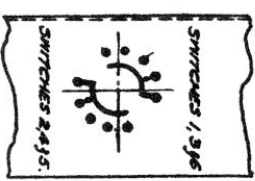
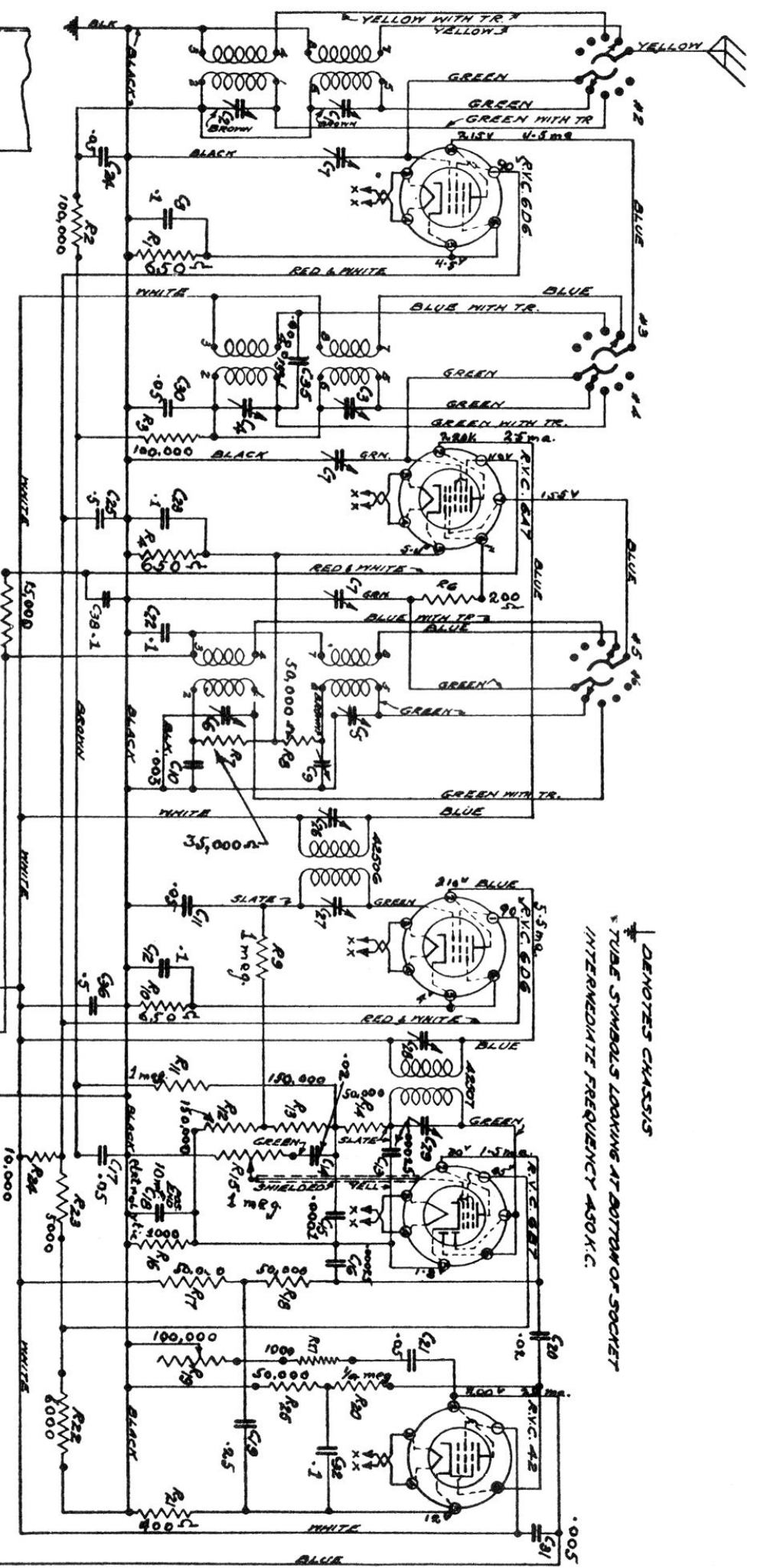


↑ DENOTES CHASSIS  
 \* TUBE SYMBOLS LOOKING AT BOTTOM OF SOCKET  
 INTERMEDIATE FREQUENCY 450 K.C.



