

TRANSISTOR, DIODE, AND IC FUNCTIONS

RULE PART NUMBER: 2.983 (d)6)

Transmitter

<u>Designator</u>	<u>Part Number</u>	<u>JEDEC or Vendor Type</u>	<u>Function</u>
A 201	587-5000-003	NUF6411J	800 MHz RF Module

Power Amplifier Board

CR 508	523-2906-001	MR2535L	Transient Suppressor
CR 601	523-2016-120	BZX84C12LT1	Power Control
CR 501	523-1504-032	MA47059-1079	Antenna Switch
CR 509	523-1504-016	MMBD701LT1	Detector Diode
CR 502	523-1504-032	MA47059-1079	Antenna Switch
Q 502	576-0003-612	MMBT4403LT1	Power Control
Q 506	576-0003-658	2N3904	Switch
Q 509	576-0004-817	MRF847	RF Power Transistor
U 504	544-4001-127	MHW2821-1	RF Power Module

TUNING PROCEDURE

For Stealth Mobile Radio

1.0 Software Installation

Insert disk #1 into drive A: and from the start button on Win 95 choose "Run...". You then can select "Setup" from drive A: and follow the installation instructions. The Tuning software will add a shortcut on your start menu. You should have two installation disks.

2.0 Connection to Radio

Connect one of the 9 Pin serial ports on your PC through a RPI box to the Stealth Mobile radio with the Hardware provided.

3.0 Tuning Procedure

Upon start up, the tuning software will instruct the user to select mobile or portable radios to be tuned. Make sure to select the appropriate type of radio. Select "Complete Tuning" under Tuning on the menu bar to start tuning of the radio. The software will then connect to the radio indicating band type. A message box will instruct you as it steps through the tests listed below.

3.1 TX Frequency

The radio should be connected as instructed by the software. Prepare the Monitor to measure the indicated frequency and click the OK button, the software will make the radio transmit on the appropriate frequency. Next Click on the "+" and "-" buttons to decrease the frequency error, when you get as close as possible click the OK button to end the test.

3.2 TX Modulation

The radio should be connected as instructed by the software. Click on the OK button and type in Deviation into the dialog box as measured by the monitor. Then simply follow the instructions. You will be adjusting the Deviation with the "+" and "-" buttons between two values for each of the transmit frequencies.

3.3 TX Power

The radio should be connected as instructed by the software. The radio will transmit on different frequencies and you are instructed to click on the "+" and "-" buttons to adjust the TX power.

3.4 RX Sensitivity

This test doesn't take place on all band!!. The radio should be connected as instructed by the software. Generate the instructed signals with your monitor and click on the OK button for the radio to make measurements over a range of frequencies.

3.5 Squelch

The radio should be connected as instructed by the software. Adjust the RF level of the generated signal to produce the instructed SINAD level (12dB or 8dB) and click on the OK button. The radio will be taking measurements.

3.6 RSSI

The radio should be connected as instructed by the software. Adjust the RF level as instructed and click the OK button. The radio will be taking measurements and will repeat for different RF levels.

4.0 Power Down

The radio will reset it self after tuning is complete.