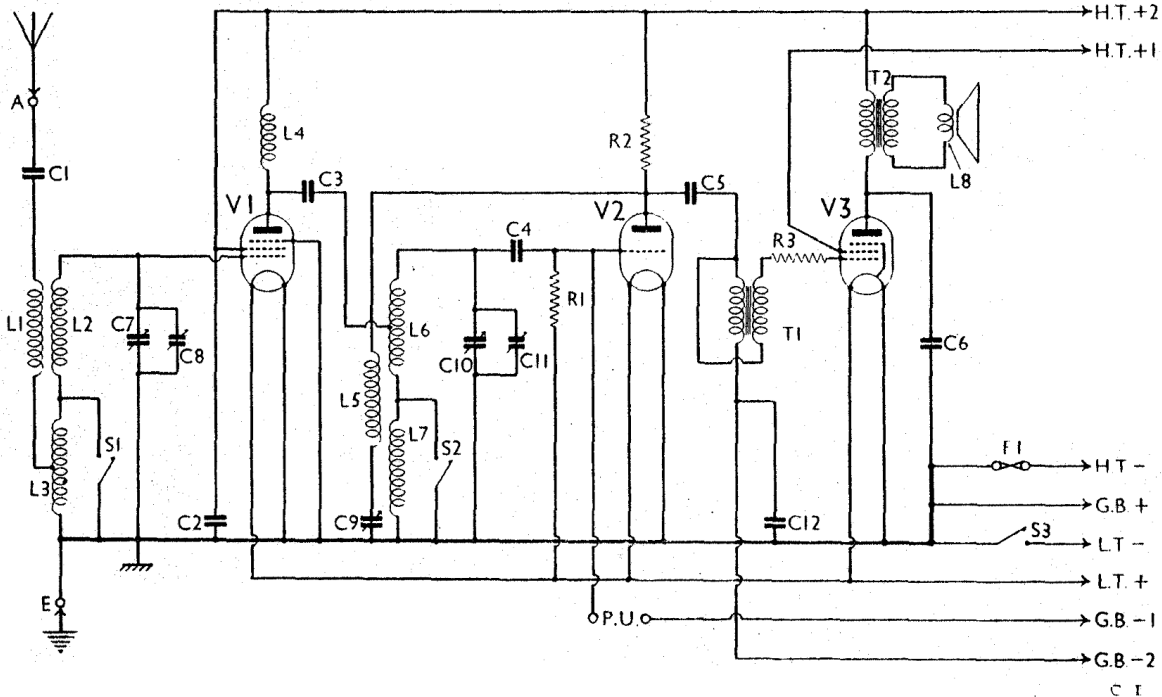


BURGOYNE - 2p Comet

The circuit diagram of the Burgoyne 2P-Comet 3-valve battery receiver. Condenser C12 may not occur in some chassis, while C6 may be connected across the primary of T2. The actual receiver has a single lead for H.T.- and G.B. + since a combined H.T. and G.B. battery is employed.



COMPONENTS AND VALUES

Resistances	Values (ohms)
R1 V2 grid leak	1,000,000
R2 V2 anode resistance .. .	25,000
R3 V3 grid H.F. stopper ..	250,000

Condensers	Values (μF)
C1 Aerial series condenser ..	0.0003
C2 V1 S.G. by-pass	0.1
C3 H.F. coupling to L6, L7 ..	0.0001
C4 V2 grid condenser	0.0001
C5 L.F. coupling to T1	0.1
C6 Tone compensator	0.005
C7 Aerial circuit tuning	0.0005
C8 Aerial circuit, trimmer, pre-set	0.0005
C9 Reaction condenser, variable ..	0.0005
C10 H.F. circuit tuning	0.0005
C11 H.F. circuit trimmer, pre-set ..	0.0005
C12 G.B.-2 by-pass	0.0001

Other Components	Values (ohms)
L1 Aerial coupling coil	2.4
L2 Aerial tuning coils	2.8
L3 V1 anode H.F. choke	16.0
L4 Reaction coil	280.0
L5 V2 grid tuning coils	1.5
L6 V2 grid tuning coils	2.8
L7 V2 grid tuning coils	16.0
L8 Speaker speech coil	3.0
T1 Intervalve trans. { Pri. .. 1,850	
Sec. .. 4,000	
T2 Speaker input trans. { Pri. .. *400.0	
Sec. .. 0.1	
S1-S2 Waveband switches, ganged
S3 Filament switch
F1 H.T. circuit fuse

* Ratio 55-1.

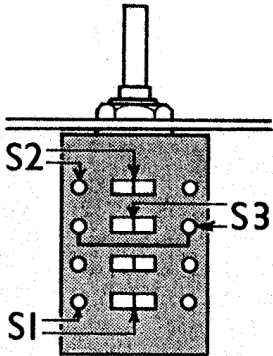
GENERAL NOTES

Switches.—All the switches are in one unit, seen in the under-chassis view. A 3-position 4-pole change-over type of unit is fitted, but only three sections are used. The tags employed are shown in detail in a separate sketch. S1 and S2 are the wavechange switches, which are closed on the M.W. band and open on the L.W. band. S3 is the on-off switch, which is open in the central position and closed in the M.W. and L.W. positions.

VALVE ANALYSIS

The voltage and current readings listed in the table overleaf were obtained from a representative chassis with a new combined H.T. and G.B. battery in use and the recommended voltages applied (see General Notes). No aerial or earth connections were made and the reaction control was kept at minimum. Voltages were measured on the 1,200 V scale of an Avometer with the chassis as negative and the anode current of the H.F. amplifier V1 was taken with a milliammeter inserted in the low H.F. potential end of the circuit in order to avoid possible instability.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 SP2 ..	120	2.7	120	0.8
V2 PM1HL	75	2.3	—	—
V3 PM22 ..	120	3.4	85	1.3



A sketch showing the switch unit. The tags employed for the three switches are clearly indicated.