	Speaker	D7803	17/6	C5	A3844	1/-	C16	A4109	1/-	R7	B7825	9d.
Intervalve			Tuning knob	DP1583	2/-	C6	B7822	1/9	C17	B7821	1/9	R8	B7825	9d.
transformer (T1)	DP1566	3/6	Vol. control			C7	B7815	2/6	C18	A5747	9d.	R9	B7825	9d.
Output trans. (T2)	DP654/1	7/6	knob	DP1582	9d.	C10	A6516	9d.	R1	A6122	9d.	R10	B7825	9d.
W/C switch (S1/5)	B7814	2/6	Switch knob	DP1581	9d.	C11	B7822	1/9	R2	B7069	9d.	R11	B7824	9d.
Cabinet (inc. back			Scale	A7811	6d.	C12	A6516	9d.	R3	B7825	9d.	R12	B7825	9d.
and L.W. frame).	DP1577	25/-	Celluloid disc	A7810	6d.	C13	B6869	1/-	R4	B7825	9d.			

Prices are retail and subject to alteration without notice. Orders must quote part numbers indicated above.

IMPORTANT NOTE.—Enquiries concerning service manuals should be addressed to Head Office. Component orders, set repairs and service correspondence will be handled by the depot in whose area you are located.

"SERVICE," E. K. COLE LTD., EKCO WORKS, SOUTHEND-ON-SEA.

Scottish Service Depot: 27, Cadogan Street, Glasgow, C.2.

Manchester Service Depot: Bombay House, 59, Whitworth Street.

(Goods address: 7, Bombay Street.)

Bristol Service Depot: 14, Redcross Street.

Telephone: Southend 49491.

Telephone: Central 5357/8/9.

Telephone: Central 6711/2.

Telephone: Bristol 22269.

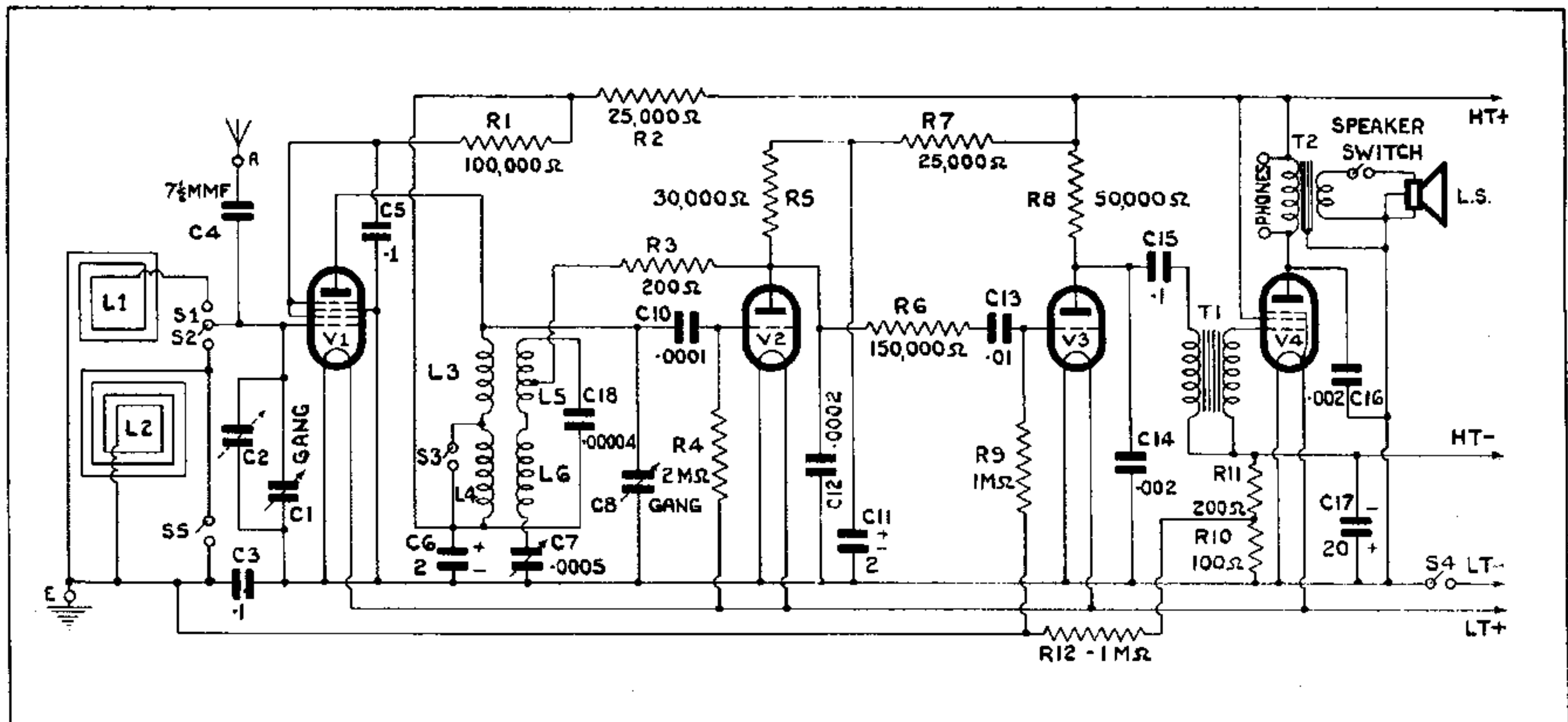


Fig. 1. Circuit diagram of Ekco Model P148.

