

Subsection

2.983(d)(9): Factory Tune-up Procedure

Test Equipment

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| 1. BNC-P Coaxial RF cable | Audio Technica custom RF cable |
| 2. DC Power Supply | Leader 836-1.2 |
| 3. Audio Signal Generator | Leader LAG-126S |
| 4. Modulation Meter (FM liner detector) | Anritsu MS61A |
| 5. Spectrum Analyzer | Advantest R3365 |
| 6. RF Power Meter | Anritsu MS 4803A |
| 7. RF Power Sensor | Anritsu MA4701A |
| 8. Oscilloscope | Leader LS8050 |
| 9. DC Volt Meter | Yokogawa 732 |
| 10. Psophometer | National VP-9680A |

Adjustment of T211 circuit board

1. Install the circuit board A and B of ESW-T211 to connecting jig and to the PCB fixture.
2. Supply 3V from DC power supply to the power supply terminal of T211
3. Connect BNC-P coaxial RF cable with input connector of Spectrum analyzer.
4. Connect BNC-P coaxial RF cable to CN601 terminal of T211.
5. Set T211 to channel "49".
6. Set the center frequency of Spectrum analyzer to oscillation frequency of T211, and set frequency span to 200KHz.
7. Turn the power switch of T211(SW1) on, and set the SW3 on T211 to "Hi"
8. Make sure that RF signal appears on Spectrum analyzer.
9. It is set as 49 channel, and "VC401" is regulated so that frequency may be set to 734.250MHz.
10. Set the RF signal on Spectrum analyzer to its maximum level by turning the VC601 on T211.
11. Set the RF signal on Spectrum analyzer to its maximum level by turning the VC602 on T211.
12. Remove the BNC-P coaxial RF cable from the input connector of Spectrum analyzer, and connect it to the RF power meter.
13. Make sure that the RF power sensor and RF power meter are connected together.
14. Set the SW1 on T211 to "Low".
15. Adjust the RF output power to 5.5mW by turning the VR602 on T211.
16. Set the SW1 on T211 to "Hi".
17. Adjust the RF output power to 10.5mW by turning VR601 on T211.
18. Make sure that on both channel "00" and "99", the RF out put power stays over 10mW when SW3 of T211 is on "Hi" and that it stays 5mW when SW1 of T211 is on "Low"
19. Input the -36dBV at 1kHz signal from Audio signal generator to the Guitar input of T211 by checking the level of the signal on AC milli voltmeter.
20. Remove the BNC-P coaxial RF cable from RF power meter, then connect it with the input connector of Modulation Meter (FM linear detector).
21. Set T211 to channel "49" and set the frequency range of the Modulation meter (FM linear detector) to the oscillation frequency of T211
22. Make sure that Oscilloscope has no irregular wave. Then, adjust the indicator of Modulation meter (FM linear detector) to 5KHz by turning VR302 on T211.
23. Set T211 to channel "00" and "99". Make sure that Deviation of the each cannel stays 5KHz/1kHz.
24. Input -56dBV at 1kHz signal from audio signal generator to Mic input of T211 by checking the level of the signal on AC millivolt meter.
25. Set T211 to channel "00" and "99". Make sure that deviation on each channels stays 5kHz/1kHz.

26. Remove the BNC-P coaxial RF cable from Modulation meter (FM linear detector) then connect it with input connector of the Spectrum Analyzer.
27. Set T211 to channel "49" and make Guitar terminal and Mic terminal of AF input short circuit.
28. Set the Frequency span of Spectrum analyzer to 200KHz.
29. By turning the VR301 on T211, adjust the tone level on Spectrum analyzer 30dB lower than main RF signal.
30. Set the center frequency of Spectrum analyzer to "1.8GHz". Set the frequency span to "3.5GHz".
31. Make sure spurious level on Spectrum analyzer stays 30dB lower than main RF signal level.