

Annex A

W8486-217783

8 December 2021



NOTICE

This documentation has been reviewed by the Technical Authority and does not contain controlled goods.

AVIS

Cette documentation a été révisée par l'Autorité technique et ne contient pas de marchandises contrôlées.

STATEMENT OF WORK

FOR

MILITARY POLICE VEHICLE OUTFITTING

OPI DSVPM 4 – DAPVS 4

Issued on Authority of the Chief of the Defence Staff

Publiée avec l'autorisation du chef d'état-major de la Défense

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1.0 SCOPE

1.1 Purpose

This document describes the Department of National Defence (DND) requirement for a repair and overhaul contract for the services of a licensed contractor to install Policing Equipment on new vehicle. The removal of equipment is referring to decommissioning vehicles to have items removed from old vehicles items such as emergency equipment, safety equipment, communications equipment and police markings, on Military Police (MP) vehicles. Additionally the repair and overhaul contract requires repair and maintenance services on the new equipment installed into the new vehicle. This will include the provision of on-site labor, certain materials, a secure compound or facility for the storage of vehicles awaiting work and/or shipping and supervision of the process. (See Appendix 1 for equipment.)

1.2 Background

MP vehicles have historically been received from Original Equipment Manufacturers (OEM) with minimal police options and further outfitted to police specifications on an individual basis at many locations throughout Canada. In order to make this process more economical and efficient, it is the intent of DND and the MP Transportation Authority to regionalize the complete outfitting of MP patrol vehicles.

2.0 INSTRUCTIONS AND DEFINITIONS

2.1 Instructions

The following instructions must be applied to this Statement of Work:

- a. Requirements, which are identified by the word "must", are mandatory. Deviations will not be permitted;
- b. Requirements identified with a "will", define actions to be performed by the Crown and require no action/obligation on the Contractor's part;
- c. Where must, or will are not used, the information provided is for guidance only. These desirables may be provided, however, any solution provided must satisfy the stated requirements; and
- d. Where a standard is specified, the Technical Authority will consider substitutes/alternatives for acceptance as an Equivalent.

2.2 Definitions

- a. Outfitting – Is defined as the process which includes installation of new equipment to meet the task or role of the vehicle;
- b. Installation – Addition of equipment to new police vehicles to attain the standard as defined in this document;
- c. Removal – Preparation of vehicle to enable it to be sold enabling of identified removed equipment to be re-used; ;

- d. MP Transportation Authority- Is defined as a person representing the Crown who has direct authority over MP patrol vehicles i.e. J4 CF MP Gp.

3.0 APPLICABLE DOCUMENTS

3.1 Police SUV Outfitting Guide

Found in Appendix 1, Annex "A".

3.2 MP Patch Graphics/Door Crest Graphics

Found in Appendix 2, Annex "A".

3.3 CF MP Gp Order 2-821

Found in Appendix 3, Annex "A".

3.4 Equipment List for Removal/Addition

Found in Appendix 4, Annex "A".

3.5 Ford Police Modifier Guide

Found at <https://fordbbas.com/publications>.

3.6 IEEE 315-1975, Graphic Symbols For Electrical And Electronic Diagrams

Found at <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=985670>

4.0 REQUIREMENTS

4.1 Objective

4.1.1 The intent is to deliver MP vehicles to the end user that are fully equipped, marked and ready to be fully employed in policing duties upon arrival. The Contractor *must* have been in the business of outfitting police vehicles for a minimum of five years at time of bid submission.

4.1.2 These service *must* provide for maintenance and repair to that equipment on in-service vehicles. The Contractor *must* have been in the business of maintaining and repairing police vehicles for a minimum of five years at time of bid submission.

4.1.3 The contractor *must* provide a ninety (90) day turn-around time for completion of work on a single vehicle.

4.1.4 The Contractor *must* have a qualified Information Technologist (IT) to perform all IT related functions.

4.1.5 These service *must* also provide for the disposal of these MP vehicles at the end of their life span through a process that will return the MP vehicle to a "non-police" state. The Contractor *must* have been in the business of removing police equipment and identification from police vehicles for a minimum of five years at time of bid submission.

4.1.6 The repair and overhaul contract *must* have regionalized facilities to provide the above services in the following areas:

RDIMS No: 6191974

- a. Western Canada – BC to Manitoba;
- b. Central Canada – Ontario and Quebec; and
- c. Eastern Canada – New Brunswick to Newfoundland.

4.2 **Vehicle Outfitting Process**

4.2.1 It is estimated that installation services will be required for up to 35 MP vehicles and removal services will be required for up to 35 MP vehicles on an annual basis. These estimates are provided in good faith and do not represent DND's actual requirement. The contractor must provide these services for up to 35 vehicles in a year. Regions and annual quantity for installation and removal services are;

- a. British Columbia –three vehicles;
- b. Alberta - six vehicles;
- c. Saskatchewan – three vehicles;
- d. Manitoba – three vehicles;
- e. Ontario – ten vehicles;
- f. Quebec – five vehicles; and
- g. Maritimes – five vehicles.

4.2.2 The contractor must have the capability of storing up to ten vehicles at a time and must store all vehicles in their possession in a secure compound in a manner that will not cause damage or undue wear and tear on any vehicle or associated equipment.

4.2.3 The contractor must provide all equipment necessary to meet the requirements of DND as detailed in each individual requisition. This includes, part or all of, the equipment specified in this document and attachments to this document and those materials necessary for installation or removal of this equipment. The contractor must be responsible to receive specific MP provided items listed in Appendix 4 to this Annex and provide the necessary materials for the proper installation or removal of these items.

4.2.4 The contractor must properly install all required markings and equipment on/in each vehicle in accordance with the directions contained within this document and attachments to this document and from the MP Transportation Authority.

4.2.5 The contractor must properly remove all equipment from each vehicle in accordance with the direction received from the MP Transportation Authority. All equipment not otherwise disposed of, including fabricated components, must be inspected and proper functioning confirmed in preparation for installation on a new MP vehicle.

4.2.6 The contractor must return any uninstalled parts or any equipment that has been removed from a de-equipped vehicle and is no longer useable. Old replaced/broken valuable equipment must returned to the unit with the new vehicle.

4.2.7 The contractor must store in a safe and secure location on-site, all equipment removed from MP vehicles with the intent of re-installing this equipment on a new MP vehicle. This must not apply to MP provided equipment such as, but not limited to, computers which must be returned under the direction of the MP Transportation Authority. A list of such equipment is listed in Appendix 4 to this Annex.

4.2.8 The MP Transportation Authority will provide expected vehicle delivery schedules to the contractor.

4.2.9 Only MP Transportation Authority approved equipment and markings and/or equipment and markings specified within the repair and overhaul contract and attachments must be used on MP vehicles.

4.2.10 The contractor must have approval from the MP Transportation Authority prior to fabricating any product for the installation of equipment in MP vehicles. This includes, but is not limited to, brackets and cages.

4.2.11 All metal consumables required for installation (such as bolts, screws and washers) must be rust proof.

4.2.12 If required, the contractor must permit and assist Crown contracted transportation to load de-equipped vehicles from the contractor's site in order to move them to Auction.

4.2.13 The contractor must be able to access the Original Equipment Manufacturer for the receipt of the specifications(s), updates, service bulletins and engineering support for the work.

5.0 **TASKS**

5.1 **Outfitting**

5.1.1 All outfitting must be in accordance with the attachments to this document. Any discrepancy or conflict must be resolved through the Contracting Authority to the MP Transportation Authority.

5.1.2 The attachments set out the specifications, recommendations for police specific equipment standards and for the appearance of MP vehicles.

5.1.3 Where options are provided within the attachments for the selection of police specific equipment, the contractor must verify the option selected through the Contracting Authority with the MP Transportation Authority and as far as possible, install the same item in all like vehicles.

