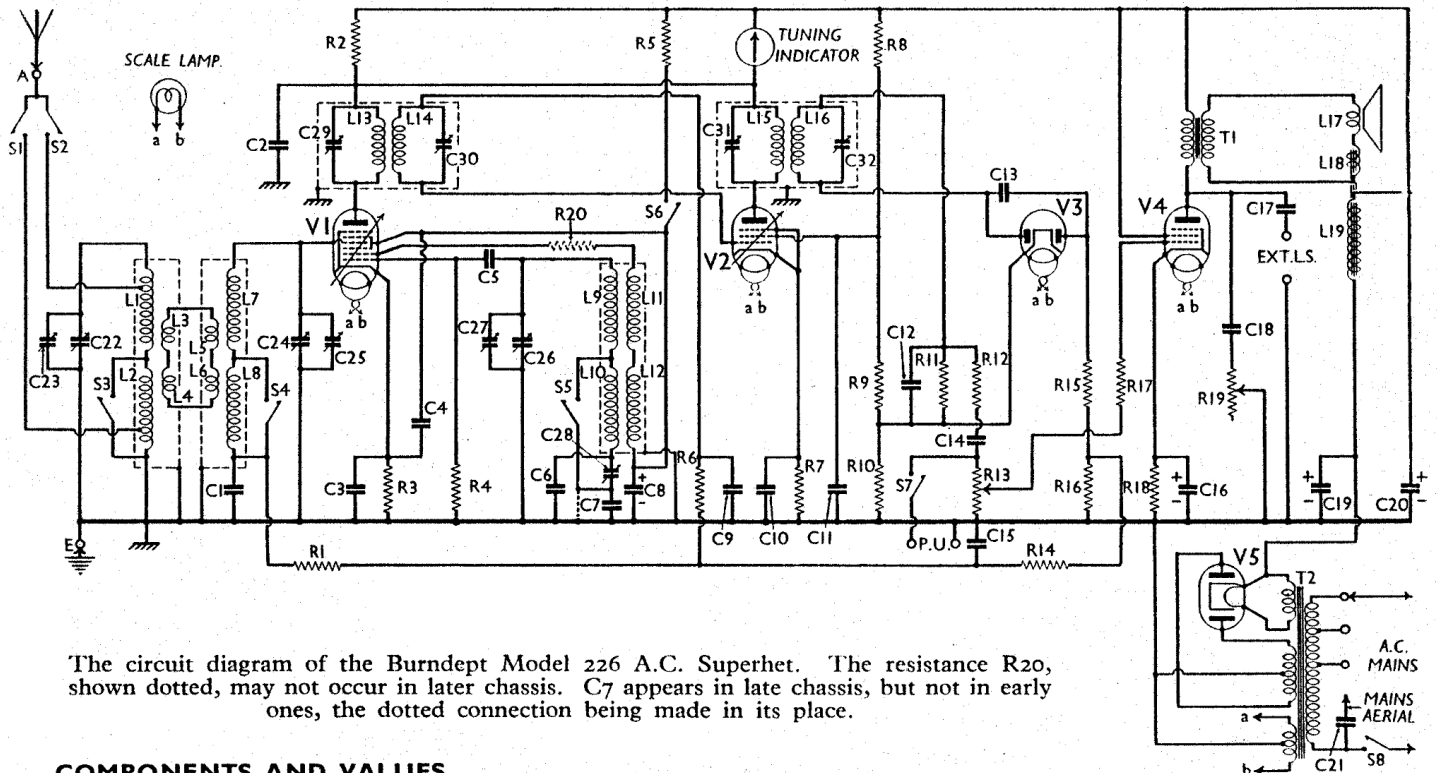


BURNDEPT - 226



The circuit diagram of the Burndept Model 226 A.C. Superhet. The resistance R20, shown dotted, may not occur in later chassis. C7 appears in late chassis, but not in early ones, the dotted connection being made in its place.

COMPONENTS AND VALUES

Resistances	Values (ohms)
R1 V1 pent. cont. grid decoupling	100,000
R2 V1 pent. anode and V2 anode decoupling	5,000
R3 V1 fixed G.B. resistance	250
R4 V1 osc. grid resistance	50,000
R5 V1 S.G.'s and osc. anode decoupling	30,000
R6 V2 cont. grid decoupling	100,000
R7 V2 fixed G.B. resistance	200
R8 V2 S.G. potential divider and A.V.C. delay voltage resistance (R10)	10,000
R9 A.V.C. delay voltage resistance (R10)	8,000
R10 A.V.C. delay voltage resistance (R10)	700
R11 Rectifier diode load	1,000,000
R12 I.F. stopper	100,000
R13 Manual volume control	500,000
R14 A.V.C. circuit decoupling	250,000
R15 A.V.C. diode load	500,000
R16 A.V.C. diode load	1,000,000
R17 V4 grid I.F. stopper	250,000
R18 V4 G.B. resistance	150
R19 Variable tone control	250,000
R20* Osc. anode resistance	250

* In our chassis.

