

## ALIGNMENT PROCEDURES AM STAGES

The following is required for aligning:

An All Wave Signal Generator Which Will Provide an Accurately Calibrated Signal at the Test Frequencies as Listed.

Output Indicating Meter, Non-Metallic Screwdriver, Dummy Antennas - .1 mf, and 50 mmf.

Volume Control Maximum all Adjustments.

Connect Radio Chassis to Ground Post of Signal Generator with a

Short Heavy Lead.
Allow Chassis and Signal Generator to "Heat Up" for Several Minutes.

|                      | SIGNAL GENE                                | RATOR                       |                         |  |                                   | ADJUST<br>FOR     |
|----------------------|--|-----------------------------|-------------------------|--|-----------------------------------|-------------------|
| FREQUENCY<br>SETTING | CONNECT<br>GENERATOR<br>OUTPUT TO          | THROUGH<br>DUMMY<br>ANTENNA | CONNECT<br>GROUND<br>TO | GANG<br>CONDENSER<br>SETTING                                       | ADJUST                            |                   |
| 455 KC               | Contral Grid<br>1st 6BA6 Pin No. I         | .1 mf                       | Chassis<br>Base         | Ratar Fully Open   | 2nd l.F. Pri. (1)<br>and Sec. (2) | Maximum<br>Output |
| 455 KC               | Cantrol Grid<br>6BE6 Pin No. 7<br>1st Det. | .1 mf                       | Chassis<br>Base         | Ratar Fully Open   | 1st I.F. Pri. (3) and<br>Sec. (4) | Maximum<br>Output |
| 455 KC               | Control Grid<br>6BE6 Pin No. 7             | .I mf                       | Chassis<br>Base         | Rator Fully<br>Open  | 2nd i-F Pri. (1)<br>and Sec. (2)  | Maximum<br>Output |
| 1620 KC              | Cantrol Grid<br>6BE6 Pin No. 7             | .1 mf                       | Chassis<br>Base         | Ratar Fully Open   | Oscillator C-41                   | Maximum<br>Output |
| 1400 KC              | External<br>Antenna Terminal               | 50 mmf                      | Chassis<br>Base         | Turn Rotor to Max. Output.<br>Set Painter to 1400 KC<br>See Note A | Antenna C-2                       | Maximum<br>Output |

NOTE A-If the pointer is not at 1400 KC on the dial, reset pointer to the 1400 KC mark on the dial scale.

## FM STAGES

The following is required for aligning:

An accurately calibrated signal generator providing unmodulated signals at the test frequencies listed below.

Non-metallic screwdriver.

Dummy Antennas and I-F Loading Resistor—2500 mmf, 300 ohms

Zero center scale DC vacuum tube voltmeter having a range of appraximately 3 volts.

(If a zero center scale meter is not available, a standard scale vacuum tube valtmeter may be used by reversing the meter cannections far negative readings).

Allaw chassis and signal generator to "Heat Up" for several minutes.

|               | SIGNAL GE            | NERATOR   |                             |                           |                                 |   |                       |
|---------------|----------------------|---|-----------------------------|---------------------------|---------------------------------|---|-----------------------|
|               | FREQUENCY<br>SETTING | CONNECT<br>GENERATOR<br>OUTPUT TO   | THROUGH<br>DUMMY<br>ANTENNA | BAND<br>SWITCH<br>SETTING | GANG<br>CONDENSER<br>SETTING    | ADJUST  | ADJUST<br>FOR         |
| Discriminator | 10.7 MC              | 6BA6 2nd I-F<br>Pin 1 and Chassis   | 2500 mmf                    | FM                        | Rotor Fully<br>Open             | Disc. Pri. (5)<br>Note A  | Maximum<br>Deflection |
|               | 10.7 MC              | 6BA6 2nd I-F<br>Pln 1 and Chassis   | 2500 mmf                    | FM                        | Rotor Fully<br>Open             | Disc. Sec. (6)<br>Nate B  |                       |
| 1 <b>-</b> F  | 10.7 MC<br>Note C    | 6BA6 1st I-F<br>Pin I and Chassis   | 2500 mmf                    | FM                        | Ratar Fully<br>Open             | 2nd I-F Pri. (7)<br>Sec. (8) Note D   | Maximum<br>Deflection |
| Discriminator | 10.7 MC              | 6BA6 Tst I-F<br>Pin 1 and Chassis   | 2500 mmf                    | FM                        | Rator Fully<br>Open             | Disc. Pri. (5)<br>Note D  | Maximum<br>Deflection |
| i-F           | 10.7 MC              | Junctian C-32A & B<br>(Dual 100 mmf cond.)<br>And chassis   | 2500 mmf                    | FM                        | Rotor Fully<br>Open             | Ist I-F Pri. (9)<br>& Sec. (10)<br>2nd I-F Pri. (7)<br>& Sec. (8)<br>Disc. Pri. (5)<br>In Order Shown<br>Note D | Maximum<br>Deflection |
|               | 10.7 MC              | Same as above   | 2500 mmf                    | FM                        | Ratar Fully<br>Open             | Disc. Sec. (6)<br>Note B  |                       |
|               |                      | RECHECK   | I-F ADJUSTMENT              | S IN ORDER G              | SIVEN                           |   |                       |
| Oscillator    | 108.5                | Disconnect the honk anten-<br>na and connect generator<br>to dipole terminals with re-<br>sistor in series. | 300 ohms                    | FM                        | Ratar Fully<br>Open             | Osc. C-25   | Deflection<br>Maximum |
| Antenna       | 104.5                | Same as above   | 300 chms                    | FM                        | Tune rotor for max. AVC voltage | Ant. C-39   | Maximum<br>Deflection |

## RECHECK ANTENNA & OSC. ADJUSTMENTS IN ORDER GIVEN

## FM ALIGNMENT NOTES

NOTE A—The zera center scale DC vacuum tube voltmeter is to be connected between chassis graund and the AVC line. A signal of .1 volt must be fed into the receiver for this adjustment.

Note output voltage an the zera center DC vacuum tube valtmeter.

B-Disconnect zero center DC vacuum tube voltmeter from AVC and connect it at the audia takeoff point at the 27 K ohm resistor (R-10) and its junction with the terminal strip. Adjust for zero voltage Indication.

NOTE C-AM I-F coils must be aligned before attempting to align the FM I-F coils.

NOTE D-Connect zero center DC vacuum tube voltmeter as in Note A. Adjust input to give same output on the zero center DC vacuum tube voltmeter as in Note A.