

Circuit diagram of the Burgoyne "Hollywood AC3" receiver. Note the iron-cored tuning coils, and the Droitwich rejector circuit

L1, C13.

COMPONENTS AND VALUES

Resistances		Values (ohms)
R1	V1 S.G. potential divider	50,000*
R2	V1 fixed G.B. resistance	40,000
R3	V1 cathode by-pass	200
R4	V1 gain control	5,000
R5	V2 grid leak	1,000,000
R6	V2 G.B. resistance (gram.)	1,000
R7	V2 anode load	50,000
R8	V2 C.G. H.F. stopper	50,000
R9	V3 C.G. resistance	250,000
R10	V3 G.B. resistance	150

*10,000 Ω with VP4B.

Condensers		Values (μ F)
C1	Aerial series condenser	0.0001
C2	V1 S.G. by-pass	0.1
C3	V1 cathode by-pass	0.1
C4	Reaction series condenser	0.0005
C5	V2 grid condenser	0.0001
C6	V2 cathode by-pass	0.1
C7	V2 anode H.F. by-pass	0.0005
C8	L.F. coupling V2 to V3	0.1
C9*	V3 cathode by-pass	25.0
C10	Tone corrector	0.01
C11*	H.T. smoothing	8.0
C12*	H.T. smoothing	12.0
C13†	Droitwich rejector tuning	0.0002
C14†	Aerial circuit tuning	0.0005
C15†	Aerial circuit trimmer	—
C16†	Reaction control	0.0005
C17†	H.F. transformer tuning	0.0005
C18†	H.F. transformer trimmer	—

* Electrolytic.

† Variable.

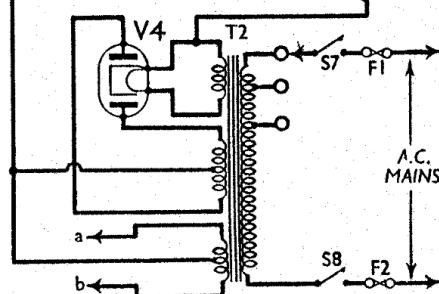
‡ Pre-set.

Other Components		Approx. Values (ohms)
L1	Droitwich rejector coil	31.0
L2	Aerial choke coil	21.0
L3	Aerial coupling coils	0.6
L4	Aerial tuning coils	4.6
L5	Aerial tuning coils	2.2
L6	Aerial tuning coils	10.5
L7	H.F. transformer primary	1.2
L8	Reaction coil	4.8
L9	Reaction coil	2.2
L10	H.F. transformer secondary	2.2
L11	H.F. transformer secondary	10.5
L12	V2 anode H.F. choke	280.0
L13	Speaker speech coil	1.6
L14	Hum neutralising coil	0.1
L15	Speaker field coil	2,000.0
T1	Speaker input trans.	Pri. 770.0 Sec. 0.25
T2	Mains trans.	Pri. total 27.5 Heater sec. 0.05 Rect. heat. sec. 0.1 H.T. sec. total 640.0
S1-S5	Waveband switches	—
S6	Gram. pick-up switch	—
S7, S8	Mains switches	—
F1, F2	Mains circuit fuses	—

VALVE ANALYSIS

Voltages and currents given in the table below are those measured in our receiver when it was operating on mains of 225 V, using the 220-230 V tapping on the mains transformer. The volume control was turned so that the whole of the resistance was out of circuit, but the vanes of the reaction condenser were not fully in mesh, that is, the spindle was turned through an angle of about 90 degrees. There was no signal input.

Voltages were measured on the 1,200 V scale of an Avometer, with chassis as negative.



GENERAL NOTES

Switches. — S1 - S5, the waveband switches, and S6, the pick-up switch, are all ganged together in a single unit, seen in the under-chassis view. The table below gives the switch positions for the various control knob settings, O indicating open, and C, closed.

Switch	M.W.	L.W.	Gram.
S1	C	O	O
S2	C	O	O
S3	C	O	O
S4	C	O	C
S5	C	O	C
S6	O	O	C

S7 and S8 are the two Q.M.B. mains switches, in a single unit, mounted at the side of the cabinet.

Coils.—L1, L2 and L12 are multi-layer coils mounted beneath the chassis. L3-L6 and L7-L11 are in two screened units on the chassis deck.

Scale Lamps.—There are three of these, connected in parallel. They are all of the M.E.S. type, and are marked "6 V." 6.3 V, 0.3 A types would be suitable.

BURGOYNE - HOLLYWOOD AC 3