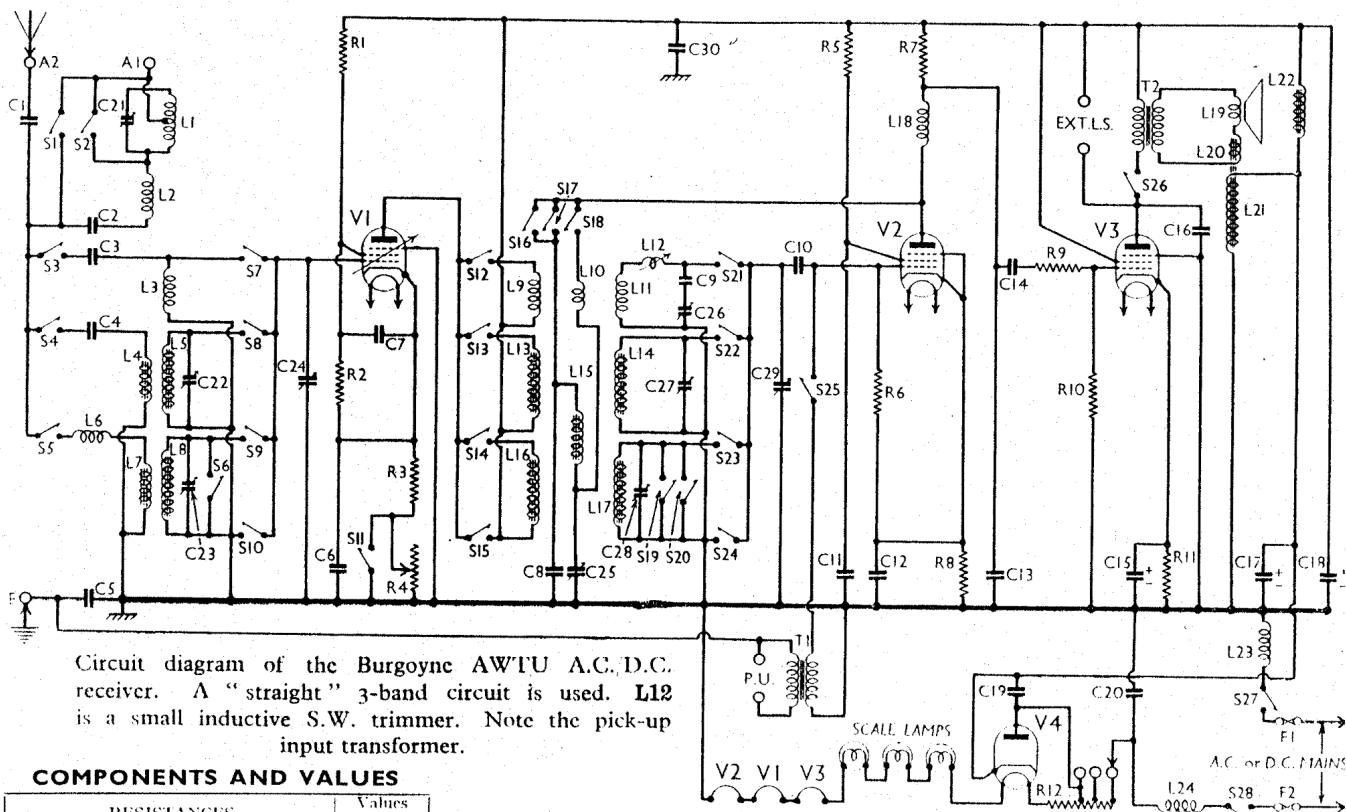


BURGOYNE - AWTU & AWTUG



COMPONENTS AND VALUES

RESISTANCES		Values (ohms)
R1	V1 S.G. H.T. potential divider	20,000
R2	V1 fixed G.B. resistance	500,000
R3	V1 gain control	200
R4	V1 S.G. H.T. feed	100,000
R5	V2 S.G. H.T. feed	100,000
R6	V2 grid leak	1,000,000
R7	V2 anode load	50,000
R8	V2 G.B. resistance (gram.)	200
R9	V2 C.G. R.F. stopper	50,000
R10	V2 C.G. resistance	250,000
R11	V3 G.B. resistance	140
R12	Heater circuit ballast	700*

* 500 + too + too O.