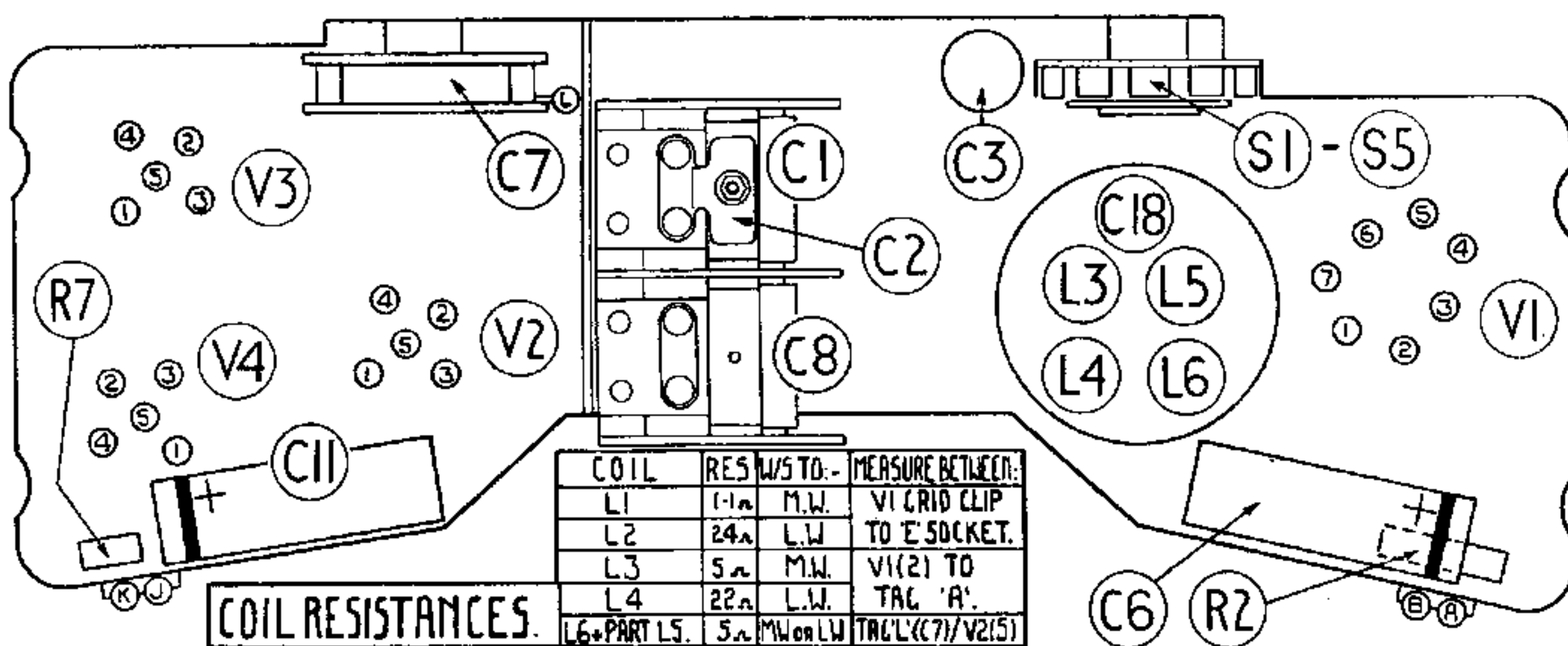


Fig. 2. Top of chassis. Coil resistances are indicated.

