



State of West Virginia
 Department of Administration
 Purchasing Division
 2019 Washington Street East
 Post Office Box 50130
 Charleston, WV 25305-0130

**Request for
 Quotation**

RFQ NUMBER
DMV110150

PAGE
1

ADDRESS CORRESPONDENCE TO ATTENTION OF
**FRANK WHITTAKER
 304-558-2316**

VENDOR

**RFQ COPY
 TYPE NAME/ADDRESS HERE**

NewTech Systems, Inc.
 420 16th Street
 PO Box 310
 Dunbar, WV 25064

SHIP TO

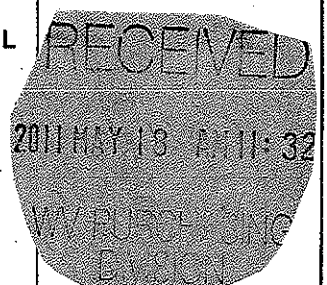
DIVISION OF MOTOR VEHICLES

1317 HANSFORD STREET
 CHARLESTON, WV
 25311 558-0002

DATE PRINTED	TERMS OF SALE	SHIP VIA	FOB	FREIGHT TERMS
03/29/2011				

BID OPENING DATE: **05/10/2011** BID OPENING TIME **01:30PM**

LINE	QUANTITY	UOP	CAT NO	ITEM NUMBER	UNIT PRICE	AMOUNT
0001	1	EA		840-99		\$117,287.11
<p>AUDIO, VIDEO, DATA PROJECTION EQUIPMENT & COMPONENTS</p> <p>THE WEST VIRGINIA PURCHASING DIVISION, FOR THE AGENCY, WEST VIRGINIA DIVISION OF MOTOR VEHICLES, IS SOLICITING BIDS FROM RESPONSIBLE VENDORS TO PROVIDE AND INSTALL AUDIO, VIDEO, DATA PROJECTION AND COMMUNICATIONS EQUIPMENT AT THE DMV SERVICE CENTER LOCATED AT 5707 MCCORKLE AVENUE S.E CHARLESTON, WV 25317, PER THE ATTACHED SPECIFICATIONS.</p> <p>MANDATORY PRE-BID A MANDATORY PRE-BID WILL BE HELD ON 4/19/11 @ 10:00 AM 5707 MCCORKLE AVE SE, CHARLESTON, WV 25317. ALL INTERESTED PARTIES ARE REQUIRED TO ATTEND THIS MEETING. FAILURE TO ATTEND THE MANDATORY PRE-BID SHALL RESULT IN DISQUALIFICATION OF THE BID. NO ONE PERSON MAY REPRESENT MORE THAN ONE BIDDER.</p> <p>AN ATTENDANCE SHEET WILL BE MADE AVAILABLE FOR ALL POTENTIAL BIDDERS TO COMPLETE. THIS WILL SERVE AS THE OFFICIAL DOCUMENT VERIFYING ATTENDANCE AT THE MANDATORY PRE-BID. FAILURE TO PROVIDE YOUR COMPANY AND REPRESENTATIVE NAME ON THE ATTENDANCE SHEET WILL RESULT IN DISQUALIFICATION OF THE BID. THE STATE WILL NOT ACCEPT ANY OTHER DOCUMENTATION TO VERIFY ATTENDANCE. THE BIDDER IS RESPONSIBLE FOR ENSURING THEY HAVE COMPLETED THE INFORMATION REQUIRED ON THE ATTENDANCE SHEET. THE PURCHASING DIVISION AND THE STATE AGENCY WILL NOT ASSUME ANY RESPONSIBILITY FOR A BIDDER-S.</p>						



SEE REVERSE SIDE FOR TERMS AND CONDITIONS			
SIGNATURE <i>Michael Bryant</i>	TELEPHONE 304-766-0000	DATE 3/16/2011	
TITLE General Manager	FEIN 20-5736303	ADDRESS CHANGES TO BE NOTED ABOVE	

WHEN RESPONDING TO RFQ, INSERT NAME AND ADDRESS IN SPACE ABOVE LABELED 'VENDOR'



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<p>FAILURE TO COMPLETE THE PRE-BID ATTENDANCE SHEET. IN ADDITION, WE REQUEST THAT ALL POTENTIAL BIDDERS INCLUDE THEIR E-MAIL ADDRESS AND FAX NUMBER.</p> <p>ALL POTENTIAL BIDDERS ARE REQUESTED TO ARRIVE PRIOR TO THE STARTING TIME FOR THE PRE-BID. BIDDERS WHO ARRIVE LATE, BUT PRIOR TO THE DISMISSAL OF THE TECHNICAL PORTION OF THE PRE-BID WILL BE PERMITTED TO SIGN IN. BIDDERS WHO ARRIVE AFTER CONCLUSION OF THE TECHNICAL PORTION OF THE PRE-BID, BUT DURING ANY SUBSEQUENT PART OF THE PRE-BID WILL NOT BE PERMITTED TO SIGN THE ATTENDANCE SHEET.</p> <p>ALL TECHNICAL QUESTIONS MUST BE SUBMITTED IN WRITING TO FRANK WHITTAKER IN THE WV PURCHASING DIVISION VIA EMAIL @ FRANK.M.WHITTAKER@WV.GOV OR VIA FAX @ 304-558-4115. DEADLINE FOR ALL TECHNICAL QUESTIONS IS 4/22/11 @ 4:00 PM. ALL TECHNICAL QUESTIONS WILL BE ADDRESSED BY ADDENDUM AFTER THE DEADLINE.</p> <p>EXHIBIT 5</p> <p>WEST VIRGINIA CODE 21-1D-5 PROVIDES THAT: ANY SOLICITATION FOR A PUBLIC IMPROVEMENT CONSTRUCTION CONTRACT REQUIRES EACH VENDOR THAT SUBMITS A BID FOR THE WORK TO SUBMIT AT THE SAME TIME AN AFFIDAVIT OF COMPLIANCE WITH THE BID. THE ENCLOSED DRUG-FREE WORKPLACE AFFIDAVIT MUST BE SIGNED AND SUBMITTED WITH THE BID AS EVIDENCE OF THE VENDOR'S COMPLIANCE WITH THE PROVISIONS OF ARTICLE 1D, CHAPTER 21 OF THE WEST VIRGINIA CODE. FAILURE TO SUBMIT THE SIGNED DRUG-FREE WORKPLACE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF SUCH BID.</p> <p>NOTICE TO PROCEED: THIS CONTRACT IS TO BE PERFORMED WITHIN 60 CALENDAR DAYS AFTER THE NOTICE TO PROCEED</p>						

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<p>IS RECEIVED. UNLESS OTHERWISE SPECIFIED, THE FULLY EXECUTED PURCHASE ORDER WILL BE CONSIDERED NOTICE TO PROCEED.</p> <p>CANCELLATION: THE DIRECTOR OF PURCHASING RESERVES THE RIGHT TO CANCEL THIS CONTRACT IMMEDIATELY UPON WRITTEN NOTICE TO THE VENDOR IF THE MATERIALS OR WORKMANSHIP SUPPLIED ARE OF AN INFERIOR QUALITY OR DO NOT CONFORM WITH THE SPECIFICATIONS OF THE BID AND CONTRACT HERE IN.</p> <p>WAGE RATES: THE CONTRACTOR OR SUBCONTRACTOR SHALL PAY THE HIGHER OF THE U.S. DEPARTMENT OF LABOR MINIMUM WAGE RATES AS ESTABLISHED FOR KANAWHA COUNTY, PURSUANT TO WEST VIRGINIA CODE 21-5A, ET, SEQ. (PREVAILING WAGE RATES APPLY TO THIS PROJECT)</p> <p>ARBITRATION: ANY REFERENCES MADE TO ARBITRATION OR INTEREST FOR PAYMENTS DUE (EXCEPT FOR ANY INTEREST REQUIRED BY STATE LAW) CONTAINED IN THIS CONTRACT OR IN ANY AMERICAN INSTITUTE OF ARCHITECTS DOCUMENTS PERTAINING TO THIS CONTRACT ARE HEREBY DELETED.</p> <p>WORKERS' COMPENSATION: VENDOR IS REQUIRED TO PROVIDE A CERTIFICATE FROM WORKERS' COMPENSATION IF SUCCESSFUL.</p> <p>ALL OF THE ITEMS CHECKED BELOW WILL BE A REQUIREMENT OF THIS CONTRACT:</p> <p>(XX) INSURANCE: SUCCESSFUL VENDOR SHALL FURNISH PROOF OF COMMERCIAL GENERAL LIABILITY INSURANCE PRIOR TO ISSUANCE OF CONTRACT. UNLESS OTHERWISE SPECIFIED IN THE BID DOCUMENTS, THE MINIMUM AMOUNT OF INSURANCE COVERAGE REQUIRED IS \$250,000.</p> <p>() BUILDERS RISK INSURANCE: SUCCESSFUL VENDOR SHALL</p>						

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<p>FURNISH PROOF OF BUILDERS RISK - ALL RISK INSURANCE IN AN AMOUNT EQUAL TO 100% OF THE AMOUNT OF THE CONTRACT.</p> <p>(XX) BONDS: FIVE PERCENT (5%) OF THE TOTAL AMOUNT OF THE BID PAYABLE TO THE STATE OF WEST VIRGINIA, SHALL BE SUBMITTED WITH EACH BID AS A BID BOND. THE SUCCESSFUL BIDDER SHALL ALSO FURNISH A PERFORMANCE BOND AND LABOR/MATERIAL BOND FOR 100% OF THE AMOUNT OF THE CONTRACT. BONDS MAY BE PROVIDED IN THE FORM OF A CERTIFIED CHECK, IRREVOCABLE LETTER OF CREDIT, OR BOND FURNISHED BY A SOLVENT SURETY COMPANY AUTHORIZED TO DO BUSINESS IN THE STATE OF WEST VIRGINIA. A LETTER OF CREDIT SUBMITTED IN LIEU OF A BOND WILL ONLY BE ALLOWED FOR PROJECTS UNDER \$100,000. PERSONAL OR BUSINESS CHECKS ARE NOT ACCEPTABLE IN LIEU OF THE 5% BID BOND, PERFORMANCE BOND, OR LABOR AND MATERIAL BOND.</p> <p>() MAINTENANCE BOND: A TWO (2) YEAR MAINTENANCE BOND COVERING THE ROOFING SYSTEM WILL BE A REQUIREMENT OF THE SUCCESSFUL VENDOR.</p> <p>REV. 11/00</p> <p>EXHIBIT 7</p> <p>DOMESTIC ALUMINUM, GLASS & STEEL IN PUBLIC WORKS PROJECTS</p> <p>IN ACCORDANCE WITH WEST VIRGINIA CODE 5-19-1 ET., SEQ., EVERY CONTRACT FOR CONSTRUCTION, RECONSTRUCTION, ALTERATION, REPAIR, IMPROVEMENT OR MAINTENANCE OF PUBLIC WORKS, WHERE THE COST IS MORE THAN \$50,000 AND, IN THE CASE OF STEEL ONLY, WHERE THE COST OF STEEL IS MORE THAN \$50,000 OR WHERE MORE THAN 10,000 POUNDS OF STEEL ARE REQUIRED, THE STATE WILL ACCEPT ONLY ALUMINU</p>						

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<p>GLASS, OR STEEL PRODUCTS PRODUCED IN THE UNITED STATES. IN ADDITION, ITEMS OF MACHINERY OR EQUIPMENT PURCHASED FOR USE AT THE SITE OF PUBLIC WORKS SHALL BE MADE OF DOMESTIC ALUMINUM, GLASS OR STEEL, UNLESS THE COST OF THE PRODUCT IS LESS THAN \$50,000 OR LESS THAN 10,000 POUNDS OF STEEL ARE USED IN PUBLIC WORKS PROJECTS.</p> <p>FOREIGN MADE ALUMINUM, GLASS OR STEEL PRODUCTS MAY BE ACCEPTED ONLY IF THE COST OF DOMESTIC PRODUCTS IS FOUND TO BE UNREASONABLE. SUCH COST IS UNREASONABLE IF IT IS 20% OR MORE HIGHER THAN THE BID PRICE FOR FOREIGN MADE PRODUCTS. IF THE DOMESTIC ALUMINUM, GLASS OR STEEL PRODUCTS TO BE SUPPLIED OR PRODUCED IN A "SUBSTANTIAL LABOR SURPLUS AREA", AS DEFINED BY THE UNITED STATES DEPARTMENT OF LABOR, FOREIGN PRODUCTS MAY BE SUPPLIED ONLY IF DOMESTIC PRODUCTS ARE 30% OR MORE HIGHER IN PRICE THAN THE FOREIGN MADE PRODUCTS.</p> <p>IF, PRIOR TO THE AWARD OF A CONTRACT UNDER THE ABOVE PROVISIONS, THE SPENDING OFFICER OF THE SPENDING UNIT DETERMINES THAT THERE EXISTS A BID FOR LIKE FOREIGN ALUMINUM, GLASS OR STEEL THAT IS REASONABLE AND LOWER THAN THE LOWEST BID DOMESTIC PRODUCTS, THE SPENDING OFFICE MAY REQUEST, IN WRITING, A REEVALUATION AND REDUCTION IN THE LOWEST BID FOR SUCH DOMESTIC PRODUCTS. ALL VENDORS MUST INDICATE IN THEIR BID IF THEY ARE SUPPLYING FOREIGN ALUMINUM, GLASS OR STEEL.</p> <p>REV. 3/88</p> <p>EXHIBIT 9</p> <p>NOTICE FOR ISSUANCE & ACKNOWLEDGEMENT OF CONSTRUCTION PROJECT ADDENDA</p>						

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VENDOR

*C08142531 304-766-0000
NEWTECH SYSTEMS INC
PO BOX 310
420 16TH ST
DUNBAR WV 25064

SHIP TO

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1317 HANSFORD STREET
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<p>THE ARCHITECT/ENGINEER AND/OR AGENCY SHALL BE REQUIRED TO ABIDE BY THE FOLLOWING SCHEDULE IN ISSUING CONSTRUCTION PROJECT ADDENDA FOR STATE AGENCIES:</p> <p>(1) THE ARCHITECT/ENGINEER SHALL PREPARE THE ADDENDUM AND A LIST OF ALL PARTIES THAT HAVE PROCURED DRAWINGS AND SPECIFICATIONS FOR THE PROJECT. THE ADDENDUM AND LIST SHALL BE FORWARDED TO THE BUYER IN THE STATE PURCHASING DIVISION. THE ARCHITECT/ENGINEER SHALL ALSO SEND A COPY OF THE ADDENDUM TO THE STATE AGENCY FOR WHICH THE CONTRACT IS ISSUED.</p> <p>(2) THE BUYER SHALL SEND THE ADDENDUM TO ALL INTERESTED PARTIES AND, IF NECESSARY, EXTEND THE BID OPENING DATE. ANY ADDENDUM SHOULD BE RECEIVED BY THE BUYER WITHIN FOURTEEN (14) DAYS PRIOR TO THE BID OPENING DATE.</p> <p>(3) ALL ADDENDA SHOULD BE FORMALLY ACKNOWLEDGED BY ALL BIDDERS AND SUBMITTED TO THE STATE PURCHASING DIVISION. THE SAME RULES AND REGULATIONS THAT APPLY TO THE ORIGINAL BIDDING DOCUMENT SHALL ALSO APPLY TO AN ADDENDUM DOCUMENT. THE ONLY EXCEPTION MAY BE FOR AN ADDENDUM THAT IS ISSUED FOR THE SOLE PURPOSE OF CHANGING A BID OPENING TIME AND/OR DATE.</p> <p>REV. 11/96</p> <p>EXHIBIT 10</p> <p>ADDENDUM ACKNOWLEDGEMENT</p> <p>I HEREBY ACKNOWLEDGE RECEIPT OF THE FOLLOWING CHECKED ADDENDUM(S) AND HAVE MADE THE NECESSARY REVISIONS TO</p>						

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<p>WEST VIRGINIA STATE CODE 21-11-2 REQUIRES THAT ALL PERSONS DESIRING TO PERFORM CONTRACTING WORK IN THIS STATE MUST BE LICENSED. THE WEST VIRGINIA CONTRACTORS LICENSING BOARD IS EMPOWERED TO ISSUE THE CONTRACTORS LICENSE. APPLICATIONS FOR A CONTRACTORS LICENSE MAY BE MADE BY CONTACTING THE WEST VIRGINIA DIVISION OF LABOR CAPITOL COMPLEX, BUILDING 3, ROOM 319, CHARLESTON, WV 25305. TELEPHONE: (304) 558-7890.</p> <p>WEST VIRGINIA STATE CODE 21-11-11 REQUIRES ANY PROSPECTIVE BIDDER TO INCLUDE THE CONTRACTORS LICENSE NUMBER ON THEIR BID.</p> <p>BIDDER TO COMPLETE:</p> <p>CONTRACTORS NAME: NewTech Systems, Inc.</p> <p>CONTRACTORS LICENSE NO.: WV042038</p> <p>THE SUCCESSFUL BIDDER WILL BE REQUIRED TO FURNISH A COPY OF THEIR CONTRACTORS LICENSE PRIOR TO ISSUANCE OF A PURCHASE ORDER/CONTRACT</p> <p style="text-align: center;">APPLICABLE LAW</p> <p>THE WEST VIRGINIA STATE CODE, PURCHASING DIVISION RULES AND REGULATIONS, AND THE INFORMATION PROVIDED IN THE "REQUEST FOR QUOTATION" ISSUED BY THE PURCHASING DIVISION IS THE SOLE AUTHORITY GOVERNING THIS PROCUREMENT.</p> <p>ANY INFORMATION PROVIDED IN SPECIFICATION MANUALS, OR ANY OTHER SOURCE, VERBAL OR WRITTEN, WHICH CONTRADICTS OR ALTERS THE INFORMATION PROVIDED FROM THE SOURCES AS DESCRIBED IN THE ABOVE PARAGRAPH IS VOID AND OF NO EFFECT.</p>						

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<p>BANKRUPTCY: IN THE EVENT THE VENDOR/CONTRACTOR FILES FOR BANKRUPTCY PROTECTION, THE STATE MAY DEEM THE CONTRACT NULL AND VOID, AND TERMINATE SUCH CONTRACT WITHOUT FURTHER ORDER.</p> <p>REV. 5/2009</p> <p style="text-align: center;">NOTICE</p> <p>A SIGNED BID MUST BE SUBMITTED TO:</p> <p style="text-align: center;">DEPARTMENT OF ADMINISTRATION PURCHASING DIVISION BUILDING 15 2019 WASHINGTON STREET, EAST CHARLESTON, WV 25305-0130</p> <p>THE BID SHOULD CONTAIN THIS INFORMATION ON THE FACE OF THE ENVELOPE OR THE BID MAY NOT BE CONSIDERED:</p> <p>SEALED BID</p> <p>BUYER: 44</p> <p>REQ. NO.: DMV110150</p> <p>BID OPENING DATE: 5/10/2011</p> <p>BID OPENING TIME: 1:30 PM</p> <p>PLEASE PROVIDE A FAX NUMBER IN CASE IT IS NECESSARY TO CONTACT YOU REGARDING YOUR BID:</p>						

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				304-766-0003		
----- PLEASE PRINT OR TYPE NAME OF PERSON TO CONTACT CONCERNING THIS QUOTE: ----- Andrew Ramsey -----						
***** THIS IS THE END OF RFQ DMV110150 *****						TOTAL: <u>\$117,287.11</u>

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SPECIFICATIONS

The model/ brand/specifications named herein establish the acceptable level of quality only and are not intended to reflect a preference or favor any particular brand or vendor. The following specifications are to be considered minimum acceptable specifications unless otherwise noted in this document. It is preferred that the manufacturer specification sheets be provided with the bid, however specification sheets must be provided within 48 hours of request. Failure to provide the manufacturer specifications within 48 hours of request may result in bid disqualification.