5.2 **Wiring and Controllers**

All wiring and related components installed in MP vehicles must be located/routed exactly the same on same model vehicles. Only new wiring, other than that provided as an integral part of equipment, must be used in the installation of equipment in vehicle to be outfitted. A detailed wiring diagram must be provided by the contractor to DND. The diagram must conform to paragraph 3.6 above specifically paragraph A4.12 Schematic or Elementary Diagram

5.3 **Receipt of Vehicles**

5.3.1 The contractor must be able to receive MP vehicles during normal business hours.

5.3.2 Upon arrival, the contractor must complete a visual inspection for any damages.

5.4 **Storage of Vehicles**

5.4.1 The contractor's facility *must* provide an enclosed area preventing uncontrolled access (e.g. security fencing if the storage area is not within an enclosed structure) for up to ten vehicles and contain sufficient lighting to ensure the exterior of every vehicle is sufficiently illuminated to ensure an observer at the fence line can determine if any vehicle has been externally tampered with.

5.4.2 The MP Transportation Authority *must* be immediately informed of any loss or damage to any MP vehicle.

5.4.3 Once delivered by DND, subsequent boosting of working vehicles and movement of vehicles *must* be responsibility of the contractor.

5.5 **Storage of Equipment**

5.5.1 The contractor's storage facility *must* be located on site where the outfitting/work is to be performed.

5.5.2 MP equipment (including all emergency, communication and other equipment and markings) *must* be stored in such a manner as to avoid damage and loss. The contractor *must* provide the new MP equipment. DND will provide the radio and the MDT tray

5.5.3 MP equipment *must* be stored in an access controlled area used to store only MP equipment and accessible only to security cleared personnel of the contractor and the MP Transportation Authority or representative.

5.5.4 The MP Transportation Authority *must* be immediately informed of any loss or damage to any MP equipment.

6.0 **REPORTING**

6.1 Issue of DND 626, Task Authorization and processing of invoices is the purview of the contracting authority. Additionally, the contractor *must* report to the contracting authority and the MP Transportation Authority each instance of vehicle receipt, service completed, vehicle delivered and any loss and/or damage to MP vehicles or equipment.

7.0 **DELIVERY OF VEHICLES**

7.1 **Delivery and Pickup**

DND will deliver and pickup all vehicles from mutually agreed contractor geographic central locations. The following process will be followed:

- a. DND personnel will deliver the vehicles to the designated regional contractor's facility; and
- b. DND personnel will accept completed vehicles from the regional contractor's facility and return them to the appropriate Base/Wing location.

7.2 **Completion**

The contractor must inform the contracting authority and MP Transportation Authority of upon completion of each vehicle.

8.0 GOVERNMENT FURNISHED EQUIPMENT

8.1 All government furnished equipment held or installed by the contractor must be in good operating condition. If not, the contractor must immediately notify the MP Transportation Authority or representative.

8.2 A list of such standard equipment to be removed an installed is listed in Appendix 4 to this Annex. Occasionally some items to be installed are legislated by each province as to the specific type/model to be used (e.g. radar radios etc.). Provincial laws change from time to time. MP Transportation Authority will provide on each DND 626 TASKING per vehicle, the type and model of such items that need to be installed by the contractor.

8.3 As detailed in each DND 626 TASKING, the MP Transportation Authority may provide all or some of the following equipment.

- a. A laptop or tablet computer;
- b. Radar Gun;
- c. Audio/Visual Equipment;
- d. Communications Equipment; and
- e. Laptop modem.

9.0 CUSTOMER SUPPORT

9.1 The contractor must provide the MP Transportation Authority or representative with telephone troubleshooting services in order to assist in the resolution of issues. This must be done at no additional cost to DND within normal business hours.

9.2 The contractor must guarantee that warranty repairs must be initiated and if possible completed within 48 hours of receipt of vehicle when parts are available.

10.0 DECOMMISSIONING OF MP PATROL VEHICLES

10.1 Daytime running lamps must be reconnected and functioning in all cases.

10.2 Rear door handles must be reconnected and functioning in all cases.

10.3 Locks must be reconnected and functioning in all cases.

10.4 Windows must be reconnected/functioning in all cases.

10.5 All police related components must be removed including vehicle markings.

10.6 The contractor must (upon completion of de-equipping a MP vehicle) inform the MP Transportation Authority and enable the vehicle to be picked up by DND personnel or representative.

11.0 ADDITIONAL WORK REQUEST

11.1 When requested through a DND 626 Task Authorization, the contractor *must* perform Additional Work in support of the MP Outfitting in accordance with the Statement Of Work on an “as is and when requested”.

12.0 PERSONNEL REQUIREMENTS

12.1 The contractor *must* ensure that only authorized contractor personnel, with a valid Provincial Driver’s License, drive MP vehicles.

13.0 DELIVERABLES

13.1 Each MP vehicle *must* be outfitted to the standard specified in Annex A.

13.2 The MP Transportation Authority *will* provide the contracting authority with each DND 626 Task Authorization request, a listing of MP patrol vehicles requiring services along with a listing of that equipment which is to be installed or removed.

13.3 The contractor *must* immediately notify the MP Transportation Authority of any vehicle or equipment that is lost or damaged.

13.4 The contractor *must* immediately notify the MP Transportation Authority if any items are found within MP vehicles, outside of the scope of the Task Authorisation Contract.

13.5 DND will perform any inspection thought necessary to ensure that installation meet the standards described in the Annexes inspection to include all systems powered by the vehicle. The contractor will be promptly notified when the standard for vehicle retrofit has not been met. Contract may be terminated if standards are not met.

14.0 INSTRUCTIONS

14.1 The contractor *must* adhere to all vehicle and equipment manufacturer instructions, this document and all attachments to this document.

Appendix 1

Annex A

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21 Mar 2021

POLICE SUV OUTFITTING GUIDE

Vehicle Make: These graphic specifications are designed for “police” or “special purpose” package SUVs (e.g. Ford Police Inceptor Utility and Ford Expedition). Should other vehicle types require markings, the dimensions of the decals must remain the same with size and placement modified to fit the vehicle size and shape. This will ensure consistency throughout the CF.

MATERIALS AND DESIGN – STRIPING AND LETTERING

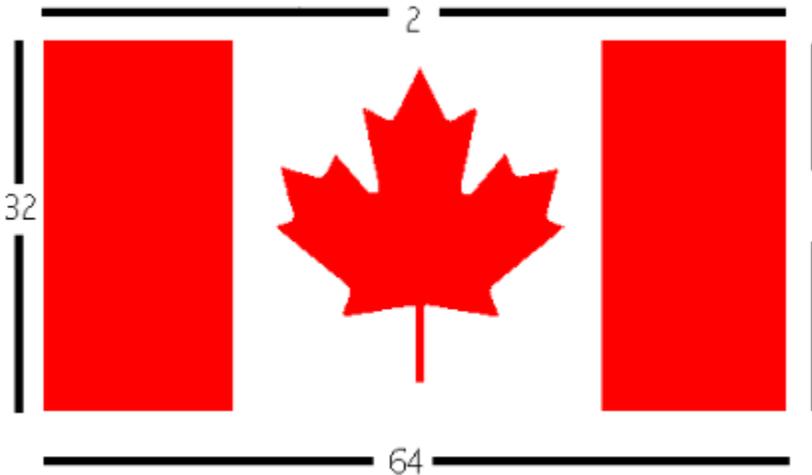
1. All lettering and striping must be made from high-grade reflective vinyl (3M™ Scotchlite™ Removable Reflective Graphic Film with Comply™ Adhesive Series 680CR, or equivalent).
2. Font and striping must be coloured as follows:
 - a. 3M™ 680CR-72 Red or equivalent; and
 - b. 3M™ 680CR-85 Black or equivalent.
3. Reflective conspicuity markings must be constructed from prismatic conspicuity material (3M™ Diamond Grade™ Conspicuity Tape, or equivalent). They must be coloured as follows:
 - a. 3M™ 983-10NL ES White or equivalent; or
 - b. 3M™ 983-32 ES Red/White or equivalent.
4. All vehicle lettering must be formatted in Arial Black font and capitalized. It must not be in bold.