SWITCHES  
 SHOWN IN  
 LONG WAVE  
 POSITION

BOTTOM VIEW OF COILS

DET. COIL  
 (#42504)

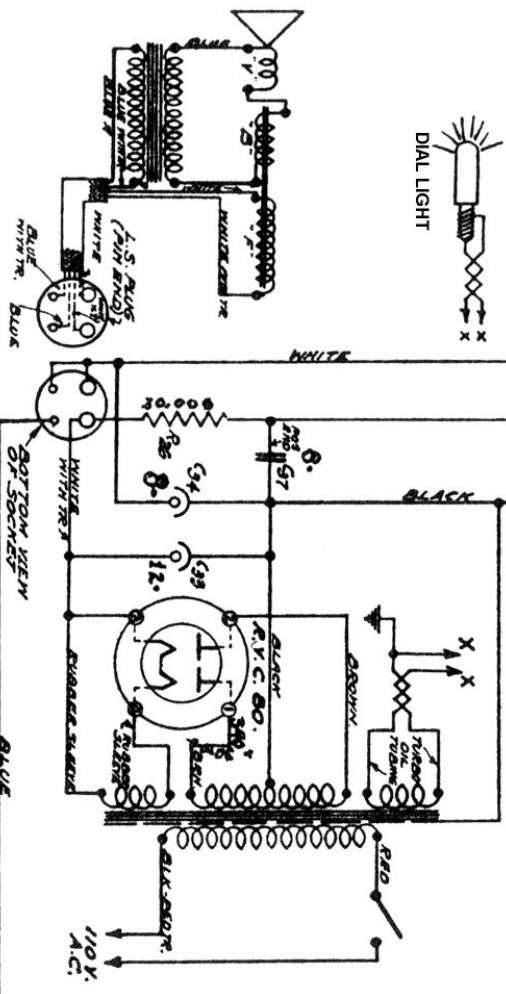
WHITE SPOT

RED SPOT

R.F. COIL  
 (#42503)

BLUE SPOT

OSC. COIL  
 (#42505)



# Marconi Models 49, 51

## 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 full on 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 450 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 changing the bias. The I.F. trimmers should now be adjusted for maximum output, in the following order:—C29, C28, C27, C26.

**R.F. Trimmers:**—Turn the tuning condenser to minimum and set the dial pointer to the last scale division. 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 (C5), Detector (C3) and R.F. (C1) Trimmers.

Tune Test Oscillator and receiver to 600 K.C. and adjust Oscillator Tracking Condenser (C9) for maximum output.

**Short Wave Trimmers:**—It is highly desirable that the S/W Oscillator trimmer remain as adjusted in the factory and care should be taken not to disturb the setting of this condenser (C6). If this adjustment has not been disturbed or the wiring of the receiver altered, the S/W circuits should be aligned as follows:—Connect a test oscillator to the A and G leads, using a 200 Mmf condenser in series with the antenna lead. Adjust the test oscillator to give a 14,000 K.C. signal and tune the receiver to the signal. The Detector and R.F. trimmers (C4 and C2) should now be adjusted for maximum output.

If the adjustment of the S/W oscillator trimmer has been changed, it will have to be properly reset, otherwise, the receiver may not tune to the maximum frequency required. The easiest way of accomplishing this is to use an additional short wave receiver. This receiver is tuned to a 16,000 K.C. unmodulated signal supplied by

## Marconi Model 49 & 51 Alignment Procedure and Adjustments

the Test Oscillator. The receiver to be adjusted is then turned on and the gang condenser set at minimum. The S/W Oscillator Trimmer (C6) is now adjusted to the point where this circuit is oscillating at a frequency which, when picked up by the auxiliary receiver (still tuned to the Test Oscillator) will produce a low beat note. This indicates that the S/W Oscillator is tuned to 16,000 K.C. The Detector and R.F. Trimmers (C4 and C2) are then aligned as described above, taking care not to make any further change in the setting of the S/W Oscillator Trimmer (C6) while making these adjustments.

**Wave Change Switch:**—Dirty switch contacts will cause noisy and intermittent operation and should therefore be cleaned periodically with gasoline or alcohol. *Do not use any lubricant on these contacts.*

We also recommend periodic cleaning of the contact springs in the gang tuning condenser.

