

The following equipment is hereby ADDED to this Contract:

DMV-800 (Includes 5-year Advanced Exchange Warranty) \$3,995.00 per unit

Includes:

- 32GB Internal memory & 32 GB External SD Card
- Wi-Fi Dongle
- Interface Box
- GPS Module
- 12X Front Facing Camera
- DWM-800 2.4GHz Wireless Microphone (One (1) microphone per kit)
- Option of one (1): Rear Seat IR Camera or License Plate Backup Camera

Optional Equipment:

DWM-800 2.4 GHz Wireless Microphone	\$238.50 each
32 GB SD Card	\$40.00 each
License Plate Backup Camera and Rear Seat IR Camera	\$269.00 each

FirstVu HD Kit \$945.00 each

Includes:

- 1 year Advance Exchange Warranty
- 32GB Internal Memory
- Two (2) Rechargeable Batteries
- Charger w/110V AC Wall & 12V DC Auto Plugs
- Fabric Clip, Button Mount, Velcro Mount
- 3.3 ft. USB 2.0 Cable






Standard parts and options, per attached.

**DVM-800 Standard Parts Kit (001-00038-10)...\$3995.00\***

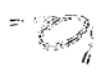





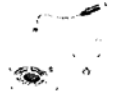





\*DVM-800 includes 5 year advance-exchange warranty

Part Number		Description
006-08208-32		DVM-800 (mirror only), 32GB...\$1696.50
006-08210-00		IO box (model IFE-20)...\$135.00
002-05095-00		Wireless Microphone and charging cradle, DWM-800 System...\$328.50
008-01388-00		Cable, Main Power 3.1m (10.1ft.)...\$31.50
008-01455-00		Cable, DWM-800 to DVM-800...\$58.50
008-01464-00		Cable, IO Box RJ45 Sensor ...\$31.50
004-09058-00		Cable, Back Seat Microphone to DWM-800, 20ft. 2.5mm plug...\$45.00
008-01386-01		Cable, IO Box to DVM 4.6m (15.0ft.)...\$36.00
001-00010-00		Wi-Fi Assembly...\$135.00
008-01410-00		GPS Module...\$90.00
363-00050-00		SD card, 32GB...\$72.00
006-08255-00		Visor Mount For external front camera...\$22.50

DVM-800 External Camera Options

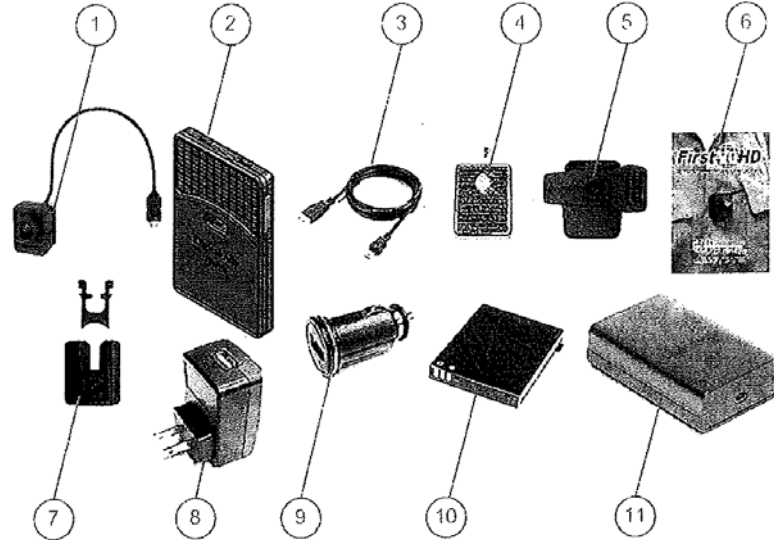
Kit Part Number	Kit Contents	Kit Content Images	Description
002-05136-10	566-00127-00 008-01442-00 008-01390-00 566-00039-00		<b>CAMERA OPTION 1a (standard)</b> Front 10x camera and back seat camera with cables. Reverse image backseat camera
002-05136-11	566-00127-00 008-01442-00 008-01390-00 566-00040-00		<b>CAMERA OPTION 1b</b> Front 10x camera and back seat camera with cables. Normal image backseat camera
002-05136-20	566-00127-00 566-00038-00 008-01442-00 008-01390-00		<b>CAMERA OPTION 2</b> Front 10x camera and backup camera with cables
002-05136-30	566-00127-00 566-00038-00 008-01443-00 008-01390-00 566-00039-00		<b>CAMERA OPTION 3a (standard)</b> Front 10x camera, back seat camera (reverse image), and backup camera with cables...\$199.00
002-05136-31	566-00127-00 566-00038-00 008-01443-00 008-01390-00 566-00040-00		<b>CAMERA OPTION 3b</b> Front 10x camera, back seat camera (normal image), and backup camera with cables...\$199.00