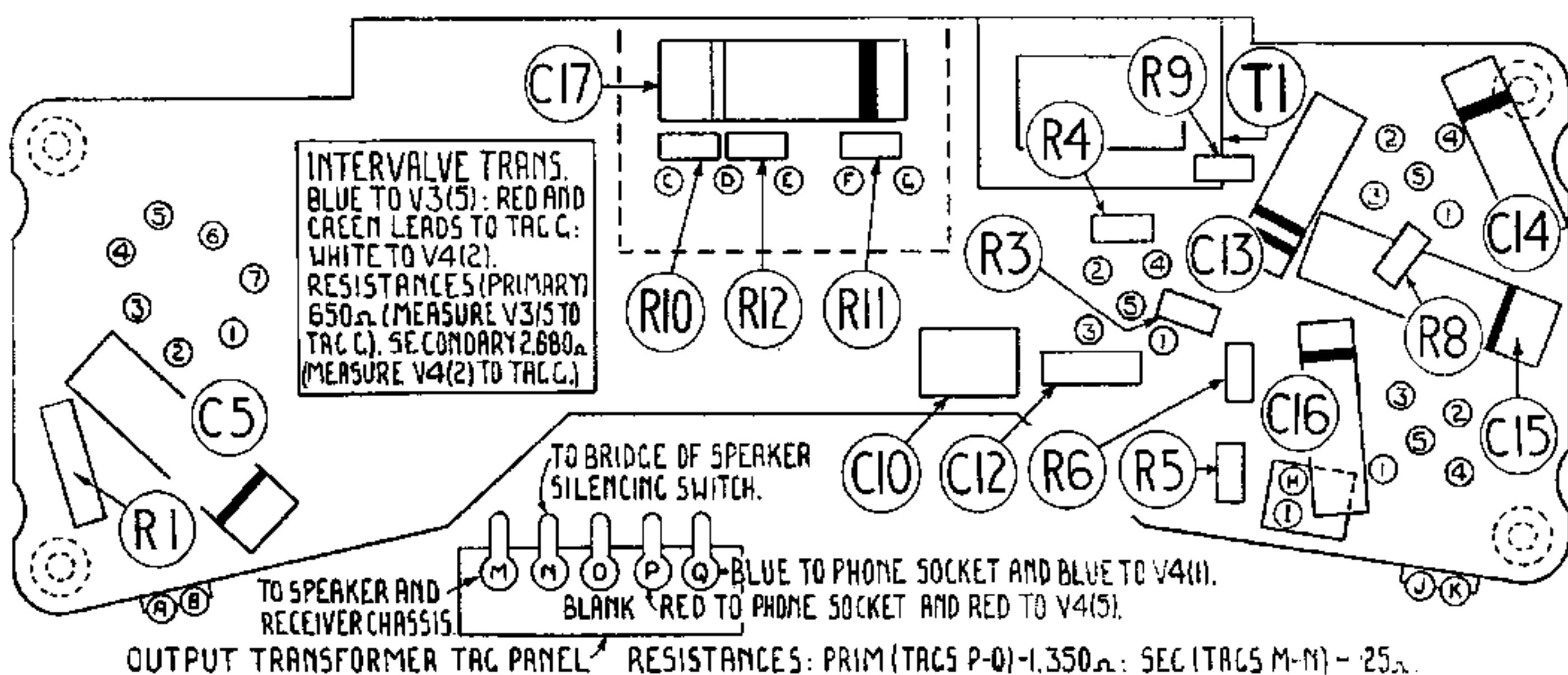


Fig. 3. Underside of chassis. Connections and resistances of intervalve and output transformers are shown.

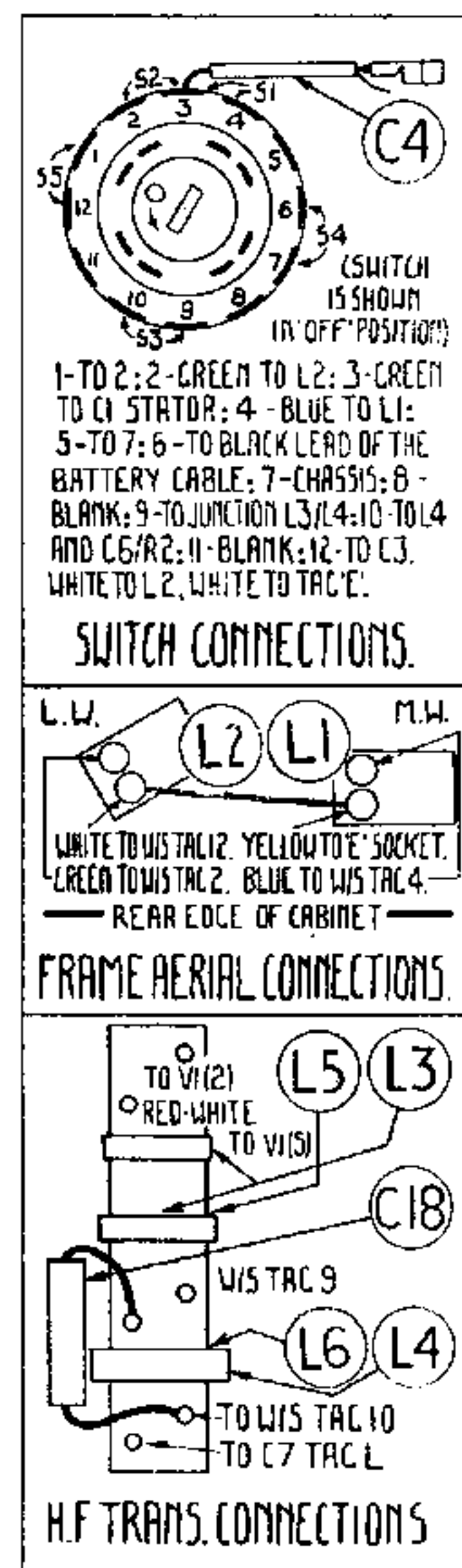


Fig. 4. Connections to wavechange switch, frame aerials and H.F. transformer.