

**Communications & Documentation Technologies** 

# **TECHNICAL NOTE 03-94**

## **MOBILE MAP PLUS SYSTEM** FIELD TESTING GUIDELINES

You have sent us a portion of your system for testing and repair. We have tested and repaired (if necessary) that component, Serial No. \_\_\_\_\_\_. However, our testing has shown that some other component of your system may be affecting the operation of your system. We recommend that you perform the following field tests and alignment. The items marked are numbered as priorities 1, 2, and 3. We recommend performing the items numbered 1 first, then 2, and 3 if necessary. If you need any assistance and have questions, please do not hesitate contacting **CDT**.

#### TRANSMITTER UNIT

- \_\_\_\_\_ Test transmitter output (record and compare to factory test listed inside unit).
- \_\_\_\_\_ Test for amount of reflected power (record and compare to factory test).
- \_\_\_\_\_ Test Transmit radio frequency (should be .0005% of listed frequency).
- Measure deviation of FM transmitted data signal (should be 3.5-4 kHz.)

### **BASE ANTENNA CONDITION**

- \_\_\_\_\_ Inspect antenna for loose or corroded wiring and connectors.
- \_\_\_\_\_ Inspect outdoor connectors for proper silicone protection and wrapping.
- \_\_\_\_\_ Measure DC resistance of antenna and cable (should be open circuit).
- \_\_\_\_\_ Inspect antenna for solid mounting.
- \_\_\_\_\_ Inspect antenna for good earth ground.
- \_\_\_\_\_ Measure VSWR of antenna and cable (See transmitter power above).

#### VEHICLE ANTENNA CONDITION

- Inspect antenna for loose or corroded wiring and loose connectors.
- \_\_\_\_\_ Measure DC resistance of antenna and cable (should be open circuit).

- \_\_\_\_\_ Inspect antenna for solid mounting.
- \_\_\_\_\_ Check that antenna is mounted on metal
- vehicle surface at least 2 ft. from obstructions and/or other antennas.
- \_\_\_\_\_ Verify antenna mount is properly grounded to vehicle surface.

**ALARM ENCODER UNIT** (tests should be performed in conjunction with mobile display)

- \_\_\_\_\_ Operation of test signal (reception at mobile display)
- $\underbrace{\text{Measure and adjust data frequency (8.33 kHz}}_{\pm 2\%)$ 
  - \_\_\_\_\_ Send test alarm messages (per manual)

**MOBILE GRAPHIC DISPLAY UNIT(S)** (perform some tests in conjunction with encoder unit)

- \_\_\_\_\_ Audio quality of received signal (use earphone provided with system).
- \_\_\_\_\_ Operation next to encoder (requires test
- antenna and power supply).
  - Proper operation of front panel REC and INT lamps.
- $\underbrace{\qquad Measure and adjust data frequency (8.33 kHz$  $<math display="inline">\pm 2\%)$
- Align radio receiver module (requires service monitor and special test set up).