

North Dakota Department of Transportation

INVITATION TO BID

NDDOT Contract # 50132081

Bid Number: 680-87-13-050	Bid Opening Date & Time: 11/21/2013 02:30 PM
Items: Driver's License Surveillance & Security	Buyer: Marilyn Langehaug
Bid Mailing Address: Rm. 222, 608 East Boulevard Avenue	Telephone Number: 701-328-4466
City, State, Zip: Bismarck, ND 58505-0700	Email: mlangehaug@nd.gov
Contract Period: 01/01/2014 TO 12/31/2014	Date Prepared: 11/05/2013

BID RESPONSE

Please submit your bid response on the attached forms in conformance with the instructions and specifications in the NDAC 04-12-01 – 04-12-16. One copy of your bid response must be returned to the North Dakota Department of Transportation (NDOT) prior to the time and date specified for the bid opening. Bid responses received after the time and day specified for the bid opening will be rejected. Mark envelope with word "BID" and the opening time and date. **If your bid response is accepted by NDDOT, then your bid response will constitute a binding contract.**

CONTRACT

This contract is made and entered into by and between NDDOT for the state of North Dakota (hereinafter state) and

Vendor Name <u>Laser Systems</u>	Vendor Address <u>901 Westrac Drive Fargo, ND 58103</u>
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(hereinafter vendor). In consideration of and for the acceptance by the state of the offer made by the vendor pursuant to the bid response, the vendor agrees and promises to sell, furnish, and deliver to the state, at the time, places, and prices specified in the bid response, all goods, merchandise, supplies, commodities, equipment, or other items contained in the bid response and for which the vendor has been awarded this contract by the state. The vendor shall fully perform this contract in accordance with the terms and conditions contained in the bid response including all specifications, rules, or regulations mentioned therein, and shall comply with all applicable provisions of the NDAC 04-12-01 – 04-12-16 promulgated by the State Purchasing Division; such manual being made a part of this contract by reference. The Risk Management Appendix and Civil Rights Appendix, both attached, are hereby incorporated into and made a part of this agreement.

The following must be completed by the vendor; failure to do so may result in the rejection of the vendors bid proposal.

Vendor Name <u>Laser Systems</u>		
Mailing Address <u>901 Westrac Drive Fargo, ND 58103</u>		
Telephone Number <u>701-293-6865</u>	Fax Number <u>701-239-4410</u>	E-mail Address <u>Corey@laser-sys.com</u>

Name & Title (Type or Print)

Corey English, Owner

Signature

[Signature]

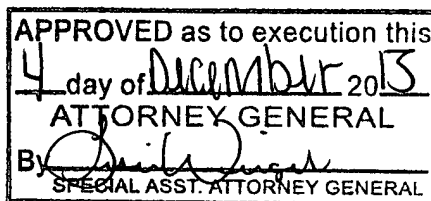
Date

11/20/13

To be signed by Owner; Partner; Corp. Pres., Vice Pres., or other authorized Corp. Officer or bid may be rejected. (if signed by other authorized Corp. Officer, please attach copy of Power of Attorney or other documentation showing authority to sign.)

FOR ND DEPARTMENT OF TRANSPORTATION USE ONLY Accepted by the state according to provisions of award.

Authorized Signature <u>Grant Levi</u>	Date <u>12/5/13</u>
Recommended for approval <u>[Signature]</u>	Date <u>12/4/13</u>
Approximate contract amount <u>\$6,048.00</u>	



CLA 7480 (Div. 50)

MAILING INSTRUCTIONS

Mail only one completed and signed request for bid document per envelope, unless instructed otherwise. Request for bid documents not signed or received after the date and time specified in the request for bid will be rejected.

BID IS: ☒ SEALED ☐ NOT SEALED

Address the envelope containing your response in the following manner:

BID NUMBER - 680-87-13-050
BID OPENING DATE/TIME - November 21, 2013, 2:30 p.m.
N. D. DEPT. OF TRANSPORTATION
PROCUREMENT, ROOM 222
608 E BOULEVARD AVE
BISMARCK ND 58505-0700

BIDDERS INSTRUCTIONS

1. **Acceptance/Rejection/Waiver.** The state of North Dakota reserves the right to accept or reject any or all bids and to waive minor irregularities or technicalities, provided such waiver does not substantially change the offer or provide a competitive advantage to any vendor, in the judgment of the state.
2. **Affirmative Action.** The contractor will take affirmative action in complying with all Federal and State requirements concerning fair employment and employment of handicapped, and concerning the treatment of all employees without regard to discrimination by reason of race, color, religion, sex, national origin, or physical handicap.
3. **Assistance to Bidders with a Disability.** Bidders with a disability that need an accommodation must contact the Procurement Officer prior to the deadline for receipt of bids so that reasonable accommodations can be made.
4. **Alterations and/or Corrections.** The person signing the bid response must initial any or all manual alterations and/or corrections to the bid response. Those bid responses with alterations and/or corrections that are not initialed may be rejected.
5. **Award.** Award will be made to a responsive, responsible bidder with the lowest price considering conformity with specifications, terms of delivery, quality, and serviceability. NDDOT reserves the right to consider bids varying in minor respects from any specific requirements herein, but judged to meet the intent of this request.

Contracts are not awarded at the bid opening. Bid responses will be firm for 30 days, unless stated otherwise.
6. **Awards, Splitting of.** The state reserves the right to make awards by item, groups of items, or on the total low bid for all the items specified as indicated in the detailed specifications. Bidders interested only in the total low bid for all items are to state 'all or nothing' on their bid response.
7. **Bidder Checklist.** HAVE YOU REMEMBERED TO:
 - Bid F.O.B. Destination (Ship To: Address) Freight Prepaid.
 - Mark envelope as indicated.
 - Review Standard Terms and Conditions contained in this solicitation.
 - Sign your bid on the cover sheet.
 - Initial all bid/pricing changes you made.
 - Bid responses must be submitted in ink or type written.
 - Review and complete all requirements contained in this solicitation to ensure compliance.
8. **Bidder's Responsibility and Late Bids.** It is the bidder's responsibility to ensure that a bid response is physically deposited with the NDDOT Procurement Office prior to the date and time specified for the opening. Late bid responses will not be opened and will be rejected and returned regardless of the degree of lateness or the reasons. It is the bidder's responsibility to comply with the State of North Dakota's laws and regulations.

9. **Bid Summary.** Bid summaries are available when the bid has been awarded. When bids are issued using the State's electronic bidding system, the bid summary will be posted and available for download from:
<http://www.nd.gov/spo/>

Bid summaries will be mailed to those bidders who supply a self-addressed, stamped envelope with their bid response. A copy of the bid summary may also be obtained by visiting the NDDOT Procurement Office during normal working hours.

10. **Bid Bond.** Waived in this instance: however, bidder(s) failing to enter into a contract with this office, upon notification of award, may be subject to removal from the bidder's list.

11. **Clarifications, Bid Changes and Questions Deadline.** The Procurement Officer is the point of contact. Any irregularities, lack of clarity, requested bid changes and all questions regarding this bid and the procurement process must be addressed to the Procurement Officer referenced on the first page of this document not later than end of business November 13, 2013. (Contact information is indicated on cover page). The bidder is cautioned that the requirement of this solicitation can be altered only by written amendments and that verbal communications from whatever source are of no effect.

12. **Definitions.**

- Bidder - any person or firm submitting a competitive bid in response to a solicitation.
- Bid summary - a summary of all bid responses received by the NDDOT Procurement Office.
- Bid response - the executed document submitted by a bidder in response to a solicitation.
- Contract - a deliberate written agreement between two or more competent persons to perform specific act or acts.
- Contractor - any person or firm having a contract with a governmental body.
- Solicitation - the process of notifying prospective bidders that the state wishes to receive bids for furnishing goods or services.

