✓ FF Committee #2

Student Technology Fee Grant Funding Request Form
Northwestern State University of Louisiana

2006.009
Proposal Number

Prepared by: Dan Seymour, Ph.D.; Roxane Dufrene, Ph.D.; Barbara Hebert, Ph.D. Department SPS
College or Unit: College of Education Campus: Natchitoches, LA
Information Systems review by _____ Date _____

1. Describe target audience. (0 points)

The target audiences for this grant request will be student participants using the Counseling Clinic at the NSU College of Education (COE). This Counseling Clinic will offer a laboratory environment for graduate students and counseling services for undergraduate students. A laboratory environment will allow graduate students to videotape counseling sessions; listen, observe, and critique peers; and review tapes with professors and peers. Undergraduate students from across campus, including residence hall assistants, leadership class members, teachers-in-training, students doing career exploration, and others will participate as clients of the Clinic.

2. Describe project/initiative for which you are requesting funds. (10 points)

National studies indicate that about 45% of college students binge drink and 50% experience symptoms of depression. Both of these serious mental health concerns can lead to suicide, the second leading cause of death among college students on campuses today. Additionally, our NSU students and their families will be strongly affected by the aftermath of hurricanes Katrina and Rita. For nearly 40 years, NSU has provided educational opportunities to train counselors and student affairs professionals in the COE Counseling Clinic. This unique laboratory environment is used to train counselors and student affairs professionals who will, under supervision, address the counseling needs of undergraduate students. NSU graduate and undergraduate students/clients deserve the opportunity to experience modern technology in a state-of-the-art laboratory environment in the Counseling Clinic located in the Teacher Education Center (TEC).

Through this proposal, we are requesting state-of-the-art technology for the COE Counseling Clinic to enable NSU graduate students to practice counseling skills and to provide counseling services to undergraduate students. The technology needed to retrofit the Counseling Clinic includes 5 color dome ceiling-mounted cameras and microphones for the observation/counseling rooms, headphones, 5 DVD recorders, and 5 17" LCD monitors along with associated cables, jacks, brackets, and hardware.

3. State measurable objectives that will be used to determine the impact/effectiveness of the project. (10 points)

Objective 1: To determine the effect that updated equipment and facilities will have on graduate student learning in the Counseling Clinic.

Objective 2: To identify the impact that updated equipment and facilities will have on undergraduate clients' counseling experiences in the Counseling Clinic.

Objective 3: To analyze the frequency of use of the Counseling Clinic by NSU graduate and undergraduate students.

4. Indicate how each project objective will be evaluated. (10 points)

Objective 1: The objective, "To determine the effect that updated equipment and facilities will have on graduate student learning in the Counseling Clinic," will be evaluated by:

a. A focus group of graduate students using the following questions to measure the effect that updated equipment and facilities had on graduate student learning
    i. How did the updated equipment and facilities affect your training as a counselor?
    ii. How did the updated audio and video taping equipment facilitate your learning?
    iii. How did the updated sound system facilitate your learning?
    iv. How did the updated laboratory environment affect your training as a counselor?
b. A report of the percentage of graduate students who earn a passing grade in their clinic experience.
c. A report of the percentage of graduate students who successfully complete the advanced counseling courses.
d. A report of the percentage of Student Personnel Services and School Counseling program graduates.

Objective 2: The objective, "To identify the impact that updated equipment and facilities will have on undergraduate counseling clients' experiences in the Counseling Clinic," will be evaluated by:

a. A 10-item Likert scale questionnaire describing undergraduate clients' experiences in the updated Counseling Clinic.
b. A report of the percentage of undergraduate clients who participate in follow-up counseling visits in the Counseling Clinic.
c. A report of the percentage of undergraduate clients who will refer other students to the Counseling Clinic.

Objective 3: The objective, "To analyze the frequency of use of the Counseling Clinic by NSU students," will be evaluated by:

a. A report of the quantitative data that indicates the frequency of use
    i. Number of hours of clinic use by graduate students.
    ii. Number of hours of clinic use by undergraduate students.
    iii. Number of hours clinic is in operation.
b. A focus group of graduate students, using the following questions
    i. What is good about the clinic that affects usage?
    ii. What can be changed to effect more usage?
    iii. What influenced your usage of the clinic?
c. A focus group of undergraduate students, using the following questions
    i. What is good about the clinic that affects usage?
    ii. What can be changed to effect more usage?
    iii. What influenced your usage of the clinic?

5. Provide a justification for funding of the project. Estimate the number of students that will be served per academic year and in what ways. Please indicate also any unique needs of the target group. (10 points)

Justification

Northwestern State University was established to train teachers in the late 19th century. Following that tradition, facilities in the TEC began being used in the 1970s as a laboratory environment for the training of counselors in the Counseling Clinic. It has been used as a laboratory in which NSU students coalesce the skills and knowledge that they have gained in both didactic and experiential coursework, polishing their skills as counselors, and going on to serve as counselors and student affairs professionals. Unfortunately, the equipment and facilities in the Counseling Clinic have aged and declined. At the current time, in the observation/counseling rooms in the Counseling Clinic there are only two video cameras, three cassette recorders, two sets of baby monitors, and a sound system originally installed in the 1970s. The outdated equipment and facilities in the Counseling Clinic are in desperate need of modern technology to create a state-of-the-art laboratory environment for NSU students.

Estimations

In a minimum of 850 clock hours of access to the Counseling Clinic, approximately 500 graduate students will utilize the Counseling Clinic by observing, practicing, and listening to counseling sessions. Serving as clients will be approximately 28 teachers-in-training, 55 residence hall assistants, 40 leadership class members, 20 TRIO grant participants, 25 etiquette class members, and 15 students doing career exploration. Thus, approximately 550 students are served per year. However, by updating facilities and equipment we expect an expansion of services delivered in the Counseling Clinic by graduate students to undergraduate students/clients, thereby, increasing both hours of usage and the number of NSU students served. Additionally, clients in the Counseling Clinic will develop transferable skills that will enable them to affect hundreds of other students in work and classroom settings.

Unique Needs

Unique needs of the target groups include a laboratory environment for graduate students and counseling services for undergraduate students. A laboratory environment will allow graduate students to videotape counseling sessions, listen, observe, and critique peers, review tapes with professors and peers, while providing counseling services for undergraduate students' needs.

NSU graduate students training needs include:

- Observation of self in counseling sessions through videotaping.
- Listening, observing, and critiquing peers through monitoring and sound system.
- Discussion and feedback with professors through videotapes.
- Collaboration with peers and professors.
- Counseling licensure requirements.
- National certification requirements.
- Graduation requirements.
- Better job opportunities.

NSU Undergraduate students/clients' counseling needs include:

- Alcohol consumption
- Depression
- Suicide
- Eating disorders
- Drug use
- Anxiety
- Conflict resolution
- Self-awareness
- Consequences for behaviors
- Improved family relationships
- Improved personal relationships (i.e. partners, peers, instructors, etc.)
- Sexual behaviors and activity
- Financial concerns
- Job opportunities
- Peer pressures

6. How will funding of the project advance the University and College / unit technology plan? Which NSTEP objective/s will this funding benefit? (15 points)

This project advances the COE Technology Plan, 2005-2009 by addressing the objectives that promote the use of technology by students and faculty for the delivery of innovative instruction in classrooms and laboratories and the engagement of creative methodologies in research.

The funding of this project will specifically advance the following NSTEP objectives:

This project supports NSTEP Objective 1 by availing counseling clinic-related technology to allow for audio and videotaping of undergraduate and graduate students' counseling sessions.

This project supports NSTEP Objectives 2 and 3 by fostering classroom and laboratory technology and learning environment to allow graduate students to practice counseling skills and undergraduate students to benefit from counseling services.

This project supports NSTEP Objective 7 of utilizing advanced technological techniques that will promote students and faculty to engage in creative teaching and learning related to the counseling process.

This project supports NSTEP Objective 8 by providing state-of-the-art equipment affording opportunities for developing and using technology to research the counseling process.

7. List those individuals who will be responsible for the implementation of the project/initiative and indicate their demonstrated abilities to accomplish the objectives of the project. (0 points)

Roxane Dufrene, Ph.D., LMFT, LPC-S, NCC – COE TEC Counseling Clinic Coordinator
Danny Seymour, Ph.D., LMFT, LPC-S – SPS Program Coordinator
Barbara Hebert, Ph.D., LMFT, LPC-S, NCC – School Counseling Program Coordinator

All three professors of record are Louisiana Licensed Mental Health Counselors with a combined total of over 50 years of training in counseling and student affairs and professional experience.

