



## ***Request for Bid (RFB)***

Boone County Purchasing

601 E. Walnut, Room 208

Columbia, MO 65201

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### ***Bid Data***

Bid Number: **44-28JUL04**

Commodity Title: ***Digital Patrol Car Video System***

## **DIRECT BID FORMAT OR SUBMISSION QUESTIONS TO THE PURCHASING DEPARTMENT**

### ***Bid Submission Address and Deadline***

Day / Date: TUESDAY – July 13, 2004

Time: 10:30 A.M. (**Bids received after this time will be returned unopened**)

Location / Mail Address: **Boone County Purchasing Department  
Boone County Johnson Building  
601 E. Walnut, Room 208  
Columbia, MO 65201**

Directions: The Johnson Building is located on the Northeast corner at 6<sup>th</sup> Street and Walnut Street. Enter the building from the East Side. Wheel chair accessible entrance is available on the West side of the building.

### ***Bid Opening***

Day / Date: TUESDAY – July 13, 2004

Time: 10:30 A.M. C.S.T.

Location / Address: **Boone County Johnson Building Conference Room  
601 E. Walnut, Room 213  
Columbia, MO 65201**

### ***Bid Contents***

- 1.0: **Introduction and General Conditions of Bidding**
- 2.0: **Primary Specifications**
- 3.0: **Response Presentation and Review**
- 4.0: **Response Form  
Standard Terms and Conditions  
“No Bid” Response Form**

1. **Introduction and General Conditions of Bidding**
- 1.1. **INVITATION** - The County of Boone, through its Purchasing Department, invites responses, which offer to provide the goods and/or services identified on the title page, and described in greater detail in Section 2.
- 1.2. **DEFINITIONS**
- 1.2.1. **County** - This term refers to the County of Boone, a duly organized public entity. It may also be used as a pronoun for various subsets of the County organization, including, as the context will indicate:
  - Purchasing* - The Purchasing Department, including its Purchasing Director and staff.
  - Department(s) or Office(s)* - The County Department(s) or Office(s) for which this Bid is prepared, and which will be the end user(s) of the goods and/or services sought.
  - Designee* - The County employee(s) assigned as your primary contact(s) for interaction regarding Contract performance.
- 1.2.2. **Bidder / Contractor / Supplier** - These terms refer generally to businesses having some sort of relationship to or with Boone County. The term may apply differently to different classes of entities, as the context will indicate.
  - Bidder* - Any business entity submitting a response to this Bid. Suppliers, which may be invited to respond, or which express interest in this bid, but which do not submit a response, have no obligations with respect to the bid requirements.
  - Contractor* - The Bidder whose response to this bid is found by Purchasing to meet the best interests of the County. The Contractor will be selected for award, and will enter into a Contract for provision of the goods and/or services described in the Bid.
  - Supplier* - All business(s) entities which may provide the subject goods and/or services.
- 1.2.3. **Bid** - This entire document, including attachments. A Bid may be used to solicit various kinds of information. The kind of information this Bid seeks is indicated by the title appearing at the top of the first page. A "Request for Bid" is used when the need is well defined. A "Request for Proposal" is used when the County will consider solutions, which may vary significantly from each other or from the County's initial expectations.
- 1.2.4. **Response** - The written, sealed document submitted according to the Bid instructions.
- 1.3. **BID CLARIFICATION** - Questions regarding this Bid should be directed in writing, preferably by fax or e-mail, to the Purchasing Department. Answers, citing the question asked but not identifying the questioner, will be distributed simultaneously to all known prospective Bidders. Note: Written requirements in the Bid or its Amendments are binding, but any oral communications between County and Bidder are not.
- 1.3.1. **Bidder Responsibility** - The Bidder is expected to be thoroughly familiar with all specifications and requirements of this Bid. Bidders' failure or omission to examine any relevant form, article, site or document will not relieve them from any obligation regarding this Bid. By submitting a Response, Bidder is presumed to concur with all terms, conditions and specifications of this Bid.
- 1.3.2. **Bid Amendment** - If it becomes evident that this Bid must be amended, the Purchasing Department will issue a formal written Amendment to all known prospective Bidders. If necessary, a new due date will be established.
- 1.4. **AWARD** - Award will be made to the Bidder(s) whose offer(s) provide the greatest value to the County from the standpoint of suitability to purpose, quality, service, previous experience, price, lifecycle cost, ability to deliver, or for any other reason deemed by Purchasing to be in the best interest of the County. Thus, the result will not be determined by price alone. The County will be seeking the least costly outcome that meets the County needs as interpreted by the County.
- 1.5. **CONTRACT EXECUTION** - This Bid and the Contractor's Response will be made part of any resultant Contract and will be incorporated in the Contract as set forth, verbatim.
- 1.5.1. **Precedence** - In the event of contradictions or conflicts between the provisions of the documents comprising this Contract, they will be resolved by giving precedence in the following order:
  - 1) the provisions of the Contract (as it may be amended);

- 2) the provisions of the Bid;
  - 3) the provisions of the Bidder's Response.
- 1.6. **COMPLIANCE WITH STANDARD TERMS AND CONDITIONS** - Bidder agrees to be bound by the County's standard "boilerplate" terms and conditions for Contracts, a sample of which is attached to this Bid.