Qty.	Item Description	Unit Cost	Extended Cos
3	<p><u>Sanvo PDG-DHT100L DPL Multimedia Projector</u></p> <p>Resolution: HD 1920 x 1080 (UXGA dot resizing possible) Brightness: 6,500 ANSI lumens Pixels: (2,073,600) 1920 x 1080 (16:9) Scanning Frequency: Horizontal: 15-120KHz Vertical 48-120Hz Input Signal Compatibility: UXGA/SXGA+/SXGA/WXGA/XGA/SVGA/VGA/MAC 1080P-24/25/30/48/50/60, 1080psf-24/25/30 1080i-50/60, 720p-50/60/575p/480p/575i/480i Color System: PAL/SECAM/NTSC/NTSC4.43/PAL-M/N Image Size (diagonal): Minimum 50" -Maximum 600" Weight: 44 pounds max Dimensions: 16"(w) x10"(h) x21"(d) PC Input/Output: 2 Digital Video Input; DVI-D x 1 (1 HDCP compatible) Analog RGB input x 1; D-sub 15-pin x 1 BNC x 5 (RGBHV, VIDEO/Y-Pb/Cb-Pr/Cr) S-Video x 1 RJ45 LAN x1, Serial D-sub9IN x 1 One empty expansion slot Accessories: Color Reproduction Wheel Set High Brightness Color Wheel Set (Installed) Wireless Remote Removable Power Cord with Fixing Bracket D-Sub Computer Cable Instruction Manual and CD/DVD Three year warranty (parts and labor)</p>	15,518.25	\$46,544.75
3	<p><u>Sanvo LNS-T50 Long Zoom Lens</u></p> <ul style="list-style-type: none"> • 2.8 - 5.0:1 Throw Ratio • 59.3 - 106.7mm Focal Length • 1.8x Power Zoom 	6,743.25	\$20,229.75

	• <i>f</i> 2.0 - 2.9		
3	<u>Sanyo 645 099 0199 Remote Control</u> (MUST BE COMPATIBLE WITH BOTH PROPOSED PROJECTOR AND LONG ZOOM LENS)	54.00	162.00
3	<u>Peerless CMJ455 Drop Ceiling Mount Adapter</u> (MUST MATCH THE CEILING MOUNT KIT DESCRIBED BELOW, IF PRESENTED AS "EQUAL TO.")	83.94	251.82
3	<u>Peerless PRGUNV Projector Ceiling Mount Kit</u> <ul style="list-style-type: none"> • Replaces a 2' x 2' (609 x 609 mm) ceiling tile; or mounts above existing 2' x 2' (609 x 609 mm) or 2' x 4' (609 x 1219 mm) ceiling tile to structural ceiling with tie wires • Two-piece design offering five different points for mount attachment • Includes tie wire supports, flush mount tube and offers two knockout panels for outlet boxes • Unit has 1-1/2"-11.5 NPT (38 mm) fitting for attachment of extension column • Load Capability: 50 lb (22 kg) 	174.53	532.59
2	<u>Dalite 88393L C (Cherry Veneer/Black End Caps)</u> Contour Electrol HDTV w/LVC Projection Screen Retractable, matte white screen Dimensions: 58" X 104" (119" diagonal) Aspect Ratio: 16:9 Form Factor: Wall/Ceiling Mount White finish preferred Compatible remote controls (see next line item)	955.80	1,911.60
2	<u>Dalite 98662 Remote Control</u> (or equal, compatible with alternative projection screen bid.)	193.05	386.10
2	<u>Spectrum 55218 CHBHD Compact Lectern</u> Black and Cherry cabinet facing Rack Rail 28" front - 16 rack units (19" D) Locking Doors, front and back (if both are available) Locking Balloon Wheels 20" Retractable Power Cord 8-Outlet Power Strip Perforated Panels for Heat Dissipation	1,416.15	2,832.30
2	Spectrum 55219 CHB Flip Up Shelf (MATCH LECTERN)	295.65	591.30
4	Spectrum CHB 97505 Shelf (MATCH LECTERN)	193.05	772.20
2	Spectrum 95002 CHB Riser Podium (MATCH LECTERN)	201.15	402.30
2	Spectrum 55142 (Extra Set of Keys) (MATCH LECTERN)	6.75	13.50

1	<p align="center"><u>Spectrum 38245 BL Instructor's Stool</u></p> <ul style="list-style-type: none"> • Pneumatic height adjustment • Trouble-free chrome foot ring • Easy-to-use ratchet back • Tilting backrest • Sliding seat • Back angle adjustment • Oversized casters 	399.60	399.60
2	<p align="center"><u>Sony SCVD380P DVD/VCR Player</u> (include Coaxial and RCA Cables)</p> <ul style="list-style-type: none"> • Progressive Output (480p) for DVD Player • Multi Brand TV Remote Control • CD, MP3, and JPEG Playback • 4-Head High-Fidelity Stereo 	120.15	240.30
2	<p align="center"><u>Crestron TPS4000 10.4" Color Touch Panel</u></p> <p align="center">640 X 480 Resolution Aspect Ratio: 4:3 VGA Brightness: 450 nits Contrast: 600:1 Color: 18-bit 256k 32-bit Processor</p> <p align="center">Memory: DRAM: 8MB, Flash: 8MB Accepts NTSC(480i)/(576i)PAL Composite for S-Video source Volume Control; Audio Mixer Line-Level Stereo input Built-In Amplified Stereo Speakers (2 watts/channel) Microphone (Headphone) with automatic gain control and line-level output (3.5mm TRS mini phone jack) Adjustable Screen Tilt (30 to 80 degrees) Dimensions: 10.3"h x 10.96"w x 9.32" d</p>	3,240.00	6,480.00
2	<p align="center"><u>Crestron MPS 300 Multimedia Presentation System</u></p> <p align="center">32-bit Micro-Processor Resolution: QXGA 2048 X1536 @ 60Hz Memory: SDRAM 32MB; NVRAM 256KB; FLASH 16MB Operating System: Supports SIMPL Windows, Real-Time, multi-tasking and multi-threading, FAT32 file system (long name support) Network Connectivity and Support: Three (3) Quick Media and one (1) CAT5 Outputs 10/100BaseT, static IP or DHCP/DNS, SSL, full-duplex TCP/IP, UDP/IP, CIP, SMTP, SNMP Video: Signal Input Types: 3 RGB and composite, S-Video, or component video Video Input Types: NTSC or PAL, 2 HDTV up to 1080i/1080p Switcher: 8x7 cross point matrix with 3x3 QM signal routing, local QM delay</p>	4,320.00	8,640.00

	<p>skew compensation and RGB pass-thru mode</p> <p>Switcher/Preamp:</p> <p>8x4 stereo cross point matrix with, 3x3 QM signal routing, 2-channel gated microphone preamp with compressor and limiter; 8-channels microphone EQ; 10x5 microphone/program matrix mixer; 8x2 microphone matrix mixer per each 3 QM outputs; mono volume/tone control and EQ/delay on speech output; integrated power amplifier;</p> <p>QM auto-compensating with self-peaking</p> <p>40-watt built-in amplifier</p> <p>Additional Features:</p> <p>Two (2) RS-232, four (4) IR, 4 digital in, 8x4 relay control ports</p> <p>Front panel setup and control;</p> <p>Keypad, touch panel and wireless control options;</p> <p>2U rack-mountable</p>		
2	<p><u>Crestron OM-RX QM Receiver</u></p> <p>Signal Types: RGB and composite, S-Video, or component video</p> <p>Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i/p</p> <p>Maximum Resolution: 1920x1200 @60Hz</p> <p>Front Panel Connectors:</p> <p>One (1) 8-wire RJ45 female input port;</p> <p>Two (2) 4-pin 3.5mm detachable terminal blocks</p> <p>Rear Panel Connectors:</p> <p>RGBHV, S-Video, Video (BNC),</p> <p>DB9 Bidirectional RS-232, IR/Serial Port</p>	877.50	1775.00
2	<p><u>Crestron CNPWS-75 Power Supply</u></p> <ul style="list-style-type: none"> • 75 Watts (3.125 Amps) @ 24 Volts DC regulated • (2) 4-pin 5mm detachable terminal blocks; Power output ports, paralleled; Data 'Y' and 'Z' terminals pass-through only • IEC320 Socket; • Mates with removable power cord, included • Freestanding or 2U 19-inch rack-mountable • 2.55" H x 4.74"W x 8.07" D 	303.75	607.50
2	<p><u>TrippLite TRPS500RT1U Rack Mount UPS</u></p> <p>500VA 1U rack/tower UPS (wall-mount or under lectern mounting)</p> <p>Five (5) outlets: four (4) UPS/surge, one (1) surge only</p> <p>SNMP-Compatible</p> <p>DB9 Serial Port for Network Interface</p> <p>EMI/RFI Noise Filtering</p> <p>Diagnostic LEDs</p> <p>6-foot cord</p> <p>Power Alert Software, 6-foot network cable and mounting hardware</p> <p>Minimum \$250,000 Lifetime Warranty</p>	215.99	431.98
4	<p><u>Panasonic UB-8325 Electronic Whiteboard</u></p> <p>External Dimensions: 54.6"H x 61"W x 10.4"D</p> <p>Panel Dimensions: 35.4"H x 55.1"W</p>	2801.25	11,205.00

	Panel Surface: Two (2) Endless scroll type) Scanning Image Sensors Interface: USB 2.0 Windows compatible Printing: Fusion thermal transfer type Copy: Standard letter size 8.5"x11"; 16-24 lb. Copy Color/Density: Black, 203dpi Copy Speed: 15 seconds per sheet, up to nine (9) sheets continuous Two (2) Screen Compressed Copying Electronic Pen and Electronic Eraser: minimum expectancy 40 hour battery life Features: Drawing Tool; Screen Capture; Screen Print; Board Image Capturing; Handwriting Recognition (English) <u>Consumables:</u> Two (2) sets KX-B035 Marker and Eraser Kit (1 Black pen, 1 Red pen, 1 Blue pen, 1 Eraser) Eraser Cloths: KX-BP0481 (set of 10)	17.89	143.12
4	Panasonic KX-B063 Wall-Mounting Kit (or applicable to alternative Whiteboard offered.)	47.25	189.00
1	Training: Four (4) employees, one full eight (8) hour day	67.50	540.00
1	Installation Complete Installation (turn-key solution)	11,850.00	11,850.00
	TOTAL BID SHIPPING		175.00

TOTAL BID

\$117,287.71

All equipment must be new, not used, or refurbished. Complete delivery and installation must be completed within sixty (60) days of contract award. The fully executed purchase order shall serve as the Notice to Proceed and the date of the purchase order will determine the start of the 60 day installation period.

All equipment must carry a minimum of a one (1) year warranty (with the exception of the Multimedia Projector, which will have a 3 year warranty on parts and labor) with on-site support as required. Bids must be all-inclusive of travel expenses.



420 16th Street
 Dunbar, WV 25064
 office: 304-766-0000
 fax: 304-766-0003
 www.newtechwv.com

To: WV DMV
 Attn: Frank Whittaker
 1317 Hansford St.
 Charleston, WV 25311

Quote: AKDYQ1768
 Date: 05/09/11
 Terms: See Below
 Sales Tax: Not Included
 FOB: Not Included
 Expires: 60 Days

Phone: 304-558-2316

Fax:

Project: RFQ DMV110150

Qty	Manufacturer	Part Number	Description	Unit	Extended
RFQ DMV110150					
3	Sanyo	PDG-DHT8000L	8000 ANSI Lumens, HD (1920x1080) resolution, 7500:1 Contrast ratio, Power Zoom/Focus/Lens Shift, no lens	\$15,518.25	\$46,554.75
3	Sanyo	LNS-T50	Long Zoom Power Lens, 3.0-5.5:1(DET100L);2.8-5.0:1 (DHT100L/DHT8000L)	\$6,743.25	\$20,229.75
3	Sanyo	6450990199	remote control	\$54.00	\$162.00
3	Peerless	CMJ455	Lightweight Variable Position Suspended Ceiling Kit	\$83.94	\$251.82
3	Peerless	PRG-UNV	Universal PRG Precision Gear Projector Mount	\$174.53	\$523.59
2	Da-Lite	88393L	CONTOUR, 119D 58X104NPA MW	\$955.80	\$1,911.60
2	Da-Lite	98662	RF REMOTE KIT	\$193.05	\$386.10
2	Spectrum	55218	Compace Lectern w/accessories	\$2,305.80	\$4,611.60
1	Spectrun	38245	Instructor's Stool	\$399.60	\$399.60
2	Toshiba	SD-V296	DVD/VCR Combo Player	\$120.15	\$240.30
2	Crestron	TPS-4000	Isys 10.4" Tilt Touchpanel; includes TPS-IMPC and 15 ft cable	\$3,240.00	\$6,480.00
2	Crestron	MPS-300	Multimedia Presentation System 300 - 2 video, 3 RGB, 3 QM, 5 program audio, & 2 mic inputs; 1 video/RGB output; 2 QM outputs + 1 QM/CH touchpanel output; discrete program, speech, & record audio outputs; stereo amplifier; digital audio processor; 8-channel mic mixer; 8x7 video matrix; 2-Series control system	\$4,320.00	\$8,640.00
2	Crestron	QM-RX	QuickMedia Receiver	\$877.50	\$1,755.00
2	Crestron	CNPWS-75	Cresnet Power Supply, 75 Watts	\$303.75	\$607.50
2	Tripp Lite	SMART500RT1U	500VA 1U Rack Mount 6 Output UPS	\$215.99	\$431.98
4	Panasonic	UB-8325	Electronic Whiteboard	\$2,801.25	\$11,205.00
8	Panasonic	KX-B035	Marker and Eraser Kit	\$17.89	\$143.12
4	Panasonic	KX-B063	Wall Mounting Kit	\$47.25	\$189.00
1	NSI	LBR	Installation, Set-up, Programming, Testing, & Misc Materials	\$11,850.00	\$11,850.00
8	Labor	SysTrn	System Training	\$67.50	\$540.00
SubTotal					\$117,112.71
1	Shipping	Shipping	Shipping & Handling Charges	\$175.00	\$175.00
Grand Total:					\$117,287.71

Accepted By _____

Title _____

Date _____

Please call me if I can be of further assistance.

Respectfully,

A handwritten signature in black ink, appearing to read "Andrew Ramsey". The signature is fluid and cursive, with a long, sweeping tail on the final letter.

Andrew Ramsey
AV System Sales
WV Lic# WV042038



COST SUMMARY

Sold To:

Quote # AKDYQ1768
 Date 05/09/11
 Sales Rep aramsey

WV DMV
 Frank Whittaker
 1317 Hansford St.
 Charleston, WV 25311

Ship To:

Qty	Manufacturer	Part Number	Description	Unit Cost	Ext. Cost	Ext. Price
3	Sanyo	PDG-DHT8000L	8000 ANSI Lumens, HD (1920x1080) resolution, 7500:1 Contrast ratio, Power Zoom/Focus/Lens Shift, no lens	\$11,495.00	\$34,485.00	\$46,554.75
3	Sanyo	LNS-T50	Long Zoom Power Lens, 3.0-5.5:1 (DET100L) 2.8-5.0:1 (DHT100L/DHT8000L) remote control	\$4,995.00	\$14,985.00	\$20,229.75
3	Sanyo	6450990199	Lightweight Variable Position Suspended Ceiling Kit	\$40.00	\$120.00	\$162.00
3	Peerless	CJM455	Universal PRG Precision Gear Projector Mount	\$62.18	\$186.54	\$251.82
3	Peerless	PRG-JUNV	CONTOUR, 119D 58X104NPA MW	\$129.28	\$387.84	\$523.59
2	Da-Lite	88393L	RF REMOTE KIT	\$708.00	\$1,416.00	\$1,911.60
2	Da-Lite	98662	Compact Lectern	\$143.00	\$286.00	\$386.10
2	Spectrum	55218	Flip up Shelf	\$1,049.00	\$2,098.00	\$2,832.30
2	Spectrum	55219	Shelf	\$219.00	\$438.00	\$591.30
4	Spectrum	97505	Riser Podium	\$143.00	\$572.00	\$772.20
2	Spectrum	95002	Extra Keys	\$149.00	\$298.00	\$402.30
2	Spectrum	55142	Instructor's Stool	\$5.00	\$10.00	\$13.50
1	Spectrum	38245	DVD/VCR Combo Player	\$296.00	\$296.00	\$399.60
2	Toshiba	SD-V296	Isys 10.4" Tilt Touchpanel; includes TPS-IMPC and 15 ft cable	\$89.00	\$178.00	\$240.30
2	Crestron	TPS-4000	Multimedia Presentation System 300 - 2 video, 3 RGB, 3 QM, 5 program audio, & 2 mic inputs; 1 video/RGB output; 2 QM outputs + 1 QM/CH touchpanel output; discrete program, speech, & record audio outputs; stereo amplifier; digital audio processor; 8-channel mic mixer; 8x7 video matrix; 2-Series control system	\$2,400.00	\$4,800.00	\$6,480.00
2	Crestron	MPS-300	QuickMedia Receiver	\$3,200.00	\$6,400.00	\$8,640.00
2	Crestron	QM-RX	Cresnet Power Supply, 75 Watts	\$660.00	\$1,300.00	\$1,755.00
2	Crestron	CNPWS-75	500VA 1U Rack Mount 6 Output UPS	\$225.00	\$450.00	\$607.50
2	Tripp Lite	SMART500RT1U	Electronic Whiteboard	\$159.99	\$319.98	\$431.98
4	Panasonic	UB-8325	Marker and Eraser Kit	\$2,075.00	\$8,300.00	\$11,205.00
8	Panasonic	KX-B035		\$13.25	\$106.00	\$143.12

Qty	Manufacturer	Part Number	Description	Unit Cost	Ext. Cost	Ext. Price
4	Panasonic	KX-B063	Wall Mounting Kit	\$35.00	\$140.00	\$189.00
96	Labor	Installation	Installation	\$55.00	\$5,280.00	\$7,920.00
8	Labor	SysTest	System Testing	\$45.00	\$360.00	\$540.00
16	Labor	Prog	Programming	\$60.00	\$960.00	\$1,440.00
8	Labor	Misc	Misc materials	\$100.00	\$800.00	\$1,200.00
2	Cresstron	CRESCAT-QM-NP-SP500	QuickMedia@ Cable, Low-skew CAT5e & Cresnet, non-plenum, 500 ft spool	\$250.00	\$500.00	\$750.00
8	Labor	SysTrn	System Training	\$45.00	\$360.00	\$540.00
1	Shipping	Shipping	Shipping & Handling Charges	\$175.00	\$175.00	\$175.00

SubTotal	86,007.36	\$117,287.71
Sales Tax		\$0.00
Shipping		\$0.00
Totals		\$117,287.71

Order Statistics:	
Markup	1.36
Profit Amount	\$31,280.35
Profit Percent	26.67

This document contains confidential information and is intended for internal company use only. Disclosure of this information to parties outside Newtech Systems, Inc. is prohibited.



S Y S T E M S . I N C

420 16th Street • PO Box 310
Dunbar, WV 25064
Phone 304-766-0000 Fax 304-766-0003

May 16, 2011

WV DMV
1317 Hansford St.
Charleston, WV 25311

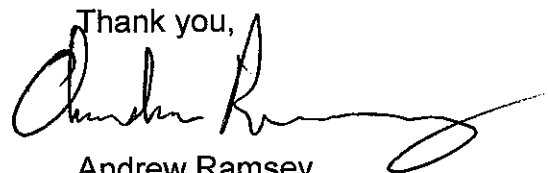
RE: Delivery Timeline

Pursuant to the requirement listed in RFQ #DMV110150, page 11, item 6 under General Requirements we propose the following:

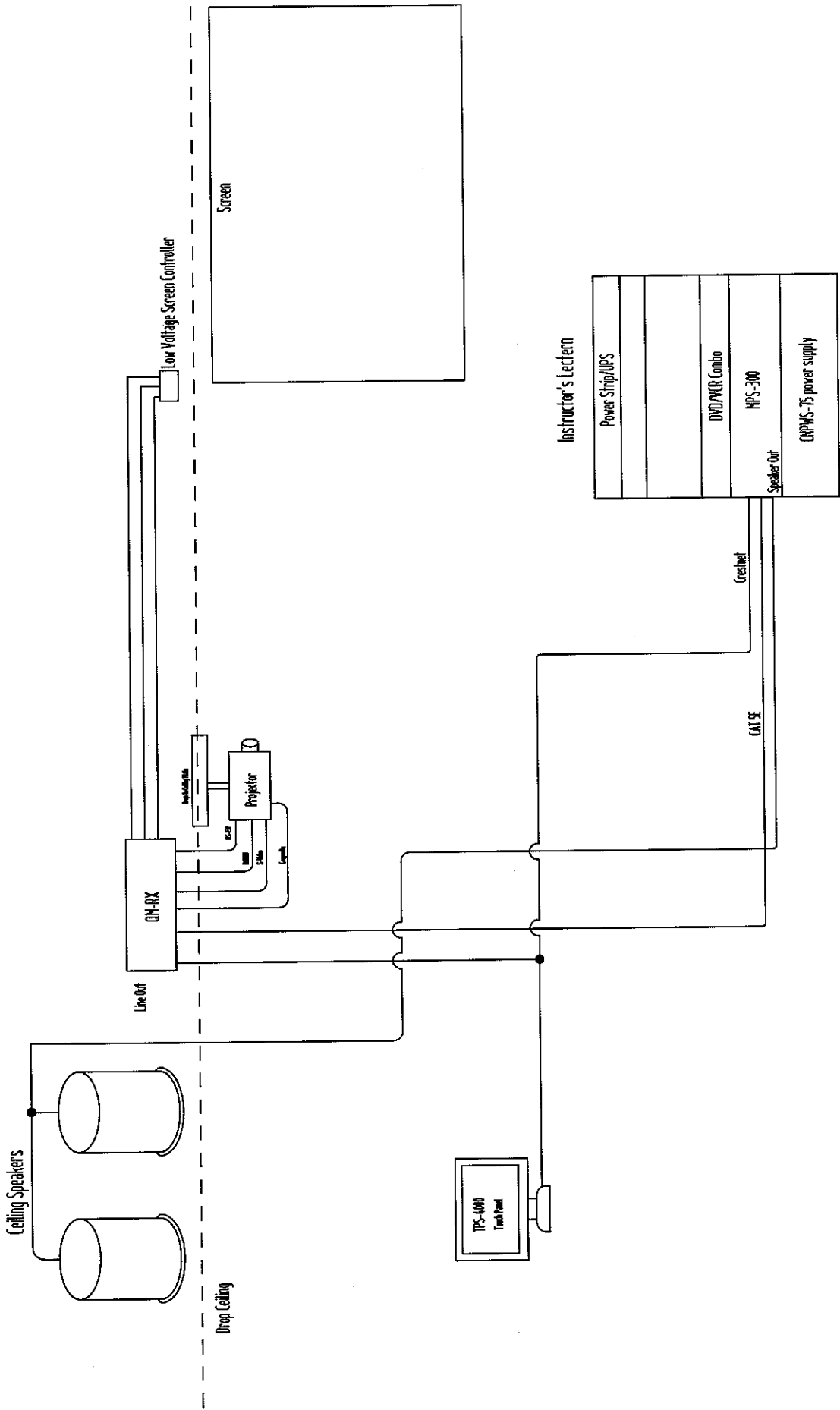
- Upon receipt of Purchase Order or Notice to Proceed equipment and materials will be ordered.
- After receipt of sufficient materials (wire, cable, mounting hardware, etc.) job mobilization will begin with coordination with Owner to schedule access to spaces requiring work. [21 to 28 days]
- Once scheduling is completed, work will begin with installation of wiring, cabling, and relevant hardware. [5 to 7 days]
- Upon receipt of remainder of equipment conduct scheduling with Owner for completion of installation. [5 to 10 days]
- Complete installation, programming and testing of equipment in coordination with Owner granting access to required spaces. [5 to 10 days]
- Coordinate training with Owner [1 day]

The above timeline may be subject to changes and delays beyond NewTech Systems, Inc. control including but not limited to:

- Availability of equipment from manufacturer(s)
- Shipping delays, strikes, layoffs, etc.
- Owners discretion

Thank you,


Andrew Ramsey
System Sales



05-01-2011
 AV SYSTEM RISER
 KAWAUKA CITY
 AV SYSTEM RISER
 JOB: 1
 SHEET: 1

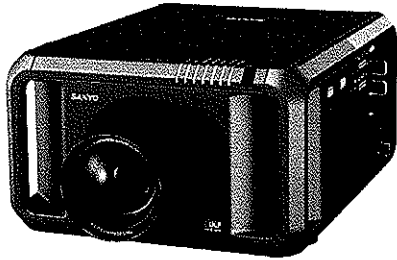
420 16th PO BOX 310
 DUNBAR, WV 26004
 Phone: (804) 766-0000
 Fax: (804) 766-0003

NEWTECH
 SYSTEMS INC.