8. Describe any personnel (technical or otherwise) required to support the project/initiative. (5 points)

The personnel to be engaged to support this project will include COE counseling faculty, COE administrators, other faculty in the COE, electricians in the University Physical Plant, and graduate assistants assigned to the Counseling Clinic in this department.

9. Provide a schedule for implementation and evaluation. (5 points)

Schedule for Implementation

The following steps will be engaged in the implementation of the project:

1. Upon acceptance and approval of the proposal, University purchasing procedures will be followed to order the approved list of equipment for the project (mid- to late November, 2005).

2. Delivery of the equipment is anticipated within 45 days after the University issues the purchase order to the vendor. When the equipment is delivered, the vendor will install the equipment working with the University electricians and COE counseling faculty.

3. The vendor will provide training in the use of the equipment to the COE counseling faculty.

4. The COE counseling faculty will provide the graduate students training in the use of the equipment.

5. The counseling program will be conducted utilizing the equipment.

6. Evaluation of the project objectives will be completed annually.

Evaluation

Using the 10 methodologies described in Section 4 above (Objectives 1 a-d, 2 a-c, and 3 a-c), the objectives of the project will be evaluated. The data will be analyzed and a report of findings will be developed. Conclusions drawn from the findings will be used for improving further use of the laboratory equipment.

10. Estimate the expected life of hardware and software. Explain any anticipated equipment/software upgrades during the next five years. (0 points)

The vendor describes the life expectancy of the hardware to be used in this project to be 5 years or greater. Standard manufacturer warranties, with a minimum of 1 year and others longer, are included for all equipment. All equipment is hardware and will require no software upgrades.

11. Explain in detail a plan and policy that will be in place to ensure property security/controls for any equipment received. Equipment will not be purchased until an acceptable policy is in place to ensure equipment security. (15 points)

All equipment will be located in the Counseling Clinic located in the TEC. It is planned that the facilities that house the equipment will be accessible only when COE counseling faculty is present. Because of the federal HIPAA requirements concerning safety and confidentiality of client files, the Counseling Clinic is designated as a secure environment. There is only one access door that is locked when the clinic is not in use. Only university administrators and College of Education faculty with approved access have keys to this area. The NSU Office of Environmental Health and Safety University Key Policy issued by the Vice President for University Affairs will be strictly adhered to in order to preserve the security of this equipment.

12. Attach a detailed budget, including: specs., description, cost, state contract number, and vendor for each item; cost of outside support personnel; and a description of how the proposal will support University/College/unit resources (i.e., cash match, funds from other sources, or reallocation of existing hardware/software or other equipment. (20 points)

See Attached Budget.

This project does not necessitate any funding for outside support personnel.

Funding of this proposal will support COE resources by replacing obsolete cameras, microphones, and cassette recorders/players in the TEC Counseling Clinic.

With an initial investment of $22,326.00, the amortized cost of the Counseling Clinic upgrades over the 5-year life expectancy of the equipment will be $4,465.00 and the annual per student cost will be $8.12.

The $22,326.00 budget presented in this proposal to upgrade the Counseling Clinic with state-of-the-art-technology is most realistic to ensure the successful accomplishment of the objectives of this project.

13. Attach a letter of support for the project signed by the requesting unit's Dean, the appropriate Vice President (for non-academic units), or the SGA President from the requesting campus (for student requests). (0 points)

See Attached Letter

Student Technology Fee
Grant Proposal
2005-06

Name	Signature	Date Reviewed
Dr. Jim McCrory		2-5024
Comments:		
Tyron Tinnerello		11/25/05
Comments:		
Christyn Perot	Christyn Perot	10/24/05
Comments:		
Tim Chadbourne		11/25/05
Comments:		
Gary Gatch	Gary Gatch	10/25/05
Comments:		
Dale Martin		11-11-05
Comments:		

Date Given to IS
10/24/05

Date Received from IS
10/26/05

NORTHWESTERN STATE
UNIVERSITY OF LOUISIANA
Natchitoches, LA 71497

Student Technology
Watson Library, Room 113

Telephone (318) 357-6482
FAX (318) 357-6480

January 6, 2005

Dr. Dan Seymour
Northwestern State University
College of Education
Natchitoches, LA 71458

Dear Dr. Seymour,

It is with pleasure that the STAT (Student Technology Advisory Team) has fully funded your grant proposal for Fiscal Year 2005-06 in the amount of $22,326.00.

Ordering of equipment listed in the grant proposal will take place during the month of January.

Please be reminded that your grant was funded through Northwestern Student Technology Fees, all equipment purchased, therefore, must be used exclusively and directly for/by Northwestern students.

You are commended for, and encouraged to continue your efforts to enrich the learning environment for students at Northwestern State University. Your time, effort, and vision in service of the students are greatly appreciated. If you have questions or need additional information please contact me by phone or via email at: long@nsula.edu.

Sincerely,

Jennifer

Jennifer Long
Student Technology Fee

cc: Dr. Vickie Gentry

BUDGET

Quan	Item	Description	Unit Price	Price
Recording Equipment				
5	WVCF224	Panasonic mini color dome camera and power supply	399.00	1,995.00
5	PZM185	Crown ceiling mounted paddle microphone	189.00	945.00
5	AT8801	Audio Technica single channel phantom power supply	59.00	295.00
5	MDA3AV	Extron 3 output composite video/stereo audio distribution amplifier	179.00	895.00
1	MAV88AVRCA	Extron matrix switcher 8 in 8 out	1,195.00	1,195.00
5	DRM100S	JVC DVD recorder	399.00	1,995.00
Monitoring Equipment				
20	HD280PRO	Sennheiser monitoring headphones	179.00	3,580.00
1	RK12	Middle Atlantic 12 space rack	99.00	99.00
5	U2	Middle Atlantic rack shelf	39.00	195.00
1	PD915R	Middle Atlantic 8 outlet power strip	69.00	69.00
2	MX882	Behringer Ultralink Pro 8 channel splitter/mixer	119.00	238.00
5	L173WT-BA	LG Electronics 17" LCD monitor (no tuner)	749.00	3,745.00
5	WP1x2	Horizon wall plate with 2 - 1/4" jacks	49.00	245.00
5	FPM4100/FSA1000	LCD wall mount bracket/security latch/mounting hardware	299.00	1,495.00
Installation				
1	Installation	Turnkey Installation, Training, Phone Support	4,100.00	4,100.00
1	Custom Cable	Installation Cable	1,240.00	1,240.00
		Total		22,326.00

Vendor:
Mission Service Supply
P. O. Box 2957, West Monroe, LA 71294-2957
Phone: 800-352-7222

Student Technology Funding Proposal
Drs. Seymour, Dufrene, Hebert; October 21, 2005
Equipment Specifications List

1. Panasonic WVCF224 mini color dome camera; 135 mm diameter color compact indoor dome type camera, 480 line horizontal resolution, minimum illumination 2 lux, 2x variable focus lens, built in aperture level correction, 3 dimensional hinge, 2.8 mm to 6.0 mm variable focus auto iris lens, 24v power supply
2. Crown PZM185 ceiling mounted omni directional boundary microphone. Low impedance XLR output, works on phantom power, electret condenser element, 50 Hz to 16 kHz frequency response, s/n ratio 73db at 94db spl.
3. Audio Technica AT8801 phantom power supply; provides 48v phantom power for single source microphone, residual output noise -71dBV, 10 – 25,000 hz, 5.1/2"w, 2.36"d, 1.73"h 6 ft long, 18 gauge, 3 conductor cable.
4. Extron MDA3AV; 1 BNC video input, 3 buffered composite video outputs, audio frequency response 20Hz to 20kHz 1 stereo balanced/unbalanced input, 50k ohms unbalanced, 25 ohms balanced, 3 stereo balanced/unbalanced outputs. Required 12v DC power. Weighs 0.6lbs.
5. Extron MAV88AVRCA; matrix switcher that switches composite video, s video, stereo audio balanced or unbalanced. 8 inputs, 8 outputs, 150 MHz (-3db) video bandwidth, video genlock, audio input gain and attenuation, RS 232 control, BNC video inputs/outputs, 8 stereo unbalanced audio inputs, 8 RCA audio outputs.
6. JVC DRM100S DVD recorder; progressive scan output, DVD-R, DVD-RAM, DVD-RW recording capability (certain formats of DVD-RAM only). Inputs, coax video, composite video, composite audio L-R, S Video (x2), IEEE1394.
7. Sennheiser HD280PRO monitor headphones. Dynamic transducer, 8Hz to 25kHz, 64 ohms, spl 102 db, Circumaural closed ear coupling, 0.1% distortion. 3.5mm mini connector with ¼" adaptor.
8. Behringer Ultralink Pro 8 channel splitter/mixer. XLR and ¼" connectors, 50KOhms balanced, 25kOhms unbalanced, operating level -10dBV to +4 dBU, 5 Hz to 200kHz frequency response.
9. LG Electronics L173WT-BA 17" LCD monitor, no tuner. 1280 x 768p WXGA resolution, 600:1 high contrast ratio, 176 degrees viewing angle, Hi Res component, DVI-I, D-sub 15 pin, S video and AV input. Screen size 17", aspect ratio 15:9, rear inputs, audio out, contrast, brightness, color, sharpness video control. PC to TV at one touch.
10. Middle Atlantic RK12 12 space rack. Black laminate finish, 5/8" furniture grade MDF board construction, 11 gauge threaded rack rails installed, 150lb weight capacity.
11. Middle Atlantic 8 outlet power strip. UL and CSA listed. 8 outlets spaced to accommodate power plugs, 1 – 15amp circuit, lightweight anodized aluminum chassis.
12. Chief FPM4100 LCD wall mount. Pitch adjustable, 1" vertical or lateral shift, 1 ½" depth from wall, 6 7/8" x 5 5/8" x 1 ½". FSA1000 lockable latch for small flat panel display mounts. Compatible with padlocks.
13. WP1x2 Horizon wall plate with 2 ¼" jacks. Stainless steel, with switchcraft connector.