MATERIALS AND DESIGN – DOOR CRESTS

5. MP vehicle door crests must comply with the following standards:
 - a. Only the approved MP vehicle door crest design specification must be used for producing door crests for marked MP;
 - b. The MP vehicle door crests must be screen-printed onto outdoor durable vinyl. The vinyl must be easily removable with heat, leaving minimal residue. This material must have an expected life of 5 years; and
 - c. If the size of the MP door crest must be modified to fit a particular vehicle type, care must be taken to ensure the overall aspect ratio is not altered (the height in relation to the width).

GRAPHIC SPECIFICATIONS AND DIMENSIONS – SIDE VIEW

6. The following graphic specifications and dimensions **must** be adhered to for the side view of SUV marked MP vehicles:
- a. **Graphics – Side Striping:** 1 inch high (top) and 2 inches high (bottom), red in colour, affixed to left and right side of vehicle as per *FIGURE 1A & 1B* below. The red line must be continuous from front door handle to the “9”;
 - b. **Graphics – Door Crests:** 16 inches high x 12 3/4 inches wide, affixed to driver and front passenger doors, as per *FIGURE 1* below;
 - c. **Graphics – Canadian Flag:** 4 inches high x 8 inches wide, red in colour, affixed to left and right rear quarter panels as per *FIGURE 1* below. The following is the only authorized shape of the maple leaf; [Canada Flag technical description](#)
The National Flag of Canada is a red flag, twice as long as it is wide (or 64 units in length and 32 units in width or depth, as shown in the accompanying diagram). In its centre is a white square the width of the Flag, with a single red maple leaf in the centre.



- d. **Font – “POLICE”:** 4 inches high, Arial Black 404 pitch, black in colour, affixed to left and right front fenders as per *FIGURES 1A and B* below;
- e. **Font – “EMERGENCY – URGENCE”:** 1 inch high, Arial Black 100 pitch, black in colour, affixed to left and right rear quarter panels as per *FIGURE 1A and B* below. Canada flag must be at the rear on both sides;
- f. **Font – “911”:** 2 ¾ inches high, Arial Black 274 pitch, red in colour, affixed to left and right rear quarter panels as per *FIGURE 3A* below; and

NOTE: *In locations where 911 telephone services is not available, the base/wing MP unit emergency telephone number must be substituted as per FIGURE 3B below. When applicable this information will be provided in each DND 626 TASKING.*

- g. **Conspicuity Marking:** Five 1 inch high x 12 wide reflective conspicuity stripes, white in colour, **must** be affixed to roof ridge, front and rear pillars as per *FIGURE 2* below;



FIGURE 1A - Passenger side view



FIGURE 1 B - Driver side view

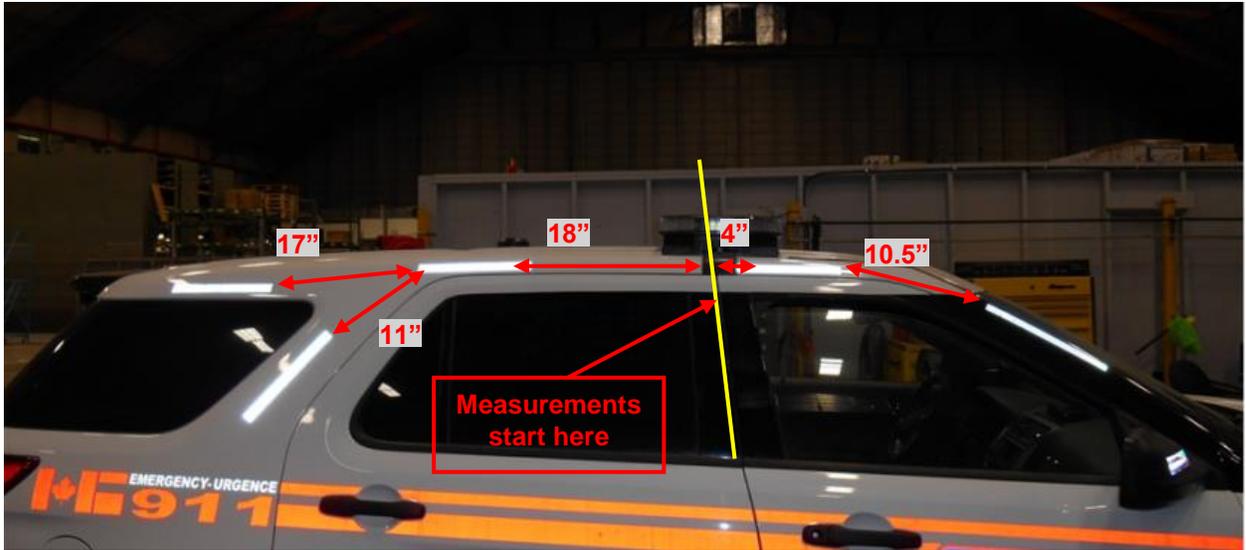


FIGURE 2 – White high conspicuity marking locations



FIGURE 3A – Emergency telephone marking (where 911 service is available)



FIGURE 3B – Alternate emergency telephone marking (where 911 service is not available)

GRAPHIC SPECIFICATIONS AND DIMENSIONS – FRONT VIEW

7. The following graphic specifications and dimensions must be adhered to for the front view of all SUV marked MP vehicles:
 - a. Font – “POLICE”: 4 inches high, Arial Black 404 pitch, printed in reverse, black in colour, affixed to leading edge of the hood, as per *FIGURE 4* below;
 - b. Conspicuity Marking: One conspicuity reflective stripe, 1 inch high x 6 inches wide , white in colour, placed on the external face of the left and right side mirrors as per *FIGURE 4* below; and
 - c. Conspicuity Marking: Two reflective conspicuity stripes, 2 inches high x 6 inches wide, alternating between two red rectangles and one white rectangle, affixed to both sides of the front bumper as per *FIGURE 4* below.



FIGURE 4 –Front view

GRAPHIC SPECIFICATIONS AND DIMENSIONS – REAR VIEW

8. The following graphic specifications and dimensions must be adhered to for the rear view of SUV marked MP vehicles:
 - a. Font – “POLICE”: 2 5/8 inches high, Arial Black 264 pitch, black in colour, affixed to the left side of the rear lift gate or door, as per *FIGURE 5* below;
 - b. Font – “MILITARY MILITAIRE”: 1 3/4 inches high, Arial Black 178 pitch, black in colour, affixed to the left side of the rear lift gate or door, as per *FIGURE 5* below;
 - c. Graphics – Canadian Flag: 3 inches high x 6 inches wide, red in colour, affixed to the right side of the rear lift gate or door, as per *FIGURE 5* below; and
 - d. Conspicuity markings: One “rectangular style” reflective conspicuity stripe, 2 inches high x 6 inches wide, consisting of alternating red and white rectangles, affixed to the rear bumper as per *FIGURE 5* below.
 - e. Conspicuity Markings: One “chevron style” reflective conspicuity stripe, 3” or 4”H, consisting of alternating red and white diagonal stripes, affixed to the rear bumper as per *FIGURE 5A* below.

