Additional Solid-State Devices used in the MSZ100:

Items on the main circuit board:

LM555 Timer Integrated Circuit
2N3704 NPN Transistor
1N4004 1A, 400VDC Diode (2)

Items in the 12VDC to 6VDC power supply module:

P6KE33A – 33 VDC, 5% Transient Voltage Suppressor
LED - Red
MC34063A Switching Regulator
SS14 - 1A, 40 VDC Schottky Rectifier
1N4148 - 1A, 100 VDC Fast Switching Diode Diode
2N3904 - General Purpose NPN Transistor
CEM9435A - P-channel Enhancement Mode Power FET

Subject: **MSZ100 FCC Testing** **Date:** **4/6/04**

From: **J H Jarrett**

The following power-up procedure must be used in order to use the PIC software to set the various parameters for the FCC tests. Operation of the MSZ100 is different in that it is always powered up and ready to receive calls. This requires that the device be powered up in a specific manner to enable the unit to be placed in programming mode.

1. Connect the RS232 transceiver (supplied by SecureAlert with the submission) to the computer that will contain the PIC software.
2. Connect the supplied cable that goes to the MSZ100 to the RS232 transceiver and connect the 10-pin programming connector to the MSZ100 through the access hole in the side of the case. Be careful that the connector seats properly.
3. It is not necessary to connect a power supply to the RS232 transceiver, as it will be powered from the MSZ100 through the programming cable.
4. Connect the 10-pin main connector with the speaker, microphone, switch and power leads to the MSZ100 front panel.
5. Connect the antenna leads, making sure that the GPS antenna cable is connected to the correct SMA connector and the Cellular antenna cable is connected to the correct SMA connector.
6. Connect the Red and Black power leads to a 12VDC power supply that can be switched on and off. Do not apply power at this time.
7. Follow the instructions for the installation and operation of the PIC software, and start a session as instructed.
8. To properly start the MSZ100 in programming mode, hold the external switch in the main MSZ100 cable closed, and then turn on the 12VDC power supply. Release the switch after the power supply has stabilized (about ½ second).
9. Test the PIC software by selecting "Read EEPROM", and move the slider to "Ui Phone Number" and click on "Submit". The stored phone number should be visible in the console readout.
10. DO NOT RESET. Using the "Reset Command" will defeat the start-up process and place the phone in normal operation. If you do reset, power down the MSZ100 and return to step 8, above.
11. All the commands in the PIC program are now available for use. After the device is programmed for a test, the programming plug may be removed, however, if power is cycled, you must go back to step 8 to put the device back into programming mode.

JH Jarrett
The Bishop Group
34 Executive Park, Suite 250
Irvine, CA 92614
(949) 474-2009