14. Installation to include all hanging of monitors, wiring of monitors and recorders, checking equipment, testing of equipment and system training. System will be fully operational upon completion. Wiring will not be exposed whenever possible. University will be responsible for electrical wiring for all components. Phone support for the life of the system during regular business hours in included with system installation and training. Minimum of 4 hours training included.
15. CustomCable is to include all necessary audio and video wiring as well as installation hardware.

Standard manufacturer warranties apply to all equipment. Estimated expected use is 5 years or greater. All equipment is hardware and will require no software upgrades.

College of Education
Northwestern State University

Phone: 318-357-6288
Fax: 318-357-6275

October 21, 2005

Members, Student Technology Fee Grant Committee
Northwestern State University of Louisiana
Natchitoches, Louisiana 71497

Dear Committee Members:

For over 40 years the NSU College of Education has proudly offered masters programs to prepare counselors and student affairs professionals. These preparation programs have certainly included a didactic component but have always emphasized an experiential "hands on" component. By allowing opportunities for practice and application, NSU graduates have been well equipped to meet employment challenges in their professions.

The Teacher Education Center was built in the early 1970s as a unique setting for preparing professional educators including counselors and student affairs professionals. A Counseling Clinic was included in the original design of the Teacher Education Center and is in need of updated facilities and equipment. The TEC Counseling Clinic is operating with obsolete video cameras, microphones, and cassette players. Faculty have even resorted to using "baby monitors" to complete observations of the counseling sessions of graduate students. These graduate students will benefit greatly by being trained using up-to-date equipment.

I respectfully request your careful consideration of the proposal submitted to your Committee by Drs. Dufrene, Hebert, and Seymour. Again, these graduate students truly deserve access to state-of-the-art technology to complete their training to become counselors and student affairs professionals. Thank you very much.

Sincerely,

Vickie Gentry

Vickie Gentry
Acting Dean

VG:dsp

NORTHWESTERN
State University
A Member of the University of Louisiana System
Natchitoches, Louisiana 71497

College of Education
Telephone (318) 357-6273

October 21, 2005

Members, Student Technology Fee Grant Committee
Room 113D, Watson Library
Northwestern State University of Louisiana
Natchitoches, Louisiana 71497

Dear Committee Members:

Please accept the attached completed Student Technology Fee Grant Funding Request Form submitted by Dan Seymour, Ph.D., Associate Professor and SPS Program Coordinator; Roxane Dufrene, Ph.D., Assistant Professor and COE Counseling Clinic Coordinator; and Barbara Hebert, Ph.D., Assistant Professor and School Counseling Program Coordinator, counseling faculty in the College of Education. Additionally, documents to support the proposal are provided.

The funding of this proposal will be a creative approach by which the Student Technology Fee Grant Committee can address the technology needs of undergraduate students other than just buying more computers. Additionally, this funding will address the needs of a specialized group of graduate students who have probably realized little benefit from the technology fees that they have paid throughout matriculation in their program of study while at NSU. These students deserve an opportunity to complete their graduate study with access to state-of-the art technology and by funding this proposal you will provide this opportunity.

Thank you for any consideration given this proposal.

Sincerely,

Dan Seymour, Ph.D.
Associate Professor
SPS Program Coordinator

Roxane Dufrene, Ph.D.
Assistant Professor
Counseling Clinic Program Coordinator

Barbara Hebert, Ph.D.
Assistant Professor
School Counseling Program Coordinator

DS:RD:nas
Attachments

Panasonic ideas for life

consumer | business

supp

> Fixed Dome Cameras > WV-CF224

WV-CF224

Mini Color Dome Camera, 12V DC and 24V AC, 480 TVL, ALC Lens

See Rep for Price

how to buy

- Find a Security sales rep

- Specification Sh
- Operating Instru
- Larger image

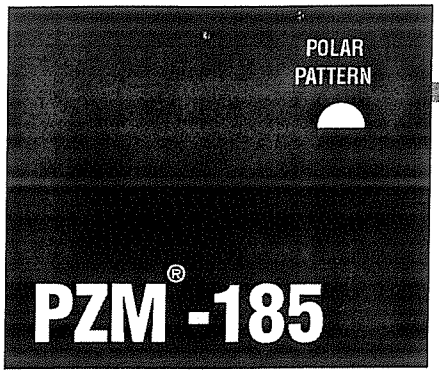
- Print this page
- Email this page

- View/compare a
- Learn about fixe cameras

overview | features | support & resources

Economical Mini Color Dome Camera Features 2X Variable Focal Auto Iris Lens. The WV-CF224 Color Dome Camera from Panasonic is equipped with a 380,000 pixel, ¼-type CCD and can be used with both AC and DC power sources. In addition to 480-line horizontal resolution, it can operate effectively in lighting as low as 2 lux (0.2 fc) with an aperture setting of F1.4. A full range of correction features including Backlight Compensation (BLC), Aperture Correction, and Auto tracing White Balance (ATW) ensure crisp color images in dark or backlit environments. The 2.8mm to 6.0mm variable-focal auto iris lens is standard equipment, and provides easy installation and camera angle adjustment. When used with a 24-volt AC power source, it simultaneously supports Internal, Line-Lock, and VD2 synchronization, making it simple to configure a reliable, multi-channel camera system. Great specs, economical cost, simple operation, and system flexibility. The WV-CF224 is perfect for a wide range of applications.

- 135mm (5-5/16 diameter compact color dome camera for indoor use
- 480-line horizontal resolution
- Minimum illumination of 2 lux (0.2 fc)
- 50dB signal to noise ratio
- Built-in aperture level (sharp/soft) correction
- Video monitor output jack provides on the spot checking fo lens angle setting
- Can be installed in standard electric junction box.
- 24V AC/12V DC compatible power source operation to suit a wide variety of applications



PZM®-185

PRESSURE ZONE MICROPHONE

The Crown® PZM®-185 Pressure Zone Microphone® is a microphone designed for general-purpose use. Ideal for applications such as conferences, group discussions, interviews, broadcast, home video production, lectures, and recordings. The mic can be placed on a large surface such as a table, floor, wall, or lectern.

The PZM-185 is powered either by an internal AAA 1.5V battery or 12-48V phantom power. The boundary "paddle" can be detached so the mic will fit in your pocket. Attached to the mic is an 8-foot (2.438-m) cable leading to a tubular power module.

The microphone's low-profile design reduces "mic fright" and minimizes clutter. It is nearly invisible on camera. The PZM-185 minimizes pickup of vibration and handling noise.

Its electret condenser capsule provides a wide, smooth frequency response from 50 Hz to 16 kHz. The mic's hemispherical polar pattern allows clear pickup of everyone surrounding the microphone.

The PZM-185 is protected against static and RFI. The output is balanced, low impedance, which allows long cable runs without hum pickup or high-frequency loss.

Like other Pressure Zone Microphones, the PZM-185 uses a miniature mic capsule mounted very near a sound-reflecting plate or boundary in the Pressure Zone. In this zone, direct sound from the sound source combines in phase at all frequencies with reflected sound off the boundary. The benefits are many: 6 dB more sensitivity, 6 dB less noise, a wide smooth frequency response free of phase interference, excellent clarity and "reach," and consistent pickup anywhere around the microphone.

Operating Instructions

You can power the PZM-185 either by 12-48V phantom power or battery power. To use phantom power, plug the mic connector into a phantom power supply or into a mic input that provides 12-48V phantom power.

