

ALIGNMENT — PROCEED IN SEQUENCE LISTED

	Band Switch Setting	Dummy Antenna	Connect Generator To	Radio Dial Setting	Generator Frequency	Trimmer Adjusted	Adjustment	Note
2nd I.F.	B. C.	.1 Mfd.	Grid of 6K7G I.F. Tube	1650 K. C.	455 K. C.	2nd I. F. C-16	Maximum Output	
1st I. F.	B. C.	.1 Mfd.	Grid of 6SA7 Converter	1650 K. C.	455 K. C.	1st I. F. C-15	Maximum Output	
1400 K. C.	B. C.	200 Mmfd.	Antenna	1400 K. C.	1400 K. C.	B.C. Osc. C-11 B.C. Int. C-8 B.C. Ant. C-5	Maximum Output	
600 K. C.	B. C.	200 Mmfd.	Antenna	600 K. C.	600 K. C.	B.C. Padder C-14	Maximum Output	Rock Rotor Back & Forth
21 M. C.	S. W.	400 Ohm	Antenna	21 M. C.	21 M. C.	S.W. Osc. C-10 S.W. Int. C-7 S.W. Ant. C-4	Maximum Output	See Para. on 8-22 M.C. Band
8.5 M. C.	S. W.	400 Ohm	Antenna	8.5 M. C.	8.5 M. C.	S. W. Padder C-13	Maximum Output	See Para. on 8-22 M.C. Band
49 Mtrs.	49 Mtrs.	400 Ohm	Antenna	6.10 M. C.	6.10 M. C.	Osc. B.S. C-12 Osc. Iron Core T-13	Maximum Output	See Para. on 49 Meter Band
49 Mtrs.	49 Mtrs.	400 Ohm	Antenna	6.05 M. C.	6.05 M. C.	Int. B.S. C-9	Maximum Output	See Para. on 49 Meter Band
49 Mtrs.	49 Mtrs.	400 Ohm	Antenna	6.15 M. C.	6.15 M. C.	B.S. Ant. C-6	Maximum Output	See Para. on 49 Meter Band
49 Mtrs.	49 Mtrs.	400 Ohm	Antenna	5.95 M. C.	5.95 M. C.			Check Only
49 Mtrs.	49 Mtrs.	400 Ohm	Antenna	6.25 M. C.	6.25 M. C.			Check Only
31 Mtrs.	31 Mtrs.	400 Ohm	Antenna	9.55 M. C.	9.55 M. C.	Osc. Iron Core T-11	Maximum Output	See Para. on 31 Meter Band
25 Mtrs.	25 Mtrs.	400 Ohm	Antenna	11.8 M. C.	11.8 M. C.	Osc. Iron Core T-10	Maximum Output	See Para. on 25 Meter Band
19 Mtrs.	19 Mtrs.	400 Ohm	Antenna	15.3 M. C.	15.3 M. C.	Osc. Iron Core T-9	Maximum Output	See Para. on 19 Meter Band

RCC - Phonola Data Sheet 127 - 1940-41

ALIGNMENT AND CALIBRATION

These receivers are carefully aligned and calibrated at the factory, with precision instruments. If realignment is necessary the following equipment is required:

- (1) A dependable Output Meter.
- (2) A signal Generator to supply, with accuracy the following frequencies:
 - (a) Intermediate Frequency: 455 K.C.
 - (b) Broadcast Band: 600 K.C., 950 K.C., 1400 K.C.
 - (c) Shortwave Band: 8.5 M.C., 15 M.C., 21 M.C.
 - (d) 49 Meter Band: 5.95 M.C., 6.05 M.C., 6.10 M.C., 6.15 M.C., 6.25 M.C.

Read Instructions For Aligning The Bands:

- (e) 31 Meter Band: 9.55 M.C.
- (f) 25 Meter Band: 11.8 M.C.
- (g) 19 Meter Band: 15.3 M.C.

BROADCAST AND 8 TO 22 M.C. SHORTWAVE BAND

The Broadcast Band is aligned in the usual manner. (See alignment chart and tube layout). When aligning the 8 to 22 M.C. Band, observe the following precautions:

When aligning the oscillator at 21 M.C., care should be taken to adjust the oscillator trimmer (C-12) to the peak which will occur at the lowest capacity, and when aligning the antenna and interstage trimmers (C-4 and C-7 respectively), at 21 M.C., rock the gang condenser back and forth to obtain maximum sensitivity.

THE BANDSPREAD BANDS

These circuits have stabilized adjustments, that have been accurately set at the factory. UNLESS TAPPERING IS EVIDENT, IT IS STRONGLY RECOMMENDED THAT RE-ADJUSTMENT BE AVOIDED. However, if alignment is absolutely necessary the following instructions must be very carefully followed: Special care is to be taken to assure accuracy of the Signal Generator frequencies used. The best method is to check with broadcasting stations of known frequencies.

49 METER BANDSPREAD

6 MEGACYCLE BAND:
Turn the antenna and interstage bandspread trimmer (C-6 and C-9 respectively), out one half turn from the tight position, for approximate alignment. Set the 6 M.C. oscillator iron core adjustment (T-12), to the central position. (Eleven turns down from full out). Set the Signal Generator to 6.10 M.C., then set the dial pointer to 6.10 M.C., and adjust the oscillator bandspread trimmer (C-12). (See alignment chart and tube layout), to receive the signal; two peaks may be found, if so align to the tightest position (clockwise), check the band frequency width and if necessary re-adjust the oscillator band with trimmer (C-12). (See alignment chart and tube layout). If re-adjustment of C-12 is necessary as mentioned above, it will be necessary to compensate for shifting of the 6.10 M.C. dial point, by means of the 6 M.C. oscillator iron core adjustment (T-12).

To increase the band width, loosen the band width oscillator trimmer (C-12). (See alignment chart and tube layout). To decrease the band width, tighten the band width oscillator trimmer (C-12). (See alignment chart and tube layout).

Set the signal generator and dial pointer to 6.05 M.C. and align the bandspread interstage trimmer (C-9). (See alignment chart and tube layout). Set the signal generator and dial pointer to 6.15 M.C. and align the bandspread antenna trimmer (C-6). (See alignment chart and tube layout).

31 METER BANDSPREAD

9 MEGACYCLE BAND:
Set the signal generator and dial pointer to 9.55 M.C. and align the 9 M.C. iron core adjustment (T-11). (See alignment chart and tube layout)

25 METER BANDSPREAD

11 MEGACYCLE BAND:
Set the signal generator and dial pointer to 11.8 M.C. and align the 11 M.C. iron core adjustment (T-10). (See alignment chart and tube layout).

15 METER BANDSPREAD

15 MEGACYCLE BAND:
Set the signal generator and dial pointer to 15.3 M.C. and align the 15 M.C. iron core adjustment (T-9). (See alignment chart and tube layout). Re-check the 6.10 M.C., 9.55 M.C., 11.8 M.C. and 15.3 M.C. dial positions and make any necessary changes by means of re-adjusting their respective iron cores.