8000 LUMENS • 1080P HD • HIGH BRIGHTNESS DLP® PROJECTOR

PDG-DHT8000L

1080P HD HIGH BRIGHTNESS DLP® PROJECTOR



DLP®



Built-in Network



Active Maintenance Filter System



Optional Lens System



Lamp Management System



X-Y Power Len Shift

8,000 LUMENS AND FULL HD VIDEO FOR A HIGH BRIGHTNESS AND SUPERIOR IMAGE
This projector is designed to handle 1080p HD (1920 x 1080) high quality resolution image projection. Attention to detail and accuracy allows use of the projector in more demanding situations, such as specialized design fields or CAD applications. The PDG-DHT8000L has two different types of user-changeable color wheels. A 6 segment color wheel provides rich color reproduction and a 4 segment wheel offers higher brightness.

DUST-RESISTANT SEALED OPTICAL ENGINE WITH PELTIER COOLING SYSTEM FOR SILENT, AND HIGHLY DURABLE PROTECTION

The new sealed optical engine uses a peltier element. It cools the DLP® chip silently and it reduces fan noise. The cooling system design prevents dust build-up while maintaining optimal brightness and contrast.

HIGHLY DURABLE ACTIVE MAINTENANCE FILTER (AMF) SYSTEM

The AMF can block dust and rotate automatically by monitoring intake air volume. When the filter is clogged, a new filter automatically advances up to 10 times. This cartridge can be used up to 35000 hours (Eco mode).

ADDITIONAL FEATURES FOR VERSATILE INSTALLATION

Equipped with 'Edge Blending Function' that allows what feels like boundary-less images with multi-image display possibilities. Built-in 'Color Matching' function correcting variations in color reproduction when using more than one projector. Capable of projecting two images simultaneously either using built-in picture-in-picture mode or picture-by-picture mode.

24/7 FEATURE "LAMP INTERVAL FUNCTION"

The lamp interval" function can be used to automatically switch the lamp that is turned on to an alternate lamp after a programmable period of time in order to reduce the initial lamp deterioration. A user can select from [Off/Auto/200h/500h/1000h/2000h] or 24h" interval time, and rotate each lamp for 24/7 usage.

LENS OPTIONS

Model	Type (Zoom)	U/D Ratio	Throw Ratio	F Stop
LNS-W52	Short (Fixed)	1:1	0.8:1	2.0
LNS-W53	Short (x1.48)	21:-1 ~ -1:21	1.2 ~ 1.8:1	2.4 ~ 2.7
LNS-W51	Short (x1.25)	6.65:-1 ~ -1:6.65	1.2 ~ 1.5:1	2.3 ~ 2.7
LNS-W50	Short (x1.20)	6.65:-1 ~ -1:6.65	1.5 ~ 1.8:1	2.0 ~ 2.1
LNS-S51	Standard (x1.56)	21:-1 ~ -1:21	1.8 ~ 2.8:1	2.0 ~ 2.7
LNS-S50	Standard (x1.56)	6.65:-1 ~ -1:6.65	1.8 ~ 2.8:1	2.0 ~ 2.6
LNS-T50	Long (x1.80)	6.65:-1 ~ -1:6.65	2.8 ~ 5.0:1	2.0 ~ 2.9
LNS-T51	Ultra Long (x1.87)	6.65:-1 ~ -1:6.65	4.8 ~ 8.0:1	2.3 ~ 3.2

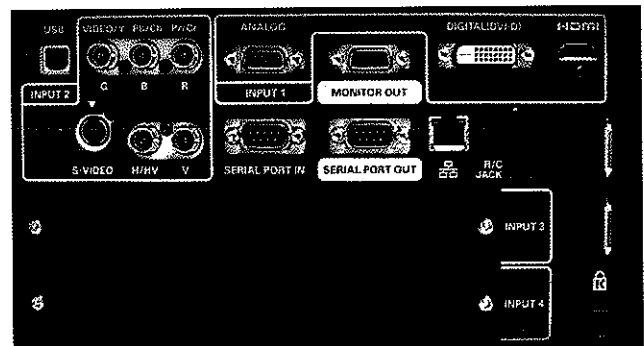
PRESENTATION TECHNOLOGIES

21605 Plummer Street
Chatsworth, CA 91311
Ph: 888-337-1215 (toll-free)
Fax: 818-717-2719
www.sanyoprojectors.com

Resolution	1080p HD (1920 x 1080)	
Brightness (typical)	8000 Lm	
Contrast Ratio (Full on /off)	7500:1	
Image Size	50"~600"	
Aspect Ratio	16:9	
Projection Lamp	330W	
Scanning Frequency	H:15-120kHz, V:48-120Hz	
Fan Noise	35 dBA (Eco)	
Voltage	100-240V	
Power Consumption	789W (Eco)	
Input signal compatibility	WUXGA, UXGA, WSXGA+, SXGA+, SXGA, WXGA, XGA, SVGA, VGA, MAC 1080p/psf/i, 720p, 575p/i, 480p/i	
Color System	NTSC/PAL/SECAM/NTSC4.43/PAL-M/PAL-N	
Up / Down Ratio	Dependent on lens	
Digital Keystone Correction	V +/- 30°, H +/- 30°	
Speaker Output	N/A	
Weight (lbs)	43.2 lbs (without Lens)	
Dimensions (inch) W,H,D	15.7 x 9.5 x 20.6	
Replacement Lamp	# 610 350 6814	
Replacement Remote	# 645 099 0199	
Replacement AMF Cartridge	POA-FIL090	
Lamp Life* (hours)	3000h (Eco)	
Input	PC/Video	DVI-D x 1 (HDCP), HDMI x 1(v1.3 with Deep Color) D-sub 15 x 1 (RGB, Scart RGB) 5BNC x 1 (G B R H/V V) (Video/Y Pb/Cb Pr/Cr) Mini DIN 4pin x 1 (S-Video)
	Audio	none
Output	PC/Video	D-sub 15 x 1
	Audio	none
Other Feature	D-sub 9-pin x 1 (Control port), USB (type B) x 1 RJ-45 x 1 (Wired LAN), interface board slot x2 Mini jack x 1 (Wired R/C)	
Included Accessories	6-seg color wheel x2 Power cable RGB cable Remote control	Owner's manual(cd-rom) Network Owner's manual PIN code label AA battery x 2
Optional Interface Board	POA-AMD23ADI POA-AMD25VD3 POA-AMD17SDID	(DVI/D-Sub15 interface) (5BNC/S-Video interface) (HD/SD-SDI interface)
Warranty	Three years parts and labor; 90 days original lamp; Quick Repair Program under warranty	

Because its products are subject to continuous improvement, SANYO reserves the right to modify product design and specifications without notice and without incurring any obligations.

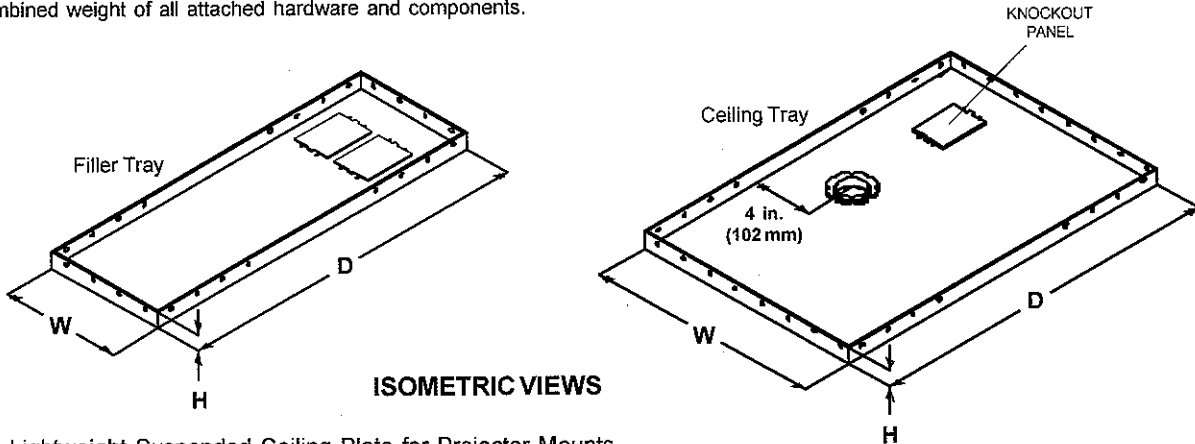
* Lamp life may vary due to room conditions, usage, and maintenance. The replacement time is a general estimate. The brightness of a lamp usually decreases over time and use.



Back Panel

Lightweight Suspended Ceiling Tray for Projector Mounts			Dimensions	Width	Depth	Height
Weight	Shipping Weight	*Maximum Load	Ceiling Tray	15.75" (400 mm)	24" (610 mm)	1" (25 mm)
13.6 lb (6.2 kg)	14.6 lb (6.6 kg)	50 lb (23 kg)	Filler Tray	8" (203 mm)	24" (610 mm)	1" (25 mm)

*Combined weight of all attached hardware and components.

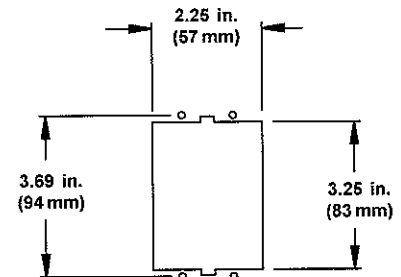


ISOMETRIC VIEWS

The Lightweight Suspended Ceiling Plate for Projector Mounts consists of an 8"(203mm) x 24"(610mm) filler tray and a 15.75"(400mm) x 24"(610mm) ceiling tray suspended by four tie wires from the true ceiling above. Turnbuckles allow the installation to be "fine tuned". The NPS threaded fitting in the ceiling tray serves as the point of attachment for a Peerless Projector Mount or other Peerless product specified as compatible with the Lightweight Suspended Ceiling Kit. Product may be attached directly or lowered with the addition of a Peerless NPS Extension Column available in several lengths. 20' (6.1m) of tie wire is provided (18 gauge annealed steel, soft, black) - enough for a 3' drop suspended ceiling. If the suspended ceiling is more than 3 feet from the true ceiling, the installer will need to obtain additional 12 gauge wire prior to installation.

Features:

- Five different projector mount attachment points
- Knockout panel for electrical outlet box (Raco 445 or Appleton 383 recommended) and antenna leads
- Scratch-resistant white fused epoxy finish



Electrical Knockout

WARNING: Weight of product not to exceed maximum load capacity of 50 lbs. (23 kg)!



This product is intended for use with UL Listed products and must be installed by a qualified professional installer.

ARCHITECTS SPECIFICATIONS

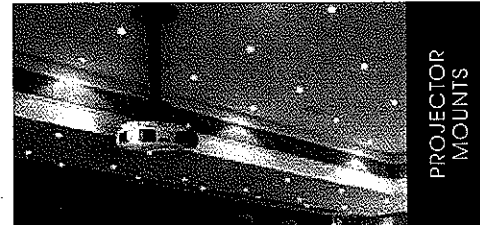
The Lightweight Suspended Ceiling Plate shall be a Peerless model CMJ455 and shall be mounted where indicated on the plans. It shall contain a ceiling tray with a NPS center threaded fitting and a knockout panel for outlet boxes (Raco 445 or Appleton 383 recommended) and antenna leads. It shall also contain a filler tray. It shall feature a tie wire support system to transfer the load to four attachment points (in the true ceiling above) with turnbuckles to fine tune the level of the ceiling tray. It shall be U.L. Listed. The finish shall be White Fused Epoxy. Assembly and installation shall be done according to instructions provided by the manufacturer.

peerless®
Peerless Industries, Inc. 3215 W. North Ave. Melrose Park, IL 60160
708-865-8870 800-865-2112 Fax 708-865-2941 www.peerlessmounts.com

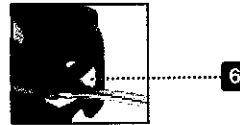
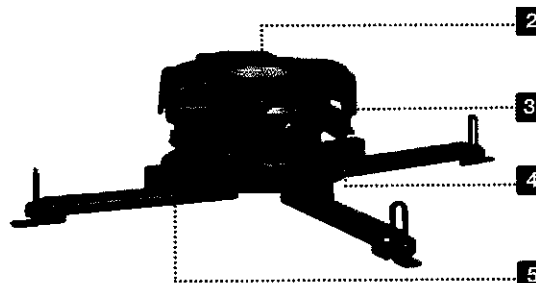
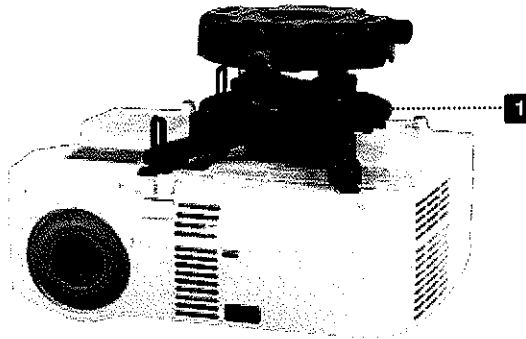
TECHNICAL DATA SHEET
Lightweight Suspended Ceiling Plate for Projector Mounts
Issued: 05-27-99 Sheet #128-9521-6 09-03-09 page 1 of 1

PRG Precision Gear Projector Mount

For Projectors up to 50 lb (22 kg)



1. Spider® Universal Adapter Plate extends up to 17.63" (448 mm) to fit most projector models
2. Cable management allows cables to be routed through projector mount and out of sight
3. Patent-pending precision gear provides ImageLock™ alignment to accurately hold image position, virtually eliminating any sag or drift
4. Two adjustment knobs control tilt and roll image alignment. Engage using a Phillips screwdriver or extend knobs to adjust by hand
5. Quick-release mechanism to easily service projector
6. Horizontal wrench access slots make flush mounting installations quick & easy
7. Pre-installed security screws provide optional tilt and roll lock to prevent tampering with adjustment knobs



MODELS

Universal Models:

Includes theft resistant hardware for attaching projector to mount

PRG-UNV	Black
PRG-UNV-S	Silver
PRG-UNV-W	White

Kitted Dedicated Models:

Includes dedicated projector adapter plate

PRG-MODELS	Black
-------------------	-------

Dedicated Models:

Projector adapter purchased separately*

PRG-1	Black
--------------	-------

* Dedicated adapter plates come in flat black and include security fasteners

PROJECTOR ADAPTER



Mounting pattern

Universal Models: Up to 17.63" (448 mm)

Kitted Dedicated Models: Includes dedicated projector adapter plate
Use MountFinder™ to verify model

Dedicated Models: Requires projector specific adapter plate to be purchased separately

SPECIFICATIONS



Tilt | Swivel | Roll

±20° | 360° (±15° when flush mounted) | ±10°



Max load

50 lb (22 kg)

Product Dimensions (W x H x D)

Universal Models: 8.5"-17.63" x 3.81"-4.81"
x 8.5"-17.63"
(216-448 x 97-122 x 216-448 mm)

Dedicated Models: 5.58" x 2.47" x 5.58"
(142 x 63 x 142 mm)

Mounting Surfaces

Wood joist, concrete and other structures
(Other structures require accessory)

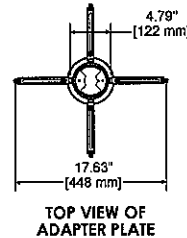
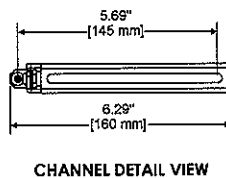
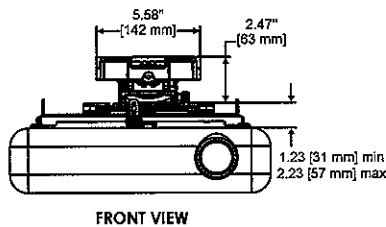
Ship Weight

Universal Models: 3.78 lb (1.72 kg)

Dedicated Models: 1.8 lb (.82 kg)

For expanded product information and technical data visit www.peerlessmounts.com

TECHNICAL DRAWINGS



To verify mount compatibility with any LCD, plasma or projector model use MountFinder™ at www.peerlessmounts.com

CLICK: www.peerlessmounts.com

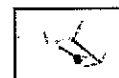
CALL: 800.865.2112

FAX: 708.865.2941

CERTIFICATIONS



ACCESSORIES



ACC, CMJ Models:
Ceiling Plates pg# 125, 127



AEC, EXT Models:
Extension Columns pg# 127



PWA-14(S)(W):
Projector Wall Arm pg# 129



EX Models:
Ceiling/Wall Extension Kits ... pg# 128

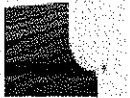
CONTOUR® ELECTROL®

Wall and Ceiling Mounted Electric Screen

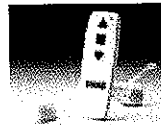
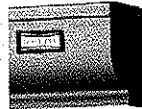
- Stylish curved aluminum extruded case designed for wall or ceiling mount installations.
- Adjustable mounting brackets make installation quick and easy.
- Built-in SCB-100, SCB-200 (RS-232 control), low voltage control, video projector interface and silent motor are available options. See page 16.



Seven veneer case finishes are optional for a warm, elegant look.



Optional graphite case finish for a more contemporary appearance.



For optional remote control operation, see options on pages 50-54.

Matte White fabric up to 10' high will be seamless. High Contrast Matte White and Video Spectra 1.5 fabrics up to 8' high will be seamless. High Power® fabric up to 6' high will be seamless.

VIDEO FORMAT

Viewing Area H x W		Nominal Diagonal		Overall Length of Case		Matte White	High Contrast Matte White	Video Spectra 1.5	High Power®
in.	cm.	in.	cm.	in.	cm.				
43" x 57"	109 x 145	72"	183	69 1/4"	177	X	X	X	X
50" x 67"	127 x 170	84"	213	79 1/4"	203	X	X	X	X
57" x 77"	145 x 196	96"	244	93 1/4"	238	X	X	X	X
60" x 80"	152 x 203	100"	254	93 1/4"	238	X	X	X	X
69" x 92"	175 x 234	120"	305	105 1/4"	269	X	X	X	X
87" x 116"	221 x 295	150"	381	129 1/4"	330	X	X	X	X
105" x 140"	267 x 356	180"	457	153 1/4"	391	X			X
120" x 160"	305 x 406	200"	508	173 1/4"	441	X			

HDTV FORMAT

Viewing Area H x W		Nominal Diagonal		Overall Length of Case		Matte White	High Contrast Matte White	Video Spectra 1.5	High Power®
in.	cm.	in.	cm.	in.	cm.				
45" x 80"	114 x 203	92"	234	93 1/4"	238	X	X	X	X
52" x 92"	132 x 234	106"	269	105 1/4"	269	X	X	X	X
54" x 96"	137 x 244	110"	279	109 1/4"	279	X	X	X	X
58" x 104"	147 x 264	119"	302	117 1/4"	299	X	X	X	X
65" x 116"	165 x 295	133"	338	129 1/4"	330	X	X	X	X
78" x 139"	198 x 353	159"	404	153 1/4"	391	X	X	X	X

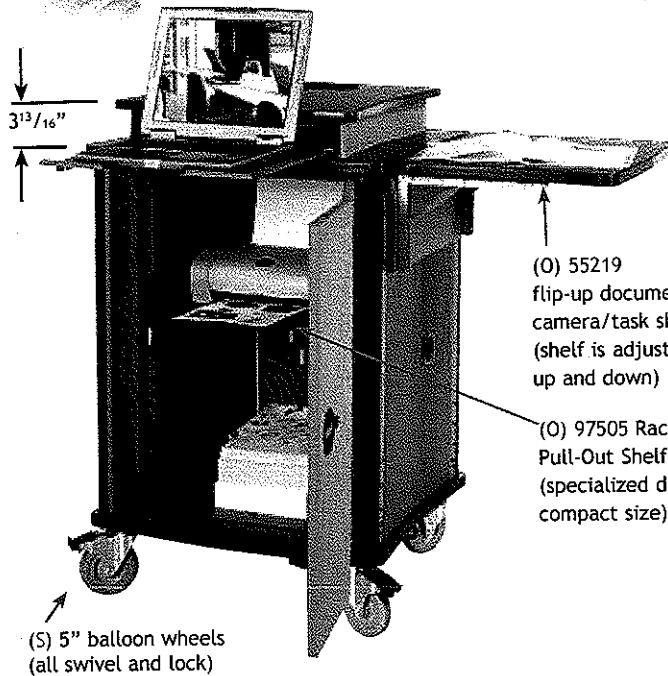
SQUARE FORMAT

Size H x W	Overall Length of Case	Matte White	High Contrast Matte White	Video Spectra 1.5	High Power®
in./ft.	cm.	in.	cm.		
50" x 50"	127 x 127	59 1/4"	152	X	X
60" x 60"	152 x 152	69 1/4"	177	X	X
70" x 70"	178 x 178	79 1/4"	203	X	X
84" x 84"	213 x 213	93 1/4"	238	X	X
6' x 8'	183 x 244	105 1/4"	269	X	X
8' x 8'	244 x 244	105 1/4"	269	X	X
7' x 9'	213 x 274	117 1/4"	299	X	X
9' x 9'	274 x 274	117 1/4"	299	X	X
8' x 10'	244 x 305	129 1/4"	330	X	X
10' x 10'	305 x 305	129 1/4"	330	X	X
9' x 12'	274 x 366	153 1/4"	391	X	X
12' x 12'	366 x 366	153 1/4"	391	X	X

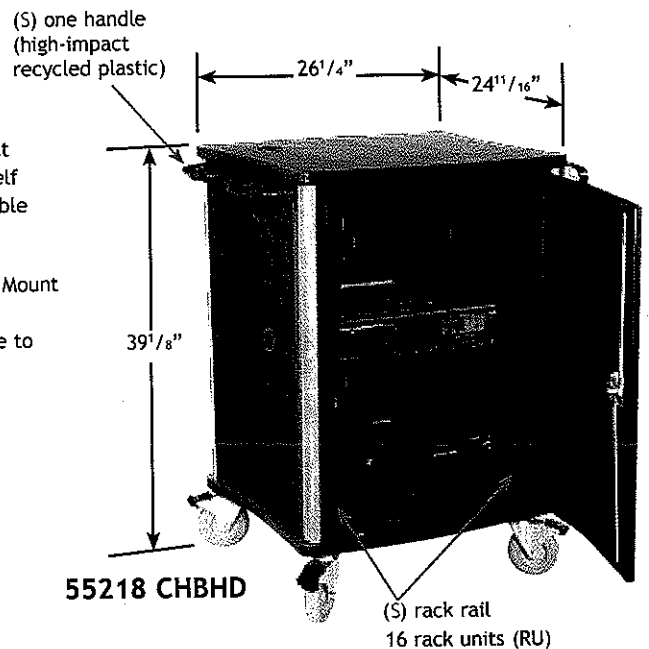
Compact Presentation Lectern (CPL)



Whether you are plugging in to the network or going wireless from a laptop for an impromptu presentation, the CPL is always ready. The 5" balloon wheels and compact size make it a breeze to push down halls and through door ways.