**2. Primary Specifications**

- 2.1. **ITEMS TO BE PROVIDED** – For the Furnishing and Delivery of **Digital Patrol Car Video Systems** designed to provide an audio and video recording of traffic stops, pursuits, D.U.I. tests, etc. for the Sheriff Department of the County of Boone - Missouri as detailed in the following specifications.
- 2.1.1. **Contract Documents** - The successful bidder(s) shall be obligated to enter into a written contract with the County within 30 days of award on contract forms provided by the County. If bidder desires to contract under their own written agreement, any such proposed agreement shall be submitted in blank with their bid. The County reserves the right to modify any proposed form agreement or withdraw its award to a successful bidder if any proposed agreement contains terms and conditions inconsistent with its bid or are unacceptable to County legal counsel.
- 2.2. **VIDEO SYSTEM BID REQUIREMENTS**
- 2.2.1. **Sample and Demonstration.** Bidder may be required to furnish a complete sample unit for examination and testing on or before opening date and time. A sample unit of the exact configuration proposed by the Bidder, must be provided within two weeks, upon request of the procuring agency.
- 2.2.2. **Performance Testing and Product Evaluation.** The digital patrol car video system may be field and laboratory tested to verify its acceptable level of performance and conformity to specifications. Emphasis will be placed on the video system's ability to maintain consistent recording quality, while subject to interference from the following sources:
- 2.2.2.1. High powered television stations.
- 2.2.2.2. Other radio frequency interference sources including UHF, VHF, and HF transmitters.
- 2.2.2.3. Automobile alternator, ignition and electrical systems.
- 2.2.2.4. Automobile air conditioner fan motor.
- 2.2.2.5. High voltage power lines, traffic signals, neon signs, etc.
- The County also reserves the right to have the digital video system examined by any other qualified agency, for acceptable design, construction, fabrication and assembly methods.
- 2.2.3. **Patent Infringement.** The Seller shall indemnify and save harmless the agency and all persons acting for or on their behalf from all suits and claims against them, or any of them, arising from or occasioned by the use of any material, equipment, or apparatus, or any part thereof, which infringes or is alleged to infringe on any patent rights. In case such material, equipment, or apparatus, or any part thereof, in any such suit is held to constitute infringement, the Seller, within a reasonable time, will at its expense, and as the agencies may elect, replace such material, equipment or apparatus with non-infringing material, equipment, or apparatus, or remove the material, equipment, or apparatus, and refund the sums paid therefor.
- 2.2.4. **Format of Bid Response.** The specifications include an area to indicate compliance. Bidder shall submit with his response, a copy of the specifications, indicating for each paragraph whether his system complies or not. For those paragraphs of the response marked "We do not comply", the bidder shall provide a full explanation of the area of noncompliance, and may propose an alternative response, at the option of the bidder. However, if the bidder's equipment exceeds any portion of this specification, he shall also note this and furnish full information. Bidder shall also state manufacturer and model number of the recorder, camera, monitor, and wireless microphone.
- 2.2.5. **Failure to Comply.** Bids not in compliance with the format of bid response, item 3.4.0, will be rejected.
- 2.2.6. **Signature.** All bids shall include a signature attesting to the accuracy of the response. This signature page is included at the end of the system specifications.
- 2.3. **DIGITAL VIDEO SYSTEM SPECIFICATIONS**
- 2.3.1. **System Description**

- 2.3.1.1. The Digital Patrol Car Surveillance System shall consist of a windshield mounted miniature camera, trunk mounted maximum-security vault with recorder, overhead control center with compact monitor, and wireless microphone to provide digital audio and video recording of traffic stops, pursuits, D.U.I. tests, etc.
- 2.3.1.2. The system shall use an embedded operating system that resides in the processors located in the vault's main electronics tray and in the overhead mounted control center.
- 2.3.1.3. Video authentication shall be provided by a timestamp embedded in the video. This timestamp information shall be recorded in a proprietary format that cannot be duplicated outside the vehicle to ensure any attempts to alter the video are detected. Proprietary software designed to detect and reveal alterations to video files shall be supplied.
- 2.3.1.4. The miniature camera shall be CCD type, and shall be capable of operating in extreme weather conditions. Its small size shall not obstruct the driver's field of view.
- 2.3.1.5. The high security, environmentally controlled maximum security vault with recorder shall be located in the vehicle's trunk to provide a safe environment to maintain the integrity of the digital recordings. The maximum-security vault shall be self contained, sealing out dust and humidity, and shall use dual heat pumps to control the vault's internal temperature. It shall not be acceptable to pull conditioned air from the passenger compartment into the maximum-security vault to control the temperature.
- 2.3.1.6. The overhead control center shall mount within easy reach of the driver's seat, and give the officer the ability to review recorded segments. The system shall also protect recorded segments to insure they are not recorded over.
- 2.3.1.7. The wireless microphone shall allow audio recording of events inside/outside the car. The microphone shall be supplied ready to operate on two frequencies that can be selected using the transmitter's power switch.
- 2.3.1.8. The maximum security vault shall include a serial port. Software updates shall be available from system manufacturer via e-mail. Software updates shall be capable of being downloaded to the in-car video system through the serial port of an agency supplied laptop computer. It shall be unacceptable to physically change software IC's to update software in the field.
- 2.3.1.9. All cables and hardware required for installation shall be supplied.
- 2.3.1.10. Each digital in-car video system should be capable of interfacing with compatible Kustom Signals traffic radar units. Target and patrol speeds shall be displayed on the monitor, and recorded on the digital media simultaneously with the video being recorded by the camera.
- 2.3.1.11. Any modifications made to Kustom radar units to interface with the video system shall be approved by Kustom Signals. A statement from Kustom Signals must accompany all bid responses stating that the modifications have been approved, and will not affect the radar's warranty (if applicable), re-certification, and the department's ability to support the modifications in court.
- 2.3.2. **Compact High Sensitivity color CCD Camera**
- 2.3.2.1. The Sony FCB-IX10A 1/4" format 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.
- 2.3.2.2. The camera shall include Sony's Super HAD image sensor to resist nighttime blooming and smearing from light sources.
- 2.3.2.3. The camera shall operate on 12 VDC, and offer a minimum of 470 lines horizontal resolution.
- 2.3.2.4. The camera shall offer a minimum illumination of 1 lux.
- 2.3.2.5. The camera's dimensions (including lens) shall not exceed 2.1" x 2.0" x 3.5" w/h/d (5.33 x 5.08 x 8.89 cm w/h/d).
- 2.3.2.6. The camera module shall weigh no more than 0.7 lb. (318g).
- 2.3.2.7. The camera shall have an operating temperature of 14°F to 175°F (-10°C to 79°C).
- 2.3.2.8. The camera shall incorporate an auto iris motorized zoom lens.
- 2.3.2.9. The camera's lens shall include a minimum of 10X optical zoom lens and 4X digital zoom for a total zoom ratio of 40:1. Effective focal range of the lens shall be a minimum of 4.2mm to 168mm.
- 2.3.2.10. The camera shall provide a horizontal field of view of at least 17 feet at a distance of 20 feet