CONDENSERS		Values (μF)
C1	Aerial series condensers	0.0002
C2	S.W. aerial coupling	0.0001
C3	M.W. aerial coupling	0.0001
C5	Earth blocking	0.1
C6	V1 cathode by-pass	0.1
C7	V1 S.G. by-pass	0.1
C8	V2 anode R.F. by-pass	0.0005
C9	H.E. trans. fixed S.W. trimmer	0.00005
C10	V2 C.G. condenser	0.0001
C11	V2 S.G. by-pass	0.1
C12	V2 cathode by-pass	0.1
C13	V2 anode R.F. by-pass	0.0002
C14	V2 to V3 A.F. coupling	0.1
C15*	V3 cathode by-pass	25.0
C16	Fixed tone corrector	0.01
C17*	H.T. smoothing	20.0
C18*	V4 anode-cathode by-pass	0.1
C19	Mains circuit R.F. by-pass	0.1
C20	Droitwich rejector tuning	---
C21†	Aerial circuit M.W. trimmer	---
C23†	Aerial circuit L.W. trimmer	---
C24†	Aerial circuit tuning	0.0005
C25†	Reaction control	0.0005
C26†	H.E. trans. S.W. trimmer	0.0005
C27†	H.E. trans. M.W. trimmer	---
C28†	H.E. trans. L.W. trimmer	---
C29†	H.E. trans. tuning	0.0005
C30†	H.T. supply R.F. by-pass	0.1

* Electrolytic. † Variable. ‡ Pre-set.

OTHER COMPONENTS		Approx. Values (ohms)
L1	Droitwich rejector coil	37.0
L2	Aerial series choke	8.6
L3	Aerial S.W. tuning coil	Very low
L4	Aerial M.W. coupling coil	0.35
L5	Aerial M.W. tuning coil	3.3
L6	Aerial L.W. choke	20.0
L7	Aerial L.W. coupling coil	3.0
L8	Aerial L.W. tuning coil	12.0
L9	H.E. trans. S.W. pri.	0.2
L10	S.W. reaction coil	0.2
L11	H.E. trans. S.W. sec.	0.15
L12	S.W. inductance trimmer	Very low
L13	H.E. trans. M.W. pri.	1.2
L14	H.E. trans. M.W. sec.	2.8
L15	M.W. and L.W. reaction coil	1.5
L16	H.E. trans. L.W. pri.	2.8
L17	H.E. trans. L.W. sec.	12.5
L18	V2 anode R.F. choke	210.0
L19	Speaker speech coil	2.0
L20	Hum neutralising coil	0.15
L21	Speaker field coil	6,500.0
L22	H.T. smoothing choke	290.0
L23	Mains circuit filter chokes	0.0
T1	Gram. pick-up trans. Pri.	1,750.0
	Sec.	3,750.0
T2	Speaker input trans. Pri.	580.0
	Sec.	0.25
S1-S24	Waveband switches	---
S25	Gram. pick-up switch	---
S26	Int. speaker switch	---
S27-28	Mains switches, ganged R4	---
F1, F2	Mains circuit fuses	---

VALVE ANALYSIS

Valve voltages and currents given in the table below are those measured in our receiver when it was operating on mains of 230 V, using the 220-230 V tapping on the mains resistance. The receiver was tuned to the lowest wavelength on the medium band and the volume control was at maximum, but the reaction control was at minimum. There was no signal input.

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

Valve	Anode Voltage (V)	Anode Current (mA)	Screen Voltage (V)	Screen Current (mA)
V1 VP13B	180	5.5	130	1.8
V2 SP13B	95	1.4	65	0.5
V3 PP36	155	42.0	180	6.2
V4 V30†	---	---	---	---

† Cathode to chassis 200 V, D.C.

GENERAL NOTES

Switches.—S1-S25 are the wave-change and pick-up switches, in three ganged rotary units, shown in the under-chassis view. The arrows indicate the

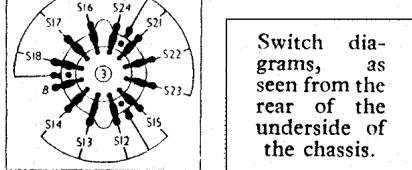
Switch	L.W.	M.W.	S.W.	Gram.
S1	O	O	O	O
S2	O	C	O	O
S3	O	O	C	O
S4	O	C	O	O
S5	C	O	O	O
S6	O	C	O	O
S7	O	C	O	O
S8	C	O	O	O
S9	C	O	O	O
S10	O	O	O	C
S11	O	O	C	O
S12	O	O	C	O
S13	O	O	C	O
S14	C	O	O	O
S15	O	O	O	O
S16	C	O	O	O
S17	O	C	O	O
S18	O	C	O	O
S19	O	C	O	O
S20	O	C	O	O
S21	O	C	O	O
S22	O	C	O	O
S23	C	O	O	O
S24	O	O	O	C
S25	O	O	O	C

directions in which the units are viewed in the detailed diagrams on this page.

The table above gives the switch positions for the various control settings, starting from the fully anti-clockwise position. O indicates open, and C closed.

S26 is the internal speaker switch, at the rear of the chassis, which opens when the external speaker plug is inserted and rotated anti-clockwise.

Continued overleaf



Switch diagrams, as seen from the underside of the chassis.