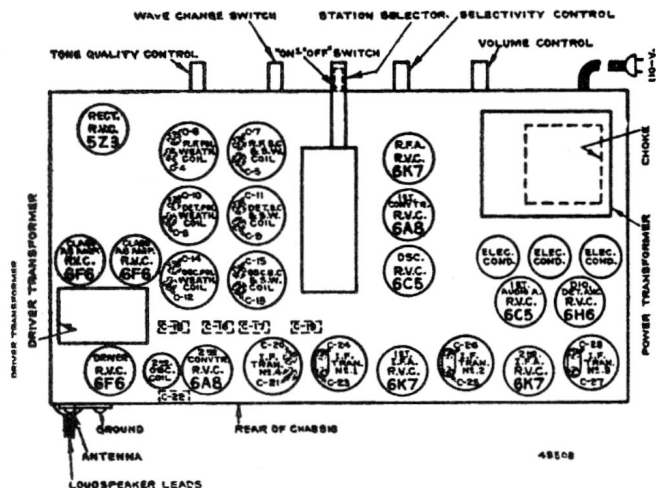


## Marconi Models 71, 72 (Double Conversion on Short-Wave)

## RESISTANCE OF COILS

Pri. I.F. Trans. No. 1 (48691)	4.5 Ohms
Sec. " " No. 1 " "	4 " "
Pri. " " No. 2 (48802)	4.5 " "
Sec. " " No. 2 " "	4 " "
Pri. " " No. 3 (48692)	4 " "
Sec. " " No. 3 " "	4 " "
Pri. " " No. 4 (48304)	4 " "
Pri. Driver Trans. (48688)	400 " "
Sec. " " " "	700 " "
Pri. " " " "	500 " "
Sec. " " " "	1 " "

Pri. Power Trans. 25 Cycle 48686	2.5 Ohms
Sec. " " " " " "	175 " "
Pri. " " " 60 " 48687	2 " "
Sec. " " " " " "	130 " "
Filter Choke Coil 42814	200 " "
Speaker Field Coil	1,000 " "
Tuning Meter	375 " "
Voice Coil	4.5 " "
Aerial Coil, Weather Band	95 " "
Plate " " " "	375 " "
Impedance of Voice Coil M71	5.2 " "
" " " " M72	6.5 " "



### ALIGNMENT:

**I.F. Trimmers:**—Set gang at minimum, W.C. switch to broadcast band and variable I.F. control at maximum selectivity.

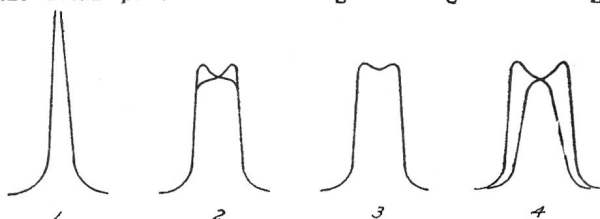
Connect Test Oscillator to grid clip of tube No. 5 (2nd I.F.). Supply a 462.5 K.C. signal and adjust C28 and C27.

Connect Test Oscillator to grid clip of tube No. 4 (1st I.F.) and adjust C26 and C25. Touch up C28 and C27.

Connect Test Oscillator to grid clip of tube No. 2 (mixer) and adjust C24 and C23. Touch up all trimmers, in order, C28, 27, 26, 25, 24 and 23.

It is absolutely essential that the diode transformer be in perfect alignment before attempting to trim the other transformers.

If a Cathode Ray Oscilloscope is used for alignment of the I.F. circuits, the double image method is preferred and exactly the same procedure should be followed as specified above. After alignment is completed, the image seen should correspond to Fig. 1. As a check on the correctness of alignment, turn the selectivity control to the "broad" position which should give an image similar to Fig. 3.



If the curve is slightly unbalanced as in Fig. 2, it may be corrected by a slight adjustment of C28. If, however, it is badly out as in Fig. 4, the entire alignment procedure should be repeated as it will be impossible to get correct trimming of all circuits with the oscillator connected to the grid of the mixer tube.

## Marconi Models 71, 72 Alignment Instructions

An opening has been made in the chassis base plate which permits connecting the oscilloscope to the junction of R14 and C40, which is a more suitable point to connect to than to the audio output. Similar provision has been made in the Model 70.

**S.W. I.F. Trimmers:**—Switch to short wave leaving control at maximum selectivity. Supply a 1680 K.C. signal through a condenser to grid clip of tube No. 3A (2nd converter).

Adjust C22 for maximum output. Note that this oscillator is tuned to the **lower** peak, i.e., 1217.5 K.C.

Connect T.O. through a condenser to grid clip of tube No. 2 (1st converter) and supply a 1680 K.C. signal. Adjust C20 and C21.

**Broadcast Band Trimmers:**—With gang condenser at **maximum** capacity, set dial pointer to centre line on right hand side of dial. Connect T.O. to A and G terminals, using a standard dummy antenna or a .00025 Mf. series condenser. Rotate dial to indicate 1600 K.C., and supply a signal of this frequency. Adjust in order, C13, C9 and C5. If C13 peaks at two points, the correct setting is with the trimmer further out.

Track C17 at 580 K.C. while rocking the dial to obtain the best setting.

Retrim C13 at 1600 K.C.

**Police Band Trimmers:**—Switch to police band and supply a 6600 K.C., signal to A and G through a 400 ohm non-inductive resistor. Set dial at 6.6 M.C. and adjust, in order, C14 and C10 and C6.

Track C18 at 2400 K.C., while rocking the dial to obtain maximum output.

Retrim C14 at 6600 K.C.

**Short Wave Band Trimmers:**—Connect the T.O. to A and G using a 400 ohm series resistor. Set dial to 20 M.C. and supply a signal of this frequency and adjust, in order, C15, C11 and C7.

Track C19 at 8. M.C. while rocking the dial to obtain maximum output.

Retrim C20 at 20 M.C.

**Weather Band Trimmers:**—Use standard dummy antenna and supply a 370 K.C. signal to A and G. Trim C12, C8 and C4 with the dial set to this frequency.

Track C16 at 160 K.C. while rocking the dial.