generator, allow it adequate time to stabilise against drift and then set the receiver controls as follows: Range Switch, Range 5; Volume, Maximum; Tuning, 350 kc/s.; Tone, Fully clockwise. Tune the generator to 465 kc/s. (with modulation 30 per cent. at 400 c/s.) and then set the attenuator to give a reading of approximately 50 mW. on the output meter. Peak the cores in IFT1, IFT2 and IFT3 for maximum output, setting all cores to the " outer " peak. Re-check each adjustment several times to ensure accurate alignment and then set the attenuator for an output reading of 50 mW. Input should be of the order 4 μV. If the I.F. sensitivity is lower than this figure, check the A.F. sensitivity by introducing an audio generator across RV3. At 1000 c/s. an input of 5 mV. should give an output of 50 mW. Disconnect the generator(s) and remove the shorting link from C48 on completion of the alignment.

10·7 Mc/s. Stages: *N.B.:* The 10·7 Mc/s. I.F. Transformer L21/L22 is not aligned with the other 10·7 Mc/s. circuits. It forms part of the F.M. tuner unit and is adjusted when aligning this unit later in the alignment procedure.

Switch on the generator, allow adequate time to stabilise against drift and set all receiver controls as for 465 kc/s. alignment except the range switch which should be at F.M. Short out the one discriminator diode D4 and connect the output meter to the telephone socket as before. Tune the generator to 10·7 Mc/s., adjust for 30 per cent. modulation at 400 c/s. and then connect its output lead to tag 16 at the right-hand end of the I.F. board. The adjacent tag 17 can be used as an earthing point.

Peak the cores in the 10·7 Mc/s. transformers IFT4, IFT5 and IFT6 on their " outer " peak for maximum reading on the output meter. Remove the short from D4 and adjust the secondary (top) core of IFT6 for minimum signal.

I.F. sensitivity using an A.M. signal and with D4 shorted should be of the order 30 μV. for 50 mW. output. RV1 can be adjusted if necessary to achieve this figure.

R.F. Alignment: (*Ranges 1–5*)*:* The first step in this part of the procedure is a check on the overall calibration accuracy. Proceed as follows: Standardise the generator calibration against a reliable frequency standard and connect its output lead to the " A1 " socket and " **earth.**" The shorting plug should be in position between " AE " and " **earth.**" Select Range 1 and tune the generator and receiver to each megacycle point in turn noting the degree of error present. Errors should not exceed 1 per cent. (i.e. 180 kc/s. at 18 Mc/s., 90 kc/s. at 9 Mc/s., etc.). Repeat on Range 2 and then select Range 3. Checks should be made at 500 kc/s. intervals on this range followed by checks at 100 kc/s. intervals on Ranges 4 and 5.

Oscillator adjustments should not be touched unless errors of greater than 1 per cent. are detected. If realignment is found to be necessary, carry out normal tracking procedure using trimmers at the high frequency end of the band and cores at the low frequency end. Each adjustment must be