55217 IDHD
Shown with presenters module and optional rack mount pull-out shelf



55218 CHBHD



For additional product information, technical specifications, or pricing please call 1-800-235-1262 or email spectrum@spectrumfurniture.com for assistance.

Compact Presentation Lectern

Order information:

Compact Presentation Lectern

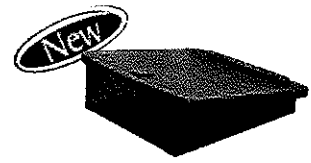
color	with out Instructor Module	with Instructor Module
Wild Cherry/Black (CHB)	55218 CHBHD	55217 CHBHD
Indigo Organix/Dark Gray (ID)	55218 IDHD	55217 IDHD
Oak/Black (KB)	55218 KBHD	55217 KBHD
Oak/Putty (KP)	55218 KPHD	55217 KPHD

100% access to the front and rear of the lectern makes it easy to install and maintain multi-media equipment.

Custom-cut logo is an option that allows you to personalize your products. The Custom-cut logo option requires a one time program fee. After the logo is set up, there is a small up-charge per logo.

Standard (S) features

- **55217 CPL** with the presenters module
 - Module dimensions are 3¹³/₁₆"H x 21"W x 23⁵/₈"D
 - Module Pull-Out Shelf dimensions are 17¹/₈"W x 15⁵/₈"D x 2⁵/₈"H
- **55218 CPL** without Presenters Module
 - Designed for indoor use only!
 - Rack rail (28" Front - 16 rack units) (19"D inside space)
 - 2-point locking system on front and rear doors
 - Width with handle and shelf down is 32"
 - 20' Retractable Cord Reel
 - 8-Outlet Power Strip
 - 5" Locking Balloon Wheels
 - Perforated panels for ventilation
 - Handle can be mounted on either side
 - Computers and peripheral equipment shown in this catalog are used to illustrate product function only
 - Meets or exceeds ANSI/BIFMA testing standards

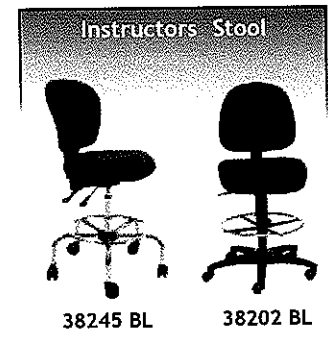


Podium Riser 95002




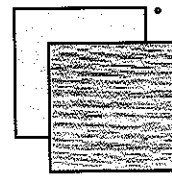
This attractive, high quality, stand alone riser will work anywhere a podium is needed. Standard color combinations are: Wild Cherry/Black (95002 CHB) Indigo Organix/Black (95002 IB)

General Options (O): (all options listed in RED are installed by customer, instructions included)

- 55141 Custom-Cut Logo Panel (an upcharge and lead time will apply)
- 55142 Replacement Key Set
- 55219 Flip-Up Document Camera/Task Shelf (21⁷/₈"D x 18"W)
 - Shelf can be mounted on either side. It mounts from flush with the work surface to 6" below the work surface.
- 95508 Anti-skid Pad (17"W x 24"D)
- 95517 Rack Mount Wire Lace Kit (for better rack rail cable management)
- 95518 Non-Slip CPU Pad (11"W x 23"D)
- 97502 3RU, Rack Mount Cantilever Shelf (17⁷/₈"D)
- 97504 2RU, Rack Mount Cantilever Shelf (17⁷/₈"D)
- 97505 Rack Mount Pull-Out Shelf (17³/₄"D)
- 97506 Rack Mount Fan Double (3RU's)
- 97507 Rack Mount Fan Single (3RU's)
- 99021 9-outlet Rack Mount Power Strip (1RU's)
- 99023 6-Outlet Power Strip (15-amp circuit breaker)
- 99024 7-Outlet Power Strip (with surge protection guarantee)
- 99026 Data Cord Reel (retractable 15' data cord)
- Custom paint colors and laminates are available. An up-charge and lead-time may apply.



Standard color combination:

 <ul style="list-style-type: none"> • Black steel • Wild Cherry laminate (CHB) 	 <ul style="list-style-type: none"> • Dark Gray steel • Indigo Organix laminate (ID) 	 <ul style="list-style-type: none"> • Black steel • Oak laminate (KB) 	 <ul style="list-style-type: none"> • Putty steel • Oak laminate (KP)
--	---	--	--



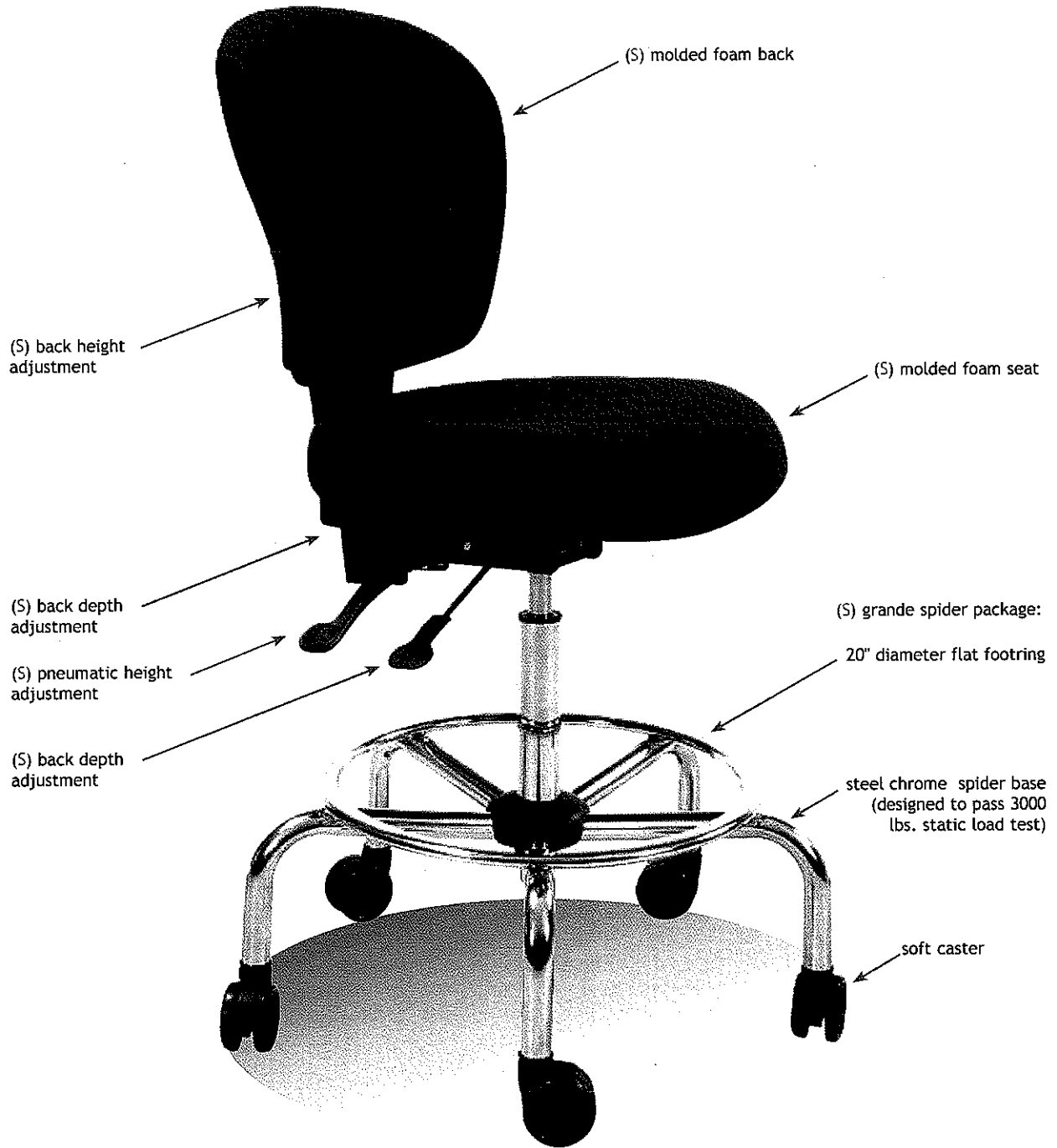
For additional product information, technical specifications, or pricing please call 1-800-235-1262 or email spectrum@spectrumfurniture.com for assistance.

Adjustable Height Stools

Drafting, Instruction, and much more

Our Executive Drafting Stool is will give you peace of mind. Peace of mind from knowing you are backed up with user-friendly control mechanisms and 12 year limited warranty.

38245 BL



SPECTRUM
INDUSTRIES INC.

For additional product information, technical specifications, or pricing please call 1-800-235-1262 or email spectrum@spectrumfurniture.com for assistance.

The design of our new drafting/instructional Stool is based upon a wish list of features that come from various Facility Managers.

Standard features:

- Pneumatic height adjustment
- Trouble-free chrome foot ring
- Easy-to-use ratchet back
- Sliding seat
- Back angle adjustment
- Oversized casters
- Basic Fabric Collection (see below)

Optional features:

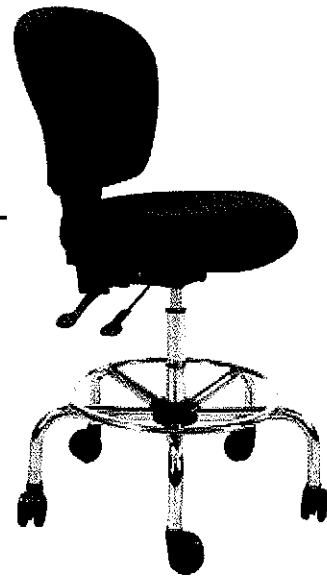
- Black Loop Arms 38219

Executive Drafting Stool

38245 Specifications:

Back 17"W x 16 1/2"H	Seat 19"W x 19"D	Seat Ht. 25" - 33"	Overall Width: 27" Overall Height: 43" - 53 1/2"
12 yr ltd warranty	Arms: Black Loop	COM 1yd	Weight 59 lbs.

The Drafting Stool seat adjusts from 25" to 33" above the floor. A pneumatic lift mechanism provides the 10" range of height adjustment. The perfect instructional height setting is only a lever pull away.



38245 BL

Standard features:

- Pneumatic height adjustment
- Pivot backrest
- Back height adjustment
- Back depth adjustment
- 18" chrome foot ring
- Basic Fabric Collection (see below)

Optional features:

- Black Loop Arms 38219

Drafting Stool

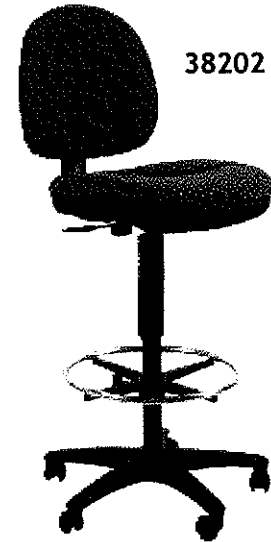
38202 Specifications:

Back 17"W x 15"H	Seat 18"W x 18"D	Seat Ht. 23" - 33"	Overall Width: 24" Overall Height: 40" - 52"
7 yr ltd warranty	Arms: Black Loop	COM 1yd	Weight 34 lbs.

The Drafting Stool seat adjusts from 23" to 33" above the floor. A pneumatic lift mechanism provides the 10" range of height adjustment. The foot rest ring can be easily adjusted for each individual.



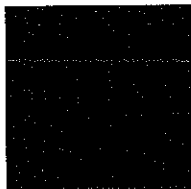
38202 BL



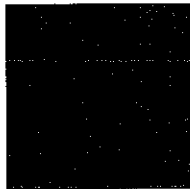
38202 HG

Basic Fabric Collection (38202 & 38245)

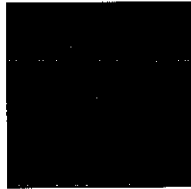
- Fabric is 100% Marquesa Lana (Polyolefin) heavy duty fiber, with a 250,000 double rub rating
- Seats and backs are filled with fire-resistant foam that meets California 117 fire rating
- Fabrics are Teflon®-coated



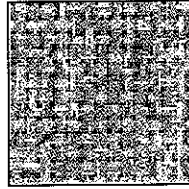
Hunter Green (HG)



Blue (BL)



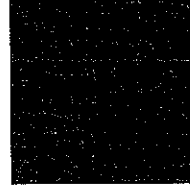
Burgundy (BU)



Light Gray (G)



Black (BK)



Dark Brown (DB)



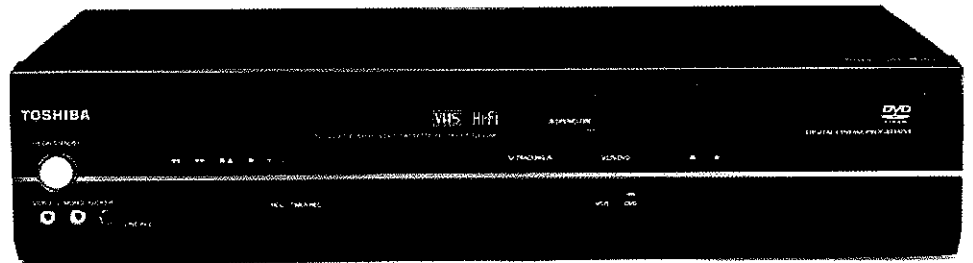
For additional product information, technical specifications, or pricing please call 1-800-235-1262 or email spectrum@spectrumfurniture.com for assistance.

TOSHIBA

Leading Innovation >>>

SD-V296
DVD/VCR Combo Player

Fitting more entertainment value into less shelf space just got easier. With a DVD/VCR combo player, you get the connectivity and features without the clutter.



ADVANTAGE

Combines the picture and sound advantages of a **progressive scan DVD player** with the convenient recording^{1,2} and playback options of a **video cassette recorder** - all in one slim chassis.

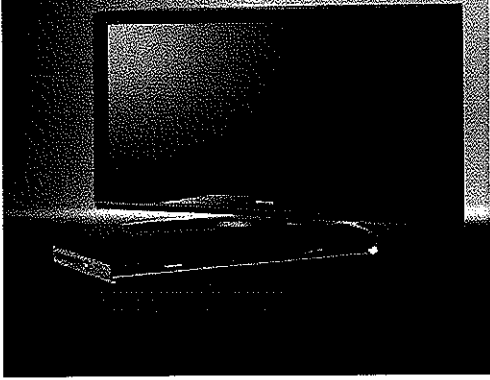
One Touch Recording for the VCR provides a simple and convenient way to make a recording. Simply connect your DVD/VCR to your cable or satellite box and then to your monitor/TV and you are set to record a tape with the push of one button!

ColorStream Pro® Progressive Scan Component Video Outputs compatible with today's finest analog and digital televisions for delivery of stunningly colorful images.

Simultaneous DVD playback and VHS Record for watching a DVD while recording a TV program.

JPEG Viewer³ enables a user to display digital photographs on a television set in the JPEG digital format.

PRELIMINARY



SD-V296

Specifications

PLAYABLE DISC TYPES

DVD-Video/DVD-R/DVD
RW/CD/CD-R/CD-RW/VCD

DVD VIDEO

Video D/A Converter	108MHz/14-Bit
Component Video Output	ColorStream Pro®
Progressive Scan	•
JPEG Viewer	•
Digital Picture Zoom	•
Fast Scan	•
Slow Motion	•
Multi-Camera Angle Select	•
Multi-Language Select	•
Multi-Subtitle Select	•

DVD AUDIO

Audio D/A Converter	192kHz/24-Bit
Dolby® Digital/DTS® Compatible	•
3D Surround Sound	•

DVD CONVENIENCE

Parental Lock	•
---------------	---

VCR VIDEO

Video Heads	4
Record Speeds	SP/SLP (EP)
SQPB	•

VCR AUDIO

Hi-Fi VHS Stereo	•
------------------	---

VCR CONVENIENCE

Commercial Skip	•
OSD Language	English/French/Spanish
Remote Control	DVD/VCR Remote
Hi-speed Rewind	•

TERMINALS

ColorStream Pro® Component	•
Video Outputs	1 rear - DVD only
S-Video Out	1 rear - DVD only
RCA-Video Out	1 rear - both
RCA-Video In	1 front & 1 rear
L-R Audio Out	1 rear
L-R Audio Inputs	1 front & 1 rear
Coaxial Digital Audio Output	1 (DVD only)

PRODUCT & PACKAGING

Unit Dimensions (WHD) in.	17.13 x 3.7 x 9.17
Carton Dimensions	21.22 x 7.17 x 13.46
Unit Weight	5.94 lbs
Carton Weight	7.7 lbs
UPC Code	022265001844

¹External tuner source required to record television programming.

²This product is not made or sold for unauthorized use of copyrighted works, and it is only intended for recording and playback of authorized content and any other lawful use.

³Some DVD-R/DVD-RW and CD-R/CD-RW discs may be incompatible due to laser pick up and disc design. CD-R/CD-RW discs must be recorded using CD-DA method for CD audio playback. The DVD player may not support some MP3/WMA/JPEG/DivX recordings due to differences in recording formats, disc structure, or condition of the disc (use of CD-RW for MP3 files is not recommended). See owner's manual for more information.

<http://www.tacp.toshiba.com> Customer Solutions: 800.631.3811
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DTS is a registered trademark & the DTS logos and Symbol are trademarks of DTS, Inc. DivX, DivX Certified, and associated logos are trademarks of DivX, Inc. and are used under license.

Product design and specifications subject to change or modification without notice.

TPS-4000

Isys® 10.4" Tilt Touchpanel

The Isys TPS-4000 presents a stylish state-of-the-art touchpanel solution complete with integrated video and audio. A vibrant 640 x 480 10.4" touchscreen display delivers exceptional graphical performance to support a host of control applications.

Crestron touchpanels offer an ideal user-interface for multimedia presentation, videoconferencing, lighting, climate control, and much more, providing a wide-open canvas for the creation of custom control screens perfectly tailored to the needs of the end-user. Touchpanels do away with piles of remote controls, cryptic front panels, and cluttered wall switches, affording true "one-touch" control over a broad range of complex devices and systems.

Isys®

Isys power and beauty are infused throughout Crestron's entire touchpanel lineup. Under the hood, the Isys engine produces astonishing full-color graphics with lightning-fast performance and incredible versatility. A 32-bit Freescale ColdFire® Microprocessor combines with an ingenious and ultra efficient operating system to support high-resolution graphics and images, dynamic text, full-motion video, animations, multimode objects (buttons, frames, gauges, and sliders), popup/dropdown subpages, and more.

Synapse™

Crestron's exclusive Synapse Image Rendering Algorithm enables system programmers to produce amazing graphics - faster and easier. Advanced antialiasing delivers crisper, sharper objects and text. Enhanced 3D effects add new depth and style. And because Synapse is native to the touchpanel, memory requirements and upload time are substantially reduced.

Video with Advanced Gamma Correction

Video capability is standard in the TPS-4000, accepting any NTSC/PAL composite or S-Video source, scalable for display in any sized window or full screen. Advanced gamma correction ensures accurate color reproduction.

Built-in Audio

Audio features include built-in amplified stereo speakers, volume control, line-level stereo input, and a microphone with automatic gain control and line-level output. The speakers may be used to amplify signals from TV and video sources, or to support programmable intercom functionality in combination with the microphone. Customized WAV files can be loaded on the touchpanel to add dimension to the touchscreen graphics with personalized sounds, button feedback, and voice prompts.

Cresnet®

Cresnet communication ensures compatibility with Crestron's complete product line.

Tiltcase Design

The TPS-4000 features an ergonomic tiltcase design that is easily adjustable for any angle of inclination between 30 and 80 degrees. Numerous versatile wiring and mounting options are also available.