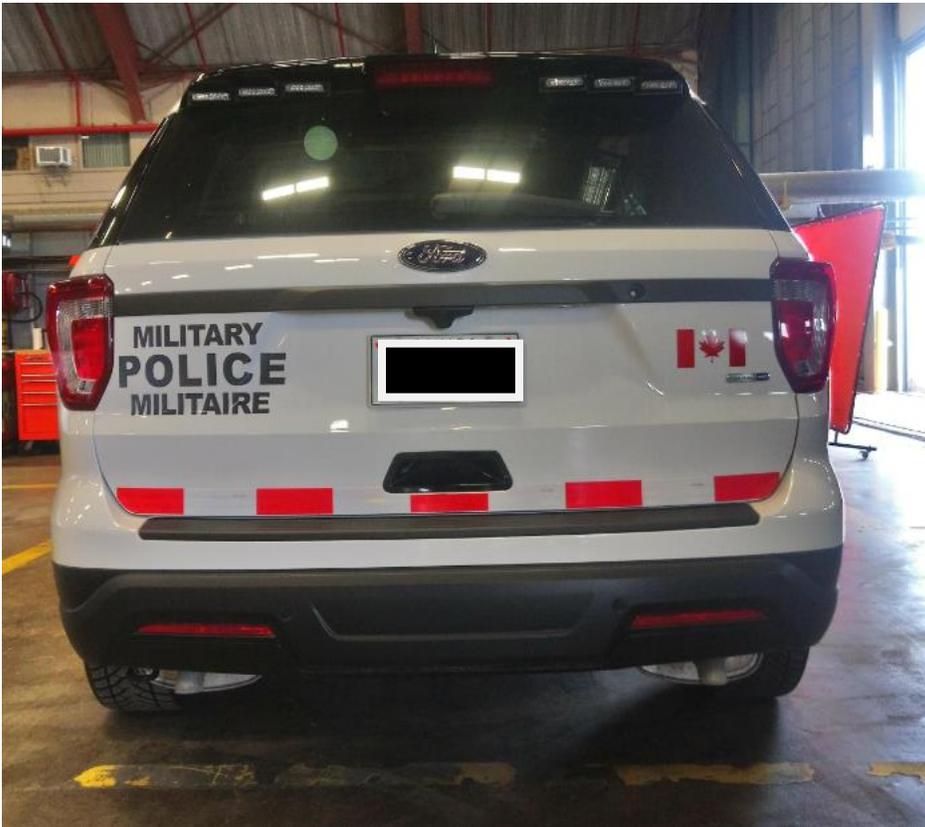


FIGURE 5A – Ford Rear view



FIGURE 5A –Rear view - Alternate rear conspicuity marking

POLICE LIGHTS – GENERAL

9. SUV marked MP vehicles must be equipped with the following minimum police lights:
 - a. A primary roof light bar system;
 - b. Four “wig-wag” strobe lights, white in colour, either through a Wig-Wag Module if compatible with the headlight assembly or mounted inside the headlight housings at front and mounted in the tail lamp flasher at rear;
 - c. Two hide-away strobe lights, white in color, and two hide-away strobe lights, red and blue in colour, if not part of the vehicle from factory , contractor to install compatible light module or mount in both front signal light housing and rear back-up light housings;
 - d. Two external front intersection strobe lights, red and blue in colour, mounted on the left and right of the push bumper;
 - e. Two rear intersection strobe lights, red and blue in colour, mounted in the left and right rear windows;
 - f. Front grill strobe lights, red and blue in colour mounted in the front part of the push bumper;
 - g. External rear spoiler light, red and blue in colour (installed under the spoiler); and
 - h. Grommet/flush mount trunk lid warning lights, red and blue in colour, mounted on the underside of the trunk lid.

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10. All police lights used on MP vehicles must be comprised of Gen III Light-Emitting Diodes (LED) or better, unless otherwise directed in this appendix.
11. All external parts must be waterproof.
12. All police lights must be installed to ensure the red colour is on the driver's side and the blue colour is on the passenger's side.
13. Amber-colored traffic directors must be programmed and integrated with roof lights must be red and amber in color.

RECOMMENDED POLICE LIGHT PARTS

Whelen products are strongly recommended due to reliability, replacement low cost, continuity and parts availability in Canada.

14. The following is the recommended manufacturer and model of police lighting systems that must be used for marked MP vehicles:

- a. Roof lights – Lightbar - Whelen Cenator DUO WCX, Part number: TB2SP3J

WHITE	WHITE	WHITE	TAKE	DOWN	WHITE	WHITE	WHITE
BLUE	BLUE	BLUE	TAKE	DOWN	RED	RED	RED

FIGURE 6 – Front View

Passenger Side

Driver side

BLUE	RED	RED	RED	BLUE	BLUE	BLUE	BLUE
BLUE	AMBER	AMBER	AMBER	AMBER	AMBER	AMBER	BLUE

FIGURE 7 – Rear View

- b. If no push bumper grille lights to be used - Front Grille Lighthouse: Whelen DUO ION, Part number: I2D and I2E;
- c. Front Bumper Intersection Lighthouse: Whelen Mini T ION, Part number: TLMIR;
- d. Rear Intersection Lights - Whelen Inner EDGE RST SOLO WCX Red/Blue, Part Number: BS50Z;
- e. Grommet/flush mount trunk lights - Open Hatch Lighting: Whelen TION Series, Part Number: TLIR and TLIB;
- f. Under Mirror Lighting: Whelen LINSV2 with vehicle specific mounting hardware, Part number: LINSV2R, LINSV2B and LSVBKT**
Figure 10A; and
- g. Rear Quarter Window Lighting: Whelen ION Series, Part Number: IONR and IONB
Figure 10C.

POLICE LIGHTS – CONFIGURATION STANDARDS

15. SUV marked MP vehicle must have in both roof-light-equipped and “slick-top” configurations as illustrated in *FIGURES 8 to 10* below;
16. SUV marked MP vehicle must have grommet/flush trunk lights installed under the cargo door to ensure maximum visibility on the roadside when the cargo door is open (see *FIGURE 12*).
17. Police lights must be configured as specified in this document. The MP Transportation Authority must be consulted should any questions regarding configuration standards arise.

Short radio antenna, about 3 inch.

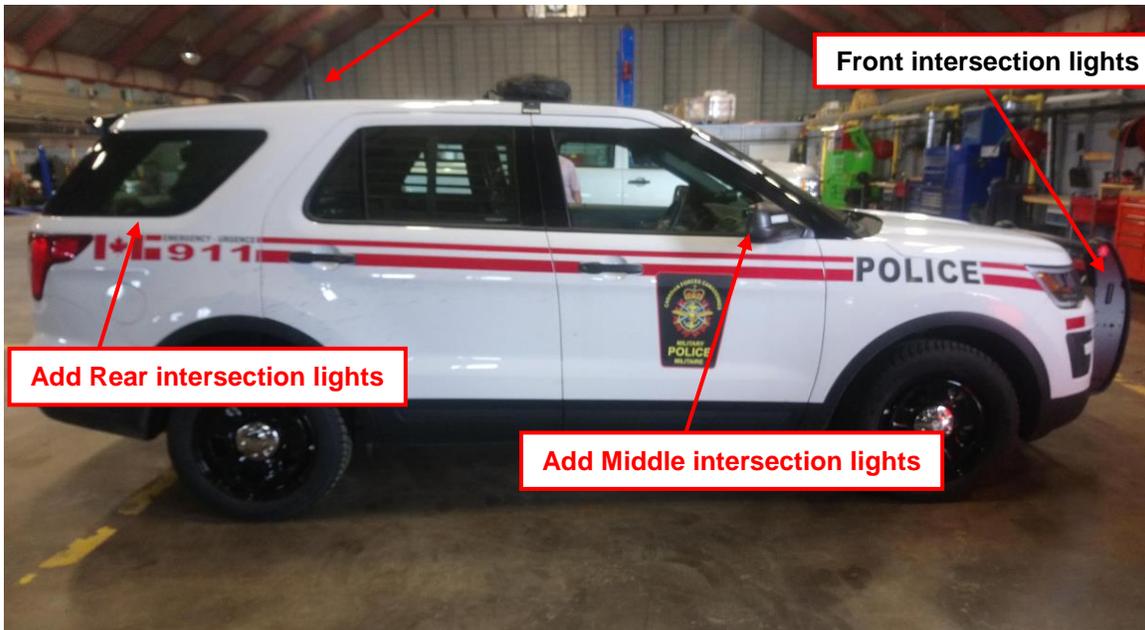


FIGURE 8 – Lights



FIGURE 8A

Middle intersection Red colour is on driver side and blue colour is on the passenger side. Whelen WVS-ENT2B3J



FIGURE 8B

Rear window intersection front inside. Red color is on driver side and blue color is on the passenger side.



