

Trunked Mobile Radio System
Second Generation
(TMR2)

TMR2 Mobile Installation Guide

Sponsoring Organization:
Province of Nova Scotia
Internal Services Department
Public Safety and Field Communications

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TMR2 Implementation Project

TMR2 Mobile Installation Guide

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0.2	January 30, 2014	ND	Added section for installation in private vehicles.
0.3	February 3, 2014	MB	Various edits to each section.
0.4	February 4, 2014	MB	Addition of airbag deployment zone restrictions.
0.5	April 9, 2014	MB	Clarified 'center' mounting, added mirror mount.
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Approvals & Acceptance

I have reviewed the information in this Document Management Plan and agree;

Date	Document Version	Approver Name and Titles	Approver Signature
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Table of Contents

1	Purpose of Document	4
2	Objectives of Mobile Installation Guide	4
3	Mobile Installation Guidelines.....	4
3.1	Antennas.....	4
3.2	Mobile Radios	4
3.3	Documentation of Installation	5
3.4	Wiring	5
3.5	Installations in Private Vehicles.....	5

1 Purpose of Document

The purpose of this document is to outline installation guidelines for all TMR2 mobile radio installations. This document is intended to be read in conjunction with the *Motorola Installation Guide which is included with each mobile radio, the contents of which are also to be followed.* This document provides detailed descriptions of expectations for all mobile radio installations.

2 Objectives of Mobile Installation Guide

The overall goal of this mobile installation guide is to ensure all mobile installations are performed in a consistent manner for all vehicles.

The mobile installation guidelines to be established achieve this overall goal through the following objectives:

- Provide a clear description of antenna placement and installation guidelines.
- Provide a clear description of mobile radio mounting guidelines.
- Provide a complete description of 'end of installation' documentation guidelines.

3 Mobile Installation Guidelines

3.1 Antennas

Antennas shall always be mounted in the center of the vehicle roof for all vehicles, unless physically impossible. Where there is an existing antenna in the center of the roof, which is not being removed, or where there is a light bar in the center of the roof, antennas shall be mounted toward the center of the largest available area of open roof space, but as far away as possible from other antennas, light bars, or other obstructions. Where possible, space multiple antennas on a single roof evenly across the surface. Provide as much spacing as possible between multiple antennas.

Fender mount, bumper mount, mirror mount, and trunk mount antenna installations shall not be acceptable unless specifically approved in writing, in advance of the installation. Where alternative antenna types can be used to make a roof mount installation feasible, these purpose designed antennas are to be used.

Antennas shall not be mounted on "back racks" or "headache racks" even where these racks are marginally higher than the surface of the roof.

Antenna feedline for roof-mounted antennas shall be run neatly and normally within the headliner so as not to be visible from inside the vehicle.

3.2 Mobile Radios

Mobile radios shall be mounted to allow for easy access to radio controls by the radio operator. In most cases, this will mean accessible by the driver, while driving the vehicle, unless otherwise

indicated. Radios shall not be mounted under or behind seats unless using a remote head configuration, or in heavy equipment where such a mounting arrangement is not possible. The radio display should normally be visible from the radio operator's seat and every effort should be made to accommodate this, even in heavy equipment.

Mobile radios must be permanently mounted within the vehicle. Installations using Velcro or tape are not acceptable.

The mobile microphone hanger shall be mounted to be within easy reach of the driver while driving the vehicle, or within easy reach of the radio operator where the radio operator is not normally the driver.

Radios and microphone hangers shall not be mounted within the airbag deployment zone or otherwise in a way that would interfere with airbag operation.

3.3 Documentation of Installation

After each installation, the installer shall send an email to an address provided by the Province containing a photo of the mounted antenna, the mounted radio, and the microphone location. The email subject line must contain the radio serial number, and the email must contain the agency's vehicle number, radio serial number, and ID number.

3.4 Wiring

Wiring should be concealed and properly restrained to the greatest extent possible.

3.5 Installations in Private Vehicles

These guidelines should be followed as closely as possible where TMR2 radios are being installed in private vehicles.