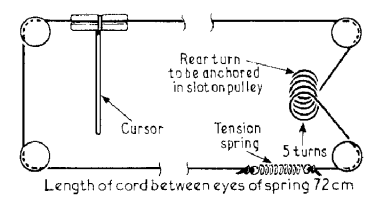


ROBERTS R600

CIRCUIT ALIGNMENT

Equipment Required.—A signal generator covering the range 100kc/s-2Mc/s, 30 per cent amplitude modulated, and an f.m. output (25kc/s deviation) at 108Mc/s; an audio output meter of 5Ω impedance to be used in place of the loudspeaker, alternatively an a.c. voltmeter switched to the 2.5V a.c. range connected in parallel with the loudspeaker, and an r.f. coupling coil.

During alignment the input signal should not be allowed to exceed the level required to produce an audio output of not greater than 50mW in order to prevent a.g.c. action masking the alignment peaks.



Note: No alignment instructions are given for the i.f. transformers, and no attempt should be made to realign them.

1.—Switch on signal generator and allow 15 minutes to warm up. Connect in appropriate manner the output meter to be used.

Rotate tuning control fully anti-clockwise, and check that cursor coincides with the low frequency end of tuning scale.

Connect the r.f. coupling coil to the signal generator output; all signals are to be fed in via this coil in order to avoid disturbance to the r.f. oscillator circuits.

2.—Switch receiver to m.w., and tune to the 200m calibration mark. Loosely couple the r.f. coupling coil to ferrite rod aerial, and feed in a 1,500kc/s a.m. signal. Adjust a.m. oscillator and aerial trimmers for maximum output.

3.—Tune receiver to the 536m calibration mark and feed in 560kc/s a.m. signal. Adjust a.m. oscillator coil core, and L2 (slide along ferrite rod) for maximum output.

4.—Repeat operations 2 and 3 for optimum results finishing with 2.

5.—Switch receiver to l.w. and tune to the 200m calibration mark. Feed in a 263kc/s a.m. signal, and adjust CV1 and CV2 for maximum output.

6.—Tune receiver to the 536m calibration mark, and feed in a 158kc/s a.m. signal. Adjust L3 (slide along ferrite rod) for maximum output.

7.—Repeat operations 5 and 6 for optimum results finishing with 5.

8.—Switch receiver to v.h.f.; switch off a.f.c. (press-button depressed); rotate tuning control fully clockwise, and loosely couple the r.f. coupling coil to the telescopic aerial.

9.—Feed in a 108Mc/s f.m. signal. Adjust f.m. oscillator and f.m. r.f. trimmers for maximum output.

When switched to v.h.f.: Tap 10 v.h.f. tuner 6.5V; tap 18 i.f. module 6.5V.
 Function of RV1, RV2 and RV3: 4.7V.

Resistors

Resistor	Value	Notes
R1	100Ω	
R2	150kΩ	
R3	8.2kΩ	
R4	390Ω	
R5	82kΩ	
R6	22kΩ	
R7	4.7kΩ	
R8	6.8kΩ	
R9	560Ω	
R10	2.2kΩ	
R11	330Ω	
R12	330Ω	
R13	68kΩ	
R14	68kΩ	
R15	680Ω	
R16	10Ω	
R17	560Ω	
R18	8.2kΩ	
R19	12Ω	
R20	470Ω	
R21	330Ω	
R22	100Ω	
RV1	20kΩ	
RV2	47kΩ	
RV3	220Ω	

Coils*

Coil	Value
L1	—
L2	—
L3	—
L4	—
L5	—
L6	5Ω

Miscellaneous

Component	Value
S1-S15	—
S16	—

* Approximate d.c. resistance in ohms.

** Wired on waveband switches.

† Loudspeaker.

‡ Not fitted in chassis prior to serial No. 2880.