FIGURE 8C

Rear window intersection. Red color is on driver side and blue color is on the passenger side



FIGURE 8 D– Ford Police Interceptor Utility - Front view



FIGURE 9 – Ford Police Interceptor Utility - Rear view

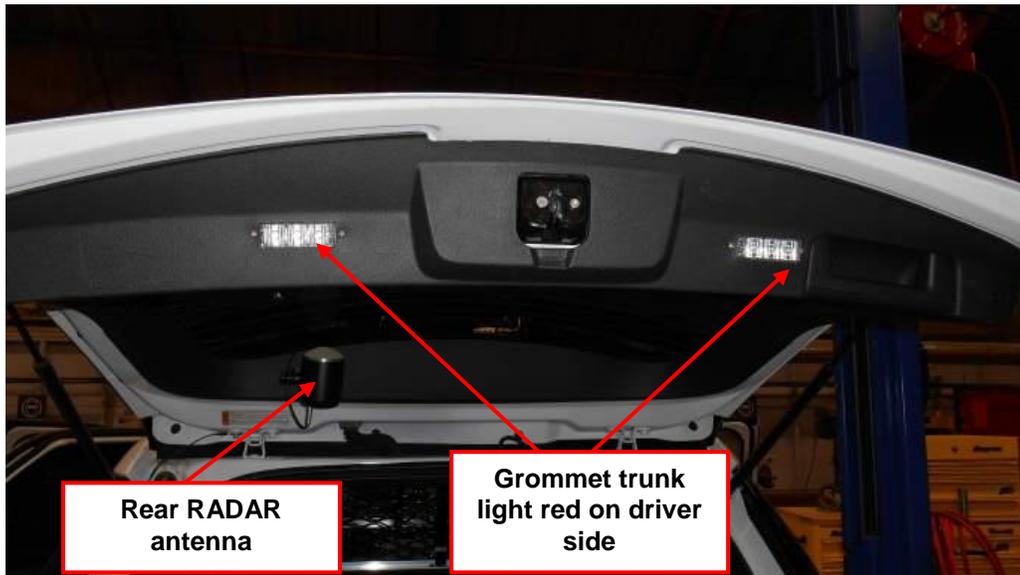


FIGURE 10 – Ford Police Interceptor Utility – Grommet trunk lid lights

SIRENS AND PUBLIC ADDRESS SYSTEMS

18. SUV marked MP vehicle must be equipped with an electronic siren and a public address (PA) system that meet the following specifications:
- The electronic siren must include “air horn”, “piercer”, “wail”, and “yelp” tones and a Hi-lo” is optional;
 - All siren tones must be activated by pressing the horn switch on the steering wheel and by using the appropriate button on the emergency equipment controller;
 - The air horn must be activated by a button situated on the emergency equipment controller; and
 - The siren and PA system must operate with at least a 100-watt speaker concealed under the hood area.

EMERGENCY EQUIPMENT CONTROLLERS

19. The emergency equipment controller installed in all marked MP vehicles must have the following features:

- Siren buttons: “manual”, “stand-by”, “air horn”, “piercer”, “wail”, “yelp”, and “hi-lo” (if this siren tone is available). Function assignment for buttons must follow the layout examples in *FIGURE 11*;

Top line:

- 1- STAND BY
- 2- Empty (here the Rebroadcast radio function, which is no longer used in patrol cars)
- 3- HANDS FREE
- 4- WAIL
- 5- YELP
- 6- PIER
- 7- MAN
- 8- HORN

- A 3-position slide switch for activating police lights in various customizable configurations:
 - (1). Position 1: All rear-mounted police lights activated (hide-away, rear tail lights flasher, rear visor / traffic director on warning mode, deck lights) and all intersection lights activated;
 - (2). Position 2: All front-mounted police lights activated (hide-away, wig-wag, grille lights and front visor) and all intersection lights activated; and
 - (3). Position 3: All police lights activated (including roof light bar, front visor, and rear visor / traffic director on warning mode);
- Traffic director (“arrow”) lights must be configured as follows:
 - (1). Press one time: Move traffic to the left;
 - (2). Press a second time: Move traffic to the right; and

- (3). Press a third time: “Warning” mode.
 - d. Alley and take-down lights (if equipped);
 - e. Anti-theft device / power / idle management device; and
 - f. Stealth/black-out mode (deactivates all vehicle lights except emergency lights).
20. Function assignment for all buttons and switches on the emergency equipment controllers must follow the layout examples in *FIGURE 11*.
21. The following list contains the recommended manufacturers and models of emergency equipment controllers for marked MP vehicles:
- a. *D&R Electronics* – Intimidator, model F3.3150S; and
 - b. *Whelen* – CenCom Sapphire Siren and Light Controller, model CCSRN3.

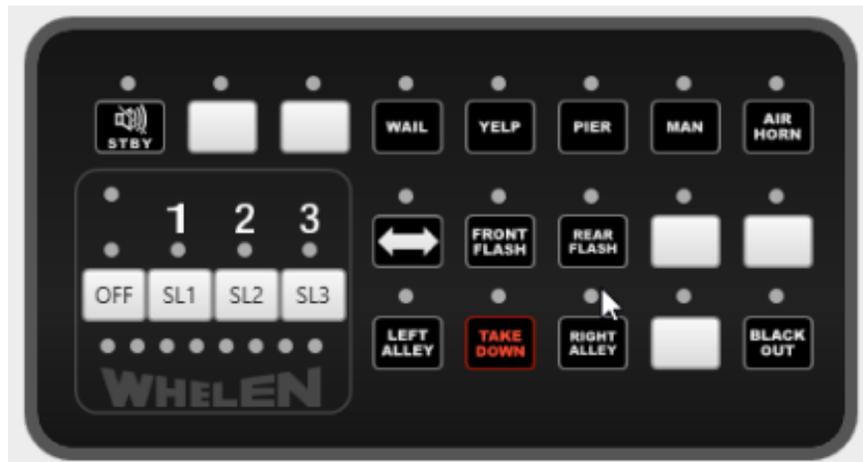


FIGURE 11 – EMERGENCY EQUIPMENT CONTROLLER

SAMPIS MOBILE DATA TERMINAL DOCKING STATION

22. All marked MP vehicles must be equipped with a Security and Military Police Information System (SAMPIS) mobile data terminal (MDT) docking station. The docking station must incorporate the following features:
- a. A locking device with key for the MDT laptop,
 - b. Four powered Universal Serial Bus (USB) minimum or higher 2.0 ports
 - c. A heavy-duty adjustment locking system for distance, height, tilt and rotation; and
 - d. an electronic swipe-card reader installed on the center console (see FIGURES 18 and 19).

23. When installed, the docking station must not interfere with or prevent a second MP from being seated comfortably or safely in the front passenger seat.

24. When an MDT docking station is installed in the crew compartment of a marked MP vehicle, all connections must be located underneath the docking station (e.g. serial port, USB 2.0 port).

25. The MDT vehicle modem must be installed on the equipment tray. The modem antenna must be installed on the rear part of the vehicle roof, centered with the width of the vehicle.

