## 74BR-1501B, 1502B

## ALIGNMENT PROCEDURE AND RECEIVER STAGE SENSITIVITIES

The signal source must be an accurately calibrated signal generator capable of supplying R. F. signals modulated 30% with a 400-cyle audio signal. A 400-cycle source is necessary for the audio measurement.

The table below lists the sensitivity at various points. All measurements are based on an output of 50- milliwatts. This may be measured by disconnecting the

speaker voice coil and substituting a 3.2-ohm, 5-watt resistor across the secondary winding of the output transformer. A reading of 4 volts AC across this resistor will be equivalent to a 50-milliwatt output with the speaker connected. Variations of plus or minus 25% are usually permissable. Volume control at maximum for all adjustments.

| SIGNAL GENERATOR |                       |                          |                      |                               |   | INPUT FOR              |
|------------------|-----------------------|--------------------------|----------------------|-------------------------------|---|------------------------|
| Frequency        | Coupling<br>Capacitor | Connection to Radio      | Ground<br>Connection | TUNER SETTING                 | ADJUST FOR<br>MAXIMUM OUTPUT                              | 50-MILLIWATT<br>OUTPUT |
| 455 kc           | .I mf                 | Metal<br>antenna plate   | 12SQ7<br>Pin 3       | Iron cores all<br>the way out | Trimmers on output<br>and input I.F. cans                 |                        |
| 1720 kc          | .i mf                 | Metal<br>antenna plate   | 12SQ7<br>Pin 3       | Iron cores all<br>the way out | Oscillator trimmer C6                                     |                        |
| 1720 kc          | 200 mmf               | External antenna clip    | 12SQ7<br>Pin 3       | fron cores all<br>the way out | Antenna trimmer C3  |                        |
| 1400 kc          | 200 mmf               | External<br>antenna clip | 12SQ7<br>Pin 3       | 1400 kc                       | Adjust position of ant. coil (see coil illustration view) | 31 microvolts          |
| 1720 kc          | 200 mmf               | External<br>antenna clip | 12SQ7<br>Pin 3       | 1720 kc                       | Antenna trimmer C3e                                       | 31 microvolts          |
| 1000 kc          | 200 mmf               | External antenna clip    | 12SQ7<br>Pin 3       | 1000 kc                       |   | 28 microvolts          |
| 455 kc           | .i mf                 | 12SA7, Pin 8             | 12SQ7<br>Pin 3       | Iron cores all<br>the way out |   | 82 microvolts          |
| 400 cycles       | .i mf                 | 12SQ7, Pin 2             | 12SQ7<br>Pin 3       |                               |   | .05 volts              |

\*After the antenna coil has been tracked at 1400 kc, it is necessary to check the antenna trimmer C3 again at 1720 kc. If no appreciable change in trimmer adjustment is necessary, the coil is in track. If the trimmer

requires considerable change, the position of the antenna coil at 1400 kc must be readjusted. These two adjustments should be made several times, until no trimmer adjustment is required at 1720 kc.