from the camera.

- 2.3.2.11. The camera shall include auto and manual focus capabilities.
- 2.3.2.12. The camera shall offer auto white balance.
- 2.3.2.13. The camera shall offer backlight compensation.
- 2.3.2.14. The camera shall offer a S/N ratio of better than 50dB.
- 2.3.2.15. The camera shall house the video system's external record/microphone indicator. This indicator shall consist of an LED built in to the front of the camera's housing to indicate to an officer outside the vehicle that the recorder is recording, and that audio from the wireless transmitter is being received.
- 2.3.2.16. 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.
- 2.3.2.17. The camera shall be mounted with a heavy-duty controlled pivot mount. The mount shall attach to the windshield and shall allow the camera to be easily rotated 360°.
- 2.3.2.18. The camera mount shall allow the camera to be positioned easily and secured in place without tools.
- 2.3.2.19. Camera Manufacturer and Model #: \_\_\_\_\_

2.3.3. **Video Compression and Recording**

- 2.3.3.1 The digital video system shall record to a DVD-RAM drive. The drive shall be housed in an environmentally controlled recorder enclosure that secures to the trunk interior.
- 2.3.3.2. The compression board and recorder shall support the system's Veri-Com feature by providing a positive feedback loop to indicate the recorder's operational condition to the user.
- 2.3.3.3. The system shall utilize MPEG1 compression to allow recordings from the system to be played on any PC with Windows Media Player. No conversion from the compression scheme used for the original recording shall be required or allowed to play segments on Media Player.
- 2.3.3.4. Video shall be recorded at 30 frames per second and each frame shall contain 352H x 240V pixels.
- 2.3.3.5. The system shall offer three user selectable resolutions.
- 2.3.3.6. The following record times shall be achievable on a 4.7 GB DVD-RAM disk:  
High resolution mode – 5 hours 20 minutes,  
Normal resolution mode – 7 hours 30 minutes;  
Low resolution – 9 hours 20 minutes.
- 2.3.3.7. The system shall include a buffer memory for pre-event recording. This buffer shall be programmable through the system's Set-Up Menu to be capable of capturing up to 3 minutes of video prior to the recorder being activated.
- 2.3.3.8. The DVD-RAM drive dimensions shall not exceed 6" x 1 3/4" x 8" w/h/d (152 x 44 x 203 mm w/h/d).
- 2.3.3.9. The DVD-RAM drive shall weigh no more than 4.1 lbs. (1.9 kg).
- 2.3.3.10. The digital recorder shall have an operating temperature range of 20°F to 120°F (-7°C to 49°C). When packaged in the environmentally controlled vault, the recorder shall be capable of operating in temperatures ranging from -20°F to 150°F. (-29°C to 66°C).
- 2.3.3.11. The digital recorder shall record two audio tracks simultaneously with the video signal.

2.3.4. **Maximum Security Vault**

- 2.3.4.1. The digital recorder shall be mounted in an environmentally controlled, tamper resistant, fire resistant, bullet resistant, stainless steel maximum security vault.
- 2.3.4.2. The maximum security vault shall include an inner liner of 16 gauge steel, a 1/2" layer of fireproof Durablanket™ insulation, a double layer of Kevlar™, and an outer shell of 14 gauge brushed stainless steel.
- 2.3.4.3. The maximum security vault shall include a recessed key lock to allow the agency to control access to the recorder and digital media.
- 2.3.4.4. The maximum security vault shall be thermostatically controlled to maintain the internal temperature. Depending on the temperature inside the vault, the system shall automatically switch to either the cooling or heating mode to maintain the proper temperature.
- 2.3.4.5. The heating mode shall consist of three sets of compact and efficient wire-wound resistors mounted near the media to heat the vault's interior when needed. These solid-state resistors will generate heat in the vault when temperatures are below 60°F and turn off at 80°F.
- 2.3.4.6. The cooling mode shall consist of dual solid-state heat pumps mounted between two sets of

finned heat sync plates. The heat pumps shall activate to remove heat from the vault and keep temperatures below 100°F.