13. **Deviation from Specifications Supplied by NDDOT.** Unless otherwise indicated by the bidder, it will be assumed that specifications will be met in all respects. Any deviation from the minimum specifications indicated herein must be clearly pointed out PRIOR TO THE DEADLINE FOR RECEIPT OF QUESTIONS; otherwise, it will be considered that the items offered are in strict compliance with these specifications, and the bidder will be held responsible.

14. **Electronic & Facsimile Bids.** Bid responses are not to be email attached or faxed to the NDDOT unless this transmittal method has been authorized by the Procurement Officer or bid document. (Contact the Procurement officer regarding additional requirements and exceptions.) Bid responses electronically submitted or faxed may be rejected as non-responsive.

15. **Freight/F.O.B. Destination.** Freight and transportation charges are to be included in the price of the products, unless otherwise specified in the solicitation. (F.O.B. - Free On Board).

16. **Indemnification.** The attached Risk Management Appendix will be incorporated into the contract. The successful Bidder may be required to furnish proof of insurance, as detailed in the Risk Management Appendix.

17. **Multiple Bid(s).** Bidders may submit more than one bid response(s) for the item(s) specified in the solicitation. Each bid submitted must comply in all aspects with the bid requirements and these instructions.

18. **Negotiation.** NDDOT reserves the right to negotiate with the successful bidder to ensure the best possible consideration is afforded to all concerned.

19. **Open Records.** After award, bid documents will be subject to the North Dakota open records law. Records are closed or confidential only if specifically stated in law. If a request for public information is received, the procurement officer will determine whether the information is an exception to the North Dakota open records law, and the information will be processed appropriately. Those interested in reviewing the bid file, are to make arrangements, with the NDDOT Procurement Office. The NDDOT Procurement Office hours are 8:00 a.m. - 12:00 p.m. and 1:00 p.m. - 5:00 p.m. Monday through Friday.

20. **Packaging.** All commodities and/or equipment are to be delivered packaged according to accepted commercial practices to avoid damage in shipment.

21. **Performance Bond.** Successful bidders will not be required to furnish a performance bond; however, failure to perform satisfactorily will result in the immediate termination of the contract(s) and bidders may be subject to removal from the bidder's list.

22. **Preparation of Bid.** Bids will be accepted on NDDOT forms only. If the document is located on the State Procurement Office website, then bidder is to download the document and type or write their responses as indicated by the bid document. Alteration of the bid document may be cause for bid rejection. Bidders are cautioned to examine specifications and all instructions. Failure to do so will be at the bidder's risk.

23. **Pricing.** Unit prices are to be stated in United States currency and based on the unit of measurement specified in the solicitation, F.O.B. Destination, to the NDDOT delivery locations specified herein.

In the event of mathematical differences between the unit price and extended total, the unit price will prevail.

24. **Protest of Award.** An interested party may protest the award within seven days after receiving notice in accordance with N.D.C.C. 54-44.4-12 and N.D.A.C. 4-12-14.

25. **Receipt of Bids.** All sealed bids received by the NDDOT Procurement Office will be opened and read in Room 222, 608 East Boulevard Avenue, Bismarck, North Dakota, at the time specified in the solicitation.

26. **Rejection.** Bid responses may be rejected if:

- The bid response is not legible.
- The bid response is not submitted on the form supplied.
- The bid response is not completed as requested.
- The bid response is completed and/or signed in pencil.
- The bid response is faxed to the procurement office.
- The bid response is not signed by an authorized company representative.
- The bid response is not responsive to the specifications or other requirements of the solicitation.
- Changes to the bid response are not initialed.
- The bid response is received after the time and date specified.
- The bidder has not met Vendor Registration requirements or is suspended or debarred.
- The bid document has been altered by the bidder.
- The bidder is determined to be not responsible (N.D.A.C. 4-12-11-04)
- Or a combination of above.

27. **Signature.** The bid must be signed manually in ink. The name and title of the person signing the bid response must be typed or printed above the signature. The bid must be signed by **Owner; Corp. Pres., Vice Pres., or other authorized Corp. Officer** or the bid may be rejected. If signed by other authorized Corp. Officer or representative, please attach a letter signed by the Owner, Partner, Corp. Pres., or Vice Pres. indicating the individual has authority to enter into a contract on behalf of the company (or a Power of Attorney).

28. **Supplemental Terms and Conditions.** Bids including supplemental terms and conditions will be accepted, but supplemental conditions that conflict with any conditions contained in this ITB or that diminish the State's rights will be considered null and void. The State is not responsible for identifying conflicting supplemental terms and conditions before issuing a contract award.

After award of contract:

- a) If a conflict arises between a supplemental term or condition included in the bid and a term or condition of the ITB, the term or condition of the ITB will prevail, and,
- b) If the State's rights would be diminished as a result of application of a supplemental term or condition included in the bid, the supplemental term or condition will be considered null and void.

Changes, modifications, additions, or alterations to the bid document could be cause for rejection of the submitted bid at the sole discretion of the NDDOT. Contact the Procurement Officer in writing prior to the deadline for clarifications.

29. **Taxes.** The State does not pay sales tax or federal excise tax. The state sales tax exemption number is E-2001. The federal tax-free transaction number is 45-70-0010K.

30. **Vendor Registration.** Bids will be accepted from vendors that are not currently approved vendors on the State's bidders list. The successful bidder must comply with bidder registration requirements. Prior to award the apparent awardee must contact the Secretary of State to determine if registration with that office is required and must complete the state's vendor registration requirements which may include providing a W-9.

31. **Withdrawal or changes to a bid response prior to the bid opening date and time.** A bidder may withdraw or make a change to his bid response prior to the bid opening date and time. The request to make a change or withdraw must be in writing by a representative of the firm. The request to withdraw or change must be signed by the bidder or his designated representatives.

32. **Withdrawals after the bid opening date and time.** Withdrawals after the bid opening will be allowed only upon written approval from the NDDOT Procurement Office. Vendors continually withdrawing bids after the bid opening may be removed from the Vendor Database.

GENERAL CONTRACT TERMS AND CONDITIONS

1. **Applicable Law and Venue.** Any dispute arising out of this agreement will be resolved under the laws of the State of North Dakota.

2. **Binding Contract.** The acceptance of a bid response in writing by the purchasing agency constitutes a contract between the bidder and the State. Written acceptance from the purchasing agency will be in the form of a purchase order, notification of award, or contract. Any oral agreement or arrangement by a bidder with a State employee or purchasing agency will have no force or effect unless reduced to writing.

3. **Compliance with Laws, Nondiscrimination and Affirmative Action.** The contractor must, in performance of work under this contract, fully comply with all applicable federal, state or local laws, rules, regulations and policies, including those relating to nondiscrimination, affirmative action, accessibility and civil rights including Title VI of the Civil Rights Act of 1964. The contractor agrees to file all required reports on time, to make required payroll deductions, and to pay all taxes and premiums owed on time, including sales and use taxes and unemployment compensation and workers' compensation premiums. The contractor shall have and keep current at all times during the term of this contract all licenses and permits required by law.

4. **Confidentiality.** The contractor agrees not to use or disclose any information it receives from the State under this contract that the State has previously identified as confidential or exempt from mandatory public disclosure except as necessary to carry out the purposes of this contract or as authorized in advance by the State. The State agrees not to disclose any information it receives from the contractor that has previously been identified as confidential and which the State determines in its sole discretion is protected from mandatory public disclosure under a specific exception to the North Dakota open records law, N.D.C.C. § 44-04-18. The duty of the State and the contractor to maintain confidentiality of information under this section continues beyond the term of this contract, or any extensions or renewals of it.

