



## TECHNICAL NOTE 01-98

# MOBILE MAP PLUS AND RANS-DV SYSTEMS *COMBINATION OF BOTH SYSTEMS WITH ONE ALARM SOURCE AND ONE RADIO TRANSMITTER*

### INTRODUCTION

*There are installations which require both the Mobile Map Plus (MMP) graphic display system and the RAN-DV digitized voice alarm announcement system, but only have one radio frequency available for both systems. Typically both systems operate from one alarm source that produces similar alarms at the same time. These systems require special interconnections so that both types of alarm messaging is sent without interference.*

### DESCRIPTION

1. Each system, MMP and RANS-DV, must send alarm data to their respective receiving units for decoding and alarm announcement. The MMP system sends an FSK data stream that lasts less than one second. The RANS-DV system sends alarm data followed by an analog voice announcement which typically lasts 8 seconds.
2. Both the MMP and RANS-DV encoders are mounted in the same enclosure (where possible) allowing each to receive the same alarm information from the alarm source. In most cases, the two encoders will be interconnected and tested at the factory, and special terminals are added inside the enclosure allowing the installer to connect just one power connection, one set of wiring from the alarm source, and one set of wiring to the radio transmitter.
3. When the two systems are used together responding to the same alarm inputs, the operation is generally as follows:
  - A. The MMP data transmission will be transmitted first, followed by the RANS-DV radio transmission. The delay from the end of the MMP transmission to the beginning of the RANS-DV transmission is about one second.
  - B. MMP alarms are held in the remote displays until cleared by a reset signal from the encoder. Clearing of MMP alarms should be held until the completion of the RANS-DV alarm transmission which is the case on normal use.

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- C. If for some reason there is a conflict between the two alarms and the MMP alarm or clear signal is not properly received by the remote displays, the alarm information will be resent upon the next supervision cycle. Each supervision cycle is sent every 1-1/2 minutes or less.

## INDIVIDUAL SYSTEM TESTING CONSIDERATIONS

1. To ensure proper operation, each system should be tested separately to verify proper operation.
2. Each system may be tested independently by momentarily disconnecting the alarm inputs from the encoder for the system that you are *not* testing. If you are connected to a Perimeter Products system, you can disconnect one system by momentarily disconnecting the 60-pin ribbon cable from the unit you are *not* testing.
3. The MMP contains a system that allows you to automatically send sequential alarms beginning at zone one and continuing through all zones in the system. Please refer to the MMP system manual and perform this test to test all zones in the system.
4. The MMP can be tested zone-by-zone by using the procedure for individually testing individual alarm input zones as shown in the MMP manual, Figure 4-2. **CAUTION:** The alarm input connector or wiring *must* be disconnected before attempting this test or damage to the input circuitry can result. Contact the factory for more information.

5. The RANS-DV contains a test system that allows you to send a test message by pressing the test button. Refer to the RANS-DV manual for more information.
6. The RANS-DV can be tested zone-by-zone by using the procedure for individually testing individual alarm input zones as shown in the MMP manual, Figure 4-1. **CAUTION:** The alarm input connector or wiring *must* be disconnected before attempting this test or damage to the input circuitry can result. Contact the factory for more information.

## SYSTEM TESTING

1. Following individual system testing, the complete system should be tested to ensure proper alarm transmission and reception.
2. If you are testing with a Perimeter Products MX-1000 system, the use of the Auto Acknowledge feature is not recommended because the alarm reset signaling is not controlled by the operator and the alarm reset may be sent while the RANS-DV transmission is occurring and may be lost until the next MMP supervisory cycle.
3. Best testing results will occur when the tests are conducted slowly, allowing each alarm transmission to be fully sent, MMP and RANS-DV and rest before the next alarm is sent.

If you have any questions, or need any further information, please contact **CDT**.