



TECHNICAL NOTE 02-95

INSTALLING THE RANS-VOICE ENCODER *INSIDE THE PERIMETER PRODUCTS AUXILIARY RELAY INTERFACE*

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BACKGROUND

The EMPACT Series RANS-Voice encoder has been designed with mounting holes that match the mounting posts inside the Perimeter Products Auxiliary Relay Interface (ARI) and the Mobile Map Interface (MMI). This procedure should be utilized if you are field installing a RANS-Voice encoder in a ARI/MMI enclosure, or if you are retrofitting an older system, such as the Elenex mobile map system. The encoder replaces the relay board that may be installed in the ARI enclosure. The 60-pin ribbon cable from the MX-1000 decoder mounted on the door of the ARM/MMI will connect directly to the RANS encoder eliminating the need for additional wiring.

The RANS encoder will “look” to the MX-1000 just like the ARI. Therefore, the MX-1000 must be programmed to have relay outputs on alarm or alarm and tamper as required for your application. The normal installation is for operation during alarm conditions only. The RANS encoder, zone 1 is connected to the MX-1000 zone 1, zone 2 to zone 2, and so on for all the zones programmed into the RANS encoder.

SPECIAL INSTRUCTIONS

1. Before proceeding, review the following:
 - A. The RANS-Audio Installation Manual, Section 3 and Appendix E.
 - B. The MX-1000 Installation Manual including Appendix C.
2. To install the RANS encoder in the ARI/MMI, proceed as follows:
 - A. Locate the ARI/MMI and place on a flat surface if not already installed. Remove power from the ARI if currently installed as part of a system.
 - B. Open the unit and locate the 60-pin ribbon cable running from the MX-1000 decoder circuit board (smaller circuit board mounted on door), to the ARI relay board.
 - C. Unplug the 60-pin ribbon cable from the ARI relay board. Remove the relay board mounting hardware and remove the ARI relay board for the enclosure.

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- D. Install the RANS encoder board in place of the relay board using the same hardware removed from the relay board.
 - E. Carefully plug the 60-pin ribbon connector into the RANS encoder card 60-pin connector.
 - F. The RANS encoder gets its power in this configuration from the ARI power supply mounted to the right of the encoder board. The RANS encoder board is furnished with a red/black wire pair connected to connector P5. To power the encoder board, connect the red (positive) and black (negative) wires to the appropriate screw terminals on the ARI power supply board. **DO NOT** power up the system until all remaining connections are made, including the installation and connection of the transmitter assembly and antenna.
 - G. The RANS encoder is also furnished with a test loudspeaker and mounting hardware. The speaker is mounted in the ARI enclosure using two of the mounting posts to the right of the encoder. Connect the two wires from the speaker to the two encoder board terminals marked J13, SPKR.
 - H. Connect the two-conductor shielded wire running to the transmitter to the encoder terminals marked J11, XMIT out. Observe the same polarity here as with the transmitter connection. Refer to the installation manual, Section 3 for more information.
 - I. This completes the mechanical installation and input connections of the RANS encoder and ARI (MX-1000 interface).
 - J. Verify that the switch settings on the MX-1000 decoder circuit board are set correctly. Refer to the MX-1000 manual, Appendix C.
 - K. Power up the ARI/MMI enclosure and transmitter before powering up the MX-1000. This will allow the MX-1000 to set the initial conditions of the ARI/MMI alarm contacts and eliminate the possibility of false alarms on power up.
 - M. Properly program the MX-1000. In particular, verify that the alarm relays are activated as programmed under Configuring modems (Code 8), or Interface Configuration (Code 9). In most cases it is sufficient to set ALL relays for operation on alarm in accordance with Code 8. However, if your MX-1000 system is already programmed, you may wish to use Code 9 for each alarm zone to preserve any other special programming that is already present in your MX-1000.
 - O. Perform initial RANS-Voice power up and testing in accordance with the installation manual, Sections 4 and 5.
 - P. Once the testing of the RANS system is complete, you should perform a complete system test (i.e., starting from the perimeter fence) in conjunction with the MX-1000.
- If you encounter any problems, or have any additional questions, please contact **CDT**.