- > Isys Graphics Engine
- > Synapse Image Rendering Algorithm
- > High-Performance Video with Gamma Correction
- > Built-in Amplified Speakers and Microphone
- > Cresnet Communications
- > Versatile Tiltcase Design

SPECIFICATIONS

Touchscreen Display

Display Type: TFT Active matrix color LCD
Size: 10.4 inch (26.4 cm) diagonal
Aspect Ratio: 4:3 VGA
Resolution: 640 x 480 pixels
Brightness: 450 nits (cd/m²)
Contrast: 600:1
Color Depth: 18-bit, 256k colors
Illumination: Edgelit fluorescent
Viewing Angle: ±70° horizontal, +45°/-55° vertical
Touchscreen: Resistive membrane

Processor

CPU: 32-bit Freescale ColdFire® Microprocessor

Memory

DRAM: 8 MB
Flash: 8 MB
Maximum Project Size: 7 MB

Graphic Engine

Isys engine; 16-bit non-palette graphics; 65,536 colors; Synapse image rendering algorithm; multi-mode objects, color key video windowing

> 10.4" Active Matrix Touchscreen Display

> 640 x 480 Resolution

TPS-4000 Isys® 10.4" Tilt Touchpanel

Video

Signal Types: Auto-detecting composite/S-Video

Formats: NTSC 480i or PAL 576i

Color Depth: 18-bit; 262,144 colors

Features: Single-window scalable to full-screen, gamma correction

Audio

Hardware Features: Built-in microphone with defeatable AGC, built-in amplified stereo speakers, headphone output, internal volume control and audio mixer

Audio Feedback (WAV): 8-bit PCM, mono, 8 kHz sampling rate

Amplification: 2 Watts per channel for built-in stereo speakers

Connectors

NET/VIDEO: (1) 10-pin RJ45 female, shielded;

Connects to interface module via 15 foot "siamese" cable provided;

Contains Cresnet data, 24 Volts DC power, ground, and video signals

AUDIO: (1) 8-pin RJ45 female, shielded;

Connects to interface module via 15 foot "siamese" cable provided;

Contains stereo audio input and mic out signals

RS-232: (1) 6-pin RJ11 female;

Serial connection to PC for loading screen files;

Touchscreen output to PC or Telestrator;

Bidirectional RS-232 up to 115.2k baud;

Hardware and software handshaking support

HEADPHONES: (1) 3.5 mm TRS mini phone jack;

Connects to stereo headphones (not included);

Output Power: 12mW;

Minimum Impedance: 32 ohms

Power Requirements

22 Watts (0.92 Amp @ 24 Volts DC);

PW-2420RU power supply sold separately

Cresnet Power Usage : 22 Watts (0.92 Amp @ 24 Volts DC)

If power is applied to the 24VDC jack and the NET port (on TPS-IMPC) simultaneously, power will be drawn from whichever is highest.

Environmental

Temperature: 50° to 113°F (10° to 45°C)

Humidity: 10% to 90% RH (non-condensing)

Enclosure

Construction: High impact black/silver injection-molded case

Screen Tilt: Adjustable 30 to 80 degrees

Dimensions

Height: 10.03 in (25.48 cm)

Width: 10.96 in (27.83 cm)

Depth: 9.32 in (23.67 cm)

Weight

4.66 lbs (2.11 kg)

Available Models

TPS-4000: Isys 10.4" Tilt Touchpanel

Included Accessories

TPS-IMPC Interface Module + 15 ft siamese cable [Included Quantity: 1]

Available Accessories

CRESCAT-D-NP-SP500: Crestron Home® CAT5 AV Cable, 2x CAT5e & Cresnet, non-plenum, 500 ft spool

CRESNET-HP-NP-TL-SP1000: Cresnet® "High-Power" Control Cable, non-plenum, teal, 1000 ft spool

CRESNET-HP-NP-TL-SP500: Cresnet® "High-Power" Control Cable, non-plenum, teal, 500 ft spool

CRESNET-NP-BK-B500: Cresnet® Control Cable, non-plenum, black, 500 ft box

CRESNET-NP-OR-B500: Cresnet® Control Cable, non-plenum, orange, 500 ft box

CRESNET-NP-TL-B250: Cresnet® Control Cable, non-plenum, teal, 250 ft box

CRESNET-NP-TL-B500: Cresnet® Control Cable, non-plenum, teal, 500 ft box

CRESNET-NP-TL-SP1000: Cresnet® Control Cable, non-plenum, teal, 1000 ft spool

CRESNET-NP-TL-SP500: Cresnet® Control Cable, non-plenum, teal, 500 ft spool

CRESNET-NP-YL-B500: Cresnet® Control Cable, non-plenum, yellow, 500 ft box

CRESNET-P-BK-SP500: Cresnet® Control Cable, plenum, black, 500 ft spool

CRESNET-P-OR-SP500: Cresnet® Control Cable, plenum, orange, 500 ft spool

CRESNET-P-TL-SP1000: Cresnet® Control Cable, plenum, teal, 1000 ft spool

CRESNET-P-TL-SP500: Cresnet® Control Cable, plenum, teal, 500 ft spool

CRESNET-P-YL-SP500: Cresnet® Control Cable, plenum, yellow, 500 ft spool

HBK-3000: Hatchback Rear Cover

PW-2420RU: Power Pack, Desktop, 24VDC, 2A (50 Watts), Regulated, US/International

SMK-3000: Swivel Mount Kit & Rear Cover

ST-PK: Programming Cable Kit

TPS-4500IMPC: Interface Module, no Audio

TPS-CBL-3: Interface Cable, 3 ft

TPS-CBL-6: Interface Cable, 6 ft

TPS-CBL-9: Interface Cable, 9 ft

TPS-CBL-S3: Siamese Interface Cable, 3 ft

TPS-CBL-S6: Siamese Interface Cable, 6 ft

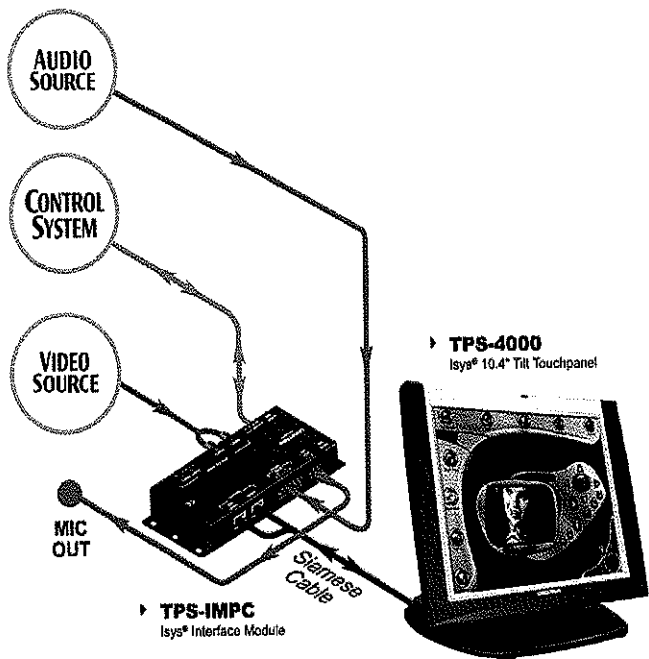
TPS-CBL-S9: Siamese Interface Cable, 9 ft

TPS-IMW: Wall Mount Interface Module

TPSBLOCK-10: Panel Mount 10-pin Connector Solution

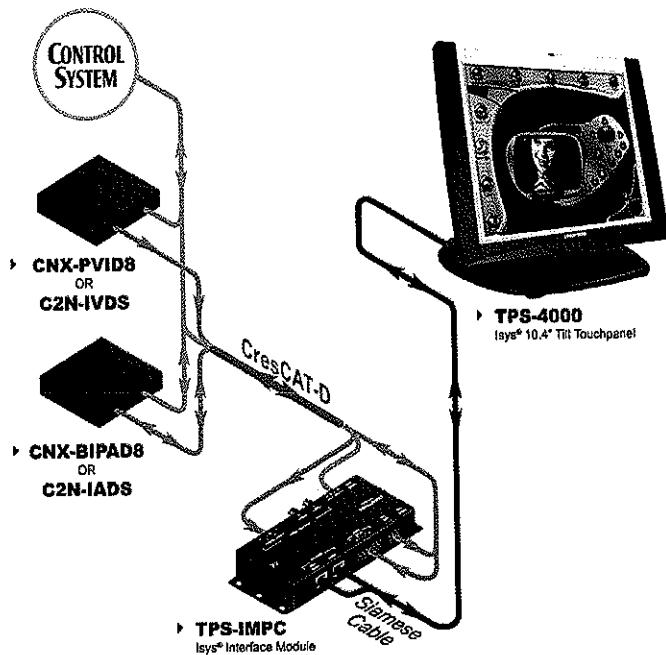
TPS-4000 Isys® 10.4" Tilt Touchpanel

TPS-4000 using conventional AV sources



- Color Key**
- Control
 - Video
 - Audio
 - CAT5E
 - Cresnet
 - LAN
 - RGB
 - CresCAT

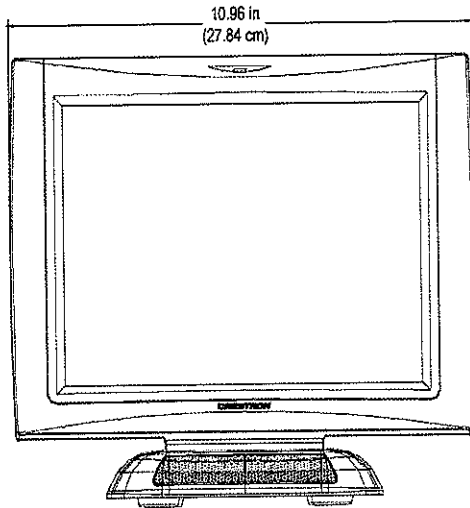
TPS-4000 in a CH CAT5 AV Distribution System



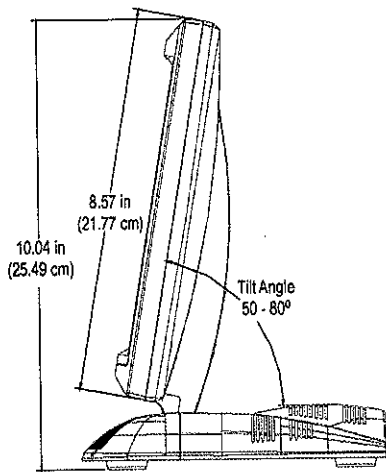
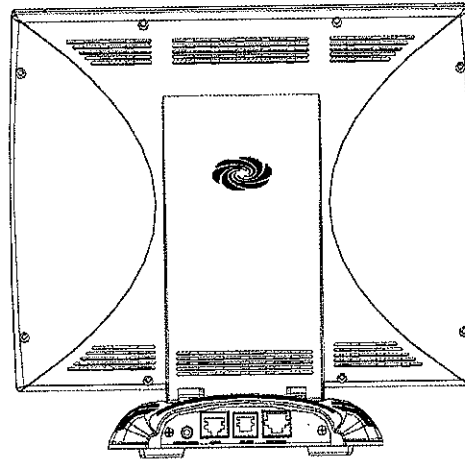
- Color Key**
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 - Cresnet
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 - RGB
 - CresCAT

TPS-4000 Isys® 10.4" Tilt Touchpanel

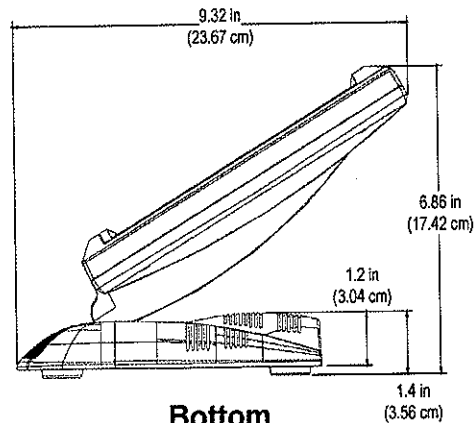
Front



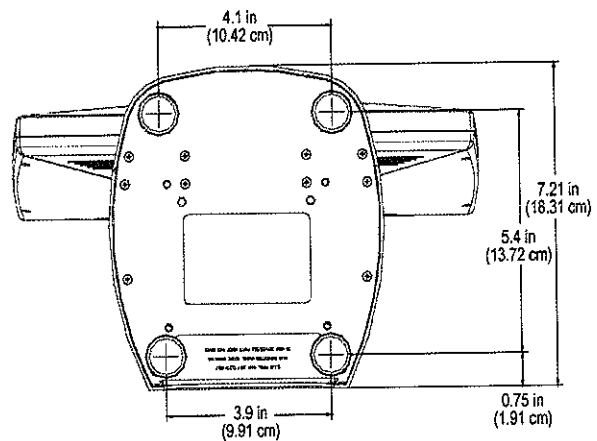
Back



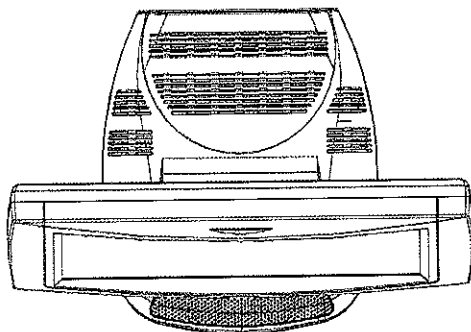
Side



Bottom



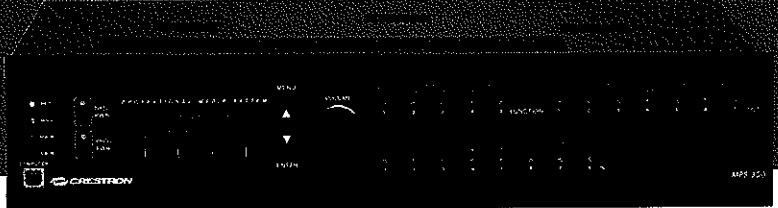
Top



Crestron MPS-300

MediaManager

Multimedia Presentation System 300



- > System switcher, audio processor, and control system
- > Out-of-the-box switching and audio control
- > 2 video/HDTV and 3 RGB/computer inputs
- > 3 QuickMedia inputs with delay skew compensation
- > Built-in input signal sensing / auto-switching capable
- > Discrete composite, S-Video, component, and RGB outputs
- > NEW! RGB Pass-thru mode for easy integration with DigitalMedia
- > 3 QuickMedia and 1 Crestron Home CAT5 AV outputs
- > 5 balanced stereo audio inputs
- > 2 gated mic inputs with compressor & limiter
- > 8-channel mic mixing w/4-band EQ per channel
- > Separate program, speech, and record outputs
- > Graphic and parametric equalization / 40mS audio delay
- > Built-in 40 watt amplifier — stereo, 70V, or 100V models
- > 2-Series control engine / e-Control 2 Web server
- > 10/100 Ethernet / RoomView and SNMP support
- > 2 RS-232, 4 IR, 4 digital in, & 4 relay control ports
- > Front panel setup and control / Backlit LCD display
- > Keypad, touchpanel, and wireless control options
- > Internal power supply / 2-space rack-mountable

The MPS-300 is a complete presentation control and signal routing solution for boardrooms and classrooms. Integrating the control system, multimedia matrix switcher, mic mixer, audio processor, amplifier, and QuickMedia distribution center all into a single 2-space rackmount package, the MPS-300 affords considerable signal routing versatility and high-performance signal processing without the need for separate components.

System Switcher—Right out of the box, the MPS-300 provides high-performance switching of 2 video and 3 RGB computer sources to a single projector or flat-panel display. Composite, S-Video, component and RGBHV signals can be routed to the appropriate inputs on the display device, with control of the display provided via Ethernet, RS-232 or IR. Input signal sensing is provided on every video and RGB input to enable auto-switching functionality and provide device power status information to the control system. Selectable sync impedance on the RGB inputs helps accommodate cable runs of varying lengths.

Versatile matrix switching inside the MPS-300 actually affords some additional hidden signal routing flexibility, providing discrete switchable outputs for RGB, composite, S-Video, and component signals. For instance, Outputs 1 and 2 can function as separate composite and S-Video outputs, or as a single component output; Output 3 can be a single component, S-Video, or composite output; and Output 4 can be used for either RGB or component. Each output is fed by a separate matrix crosspoint, so they all can be active simultaneously and assigned any relevant input source.

NEW! RGB Pass-thru mode provides a quick path to integration with the groundbreaking Crestron DigitalMedia™ system. With just a single 15-pin VGA cable connected to a DM-MD6X1 DigitalMedia switcher, DMC-DVI input card, or any other DM product with an RGB input, the MPS-300 automatically routes whatever video signal is selected — whether RGB, component, S-Video, or composite — allowing seamless conversion to digital for distribution to HDTV displays and projectors throughout your facility.

QuickMedia® Matrix—In addition to its conventional type video inputs and outputs, the MPS-300 accommodates additional sources and display devices via the Crestron exclusive QuickMedia (QM) transport. Three QM inputs accept

connections from QM Wali Plates, FlipTop Boxes, and Distribution Centers, providing an abundance of additional inputs for AV, computer, and microphone sources. Three QM outputs are also provided, each independently controllable to feed multiple displays and other devices.

QuickMedia provides a very streamlined, low-cost, long-distance wiring solution. The QuickMedia transport transmits high-resolution RGB, HD video, stereo program and microphone audio signals up to 450 feet over a single inexpensive CAT5e type cable[®]. Just one CresCAT-QM cable and a QM receiver are all that is required for complete signal routing and device control, eliminating all the bulky, expensive cabling that would otherwise be needed. A full range of QM transmitters, receivers, and other products is offered by Crestron to suit any application.

Touchpanel Output—Any of the QM outputs may be utilized to feed a preview signal to the system touchpanel. Additionally, one Crestron Home® (CH) CAT5 Balanced Video output is included, its signal corresponding with the first QM output, providing for simplified wiring to a complete range of Crestron touchpanels. Each QM output supports high-resolution RGB and HDTV plus audio, while the CH output is limited to standard video and HDTV only (dependent upon the capabilities of the touchpanel).

8-Channel Microphone Matrix Mixing—Two gated microphone/line inputs are included on the MPS-300 complete with software-switchable 48V phantom power and independently adjustable compression and limiting. Up to 6 additional microphone signals can be brought in through the 3 QM inputs, with 4-band speech-optimized equalization provided on all 8 mic channels. Sophisticated matrix mixing allows for six completely different mixes of all 8 microphones—three mixes feeding local Program, Speech, and Record outputs, and three additional mixes feeding the 3 QM outputs.

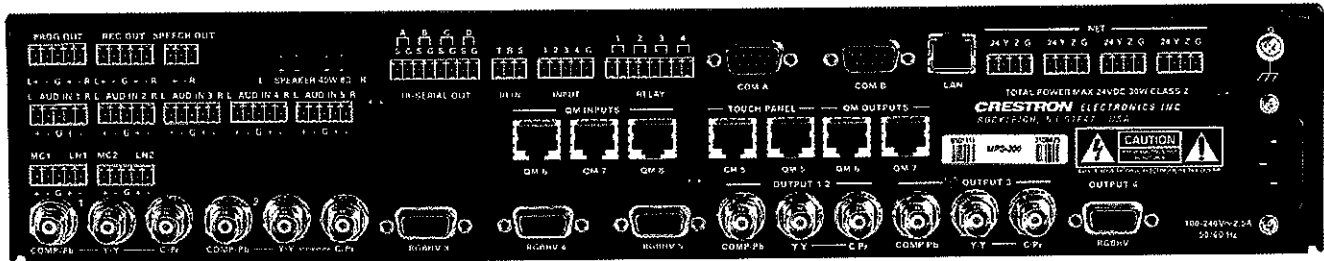
Professional Audio Features—Five stereo audio inputs on the rear panel accept balanced or unbalanced line-level signals from computers and other program audio sources. Additional audio sources can be brought in through the 3 QM inputs. To accommodate a wide range of signals, adjustable input compensation is employed to help maintain consistent volume levels when switching between sources. Versatile matrix mixing allows the selected program signal and the 8 microphone signals to be separated or mixed in any combination to feed 3 local audio outputs outputs, each with its own unique mix.

Three “local” balanced line level outputs are provided on the MPS-300, each with independent adjustments for volume, bass, treble, and mute. The stereo PROGRAM and mono SPEECH outputs are normally intended for driving external amplification, with relay muting on each output to prevent “thumping” on power up. The RECORD output allows for a separate stereo mix to feed a recording device or or assistive listening system. Ten-band graphic equalization plus 2-band parametric equalization on each output eliminates the need for expensive outboard audio processors, and up to 40mS delay adjustment is available on the SPEECH output for proper loudspeaker alignment.

The 3 QM outputs are controlled separately from the other audio outputs, allowing 3 different program sources and 3 different microphone mixes to be monitored on touchpanels and output to additional audio equipment by way of an appropriate QM receiver or other QuickMedia device(s).

Built-in Amplifier—A 40-watt amplifier is built into the MPS-300, with three models available offering the choice of 8-ohm stereo, 70V mono, or 100V mono outputs. For large rooms requiring more power, the MPS-300 supports plug-and-play compatibility with Crestron QM-Series 3-channel amplifiers, providing a complete solution for driving a professional loudspeaker system with separate program and speech channels.

Front Panel Control—Out of the box, the MPS-300 front panel supports easy pushbutton routing of input sources to each of the outputs, and audio volume adjustment using the volume control knob. Dedicated buttons and indicators are



also provided for separate control of system power and projector power. In addition, five preset buttons are included for custom functions such as lowering a projection screen, closing blinds, or selecting a lighting preset.

The front panel label strips are easily customized using Crestron Engraver software or standard 3/8" tape labels, allowing for the clear designation of each input, output, and preset button. When selected, these functions will also appear on the LCD display as generic names (Input 1, 2...), or as custom names (DVD, Podium PC, Screen Up, etc.).

Easy setup of the MPS-300 is facilitated through the LCD display without necessitating a computer. Together with 4 softkey buttons, 4 menu navigation buttons and the volume knob, the LCD enables configuration of IP network, audio, and other system settings. For security, the front panel controls can be password protected or locked out.

2-Series Control System—Integrated into the MPS-300 is a Crestron 2-Series Ethernet control system complete with e-Control[®]2 Web server and a host of RS-232, IR, digital input and relay control ports for integration with third-party equipment. Anything from a basic AV presentation room with a single projector, screen, and keypad controller, to a fully custom touchpanel based system with multiple controlled sources and display devices, can be programmed easily using Crestron SystemBuilder[™] software. And, the MPS-300 works with Crestron RoomView[®] Help Desk software, the industry's most comprehensive facility-wide asset management solution.

Room Control Options—Without requiring any programming, the MPS-300 can be controlled simply using a Crestron APAD LCD Controller or a selection of keypads. With custom programming, our complete line of Isys[™] touchpanels and MediaManager FlipTops is supported. Equipped with an optional CNXRMIIRD IR receiver, the MPS-300 allows any Crestron IR wireless touchpanel or handheld remote to be used for a low-cost wireless control solution. Or, adding an RF wireless gateway or Wi-Fi access point enables use of a wide range of 1-way and 2-way RF wireless handheld remotes and touchpanels.