To use battery power, open the cover (Fig. 3) and insert a AAA 1.5V battery. Please note the correct orientation of the battery.

If you're using the microphone on a hard surface, such as a table top, the boundary "paddle" is not necessary. If you're using the mic on a carpet or other sound-absorbing surface, attach the boundary "paddle" for best results.

Features

- Ideal for table-top or on-floor recordings: conference, group discussions, interviews, broadcast, home video, lectures, music
- Works on internal AAA battery or phantom power
- Low-impedance XLR-type output
- Boundary "paddle" can be detached
- Clear, bright sound quality with excellent bass

Specifications

Element: Electret condenser.

Frequency response (typical): 50 Hz to 16 kHz (Fig. 1).

Polar pattern: Hemispherical (half-omni) on a large surface.

Impedance: 150 ohms, balanced. Recommended minimum load impedance 1000 ohms.

Open circuit sensitivity (1.5V battery power): 0.8mV/Pa (–62 dB re 1 volt/Pa*).

Power sensitivity (1.5V battery power): –59.5 dBm. EIA sensitivity –154 dBm.

Open-circuit sensitivity (phantom power): 3.2 mV/Pa* (–50 dB re 1V/Pa).

Power sensitivity (phantom power): –47.5 dBm. EIA sensitivity –142 dBm.

Equivalent noise level (self-noise): 21 dB SPL typical, A-weighted (0 dB = .0002 dyne/cm²).

S/N ratio: 73 dB at 94 dB SPL.

Maximum SPL: 120 dB SPL produces 3% distortion with phantom power.

Polarity: Positive pressure on the diaphragm produces positive voltage on pin 2 with respect to pin 3 of the output connector.

Cable: 8-foot (2.438-m), 2-conductor shielded, permanently attached cable. No other cable supplied; use 2-conductor shielded mic cable.

Output connector: 3-pin XLR-type pro audio connector.

Operating voltage: One 1.5V size AAA alkaline battery (Duracell MN2400 or equivalent) or 12 to 48V phantom power (positive voltage on pins 2 and 3 with respect to pin 1).

Battery life: Approximately 45 days.

Current drain: 0.5 mA.

Materials: High-impact plastic housing and steel power module.

Finish: Satin black.

Dimensions: Fig. 2.

Weight: 4 ounces (115 grams).

Included accessories: 1.5V AAA battery.

Optional accessories: Crown PH-1A phantom power supply (1 channel, battery or AC adapter powered).

*1 pascal = 10 dynes/cm² = 10 microbars = 94 dB SPL.

Fig. 1

Frequency Response

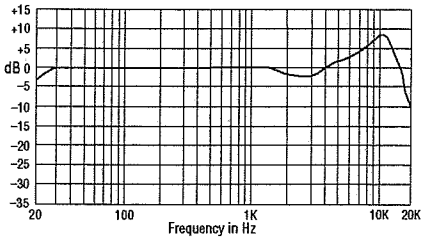
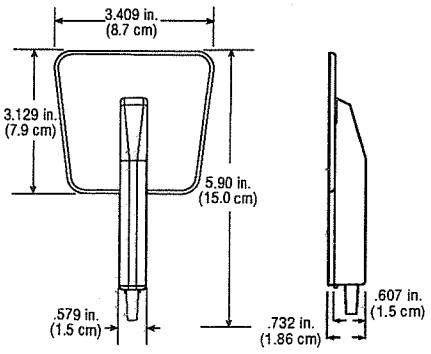


Fig. 2

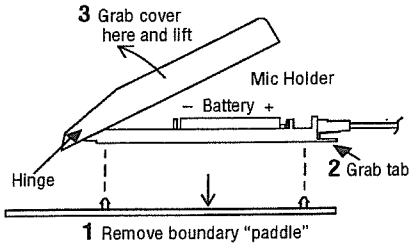
Dimensions



RECORDING
BROADCAST

PZM-185

Fig. 3



Suggestions for Use

Place the microphone near the sound source as described following:

Conferences, group discussions, seated interviews—Lay the microphone on the table. Use one microphone in the middle of every 4 to 6 people. Ideally, no person should be more than 3 feet (0.9144 m) from the nearest microphone. For maximum clarity, hold the conference in an acoustically "dead" room with carpeting, acoustic-tile ceiling, and drapes.

Lectures—Place the microphone on top of the lectern, near the edge of the lectern farthest from the person speaking.

Video or movies—Lay the microphone on a table or on the floor near the action.

Music—Place the microphone near the sound source, on the floor, on a wall, or on a large hard-surfaced panel. For grand piano, tape the microphone to the center of the underside of the raised lid.

For spaced-pair stereo recording, place two microphones three to ten feet (.914 to 3.05m) apart on a wall or on the floor about five to twenty feet (1.52 to 6.10m) from the musical ensemble. For near-coincident stereo recording, mount them on a microphone stand using a stereo bar or stereo microphone adapter.

Architects' and Engineers' Specifications

The microphone shall be a Crown PZM-185. The PZM-185 Pressure Zone Microphone shall be powered by 12 to 48V phantom power or a AAA 1.5V battery. The microphone shall have a permanently attached cable leading to a power module with an XLR-type connector. An integral boundary paddle shall be removable. Frequency response shall be uniform from 50 Hz to 16,000 Hz. Open-circuit sensitivity shall be 3.2 mV/Pa with phantom power. Maximum SPL for 3% THD shall be 120 dB with 48V phantom power. Self-noise shall be 21 dB SPL A-weighted. Impedance shall be 150 ohms balanced. The Crown PZM-185 is specified.

Warranty

Crown professional microphones are guaranteed against malfunction for a period of three years from date of original purchase. Please refer to the enclosed full warranty statement for more detail.

Service

If the microphone fails to work, replace or repair the mic cables, replace the battery or check the power supply. If service is required, return the microphone in its original packaging to: **Crown Factory Service, 1718 West Mishawaka Road, Elkhart, IN 46517-9439.** For further assistance or technical support call **800-342-6939.**

crown

A Harman International Company

Crown International, Inc.
1718 W. Mishawaka Rd.
Elkhart, IN 46517-9439
TEL: 574-294-8000
FAX: 574-294-8FAX
www.crownaudio.com

7/05 126801-7A

Product Details

HD280 Pro Item No. 004974

Short Description

The HD280 Professional is Sennheiser's most significant closed, circumaural headphone to be introduced in years. Designed to exceed the demands of the professional environment, the HD280Pro boasts extremely robust construction combined with extensive features that meet the requirements of today's most demanding applications. The unique collapsible design combined with swiveling ear cups, offers maximum flexibility in any application.

SPECS ▶ INFO

MSRP $

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Features

- Closed, dynamic stereo headphones
- Accurate, linear sound reproduction for critical monitoring applications
- Optimum impedance ensures universal compatability
- Space saving design features collapsible, rotating earcups
- Up to 32 dB of ambient noise attenuation
- Neodymium magnets for high maximum SPL
- Single-sided, coiled cable with 3.5 mm mini jack with locking 1/4" adapter
- Very comfortable, even if used for long periods of time
- Rugged construction with user-replaceable parts
- 2 year warranty

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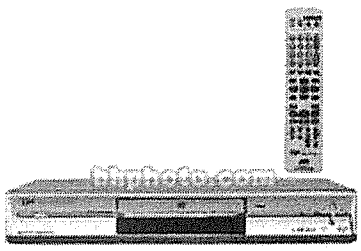
- PDF Sheet (464k)
- HiRes Image (304

GO BACK



JVC

JVC DR-M100S DVD Recorder/Play
Records to DVD-RAM and DVD-R/
Mfr# DRM100S • B&H# JVDRM100S

Our Price:

Shipping Cost:

Availability:

Quantity 1

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Accessories | Features | Specifications | Item Includes

- Video
- Format Compatibility
- Audio
- Convenience
- Connectors
- General

Video

System	NTSC
Region	1
Hard Disk Drive	No
Progressive Scan Output	Yes
HD Upconversion	No

Format Compatibility

DVD Recording Media	DVD-RAM (only certain types) DVD-R, Video Format DVD-RW, Video and VR Format
DVD Playback Media	DVD-Video DVD-R DVD-RW DVD-RAM (only certain types)
CD-R/CD-RW Playback	Yes, VCD, Super VCD, CD-DA, CD-R, CD-RW, CD-ROM
Dolby Digital/DTS	Yes
MP3 Playback	Yes
WMA Playback	No
Picture CD/JPEG	No/Yes
SACD/DVD-Audio Playback	Yes/Yes

Audio

Built-in Decoder	No
HDCD Decoding	No
Audio D/A Converter	192 kHz/24-bit
Virtual Surround	No
Bass Management	No

