

FERGUSON 346B, 344B

Capacitors		
C1	137pF	C3
C2	387pF	C2
C3	25pF	C2
C4	100pF	C3
C5	0.01μF	C3
C6	100pF	C3
C7	100pF	C3
C8	100pF	C3
C9	167pF	C2
C10	25pF	C2
C11	0.01μF	B3
C12	342pF	B3
C13	100pF	C3
C14	0.01μF	B3
C15	8pF	B3
C16	100pF	B3
C17	100pF	B3
C18	220pF	B3
C19	100pF	B3
C20	0.002μF	A3

C21	0.01μF	B3
C22	50μF	B3
C23	0.002μF	A3
C24	0.002μF	A3

Resistors		
R1	180kΩ	C3
R2	2.2MΩ	C3
R3	100kΩ	C3
R4	27kΩ	C3
R5	33kΩ	C3
R6	47kΩ	B3
R7	2.2MΩ	B3
R8	100kΩ	B3
R9	1MΩ	A3
R10	10MΩ	A3
R11	6.8MΩ	B3
R12	2.2MΩ	B3
R13	4.7MΩ	A3
R14	470Ω	A3

Coils*		
L1	5.5	C1
L2	—	C2
L3	8.0	C3
L4	8.0	C3
L5	2.0	C3
L6	—	C3
L7	8.0	B3
L8	8.0	B3
L9	3.0	A2

Miscellaneous*		
T1	{ a 450.0 } A2	
	{ b — } A2	
S1-S3	—	B3
S4, S5	—	B1

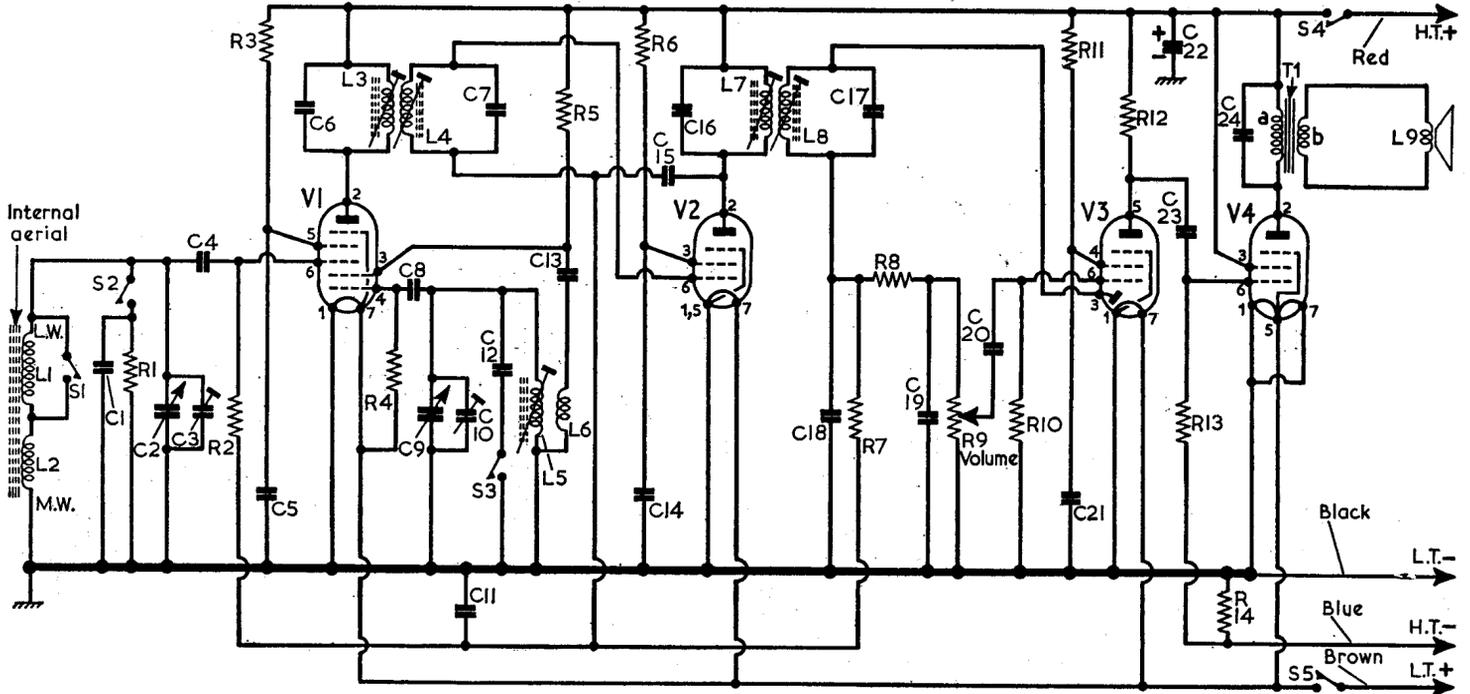
*Approximate D.C. resistance in ohms.
 †Short length of screened lead.