AVAILABLE MODELS

MPS-300

Multimedia Presentation System w/Stereo Amplifier

MPS-300-70V

Multimedia Presentation System w/70 Volt Amplifier

MPS-300-100V

Multimedia Presentation System w/100 Volt Amplifier

SPECIFICATIONS

Processor

CPU: 32-bit Freescale ColdFire[®] Microprocessor

Memory

32 MB SDRAM, 256 KB NVRAM, 16 MB Flash

Operating System

Real-time, preemptive, multitasking kernel, multi-threaded; FAT32 file system with long names; supports SIMPL[™] Windows[®] and SIMPL+[®]

Ethernet

10/100BaseT, static IP or DHCP/DNS, SSL, auto-negotiating, full duplex TCP/IP, UDP/IP, CIP, SMTP, SNMP, built-in Web server and e-mail client; supports Crestron e-Control[®]2 XPanel and RoomView[®] applications

Video

Switcher: 8x7 crosspoint matrix including 3x3 QM signal routing, local QM delay skew compensation, RGB pass-thru mode (multi-format via RGB output connection)
Signal Types: RGB and composite, S-Video, or component video (does not transcode)
Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i/1080p
RGB Formats: RGBHV, RGBS, RGBB
Maximum Resolution: 2048 X 1536 @ 60Hz (1920 X 1200 @ 60Hz via QM)
Blanking Time: < 0.1 second
Sync Rise/Fall Time: 3.5 ns maximum
Sync Latency: < 30 ns
Gain: 0dB (75 ohms terminated)
QM Cable Compensation: 10-bit digitally controlled-PEAK (bandwidth) and BOOST (frequency); 4-bit digitally controlled SKEW delay, 0 to 22 ns (independent for R, G, and B)

Audio

Switcher/Preamp: 8x4 stereo crosspoint matrix including 3x3 QM signal routing, 2-channel gated mic preamp with compressor & limiter, 8-channels mic EQ, 10X5 mic/program matrix mixer, 8x2 mic matrix mixer per each of 3 QM outputs, stereo volume/level control and EQ per each of PROGRAM and RECORD outputs, mono volume/level control and EQ/delay on SPEECH output, integrated power amplifier, QM auto-compensation with self-peaking
A-D/D-A Conversion: 24-bit, 48 kHz
Volume Range: -80 to +20 dB, 0.1dB steps (output); -80 to 0 dB, 0.1dB steps (mixer)
Mute: -100dB (electronic), -120dB (relay)
Input Compensation: ±10dB, 0.1dB steps
Mic Input Gain: 0 to 100% (40dB range) plus mute
Gate Level (Threshold): 0 to 100%
Gate Attack: 0 to 100 mS
Gate Decay (Release): 0 to 5000 mS
Gate Depth: -80dB (mute) to 0dB, 0.1dB steps
Compression Threshold: -80dB to +20dB, 0.1dB steps
Limit Threshold: 0dB to 20dB, 0.1dB steps
Comp/Lim Attack: Separately adjustable 0.1 to 300 mS
Comp/Lim Release: Separately adjustable 1 to 500 mS
Compression Ratio: 1.0:1 to 10.0:1
Comp/Lim Curve: Separately selectable hard or soft knee
Mic EQ: ±12dB, 0.1 dB steps at 160, 500, 1.2k, and 3k Hz
Bass/Treble: ±12dB, 0.5dB steps at 100Hz and 10kHz
Output Equalization: 10-band graphic (GEQ) + 2-band parametric (PEQ)
GEQ: ±12dB, 0.1dB steps at 31, 63, 125, 250, 500, 1k, 2k, 4k, 8k, and 16k Hz
PEQ Filter Gain/Center Frequency: ±12dB, 0.1dB steps at 25Hz to 20kHz, 0.5Hz steps
PEQ Filter Bandwidth: 0.1 to 3.0 octaves, 0.1 octave steps
PEQ Filter Types: Low Pass, High Pass, Peaking Eq, Notch, Treble Shelf, Bass Shelf
Speech Output Delay: 0 to 40 mS, 1mS steps
Frequency Response: 20Hz to 20kHz ±0.5dB (PROG/REC OUT), 50Hz to 20kHz ±0.5dB (SPEECH OUT), 20Hz to 20kHz ±0.5dB (SPEAKER @ 8 ohms), 100Hz to 20kHz ±1.5dB (SPEAKER @ 70V or 100V)
S/N Ratio: 95dB (PROG/REC OUT @ 10dBV, 20Hz to 20kHz A-weighted), 95dB (SPEECH OUT @ 10dBV, 50Hz to 20kHz A-weighted), 90dB (SPEAKER @ 8 ohms, full output, 20Hz to 20kHz A-weighted), 90dB (SPEAKER @ 70V or 100V, full output, 20Hz to 20kHz A-weighted)
THD+N: 0.02% (PROG/REC OUT @ 10dBV, 20Hz to 20kHz), 0.02% (SPEECH OUT @ 10dBV, 50Hz to 20kHz), 0.7% (SPEAKER @ 8 ohms, full output, 20Hz to 20kHz), 0.7% (SPEAKER @ 70V or 100V, full output, 100Hz to 20kHz A-weighted)
Stereo Separation: -80dB (PROG/REC OUT @ 10dBV, 20Hz to 20kHz), -60dB (SPEAKER @ 8 ohms, full output, 20Hz to 20kHz)
Channel Crosstalk: -80dB (AUD IN @ 10dBV, 20Hz to 20kHz)

Connectors - Audio

PROG OUT: (1) 5-pin 3.5mm detachable terminal block, stereo line-level output
Output Impedance: 200 ohms balanced, 100 ohms unbalanced
Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

REC OUT: (1) 5-pin 3.5mm detachable terminal block, stereo line-level output
Output Impedance: 200 ohms balanced, 100 ohms unbalanced
Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced
Note: Does not include relay mute

SPEECH OUT: (1) 3-pin 3.5mm detachable terminal block, mono line-level output
Output Impedance: 200 ohms balanced, 100 ohms unbalanced
Maximum Output Level: 4 Vrms balanced, 2 Vrms unbalanced

SPEAKER: (1 or 2) 2-pin 5mm detachable terminal blocks, speaker-level audio outputs
Wire Size: Connector accepts 12 AWG maximum
Output Power (MPS-300): 20W RMS per channel stereo into 8 ohms, 4 ohms tolerant
Output Power (MPS-300-70V): 40W RMS mono at 70 Volts
Output Power (MPS-300-100V): 40W RMS mono at 100 Volts

AUD IN 1 - 5: (5) 5-pin 3.5mm detachable terminal blocks, stereo line-level inputs
Input Impedance: 24k ohms balanced/unbalanced
Balanced Input Level: -20 to +12 dBV; 4 Vrms maximum
Unbalanced Input Level: -20 to +6 dBV; 2 Vrms maximum

MC/LN 1 - 2: (2) 5-pin 3.5mm detachable terminal blocks, comprises (2) mic/line inputs
Balanced Mic Input Level: -52 to -12 dBV, 240 mVrms maximum
Balanced Line Input Level: -28 to +11 dBV, 3.7 Vrms maximum
Unbalanced Line Input Level: -34 to +5 dBV, 1.85 Vrms maximum
Mic Input Impedance: 3.9k ohms, accepts 60 to 600 ohm source
Line Input Impedance: 19k ohms balanced, 9.5k ohms unbalanced
Phantom Power: 10 mA (total) @ 48 Volts DC, software enabled to both mic inputs

Connectors - Video

COMP/Pb, Y/Y, C/Pr 1 - 2: (2) sets of (3) BNC female video inputs

Each set configurable as:

- (1) Component/HDTV (YPbPr) video input, or
- (1) S-Video (Y/C) input, or
- (1) Composite input

Input Level/Impedance: 1 Vp-p, 75 ohms, nominal
DC Offset: Insensitive to DC offset (AC coupled)
Video signal sensing on COMP/Pb or Y/Y

RGBHV 3 - 5: (3) DB15HD female, RGBHV or Component/HDTV inputs
Formats: RGBHV, RGBS, RGsB, or YPbPr
RGB/Video Input Level/Impedance: 1 Vp-p, 75 ohms, nominal
H/V Sync Input Level: 2 to 5 Vp-p
H/V Sync Input Impedance: 75, 500, or 1k ohms individually selectable for H and V
Video signal sensing on H, Gs, and Y; defeatable DDC pull-up resistors

QM INPUTS 6 - 8: (3) 8-wire RJ45 female, QuickMedia input ports
Signal Types: Dynamically configurable for RGBHV, component (YPbPr), S-Video (Y/C), or composite video with stereo program and 2-channels microphone audio;
RGB Format: RGBHV, RGBS, RGsB
RGB Input Resolution, Non-interlaced: 1920 x 1200 maximum (60Hz limit at 1600 x 1200 or higher);
Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i/1080p
Delay Skew Compensation: 0 to 22 nS
Connect to QM outputs of QuickMedia devices via CRESCAT-QM or CRESCAT-IM cable¹¹

COMP/Pb OUTPUT 1: (1) BNC female
Composite video output, or Pb of secondary component/HDTV video output
Output Level/Impedance: 1.0 to 1.1 Vp-p (terminated, with 1 Vp-p input), 75 ohms nominal

Y/Y, C/Pr OUTPUT 2: (2) BNC female
S-Video (Y/C) video output, or Y and Pr of secondary component/HDTV video output
Output Level/Impedance: 1.0 to 1.1 Vp-p (terminated, with 1 Vp-p in), 75 ohms nominal

COMP/Pb, Y/Y, C/Pr OUTPUT 3: (3) BNC female, configurable as:
(1) Component/HDTV (YPbPr) video output, or
(1) S-Video (Y/C) output, or
(1) Composite output
Output Level/Impedance: 1.0 to 1.1 Vp-p (terminated, with 1 Vp-p in), 75 ohms nominal

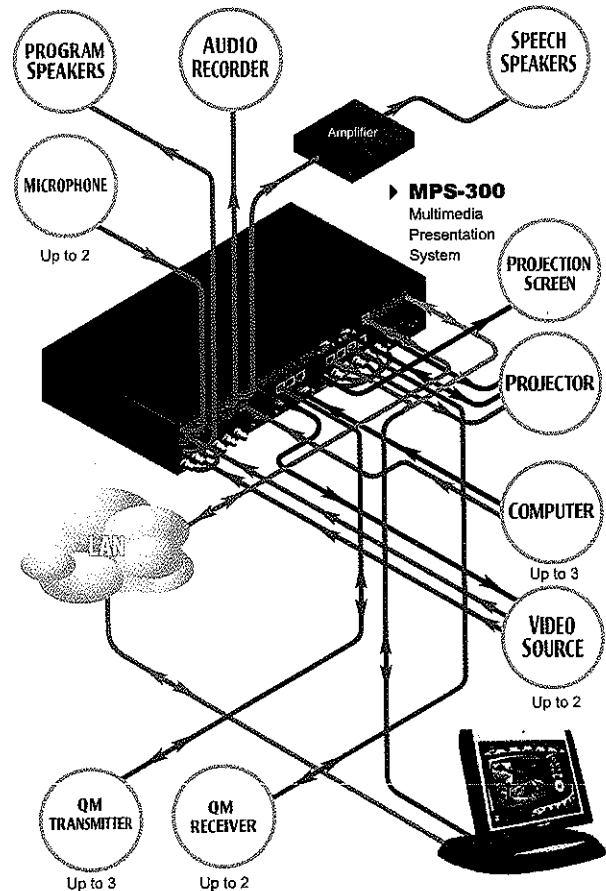
RGBHV OUTPUT 4: (1) DB15HD female
RGBHV, component, S-Video, and composite video output
Formats: RGBHV, RGBS, RGsB, YPbPr, Y/C, composite

RGB/Video Output Level: 0.7 to 0.75 Vp-p (terminated, with 0.7 Vp-p input, unity gain)
RGB/Video Output Impedance: 75 ohms nominal
H/V Sync Output Level/Impedance: 4 to 5 Vp-p, 55 ohms
H/V Sync Polarity: Follows input

TOUCHPANEL CH 5: (1) 8-wire RJ45 female, CAT5 balanced video output port
Dynamically configurable for component (YPbPr), S-Video (Y/C), or composite video
Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i
Output Impedance: 100 ohms balanced
Connects to CH CAT5 balanced video input port of a compatible touchpanel or other device via CresCAT cable

TOUCHPANEL QM 5: (1) 8-wire RJ45 female, QuickMedia output port
Signal Types: Dynamically configurable for RGBHV, component (YPbPr), S-Video (Y/C), or composite video with stereo program and 2-channels microphone audio;
RGB Format: RGBHV, RGBS, RGsB
RGB Output Resolution, Non-interlaced: 1920 x 1200 maximum (60Hz limit at 1600 x 1200 or higher);
Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i/1080p
Connects to QM input port of a compatible touchpanel or other QuickMedia device via CresCAT-QM or CresCAT-IM cable¹¹

QM OUTPUTS 6 - 7: (2) 8-wire RJ45 female, QuickMedia output ports
Signal Types: Dynamically configurable for RGBHV, component (YPbPr), S-Video (Y/C), or composite video with stereo program and 2-channels microphone audio;
RGB Format: RGBHV, RGBS, RGsB
RGB Output Resolution, Non-interlaced: 1920 x 1200 maximum (60Hz limit at 1600 x 1200 or higher);
Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i/1080p
Connect to QM input ports of QuickMedia devices via CresCAT-QM or CresCAT-IM cable¹¹



- Color Key**
- Control
 - Video
 - Audio
 - CAT5E
 - Cresnet
 - LAN
 - RGB
 - CresCAT-QM

Connectors - Control & Power

IR/SERIAL OUT A - D: (4) 2-pin 3.5mm detachable terminal blocks, IR/Serial output ports
IR output up to 1.2 MHz, 1-way serial TTL/RS-232 (0-5 Volts) up to 9600 baud

IR IN: (1) 3-pin 3.5mm detachable terminal block, for CNXRMIIRD IR Receiver (sold separately), allows control from IR wireless remotes using RC-5 command set

INPUT 1 - 4: (1) 5-pin 3.5mm detachable terminal block
Comprises (4) digital/contact closure inputs, rated for 0-24 Volts DC, referenced to GND
Input Impedance: 2.2k ohms pulled up to 5 Volts DC
Logic Threshold: 2.5 Volts DC nominal with 1 Volt hysteresis band

RELAY 1 - 4: (1) 8-pin 3.5mm detachable terminal block
Comprises (4) normally open, isolated relays
Rated 1 Amp, 30 Volts AC/DC; MOV arc suppression across contacts

COM A - B: (2) DB9 male, bidirectional RS-232 ports
Up to 115.2k baud, hardware and software handshaking support

LAN: (1) 8-wire RJ45 with 2 LED indicators, 10/100BaseT Ethernet port
Green LED indicates link status, yellow LED indicates Ethernet activity

NET: (4) 4-pin 3.5mm detachable terminal blocks, Cresnet Master ports, paralleled
Available Cresnet Power: 30 Watts

G: (1) 6-32 screw, chassis ground lug

100-240V~2.5A: (1) IEC Socket, main power input, removable power cord included

COMPUTER (front): (1) USB Type B female, computer console port, cable included

LCD Display

Green LCD alphanumeric, adjustable backlight, 2 lines x 20 characters per line, displays input/output names, volume level, setup menus, time/date, and other system information

Controls and Indicators

- NET:** (1) yellow LED, indicates Cresnet bus activity
- MSG:** (1) yellow LED, indicates control system has generated an error message
- HW-R:** (1) recessed miniature pushbutton for hardware reset, reboots the control system
- SW-R:** (1) recessed miniature pushbutton for software reset, restarts the SIMPL program
- SYS PWR:** (1) pushbutton and green LED, controls system power
- PROJ PWR:** (1) pushbutton and green LED, controls display device power
- SOFTKEYS:** (4) pushbuttons for activation of LCD driven functions and passcode entry
- MENU:** (1) pushbutton, steps menu back one level
- A,V:** (2) pushbuttons, scroll up or down through menu and adjust menu parameters
- ENTER:** (1) pushbutton, executes highlighted menu or value
- VOLUME:** (1) continuous turn rotary encoder, adjusts menu parameters, defaults to program audio volume
- FUNCTION 1 - 5:** (5) pushbuttons and red LEDs, programmable
- IN 1 - 8:** (8) pushbuttons and red LEDs, select input to be routed
- OUT 1 - 7:** (7) pushbuttons and red LEDs, select output destination

Power Requirements

Main Power: 2.5 Amps @ 100-240 Volts AC, 50/60 Hz
Available Cresnet Power: 30 Watts

Environmental

Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish, convection-cooled, vented top and sides
Faceplate: Extruded aluminum, black matte powder coat finish with polycarbonate label overlay

AVAILABLE ACCESSORIES

APAD Wall Mount LCD Controller	CNXRMIIRD IR Receiver	IRP2 IR Probe	RoomView® Express Remote Help Desk and Resource Management Software
C2N-DB12 12-Button Decorator Keypad	QM-AMP3X80MM 3-Channel Multimedia Amplifier	C2N-MNETGW infINET Gateway	RoomView® Server Edition Enterprise Management and Scheduling Software
CNX-B12 12-Button Designer Keypad	QM-AMP3X80SR 3-Channel Sound Reinforcement Amplifier	CLW-DIM1RF and CLW-SW1RF infINET Dimmer and Switch	
C2N-FTB FlipTop Control Center	CNSP-XX Custom Serial Interface Cable	CLS-C6 iLux Integrated Lighting System	

Mounting: Freestanding or 2U 19" rack-mountable (adhesive feet and rack ears included)

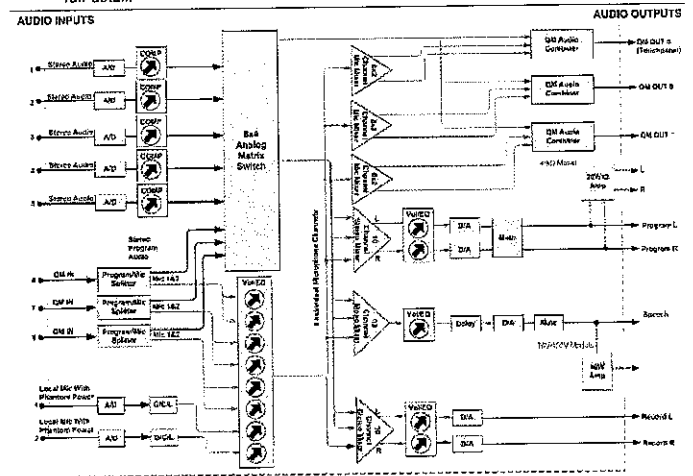
Dimensions

Height: 3.56 in (90 mm), 3.47 in (88 mm) without feet
Width: 17.03 in (433 mm), 19.0 in (483 mm) with ears
Depth: 12.58 in (320 mm)

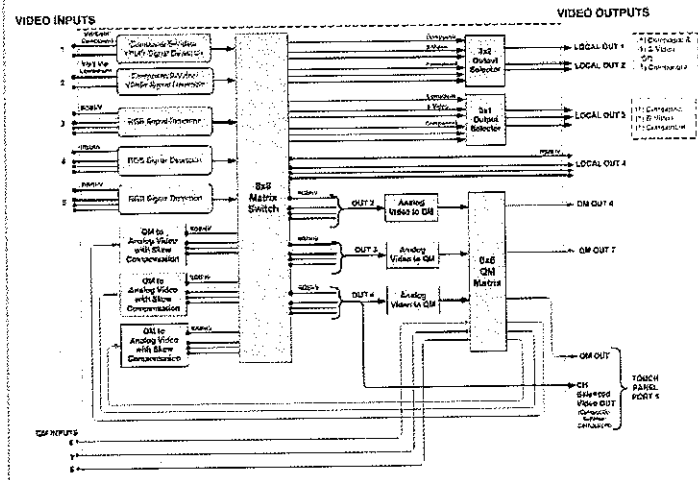
Weight

MPS-300: 10.1 lb (4.6 kg)
MPS-300-70V/100V: 11.9 lb (5.4 kg)

1. For QuickMedia wiring use CresCAT-QM, CresCAT-IM, or quality CAT5e/CAT6 cable with a delay skew of $\leq 15\text{ns}$ per 100m; the maximum aggregate cable length and delay skew between any QM transmitter (origination point) and QM receiver (endpoint) is 450 ft (137 m) and 22 nS; a maximum of two QM midpoint devices may be inserted in a given QM signal path; exceptions apply, refer to each respective product manual for full detail.



Internal Block Diagram - Audio



Internal Block Diagram - Video

QM-RX

QuickMedia® Receiver

The QM-RX is a QuickMedia® receiver designed to provide cost-effective RGB and video signal routing and control as part of a complete MediaManager AV presentation system. Using Crestron's exclusive QuickMedia transport, the QM-RX receives RGB and video signals over a single inexpensive CAT5e type cable* from any QuickMedia Wall Plate, FlipTop Box, or Distribution Center.

Mounted at the projector or plasma display location, the QM-RX breaks out composite video, S-Video, and RGBHV signals to feed the respective inputs on the display device. All signal routing occurs automatically under the command of the control system based upon the input source type selected.

The QuickMedia transport supports the transmission of RGB signals with resolutions up to 1920 X 1200 pixels at 60Hz. Software-controllable frequency, bandwidth, and skew compensation adjustments are provided to maximize image quality over cable runs up to 450 feet long with up to 22 nS of delay skew.

The QM-RX includes one bidirectional RS-232 port and one IR/Serial port for control of the display device. A digital input port is also included to enable direct connection of a room occupancy sensor, power sensor, or any contact closure device.

Wiring for the QM-RX is extremely simple requiring just a single CresCAT@QM cable (sold separately). Complete MediaManager systems are easy to design, program and adjust from start to finish using Crestron SystemBuilder™ software.