5. **Nondisclosure Agreement** - The Awarded Contractor and all subcontractors agree not to publicly or privately announce or disclose any information related to this contract to any source outside of the NDDOT without the written consent of the NDDOT. The Contractor will use a standard of care no less than the degree of care used by the NDDOT. Contractor shall not directly or indirectly disclose, allow access to, transmit or transfer any information to a third party without the NDDOT's prior written consent. Contractor shall disclose information only to those persons who have a need to know the information for the purpose and who have been approved by the NDDOT to receive the information. Contractor shall, prior to disclosing any information to such employees or subcontractors, issue appropriate instructions to them to satisfy its obligations herein and obtain their written agreement to receive and use the information on a confidential basis on the same conditions as contained in this Agreement

6. **Contract Term and Renewal Option.** The NDDOT will enter into a contract with an effective date beginning January 1, 2014, and ending December 31, 2014, inclusive. This contract may be renewed upon satisfactory completion of the initial contract term. The NDDOT reserves the right to execute up to two options to renew this contract for a period of twelve (12) months each, not to exceed thirty-six (36) months total. Renewals will be documented by amendment.

The NDDOT reserves the right to renegotiate price and terms provided that such negotiated price and terms fall within the original scope of work for this bid. Negotiations may be conducted annually or at such times that additional and unexpected services falling within the scope of the contract may occur. Such changes will be documented by amendment to the contract.

7. **Contract Volume:** The equipment quantities to be purchased are unknown. NDDOT reserves the right to vary actual purchases from those indicated based on the actual need for replacement. The successful bidder(s) will be required to fulfill purchase order requirements.

8. **Contract Termination.**

- a. **Termination without Cause.** This contract may be terminated by mutual consent of both parties, or by either party upon 30 days' written notice.
- b. **Termination for Lack of Funding or Authority.** The State may terminate this contract effective upon delivery of written notice to the contractor, or on any later date stated in the notice, under any of the following conditions:
 - i. If funding from federal, state, or other sources is not obtained and continued at levels sufficient to allow for purchase of the services or supplies in the indicated quantities or term. The contract may be modified by agreement of the parties in writing to accommodate a reduction in funds.
 - ii. If federal or state regulations or guidelines are modified, changed or interpreted in such a way that the services are no longer allowable or appropriate for purchase under this contract or are no longer eligible for the funding proposed for payments authorized by this contract.
 - iii. If any license or certificate required by law or regulation to be held by the contractor to provide the services required by the contract is for any reason denied, revoked or not renewed.Any such termination of this contract under (i), (ii), or (iii), above, shall be without prejudice to any obligations or liabilities of either party already accrued prior to such termination.
- c. **Termination for Cause.** The State by written notice of default to the contractor may terminate the whole or any part of this contract:
 - i. If the contractor fails to provide services required by this contract within the time specified herein or any extension thereof; or
 - ii. If the contractor fails to perform any of the other provisions of this contract, or so fails to pursue the work as to endanger performance of this contract in accordance with its terms and after receipt of written notice from the State, fails to correct such failures within ten days or such longer period as NDDOT may authorize.
 - iii. The rights and remedies of the State provided in the above clause related to defaults by the contractor are not exclusive and are in addition to any other rights and remedies provided by law or under this contract.
- d. **Termination, Deliveries.** If the contract is terminated for any reason, the contractor is responsible for delivery of all commodities and services ordered prior to the termination, unless those orders had been canceled by the Purchasing Agency or Entity.

9. **Contract Price Adjustment:** The Contract Unit Prices shall be firm for the twelve (12) months of the contract period. On an annual basis, all unit prices may be subject to price adjustment (increase / decrease). The request for a price adjustment shall be submitted to the Procurement Office at least forty five (45) days before the scheduled contract expiration date and must include justification for the proposed change. The Procurement Officer will respond as follows:

- 1) The request may be granted,
- 2) The contract may be cancelled and solicitation may be re-advertised, or
- 3) The contract may be continued without change.

If a price increase is approved by the NDDOT, the date the increase will be effective along with the new unit prices will be included in an amendment document. Approval of any price increase renews the twelve month firm price period.

The State shall also be advised of and receive the benefit of any price decrease. The same notification and review process will apply to a decrease in cost.

10. **Materials and Workmanship.** All material and workmanship shall be subject to inspection and testing at the discretion of the purchasing agency.

11. **Inspection and Investigations.** The State reserves the right to conduct inspections and investigations related to the bidder and offered commodities or services to make determinations regarding compliance with the bid requirements and responsibility of the bidder.

12. **Orders, Billing and Payment Procedures:** Any required initial purchase order(s) will be issued by NDDOT Procurement office to the awarded contractor. Thereafter all contract billings are to be presented to the Project Manager.

Invoices are to be submitted as indicated. Failure to submit correct invoices to the appropriate NDDOT office may delay contractor payment.

Payment will normally be made within thirty days after delivery and acceptance of commodities or services under this contract and receipt of a correct invoice. All invoice and payment inquiries must be directed to the purchasing agency.

13. **Receiving:** Deliveries must arrive at the designated destination(s) during normal business hours unless other shipping/receiving instructions are issued by NDDOT personnel. The contractor shall contact the NDDOT to schedule delivery dates and times at least 24 hours in advance of delivery.

All NDDOT offices will be closed in recognition of State holidays. Any day declared a holiday by the President or Governor will also be recognized by office closure.

**NDDOT DRIVERS LICENSE DIVISION
SPECIFICATIONS FOR
SURVEILLANCE & SECURITY SYSTEM**

In 2010-2011, the N.D Dept of Transportation (NDDOT) awarded a contract for the installation of a surveillance system in each of the eight State's Drivers Licensing locations. Additionally, seven of the sites received security systems. The contract also included the associated monitoring service with one monthly billing rate for the seven locations. The current contract expires on December 31, 2013.

The NDDOT seeks a contractor who will maintain the existing systems and provide a security monitoring service. The awarded contractor shall meet the following minimum specifications:

General Criteria:

- 1 The existing security alarm and surveillance systems are located at the following Driver's License offices:
 - a Dickinson Drivers License Site - NDDOT Dickinson District Headquarters building, 1700 3rd Ave. W, Dickinson, ND
 - b Williston Drivers License Site – NDDOT Williston District Headquarters building, 537 Dakota Parkway West, Williston, ND
 - c Minot Drivers License Site – Arrowhead Shopping Center, 1600 2nd Avenue SW, Minot, ND
 - d Devils Lake Drivers License Site – WDAZ Building, 516 Highway 2 East, Devils Lake, ND
 - e Grand Forks Drivers License Site – NDDOT Grand Forks District Headquarters building, 1951 North Washington Street, Grand Forks, ND
 - f Fargo Drivers License Site – NDDOT Fargo District Headquarters building, 503 38th Street South, Fargo, ND
 - g Jamestown Drivers License Site – 121 1st Street SW, Jamestown, ND
 - h Bismarck Drivers License Site – Camera surveillance system only, no security required for this location. – NDDOT Headquarters Building, 608 East Boulevard Avenue, Bismarck, ND
- 2 Each site has equipment and power connections for an operable security and camera surveillance system. When the sites were renovated the renovation contractor installed building cabling to the camera mounting and DVR locations.
- 3 Each system consists of four cameras, all interior. Each camera is connected to a digital video recorder.
4. Cameras are connected to a DVR capable of retaining data for 30 days.
5. Recording of camera images should only occur when there is movement or a change of pixels in the viewing area. The camera(s) viewing angles are currently set. The awarded contractor may be required to adjust the viewing angle at the NDDOT's request. NDDOT must approve the viewing area of each camera.
 - a. Motion sensors are limited to the camera sensing motion to record.
 - b. Detection intrusion must include door contacts for doors leading into the secure environment behind the glass of the operation. In most cases this involves only one door – see drawings.
 - c. Glass break detection must be included in counter glass and all windows that are part of the secure space – see site drawings.
 - d. A panic button should be part of the alarm system and located at the control panel.
- 6 Camera must be accessible via the internet by NDDOT staff whenever necessary.
7. All equipment becomes the property of the NDDOT.
8. Local maintenance service must be available with a guaranteed on-site response time of one business day.
9. All wiring and connections must comply with the National Electrical Code and state/local electrical code.