- 2.3.4.7. A miniature fan shall be mounted with the outer heat sync plate to assist in the dissipation of heat and maximize the efficiency of the heat transfer.
- 2.3.4.8. A second miniature fan shall be mounted within the internal recorder compartment to assist in the distribution of the resistance heat.
- 2.3.4.9. The external heat sync plate shall be thermally isolated from the inner heat sync plate. Ventilation slots in the vault's outer shell shall allow heat to be dissipated away from the external heat sink.
- 2.3.4.10. The heating and cooling unit shall be self contained and require no openings to the passenger compartment.
- 2.3.4.11. The digital recorder shall be protected from shock and vibration in all three axes using Sorbothane Multi-Axis Isolators.
- 2.3.4.12. The video system shall draw no more than 12 amps @ 12 VDC with both recorder and environmental system operating. In normal operation, the system shall draw approximately 2 amps.
- 2.3.4.13. The environmental control system shall be activated when the vehicle's ignition switch is turned ON. The system's power switch on the overhead control center shall not have to be turned ON for the environmental system to operate.
- 2.3.4.14. The maximum security vault shall mount to the trunk using a slide-in metal plate that is typically bolted to the trunk floor. A recessed keyed lock shall be provided to secure the maximum security vault to its mounting plate, and to ensure against unauthorized removal. This plate shall prevent water and road spray from entering the maximum security vault through mounting holes.
- 2.3.4.15. The wireless microphone's receiver shall be incorporated in the maximum security vault and have the capability to operate on two built-in selectable frequencies.
- 2.3.4.16. The maximum security vault shall include a slide-out electronics tray to assist in troubleshooting and service. This tray shall contain the main logic circuit board and wireless audio receiver. This tray shall be accessible behind the vault door and require no tools to remove and re-install.
- 2.3.4.17. The maximum security vault shall house the system's microprocessors, provide for the interconnection of the components, and perform any necessary power filtering for components requiring lower voltages.
- 2.3.4.18. The maximum security vault shall include a second camera port to allow a second externally mounted camera to be used with the system. A video switch shall be included on the Control Center for camera selection.
- 2.3.4.19. The maximum security vault shall provide a provision for connecting to the emergency lights, siren and brakes. This connection will allow the emergency lights or siren to start the recorder, and will indicate their use (as well as brake use) on the video recording.
- 2.3.4.20. Two methods of interfacing with the siren shall be provided at the maximum security vault. One method shall connect directly to the siren controller's switched 12 volt side. The other method shall connect to the siren's external speaker.
- 2.3.4.21. For future upgradability, the maximum security vault shall be capable of indicating the use of an additional 12 volt device, without requiring any hardware modifications. System software upgrades shall be the only change required to indicate the use of the additional 12 volt device.
- 2.3.4.22. Use of the wireless microphone shall be indicated on the media.
- 2.3.4.23. An option shall be available to restrict access to the system's set-up menu. This key lock, mounted inside the maximum security vault, shall control when the menu access switches on the Control Center are active. A key shall be included to allow menu access. When "unlocked", the key shall not be capable of being removed, and shall prevent the maximum security vault door from closing. The menu key must be turned to the locked position before the key can be removed and the maximum security vault door closed.
- 2.3.4.24. The maximum security vault shall provide an audio/video out connector to allow the video system's picture and sound to be output to another device.
- 2.3.4.25. The maximum security vault shall include an auxiliary RS232 connector. This connector shall allow data from an RS232 compatible device (not yet identified) to be displayed on the media. Hardware modification to the video system shall not be required to allow this possible future enhancement. System software shall be the only change required to interface with the RS232 compatible device.

- 2.3.4.26. The maximum security vault shall include a serial port on the front of the slide-out electronics tray. Software updates shall be available from system manufacturer via e-mail. Software updates shall be capable of being downloaded to the in-car video system through the serial port of agency supplied laptop computer. It shall be unacceptable to physically change software IC's to update software in the field.
- 2.3.4.27. The system shall comply with vehicle ignition standards of 13.6 VDC plus or minus 20%.
- 2.3.4.28. The system shall include EMI filters and PCB power planes to protect against Radio Frequency Interference (RFI). The system's power ground shall be isolated from the vehicle's chassis for maximum protection against RFI.
- 2.3.4.29. All functions for each module shall be derived from internally regulated power supplies to minimize any potential of ignition and alternator noise caused by long inter-unit powerline connections.
- 2.3.4.30. The maximum security vault shall include a 15 amp fast blow fuse to prevent over-voltage conditions from damaging the system's components.

**2.3.5. Overhead Control Center**

- 2.3.5.1. All system controls and the system monitor shall be packaged in an overhead mounted integrated controller. It shall not be acceptable to use a separate controller to operate the camera.
- 2.3.5.2. The Overhead Control Center shall include a provision for mounting the main camera within the housing.
- 2.3.5.3. If mounted in a Ford Crown Victoria or Chevrolet Impala, the Overhead Control Center's mounting bracket shall not require any holes or cuts to be made in the vehicle's headliner.
- 2.3.5.4. The Control Center shall be designed so that controls for Power, Record, Stop and Auto Zoom are the most prominent buttons on the Control Center.
- 2.3.5.5. A single cable shall connect from the maximum security vault to the Control Center. The Control Center shall provide the signal distribution to the monitor, camera, internal second camera (if applicable) and compatible radar (if applicable).
- 2.3.5.6. All controls shall be identified with back lighted legends for night operation.
- 2.3.5.7. LED displays shall be blue in color, and indicate:
  - 2.3.5.7.1 Record
  - 2.3.5.7.2 Stop
  - 2.3.5.7.3 Auto Zoom
  - 2.3.5.7.4 Camera Selection
  - 2.3.5.7.5 Frequency Selection
  - 2.3.5.7.6 Wireless Mic Reception
  - 2.3.5.7.7 Wireless Mic Record Activation Status
  - 2.3.5.7.8 Auto Focus Status
  - 2.3.5.7.9 Low Voltage
  - 2.3.5.7.10 In-Car Mic Status
- 2.3.5.8. The Control Center shall provide audible feedback (beeps) when the system is turned on, when the recorder starts recording, when a low voltage condition exists, when the recording capacity on the media is low, and when an extreme temperature condition exists in the recorder enclosure.
- 2.3.5.9. The system shall allow a second camera to be added without requiring hardware or software changes. The presence or absence of a second camera shall automatically be detected by the system. 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 system is equipped with one camera. This shall ensure video from the single camera will be seen, regardless of the camera switch's position.
- 2.3.5.10. The Overhead Control Center shall accommodate an optional miniature rear-facing black and white camera. This camera shall be built into the console so that only the lens is visible from the back seat of the car. The lens shall offer a fixed-focus wide-angle lens sufficient to cover the back seat area. No adjustment of this camera shall be required.
- 2.3.5.11. The Control Center shall have a frequency switch for the wireless microphone system's receiver. This switch shall allow the operator to easily select from the two microphone frequencies available.
- 2.3.5.12. The Control Center shall have the ability to start the recorder from outside the car using the



