



TECHNICAL NOTE 02-96

MOBILE MAP SYSTEM ANTENNAS INSTALLED ON MOBILE DISPLAY ENCLOSURES

DATED APRIL 2, 1996

BACKGROUND

We have been seeing mobile displays returned for repair that have the quarterwave antenna installed directly on the Mobile Map Plus display enclosure. This quarterwave antenna was made to install on the roof or trunk of a vehicle where the vehicle surface can provide an acceptable "ground plane" for the antenna. In other words, the large metal vehicle surface is required by the antenna to operate correctly. When the antenna is installed directly on the Mobile Map Plus enclosure, there is no ground plane surface and the ability of the antenna to receive acceptable signals from the transmitter location will be compromised. The probable result will be missed or incorrect alarm-zone indications and nuisance alarms due to unacceptable signal levels. If, in addition, the Mobile Map Plus display with the antenna on the top is installed within the vehicle interior the probability of a good signal level is further reduced.

RECOMMENDATIONS

CDT DOES NOT recommend that the quarterwave antenna be installed directly on the Mobile Map Plus display enclosure. It is recommended that the antenna be mounted on a large metal vehicle surface, such as the roof or trunk, with the antenna pointed vertical. If for some reason there is a need to have the antenna mounted on the Mobile Map display unit, an antenna made for the purpose should be used and a full system test should be conducted to verify that acceptable signals will be received in all areas of operation.

Please contact CDT if you require additional technical information.