

Marconi Model 122, 124 Alignment

In order to properly realign this receiver, the radio technician should have available an output meter and a well attenuated test oscillator capable of giving the following frequency fundamentals:-

462.5 K.C. for I.F. alignment.
1500 K.C. and 580 K.C. for broadcast band alignment.
4800 K.C. and 1720 K.C. for police band alignment.
16,000 K.C. and 6000 K.C. for Short wave band alignment.

The manual volume control should always be kept at maximum, and the signal from the test oscillator should be kept as low as possible. In any case, the signal should not be of sufficient strength to bring the automatic volume control into operation.

If a Cathode Ray Oscillograph is used instead of an output meter, the vertical plates should be connected across the volume control, R5. The alignment should produce a round top rather than a sharply peaked image.

PROCEDURE FOR REALIGNING I.F. TRANSFORMERS

- (1) Set gang capacitor at minimum capacity.
- (2) Apply a 462.5 K.C. signal to the control grid of the 6A8 converter tube.
- (3) Adjust in order C14, C13, C12 and C11 for maximum output.

PROCEDURE FOR REALIGNING BROADCAST BAND

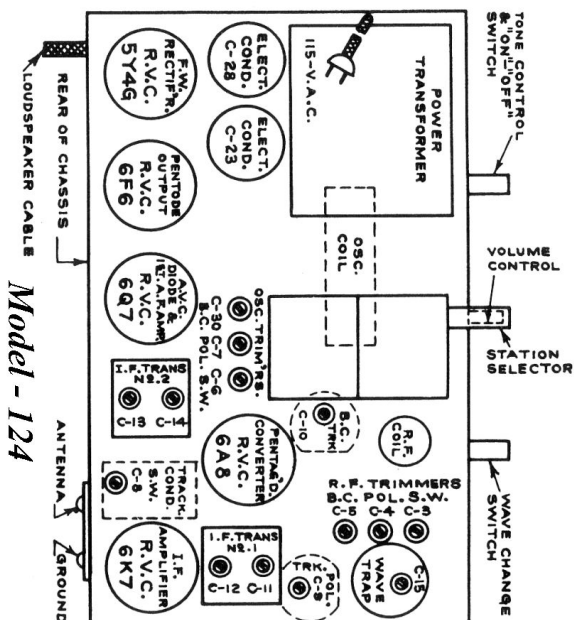
- (1) Set gang capacitor at maximum capacity (plates meshed).
- (2) Set dial pointer over the third (3rd) red graduation mark from the end of the broadcast band calibration.

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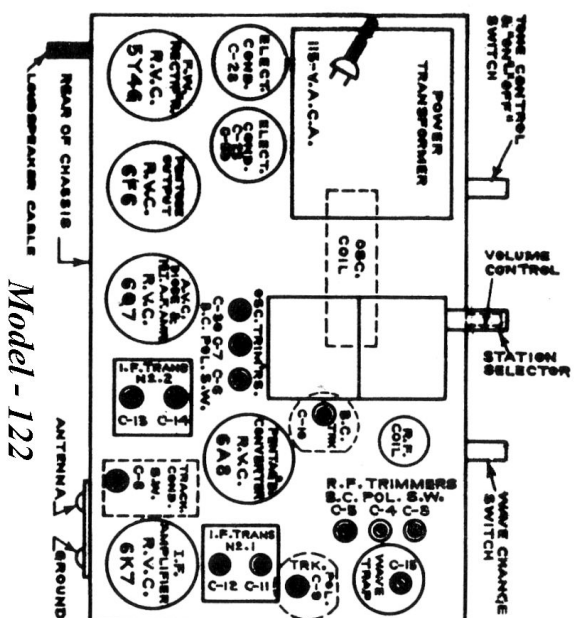
- (2) Set dial pointer over the last graduation mark at the end of the broadcast band calibration.
- (3) Rotate tuning knob until pointer is at 1500 K.C.
- (4) Supply a 1500 K.C. signal from a test oscillator to the aerial and ground terminals.
- (5) Adjust broadcast oscillator trimmer C30 to tune in the 1500 K.C. signal.
- (6) Adjust broadcast R.F. trimmer C5 for maximum output.
- (7) Shift test oscillator to 580 K.C.
- (8) Rotate the tuning capacitor until the 580 K.C. signal is reached.
- (9) Adjust broadcast oscillator tracking capacitor C10 while rocking the gang capacitor to and fro past the signal until the combination of adjustments giving the greatest output is obtained.
- (10) Recheck at 1500 K.C.

PROCEDURE FOR REALIGNING POLICE BAND

- (1) Turn wave change switch to police band, centre position.
- (2) Rotate tuning knob until pointer is at 4800 K.C. marking on dial.
- (3) Apply a 4800 K.C. signal from test oscillator to the aerial and ground terminals.
- (4) Adjust police band oscillator trimmer C7 to tune in the 4800 K.C. signal.



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Procedure for Realigning Police Band-Cont'd.

- (5) Adjust police band R.F. trimmer C4 for maximum output.
- (6) Shift test oscillator to 1720 K.C.
- (7) Rotate tuning capacitor until 1720 K.C. signal is reached.
- (8) Adjust police band oscillator tracking capacitor C9, while rocking the gang capacitor to and fro past the signal until the combination of adjustments giving the greatest output is obtained.

PROCEDURE FOR REALIGNING SHORT WAVE BAND

- (1) Turn wave change switch to short wave band (extreme left).
- (2) Rotate tuning knob until pointer is at 16 M.C. marking on dial.
- (3) Supply a 16 M.C. signal from test oscillator to aerial and ground terminals.
- (4) Adjust short wave oscillator trimmer C6 to tune in this signal.
- (5) Adjust short wave R.F. trimmer C3 for maximum output.
- (6) Shift test oscillator to 6000 K.C.
- (7) Rotate tuning capacitor until 6000 K.C. is reached.
- (8) Adjust short wave oscillator tracking capacitor C8, while rocking the gang capacitor to and fro past the signal until the combination of adjustments giving the greatest output is obtained.
- (9) Recheck 16 M.C. alignment.

Model	CAP	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8
6A8 Converter	** 0 0	260	75	-12	150	6.3 AC	0		
6K7 I.F. Amp.	** 0 0	260	75	0	-	6.3 AC	0		
6A7 Diode	** 0 0	80	**	**	-	6.3 AC	0		
6F6 Output	-- 0 0	250	260	0	-	6.3 AC	12		
5Y4G Rectifier	--	-	345 AC	-	345 AC	-	350		350

** These readings should not be taken except with a no current voltmeter, in order to avoid shorting bias cells.

Model	CAP	PIN 1	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8
6A8 Converter	** 0 0	260	75	-12	150	6.3 AC	0		
6K7 I.F. Amp.	** 0 0	260	75	0	-	6.3 AC	0		
6A7 Diode	** 0 0	80	**	**	-	6.3 AC	0		
6F6 Output	-- 0 0	250	260	0	-	6.3 AC	12		
5Y4G Rectifier	--	-	345 AC	-	345 AC	-	350		350

** These readings should not be taken except with a no current voltmeter, in order to avoid shorting bias cells.

ADJUSTMENT OF WAVE TRAP

Set the dial pointer at approximately 580 K.C. and apply a 462.5 K.C. signal to the antenna and ground terminals, adjust C15 until a minimum signal is obtained.