

## Resistors

R1	8.2kΩ	C1
R2	1.5kΩ	C1
R3	2.2kΩ	C1
R4	150kΩ	C2
R5	560Ω	C2
R6	15kΩ	C2
R7	4.7kΩ	C2
R8	1kΩ	C2
R9	15kΩ	C2
R10	1kΩ	C2
R11	10kΩ	B2
R12	10kΩ	B1
R13	56kΩ	B2
R14	1.2kΩ	B1
R15	8.2kΩ	A1
R16	1.2kΩ	A2
R17	220Ω	A2
R18	2.2kΩ	A2
R19	100Ω	A2
R20	10Ω	B2
R21	4.7kΩ	A1
R22	270Ω	B2

## Capacitors

C1	—	D3
C1a	—	D3
C2	—	D3
C2a	—	D3

## Coils\*

C3	163pF	C1
C4	61pF	C1
C5	0.047μF	C1
C6	0.01μF	C1
C7	—	†
C8	91pF	C2
C9	3.2μF	C2
C10	0.047μF	C2
C11	91pF	C2
C12	64pF	C2
C13	0.047μF	C2
C14	0.047μF	C2
C15	91pF	C2
C16	30pF	C2
C17	80pF	B2
C18	4,200pF	C2
C19	4,200pF	C2
C20	3.2μF	B2
C21	220pF	B2
C22	20μF	B1
C23	20μF	A2
C24	0.047μF	B2
C25	4.7pF	C1

## L5

L5	3-6	D3
L6	—	—
L7	—	—
L8	—	—
L9	1-6	D4
L10	—	—
L11	—	—
L12	1-6	D4
L13	—	—
L14	—	—
L15	1-5	D4
L16	—	—
L17	340-0	A2
L18	115-0	—
L19	115-0	—
L20	4-2	B2
L21	4-2	—
L22	—	—
L23	—	E3

## Miscellaneous

X1	OA70	C2
S1-S5	—	D3
S6	—	B2

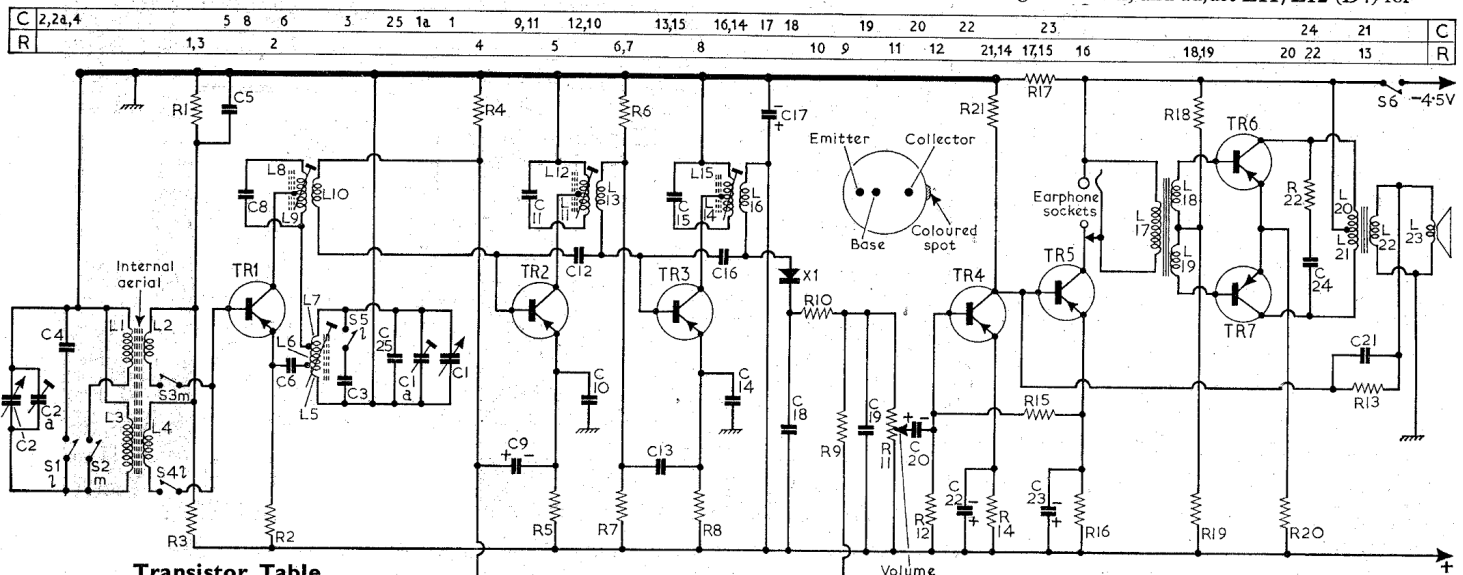
\* Approximate D.C. resistance in ohms.  
† No component.