Condensers	Values (μF)
C1 V1 cont. grid decoupling	0.1
C2 V1 pent. anode and V2 anode decoupling	0.1
C3 V1 cathode by-pass	0.1
C4 V1 S.G.'s by-pass	0.1
C5 V1 osc. grid condenser	0.001
C6 Osc. M.W. trackers, fixed	0.0005
C7* V1 osc. anode decoupling	0.01
C8 V2 cont. grid decoupling	8.0
C9 V2 cathode by-pass	0.1
C10 V2 S.G. by-pass	0.1
C11 I.F. by-pass	0.0001
C12 A.V.C. diode coupling	0.0001
C13 L.F. coupling to V4	0.01
C14 A.V.C. circuit decoupling	0.1
C15 V4 cathode by-pass	50.0
C16 Ext. speaker coupling	0.5
C17 Tone control condenser	0.1
C18 H.T. smoothing	6.0
C19 H.T. smoothing	6.0
C20 H.T. smoothing	6.0

* Not in our chassis.

Condensers (Contd.)	Values (μF)
C21 Mains aerial condenser	0.0001
C22 Band-pass primary tuning	---
C23 Band-pass primary trimmer	---
C24 Band-pass secondary tuning	---
C25 Band-pass secondary trimmer	---
C26 Oscillator tuning	---
C27 Oscillator trimmer	---
C28 Osc. L.W. tracker, pre-set	---
C29 1st I.F. trans. pri. tuning	---
C30 1st I.F. trans. sec. tuning	---
C31 2nd I.F. trans. pri. tuning	---
C32 2nd I.F. trans. sec. tuning	---

Other Components	Values (ohms)
L1 Band-pass primary coils	5.3
L2 Band-pass primary coils	10.2
L3 Band-pass coupling coils	2
L4 Band-pass coupling coils	2
L5 Band-pass coupling coils	2
L6 Band-pass coupling coils	2
L7 Band-pass secondary coils	5.3
L8 Band-pass secondary coils	10.2
L9 Oscillator grid tuning coils	4.3
L10 Oscillator grid tuning coils	6.3
L11 Oscillator anode coils	0.8
L12 Oscillator anode coils	1.9
L13 1st I.F. trans. { Pri. ...	29.0
L14 1st I.F. trans. { Sec. ...	29.0
L15 2nd I.F. trans. { Pri. ...	29.0
L16 2nd I.F. trans. { Sec. ...	29.0
L17 Speaker speech coil	1.75
L18 Hum neutralising coil	0.2
L19 Speaker field winding	2,500
T1 Speaker input trans. { Pri. ...	750
T1 Speaker input trans. { Sec. ...	0.35
T2 Mains trans. { Pri. total	21.0
T2 Mains trans. { Heater sec.	0.03
T2 Mains trans. { Rect. heater sec.	0.05
T2 Mains trans. { H.T. sec.	400
S1 S5 Waveband switches, ganged	---
S6 S7 Radio-gramophone switches	---
S8 Mains switch, ganged R13	---

VALVE ANALYSIS

The voltage and current readings listed in the table are those given by Burndept for an average chassis working with no aerial or earth connected. All voltages were measured with a high resistance voltmeter (1,000 Ω per V), the chassis being negative.

Valve	Anode Volts	Anode Current (mA)	Screen Volts	Screen Current (mA)
V1 FC4*	230	2.0	85	5.0
V2 VP4A	230	5.0	100	3.0
V3 2D4A	---	---	---	---
V4 Pen4VB	215	33.0	210	3.0
V5 R2	350†	---	---	---

* Osc. anode (G2) 85V, 2 mA. † A.C., each anode.

GENERAL NOTES

Chassis Divergencies.—The first few sets issued had an I.F. setting of 117.5 KC/S. Later models operate with an I.F. of 130 KC/S, and are distinguished by the fact that the screens of their I.F. transformers are marked with a white dot. The 117.5 KC/S models have no mark.

It will be found that in the early chassis there may be a resistance, R20, in the oscillator anode circuit, and this is shown dotted in our circuit diagram, since it is not present in the later 130 KC/S models. Further, the additional tracking condenser C7 which occurs in the 130 KC/S models is omitted in the early chassis, the connection from the bottom of S5 and C28 being taken direct to chassis.

Switches.—S1-S7 are the wavechange and pick-up switches, in one unit. This is shown in our under-chassis view, and the individual switches are indicated. S8 is the mains switch, ganged with R13.

The following table gives the switch positions. O indicates "open," and C "closed."

Switch	M.W.	L.W.	Gram.
S1	O	C	O
S2	C	O	O
S3	C	O	O
S4	C	O	O
S5	C	O	O
S6	C	C	O
S7	O	O	C