- wireless microphone.
- 2.3.5.13. The remote activation feature (4.5.12) shall be a selectable feature using an ON/OFF switch on the Control Center. When OFF, the recorder shall become incapable of being turned on by RF transmission from any source.
  - 2.3.5.14. Control Center features shall include:
    - 2.3.5.14.1. Power ON/OFF.
    - 2.3.5.14.2. Record START/STOP.
    - 2.3.5.14.3. Video Review: Play, Previous File, Next File, Pause, Rewind, Fast Forward.
    - 2.3.5.14.4. On-Screen Rewind and Fast Forward (Search).
    - 2.3.5.14.5. Zoom Wide/Tele.
    - 2.3.5.14.6. Programmable Auto Zoom. Pressing one button shall automatically zoom the motorized zoom lens to the agency's preferred magnification, pause to perform a momentary auto focus, then lock the focus and 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.
    - 2.3.5.14.7. Digital Auto Zoom. The Control Center shall allow the operator to select whether the camera's digital zoom is used during auto zoom.
    - 2.3.5.14.8. Focus Auto/Manual.
    - 2.3.5.14.9. Backlight Compensation.
    - 2.3.5.14.10. In-Car Mic Switch.
    - 2.3.5.14.11. No Media in Recorder Indicator.
    - 2.3.5.14.12. Time Left on Media LED Display. System shall include a prominent LED Time-Left display to provide safe, convenient system status to the operator. LED displays shall be a minimum of 0.3" high to assist in immediate character recognition. LED intensity shall be matched across all digits.
    - 2.3.5.14.13. Media Full Warning - System shall provide audible and visible warnings as the recorded video reaches the media's capacity. The Time Left LEDs shall begin to flash when 10 minutes of capacity remain, flash faster when 5 minutes remain. When the media is fully used, the time left display shall read "End".
    - 2.3.5.14.14. Rechargeable Battery Backup - Stores time, date, characters, and minutes left on media when system is OFF. Back-up battery shall be charging whenever the system is on.
    - 2.3.5.14.15. VeriCom - 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.
    - 2.3.5.14.16. Record-Over Protection - The system shall automatically find a blank space on the media if the operator presses the Record button during/after playback or rewind. The Record LED shall blink as the blank space is found. Once the system has confirmed it can and has started to record, the Record LED shall switch to a steady display.
    - 2.3.5.14.17. Microphone Indicator - (LED)
    - 2.3.5.14.18. Low Voltage Indicator. (LED)
    - 2.3.5.14.19. Remote ON/OFF - Officer shall have the ability to start recording by turning on the remote microphone.
    - 2.3.5.14.20. Photocell - Automatically adjusts Control Center LED intensity.
  - 2.3.5.15. The Control Center shall include a Set-Up menu that shall include the following features/options:
    - 2.3.5.15.1. User Friendly Access – Pressing any switch on the monitor shall access the main menu. Menu access and entry shall not require a separate programmer or external device.
    - 2.3.5.15.2. Limiting Menu Access - A method shall be available to limit access to the menu. If this method is selected, a key shall be required to gain access to the key set-up menu options.
    - 2.3.5.15.3. Time and Date Generator - Records time on the media in hours, minutes and seconds.
    - 2.3.5.15.4. Time/Date Change Recording - All changes to the set-up menu shall be recorded automatically. Changes shall not be possible without media in the recorder recording the change. This feature shall be incapable of being defeated by the operator.
    - 2.3.5.15.5. Time and Date Position - The time and date shall be capable of being placed at the top or bottom of the screen.
    - 2.3.5.15.6. Time and Date Format - Three time and date formats shall be available through the Set-Up Menu: MM/DD/YY , DD/MM/YY, and MM/DD/YYYY.

