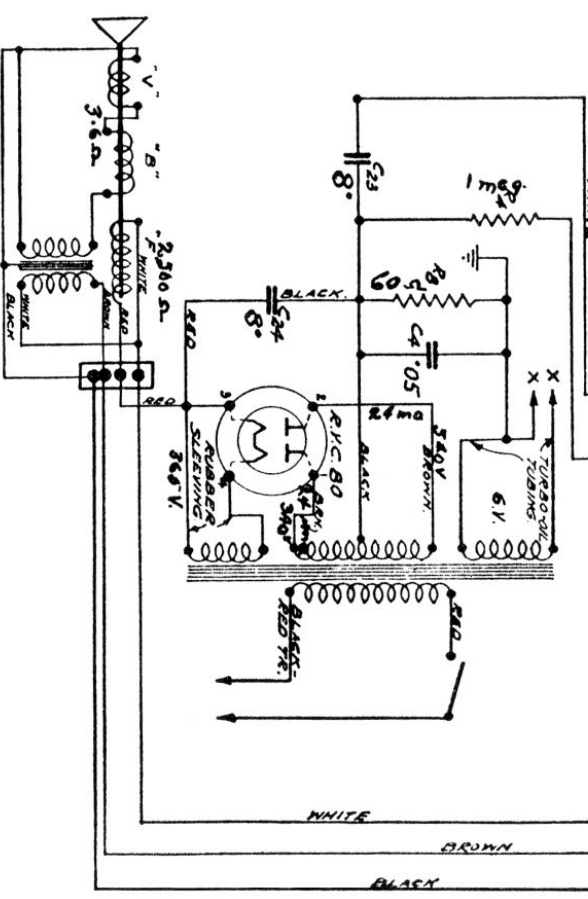


# Marconi Models 46 & 47



**Short Wave Circuits:**—On examining the wiring diagram it will be observed that when the Wave Change Switch is turned to Short Wave, one winding each of the R.F. and 1st detector grid coils is shorted out and at the same time, S/W trimmers C25 and C26 are connected from primary to secondary of the R.F. and Detector coils, thus serving to increase the coupling as well as acting as trimmers. As the broadcast band trimmers are always in circuit, it is obvious that changing their adjustment will affect **both** short wave and broadcast bands. Therefore, it will be necessary to re-adjust C25 and C26 every time the broadcast band is re-aligned.

No change in the oscillator circuit is made for short wave as the second harmonic of the oscillator is used to produce the 180 K.C. beat with the incoming S/W signal. As the oscillator is still tuned to the broadcast band when the receiver is switched to short wave, some interference may be experienced from powerful broadcast stations. This cannot be avoided.

### ALIGNMENT:

Always proceed in the following order when aligning trimmer condenser:—(1) I.F. Trimmers, (2) R.F. Trimmers, (3) Oscillator Tracking Condenser, (4) Short Wave Trimmers.

**IMPORTANT:**—Always have the Volume Control turned on full and reduce the output of the Test Oscillator to a point where only a moderate signal is reproduced, in order to prevent bringing the A.V.C. into operation. Accurate alignment can only be obtained by using an output meter.

**I.F. Trimmers:**—Connect a 180 K.C. Test Oscillator to the grid cap of the 6A7 tube and to chassis, leaving the grid clip in place. If there is no blocking condenser in the Test Oscillator, a .1 Mf. 200 volt condenser should be connected in series with the lead from the Test Oscillator to grid. This is necessary to avoid shorting out the bias resistor. The I.F. trimmers should now be adjusted for maximum output, in the following order:—C12, C7, C6.

**R.F. Trimmers:**—Connect a Broadcast Band Test Oscillator to the antenna and ground leads and tune the receiver and oscillator to 1,400 K.C. Adjust in order:—Oscillator, Detector and R.F. Trimmers.

## Marconi Models 46 & 47 Alignment Procedure and Adjustments

Tune Test Oscillator and receiver to 600 K.C. and adjust Oscillator Tracking Condenser (C5).

**Short Wave Trimmers:**—First make sure that the Broadcast Band Trimmers are properly aligned then switch to short wave and set the receiver dial to 1,120 and the Test Oscillator to 2,400 K.C. The S/W Trimmers C26 and C25 should then be adjusted for maximum output.

If the Test Oscillator will not supply a fundamental frequency of 2,400 K.C. it may be set at 800 or 600 K.C. Do not attempt to use a harmonic of 1,200 K.C. as this frequency may be picked up directly, as mentioned under "Short Wave Circuit."