Convenience

Digital Media Slot	No
TV Tuner	Yes
TiVo	No
VCR Plus+	Yes
Slow Motion Playback	Yes
Frame-by-Frame Playback	Yes
Bookmarking	No
Playback Zoom	No

Connectors

Inputs	**Coaxial Antenna** - x1 **Composite Video** - RCA x2 **Composite Audio L/R** - RCA x2

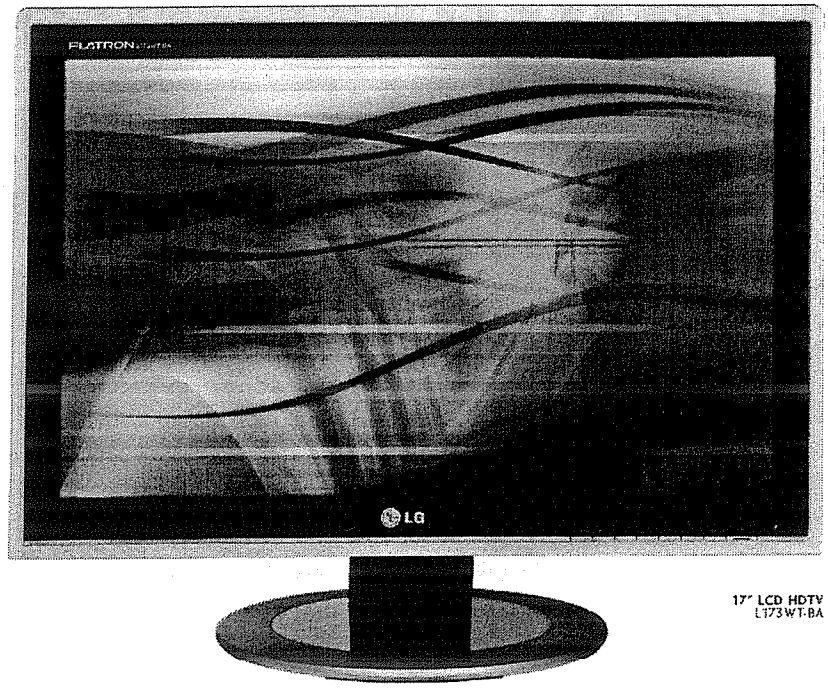
	S-Video - x2 **i.Link (IEEE-1394)** - x1
Outputs	**RF Antenna** - x1 **Composite Video** - RCA x1 **Composite Audio L/R** - RCA x1 **S-Video** - x1 **Component Video** - RCA x1 (with Copy Protection) **Digital Audio Coaxial** - x1
General	
Remote Control	Yes
Power Requirements	120 VAC @ 60 Hz
Dimensions (WxHxD)	17.1 x 2.8 x 11.8" (435 x 70 x 300 mm)
Weight	7.5 lbs (3.4 kg)
Color	Silver
Warranty	1-Year Parts and 90-Day Labor

LG

Life's Good

L173WT-BA

17" LCD WIDESCREEN 15:9 HDTV MONITOR



17" LCD HDTV
L173WT-BA

17" HDTV Monitor
Truly Flat LCD screen delivers razor sharp images

1280 x 768p Resolution WXGA
High resolution format produces extremely detailed imagery

600:1 High Contrast Ratio
LCD technology emits sharp contrast between light and dark images

450 cd/m² High Brightness
Renders an incredibly bright picture, even in light-drenched environments

176 Degrees Viewing Angle
New Super IPS Technology allows for distortion-free viewing from almost any angle

Hi-Res Component, DVI-I, D-Sub 15-Pin, S-Video, and AV
Multiple inputs for DVD players, VCRs, computers, and video game systems

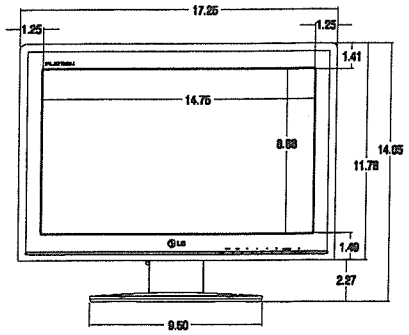
Advanced Picture In Picture (PIP)

energy

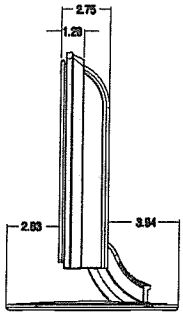
HDTV MONITOR

L173WT-BA 17" LCD Widescreen 15:9 HDTV Monitor

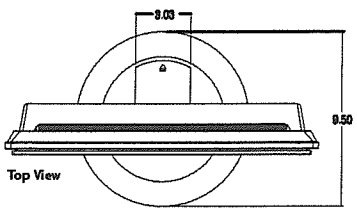
DIMENSIONS



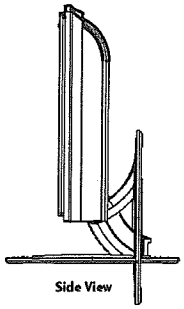
Front View

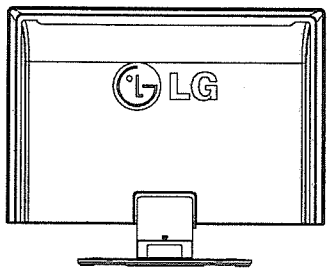


Side View



Top View


Side View



Back View

PANEL

Screen Size	17"
Aspect Ratio	15:9
Native Resolution	1280 x 768p
Pixels (H x V x 3)	2,949,120
Brightness	450 cd/m²
Contrast Ratio	600:1
Viewing Angle (H x V)	176° x 176°
Color Depth	16.8 Million
MTBF	50,000 Hours (typ.)
Response Time	25 ms
Surface Treatments	Anti-glare, Hard Coating (3H)

VIDEO

CSM	6500K, 9300K, User
Picture	Contrast, Brightness, Sharpness, Color, Tint
EZ Video	Dynamic, Standard, Mild, Game, User
ARC	Yes
Auto-Configure	Yes
Clock	Yes
Phase	Yes
Position	Yes

REAR INPUTS

High Resolution Component	1
Audio Input	Yes, Plus PC Sound
15-Pin Sub "D" (thru DVI-I)	1
HDTV Formats	720p, 1080i
PC Formats	Auto Scaling to XGA
DVI-I	Yes
Theft Prevention Locking Device	Yes
RS-232C Input	Yes
Speaker Out	Yes
Audio Out	Yes

AUDIO

Base/Treble/Balance	Yes
Auto Volume Leveler	Yes
Headphone Output	Yes
Audio Power	10W (5W x 2)

SPECIAL FEATURES

PC to TV at One Touch	Yes
Advanced Picture In Picture (PIP)	Yes, PIP/POP/PBP
PIP Adjust	Position, Contrast, Brightness, Sharpness, Color, Tint, PIP Sound, PIP Swap
Zoom	Yes
Last Source Power-on Recall	Yes
Auto Power Option	Yes
Menu Languages	6
Child Lock w/V-Chip	Yes
Power Indicator	On/Off
Menu Transparency	Yes
Reset	Yes

CABINET

Color	Silver/Black
Dimensions (W x H x D)	17.25" x 14.05" x 9.50"
Without Detachable Stand	17.25" x 11.78" x 2.75"
Weight with Stand	15.76 Lbs.
VESA™ Standard Mount Interface	Yes (100 mm)
Stand	Detachable
Tilt	+5 (down) / -25 (up)

CARTON

Dimensions (W x H x D)	21.26" x 8.35" x 22.01"
Weight	23.37 Lbs.