- 2.3.5.15.7. Flash Preference - The set-up menu shall allow the operator to set the display to flash every ½ second or to remain steady. Flashing the display prevents it from covering important details in the scene.
- 2.3.5.15.8. 60 Character Generator - 3 lines of 20 characters per line shall be available for operator to insert descriptive identifier data.
- 2.3.5.15.9. Selectable Resolution - Three resolution modes shall be available through the Set-Up Menu.
- 2.3.5.15.10. Pre-Event Recording - The set-up menu shall allow the pre-event buffer memory to capture up to 3 minutes of video prior to the recorder being activated.
- 2.3.5.15.11. Auto Zoom Positions - The telephoto and wide angle positions used for Auto Zoom shall be adjustable through the Set-Up menu.
- 2.3.5.15.12. Audio Out Select - The set-up menu shall 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.
- 2.3.5.15.13. Beep Tones - The set-up menu shall allow the operator to turn the beep tones mentioned in 4.5.8 ON or OFF.
- 2.3.5.15.14. 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.
- 2.3.5.15.15. Software Version – The system's software versions shall be displayed when this menu option is selected.
- 2.3.5.15.16. Write Protect – The system shall impose a write protect software feature on DVD-RAM disks before they are removed from the vault. This write protect feature shall be accessed through the Set-Up Menu to allow the disk to be ejected. Once imposed, the write protect feature shall prevent files from being deleted or the disk from being formatted. Special software shall be supplied with the system to allow authorized reformatting once the storage requirements have been met and the disk is ready to be reused.
- 2.3.5.15.17. Write Protect – The in-vehicle system shall automatically disable the disk's write protect feature when it is re-inserted in the recorder to allow a partially used disk to be used again.
- 2.3.5.16. The system shall allow partially used media to be inserted into the recorder without jeopardizing the previously recorded segments. When 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.
- 2.3.5.17. The Control Center shall include one red and one white courtesy light for assistance with nighttime operation.
- 2.3.5.18. The Control Center shall include the speaker used to activate the optional Automatic Audio transmitter.
- 2.3.5.19. The Control Center shall include the speaker used to activate the optional Automatic Audio transmitter.
- 2.3.5.20. Control Center dimensions shall not exceed 6.5" x 2.1" x 1.75" w/h/d.
- 2.3.6. **Color Monitor**
- 2.3.6.1. A high quality active matrix color LCD monitor shall be provided for focusing the camera and for continuous viewing.
- 2.3.6.2. The monitor shall mount in the Overhead Control Center on a swivel mount that allows it to be recessed up into the housing or swing down and swivel side-to-side for the best viewing angle.
- 2.3.6.3. The monitor's screen shall be non-reflective for optimum viewing in the vehicle. Mirror-like reflective screens shall not be acceptable.
- 2.3.6.4. The monitor shall include a soft rubber outer shell to prevent the operator from contacting hard and/or sharp corners.
- 2.3.6.5. The monitor's screen size shall be no smaller than 3", and no larger than 4", measured diagonally.
- 2.3.6.6. Controls shall be provided for power/volume and brightness.
- 2.3.6.7. The monitor's dimensions shall not exceed 4.55" x 3.45" x 2.25" w/h/d (11.5 x 8.8 x 5.7 cm w/h/d).
- 2.3.6.8. The monitor's weight shall not exceed 1 lb. (.71 kg)
- 2.3.6.9. The monitor's audio shall be played over two 1.5" speakers. The total audio output of these speakers shall be no less than 200 mW (14.4 ohms).
- 2.3.6.10. Audio and video monitoring shall be possible whether or not the system is recording.

- 2.3.6.11. The monitor shall be capable of displaying:
  - 2.3.6.11.1. Time and Date
  - 2.3.6.11.2. Three lines of identifier information
  - 2.3.6.11.3. Emergency Lights Indicator (L)
  - 2.3.6.11.4. Siren Indicator (S)
  - 2.3.6.11.5. Microphone Reception Indicator (M)
  - 2.3.6.11.6. Microphone Reception Indicator (M)
  - 2.3.6.11.7. Target and Patrol speeds from Kustom Signals' 2-pc. radar
  - 2.3.6.12. Monitor Manufacturer and Model #: \_\_\_\_\_
- 2.3.7. **High Performance Audio Transmitter/Receiver System**
  - 2.3.7.1. The system shall offer digital audio with direct sequence spread spectrum technology 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.
  - 2.3.7.2. CDMA (Code Division Multiple Access) technology shall be employed to allow up to 20 users at a scene. Over 16 million different codes/IDs shall be available for use with the transmitters to ensure that no two transmitters use the same code.
  - 2.3.7.3. The system shall provide an in-vehicle docking station. This station shall include the system's receiver and shall be capable of recharging the transmitter's battery.
  - 2.3.7.4. 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.
  - 2.3.7.5. 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.
  - 2.3.7.6. The transmitter shall include a lithium ion rechargeable battery. This battery shall provide 10-12 hours of ON time, and 20 days of service in the standby mode.
  - 2.3.7.7. Typical operating range (transmitter to receiver) shall be at or above 1000 feet (305 m).
  - 2.3.7.8. The transmitter's output power shall be automatically adjustable from 1 to 50 mW to ensure the most efficient use of battery power. Bi-directional communications between the docking station and the transmitter shall ensure the most efficient signal-strength/power-consumption relationship.
  - 2.3.7.9. 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.
  - 2.3.7.10. The transmitter shall have an Off/Standby/On switch. The Standby position shall allow the transmitter to be activated by the docking station, while minimizing power consumption.
  - 2.3.7.11. The transmitter shall include a detachable mic cord with clip to allow the mic to be placed anywhere on the officer's uniform. A windscreen shall be provided with the microphone to reduce wind noise.
  - 2.3.7.12. 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.
  - 2.3.7.13. The transmitter shall be capable of detecting a bad mic cord and automatically switching to the built-in mic to avoid missing audio.
  - 2.3.7.14. The transmitter's antenna shall be built into the case. No external antenna shall be acceptable.
  - 2.3.7.15. The docking station shall employ built-in diversity (two) antennas. Connectors shall also be included to support the use of external antennas if desired.
  - 2.3.7.16. The transmitter shall provide an audible indicator when it is out of range of the receiver.
  - 2.3.7.17. As an optional upgrade, a hard wired in-car microphone shall be available to record conversations inside the patrol vehicle simultaneously with conversations recorded with the wireless mic. The in-car microphone shall mount inside the passenger compartment, and be controlled by a switch integrated with the Control Center.
    - 2.3.7.17.1. When the in-car microphone is switched on, the monitor's speaker shall automatically be turned off. This shall prevent feedback and insure that recorded conversations will not be heard over the monitor's speaker.
    - 2.3.7.17.2. When the in-car microphone is switched on, the camera's Record/Mic LED shall automatically

be turned off to draw less attention to the camera when it is turned around to record suspects in the patrol vehicle.