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10. Warranty - All equipment and installation must be warranted for three years (parts and labor)
11. If there is a change in equipment, the awarded contractor must provide a full-day training class for NDDOT personnel, including Complete Operations and Technical Service Manuals with Part Numbers, Complete Factory Restoration Disks, displays, notes, visual aids, etc., in the operations and maintenance of the DVR and Cameras. The training will be conducted at each location as quickly as practical but not more than 14 days after the successful installation of equipment. It is preferred that training will occur immediately after installation.
12. The original contract contained a security alarm monitoring plan for all locations except Bismarck. The plan provides monitoring of each facility during all hours the facility is closed to the public and shall have an alarm activation with immediate notification procedures.

Equipment locations and installation information:

1. Digital Video Recorder (DVR), Monitor, Camera Power Supply and UPS

This equipment will be housed in a secure room at each location. A 120V/20A double-duplex receptacle will be provided to provide power for the DVR, monitor and camera power supply. A cabinet for this equipment is not required. All electrical equipment must be connected to the UPS provided by the Contractor.

2. Cameras #1, #2, and #3

Three cameras will be located in three separate corners of the workspace/customer service area so as to provide full coverage of all individuals who enter/depart the site. These cameras will be able to record all access to the employee workspace and customer service area.

3. Camera #4

This infrared capable camera will be located in the room with the safe, providing a visual recording of anyone who enters and exits this space.

Following are the specifications for the equipment that was awarded and installed initially.
Any replacements must meet or exceed these standards.

1. Closed Circuit Television (CCTV) Stationary Camera

- a. Definition - A camera assembly shall be defined as a closed-circuit television (CCTV) color/monochrome camera enclosed in a vandal proof domed environmental housing with an integral receiver/driver, all mounting hardware required to mount the camera. The camera assembly shall include all the necessary power supplies and communication connections for a fully functional unit.
- b. The CCTV Stationary Camera must meet the following minimum requirements
- c. The CCTV Camera shall be a minimum 1/3" color high resolution vandal resistant dome camera with a varifocal 4.0mm to 9.0mm auto iris lens
- d. The CCTV Camera shall be a minimum 1/3-type color CCD pick-up element with 768 (H) x 494 (V) pixels
- e. The CCTV Camera shall have a minimum 550 lines of Horizontal Resolution
- f. The CCTV Camera shall have a minimum of 48dB signal-to-noise ratio.
- g. The CCTV Camera shall have a Video Output of 1 Vp-p 75 ohm BNC connector
- h. The CCTV Camera will be complete with dome, lens, and mounting brackets
- i. The CCTV Camera shall be dual voltage DC 12v / AC 24v
- j. The CCTV Camera shall have a Minimum Illumination of 0.3 Lux or lower
- k. Contractor is responsible for adjusting the camera lenses to include the viewing angle that NDDOT requires. NDDOT must accept the viewing angles of each camera prior to final acceptance.
- l. Infrared Illumination with a projection distance up to 20 meters

2. Digital Video Recorder (DVR)

- a. Before the DVRs can be connected to the State Network, they must be certified to be in compliance with Enterprise Standards <http://www.nd.gov/ea/standards/>
- b. Specifically:
 - i. Password Characteristics
 1. Shall consist of a minimum of eight (8) characters in length
 2. Shall include at least one (1) numeric character
 3. Shall include at least one (1) character in lower case
 4. Shall include at least one (1) character in upper case
 5. Shall have a maximum life of ninety (90) days
 6. Shall have a minimum life of seven (7) days
 7. Shall have a minimum history of twenty-four (24) to restrict reuse
 8. User IDs shall be disabled after no more than three (3) successive invalid sign on attempts
 - ii. Anti-Virus
 1. Anti-virus software shall be installed and active. Virus signature files shall be kept current by automatically updating in the background
 2. All incoming files shall be scanned for viruses. If a file contains a virus and cannot be cleaned, the file must be deleted.
 - iii. Automatic Screen Locking
 1. DVR shall have automatic screen locking active with a maximum of a 15-minute activation time.
 - iv. Critical Operating System Updates
 1. The DVR shall have all Critical Operating System Updates installed automatically in the background within 14 days of the release date.
- c. DVR shall be a have a capacity of 8 camera connections.
- d. DVR shall have a minimum of 500 GB storage capacity.
- e. DVR shall have an easy to follow, paged menu system.
- f. DVR shall be able to play back, pause, frame advance/rewind, speed search and reverse playback.
- g. The system will have the ability to monitor, record, search, backup and remote view simultaneously.
- h. Ability to search to the minute for a specific date and time.
- i. DVR shall be able to have a lock option to block all or some of the front panel functions, preventing changes to the unit's settings.
- j. The digital video recorder must have the ability to be connected to the existing local area network (LAN) to allow access to archive images and provide the ability to view images through the network on any computer connected to the network. NDDOT IT division will assign an IP address to the DVR to

allow NDDOT personnel access to this system. Vendor must provide any required software for this function and a minimum of 8 licenses must be made available at no additional fee. The system must also have the ability to be viewed by multiple individuals simultaneously. The software shall not require a yearly maintenance fee for updates or operation of the software.

- k. A monitor will be provided that enables viewing of each camera's performance and coverage located in conjunction with the DVR

3. Uninterruptible Power Supply (UPS):

- a. UPS shall be equal to APC, model #APC Back-UPS RS, 1500VA/865W or equal.
- b. Input voltage shall be 120V. Output voltage shall be 120V.
- c. UPS must have a minimum of (2) NEMA 5-15R Surge Protected outlets and (6) NEMA 5-15R Battery Backup outlets
- d. Battery shall be maintenance-free sealed Lead-Acid battery with suspended electrolyte and completely leak proof.
- e. Minimum backup time at full load shall be 5 minutes.

4. Security System:

- a. The security systems must provide for 24 hour operation recording to DVR.
- b. Requires keypad for activation/deactivation of system located within the secure area for employees.
- c. Constant monitoring of security status when facility is closed.
- d. Immediate contact with designated staff in event of alarm.
- e. Immediate contact with law enforcement, fire or ambulance services should the need arise.
- f. All sites except Bismarck location.

All equipment shall be new and unused under current production at the time of submitting response unless otherwise specified.

Bidders MUST submit manufacturer's literature and detailed specifications along with this response

Unless otherwise indicated by the bidder, it will be assumed that specifications will be met in all respects.

5. Project Manager:

After award, the Project Manager for this contract will be Glenn Jackson. The monthly invoice shall be submitted to Mr. Jackson and any system questions for any of the locations shall be addressed to him.

Glenn Jackson
Director, Drivers License Division
North Dakota Department of Transportation
608 East Boulevard Avenue
Bismarck, ND 58505
Ph.: 701.328.4792
Fax: 701.328.2435
gjackson@nd.gov

6. Site Tour

Any bidder who would like to tour one of the existing locations prior to submitting a bid, shall contact Mr. Jackson to make arrangements for the tour.

