

2-820.1 - MVRS TECHNICAL SPECIFICATIONS

GENERAL

1. This attachment will outline the technical specifications that shall be adhered to when procuring and utilizing the MVRS.

TECHNICAL SPECIFICATIONS

2. The overhead model of the MVRS is the preferred configuration, but the modular model is also acceptable.

3. In-Vehicle Video System Function

- a. The system shall start and record in less than 2 minutes upon vehicle start up and shall completely shut down in less than 5 minutes after the vehicle is turned off.
- b. The system shall instantly begin recording on emergency light activation, impact detection or manual activation after the initial boot up time.
- c. The system shall instantly record when the vehicle exceeds 110 kph (with or without emergency equipment activated).
- d. The system shall record the following vehicle information that will be displayed on the presentation video:
 - (1) emergency lights (on/off);
 - (2) siren (on/off);
 - (3) brake pedal (on/off);
 - (4) mic (on/off);
 - (5) officer badge number;
 - (6) MP vehicle speed; and
 - (7) radar information such as target speed, lock speed, patrol speed.
- e. The system shall automatically shutdown on low-voltage condition to prevent the vehicle battery from draining.
- f. The system shall allow for configurable pre-event and post-event recording of no less than 60 seconds.

- g. The system shall record 2 video and 2 audio tracks simultaneously (front and rear camera and microphone pack and cabin microphone).
- h. The system shall operate in extreme heat and cold.
- i. The system shall have alternate means of recording and retrieving incidents in the event of recording media filling to capacity or failure.

4. **MVRS Administrative Controls**

- a. The MVRS administrator shall be the only one able to lock down critical system information, such as, but not limited to:
 - (1) time/date changes;
 - (2) auto-record options;
 - (3) media removal;
 - (4) vehicle/patrol information; and
 - (5) position of on-screen information.
- b. Record any changes to system configuration for audit purposes.

5. **MP/User Options**

- a. MP sign-in.
- b. Incident tagging for easy retrieval.
- c. In-vehicle search and playback of incident.
- d. Manual start/stop of recording.
- e. Monitor/Display brightness controls.
- f. Ability to run in surveillance mode, i.e. no lights/sounds.
- g. Audible/Visual indicator when media is full.
- h. Indicator for record time remaining on media.

6. **Video Camera**

- a. Front camera:
 - (1) compact size: 5"L x 2"H x 2"W (approx);
 - (2) minimum 640x480 @ 30 frames per second colour recording capability;
 - (3) ability to record high-quality video in low-light conditions;
 - (4) minimum 20x optical zoom;

- (5) autofocus camera with manual focus ability;
 - (6) programmable zoom functions such as automatic licence plate capture;
 - (7) outside viewable light to indicate recording is active.
- b. Rear camera (rear bench seat):
- (1) subcompact size: 2"L x 3"H x 3"W (can also be built-in with the front camera);
 - (2) colour camera with an infra-red capability for recording in complete darkness; and
 - (3) autofocus camera.

7. Microphone

- a. Each system shall have at least one wireless microphone per vehicle (microphone pack).
- b. One wired microphone for the inside of the vehicle (to record audio from the cabin/detainee area).
- c. Minimum wireless microphone range of no less than 1000 feet.
- d. Wireless microphone can be used to activate the in-vehicle video system.
- e. Wireless microphone shall have a minimum of 8 hours talk time.
- f. Wireless microphone(s) shall have an in-vehicle charging station. Charging station(s) shall be installed on the dash-board or on the overhead console and be hooked to the vehicle ignition switch.
- g. Wireless microphone shall have its own frequency and not interfere with another patrol vehicle's in-vehicle video system.
- h. Audible low-voltage indicator on the wireless microphone.
- i. Video system shall record in-vehicle audio.
- j. Wireless microphone clip or carrying pouch for the duty belt/vest.
- k. Compatible with lapel microphones, if lapel microphone is to be used by the MP.

8. Media Output

- a. System shall record to:
 - (1) standard DVD-RW or DVD+RW or DVD-R or DVD+R media (preferred media output);
 - (2) USB flash drive media; or
 - (3) SD memory card or any other similar device.
- b. Wireless/Bluetooth downloading is prohibited.

- c. For court purposes, video shall be playable in any standard PC or DVD player without specialized software.
- d. Video shall be tamper-proof.

9. Service Requirements

- a. Five-year warranty per unit.
- b. Vendors must identify their authorized local service provider for maintenance and repair during the 5-year warranty period.
- c. Complete turnaround for repairs or maintenance should be five (5) business days from receipt of vehicle drop-off (by DND) to vehicle pick-up (by DND), unless otherwise agreed to by the technical authority.
- d. Expert witness testimony in the event of court challenge.
- e. Technical support for DND technician for troubleshooting/installation.

10. Vehicle Mounting

- a. The system shall be housed completely within the front seating area of the vehicle.
- b. Overhead is the preferred mounting option.
- c. The system shall come with a complete installation kit for each vehicle.
- d. The system installation shall not interfere or require modification of any existing vehicle safety equipment.
- e. The system installation shall not interfere with any other installed required policing equipment:
 - (1) emergency equipment controller;
 - (2) mobile data terminal (MDT);
 - (3) mobile radio;
 - (4) cell phone / hands-free kits; and
 - (5) C8A3 patrol carbine rack.

Attachment: NIL

Approval Authority: COS

OPI: DPM Pol & Plans

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