8.12.4 T2000-60 Set-Up

Test Equipment Required

- AF signal generator
- modulation analyser
- high impedance voltmeter (e.g. VTVM)
- IBM† or compatible personal computer
- lead to connect radio to CE and AE, if required (refer to Figure 8.12.2 & Figure 8.12.3)
- oscilloscope
- power supply (+13.8V)
- RF signal generator
- 40dB RF attenuator

The following diagram shows a typical test set-up.

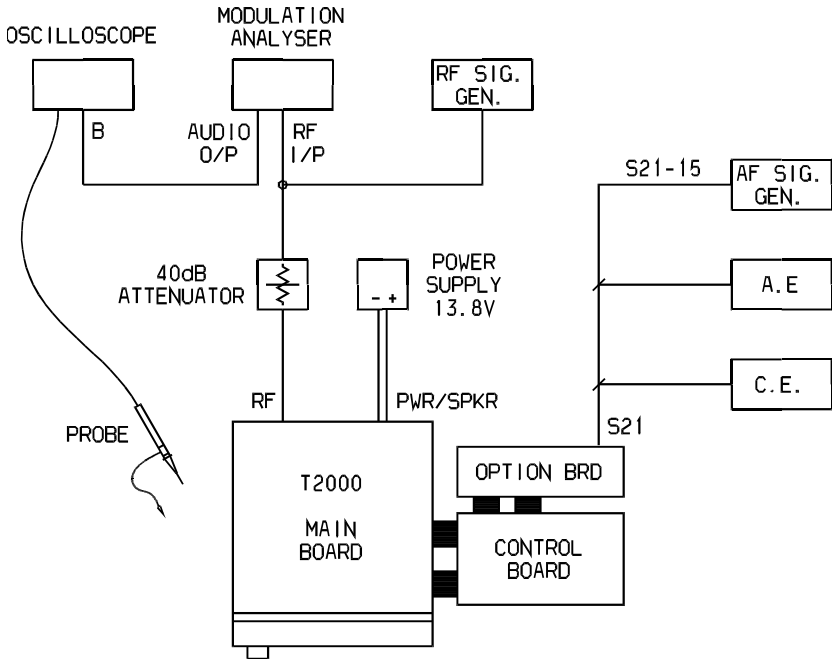

Figure 8.12.2 Test Equipment Set-Up

† IBM is the registered trademark of International Business Machines.

Rx Audio Level

1 Set up the test equipment as shown.

2 Ensure that pin 5 of S21 is loaded with the impedance normally presented by the AE (typically 600Ω).

3 Apply an RF signal at a level of -50dBm on an appropriate channel. Internal modulation at 1kHz should be enabled, with the deviation set to ±1.5kHz for a narrow band radio and ±3kHz for a wide band radio.

Note: If CTCSS or Selcall is enabled, ensure that the signalling mutes are overridden (for T2040 radios, refer to Section 5.8.5, "Test Facilities Available").

4 Connect the scope probe to pin 5 of S21, and adjust RV1 to the level required by the AE.

Tx Audio Level

1 Set up the test equipment as shown.

2 Connect a 600Ω impedance AF signal generator to pin 15 of S21. If the internal impedance of the AE is not 600Ω, either load the AF signal generator to get an internal impedance equivalent to the AE or alternatively, use the AE to provide the test signal (this is possible with most packet radio modems).

3 Apply an audio test signal to TX-AUDIO and set the radio to transmit (for T2040 radios, refer to Section 5.8.5, "Test Facilities Available").

4 Connect the scope probe to pin 15 of S21 and adjust the AF signal generator to a frequency of 1kHz at a level of 700mVp-p.

While the radio is transmitting, adjust RV2 to produce a deviation on the modulation analyser as stipulated by the AE.

If you are using the test signal from the AE instead of the AF signal generator, there will be some means of adjusting the signal level inside the AE.