## CIRCUIT ALIGNMENT

**Equipment Required.**—An A.M. signal generator; an audio output meter with a 10Ω load resistor connected in parallel; a 10kΩ damping resistor; a 0.03μF capacitor; a length of insulated copper wire to form an R.F. coupling loop and a slotted type trimming tool for use with the I.F. transformer cores. A suitable trimming tool can be made by cutting a slot in the end of a number 10 plastics knitting needle.

During alignment the level of output should be maintained at about 50mW.

- 1.—Disconnect the loudspeaker and connect in its place the output meter with the 10Ω resistor in parallel.
- 2.—Turn the volume control to maximum output and the tuning gang to minimum capacitance (fully open). Switch to M.W. and short-circuit L3.
- 3.—Connect the signal generator via the 0.03μF capacitor to the base of TR1.
- 4.—Feed in a 470kc/s modulated signal and adjust L14/L15 (location reference D4) for maximum output.
- 5.—Feed in a 468kc/s signal and a 472kc/s signal in turn, and adjust L11/L12 (D4) for



Transistor Table

Transistor	Emitter (V)	Base (V)	Collector (V)
TR1	OC44 ..	0.65	0.80
TR2	OC45 ..	0.50	0.30
TR3	OC45 ..	0.70	0.85
TR4	OC71 ..	0.65	0.75
TR5	OC71 ..	1.40	1.50
TR6*	OC72 ..	0.02	0.20
TR7*	OC72 ..	0.02	0.20

## Matched pair.

maximum output at the frequency which gives the greatest output.

- 6.—Re-adjust the signal generator to the frequency not used in operation 5 and adjust L8/L9 (D4) for maximum output. Disconnect the signal generator from TR1 and remove the short-circuit from L3.
- 7.—Loosely couple the signal generator to ferrite rod aerial by winding 2 or 3 turns of insulated wire round the centre of the rod and connecting the signal generator output leads to the ends of the wire.
- 8.—Switch to L.W., turn the volume control to maximum output and the tuning gang to maximum capacitance (fully meshed).
- 9.—Set trimming capacitors C1a and C2a' (D4) to the half-open position. Damp L3 with the 10kΩ resistor.
- 10.—Feed in a 148kc/s modulated signal and adjust L5/L6/L7 (D3) for maximum output.

- 11.—Switch to M.W. and turn the tuning gang to minimum capacitance.
- 12.—Feed in a 1,635kc/s signal and adjust C1a for maximum output.
- 13.—Repeat operations 10, 11 and 12 as necessary.
- 14.—Switch to L.W., feed in a 170kc/s signal and tune the receiver to this signal. Remove the 10kΩ damping resistor and adjust L3 for maximum output.
- 15.—Switch to M.W. and replace the 10kΩ damping resistor across L3.
- 16.—Feed in a 600kc/s signal and tune the receiver to this signal. Remove the damping resistor and adjust L1 for maximum output.
- 17.—Feed in a 1,500kc/s signal and tune the receiver to this signal. Adjust C2a (D4) for maximum output.

**STELLA**  
**ST404T**  
**ST414T**