- 2.3.7.17.3. The in-car microphone shall not affect use of the officer's wireless microphone. Both audio sources shall be recorded simultaneously on separate audio tracks.
- 2.3.7.17.4. Audio from the in-car microphone shall be recorded on a second audio track. It shall not be acceptable to sum the two audio sources (in-car and wireless) onto one audio track, nor shall it be acceptable to turn the wireless microphone's audio off when the in-car microphone is turned on.
- 2.3.7.18. Microphone System Manufacturer and Model #:

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2.3.8. **Operating Instructions and Specification Manual**

- 2.3.8.1. A full and complete set of operating instructions shall be furnished by the contractor with each unit.

2.3.9. **Manufacturer's Quality Control and Testing**

- 2.3.9.1. All electrical components utilized, including integrated circuits, shall be a high reliability commercial grade part.
- 2.3.9.2. Each individual electrical and electronic component shall be subjected to a complete quality control inspection. This is required before installation into printed circuit board or other sub-assembly.
- 2.3.9.3. All assembled printed circuit boards and sub-assemblies shall be thoroughly inspected and completely tested mechanically and electrically before installed into video system.
- 2.3.9.4. All printed circuit boards shall be glass epoxy, type FR4 or equivalent. Also all high-density circuit boards shall be the solder mask type.
- 2.3.9.5. 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.
- 2.3.9.6. Each complete video system shall be individually bench tested for all functions and test parameters.

2.3.10. **Warranty**

- 2.3.10.1. Each complete video system shall be individually bench tested for all functions and test parameters.

2.4. **BID/CLARIFICATION CONTACT** – Melinda Bobbitt, CPPB, Director of Purchasing, 601 E. Walnut, Room 208, Columbia, MO 65201. Telephone: (573) 886-4391; Fax: (573) 886-4390; E-mail: [Mbobbitt@boonecountymo.org](mailto:Mbobbitt@boonecountymo.org).

2.5. **BILLING AND PAYMENT** – Payment will be made within 30 days from receipt of a correct invoice. .

2.6. **DELIVERY** – FOB Destination - Delivery to the Boone County Sheriff Department. All deliveries shall be made FOB Destination with freight charges fully included and prepaid. The seller pays and bears the freight charges.

2.7. **Or Equal:** Bidders are to bid as specified herein or bid an approved equal. Determination of equality is solely Boone County's responsibility.

2.8. **Descriptive Literature:** Bidders proposing to furnish items other than specified must submit Complete Descriptive Literature with bid. Bids received without descriptive literature are subject to rejection.

2.9. **Guarantee:** Bidder agrees to unconditionally guarantee all equipment against defect in material, workmanship and performance for a period of one year from the date of acceptance by the County, unless otherwise specified.

2.10. **Specifications:** The County Purchasing Agent may waive minor differences in specifications provided these differences do not violate the specification intent nor materially affect the operation for which the item or items are being purchased, nor increase estimated maintenance and repair cost to the County.

**3. Response Presentation and Review**

- 3.1 **RESPONSE CONTENT** - In order to enable direct comparison of competing Responses, Bidder must submit Response in strict conformity to the requirements stated here. Failure to adhere to all requirements may result in Response being disqualified as non-responsive. All Responses must be submitted using the provided Response Sheet. Every question must be answered and if not applicable, the section must contain "N/A."
- 3.2 **SUBMITTAL OF RESPONSES** - Responses MUST be received by the date and time noted on the title page under "Bid Submission Information and Deadline". NO EXCEPTIONS. The County is not responsible for late or incorrect deliveries from the US Postal Service or any other mail carrier.
  - 3.2.1. **Submittal Package** - Submit, to the location specified on the title page, **three (3) complete copies** of your Response in a single sealed envelope, clearly marked on the outside with your company name and return address, the bid number and the due date and time.
  - 3.2.2. **Advice of Award** - The County's Bids, Bid Tabulations, and Bid Awards may be viewed on our web page at [www.showmeboone.com](http://www.showmeboone.com). View information under *Purchasing*.
- 3.3. **BID OPENING** - On the date and time and at the location specified on the title page under "Bid Opening", all Responses will be opened in public. Brief summary information from each will be read aloud.
  - 3.3.1. **Removal from Vendor Database** - If any prospective Bidder currently in our Vendor Database to whom the Bid was sent elects not to submit a Response and fails to reply in writing stating reasons for not bidding, that Bidder's name may be removed from our database. Other reasons for removal include unwillingness or inability to show financial responsibility, reported poor performance, unsatisfactory service, or repeated inability to meet delivery requirements.
- 3.4. **RESPONSE CLARIFICATION** – The County reserves the right to request additional written or oral information from Bidders in order to obtain clarification of their Responses.
  - 3.4.1. **Rejection or Correction of Responses** – The County reserves the right to reject any or all Responses. Minor irregularities or informalities in any Response which are immaterial or inconsequential in nature, and are neither affected by law nor at substantial variance with Bid conditions, may be waived at our discretion whenever it is determined to be in the County's best interest.
- 3.5. **EVALUATION PROCESS** – The County's sole purpose in the evaluation process is to determine from among the Responses received which one is best suited to meet the County's needs at the lowest possible cost. Any final analysis or weighted point score does not imply that one Bidder is superior to another, but simply that in our judgment the Contractor selected appears to offer the best overall solution for our current and anticipated needs at the lowest possible cost.
  - 3.5.1. **Method of Evaluation** – The County will evaluate submitted Responses in relation to all aspects of this Bid.
  - 3.5.2. **Acceptability** – The County reserves the sole right to determine whether goods and/or services offered are acceptable for our use.
  - 3.5.3. **Endurance of Pricing** - Bidder's pricing must be held until award or 60 days, whichever comes first.
  - 3.5.4. **Award** - The County reserves the right to award on by "category" or "all or none" basis.
  - 3.5.5. Boone County reserves the right to reject all bids. Boone County reserves the right to waive informalities in bids.

