

Resistors

| | | |
|-----|-------|----|
| R1 | 33kΩ | B1 |
| R2 | 4.7kΩ | A1 |
| R3 | 1kΩ | A1 |
| R4 | 220kΩ | B1 |
| R5 | 390Ω | B1 |
| R6 | 56kΩ | B1 |
| R7 | 8.2kΩ | B1 |
| R8 | 680Ω | B1 |
| R9 | 22kΩ | B1 |
| R10 | 4.7kΩ | C1 |
| R11 | 390Ω | C1 |
| R12 | 1kΩ | C1 |
| R13 | 2.2kΩ | C1 |
| R14 | 2.2kΩ | C1 |
| R15 | 56kΩ | C1 |
| R16 | 10kΩ | C1 |
| R17 | 4.7kΩ | C1 |
| R18 | 1kΩ | C1 |
| R19 | 1kΩ | C1 |
| R20 | 560Ω | C1 |
| R21 | 39Ω | C1 |
| R22 | 2.2Ω | C1 |
| R23 | 2.2Ω | C1 |
| R24 | 15kΩ | C1 |
| R25 | 820Ω | C1 |
| VR1 | 5kΩ | C1 |

Capacitors

| | | |
|------|--------|----|
| C1 | 20pF | A1 |
| C2 | 6.8pF | A1 |
| C3 | 56pF | B1 |
| C4 | 0.1μF | B1 |
| C5 | 0.01μF | A1 |
| C6 | 0.01μF | A1 |
| C7 | 6.8pF | A1 |
| C8 | 330pF | A1 |
| C9 | 20pF | A1 |
| C10 | 6.8pF | A1 |
| C11 | 260pF | B1 |
| C12 | 0.1μF | B1 |
| C13* | 10μF | B1 |

| | | |
|-----|--------|----|
| C14 | 0.01μF | C1 |
| C15 | 0.1μF | C1 |
| C16 | 0.01μF | C1 |
| C17 | 0.01μF | C1 |
| C18 | 0.02μF | C1 |
| C19 | 0.02μF | C1 |
| C20 | 6μF | C1 |
| C21 | 20μF | C1 |
| C22 | 2.5μF | C1 |
| C23 | 125μF | C1 |
| C24 | 125μF | C1 |
| C25 | 0.1μF | C1 |
| C26 | 320μF | C1 |
| VC1 | 257pF | A1 |
| VC2 | 257pF | A1 |
| TC1 | 15pF | B1 |
| TC2 | 50pF | B1 |

Coils and transformers

| | | |
|------|-----|----|
| L1 | — | B1 |
| L2 | — | B1 |
| L3 | — | B1 |
| L4 | — | B1 |
| L5 | — | C1 |
| L6 | — | B1 |
| L7 | — | B1 |
| L8 | — | B1 |
| L9 | 10Ω | C1 |
| IFT1 | — | B1 |
| IFT2 | — | B1 |
| IFT3 | — | C1 |
| T1 | — | B1 |

Miscellaneous

| | | |
|-------|--------|----|
| TH1 | VA1040 | C1 |
| S1-S4 | — | A1 |
| S5 | — | C1 |
| D1 | OA70 | C1 |

* Capacitance value is within range 4-10μF.

Circuit alignment

Equipment required.—An r.f. signal generator amplitude modulated 30 per cent at 400c/s; an audio output meter of 10Ω impedance; an r.f. coupling loop and a calibrated scale template.

Prepare a template to the pattern illustrated at the foot of this page, then check that with the tuning gang at maximum capacitance the left hand cursor is coincident with mark 1.

All i.f. and r.f. measurements are made with a signal modulated 30 per cent at 400c/s. Connect the output meter via a blocking capacitor across the loudspeaker tags, and with volume control at maximum maintain an audio output of approximately 50mW, progressively attenuating the input signal as the sensitivity of the radio receiver increases.

1. — Switch receiver to m.w.; place a short circuit across **L8** (thus rendering the oscillator inoperative); connect signal generator output across tuning capacitor **VC1**; rotate tuning gang to maximum capacitance and feed in a 470kc/s a.m. signal. Adjust **IFT3**, **IFT2** and **IFT1** in that order for maximum output. Repeat this adjustment in the same order for optimum results then remove the short circuit from **L8** and disconnect signal generator.

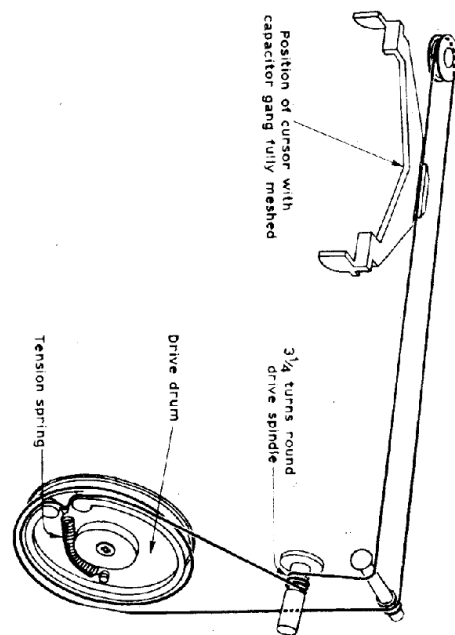
2. — Connect r.f. coupling loop to signal generator and loosely couple loop to ferrite rod aerial assembly. Switch receiver to b.s. and tune to 208m (right hand cursor to mark 5). Feed in a 1,440kc/s a.m. signal and adjust **L8** (red core) for maximum output.

3. — Switch receiver to m.w. and tune to 500m (left hand cursor to mark 2). Feed in a 600kc/s a.m. signal and adjust **L2/L3** (slide along ferrite rod) for maximum output.

4. — Tune receiver to 208m (left hand cursor to mark 3) and feed in a 1,440kc/s a.m. signal. Adjust **TC1** for maximum output. Disconnect and remove signal generator.

5. — Switch receiver to l.w. and tune to 1,500m (right hand cursor to mark 6). Adjust **TC2** for maximum output of B.B.C. Radio 2 broadcast signal.

6. — Retune receiver so that the right hand cursor is coincident with mark 4. Adjust **L4/L5** (slide along ferrite rod) for maximum output of Allouis broadcast signal.



**FIDELITY
RAD 11**

Transistor table

| Transistor | Emitter (V) | Base (V) | Collector (V) |
|------------|-------------|----------|---------------|
| TR1 | AF117 | 0.5 | 0.6 |
| TR2 | AF117 | 0.5 | 0.6 |
| TR3 | AF117 | 0.7 | 0.9 |
| TR4 | OC71 | 0.6 | 0.7 |
| TR5 | AC128 | 0 | 0.2 |
| TR6 | AC128 | 3.9 | 4.0 |
| TR7 | AC127 | 3.9 | 3.7 |