DVM-800 Optional Parts List

Part Number		Description
008-01382-00 008-01382-01 008-01382-02 008-01382-03		Backup Camera 25ft Extension Cable...\$31.50 Backup Camera 40ft Extension Cable...\$31.50 Backup Camera 60ft Extension Cable...\$31.50 Backup Camera 15ft Extension Cable...\$31.50
008-01386-02 008-01386-03		IO Box to DVM Power Cable 6.1m (20.0ft.)...\$36.00 IO Box to DVM Power Cable 8.1m (26.5ft.)...\$36.00
025-00004-00		DWM800 external antenna...\$58.50
002-05091-00		Charger, RMT Desktop charger 120Vac...\$72.00
006-08193-00		Assembly, Auxiliary Camera Switch Box...\$180.00
002-00028-00		SD Card Reader...\$45.00
566-00042-01 566-00042-02 566-00042-03 566-00042-04		Camera, Side Mount Right, white (-01)...\$292.50 Camera, Side Mount Right, black (-02) ...\$292.50 Camera, Side Mount Left, white (-03) ...\$292.50 Camera, Side Mount Left, black (-04) ...\$292.50
740-00388-00		Panel Mount Remote Activation Switch ...\$11.70
740-00399-00		Footswitch, Maintained (18/2AWG, 6ft, bare leads) \$112.50
002-05030-00		Drop Mount Adapter ...\$36.00
002-05102-00		Kit, Big Ball Mount Adapter...\$45.00
002-05112-00		Windshield Mount Adapter Kit, Dodge Charger ...67.50

## FirstVu HD Standard Parts List

Standard Kit Part Number 001-00203-00... \$945.00



Standard Parts List			
Item	Part Number	Qty	Description
1	050-10110-00	1	Assembly, FirstVu HD Camera...\$171.00
2	050-10091-00	1	Assembly, FirstVu HD DVR...\$445.50
3	008-0100	2	Cable, USB 2.0 Type A to Mini-B, 3.3 ft....\$8.10
4	050-10101-00	1	Kit, Velcro Mount...\$4.00
5	050-10090-00	1	Assembly, Fabric Clip...\$4.00
6	860-00182-00	1	FirstVu HD Quick Reference Guide...n/c
7	050-10096-00	1	Assembly, Button Mount...\$9.00
8	009-00004-00	1	Charger, 110Vac wall to USB Type A ...\$23.00
9	009-00005-00	1	Charger, 12Vdc Auto Plug to USB Type A ...\$18.00
10	135-00398-00	2	Battery, 3.7V 2200mAh Li-Po ...\$25.00
11	009-00008-00	1	Charger, Battery...\$28.00

### FirstVu HD Optional Accessories List

<b>Part Number</b>	<b>Description</b>
001-00204-11-A	FirstVu HD Camera Kit, Audio Always On, 11" Camera Cable...\$945.00
001-00204-48	FirstVu HD Camera Kit, Audio Always On, 48" Camera Cable...\$945.00
001-05117-00	Assembly, FirstVu HD Car Mount Kit...\$58.50
002-05126-00	Assembly, FirstVu HD Belt Mount Kit...\$22.50
002-05131-00	Assembly, FirstVu HD Belt loop holster w/Extension Cable...\$40.50
002-05132-00	Assembly, FirstVu HD Leather Pouch w/Extension Cable...\$40.50
008-01435-00	Cable, FirstVu HD Camera Extension, 3ft....\$26.10
001-0950-00	VuLink™ Standard Kit (wireless in-car video link)...\$445.50
001-0960-00	FirstVu HD Docking Station (supports 12 FirstVu + 12 batteries)...\$2695.50



