



TECHNICAL NOTE 03-95

MP-1560 MATRIX INTERFACE CIRCUIT BOARD INSTALLATION INSTRUCTIONS

BACKGROUND

The matrix interface circuit board is a custom-designed interface that permits the operation of the Mobile Map Plus (MMP) system with the output of an alarm system which has a matrix output, i.e., for driving LED displays. The matrix output normally requires an isolated anode and cathode connection to each LED to preserve the matrix. The matrix interface circuit board allows isolated LED connections by providing an optical isolator for each alarm input.

NOTE: The matrix interface is a custom circuit board that must be custom designed for each matrix interface that may be required. DO NOT attempt to use a matrix interface on a project other than where the design was intended.

OPERATION

The matrix interface circuit board provides an isolated optical coupler connection for each alarm zone. (See the individual input circuit diagram.) Activation of an alarm input is accomplished by providing a voltage between Terminal A and Terminal C for that alarm input in the same manner that an LED is activated.

WARNING: Connecting an improper voltage will cause failure of the encoder circuit board.

INSTALLATION

The matrix interface circuit board is provided already mounted and connected to the MMP encoder circuit board. This is because the interface requires several connections to the encoder which are not easily accomplished in the field.

Connect each alarm input zone by connecting the Terminal A (anode) and Terminal C (cathode) connec-

tions to the appropriate anode and cathode connections on the matrix driver (output) circuit. Be very careful to check each connection and not cross any connections between outputs. A cross-connected matrix can possibly cause failure of the matrix circuitry and the MMP encoder input circuitry. Do not activate the MMP encoder or the alarm matrix connected to it until all wiring has been connected and tested.

TESTING

The matrix interface circuit board does not allow simple one-wire testing of inputs (see manual). The operation of the MMP encoder is best tested using the test button located on the circuit board (see manual). If individual testing of each alarm input at the matrix interface circuit board is required, an appropriate isolated voltage and a suitable current limiting resistor is required. Consult **CDT** for details.