BIDDER

Laser Systems.
[Signature]

BID RESPONSE

ANY ALTERATIONS OR CORRECTIONS MADE TO THE UNIT OR TOTAL PRICE MUST BE INITIALED BY THE BIDDER.
FAILURE TO DO SO MAY BE CAUSE FOR BID REJECTION

ITEM NO.	QTY.	UNIT	DETAILED SPECIFICATIONS	UNIT PRICE
Major replacement equipment shall be supplied at the following prices. Miscellaneous minor parts required for equipment replacement will be paid at normal contractor price.				
1	Closed Circuit Television (CCTV) Stationary Camera			
	1	EACH	Locations as indicated in Specification, General Criteria - 1. a. - h.	\$ 165.00
2	Digital Video Recorder (DVR)			
	1	EACH	Locations as indicated in Specification, General Criteria - 1. a. - h	\$ 844.00
3	Uninterruptible Power Supply (UPS)			
	1	EACH	Locations as indicated in Specification, General Criteria - 1. a. - h.	\$ 219.00
4	Hourly rate applied for system maintenance at any location. (Includes travel)			
	1	HOUR	Locations as indicated in Specification, General Criteria - 1. a. - h.	\$ 60.00
Security System monthly monitoring fee.				
5	1	<u>MONTH</u>	Combined fee for all seven (7) locations.	\$ 119.00

Service Representative.

The contractor must provide a dedicated service representative to provide support for this contract. The contractor shall notify the Project Manager in the event the representative is changed.

NAME: Corey English
(Name of person servicing this contract)

BUSINESS NAME: Laser Systems

MAILING ADDRESS: 901 Westrac Drive

CITY & STATE: Fargo, ND ZIP CODE: 58103

PHONE NUMBER: 701-293-6865 TOLL FREE: 800-726-1764

FAX NUMBER: 701-239-4410 E-MAIL: corey@laser-sys.com

**NORTH DAKOTA DEPARTMENT OF TRANSPORTATION
CIVIL RIGHTS APPENDIX**

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the Contractor), agrees as follows:

1. Compliance with Regulations: The Contractor shall comply with the regulations relative to nondiscrimination in federally-assisted programs of the Department of Transportation, Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
2. Nondiscrimination: The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, national origin, sex, age, disability/handicap, or income status**, in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The Contractor shall not participate, either directly or indirectly, in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding or negotiation, made by the Contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the Contractor of the Contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, national origin, sex, age, disability/handicap, or income status **
4. Information and Reports: The contractor shall provide all information and reports required by the Regulations, or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information and its facilities as may be determined by the North Dakota Department of Transportation or the Federal Highway Administration to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of a Contractor is in the exclusive possession of another who fails or refuses to furnish this information, the Contractor shall so certify to the North Dakota Department of Transportation, or the Federal Highway Administration, as appropriate, and shall set forth what efforts it has made to obtain the information.
5. Sanctions for Noncompliance: In the event of the Contractor's noncompliance with the nondiscrimination provisions of this contract, the North Dakota Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including but not limited to
 - a. withholding of payments to the Contractor under the contract until the Contractor complies, and/or
 - b. cancellation, termination, or suspension of the contract, in whole or in part.
6. Incorporation of Provisions: The Contractor shall include the provisions of paragraphs 1 through 6 in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations or directives issued pursuant thereto.

The Contractor shall take such action with respect to any subcontract or procurement as the North Dakota Department of Transportation or the Federal Highway Administration may direct as a means of enforcing such provisions, including sanctions for noncompliance provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation by a subcontractor or supplier as a result of such direction, the Contractor may request the North Dakota Department of Transportation to enter into such litigation to protect the interests of the State; and, in addition, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

**The Act governs race, color, and national origin. Related Nondiscrimination Authorities govern sex, 23 U.S.C. 324; age, 42 U.S.C. 6101; disability/handicap, 29 U.S.C. 790; and low income, E.O. 12898.



Risk Management Appendix

Supply Contracts with Private Individuals, Companies, Corporations, Etc.:

Each party agrees to assume its own liability for any and all claims of any nature including all costs, expenses and attorney's fees which may in any manner result from or arise out of this agreement.

Contractor, or Contractor's delivery agent, shall secure and keep in force during the term of this agreement, from insurance companies, government self-insurance pools or government self-retention funds authorized to do business in North Dakota, the following insurance coverages:

- 1) **Commercial general liability** and **automobile liability** insurance.
- 2) **Workers compensation** insurance.

Contractor shall produce certificates of insurance or copies of insurance policies upon request by the State.

When a portion of a Contract is sublet, the Contractor shall obtain insurance protection (as outlined above) to provide liability coverage to protect the Contractor and the State as a result of work undertaken by the Subcontractor. In addition, the Contractor shall ensure that any and all parties performing work under the Contract are covered by public liability insurance as outlined above. All Subcontractors performing work under the Contract are required to maintain the same scope of insurance required of the Contractor. The Contractor shall be held responsible for ensuring compliance with those requirements by all Subcontractors.

RM Consulted 2007
Revised 6-07



Langehaug, Marilyn K.

From: Jackson, Glenn E.
Sent: Tuesday, December 03, 2013 2:43 PM
To: Langehaug, Marilyn K.
Subject: RE: Monitoring

Hi Marilyn,

I think this is a good idea.

Glenn Jackson
Director, Driver's License Division
ND Dept. of Transportation
608 East Boulevard Avenue
Bismarck, ND 58505-0700
W: (701) 328-4792
F: (701) 328-2435
gjackson@nd.gov

From: Langehaug, Marilyn K.
Sent: Tuesday, December 03, 2013 2:33 PM
To: Jackson, Glenn E.
Subject: FW: Monitoring

Hi Glenn,

Please see Corey's suggestion below and let me know what you think about the idea. Since they were the only bidder's, I think it will be o.k. to add this if you want it, since it does fall within the scope of the bid as preventative.

Marilyn Langehaug
NDDOT Finance/Procurement Section
328-4466
mlangehaug@nd.gov

From: Langehaug, Marilyn K.
Sent: Tuesday, December 03, 2013 2:30 PM
To: 'Corey English'
Subject: RE: Monitoring

Hello,
I was out of the office for a few days. I'll run this past Glenn and see what he thinks.
Thank you,

Marilyn Langehaug, Purchasing Agent II
NDDOT Financial Mgmt. Division
701-328-4466
Fax 701-328-0310
mlangehaug@nd.gov

From: Corey English [mailto:corey@laser-sys.com]
Sent: Wednesday, November 27, 2013 2:06 PM
To: Langehaug, Marilyn K.
Subject: Re: Monitoring

Hello Marilyn,

One question I have is if Glenn would like to enable a daily test on the alarm systems. Currently, there is a monthly test. As systems get older, the likelihood of something giving us trouble gets a bit stronger. Daily tests allow us to get monitor whether the phone line is active, if it has failed, as well as other useful info. The daily tests add \$7/mo. (per panel), but the panel is actually dialing out daily to send test signals.

Let me know if this is something you want to do. We can enable from remote, so no service call needed to go on site.

Thanks! Have a great Thanksgiving!