**Attachment A, Price**

Quantity	Unit of Issue	Description	Unit Price	Extended Price
500	EA	Rearview mirror contained system. To include one (1) year standard warranty, installation and training. Make: Digital Ally Model: DVM-500 or Approved Alternate Bidding Make: <u>Digital Ally</u> Model: <u>DVM-500 Plus</u>	\$4,495.00  *Includes (2) year standard warranty, installation, and training.  Net % 30 Days  Pricing Valid for 120 Days	\$2,247,500.00  *Includes (2) year standard warranty, installation, and training.  Net % 30 Days
	EA	Extended warranty for year two (2) and beyond for each model  Digital Ally DVM-500  Kustom Digital Eyewitness G3-Vision  Kustom Digital Eyewitness ION-Eclipse	\$300.00 per year/per DVM-500 Plus System for a total of (3) years beyond the standard (2) year warranty  Net % 30 Days  Pricing Valid for 120 Days	
	EA	Additional installation and repair training for State of Michigan Radio Technicians	\$4,000.00  Net % 30 Days  Pricing Valid for 120 Days	
	EA	Removal and reinstallation in new vehicle	\$350.00 Per System  Net % 30 Days  Pricing Valid for 120 Days	



## Attachment B – Specifications for In-Car Video Equipment

### **System Description**

1. The Digital Patrol Car Surveillance System shall consist of a windshield mounted miniature camera, rear view mirror contained system or overhead control center, with compact monitor, or flex mount control center with compact monitor, wireless microphone and interface box. Configurable options must be available to record to Flash Card, removable Hard Disc Drive (HDD), and/or other removable digital media to provide audio and video recording of traffic stops, pursuits, D.U.I. tests, etc.
2. The miniature color camera shall be a Charge Coupled Device (CCD) type, and shall be capable of operating in extreme weather conditions. Its small size shall not obstruct the driver's field of view.
3. The control center shall mount within easy reach of the driver's seat, and give the user the ability to rewind and play back recorded segments. The system shall also protect recorded segments to insure they are not recorded over.
4. The system shall start recording automatically when the vehicle's emergency lights, siren, or wireless transmitter are activated. Status of the lights, siren, transmitter and vehicle brakes shall be indicated on the video
5. The optional Crash Record Activation feature shall include two accelerometers mounted perpendicular to each other to detect impacts from all four sides of the vehicle.
6. The activation of the emergency lights, siren, wireless transmitter and crash activation sensor shall be stored as metadata that can be used as search criteria by the video database product.
7. The system shall include an A/V out connector to allow an external monitor to duplicate what is seen on the system monitor.
8. The video system shall be capable of interfacing with a GPS system to record GPS coordinates/vehicle location on the video.
9. The system shall have an external record/microphone indicator. This indicator shall consist of a light to be seen from the front of the patrol vehicle to indicate to an officer outside the vehicle that the recorder is recording, and that audio from the wireless transmitter is being received.
10. Software updates shall be provided free of charge in either of the below listed ways:
  - Software updates shall occur automatically whenever a HDD, Flash Drive, or other digital media with new software is inserted in the systems media enclosures.
  - If updates cannot occur automatically from inserted media. The system manufacturer shall supply software updates free of charge including, but not limited to parts and labor, installation, and travel time.

### **Video Compression and Recording:**

1. The digital video system shall be capable of recording to a Flash drive with a minimum of 16GB in size, HDD with a minimum of 40 GB or higher, and/or other digital media.
2. The system shall offer MPEG 4 or better compression schemes. If multiple compression schemes are offered, compression shall be user selectable through the system's set-up menu to allow the user to easily change compression without assistance from the manufacture. Windows XP-compatible software shall be





included with the system to allow recordings from the system to be played on any PC with Windows Media Player, version 9.0 or higher.

3. Each compression scheme shall offer three user selectable recording rates to allow the user to make their own record-quality/storage requirement selection.
4. The system shall continue to record live video to the buffer memory even during playback.