RADAR

26. RADAR antennas must be installed on the driver side. The front antenna must be installed on the dashboard near the front roof pillar, and the rear antenna, on the rear cargo area near the window. Antennas must be secured by a metal bracket which allows the operator to adjust the angle of the antenna. *FIGURE 12A, B, C*, is an illustrated example of the antenna bracket to be used. Depending the vehicle configuration the front radar can be installed on the pillar A if require.

27. A RADAR module must be installed on the center of the dashboard. The module must be installed at an angle which allows the driver to see the module screen. The module must be connected to the mobile vehicle recording system (MVRS) (unless the RADAR or the MVRS does not allow that) to ensure target speed, locked speed and MP vehicle speed are recorded on the MVRS. *FIGURE 13* provides an example of the position and angle. Radar module will be installed on dash board bracket, over the controller.

28. The RADAR remote control must be secured using Velcro™ on the left side of the upper section of the ergonomic console. *FIGURE 14* contains an illustrated example of the location of the remote control when secured.



FIGURE 12A – Front RADAR antenna bracket



FIGURE 12B – Rear RADAR antenna bracket



FIGURE 12C – Rear RADAR antenna location

Radar module will be installed over the controller. Radio display goes in the mid-console.



FIGURE 13– RADAR module location requested configuration



FIGURE 14– RADAR remote control location

ERGONOMIC MID-CONSOLE LAYOUT

29. All marked MP vehicles *must* be equipped with an ergonomic mid-console lower than the front seats height. The ergonomic mid-console *must* be equipped with the following minimum features:

RDIMS No: 6191974

- a. Police radio and external speaker;
- b. MDT docking station;
- c. Microphone holder for radio (driver's side), and microphone holder for PA system (passenger's side);
- d. Three 12-volt auxiliary power outlets (for accessories such as cell phone, alcohol screening device, etc.);
- e. Arm rest; and
- h. Two large cup holders.
- i. Velcro™ on the left side of the upper section of the ergonomic console to secure the RADAR remote control; and
- j. Electronic swipe-card reader (linked to the docking station).

30. The overhead ceiling console on all marked MP vehicles must have a dome light equipped with both red and white lights.

31. FIGURES 15 and 16 contain illustrated examples of ergonomic mid-console equipment configurations for use in Ford Police Interceptor Utility marked MP vehicle. Although models and designs of commercially available ergonomic mid-consoles vary widely, the placement of police radio, emergency equipment controllers, and other features must not vary from these diagrams.

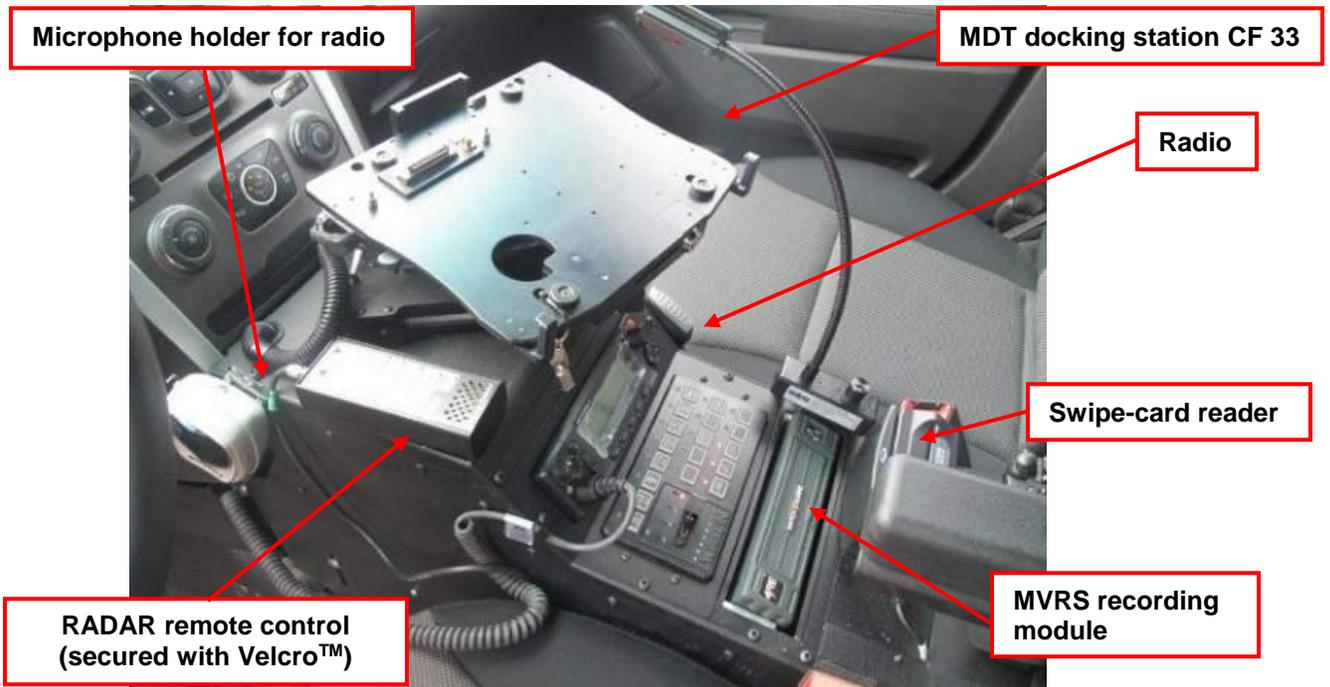


FIGURE 15 – Ergonomic mid-console configuration example

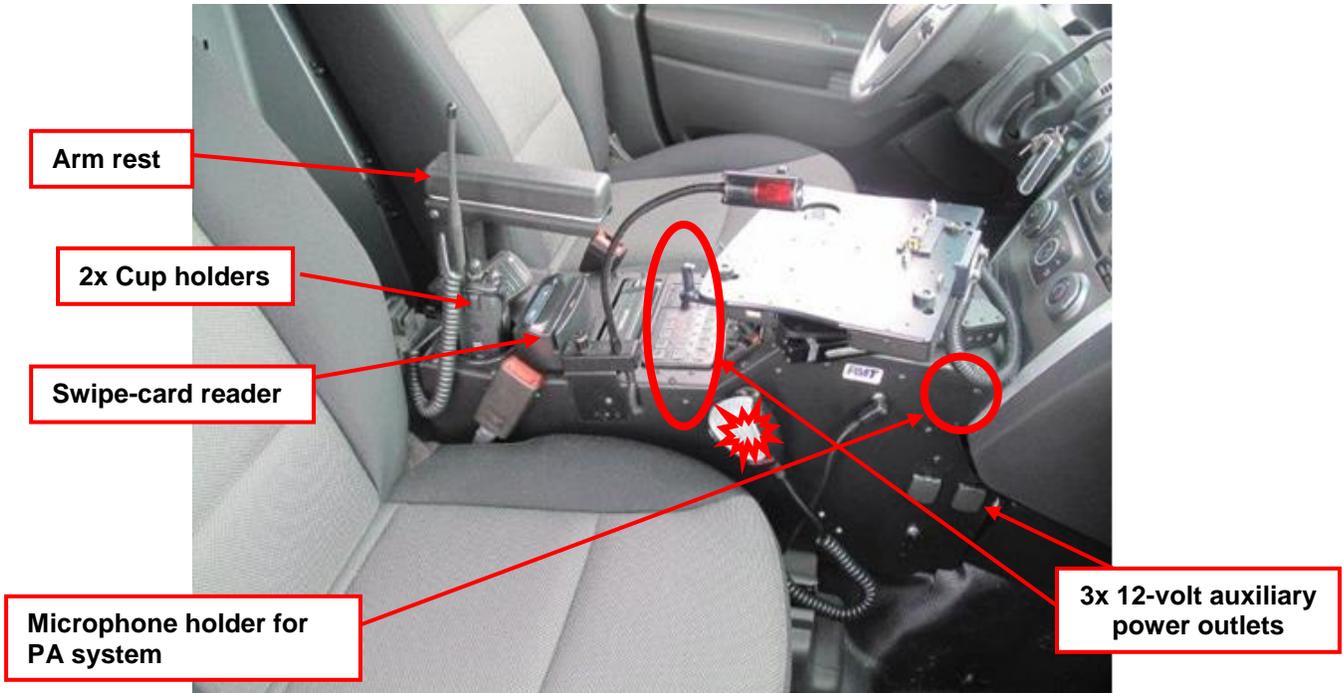


FIGURE 16 – Ergonomic mid-console configuration example

MOBILE VEHICLE RECORDING SYSTEM (MVRS)

32. The MVRS *must* be installed in SUV marked MP vehicle. Directions and specifications on MVRS can be founded in CF MP Gp Order 2-820 in Appendix 4 to Annex A . *FIGUREs 17, 18 and 19* contain illustrated examples of the installation of MVRS.