POWER

Power Consumption	55W (3W Standby)
Power Source	90~264V (47~63 Hz)
Direct AC Input	Yes
Power Type	LIPS
EPA Energy Star	Yes

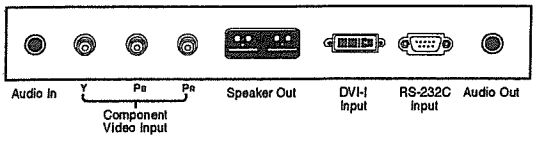
SERVICE/LIMITED WARRANTY

Warranty (Parts/Labor)	3 Years

STANDARD (CERTIFICATION)

UL	Yes
FCC-B	Yes
NOM	Yes
CSA (CUL)	Yes
CE	Yes
TUV	Yes
SEMKO	Yes
GOST	Yes
ISO 13406-2	Yes
C-TICK	Yes
VCCI-2	Yes
MIC	Yes
EK	Yes
CCC	Yes
PSB	Yes
BSM	Yes
B-Mark	Yes
SASO	Yes

REAR JACK PANEL



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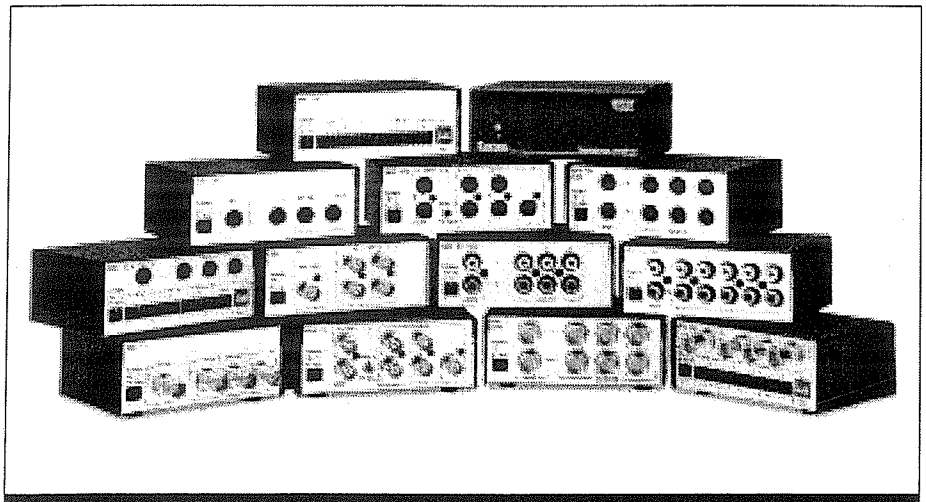
LG Electronics U.S.A., Inc. 2000 Millbrook Drive, Lincolnshire, IL 60069 Customer Service: 1-888-865-3026

Dimensions and weights are approximate. Design and specifications subject to change without notice. HDTV monitors require optional set-top box to receive high-definition broadcast. VESA™ is a registered trademark of Video Electronics Association. The "LG Life's Good" is a registered trademark of LG Electronics U.S.A., Inc. Printed in the USA. LG173WTBA0905

LG Life's Good

Extron® Electronics

INTERFACING, SWITCHING AND DISTRIBUTION



VersaTools™ Mini Distribution Amplifiers

Video bandwidth: 435 MHz (-3db) on composite models

Video bandwidth: 270 MHz (-3db) on S-video models

Quarter rack width metal enclosure

Versatile mounting options including rack and under-desk mounts

Unity audio gain: selectable output audio gain (captive screw models only)

100-240VAC external international power supply

SERVICE 3 SUPPORT SOLUTIONS

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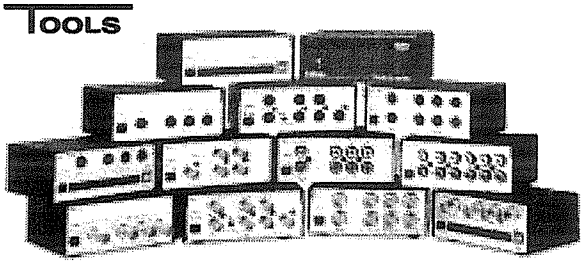
DESCRIPTION

VERSA™ TOOLS



Extron VersaTools™ is a new line of compact, versatile solution products designed for high-quality performance. VersaTools' small, quarter rack width enclosures, flexible mounting options (rack, under-desk, or stand-alone), and adaptable, external international power supply allow for easy integration into both new and existing A/V systems including boardrooms, training facilities, home theater, command and control centers, and rental and staging environments. The VersaTools line offers twelve affordable models of Mini Distribution Amplifiers for the distribution of a single source input to multiple outputs.

Composite Video Models

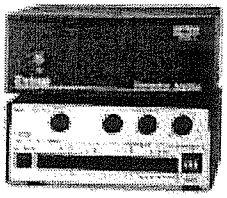
MDA 3AV

Composite models have 435 MHz (-3dB) bandwidth to maintain signal integrity. Video input and outputs are on female BNC connectors.

Balanced/unbalanced stereo audio is accepted on captive screw connectors.

	AUD IN	AUD OUT	VID IN	VID OUT
MDA 3V	—	—	1	3
MDA 3V Dual	—	—	2	6
MDA 5V	—	—	1	5
MDA 3AV	1	3	1	3

S-Video Models



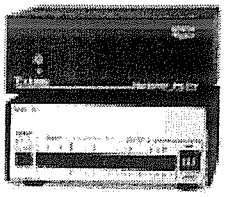
MDA 3SVA

S-video models have 270 MHz (-3dB) bandwidth to maintain signal integrity. Video input and outputs are on female 4-pin mini-DIN connectors.

Balanced/unbalanced stereo audio is accepted on captive screw connectors.

	AUD IN	AUD OUT	VID IN	VID OUT
MDA 3SV	—	—	1	3
MDA 3SV Dual	—	—	2	6
MDA 5SV	—	—	1	5
MDA 3SVA	1	3	1	3

Stereo Audio Models



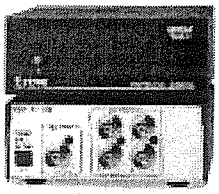
MDA 3A

Audio models are available with either unbalanced RCA connectors or with captive screw connectors (balanced/ unbalanced).

Captive screw models have selectable output gain via DIP switch. This feature provides unity gain for balanced or unbalanced audio signals.

	AUD IN	AUD OUT
MDA 3A	1	3
MDA 3A RCA	1	3
MDA 5A RCA	1	5

SDI Model



MDA 4V SDI

SDI model accepts and distributes 4fsc PAL, 4fsc NTSC, component 4:2:2, and widescreen 4:2:2 standard SDI signals on female BNC connectors.

	VID IN	VID OUT
MDA 4V SDI	1	4

SPECIFICATIONS

Video
- Gain ..... Unity
- Bandwidth
  - MDA 3SV/3SVA/3SV Dual, MDA 5SV ..... 270 MHz (-3dB)
  - MDA 3V/3AV/3V Dual, MDA 5V ..... 435 MHz (-3dB)
- Differential phase error ..... 0.05°, 0 to 50 MHz
- Differential gain error ..... <0.05%, 0 to 50 MHz
- K factor ..... <0.05%

Video input
- Number/signal type
  - MDA 3SV/3SVA, MDA 5SV ..... 1 NTSC/PAL/SECAM S-video
  - MDA 3SV Dual ..... 2 NTSC/PAL/SECAM S-video
  - MDA 3V/3AV, MDA 5V ..... 1 NTSC/PAL/SECAM composite video
  - MDA 3V Dual ..... 2 NTSC/PAL/SECAM composite video
- Connectors
  - MDA 3SV/3SVA, MDA 5SV ..... 1 4-pin mini DIN female
  - MDA 3SV Dual ..... 2 4-pin mini DIN female
  - MDA 3V/3AV, MDA 5V ..... 1 BNC female
  - MDA 3V Dual ..... 2 BNC female
- Minimum/maximum levels
  - MDA 3SV/3SVA/3SV Dual, MDA 5SV ..... Y: 0.4 to 2.0V p-p with no offset
  - MDA 3V/3AV/3V Dual, MDA 5V ..... 0.4 to 2.0V p-p with no offset at
- Impedance ..... 75 ohms
- Return loss ..... -40dB @ 0 to 10 MHz
- Maximum DC offset 1.0V

Video output
- Number/signal type
  - MDA 3SV/3SVA ..... 3 S-video
  - MDA 3SV Dual ..... 6 S-video
  - MDA 5SV ..... 6 S-video: 5 amplified for distribution, 1 passive loop-through
  - MDA 3V/3AV ..... 3 composite video
  - MDA 3V Dual ..... 6 composite video
  - MDA 5V ..... 6 composite video: 5 amplified for distribution, 1 passive loop-through
- Connectors
  - MDA 3SV/3SVA ..... 3 4-pin mini-DIN
  - MDA 3SV Dual ..... 6 4-pin mini-DIN
  - MDA 5SV ..... 6 4-pin mini-DIN
  - MDA 3V/3AV ..... 3 BNC female
  - MDA 3V Dual ..... 6 BNC female
  - MDA 5V ..... 6 BNC female
- Minimum/maximum level(s) ..... 0.4V to 2.0V p-p
- Impedance ..... 75 ohms
- Return loss ..... -30dB @ 5 MHz
- DC offset ..... ±5mV maximum with input at 0 offset

Sync
- Standards ..... NTSC 3.58, NTSC 4.43, PAL, SECAM

Audio — MDA 3AV, MDA 3SVA, MDA 3A/3A RCA, MDA 5A RCA
- Gain (RCA models) ..... Unity
- Gain (Captive screw models) ..... Selectable (via DIP switch)
  - Unbalanced out ..... 0dB = unbalanced, -6dB = balanced
  - Balanced out ..... +6dB = unbalanced, 0dB = balanced
- Frequency response ..... 20 Hz to 20 kHz, ±0.05dB
- THD + Noise ..... 0.03% @ 1 kHz at rated maximum output drive
- S/N ..... >90 dB, balanced at rated maximum output drive
- Stereo channel separation ..... >80 dB @ 1 kHz; >60 dB @ 20 kHz
- CMRR ..... >75 dB @ 20 Hz to 20 kHz

