

If difficulty is experienced with the unit (e.g., low sensitivity, etc.), it is best to first check the tubes before attempting any circuit repairs and/or realignment. It has been found that approximately 90% of all difficulties incurred with communications equipment may be traced to defective tubes.

If the tubes are found to be operating properly and difficulty with the receiver is still experienced, follow the alignment procedure below to insure proper resonant-circuit alignment. The equipment necessary to realign the receiver is:

- (1) Vacuum Tube Voltmeter (VTVM)
- (2) Signal Generator; frequency coverage from 1.65 to 30 mc
- (3) A hexagonal alignment tool (similar to Wal-sco No. 2543)

ALIGNMENT, GENERAL:

Connect a VTVM DC probe (— 3 volt scale) to the AVC bus. A convenient tie-in for this bus is the appropriate contact on the PHONE - CW SSB switch. Leave the switch in PHONE position so that the AVC bus is not grounded. Set the SENSITIVITY control maximum clockwise. During alignment, the signal generator output should be adjusted so that the AVC voltage falls between — 1.5 and — 2 volts.

ALIGNMENT, IF:

Step	Generator Setting	Receiver Setting	Procedure
1	455 kc	30 mc	Inject signal through .01 to Pin 7 of V3. Adjust both slugs of T6, T5, T4 for maximum meter reading. Final touch up done with weak enough signal so that noise is present.

2	1650 kc	Approximately 30 mc (signal free)	Inject into switch side of C20. Adjust L11 and both slugs of T1, T2, and T3, as per Step 1.
3	1650 kc	Approximately 30 mc (signal free)	Turn on BFO (CW-SSB switch) and adjust slug of T7 for zero beat with pitch control set at mid-range.
4	1600 kc into antenna terminals	1600 kc	Adjust C6 to tune signal.
5	600 kc	600 kc	Adjust slug of L1B to tune signal. Repeat steps 4 and 5 until no further improvement occurs.
6	1000 kc	1000 kc (tune in generator signal)	Adjust L1A for maximum meter reading with antenna control at mid-setting.
7	1650 kc into antenna terminals	Approximately 1600 kc	Adjust L7 and C45 for minimum meter reading.

ALIGNMENT, BANDS B, C, D, E, and F:

Coil designations are marked on the RF coil assembly board. Alignment of the higher frequency bands consists, in all cases, of adjusting the oscillator coil to frequency, then "peaking" the antenna coil for maximum VTVM reading (max. AVC voltage). To avoid spurious and image responses while adjusting the slugs in the oscillator coils; the oscillator frequency should be set with a calibrated receiver or accurate grid-dip meter to approximate frequency, as listed, and then "trimmed" to exact frequency with a signal generator and VTVM on the AVC line in the normal manner.

BAND	Freq.	BAND-SPREAD* setting	MAIN TUNING** setting	Oscillator frequency	Oscillator coil	Antenna coil
B	2.0 - 5.7 mc.	4.0 mc.	4.0 mc. (80)	5650 kc.	L2B	L2A
C	5.7 - 13 mc.	7.3 mc.	7.3 mc. (40)	8950 kc.	L3B	L3A
D	13 - 20 mc.	14.4 mc.	14.4 mc. (20)	16050 kc.	L4B	L4A
E	20 - 25 mc.	21.45 mc.	21.45 mc. (15)	23100 kc.	L5B	L5A
F	25 - 30 mc.	29.7 mc.	29.7 mc. (10)	31350 kc.	L6B	L6A

*SET point (90 on logging scale)

**Directly across BAND INDICATING circle

REPLACEMENT PARTS

Replacement parts and "pacs" may be ordered directly from Gonset Division, 801 So. Main St., Burbank, California, by part number, as listed on the schematic diagram. When replacing "pac" assemblies,

be extremely careful not to damage other parts or the printed circuit board during the replacement procedure. Ordinarily, the faulty "pac" is cut loose, and the tip-ends then unsoldered individually from the board.

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