PERDIO - PR110
GROSVENOR

Resistors		
R1	10kΩ	B2
R2	2·2kΩ	C2
R3	1kΩ	C1
R4	150kΩ	B1
R5	3·9kΩ	A2
R6	47kΩ	B2
RV1	5kΩ	A2
RV2	5kΩ	A2

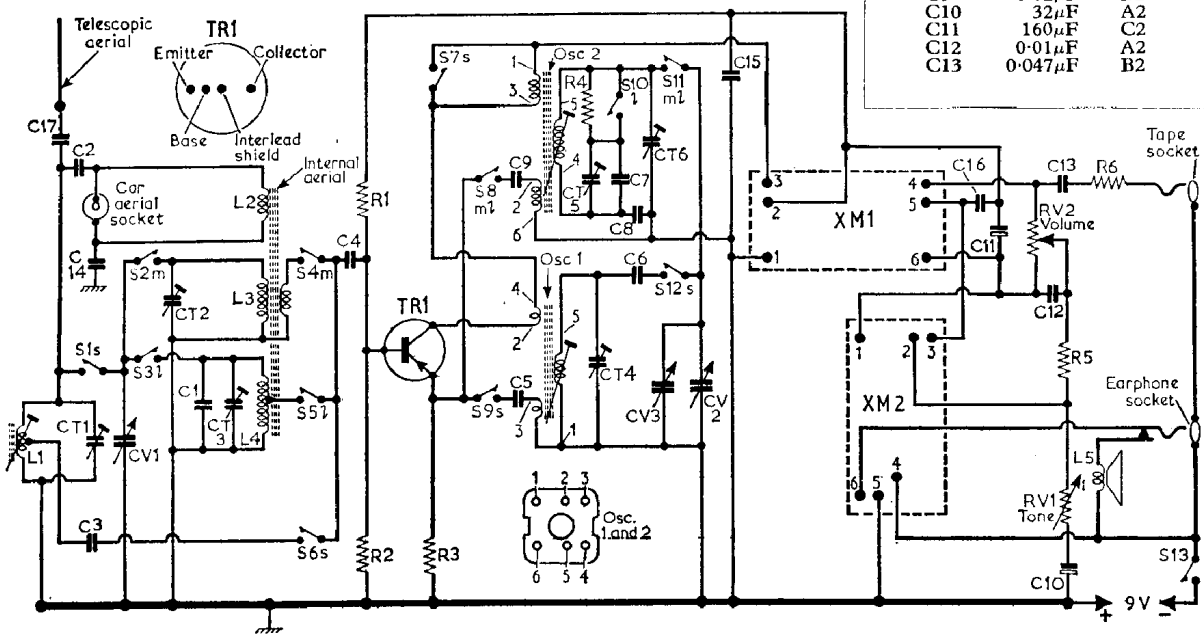
Capacitors		
C1	90pF	C1
C2	8pF	C1
C3	2,200pF	C1
C4	0·01μF	B2
C5	2,200pF	C1
C6	0·01μF	B2
C7	300pF	B1
C8	330pF	B1
C9	0·02μF	B2
C10	32μF	A2
C11	160μF	C2
C12	0·01μF	A2
C13	0·047μF	B2
C14	0·02μF	B2
C15	0·02μF	C2
C16	0·02μF	B2
C17	18pF	C1
CT1	40pF	C2
CT2	—	C2
CT3	—	C2
CT4	—	C2
CT5	—	B1
CT6	40pF	B1
CV1	—	B1
CV2	—	B1
CV3	—	A1

Transistors & Diode		
TR1	AF115	C1
2G417B, 2G417, OA90	I.F. Module	
AC127, OC81D, OC81, AC127	A.F. Module	

Coils*		
L1	—	C1
L2	3·5	A1
L3	2·9	C1
L4	12·5	A1
L5	15·0	—
Osc. 1 1-5	0·5	C1
Osc. 2 4-5	3·5	B2

Miscellaneous		
S1-S12	—	B1
S13	—	A2
XM1†	—	B2
XM2¶	—	B2

*Approximate d.c. resistance in ohms.
†I.f. module.
¶A.f. module.



PR110 "Grosvenor"

Constructed on the modular principle with the i.f. and detector stages contained in one unit XM1, and the driver and output stages contained in the other XM2. A total of seven transistors are employed, the mixer TR1 is wired separately on the main printed panel. Three wavebands are covered as follows: 185-570m (m.w.), 1,090-1,940m (l.w.) and 5.8-15.5 Mc/s (s.w.). Socket facilities are provided for an external aerial, earphone and tape recording. Built-in ferrite rod and telescopic aerials are fitted.

CIRCUIT ALIGNMENT

Equipment Required.—As for the PR99. Complete i.f. and r.f. alignment may be carried out with the chassis assembled in the case. During alignment the input signal level should not be allowed to exceed 50mW (0.8V a.c. across the speech coil) to prevent a.g.c. action.

1.—Connect the output meter in place of the loudspeaker or connect the a.c. voltmeter across the speech coil. Switch receiver to m.w. and set the tuning to approximately 1Mc/s (300m) finding a position which is clear of signals. Turn the volume control to maximum.
2.—Connect the signal generator via the 0.1μF capacitor to the base of **TR1**, or disconnect the lead between **L3** coupling coil and **S4** and connect the generator direct to this lead. Feed in a 468kc/s signal and adjust each i.f. transformer for maximum output on the meter.
3.—Connect the signal generator to the r.f. coupling loop and loosely couple the loop to the ferrite rod aerial. Check that with the tuning gang at maximum capacitance, the pointer lines up with the scale datum line.
4.—With the tuning gang fully closed, feed in a 525kc/s signal and adjust "OSC coil 2" for maximum output.
5.—Fully open the tuning gang, feed in a 1,620kc/s signal and adjust **CT6** for maximum output.
6.—Repeat operations 4 and 5.
7.—Feed in a 600kc/s signal and tune receiver to this signal. Adjust **L3** for maximum output.
8.—Feed in a 1,450kc/s signal and tune receiver to this signal. Adjust **CT2** for maximum output.
9.—Repeat operations 7 and 8.
10.—Switch receiver to l.w. and de-tune **L4** by placing a ferrite rod near it to prevent oscillator "pulling." Fully close the tuning gang, feed in a 155kc/s signal and adjust **CT5** for maximum output.
11.—Remove the ferrite rod from **L4**, feed in a 175kc/s signal and tune receiver to this signal. Adjust **L4** for maximum output.
12.—Feed in a 260kc/s signal, tune receiver to this signal and adjust **CT3** for maximum output.
13.—Repeat operations 11 and 12.
14.—Switch receiver to m.w. and repeat operations 7 and 8.
15.—Switch receiver to s.w. Disconnect the lead from the telescopic aerial and connect the signal generator to this lead. Fully close the tuning gang and feed in a 5.8Mc/s signal. Adjust "OSC coil 1" for maximum output.
17.—Repeat operations 15 and 16.
18.—Feed in a 6.46Mc/s signal and tune receiver to this signal. Adjust **L1** for maximum output.
19.—Feed in a 14.85Mc/s signal and tune receiver to this signal. Adjust **CT1** for maximum output.
20.—Repeat operations 18 and 19.