--Corey

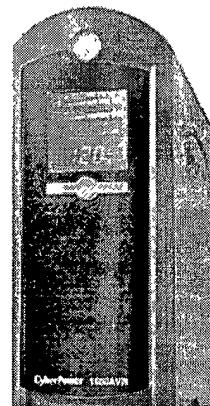
Corey English



901 Westrac Drive | Fargo, ND 58103
701.293.6865 | 800.726.1764
www.lasersystemssecurity.com

CP1500AVRLCD

The CP1500AVRLCD UPS system offers full time surge protection and battery backup



KEY FEATURES:

- 1500VA / 900W Simulated sine wave
- Line Interactive Topology
- AVR & GreenPower UPS™
- Multi-function LCD display
- Tower Form Factor
- RJ11/RJ45 & Coax RG6 Protection
- 8 Outlets / USB & Serial ports
- EMI/RFI filters
- PowerPanel® Personal Edition

The CyberPower Intelligent LCD CP1500AVRLCD uninterruptible power supply (UPS) for mid to high-end computer systems, features dynamic line conditioning to guard against surges/spikes and offers battery backup in the event of brownouts or blackouts. Its patented GreenPower UPS™ advanced circuitry reduces UPS energy costs by up to 75% compared to competitive models.

The CP1500AVRLCD unit has a capacity of 1500VA/900 Watts, eight (8) NEMA 5-15R receptacles, including four (4) fail safe outlets for critical loads. The intelligent multi-function LCD panel displays real-time UPS vitals for ease of control. This unit offers connectivity via one (1) HID USB and one (1) serial port, as well as protection for phone/network (RJ11/RJ45) and cable/coax (RG-6). It has two (2) maintenance-free, user-replaceable 12V/8.5Ah batteries and includes EMI/RFI filters to increase the immunity of the load to disturbances and surges. PowerPanel® Personal Edition UPS Management software automatically closes computer files and safely shuts down the system in case of a power outage.

FEATURES & BENEFITS:

Runtimes.

3 Minutes at Full-load
11 Minutes at Half-load

Intelligent LCD Diagnostic Display: The innovative front panel displays 11 different UPS vitals: input voltage level, output voltage level, automatic voltage regulator, battery capacity, runtime estimate, load level, output frequency, on battery, overload, fault condition, and silent mode.

Energy-Saving Technology: Patented GreenPower UPS™ advanced circuitry reduces UPS energy costs by up to 75% compared to competitive models.

DESIGNED FOR:

- Home Office/Small Office Networks & Equipment
- Workstations/PCs
- Internetworking Hardware
- Home Theater System Equipment
- Surveillance & Security Systems
- Personal Electronics
- POS Systems

Automatic Voltage Regulation: AVR technology stabilizes the AC voltage and maintains a safe voltage level without switching to battery-mode. This conserves battery life, and delivers cleaner AC power to connected equipment.

Ultra-Quiet UPS: Advanced efficiency design (reduced fan operation), high-end system components, and GreenPower UPS technology help minimize sound emissions.

PowerPanel® Personal Edition: In event of a power outage, PowerPanel PE saves open files and "hibernates" the PC to increase the run-time on the UPS unit. PowerPanel is easily installed on any Windows-based PC and uses minimal system resources. Diagnostic screens display the status of the UPS, including silent operation mode, configurable system notifications, automatic self tests, adjustable high/low voltage warnings, event/data logging, and scheduled shutdowns.

Transformer-Spaced Outlets: Widely spaced outlets accommodate large transformer-based plugs without compromising the utility of other outlets.

Technical Support: CyberPower assists users with any product installation or warranty concerns - free of charge.

USB Connectivity: HID compliant USB port enables full integration with built-in power management and auto shut-down features of Windows, Linux and Mac OS X.

3-Year Warranty: Stringent manufacturing processes and innovative product design enables CyberPower to offer one of the strongest warranties in our industry. CyberPower will repair or replace damaged units within three (3) years of purchase date.

EMI/RFI Filters: Filters against electromagnetic interference and radio frequency interference ensuring clean power for connected equipment.

ISO & Safety Certifications: All CyberPower manufacturing facilities are state-of-the-art and ISO-9001 Quality Tested. Our products are certified by the FCC, CE, and UL.

Audible Alarms: Distinctive tones identify when the unit is running on battery power, if it is overloaded or when the battery is low.

Windows Compatibility: Our PowerPanel® power management software has been fully tested and is compatible with Windows 2000, 2003, XP 32/64, Vista 32/64, 7, and Server 2008.

Resettable Circuit Breaker: Convenient unit reset switch in case of an overload.



CyberPower's patented GreenPower UPS™ technology reduces UPS energy costs up to 75%! Save money and help reduce carbon emissions.

CyberPower Systems, Inc.
4241 12th Ave. E. Suite 400
Shakopee, MN 55379
Toll free 877-237-6937
CPSwww.com

CP1500AVRLCD SPECIFICATIONS

UPS Topology	Line Interactive (AVR)
Energy Saving	CyberPower's UL5™ bypass technology

INPUT	
Voltage	90Vac - 140Vac
Frequency	60Hz / 50Hz
Plug Type	NEMA 5-15P
Plug Style	Right angle
Cord Length	6'

OUTPUT	
VA	1500
Watts	900
On Battery Voltage	120Vac \pm 5%
On Battery Frequency	60Hz
On Battery Waveform	Simulated Sine Wave
Outlet Type	NEMA 5-15R
Outlets - Total	8
Outlets - Battery & Surge Protected	4
Outlets - Surge-Only Protected	4

BATTERY	
Runtime at Half Load (min.)	11
Runtime at Full Load (min.)	3
Battery Type	Sealed lead acid
Battery Size	12V/8.5AH
User Replaceable	Yes
Typical Recharge Time	8 Hours
Replacement Battery	PS Battery HP1234W
Battery Quantity	1

SURGE PROTECTION & FILTERING	
Surge Suppression	1500 Joules
Phone / Ethernet RJ11 / RJ45	1 In, 1 Out (Common)
Coax Protection RG6	1 In, 1 Out
EMI/RFI Filtration	Yes

FEATURES	
Multifunction LCD Display	Yes
HID Compliant USB Port	Yes
Serial Port	Yes
LED Indicators	Power on, wiring fault
Audible Alarms	On battery, low battery, overload
Software	PowerPanel® Personal Edition

PHYSICALS	
Dimensions (WxHxD)	4" x 9.75" x 13.25"
Weight (lbs.)	2.5

CERTIFICATIONS	
Certifications	UL 1778, ETL, FCC Class B
RoHS Compliant	Yes

WARRANTY	
Product Warranty	3 Years Limited
Connected Equipment Guarantee	Lifetime
CEG Amount	\$250,000

