ADJUSTMENT

1) Required Test Equipment

1. Digital Multimeter

2. Regulated Power Supply
   Supply voltage: 13.8VDC
   Current: 15A or more

d. Distortion Meter
   Measurable frequency: 1kHz
   Input level: Up to 40dB
   Distortion level: 1% ~ 100%

e. Audio Generator
   Output frequency: 1kHz ~ 10kHz
   Output impedance: 600Ω

3. Oscilloscope
   Measurable frequency: Audio Frequency

4. Spectrum Analyzer
   Measuring range: Up to 2GHz or more

f. Linear Detector

5. Tracking Generator
   Output frequency: Up to 2GHz or more

6. Dummy Road
   Measurable frequency: Up to 500MHz
   Impedance: 50Ω
   Power: 60W or more

7. Speaker
   Impedance: 8Ω

8. SSG
   Output frequency: Up to 1GHz
   Output level: -20dB/0.1μV to 120dB/1V
   Modulation: AM/FM

9. Transceiver Tester
   Up to 500MHz
   a. Frequency Counter

   b. Power Meter
      Impedance: 50Ω
      Measuring range: 60W or more

   c. Audio Voltmeter
      Measurable frequency: 50Hz ~ 10kHz
      Sensitivity: 1mV ~ 10V
Test Equipment
1. All SSG output is indicated by EMF.
2. Audio Output level: 50mW~100mW at 8Ω
3. Power supply voltage: 13.8V
4. Test frequency can be variable ±100kHz.

### 2) PLL Adjustment

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<th>Condition</th>
<th>Measurement</th>
<th>Adjustment</th>
<th>Specifications</th>
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</thead>
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<tr>
<td>Reference Frequency</td>
<td>f=145.00MHz (T, E, TE1) f=162.00MHz (TE2) TX</td>
<td>Freq. Counter Power Meter</td>
<td>ANT TC1 145.00MHz (T, E, TE1) 162.00MHz (TE2)</td>
<td>± 100Hz</td>
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<tr>
<td>VCO</td>
<td>f=173.99MHz RX</td>
<td>Digital Multimeter</td>
<td>PD VCO L302 7.0V</td>
<td>± 0.1V</td>
</tr>
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</table>

### 3) TX Adjustment

| High Power            | f=145.00MHz (T, E, TE1) f=162.00MHz (TE2) High TX | Power Meter Current Meter | ANT VR5 52W (T, E) 36W (TE1, TE2) | ± 1.0W 10.5A or below (T, E) 8.5A or below (TE1,2) |
| Low Power             | f=145.00MHz (T, E, TE1) f=162.00MHz (TE2) Low TX | Linear Det. Oscilloscope Power Meter AG | VR6 5.5W | 5.5 ± 0.5W |
| Deviation             | f=145.00MHz (T,E,TE1) f=162.00MHz (TE2) Low TX AG: 1kHz 40mV emf | VR4 4.7kHz/DEV | 4.7kHz ± 0.2kHz/DEV |
| MIC Gain              | AG: 1kHz 4mV emf | VR3 3.0kHz/DEV | 3.0kHz ± 0.2kHz/DEV |
| CTCSS Tone Level      | f=145.00MHz (T,E,TE1) f=162.00MHz (TE2) Low TX AG: OFF TONE SW: ENC 88.5Hz | Check | 0.6 ~ 1.1kHz/DEV |
| Tone Burst            | TBST ON 1750Hz | Check | 2.5 ~ 3.9kHz/DEV |
5) Adjustment Points