**Control Center:**

1. The Control Center shall be mounted in the rear view mirror, or a flexible floor mount or an overhead console that includes a color LCD monitor, with the following:
  - The rear view mirror, flexible floor mount or overhead console shall combine the Control Center and Color Monitor in a single housing.
  - The Console shall position the Control Center just above the vehicle's rear view mirror. Otherwise housed completely in the rear view mirror.
  - The Console shall allow the color monitor, if it hangs below the housing, to be recessed up into the housing when not in use. Otherwise housed completely in the rear view mirror.
  - When mounted, no cables connecting to the Console shall be visible to the driver.
2. An option shall be available to allow mounting of the Control Center in a variety of locations. This includes mounting brackets to mount the Control Center separately to the dash, in a radio rack, and to the vehicle's headliner.
3. If an Overhead Mount is used, the Control Center's mounting bracket shall not require any holes or cuts to be made in the vehicle's headliner.
4. All controls and displays shall be positioned for convenient viewing and access. It shall not be acceptable to use a separate controller to operate the camera.
5. All controls shall be identified with backlighted legends for night operation.
6. The Control Center's cable shall connect to the rear of the panel and be capable of routing up or down to assist in concealing the cable during installation.
7. The Control Center may provide audible feedback (beeps) when the system is turned on, when the recorder starts recording, when a low voltage condition exists and when the recording capacity of the media is low.
8. The Control Center shall include a camera switch that is used when the system is equipped with two cameras. This switch shall have no effect when the second camera is not present.
9. The Control Center may provide audible feedback (beeps) when the system is turned on, when the recorder starts recording, when a low voltage condition exists, when the digital media nears its end, and when an extreme temperature condition exists in the recorder enclosure.
10. The Control Center shall have the ability to start the recorder from outside the car using the wireless microphone.
11. Control Center features shall include:
  - Power ON/Off.
  - Record START/STOP.
  - Rewind, Playback and Fast Forward.
  - On-Screen Rewind and Fast Forward (Search).
  - Zoom Wide/Tele.



- Programmable Auto Zoom. Pressing one button shall automatically zoom the motorized zoom lens to the agency's preferred magnification, pause to record the license plate, then return to the agency's preferred wide-angle position. These lens positions shall be field programmable by non-technical personnel through the system's set-up menu.
- Focus Auto/Manual.
- Backlight Compensation.
- No Media in Recorder Indicator.
- Time Left on Media LED Display. Displayed on Control Center in hours and minutes.
- Media Full Warning - System may provide audible but shall provide visible warnings as the recorded video reaches the media capacity. The Time Left LEDs shall begin to flash when 30 minutes of capacity remain but no shorter than 10 minutes and then flash faster when 5 minutes remain. When the media is fully used, the time left display shall read "End" or "Disk Full".
- Rechargeable Battery Backup - Stores time, date, characters, and minutes left on tape when system is OFF. Back-up battery shall be charging whenever the system is on.
- The Control Center shall require positive feedback from the recorder before indicating that a command has been activated. This feature shall ensure that the Control Center LED indicator will not falsely indicate that the system is recording.
- Record over protection – The system shall have an automated record over protection feature.
- Microphone Indicator - (LED)
- Officer shall have the ability to start recording by turning on the remote microphone.
- Photocell - Automatically adjusts Control Center LED intensity.

**12.** The Control Center shall include a Set-Up menu that shall include the following features/options:

- Menu access and entry shall not require a separate programmer or external device.
- Limiting Menu Access – A method shall be available to limit access to the menu.
- Time and Date Generator - Records time on the media in hours, minutes and seconds.
- Time/Date Change Recording - All changes to the set up menu shall be recorded automatically. Changes to the time and date shall not be possible without media in the recorder recording the change. This feature shall be incapable of being defeated by the operator.
- Time and Date Position - The time and date shall be capable of being placed at the top or bottom of the screen.
- Time and Date Format - Time and date format shall be available through the Set-Up Menu.
- Flash Preference - The set-up menu shall allow the operator to set the display to flash or to remain steady. Flashing the display prevents it from covering important details in the scene.
- Character Generator – At least 2 lines of 20 characters per line shall be available for operator to insert descriptive identifier data or have the ability to add pre selected event IDs.
- Selectable Compression Scheme – If multiple compression schemes are offered, the desired compression scheme shall be available through the Set-Up menu.
- Selectable Recording Rates – Three recording rates shall be available for each compression scheme through the Set-Up Menu.
- Auto Zoom Positions - The telephoto and wide-angle positions used for Auto Zoom shall be adjustable through the Set-Up menu.