Audio input — MDA 3AV, MDA 3SVA, MDA 3A/3A RCA, MDA 5A RCA
- Number/signal type
  - MDA 3A RCA, MDA 5A RCA .... 1 stereo unbalanced
  - MDA 3AV, MDA 3SVA, MDA 3A.. 1 stereo balanced/unbalanced
- Connectors
  - MDA 3A RCA, MDA 5A RCA .... 2 RCA connectors
  - MDA 3AV, MDA 3SVA, MDA 3A.. 1 3.5 mm captive screw connector, 5 pole
- Impedance
  - MDA 3A RCA, MDA 5A RCA .... >50 kohms unbalanced, DC coupled
  - MDA 3AV, MDA 3SVA, MDA 3A.. >50 kohms unbalanced, >25 kohms balanced, DC coupled
- Maximum level ..... +24 dBu (balanced or unbalanced) at stated %THD+N

Audio output — MDA 3AV, MDA 3SVA, MDA 3A/3A RCA, MDA 5A RCA
- Number/signal type
  - MDA 5A RCA ..... 5 stereo, unbalanced
  - MDA 3A RCA ..... 3 stereo, unbalanced
  - MDA 3AV, MDA 3SVA, MDA 3A.. 3 stereo, balanced/unbalanced
- Connectors
  - MDA 5A RCA ..... 10 RCA connectors
  - MDA 3A RCA ..... 6 RCA connectors
  - MDA 3AV, MDA 3SVA, MDA 3A.. 3 3.5 mm captive screw connectors, 5 pole
- Impedance
  - MDA 3A RCA, MDA 5A RCA .... 50 ohms unbalanced
  - MDA 3AV, MDA 3SVA, MDA 3A.. 50 ohms unbalanced, 100 ohms balanced
- Gain error ..... ±0.1dB channel to channel
- Maximum level (Hi-Z) ..... >+24dBu, balanced or unbalanced at stated %THD+N
- Maximum level (600 ohm) ..... >+15dBm, balanced or unbalanced at stated %THD+N

NOTE: 0dBu = 0.775 volts (RMS).

General
- Power ..... 100VAC to 240VAC, 50/60 Hz, 5 watts, external, auto-switchable; to 12VDC, 1 A (max.) power supply. Product requires 0.4 A.
- Rack mount ..... Yes, with optional 1U rack shelf, part #60-190-01, or the VersaTools rack shelf, part #60-190-20
- Enclosure type ..... Metal
- Enclosure dimensions ..... 1.7" H x 4.3" W x 3.0" D (1U high, quarter rack width) 4.2 cm H x 11.0 cm W x 7.6 cm D (Depth excludes connectors and knobs.)
- Product weight: ..... 0.7 lbs (0.3 kg)
- Shipping weight: ..... 3 lbs (1.4 kg)
- Listings ..... UL, CUL
- Compliances ..... CE, FCC Class A, VCCI, AS/NZS, ICES

MDA 4V SDI Distribution Amplifiers

Video
- Gain ..... Unity
- Resolution ..... 8 or 10 bits, automatic
- Operation standards ..... 143 Mb/s (4fscNTSC) 177 Mb/s (4fscPAL) 270 Mb/s (4:2:2 component video) 360 Mb/s (4:2:2 widescreen component video), autoselected
- Equalization and relocking ..... Automatic for up to 30dB of cable loss

SPECIFICATIONS (Cont.)

Video input

Number/signal type	1 SMPTE-259M serial digital component video
Connectors	1 BNC female
Minimum/maximum levels	0.5V to 1V p-p with no offset
Impedance	75 ohms
Return loss	-15dB @ 5 to 270 MHz
Maximum DC offset	5V

Video output

Number/signal type	4 reclocked SMPTE-259M serial digital component video
Connectors	4 BNC female
Minimum/maximum levels	0V to 1.0V p-p
Impedance	75 ohms
Return loss	-30dB @ 5 MHz
DC offset	±5mV maximum with input at 0 offset

Sync

Standards	4fscNTSC, 4fscPAL, SMPTE-259M

General

Power	100VAC to 240VAC, 50/60 Hz, 5 watts, external, auto-switchable; to 12VDC, 1 A (max.) power supply. Product requires 0.4 A.
Rack mount	Yes, with optional 1U rack shelf, part #60-190-01, or the VersaTools™ rack shelf, part #60-190-20
Enclosure type	Metal
Enclosure dimensions	1.7" H x 4.3" W x 3.0" D (1U high, quarter rack width) 4.2 cm H x 11.0 cm W x 7.6 cm D
Product weight	0.5 lbs (0.2 kg)
Shipping weight	2 lbs (0.9 kg)
Listings	UL, CUL
Compliances	CE, FCC Class A, VCCI, AS/NZS, ICES
Warranty	3 years parts and labor

Composite Video Models	Part Number
MDA 3V	60-439-01
MDA 3AV	60-439-20
MDA 3V DUAL	60-439-10
MDA 5V	60-446-01

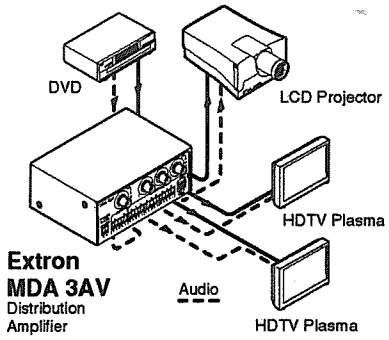
S-Video Models	
MDA 3SV	60-444-01
MDA 3SVA	60-444-20
MDA 3SV DUAL	60-444-10
MDA 5SV	60-447-01

Stereo Audio Models	
MDA 3A	60-440-01
MDA 3A RCA	60-440-30
MDA 5A RCA	60-441-01

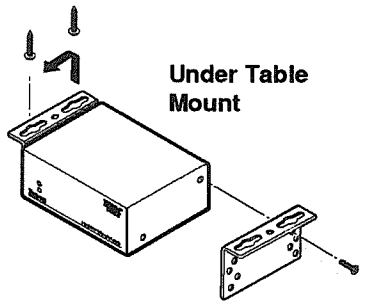
SDI Models	
MDA 4V SDI	60-448-01

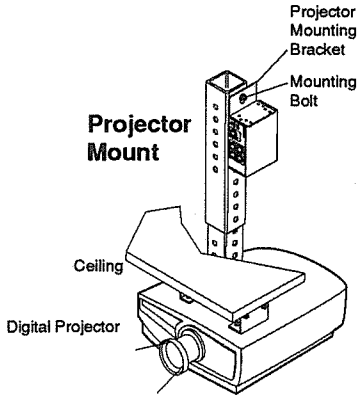
Accessories	
P/S 100	60-357-01

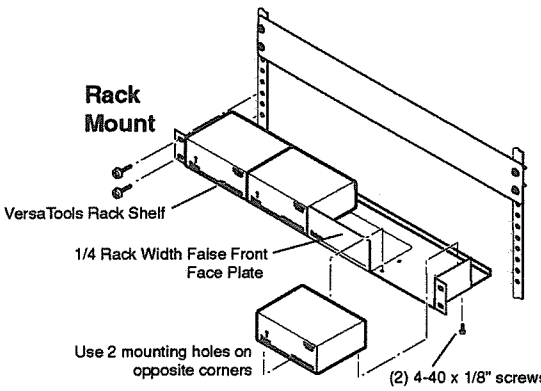
APPLICATION DIAGRAMS



Mounting Options







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PM Industrial Bldg.
Singapore 368363
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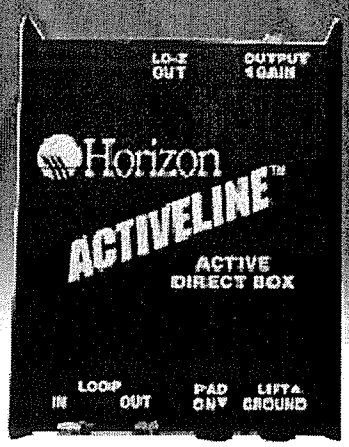
02-03
68-659-01
REV A


STEREO INPUT
12 VDC
PWR
ON
OFF
ROLLS
2x4
two by four
Headphone/Earphone Amplifier
1
2
3
4
LEVEL
LEVEL
LEVEL
LEVEL
OUT ONE
OUT TWO
OUT THREE
OUT FOUR

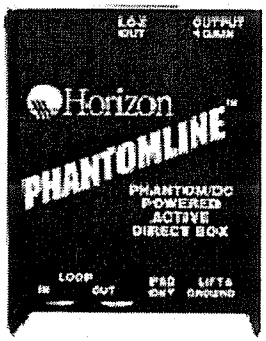
DEVICES



AL-1

AL-1 ACTIVELINE™ Active Direct Box

The Horizon AL-1 Activeline™ accepts instrument line or speaker level inputs and actively converts them to a mic level output to go directly into a mixing console (or into any desired mic level input). It features a 1/4" unbalanced input jack, a 1/4" loop-through jack, a -20db input pad switch, a ground lift switch for buzz-free operation in almost any environment. An XLR male mic level output connector, and adjustable output gain trim pot are used to obtain a 0db to -20db output swing to "dial in" the best output level. (Only an active direct box can do that!) A 9-volt battery that disconnects when the input jack is unplugged allows for longer battery life. The AL-1 is built with 18 gauge steel housing chassis, recessed connectors and switches to resist damage. The battery can be changed by removing the screws on the back of the unit.



