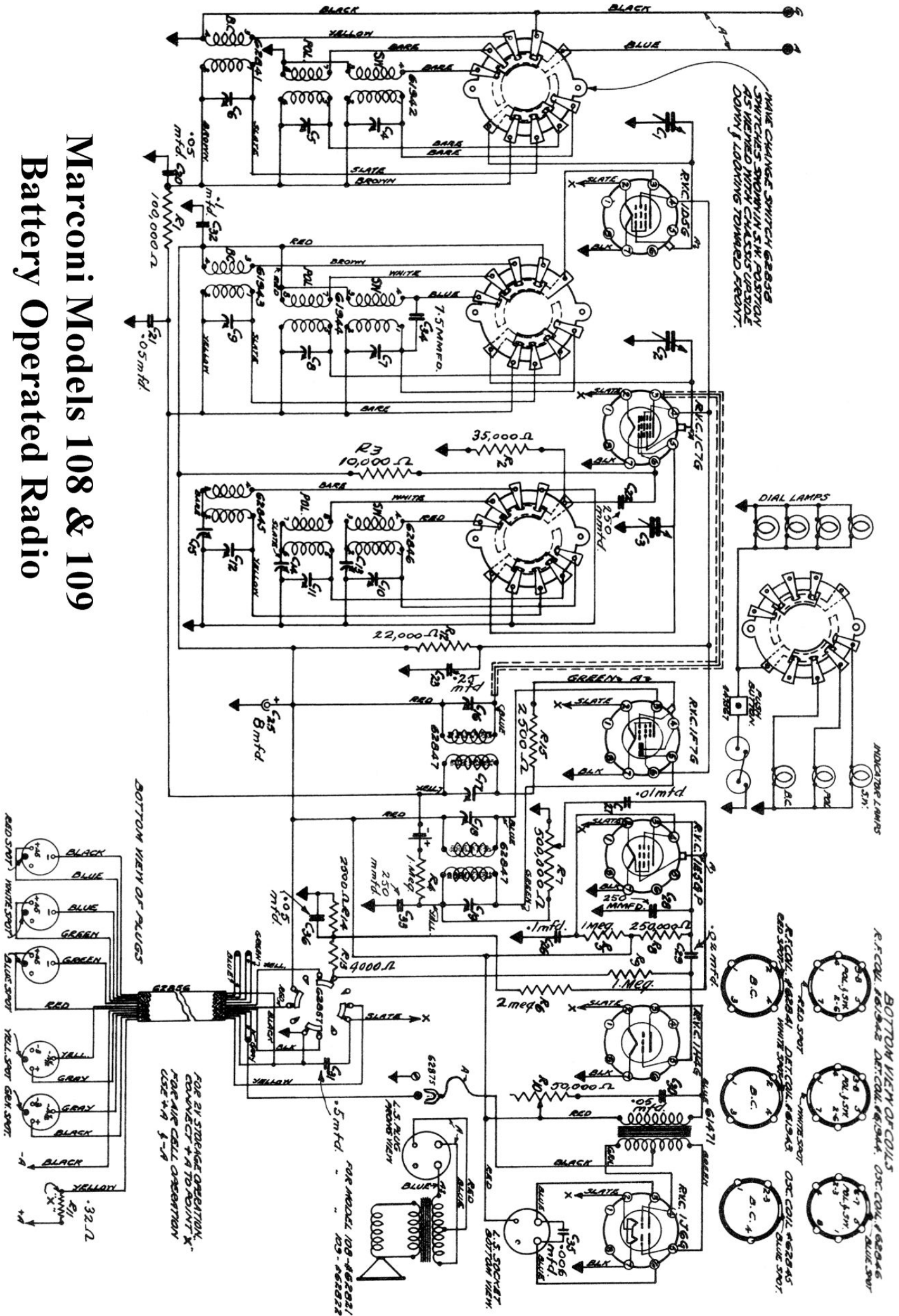


MADE CHANGE SWITCH 6E855
SWITCHES SHOWN IN S.W. POSITION
AS VIEWED WITH CHASSIS UPRIGHT
DOWN, LOOKING TOWARD FRONT



Marconi Models 108 & 109 Battery Operated Radio

ALIGNMENT INSTRUCTIONS

In order to properly re-align this receiver the radiotrician should have available an output meter and an accurate well attenuated test oscillator capable of supplying the following frequency fundamentals:-

462.5 K.C. for I.F. alignment.
1500 and 580 K.C. for B.C. Band alignment.
5 M.C. and 1800 K.C. for Police Band alignment.
16 M.C. and 6 M.C. for S.W. Band alignment.

The manual volume control should be kept at maximum, and the signal from the test oscillator should be kept at a sufficiently low level to prevent the A.V.C. coming into operation.

If a Cathode Ray Oscillograph is used instead of an output meter the output should be measured across the volume control R18.