- Audio Out Select - The set-up menu may allow the operator to select audio from the wireless microphone, the (optional) in-car microphone, or both at the same time, to be heard over the system's monitor.
- Beep Tones - The set-up menu may allow the operator to turn the beep tones mentioned in ON or OFF.
- Daylight Savings - The set-up menu shall allow the program to either automatically adjust the system's clock for Daylight Savings, or leave this feature off.
- The system shall allow partially used media to be inserted into the recorder without jeopardizing the previously recorded segments. Then new media is loaded, the system shall determine the available capacity and subject to the resolution selected calculate the time left available for new recordings, then display this number in the prominent Time-Left Display. The system shall not allow previously recorded segments to be recorded over.

### **Camera**

1. The solid state color CCD camera shall not be subject to burn in, introduction of geometric distortion not be affected by magnetic fields, and shall be highly resistant to damage from vibration and shock.
2. The camera shall resist nighttime blooming and smearing from light sources.
3. The camera shall operate on 12 VDC, and offer a minimum of 470 lines horizontal resolution.
4. The camera shall be capable of a minimum illumination of between 0.7 and 1 lux.
5. The camera's dimensions (including lens) shall be approximately 2.25" x 2.25" x 4.0" w/h/d or less.
6. The camera with lens shall weigh approximately 17.8 oz (504g) or less.
7. The camera shall, at a minimum, be able to operate between the temperatures of 14°F to 167°F (-10°C to 75°C).
8. The motorized zoom lens shall offer a minimum of 10X optical zoom lens with 4X digital zoom for a total zoom ratio of 40 or greater:
9. The camera shall provide a horizontal field of view of at least 17 feet at a distance of 20 feet from the camera
10. The camera shall include auto and manual focus capabilities.
11. The camera shall offer auto white balance.
12. The camera shall offer backlight compensation.
13. The camera shall offer a S/N ratio of 50dB or better.
14. The auto iris lens shall automatically adjust for varying light levels from day to night. The use of electronic shuttering to adjust for varying light levels shall not be acceptable.
15. The camera shall be mounted with a heavy-duty controlled pivot mount. The mount shall attach to the windshield using a high strength adhesive, and shall allow the camera to be easily rotated through 360° of rotation.
16. The camera mount shall allow the camera to be positioned easily and secured in place without tools.

### **Color Monitor**

1. A high quality active matrix color LCD monitor shall be provided for focusing the camera and for continuous viewing.
2. The monitor shall housed in the rear view mirror, on a universal flex mount or be mounted in the Overhead Console Center and shall be clearly visible by the operator. If on a swivel mount, the monitor shall be able to be recessed up into the housing or swing down and swivel side-to-side for the best viewing angle



3. The monitor's screen shall be invisible when not in operation if housed in the rear view mirror. If it is a Flex mount or Overhead Console Center type, then it shall be non-reflective for optimum viewing in the vehicle. Mirror-like reflective screens shall not be acceptable for monitors that are not built into the rear view mirror.
4. The monitor's screen size shall be no smaller than 3", and no larger than 4", measured diagonally.
5. The monitor shall provide controls for power and brightness.
6. If other than a Rear View Mirror system, the monitor's dimensions shall be approximately 4.55" x 3.45" x 2.25" w/h/d ( x x cm w/h/d) or smaller.
7. If other than a Rear View Mirror system, mounting brackets shall be available to mount the monitor virtually anywhere in the vehicle's interior: to the dash, to the vehicle's headliner, or on a heavy-duty posi-lock stem mount.
8. Video monitoring shall be possible whether or not the system is recording.
9. The monitor shall be capable of displaying:
  - Time and Date
  - GPS information if available.
  - Emergency Lights Indicator (L)
  - Siren Indicator (S):
  - Microphone Reception Indicator (M):
  - Brake Use Indicator (B):
  - Target and Patrol speeds from speed measurement devices:

### **Audio System**

1. The system shall offer digital audio to ensure that transmissions from the officer to the car are private and interference free. FCC approved frequencies in the 900 MHz band shall be used.
2. The audio system shall allow a minimum of two to 20 users at a scene. Different codes/IDs shall be available for use with the transmitters to ensure that no two transmitters use the same code.
3. The system shall provide a stand alone recharging station or in-vehicle docking station. This station shall include the system's receiver and shall be capable of recharging the transmitter's battery.
4. If a in-vehicle docking station is used, both the transmitter and docking station shall have the ability of sending simultaneous audio and data streams. The data stream shall be used to send status information between the transmitter and the docking station.
5. If a in-vehicle docking station is used, the transmitter shall program/sync its unique code into the docking station whenever it is placed in the docking station. Once programmed, the receiver shall only accept audio from that transmitter. Any transmitter shall be capable of programming and being used with any docking station.
6. The transmitter shall include a rechargeable battery. This battery shall provide 6-8 hours of ON time or better, and up to 80 hours of service in the standby mode.
7. The transmitter shall be capable of operating 300' to 500' or better from the vehicle.
8. If a in-vehicle docking station is used, the docking station shall have the ability to automatically activate the officer-worn audio transmitter whenever the video system receives a record command from the light bar, siren or record switch.
9. If a in-vehicle docking station is used, the transmitter shall have an Off/Standby/On switch, or an automated standby mode. The Standby position shall allow the transmitter to be activated by the docking station, while minimizing power consumption.



10. The transmitter shall include a detachable mic cord with clip to allow the mic to be placed anywhere on the officer's uniform.
11. The transmitter shall also include a built-in mic as an alternative to the mic cord or as a back up should the mic cord become damaged
12. The transmitter's antenna shall be built into the case. No external antenna shall be acceptable.
13. If a in-vehicle docking station is used, the docking station shall employ built-in diversity (two) antennas. Connectors shall also be included to support the use of external antennas if desired.

### **Operating Instructions and Specification Manual**

1. A full and complete set of operating instructions shall be furnished by the Contractor with each unit.
2. The system manufacturer shall provide a page of optional equipment, with prices, available to either upgrade or downgrade the system.

### **Manufacturer's Quality Control And Testing**

1. All electrical components utilized, including integrated circuits, shall be highly reliable commercial grade parts.
2. Each individual electrical and electronic component shall be subjected to a complete quality control inspection. This is required before installation into a printed circuit board or other sub-assembly.
3. All assembled printed circuit boards and sub-assemblies shall be thoroughly inspected and completely tested mechanically and electrically before being installed into a video system.
4. All printed circuit boards shall be glass epoxy, type FR4 or equivalent. Also, all high-density circuit boards shall be the solder mask type.
5. All components dissipating power in excess of one watt and mounted directly against a circuit board shall have adequate heat sinks for circuit board protection. All electronic and electrical components shall only be utilized within their manufacturer's operating specifications, pertaining to voltage, current and heat dissipation characteristics.
6. Each complete video system shall be individually bench tested for all functions and test parameters.

### **Warranty**

1. The manufacturer shall guarantee their patrol car video systems to be free of defects in materials, workmanship, and installation for a period of one year from the date of installation of the unit. All shipping charges (both ways) shall be at the expense of the manufacturer for the first year after installation of the systems. Thereafter, shipping charges from the agency to the manufacturer shall be at the expense of the agency. Return shipping charges from the manufacturer to the agency shall be at the sole expense of the manufacturer during the warranty period. This warranty shall not extend to finish, appearance items, or malfunction due to abuse, neglect, misuse, accidents, or operation under other than specified conditions.

### **Delivery**

1. Each unit shall be delivered within 30 days of receipt of a Purchase Order.
2. The price of each unit shall include installation.
3. Installation shall be made within 30 days from the date of delivery.
4. Installation shall be conducted on-site at MSP work locations.



**Service Centers**

1. The system manufacturer shall provide at least seven (7) authorized service centers located throughout Michigan. At least two shall be located in Michigan's Upper Peninsula. All service calls shall be accomplished in a timely manner. If the above service centers cannot be established the systems manufacturer will provide training to the Michigan Dept. of State Police Radio Technicians to become service technicians in order to accomplish the location requirements.
2. The system manufacturer shall provide a list, with locations of authorized service centers located within Michigan, if requested. If an authorized service center is located outside of Michigan, but is willing to travel to Michigan, it shall be listed.

**Server and Support Systems**

1. The bidder shall provide details and offerings regarding, but not limited to the following: components, software, hardware, storage capacity, required to meet individual operational needs of various size law enforcement agencies that may utilize resulting contracts, which will consist of individual local units of government and the Michigan State Police Department. Bidders should provide itemized unit price offerings for required components so agencies are offered a full range of flexibility in the building and design/acquisition of systems and networks.