**4. Response Form - Submit three (3) complete copies of your Response in a single sealed envelope, clearly marked on the outside, left corner with your company name and return address, the proposal number and the due date and time.**

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4.1. Company Name: \_\_\_\_\_

4.2. Address: \_\_\_\_\_

4.3. City/Zip: \_\_\_\_\_

4.4. Phone Number: \_\_\_\_\_

4.5. Fax Number: \_\_\_\_\_

4.6. Federal Tax ID: \_\_\_\_\_

4.7. The undersigned offers to furnish and deliver the articles or services as specified at the prices and terms stated and in strict accordance with all requirements contained in the Request for Bid, which has been read and understood, and all of which are made part of this order. By submission of this bid, the vendor certifies that they are in compliance with Section 34.353 and, if applicable, Section 34.359 (“Missouri Domestic Products Procurement Act”) of the Revised Statutes of Missouri.

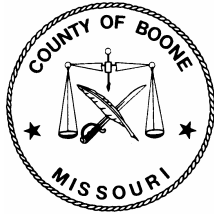
4.7.1. Authorized Representative (Sign By Hand): \_\_\_\_\_

4.7.2. Type or Print Signed Name: \_\_\_\_\_

4.7.3. Today’s Date: \_\_\_\_\_

4.8..	DIGITAL PATROL CAR VIDEO SYSTEM	Quantity	Unit Price	Extended Price
4.8.1.	Digital In-Car Camera: <i>Digital Eyewitness</i> or equivalent per section 2.2. Manufacturer: _____ Model #: _____	3	\$ _____	\$ _____
4.8.2.	Management Software: <i>Digital Eyewitness Media Manager</i> or equivalent per section 2.2. Manufacturer: _____ Model #: _____	1	\$ _____	\$ _____
4.8.3.	DVD-RAM Drive Manufacturer: _____ Model #: _____	3	\$ _____	\$ _____
4.8.4.	Transmitter: <i>Sure Talk</i> or equivalent	3	\$ _____	\$ _____
4.8.5.	Automatic Crash Record Activation	3	\$ _____	\$ _____
	<b>TOTAL (4.8.1. – 4.8.5.)</b>			<b>\$ _____</b>
	<b>OPTIONAL UPGRADE</b>			





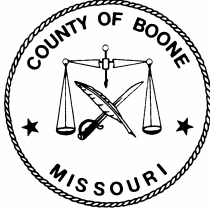
**Boone County Purchasing**  
601 E. Walnut, Room 208  
Columbia, MO 65201  
**Melinda Bobbitt, Director**

Phone: (573) 886-4391 - Fax (573) 886-4390

*Standard Terms and Conditions*

1. Responses shall include all charges for packing, delivery, installation, etc., (unless otherwise specified) to the Boone County Department identified in the Request for Bid and/or Proposal.
2. The Boone County Commission has the right to accept or reject any part or parts of all bids, to waive technicalities, and to accept the offer the County Commission considers the most advantageous to the County. Boone County reserves the right to award this bid on an item by item basis, or an "all or none" basis, whichever is in the best interest of the County.
3. Bidders must use the bid forms provided for the purpose of submitting bids, must return the bid and bid sheets comprised in this bid, give the unit price, extended totals, and sign the bid.
4. When products or materials of any particular producer or manufacturer are mentioned in our specifications, such products or materials are intended to be descriptive of type or quality and not restricted to those mentioned.
5. Do not include Federal Excise Tax or Sales and Use Taxes in bid process, as law exempts the County from them.
6. The delivery date shall be stated in definite terms, as it will be taken into consideration in awarding the bid.
7. The County Commission reserves the right to cancel all or any part of orders if delivery is not made or work is not started as guaranteed. In case of delay, the Contractor must notify the Purchasing Department.
8. In case of default by the Contractor, the County of Boone will procure the articles or services from other sources and hold the Bidder responsible for any excess cost occasioned thereby.
9. Failure to deliver as guaranteed shall disqualify Bidder from future bidding. No bid transmitted by fax machine will be accepted.
10. Prices must be as stated in units of quantity specified, and must be firm. Bids qualified by escalator clauses may not be considered unless specified in the bid specifications.
11. The County of Boone, Missouri expressly denies responsibility for, or ownership of any item purchased until same is delivered to the County and is accepted by the County.





**Boone County Purchasing**  
601 E. Walnut, Room 208  
Columbia, MO 65201

***“No Bid” Response Form***

Melinda Bobbitt, CPPB, Director  
(573) 886-4391 – Fax: (573) 886-4390

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**“NO BID RESPONSE FORM”**

**NOTE: COMPLETE AND RETURN THIS FORM ONLY IF YOU DO NOT WANT TO SUBMIT A BID**

If you do not wish to respond to this bid request, but would like to remain on the Boone County vendor list **for this service/commodity**, please remove form and return to the Purchasing Department by mail or fax.

If you would like to FAX this “No Bid” Response Form to our office, the FAX number is (573) 886-4390.

**44-28JUL04 – Digital Patrol Car Video System**

Business Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone: \_\_\_\_\_

Contact: \_\_\_\_\_

Date: \_\_\_\_\_