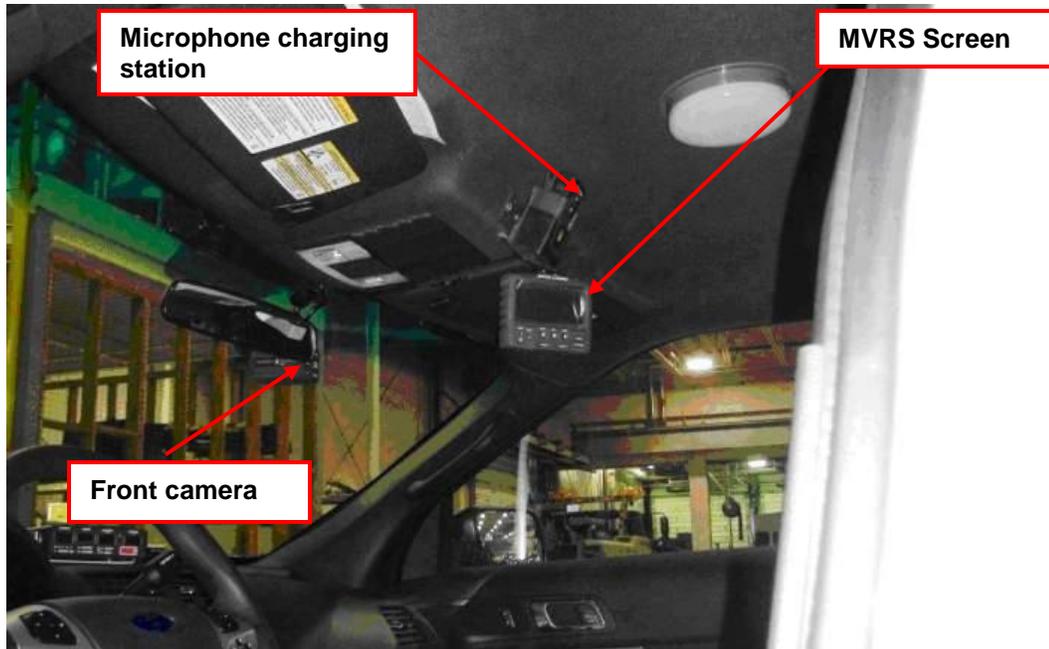


FIGURE 17 –MVRS modular system (front camera, microphone charging station and screen)



FIGURE 17– Installation must be solid



FIGURE 18 – MVRS modular system (recording module)



FIGURE 19 – MVRS rear camera

PRISONER CONTAINMENT EQUIPMENT

33. All SUV marked MP vehicles must be equipped with a “silent partner” security screen. Security screens must include a recessed weapon storage panel and a sliding center window and must be compatible with all airbags including, but not limited to, side curtain airbags. *FIGURES 20 and 21* contain illustrated examples.



FIGURE 20– Security screens (with recessed weapon storage panel and sliding center window)



FIGURE 21– Security screens (with sliding center window and MVRS rear camera)

34. Rear passenger window barriers *must* be installed in all MP vehicles intended to transport arrested persons or prisoners. Window barriers *must* be compatible with all emergency equipment (i.e. window-mounted intersection lights). Window barriers *must* be restrictive enough to prevent the escape of an arrested person or prisoner through the rear passenger windows. *FIGURES 22 and 23* contain illustrated examples.



FIGURE 22– Window barriers



FIGURE 23– Window barriers

35. The rear seating compartment of MP Interceptor Utility vehicles must be upgraded to one-piece security seating modules. It must be a seat cover of a bio-hazard and scratch resistant plastic material allowing use of OEM seatbelts. It must meet all Canadian Transportation Safety Board standards. A recommended Part is Setina TPO Seat Cover or equivalent.

CARGO BARRIERS – SUV-TYPE MP VEHICLES

36. All SUV-type marked MP vehicles must have a cargo barrier installed in the rear cargo area. The cargo barrier must be compatible with all airbags including, but not limited to, side curtain airbags.

37. The cargo barrier must not impede access to the storage area of the vehicle, nor must it incorporate an A-frame or additional support arms. Electronic equipment must not be installed on the cargo barrier.

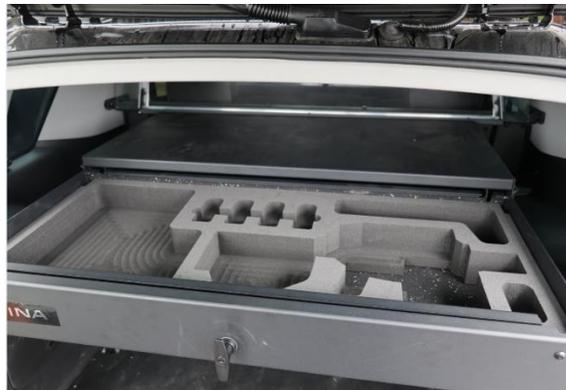
38. *FIGURE 24* illustrates an example of an acceptable cargo barrier installation.



FIGURE 24 – Example of the approved cargo barrier installation in an SUV-type marked MP vehicle

DRAWERS AND SLIDE-OUT RACK

39. Figures 25 A to C illustrate the rear cargo storage 2 drawers and slide out bottom rack with the electronic equipment placed in the bottom drawer, fasten on vehicle frame with tamper-proof nuts and bolts. Must not interfere with the spare tire accessibility.



FIGURES 25 A TO 25 C

PUSH BUMPER

40. Marked MP vehicles must be equipped with a push bumper. Push bumper may be provided as part of the vehicle purchase if not push bumper must be installed and have a black powder coated finish. Push bumper front lights and side lights, must be left on the left and blue on the right. Approved push bumper model is:

- a. Setina - Bodyguard PB-450-L with integrated front and side mounted Whelan LED (FIGURE 26);



FIGURE 26 – Setina – Bodyguard PB-450-L push bumper with integrated LED

INSTALLATION OF EMERGENCY EQUIPMENT

41. All installation of vehicle emergency equipment *must* adhere to the following principles:
 - a. All installation of vehicle emergency equipment *must* be warranted for at least one year after the date of delivery of the vehicle, including parts and labour;
 - b. All installation/user guides *must* be provided by the supplier at the time of delivery;
 - c. All wiring *must* be Canadian Standards Association / Society of Automotive Engineers (CSA/SAE) approved, clearly marked to indicate what each wire or cable connects to, and a detailed wiring diagram must be provided at the time of the delivery;
 - d. All equipment wiring *must* be easily removable if vehicle body maintenance is necessary; and
42. All equipment inside the vehicle *must not* interfere with the deployment of the vehicle safety retention system (air-bags, seat belts, etc.).
43. The layout of SUV-type marked MP vehicles precludes the use of an equipment tray. As such, equipment *must* be installed in these types of vehicles in the following manner:
 - a. Equipment *must* be installed on a Cabinet Sub frame with Electronics Sub Panel Mount;
 - b. The sub frame *must* be made from metal and with metal cover to close the cabinet area;
 - c. Sub frame *must* be fastened on vehicle frame with tamper-proof nuts and bolts;
 - d. Opening panel *must* be secured to avoid bouncing.