Surge Protected
Coaxial Connectors

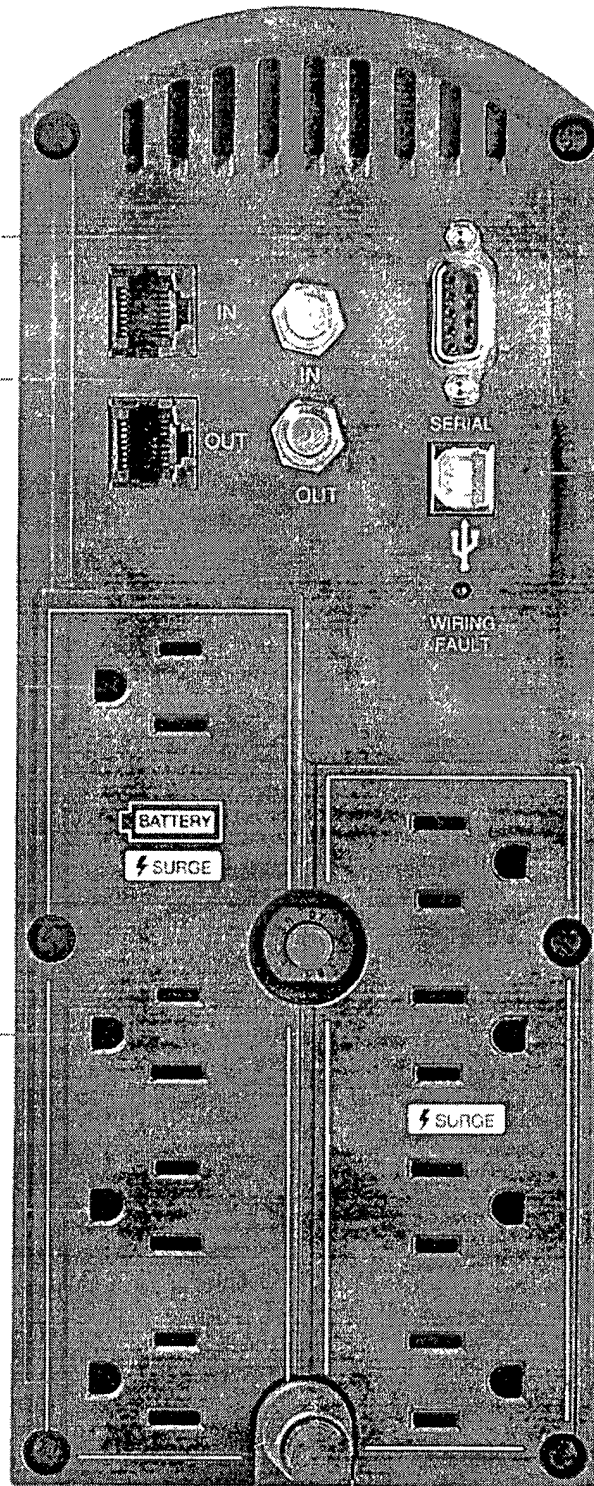
Phone/Ethernet
(RJ11/RJ45) Surge
Protected Ports

4 Full Time Battery
& Surge Protected
Outlets
(* Transformer
Spaced Outlet)

Serial Communication
Port to PC

USB Communication
Port to PC

4 Full Time Surge
Protected Outlets



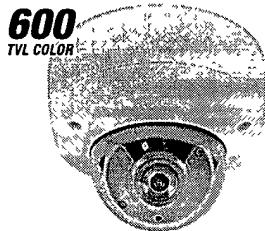
CyberPower Systems, Inc. designs and manufactures state-of-the-art power protection and distribution equipment for corporate, business, home, government and educational markets. CyberPower leads the industry by surpassing customer expectations in the development, design, construction, durability and functionality of uninterruptible power supply (UPS) products for computers, peripherals and connected devices. CyberPower Systems operates in the Asian Pacific, North America, and European markets. For additional information, including sales office locations and authorized reseller partners, visit CPSwww.com.

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EasyView™ Lite Series

Vandalproof Dome Camera

NTSC



CV-H21N



KEY FEATURES

- 600 TVL Color
- 1/3" CCD
- 2800 Lines of Digital Resolution
- 1/2" x 1/4" Lens
- DNR (Digital Noise Reduction)
- AWC (Automatic White Balance)
- AGC (Automatic Gain Compensation, 8kbit)
- BLC (Back Door Wide Area, 1/4")
- 12VDC/24VAC

CONSTRUCTION

- 3-Polycarbonate Rubble
- 3-Axis Gimbal
- Infrared LED, 20mm x 10mm x 10mm
- Weatherproof
- Compact Size

AVAILABLE MODELS

- CV-H21N-2 (2.1mm)

AVAILABLE ACCESSORIES



CV-WM200 (Ivory)
Outdoor Weatherproof Mount



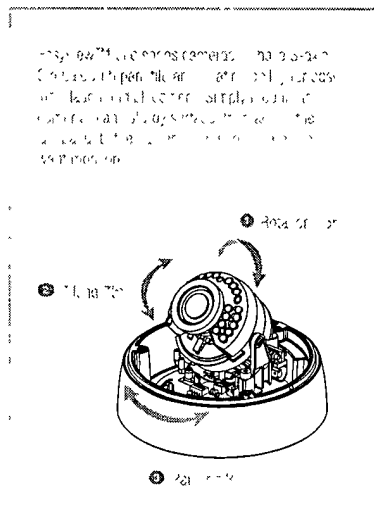
CB-JB
Base Mount

TECHNICAL SPECIFICATIONS

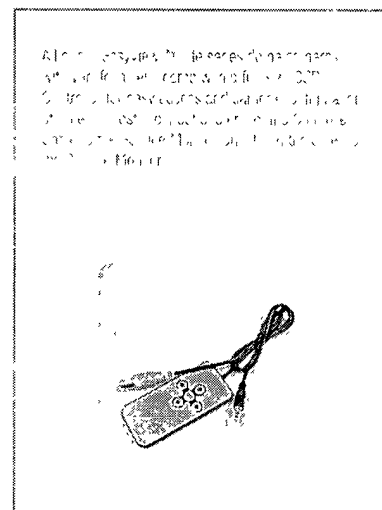
Technical Specifications	
Video Format	CV-H21N NTSC
Image Sensor	1/3" CCD
Horizontal Resolution	600 TV Lines
Day/Night Functionality	No
Lens Type	Vari-focal 2.8mm-11mm
Angle of View	134°(W) ~ 36°(T)
IR LED	N/A
IR LED Distance	N/A
LED Illumination Angle	N/A
Sync System	Internal
Effective Pixels	768(H) x 494(V)
Scanning System	525 Lines 2:1 Interlaced
Electronic Shutter	1/60 sec
Main Video Output	1.0 Vp-p Composite, 75 ohm
Service Monitor Output	1.0 Vp-p Composite, 75 ohm
Minimum Illumination	0.2 Lux (Color)
S/N Ratio	More than 48dB (AGC Off)
General Information	
Operating Temperature	0°F ~ 122°F (-17°C ~ +50°C)
Operating Humidity	Within 90% RH
Power Consumption	500mA (Camera Only)
Input Voltage	12VDC/24VAC Dual Voltage

*Specifications are subject to change without any prior notice

3-AXIS GIMBAL, SIMPLY MOUNT AND POINT.

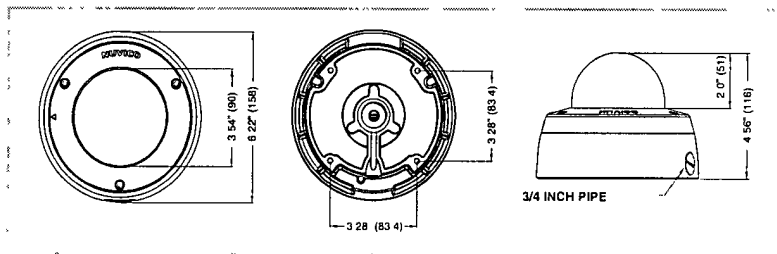


SAY GOODBYE TO TINY OSD JOYSTICKS.



DIMENSIONS

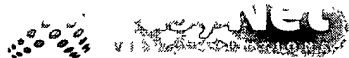
Unit: mm (in)



NUVICO

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International Operations | export@nuvico.com

Customer Service | tech@nuvico.com
Technical Support | techsupport@nuvico.com



Product Description

- Available in 4, 8, & 16-ch
- Embedded Linux operating system
- Pentaplex function - simultaneous live / record / playback / network / file copy
- Recording compression method: H 264
- Real-time recording per channel
- Multiple monitor outputs
- DVR control options: Front panel, IR remote, PC mouse, Keyboard (CK-1000)
- File copy method USB flashdrive
- Multi-channel audio support (8 & 16-ch only)
- Watermark
- Time synchronization between multiple DVRs
- Firmware upgrade via USB or network
- VMS Pro - Windows PC & Mac compatible
- Free mobile app
- Free DDNS service

Advanced Features



Multi-Layer Streaming™

When monitoring live over a network, EasyNet™ DVRs transmit 3 video streams simultaneously for optimal network performance. Independent of the actual frame rate and resolution being recorded by the DVR, these secondary and tertiary streams represent an ideal solution for low bandwidth environments such as DSL and 3G networks.