Valve Table

Valve	Anode		Screen	
	V	mA	V	mA
V1 DK95 { mixer	85	0.5	72	*
osc.	28	1.5	—	—
V2 DF96 ..	85	1.0	70	*
V3 DAF96 ..	16†	*	16	*
V4 DL96 ..	82	5.0	85	0.9

*Less than 0.5 mA.

†Subject to wide variations.



CIRCUIT ALIGNMENT

- 1.—Connect an output meter across the speaker, and a signal generator to the control grid of V1 (pin 6) via a 0.1μF capacitor.
- 2.—Switch the receiver to M.W. Turn the tuning control fully anti-clockwise and the volume control fully clockwise. Feed in a modulated 470kc/s signal and adjust the cores of L3, L4, L7 and L8 (location reference B3) in that order for maximum output, reducing the generator output as the circuits are aligned in order to avoid A.G.C. action.
- 3.—Terminate the output lead of the signal generator with a loop of wire, and place the loop close to the ferrite rod aerial. Tune the receiver to the calibration mark at 230m. Feed in a 1,300kc/s signal and adjust C10 (C2) for maximum output.
- 4.—Tune the receiver to 500m. Feed in a 600kc/s signal and adjust the core of L5 (C3) for maximum output.
- 5.—Repeat operations 3 and 4 until no further improvement can be obtained.
- 6.—Tune the receiver to the calibration mark at 230m. Feed in a 1,300kc/s signal and adjust C3 (C2) for maximum output.

- 7.—Tune the receiver to 500m. Feed in a 600kc/s signal and slide the adjusting ring along the ferrite rod for maximum output.
- 8.—Switch the receiver to L.W. Feed in a 210kc/s signal and tune it in on the receiver. Slide the former of L1 (C1) along the ferrite rod for maximum output.

MODEL 344B

Model 344B is the earlier version of "Flair" and does not use a printed circuit chassis. It has the following differences in component values and circuitry:

The value of V1 screen grid decoupling capacitor C5 and V3 screen grid decoupling capacitor C21 is 0.02μF, V4 grid bias resistor R14 is 560Ω. H.T. decoupling capacitor C22 is 32μF.

V2 neutralizing capacitor, C15, is not used. R8 is also omitted, and so is C9, formed by the stray capacitance of a short length of screened lead.

The positions in the circuit of S3 and C12 are interchanged.

Valve voltages are approximately the same as those given overleaf in the table for Model 346B; except that the value at V1 screen grid is 63V and that at V3 anode, 25V.

Switches.—S1-S3 are the waveband switches, ganged in a small rotary unit mounted on the metal plate of the receiver chassis. Its position is shown in the chassis illustration in location reference B3. S1 only closes on M.W., and S2, S3 only close on L.W.

Battery Switches.—The L.T. and H.T. battery switches S4, S5 are contained in a small unit mounted on the edge of the plastics body moulding, shown in location reference B1. The switches are operated by a spring-loaded plunger that is automatically depressed when the lid of the case is closed, to switch the set off. They are therefore always closed, and the set switched on, when the lid is open or when the plastics body is removed from the carrying case.