44. The following models are approved for use as sub-frames with electronics sub panel mount:
- a. *D&R Electronics® - 933-0092A Cabinet Sub-frame with Electronics Sub Panel Mount and sub-frame mount panel - 933-0097A; or*
 - b. *Havis Products® - Premium Fold Up Cargo Plate installation.*
45. Example of Electronics Sub Panel Mount for a Ford Police Interceptor Utility marked MP vehicle is illustrated at *FIGURE 27*



FIGURE 27–Setina Electronics Sub Panel Mount installation

Wiring should be neat and well placed limiting friction and vibration noise in the trunk.

POWER/IDLE MANAGEMENT SYSTEM

46. The vehicle and emergency equipment *must* be configured and installed in such a manner as to permit all on-board equipment (police radio, cell phone, police lights, MDT and modem, mobile vehicle recording system, and radar) to remain ON when the engine is shut-off and keys are removed. The power/idle management device *must* prevent accidental battery drainage by starting automatically the vehicle engine, without keys, when the batteries are low.

PATROL CARBINE VEHICLE STORAGE SYSTEM SPECIFICATIONS (PCVSS)

47. No standing offer exists with regard to the acquisition of specific makes, models, or suppliers of PCVSS equipment. As such, the specifications contained in this document are to be considered recommendations. Any hyperlinks included in this document are intended for reference purposes only.

48. Notwithstanding the above statement, deviation from this list should not occur without the concurrence of the MP Transportation Authority.

48. Deviation from the specifications set out in this document must not occur without the approval of the MP Transportation Authority.

SECURE MOUNTING SYSTEMS

50. Only a secure rack must be used to secure carbines within Police Interceptor Utility marked MP vehicles. The approved secure racks consist of a mounting system that securely clamps around-front hand guard, or other portion of the carbine. These racks must prevent the carbine from being removed by disassembling the upper and lower end receivers and should also securely cover the trigger and magazine release buttons. Approved racks must be located inside cabin-and secured vertically between the 2 front seats mount lid (see *FIGURE 28*). The rack must be fastened in a tamper-resistant manner (tamper-proof bolt and nuts).

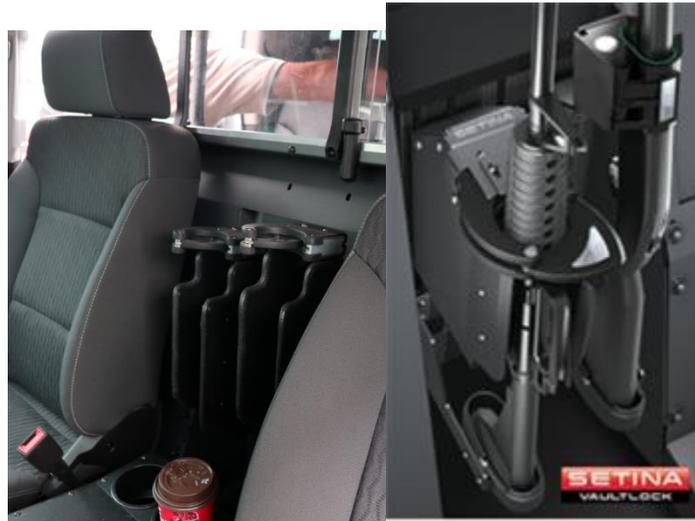


FIGURE 28 – Secure Mounting Device

APPROVED PVCSS EQUIPMENT

51. The Setina Vaultlock is the only authorized lock for use. It has successfully undergone security testing and meet all the MP mandatory equipment criteria. No other variation is authorized for use.

52. The use of electronic/electric release model (such as Blac-Rac™ Model 1080E) is prohibited.

INSTALLATION OF PCVSS

53. PCVSS storage systems must be installed exactly as per the manufacturer's instructions. A key for the lock must be attached to the vehicle key-chain. The key must not be marked in any manner that gives away its function. A maximum of 3 keys can be ordered. Spare keys must be stored in a sealed envelope, locked in a filing cabinet.

54. Any exposed mounting hardware (nuts, bolts, brackets, etc.) that, if unfastened, would allow the rack to be removed from the vehicle, must be tamper-proofed. The method of tamper-proofing may be determined locally but, in all cases, it must ensure that the rack cannot be removed in less than three minutes by a person of average mechanical skill using common hand-tools (e.g. screwdrivers, pry bars, hammers, hex keys, hacksaws and wrenches).

55. English installation instructions for Setina Vaultlock with Universal lock are available from the manufacturer's website; French installation instructions are available on request from the MP Transportation Authority Policy. It must be noted that the manufacturer's instructions recommend the trigger guard of M4/M16/AR15 carbines be modified. This recommendation must not apply to C8A3. C8A3 trigger guards must not be modified.

PCVSS ALARM SYSTEM SPECIFICATIONS

56. Vehicle alarms must be used to provide early warning of potential threats to weapon security. As such, every MP vehicle equipped with a PCVSS must also be equipped with an alarm system that meets all of the specifications below. Recommended model: Viper alarm with all options required for Police cars;

- a. The alarm must be controlled by a remote control/pager unit that incorporates the following features:
 - (1). Two-way range frequency shift keying FM technology capable of broadcasting a reliable signal from at least 500 meters (line of sight);
 - (2). Code hopping technology to counter scanning and signal-grabbing;
 - (3). The remote control/pager unit must visually indicate the alarm status by means of status lights and/or LCD display. As a minimum, the unit must be able to visually display the arm/disarm and alert status (remote battery and signal strength display, and remote alarm status query features are desirable but not mandatory);
 - (4). The remote control/pager unit must provide an easily audible alert signal whenever the vehicle alarm is activated (an additional vibrating alert mode is highly desirable but not mandatory);
 - (5). The remote control/pager unit must employ silent arm and disarm functions;
 - (6). The remote control/pager unit must be able to function effectively in temperatures ranging from -40°C to + 40°C; and
 - (7). The remote control/pager unit must be attached to the vehicle key fob;
- b. The alarm system must incorporate the following sensors:
 - (1). Sensors capable of detecting glass breakage of any window (this may be done using glass-mounted sensors on all windows, by using one or more pressure change sensors, or by using one or more ultrasonic sensors);
 - (2). Sensors capable of detecting the opening of any door as a result of prying, lock picking or key/door handle use (including rear lift-gates for SUVs);
 - (3). All sensors must be able to function effectively in in-car temperatures ranging from -40°C to + 85°C; and

- (4). All sensors must employ technology to minimize false alarms caused by non-invasive vibrations.
- c. The overall PCVSS alarm system must:
 - (1). Be approved for sale and use in Canada in accordance with the *Radiocommunication Act*, the *Radiocommunication Regulations*, and applicable Industry Canada guidelines;
 - (2). Allow for full integration into the patrol vehicle's electrical system without causing a significant draw from the power source (i.e. use low standby power consumption systems for the remote control/pager, sensors and primary alarm unit); and
 - (3). be installed by a reputable and qualified installer.
57. Although not mandatory, the following alarm options are desirable and may be incorporated at the discretion of the local MP unit commander:
 - a. An anti- car-jacking feature ("immobiliser") which will disable the ignition system of a stolen vehicle;
 - b. A tamper-proof, alternate electrical source to power the main alarm;
 - c. A manual "valet switch" that temporarily disables the alarm system;
 - d. An LED indicator light in the vehicle to warn observers that an alarm is installed;
 - e. Automatic dome light supervision (to turn on the inside dome light when the vehicle is unlocked or disarmed);
 - f. Sensors capable of detecting the opening of the vehicle hood; or
 - g. An expandable configuration that can accommodate additional alarm features and/or sensors at a later date.