- Primary Stream (H 264) User defined recording frame rate & resolution per channel
- Secondary Stream (H 264) 2pps @ CIF per channel(Fixed)
- Third Stream (M-JPEG) 2pps @ CIF per channel(Fixed)



Copy Files & Playback from DVR

For your convenience, recorded files can be copied and archived to a USB flashdrive or CD/DVD in multiple formats.

- NVF (NUVICO File System) - Our new proprietary & tamper proof file system, also allows playback from any EasyNet™ DVR
- EXE (NVF w/ mini player)
- MP4 - A standard format where copied files can be reviewed from Windows PC or Mac, without using any 3rd party software



Widescreen Support (16:9)

New EasyNet™ DVRs utilize the latest HD Mux & Decoder chip sets available. Designed to accommodate modern-day HD widescreen monitors, EasyNet™ DVRs deliver industry leading display resolution.



EasyNet Touch™ - Free Mobile App

NUVICO's new app allows the user to access video streams directly from EasyNet™ DVRs to their handheld devices over Wi-Fi or 3G/4G networks. In addition to remote video monitoring, our powerful app incorporates many advanced features required in everyday security environments.

- Display up to 16 cameras in both live view & playback
- Favorite camera group setup from multiple DVRs
- Instant playback
- Time Search
- DVR status icons - Recording On/Off, Alarm, Video Loss & HDD fail
- PTZ controls



Multi-Layer Recording™

A derivative of NUVICO's exclusive Multi-Layer Streaming™ technology, Multi Layer Recording allows a user to quickly review recorded files over a network, which is as important as live video monitoring. Multi-Layer Recording™ gives you the option to record 3 independent video streams in tandem. This powerful function makes faster remote search and playback possible. This feature is especially useful when performing multi channel playback over a low bandwidth network.

- Primary Stream (H.264) User defined recording frame rate & resolution per channel
- Secondary Stream (H 264) 6pps @ CIF per channel (Fixed)
- Third Stream (M JPEG) 2pps @ CIF per channel (Fixed)



RTSP: Real Time Streaming Protocol

In addition to Multi-Layer Streaming™, we have integrated an RTSP server into the new EasyNet™ DVRs. RTSP enables an unlimited number of users to access live video streams using a common media player such as QuickTime™, which is available for both a Windows PC and Mac. Simple but effective, this is an ideal approach to applications requiring a large number of simultaneous users, such as a university campus, construction site, day-care center, pet shop, marina, and the like.






EasyNet™ VMS Pro

Our new multi-site management software exclusively developed for new EasyNet™ DVRs, as well as our upcoming EasyNet™ IP cameras and NVRs. Built on a universal software platform, EasyNet™ VMS Pro works flawlessly on both a Windows PC and Mac.

- Register and manage up to 1,000 DVR sites
- View up to 128 cameras from multiple sites simultaneously
- Memory reserve for event and system status log - 10,000 events
- Intelligent PC resource & network bandwidth management
- E-map
- 2 - way Audio
- Multiple monitor support
- Windows PC & Mac compatible

Technical Specifications

EasyNet™ Compact Series	ED-C400 	ED-C800 	ED-C1600 
Video Format	NTSC / PAL Auto Detect	NTSC / PAL Auto Detect	NTSC / PAL Auto Detect
Video Compression	H 264	H 264	H 264
Operating System	Embedded Linux	Embedded Linux	Embedded Linux
Pentaplex Function	Simultaneous Live / Record / Network / Playback / File Copy		
Video Input / Loop Output	4 / N/A	8 / N/A	16 / N/A
Maximum Recording Rate & Resolution	120pps @ CIF	240pps @ CIF	480pps @ CIF
	120pps @ 2CIF	240pps @ 2CIF	240pps @ 2CIF
	120pps @ 4CIF	120pps @ 4CIF	120pps @ 4CIF
Monitor Output			
- Main 1	VGA (1440 x 960), BNC	VGA (1920 x 1080), BNC	VGA (1920 x 1080), BNC
- Spot 1 (BNC: Composite)	(Full / Sequence)	(Full / Sequence)	(Full / Sequence)
Network Transmission Method	Selectable	Selectable	Selectable
- Primary Stream	H 264 @ User-defined resolution	H 264 @ User-defined resolution	H 264 @ User-defined resolution
- Second Stream	H 264 @ CIF	H 264 @ CIF	H 264 @ CIF
- Third Stream	M-JPEG @ CIF	M-JPEG @ CIF	M-JPEG @ CIF
Internal Storage	1 Internal HDD bay (Up to 2TB)	1 Internal HDD bay (Up to 2TB)	1 Internal HDD bay (Up to 2TB)
Alarm In/Out	4 Inputs / 1 Output	8 Inputs / 1 Output	16 Inputs / 1 Output
Audio In/Out	1 Inputs / 1 Output	4 Inputs / 1 Output	4 Inputs / 1 Output
Audio Over Network	2-way	2-way	2-way
PTZ Dome & Controller Interface	RS 485	RS 485	RS-485
Network Port	Gigabit Ethernet	Gigabit Ethernet	Gigabit Ethernet
Built-in Copy Device	N/A	N/A	N/A
External Copy Device	USB Flashdrive (Max 2GB Clips)	USB Flashdrive (Max 2GB Clips)	USB Flashdrive (Max 2GB Clips)
USB Ports	2 Front	2 Front	2 Front
Recording Modes	Continuous, Schedule, Alarm, Motion, and Panic Recording		
Recording Adjustments	Resolution, frame rate, and picture quality per channel		
Pre-event & Post-event Recording	Pre-recording 5 sec per channel / Post-recording 240 sec per channel		
- Search Mode	Time / Calendar / Event Search	Time / Calendar / Event Search	Time / Calendar / Event Search
Alarm Notification	Pop up, buzzer, e mail, and relay	Pop up, buzzer, e mail, and relay	Pop up, buzzer, e-mail, and relay
Watermark / Time Sync.	Yes / Yes	Yes / Yes	Yes / Yes
Power Failure Recovery	Auto reboot while maintaining system settings		
Rack Mount Kit	N/A	N/A	N/A
Operating Temperature	41°F ~ 104°F (0°C ~ +40°C)	41°F ~ 104°F (0°C ~ +40°C)	41°F ~ 104°F (0°C ~ +40°C)
Dimensions (W-D-H) mm	9 72" x 8 07" x 2 83 (247mm x 205mm x 72mm)		
Power Input	DC 12V, 3 Amp	DC 12V, 3 Amp	DC 12V, 3 Amp

Available Models

HDD Capacity	Model Number	HDD Capacity	Model Number	HDD Capacity	Model Number
500GB	ED-C405	500GB	ED-C805	500GB	ED-C1605
1TB	ED-C410	1TB	ED-C810	1TB	ED-C1610
2TB	ED-C420	2TB	ED-C820	2TB	ED-C1620

*Minimum System Requirements (Single site mode)

OS:	Windows 7 or Mac OS X 10.6
CPU:	Core 2 Duo
Memory:	2GB
Video Card:	1GB
Network:	100Mbps

*Preferred System Requirements (Multi-site mode)

OS:	Windows 7 or Mac OS X 10.7
CPU:	Core i7
Memory:	16GB
Video Card:	8GB
Network:	1Gbps

ED-C400/C800/C1600

NUVICO®

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11W1001 KOFORMO Tower 16-3 Sunae-Dong Bundang-Cu,
Seongnam-Si Gyeonggi-Do, 463-825 Korea
Tel: 82-31-712-8814 Fax: 82-70-7500-9164 | export@nuvico.com