> QuickMedia Receiver

> Composite, S-Video and RGB outputs

> RS-232, IR, and digital in control ports

> Optional power current sensor

SPECIFICATIONS

Video

Signal Types: RGB and composite, S-Video, or component† video

Video/HDTV Formats: NTSC or PAL, HDTV up to 1080i/1080p†

RGB Formats: RGBHV, RGBS, or RGsB

Gain: 0dB (75 ohms terminated)

Maximum Resolution: 1920 x 1200 @ 60Hz (at unity gain) with maximum cable length of 450 feet and maximum compensation

QM Cable Compensation: 10-bit digitally controlled PEAK (bandwidth) and BOOST (frequency); 4-bit digitally controlled SKEW delay, 0 to 22 ns (independent for R/P, G/Y, and B/Pb)

Connectors - Front Panel

QM: (1) 8-wire RJ45 female, QuickMedia input port;
Connects to QM output port of any QuickMedia device via CresCAT-QM or CRESCAT-IM cable*

NET: (2) 4-pin 3.5mm detachable terminal blocks;
Cresnet ports (paralleled), Master/Slave selectable;
Connect to Cresnet control network via CresCAT-QM or Cresnet cable



Connectors - Rear Panel

RGBHV: (1) DB15HD female, RGB(VGA)/component video† output;
Formats: RGBHV, RGBS, RGsB, YPbPr;

Output Level: 1 Vp-p nominal;

Sync Level: 5 Vp-p nominal;

Output Impedance: 75 ohms;

H/V Sync Impedance: 100 ohms

S-VIDEO: (1) 4-pin mini DIN female, S-Video (Y/C) output;

Output Level: 1.0 Vp-p (luma), 0.7 Vp-p (chroma);

Output Impedance: 75 ohms

VIDEO: (1) BNC female, composite video output;

Output Level: 1.0 Vp-p;

Output Impedance: 75 ohms

G: 6-32 screw, chassis ground lug

COM: (1) DB9 male, bidirectional RS-232 port;

Up to 115.2k baud, hardware and software handshaking support

IR: (1) 2-pin 3.5mm detachable terminal block;

IR/Serial port;

IR output up to 1.2 MHz;

1-way serial TTL/RS-232 (0-5 Volts) up to 9600 baud

INPUT 1: (1) 2-pin 3.5mm detachable terminal block;

Digital/contact closure input;

Rated for 0-24 Volts DC, referenced to GND;

Input Impedance: 2.2k ohms pulled up to 5 Volts DC;

Logic Threshold: 2.5 Volts DC nominal with 1 Volt hysteresis band

LED Indicators

PWR: (green) Indicates 24 Volts DC power supplied from Cresnet control network

NET: (yellow) Indicates communication with Cresnet system

SETUP: (red) Used for touch-settable ID (TSID)

Buttons

SETUP: Used for touch-settable ID (TSID)

QM-RX QuickMedia® Receiver

Power Requirements

Cresnet Power Usage: 8 Watts (0.33 Amp @ 24 Volts DC)

Environmental

Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish
Mounting: Free-standing, surface-mount, or pole-mount (adhesive feet and [4] "L" brackets included, MK-QM-RMCRX pole mount kit sold separately)

Dimensions

Height: 1.71 in (4.34 cm)
Width: 6.96 in (17.68 cm)
Depth: 5.83 in (14.81 cm)

Weight

1.1 lbs (0.5 kg)
* For QuickMedia wiring use CresCAT-QM, CresCAT-IM, or quality CAT5e/CAT6 cable with a delay skew of $\leq 15\text{nS}$ per 100m; the maximum aggregate cable length and delay skew between any QM transmitter (origin point) and QM receiver (endpoint) is 450 ft (137 m) and 22 ns; a maximum of two QM midpoint devices may be inserted in a given QM signal path; exceptions apply, refer to each respective product manual for full detail.

† Component video or HDTV may require a suitable VGA-to-component adapter or breakout cable, not provided.

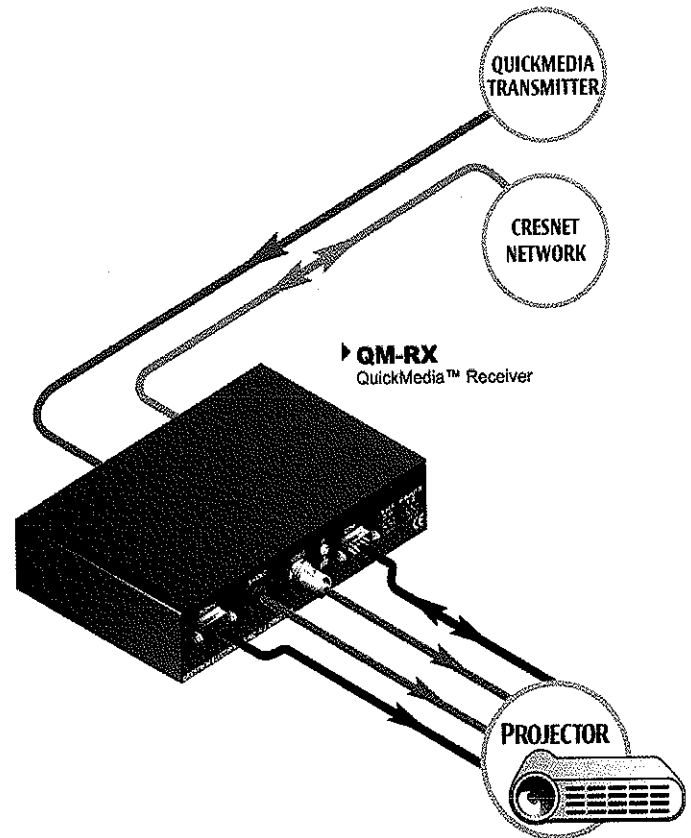
Available Models

QM-RX: QuickMedia Receiver

Available Accessories

CBL-VGA-1.5: Crestron® Certified Computer VGA Interface Cable, 1.5 ft
CBL-VGA-12: Crestron® Certified Computer VGA Interface Cable, 12 ft
CBL-VGA-25: Crestron® Certified Computer VGA Interface Cable, 25 ft
CBL-VGA-3: Crestron® Certified Computer VGA Interface Cable, 3 ft
CBL-VGA-6: Crestron® Certified Computer VGA Interface Cable, 6 ft
CNSP-XX: Custom Serial Interface Cable
CNXRMCS: TV Current Sensor
CRESCAT-QM-NP-SP500: QuickMedia® Cable, Low-skew CAT5e & Cresnet, non-plenum, 500 ft spool
CRESCAT-QM-P-SP500: QuickMedia® Cable, Low-skew CAT5e & Cresnet, plenum, 500 ft spool
IRP2: IR Emitter Probe
MK-QM-RMCRX: Pole Mount Bracket for QM-RX and QM-RMCRX-BA

Typical QM-RX Application

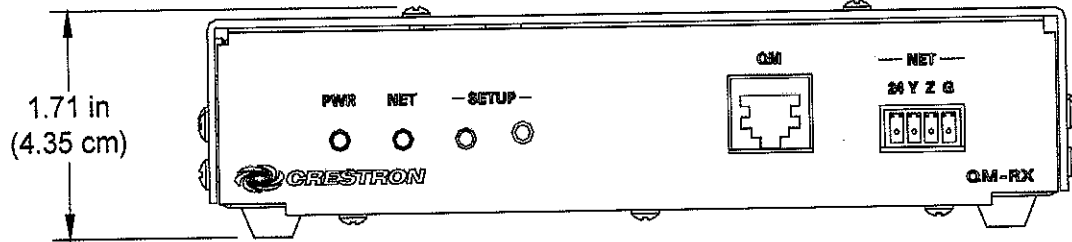


Color Key

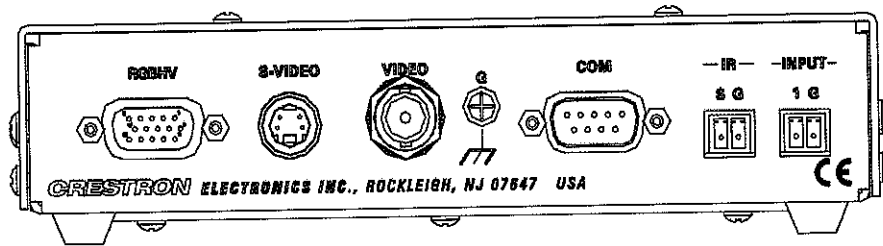
- | | | |
|-----------|-----------|---------|
| ● Control | ● Video | ● Audio |
| ● CAT5E | ● Cresnet | ● LAN |
| ● RGB | ● CresCAT | |

QM-RX QuickMedia® Receiver

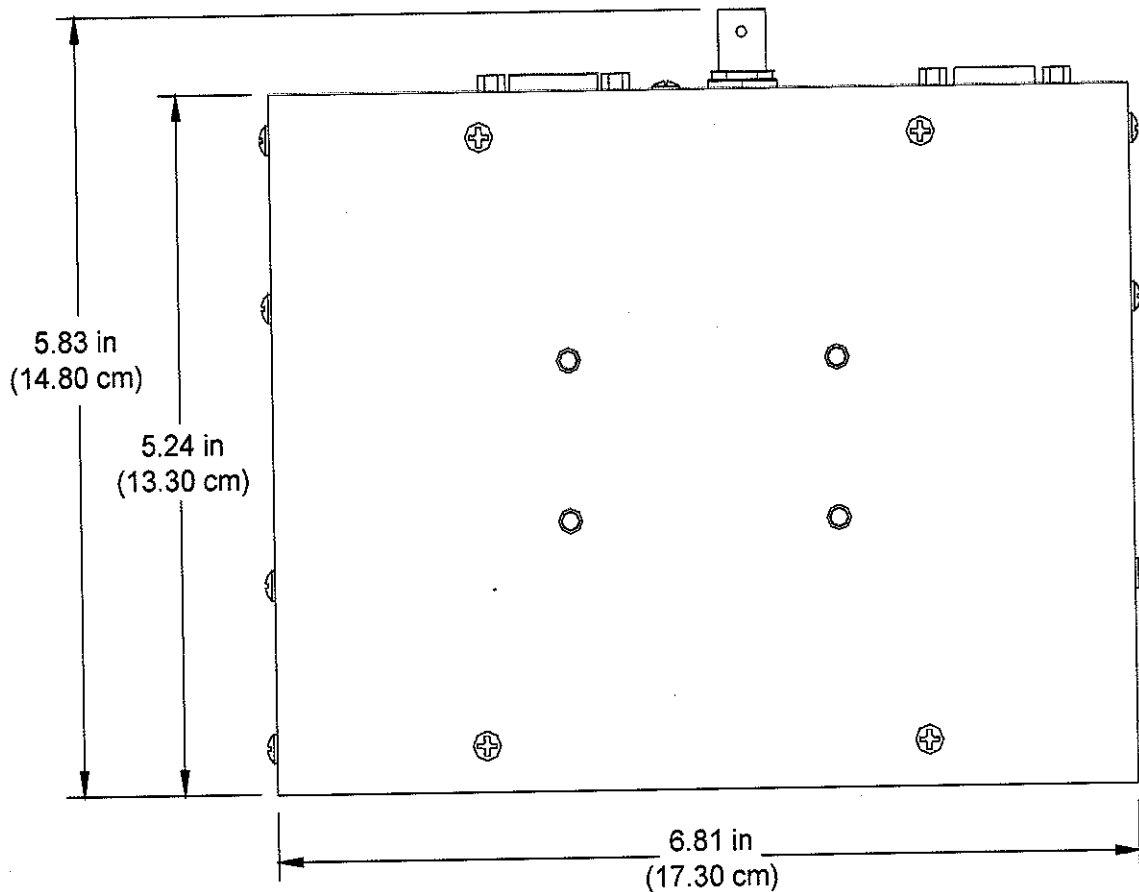
Front



Rear



Top



CNPWS-75

75 Watt Cresnet Power Supply

The CNPWS-75 is a 75 Watt, 24 Volt regulated power supply for powering Cresnet control systems and devices. Two 4-pin network connectors are provided, wired in parallel to provide for versatile connectivity with pass-thru of the Cresnet data signal. The output is fuse protected. Up to three CNPWS-75 power supplies may be rack mounted together using the optional CNXRMAK (sold separately).

SPECIFICATIONS

Load Rating

75 Watts (3.125 Amps) @ 24 Volts DC regulated
Ripple / Noise: <300 mV
Load Protection: 4A, 250V, Time Lag fuse

Power Requirements

2.3 Amps, 100-240 Volts AC, 50/60 Hz

Connectors

NET: (2) 4-pin 5mm detachable terminal blocks;
Cresnet power output ports, paralleled;
Cresnet data 'Y' and 'Z' terminals pass-through only
Power: (1) IEC320 Socket;
Mates with removable power cord, included

LED Indicators

NET POWER: Indicates 24 Volts DC at both Cresnet power ports, extinguished when fuse is blown

Environmental

Temperature: 41° to 104°F (5° to 40°C)
Humidity: 10% to 90% RH (non-condensing)

Enclosure

Chassis: Steel, black matte powder coat finish, convection-cooled, vented top and sides
Mounting: Freestanding or 2U 19-inch rack-mountable (adhesive feet included, CNXRMAK rack kit sold separately)

Dimensions

Height: 2.55 in (6.48 cm)
Width: 4.74 in (12.05 cm)
Depth: 8.07 in (20.50 cm)

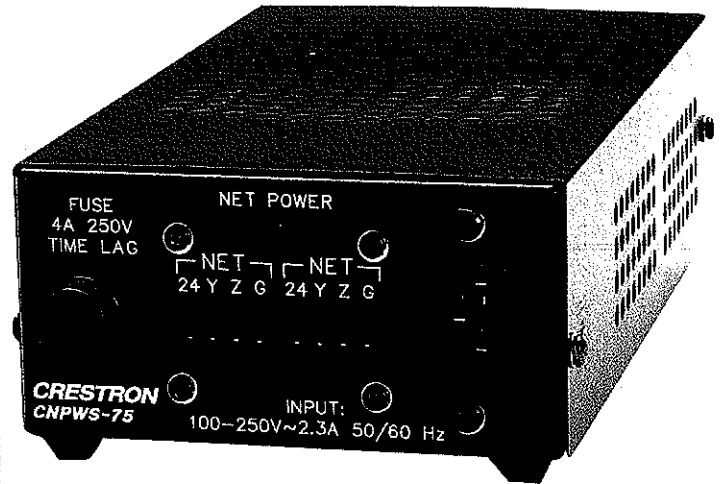
Weight

2.3 lb (1.1 kg)

INTERNATIONAL VERSION (230 VAC)

CNPWSI-75

All the features and specifications of the CNPWS-75 except the removable power cord is provided without connector



Available Models

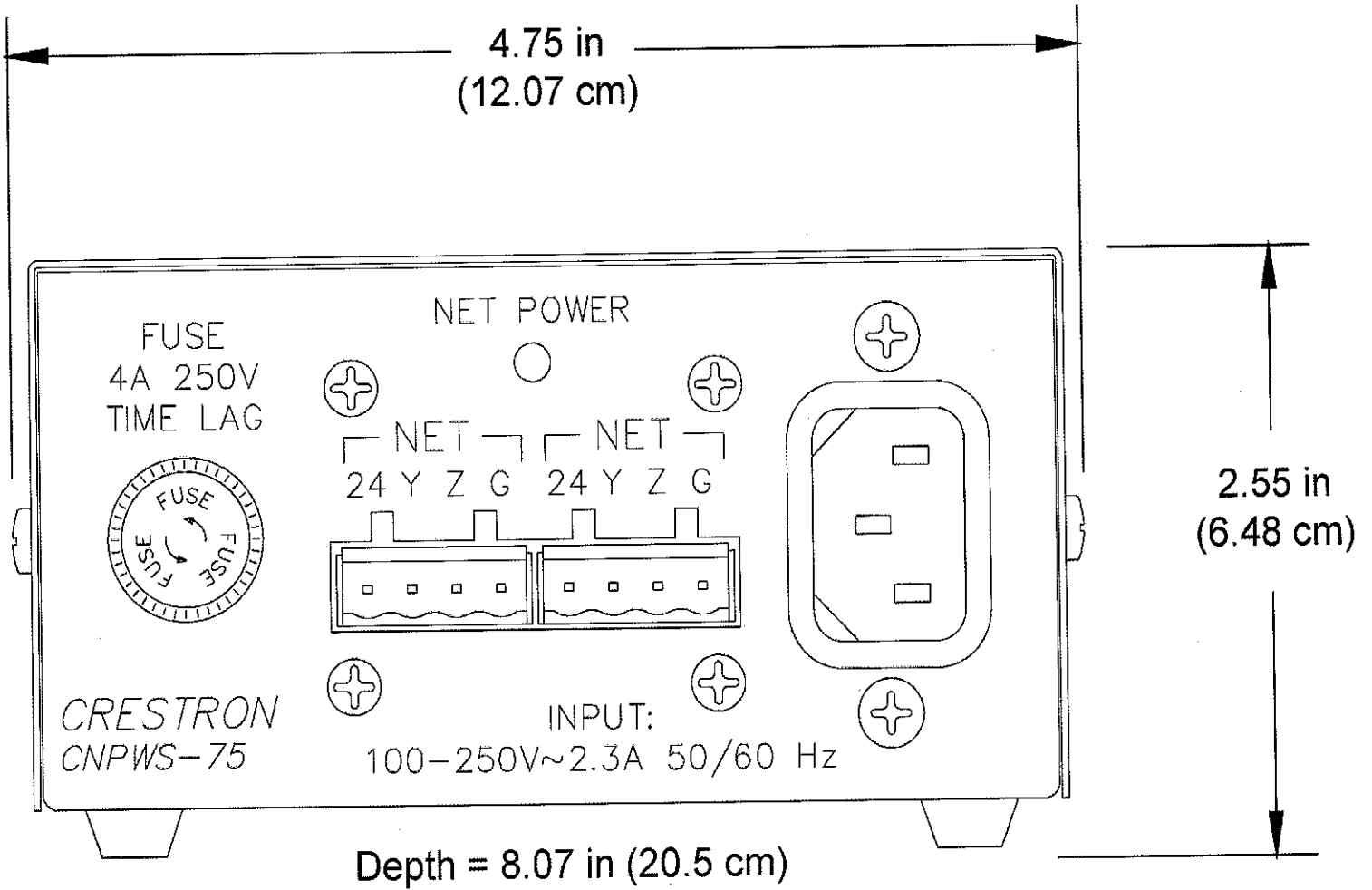
CNPWS-75: Cresnet Power Supply, 75 Watts

CNPWSI-75: Cresnet Power Supply, 75 Watts - International Version, 230V

Available Accessories

CNXRMAK: Rack Mount Kit

CNPWS-75 75 Watt Cresnet Power Supply





Tripp Lite
1111 West 35th Street
Chicago, IL 60609 USA
Telephone: +(773) 869 1234
E-mail: saleshelp@tripplite.com

Model #: SMART500RT1U

SmartPro .5kVA Line Interactive UPS, SNMPWEBCARD option, 1U Rack/Tower, USB, Serial, EPO, 120V

Highlights

- 500VA line interactive 1U rack/tower UPS
- 6 outlets with 1 switchable load bank
- Simultaneous communications via SNMPWEBCARD slot, USB and DB9 serial ports
- Included PowerAlert UPS monitoring software manages an unlimited number of network UPS systems
- Built-in voltage regulation corrects brownouts to 90V
- \$250,000 Ultimate Lifetime Insurance (USA, Puerto Rico & Canada only)

Description

Tripp Lite's SMART500RT1U intelligent, line interactive rack/tower uninterruptible power supply prevents data loss, downtime and equipment damage due to power outages, voltage fluctuations and transient surges. Requires only one rack space (1U) in a 2 or 4 post rack, with included accessories for upright tower placement. Large internal batteries offer 8 minutes half load runtime and 3 minutes at full load. Maintains regulated 120V nominal output without using battery power during brownouts as low as 90V. 500VA/300 watt power handling capability is compatible with networking, telecom and other sensitive electronic applications. Includes 6 UPS supported outlets with a single outlet load bank that can be individually controlled via software interface to reboot select equipment on demand or shed less significant loads to extend battery runtime for more critical equipment. Includes 1 surge-only outlet for peripherals not requiring battery backup. Supports simultaneous remote monitoring of UPS and site power conditions via built-in USB and DB9 monitoring ports. Includes PowerAlert UPS monitoring and unattended shutdown software with complete cabling. Built-in accessory slot supports SNMP with optional SNMPWEBCARD adapter. Emergency Power Off (EPO) interface offers option for instantaneous power-off of UPS and connected equipment in the case of fire or emergency situation. Multi-function audible alarms and set of 5 front panel LEDs offer at-a-glance notification of UPS and line power status. Network-grade AC surge suppression protects equipment from damage and performance problems resulting from transient surges and line noise. Attractive all-black color scheme. Two year warranty with \$250,000 connected equipment insurance (USA & Canada only).

