Restore Rx Front End Parameters - Programs the radio with default receive front end tune parameters. Other parameters remain unchanged.

5.3.5 Help Menu

Displays the version number of the PC Tune software and other information.

5.4 Tuning Procedure

5.4.1 Connecting Test Setup

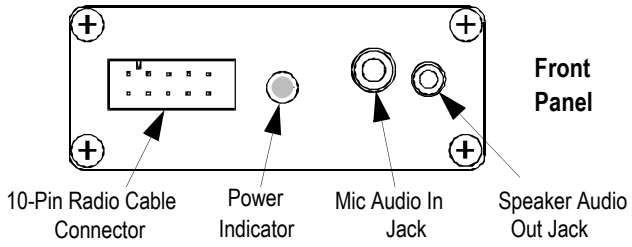
1 With radio power turned off, connect the RPI to an unused serial port of the computer using a suitable cable (see Section 4.1.3).

2 Connect the RPI to the microphone jack of the radio using programming cable, Part No. 023-5300-005 (see Figure 5.1).

3 If the receiver squelch adjustment will be made, connect a SINAD meter to the Speaker Audio Out jack on the RPI (see Figure 5.4). This is a low level fixed audio output, and a 2.6 mm (3/32”) phone jack is used.

4 Connect a wattmeter and a suitable load to the antenna jack of the radio for the transmitter tests. For the receiver tests, connect the signal generator to the antenna jack through a 6 dB or greater isolation pad.

Figure 5.4 RPI Front Panel



5.4.2 Starting and Configuring PC Tune

5 Start the program as described in Section 5.1.2 and turn radio power on. Select Transfer > COM Port and make sure that the correct serial port and the 19200 baud rate are selected (see Section 5.3.3).

6 Select the Radio menu and make sure the correct radio series (53xx) is selected (see Section 5.3.2).

7 Select Transfer > Partial Tune and click the button for the desired Test Category.

8 Follow the instructions displayed on the screen to complete the various adjustments required for a particular setting. Then repeat for other applicable Test Categories. (The "Pendulum" test sets the TCXO frequency.)

5.5 Digital Performance Tests

5.5.1 General

This section describes how to check the performance of the radio on digital Project 25 channels. The PC Tune software includes a **Tools > Tx/Rx Tests** menu that displays the screen used for these tests.

- To perform these tests, a Digital Communication Analyzer such as Motorola R2670 or IFR 2975 is required.
- These tests follow the TIA-102-CAAA-A "Digital C4FM/CQPSK Transceiver Measurement Methods" specification. Refer to that document for more information.
- A P25 conventional channel programmed in advance by the PC Configure software is used for testing. The PC Tune software does not select a specific test channel. The test channel must be programmed with the following options:

  NAC - 293 (hex)
  TGID (Talk Group ID) - 1
  Frequency - Any frequency in radio operating band

5.5.2 Receive Test Setup

1 Connect the test setup and start and configure the PC Tune software as described in Section 5.4. Select the Tools > Tx/Rx Tests menu to display the Tx/Rx Tests screen.