PROCEDURE FOR RE-ALIGNING I.F. TRANSFORMERS

- (1) Short oscillator section of tuning capacitor through a 0.1 mfd capacitor.
- (2) Supply a modulated 462.5 K.C. signal from a test oscillator to the control grid cap of the 1C7G converter tube leaving the grid connector in place.
- (3) Adjust in order C19, C18, C17 and C16 for maximum output.

PROCEDURE FOR RE-ALIGNING BROADCAST BAND

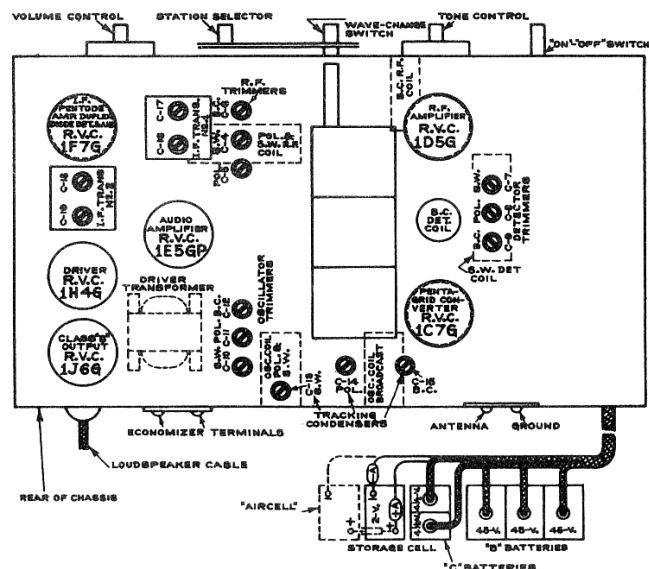
- (1) Check setting of pointer. With the gang capacitor at maximum i.e., plates meshed, the pointer should be set in a horizontal position midway between the upper and lower scales.
- (2) Rotate tuning control until pointer is at 1500 K.C.
- (3) Supply a 1500 K.C. signal from a test oscillator to the aerial and ground terminals.
- (4) Adjust broadcast oscillator trimmer C12 to tune in the 1500 K.C. signal.
- (5) Adjust broadcast R.F. trimmers C9 and C6 for maximum output.
- (6) Shift test oscillator to 580 K.C.
- (7) Rotate tuning control until the 580 K.C. signal is reached.
- (8) Adjust B.C. oscillator tracking capacitor C15 while rocking the gang capacitor to and fro past the signal until the combination of adjustments giving the greatest output is obtained.
- (9) Recheck 1500 K.C. adjustment.

PROCEDURE FOR RE-ALIGNING POLICE BAND

- (1) Turn wave-change switch to Police Band (centre position).
- (2) Rotate tuning control until pointer is at 5 M.C.
- (3) Supply a 5 M.C. signal from a test oscillator to the aerial and ground terminals.
- (4) Adjust Police Band Oscillator trimmer C11 until the 5 M.C. signal corresponds with the 5 M.C. marking on dial.
- (5) Adjust Police Band R.F. trimmers C8 and C5 for maximum output.
- (6) Shift T.O. to 1800 K.C.
- (7) Rotate tuning control until the 1800 K.C. signal is reached.
- (8) Adjust Police Band oscillator Padder C14 while rocking the gang capacitor to and fro past the signal until the combination of adjustments giving the greatest output is obtained.
- (9) Recheck 5 M.C. adjustment.

PROCEDURE FOR RE-ALIGNING SHORT-WAVE BAND

- (1) Turn wave-change to S.W. Band (extreme right).
- (2) Rotate tuning control until pointer is at 16 M.C.
- (3) Supply a 16 M.C. signal to the A & G terminals.
- (4) Adjust Short-wave oscillator trimmer C10 until the 16 M.C. signal corresponds with the 16 M.C. marking on dial.
- (5) Adjust Short-wave R.F. trimmers C7 and C4 for maximum output.
- (6) Shift test oscillator to 6 M.C.
- (7) Adjust Short-wave Band Oscillator Padder C13 while rocking the gang capacitor to and fro past the signal until the combination of adjustments giving the greatest output is obtained.
- (8) Recheck 16 M.C. adjustment.



RADIOTRON	CAP	PIN 2	PIN 3	PIN 4	PIN 5	PIN 6	PIN 7	PIN 8
R.V.C. 1D5G	**	2	135	62.5	-	-	0	-
R.V.C. 1C7G	**	2	135	62.5	*-5.75	105	0	-
R.V.C. 1F7G	**	2	135	-	0	62.5	0	-
R.V.C. 1E5G	**	2	50	45	-	-	0	-
R.V.C. 1H4G	-	2	130	-	*-0.75	-	0	-
R.V.C. 1J6G	-	2	135	*-4.25	*-4.25	135	0	-

All readings taken with 20,000 ohm per volt-meter, receiver on B.C. Band, Volume Control at maximum, Gang Capacitor at maximum and Battery Economizer in circuit.

** Control grid readings should not be taken except with a no-current volt-meter in order to avoid shorting bias cells.

* Taken on 10 volt range.