Package Includes

- SMART500RT1U UPS System
- Mounting hardware
- Cabling for USB & DB9 monitoring and EPO switching
- PowerAlert unattended shutdown and UPS/Power monitoring software
- Warranty information and instruction manual

Features

- SMART500RT1U line interactive UPS offers battery derived sine wave AC output during power outages, voltage regulation during brownouts, plus network-grade AC surge suppression
- 500VA/300 watt power handling capability compatible with networking, telecom and other sensitive electronic devices
- Supports 1U rackmount installation in 2 or 4 post rack enclosures, upright tower placement also supported - mounting accessories included
- Large internal batteries offer runtimes of 17 minutes at half load (250VA/150 watts) and 5 minutes at full load (500VA/300 watts)
- Maintains regulated 120V nominal output during brownouts as low as 90V

- Includes 6 UPS-supported outlets, with one pair of individually controllable outlets that can be powered off and back on again via software interface
- PowerAlert UPS monitoring and unattended shutdown software enables configurable network broadcast messaging, pager & email notification, event logging and running user-defined script commands
- Offers simultaneous monitoring by up to 3 directly-connected devices through included USB, DB9 and SNMP* interfaces (*requires optional SNMPWEBCARD), or the monitoring of any number of additional UPS systems over IP with included PowerAlert monitoring software. Free PowerAlert enterprise management software is also available for select opportunities
- Communications ports support messaging of UPS and line power status, including on-battery, low-battery, power restored, AC line voltage, DC battery voltage and remaining battery capacity
- Supports timed inverter shutoff after unattended shutdown, activate self-test and UPS output power control for scheduled or immediate reboot of connected devices
- Supports Tripp Lite's WatchDog software application to restore unresponsive programs by systematically restarting applications, operating systems and ultimately rebooting completely locked computers by momentarily switching UPS power off and back on again (requires optional WATCHDOGSW)
- Built-in accessory slot supports SNMP with optional SNMPWEBCARD adapter
- Emergency Power Off (EPO) interface with cable
- Multi-function audible alarms and set of 5 front panel LEDs
- Network-grade AC surge suppression
- Attractive all-black color scheme
- UPS battery set ships fully assembled and ready for installation, no time consuming connection of internal batteries by user is necessary
- Two year warranty with \$250,000 connected equipment insurance (USA & Canada only)

Specifications

OUTPUT	
Output Volt Amp Capacity (VA)	500
Output Watt Capacity (watts)	300
Output power factor	0.6
Nominal Output Voltage(s) Supported	120V
Frequency compatibility	60 Hz
Output voltage regulation (line mode)	-15%, +13%
Output voltage regulation (Battery mode)	+/- 5%
Built-in UPS output receptacles	7 5-15R outlet(s)
Surge suppression only outlets	6 UPS outlets, 1 surge-only outlets
Built-in controllable switched load banks	One switchable single-outlet 5-15R load bank
Basic PDU options	PDU1215 (1U / 13 5-15R outlets); PDUNV (1U / 2 C19, 12 C13 outlets); PDU1415 (0U / 14 5-15R outlets); PDUV15 (0U / 12 5-15R outlets)
Metered PDU options	PDUMH15 (1U / 13 5-15R outlets); PDUMH15AT (1U / 8 5-15R outlets)*; PDUMV15 (0U / 16 5-15R outlets)
Switched PDU options	PDUMH15ATNET (1U / 8 5-15R outlets)*; PDUMV15NET (0U / 16 5-15R outlets)
External PDU redundancy options	*Auto Transfer Switch features utilizing the secondary PDU input cord are compatible with Smart Online UPS models only
Output AC waveform (AC mode)	Sine wave

Interactive **Panaboard™**
electronic whiteboard

UB-8325

Interactive

TRAINING
PRESENTATIONS
SEMINARS
MEETINGS

Panasonic Ideas for life

Panaboard™ UB-8325 Specifications

General	
Power Supply	AC 100-120 V, 50/60 Hz
Power Consumption	14 A00.2 A (Consumption/Standby)
External Dimensions*	54.7" x 61" x 19.5"
(H x W x D, without stand)	(1,388 mm x 1,550 mm x 494 mm)
Weight†	75 lbs (34 kg) without stand 105 lbs (47.5 kg) with stand

Input	
Panel Dimensions (H x W)‡	35.4" x 55.1" (900 mm x 1,400 mm)
Panel Surface	2 (anti-glare, scratch proof)
Copying Area (H x W)	23.5" x 32.5" (595 mm x 830 mm)
Scanning System	Contact Image Sensor

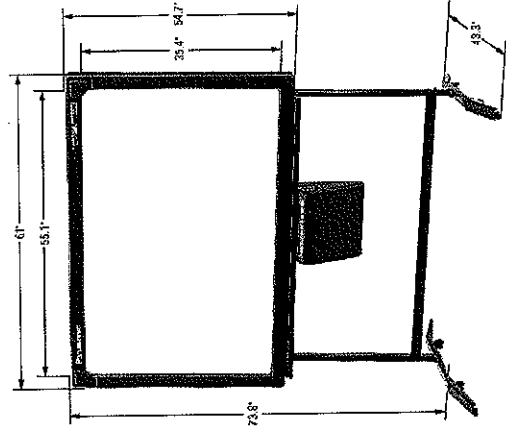
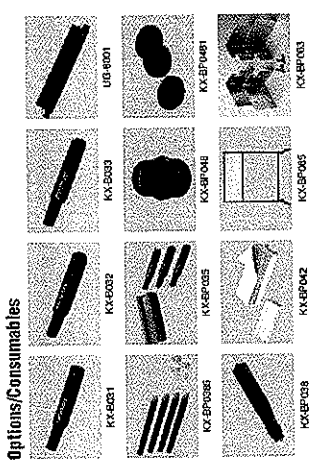
Output	
Printing System	Fusion Thermal Transfer (type)
Copy Paper	Letter size, 60-74 lb (80-90 g/m²) (Standard or recycled paper)
Copy Density	200 dpi (8 dots/mm)
Copy Color	Black
Copy Size	Approximately 15 seconds per page
Control Panel	1 to 3 sheets
Control Adjustment	Two Levels: Normal/Dark
2-second Compressed Copying	Yes

Interactive Function	
Interface*	USB 2.1 (Full speed)
Battery for Electronic Pen or Eraser	LR6 (AAV size) x 2
Battery Life	Alkaline battery (included)
Battery Longevity for Electronic Pen or Eraser	Approximately 48 hours (Continuously at 77°F (25°C))
Electronic Eraser*	When using Panasonic™ LR6 (AAV size)
Effective Area	Projector mode: 33.5" x 52.5" (850 mm x 1,330 mm) Whiteboard mode: 32.5" x 52.5" (825 mm x 1,330 mm)
	*The position can not be detected within 2" (50 mm) of the upper screen border.
	*The whiteboard can not be written on within 2" (50 mm) of the upper screen border and 1" (25 mm) of the lower screen border.

System Requirements	
Computer	IBM PC/AT or compatible PC with a CD-ROM drive
CPU	Intel® Pentium® III or higher processor
Interface*	USB 2.0 or USB 1.1
Operating System	Windows® 98/NT/2000/XP
Memory	Windows® 98/NT/2000/XP: 64MB or more Windows® XP: 256MB or more
Hard Disk	With 100MB free space (Free space for saving image files)

Consumables	
Rechargeable Film	UC-6001 (set of 2 rolls [164] 50 in)
Markers and Eraser Set (for Print Board)	KX-8035 (1 black, 1 red, 1 blue marker and 1 eraser)
Markers (for Print Board)	KX-8031 (set of 10 black markers) KX-8032 (set of 10 red markers) KX-8033 (set of 10 blue markers)
Electronic Pen Holder	KX-8038
Electronic Eraser	KX-8049
Eraser Cloth (for Electronic Eraser)	KX-8048 (set of 10 sheets)
Marker Set (for Electronic Pen Holder)	KX-8035/36/37
	(1 red, 1 blue, 1 green and 1 black markers for Print Board)

Options/Accessories	
Wall-Mounting Kit	KX-8063
Stand	UC-8065

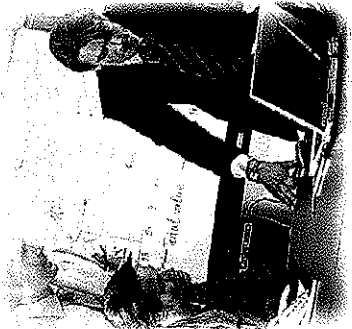


*1 Dimensions and weight are approximate.
*2 This electronic board does not function with Hi-Speed USB 2.0. Even if using a computer equipped with Hi-Speed USB 2.0, this electronic board functions with Full Speed USB 2.0.
*3 Battery Longevity is approximate.
Design and specification are subject to change without notice.

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Two Panasonic Way, Secaucus, NJ 07094
http://www.panasonic.com/panaboard

MEETINGS



Get everyone on the same page with Panasonic's Interactive Panaboard. Whether using the Panaboard in one of its interactive modes, or simply writing directly onto one of its panels, everyone leaves the meeting with the same set of information and everyone will be on the same page.

Project your presentations onto the Panaboard, right from your PC. And, for the ultimate in power and flexibility, use the Panaboard's electronic pen to control your PC application right from the board itself.

Using the Panaboard's electronic pen as its "on-screen keyboard" you can work with your favorite Windows® applications directly from the board without being confined to your PC. Once you're done collaborating, you can save and disseminate the results. The interactive Panaboard makes every meeting an effective meeting.

PRESENTATIONS



Don't just present to your audience... interact with them. Simply use the electronic pen to emphasize and highlight key words and subjects. Even incorporate their comments and feedback. No more one-way boring presentations... get everyone involved and enhance your messaging. But it doesn't have to end there... save and distribute the collaborated presentation to all the attendees. That's taking presentations to the next level.

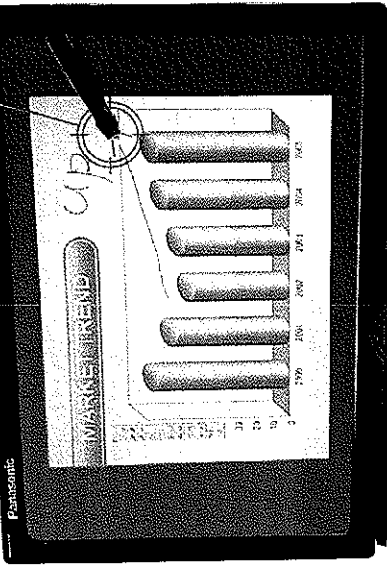
SEMINARS



Using the Panaboard's interactive software and electronic pen, adding notes to your presentation has never been easier. Notes are displayed on the Panaboard, for all to see, even on your connected PC, and in real time. Imagine standing in front of your board and having complete control over your PC and its applications. That's one of the features you get with Panasonic's Interactive Panaboard software. Advance through your PowerPoint® presentation, toggle between applications... it's the Power of Panasonic's Panaboard. Now, its presenting to a large group of people has never been easier.

Take Control

The electronic pen serves two functions—write and annotate on the Panaboard and control your PC applications, just like you would using a computer mouse.



Built-in printer

You can print the notes you've made on the Panaboard on its integrated black and white, plain paper printer for the ultimate in meeting room convenience.

Project Yourself

Connect to a projector and your presentations are displayed right on the Panaboard for everyone to see.

Share It, Save It

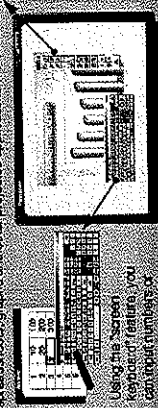
Your written comments can be saved to the connected PC and shared across the network so everyone is on the same page.

Multiple functions Projector Mode

Take control of your PC online Interactive Panaboard. Project your PC desktop onto the Panaboard's large display and using its interactive software, you'll control the computer with its electronic pen. Test it interactive.

desktop drawing tool

The Panaboard is easy to use drawing tool that you use its electronic pen and eraser to annotate and enhance presentations, spreadsheets, graphs and other protected applications.



Using the Screen Transfer feature, you can input drawings directly onto the board.

screen capturing

You can save, play, and capture any third party program into the Panaboard along with any electronic notes and drawings you've written on the board.



screen printing

You can print out black and white copies of what's being displayed on the board, including your electronic notes, by simply pressing the copy button.



Whiteboard Mode

Display, save and communicate your notes and drawings written on the board using its electronic pen—in real time.

board image capturing

Apply your notes to the board and capture and save a copy of the PC's desktop in a virtual, or electronic, whiteboard. And, because you can save and capture any third party program into the board, you can save any drawing you've written on the board.

handwriting recognition function

Using handwriting recognition, you can copy, distribute, edit, and save notes and drawings you've written on the board. (Only English and German languages are supported.)

Electronic board Mode

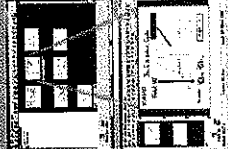
You can use the Interactive Panaboard just like a traditional whiteboard using dry-erase markers. But unlike a traditional whiteboard, you can immediately disseminate meeting notes and action plans using its integrated plain paper printer.

2-screen copy key

Two pages can be combined and printed as one page.

multi copy

You can print up to nine (9) black and white copies of each of the two large panels from your connected PC.



CONTRACTOR LICENSE

Authorized by the

West Virginia Contractor Licensing Board

Number: WV042038

Classification:

LOW VOLTAGE SYSTEMS

NEWTECH SYSTEMS INC
DBA NEWTECH SYSTEMS INC
1850 DALTON AVENUE
ASHLAND, KY 41102


Date Issued

Expiration Date

FEBRUARY 26, 2011

FEBRUARY 26, 2012


Authorized Company Signature


Chair, West Virginia Contractor
Licensing Board

WEST VIRGINIA
CONTRACTOR
LICENSING
BOARD

This license, or a copy thereof, must be posted in a conspicuous place at every construction site where work is being performed. This license number must appear in all advertisements, on all bid submissions and on all fully executed and binding contracts. This license cannot be assigned or transferred by licensee. Issued under provisions of West Virginia Code, Chapter 21, Article 11.

BID BOND

KNOW ALL MEN BY THESE PRESENTS, That we, the undersigned, NEWTECH SYSTEMS, INC.
of P.O. Box 310, Dunbar, WV. 25064, as Principal, and GREAT AMERICAN INSURANCE
COMPANY of 301 E. 4th Str., Cincinnati, OH 45202, a corporation organized and existing under the laws of the State of Ohio
Ohio with its principal office in the City of Cincinnati, OH, as Surety, are held and firmly bound unto the State
of West Virginia, as Obligee, in the penal sum of FIVE PERCENT OF BID (\$ 5% of Bid) for the payment of which,
well and truly to be made, we jointly and severally bind ourselves, our heirs, administrators, executors, successors and assigns.

The Condition of the above obligation is such that whereas the Principal has submitted to the Purchasing Section of the
Department of Administration a certain bid or proposal, attached hereto and made a part hereof, to enter into a contract in writing for
PROVIDE AND INSTALL AUDIO, VIDEO, DATA PROJECTION AND COMMUNICATIONS EQUIPMENT AT THE
DMV SERVICE CENTER, 5707 MACCORKLE AVENUE, S.E. CHARLESTON, WV

NOW THEREFORE,

- (a) If said bid shall be rejected, or
- (b) If said bid shall be accepted and the Principal shall enter into a contract in accordance with the bid or proposal attached
hereto and shall furnish any other bonds and insurance required by the bid or proposal, and shall in all other respects perform the
agreement created by the acceptance of said bid, then this obligation shall be null and void, otherwise this obligation shall remain in full
force and effect. It is expressly understood and agreed that the liability of the Surety for any and all claims hereunder shall, in no event,
exceed the penal amount of this obligation as herein stated.

The Surety, for the value received, hereby stipulates and agrees that the obligations of said Surety and its bond shall be in no
way impaired or affected by any extension of the time within which the Obligee may accept such bid, and said Surety does hereby
waive notice of any such extension.

IN WITNESS WHEREOF, Principal and Surety have hereunto set their hands and seals, and such of them as are corporations
have caused their corporate seals to be affixed hereunto and these presents to be signed by their proper officers, this
18th day of May, 2011.

Principal Corporate Seal

NEWTECH SYSTEMS, INC.
(Name of Principal)
By: Perry J. Madden
(Must be President or
Vice President)
PRESIDENT
(Title)

Surety Corporate Seal

GREAT AMERICAN INSURANCE COMPANY
(Name of Surety)
BY: Thomas H. Voeltz
Attorney-in-Fact
THOMAS H. VOELTZ

IMPORTANT – Surety executing bonds must be licensed in West Virginia to transact surety insurance. Raised corporate seals must be affixed, a power of attorney must be attached.

GREAT AMERICAN INSURANCE COMPANY®

Administrative Office: 580 WALNUT STREET • CINCINNATI, OHIO 45202 • 513-369-5000 • FAX 513-723-2740

The number of persons authorized by
this power of attorney is not more than SIX

No. 0 18867

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS: That the GREAT AMERICAN INSURANCE COMPANY, a corporation organized and existing under and by virtue of the laws of the State of Ohio, does hereby nominate, constitute and appoint the person or persons named below, each individually if more than one is named, its true and lawful attorney-in-fact, for it and in its name, place and stead to execute on behalf of the said Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; provided that the liability of the said Company on any such bond, undertaking or contract of suretyship executed under this authority shall not exceed the limit stated below.

Name	Address	Limit of Power
THOMAS H. VOELTZ DANA N. CONLEY	BOTH OF ASHLAND, KY	ALL
J. MICHAEL WELLMAN THOMAS C. PHIPPS	BOTH OF ASHLAND, KY	\$75,000,000
THOMAS H. BOTTOMS, JR. CLARENCE C. MASSEY	BOTH OF HUNTINGTON, WV	

This Power of Attorney revokes all previous powers issued on behalf of the attorney(s)-in-fact named above.

IN WITNESS WHEREOF the GREAT AMERICAN INSURANCE COMPANY has caused these presents to be signed and attested by its appropriate officers and its corporate seal hereunto affixed this 21ST day of MAY, 2009.

Attest

GREAT AMERICAN INSURANCE COMPANY



Steph C. Beraha

Assistant Secretary

David C. Kitchin

Divisional Senior Vice President

DAVID C. KITCHIN (513-412-4602)

STATE OF OHIO, COUNTY OF HAMILTON - ss:

On this 21ST day of MAY, 2009, before me personally appeared DAVID C. KITCHIN, to me known, being duly sworn, deposes and says that he resides in Cincinnati, Ohio, that he is a Divisional Senior Vice President of the Bond Division of Great American Insurance Company, the Company described in and which executed the above instrument; that he knows the seal of the said Company; that the seal affixed to the said instrument is such corporate seal; that it was so affixed by authority of his office under the By-Laws of said Company, and that he signed his name thereto by like authority.



KAREN L. GROSHEIM
NOTARY PUBLIC, STATE OF OHIO
MY COMMISSION EXPIRES 02-20-11

Karen L. Grosheim

This Power of Attorney is granted by authority of the following resolutions adopted by the Board of Directors of Great American Insurance Company by unanimous written consent dated June 9, 2008.

RESOLVED: That the Divisional President, the several Divisional Senior Vice Presidents, Divisional Vice Presidents and Divisional Assistant Vice Presidents, or any one of them, be and hereby is authorized, from time to time, to appoint one or more Attorneys-in-Fact to execute on behalf of the Company, as surety, any and all bonds, undertakings and contracts of suretyship, or other written obligations in the nature thereof; to prescribe their respective duties and the respective limits of their authority; and to revoke any such appointment at any time.

RESOLVED FURTHER: That the Company seal and the signature of any of the aforesaid officers and any Secretary or Assistant Secretary of the Company may be affixed by facsimile to any power of attorney or certificate of either given for the execution of any bond, undertaking, contract of suretyship, or other written obligation in the nature thereof, such signature and seal when so used being hereby adopted by the Company as the original signature of such officer and the original seal of the Company, to be valid and binding upon the Company with the same force and effect as though manually affixed.

CERTIFICATION

I, STEPHEN C. BERAHA, Assistant Secretary of Great American Insurance Company, do hereby certify that the foregoing Power of Attorney and the Resolutions of the Board of Directors of June 9, 2008 have not been revoked and are now in full force and effect.

Signed and sealed this 18th day of May, 2011



S10204 (10/08)

Steph C. Beraha

Assistant Secretary



State of West Virginia
DRUG FREE WORKPLACE CONFORMANCE AFFIDAVIT
West Virginia Code §21-1D-5

STATE OF West Virginia

COUNTY OF Kanawha, TO-WIT:

I, _____, after being first duly sworn, depose and state as follows:

- 1. I am an employee of NewTech Systems, Inc.; and,
(Company Name)
- 2. I do hereby attest that NewTech Systems, Inc.
(Company Name)

maintains a valid written drug free workplace policy and that such policy is in compliance with **West Virginia Code §21-1D-5.**

The above statements are sworn to under the penalty of perjury.

NewTech Systems, Inc.
(Company Name)

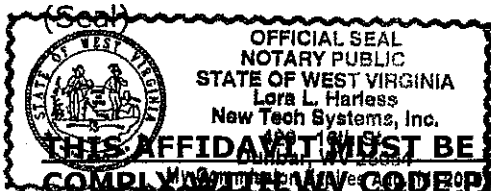
By: Michael Bryant *[Signature]*

Title: General Manager

Date: _____

Taken, subscribed and sworn to before me this 17 day of May 2011

By Commission expires 8/11/19



Lora L Harless
(Notary Public)

THIS AFFIDAVIT MUST BE SUBMITTED WITH THE BID IN ORDER TO COMPLY WITH THE LAW CODE PROVISIONS. FAILURE TO INCLUDE THE AFFIDAVIT WITH THE BID SHALL RESULT IN DISQUALIFICATION OF THE BID.

STATE OF WEST VIRGINIA
Purchasing Division

PURCHASING AFFIDAVIT

West Virginia Code §5A-3-10a states: No contract or renewal of any contract may be awarded by the state or any of its political subdivisions to any vendor or prospective vendor when the vendor or prospective vendor or a related party to the vendor or prospective vendor is a debtor and the debt owed is an amount greater than one thousand dollars in the aggregate.

DEFINITIONS:

"Debt" means any assessment, premium, penalty, fine, tax or other amount of money owed to the state or any of its political subdivisions because of a judgment, fine, permit violation, license assessment, defaulted workers' compensation premium, penalty or other assessment presently delinquent or due and required to be paid to the state or any of its political subdivisions, including any interest or additional penalties accrued thereon.

"Debtor" means any individual, corporation, partnership, association, limited liability company or any other form or business association owing a debt to the state or any of its political subdivisions. "Political subdivision" means any county commission; municipality; county board of education; any instrumentality established by a county or municipality; any separate corporation or instrumentality established by one or more counties or municipalities, as permitted by law; or any public body charged by law with the performance of a government function or whose jurisdiction is coextensive with one or more counties or municipalities. "Related party" means a party, whether an individual, corporation, partnership, association, limited liability company or any other form or business association or other entity whatsoever, related to any vendor by blood, marriage, ownership or contract through which the party has a relationship of ownership or other interest with the vendor so that the party will actually or by effect receive or control a portion of the benefit, profit or other consideration from performance of a vendor contract with the party receiving an amount that meets or exceeds five percent of the total contract amount.

EXCEPTION: The prohibition of this section does not apply where a vendor has contested any tax administered pursuant to chapter eleven of this code, workers' compensation premium, permit fee or environmental fee or assessment and the matter has not become final or where the vendor has entered into a payment plan or agreement and the vendor is not in default of any of the provisions of such plan or agreement.

Under penalty of law for false swearing (*West Virginia Code §61-5-3*), it is hereby certified that the vendor affirms and acknowledges the information in this affidavit and is in compliance with the requirements as stated.

WITNESS THE FOLLOWING SIGNATURE

Vendor's Name: NewTech Systems, Inc.

Authorized Signature: *[Signature]* Date: May 16, 2011

State of West Virginia

County of Kanawha, to-wit:

Taken, subscribed, and sworn to before me this 17 day of May, 2011.

My Commission expires 8/11/19, 2019.

AFFIX SEAL HERE

NOTARY PUBLIC *Lora L Harless*