PH-1

PH-1 PHANTOMLINETM Phantom Powered Active Direct Box

The Horizon PH-1 Phantomline™ accepts instrument, line, or speaker level outputs and actively converts them to a mic level output as does the AL-1. What makes it unique from the AL-1 is its ability to utilize phantom power and bypass the unit's 9-volt battery.

SL-1

SL-1 STRAIGHTLINE™ Passive Direct Box

The Horizon SL-1 Straightline™ Direct Box's simple design offers reliable input jacks as well as a loop-through 1/4" jack. Plug any instrument level signal (and some line level) into the Straightline™, interface with a standard XLR mic cable into the Lo-Z output and you're ready to plug the output "directly" into a mixing console. A ground lift switch is provided for buzz-free operation in almost any environment.

SL-2

SL-2 STRAIGHTLINE-2™ Passive Direct Box

The Horizon SL-2 Straightline-2™ has every feature that our SL-1 Passive Direct Box offers plus a -20db pad switch so you can plug any instrument or most "hotter" line level sources into it. If the signal that the mixer console receives is overdriven, simply flip the -20db pad switch and it will filter the input signal down to a better level. Both the SL-1 and SL-2 are built in 18 gauge formed steel boxes. The connectors and switches are recessed to resist damage.

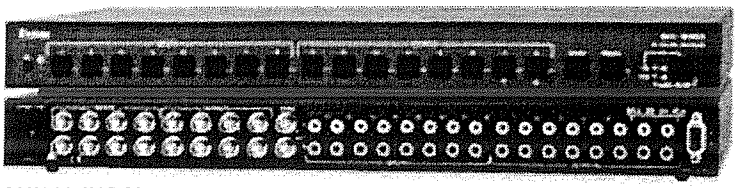
SL-1A & SL-2A Direct Boxes (not shown)

The SL-1A Direct Box converts Hi-Z signals to Lo-Z allowing you to interface line or instruments directly to Lo-Z devices like consoles, with the added features of medical grade gold-plated rocker switches, 1% metal film resistors, improved transformer isolation and mill grade PC board material for maximum bandwidth and dynamics. The SL-2A includes a precision low noise pad feature for maximum flexibility independent of the signal level at the input source. The metal housing for the SL-1A and SL-2A is the most rugged Horizon offers.

Horizon Music, Incorporated

A/V MATRIX SWITCHERS FOR COMPOSITE VIDEO, S-VIDEO, AND STEREO AUDIO

- 19 models with I/O sizes from 4x4 to 8x8
- 150 MHz (-3 dB) video bandwidth, fully loaded
- Switches composite video, S-video, and stereo audio
- Video genlock and vertical interval switching
- Quad standard video compatibility
- Balanced and unbalanced audio compatibility
- Audio input gain & attenuation
- Audio breakaway
- QuickSwitch Front Panel Controller (QS-FPC™)
- Global presets for storing commonly used switching configurations
- RS-232 with Extron's Simple Instruction Set (SIS™)
- Optional IR remote control (most models)
- Windows®-based control program



MAV 88 AV RCA

The Extron MAV Series matrix switchers provide versatile switching solutions for video system applications that route composite video and S-video signals, with stereo audio. The MAV Series is ideal for museums, university classrooms, sports bars and restaurants, videoconference and distance learning facilities, video production suites, corporate boardrooms and meeting facilities, and many residential entertainment installations.

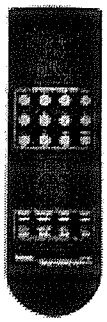
The Extron **MAV Series** of A/V Matrix Switchers is designed to suit the requirements of many smaller video and audio switching systems. Available in fixed I/O sizes from 4x4 to 8x8 and housed in rugged, compact 1U rack-mountable enclosures, the MAV Series is capable of routing several composite video or S-video, and stereo audio signals, to multiple outputs.

MAV Series matrix switchers are ideal solutions for a variety of video routing applications, including corporate boardrooms, command and control centers, museums, university classrooms, sports bars and other themed entertainment venues, videoconferencing rooms, and residential media installations.

Video Features
All MAV Series switchers feature 150 MHz (-3 dB) video bandwidth, fully loaded, ensuring signal quality in even the most complex system designs. In addition, all models are capable of switching NTSC 3.58, NTSC 4.43, PAL, and SECAM video sources for worldwide capability. MAV Series switchers also feature video genlock and vertical interval switching for smooth, seamless transitions when switching between synchronous video sources.

Audio Features
The MAV Series includes matrix switchers capable of switching balanced or unbalanced stereo audio signals, in both Audio Follow and Audio Breakaway modes. Audio input gain and attenuation can be adjusted at the front panel or through serial control, eliminating noticeable differences in audio level when switching between inputs. Many models are also available with convenient RCA connectors, for switching unbalanced stereo audio.

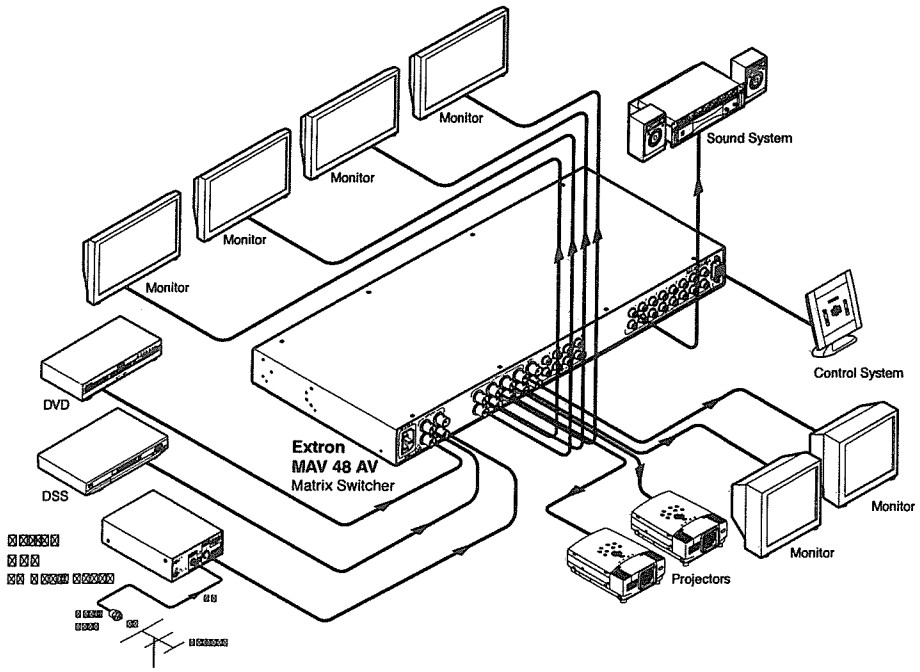
Control Features
Each of the 19 available MAV Series models comes standard with RS-232 control capability, as well as Extron's exclusive QuickSwitch Front Panel Controller (QS-FPC™), which allows for simple, touch-of-a-button input and output selection directly from the front panel. A special "Front Panel Security Lockout" mode is available for use when a MAV Series matrix switcher must be installed in an unsecured environment. The MAV Series can also be controlled via the optional MCP 1000 and MKP 1000 remote control panels. Most MAV models are also capable of IR control with the optional IR 501 remote control.

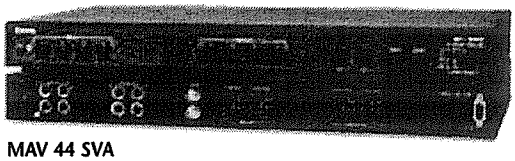

IR 501 Remote

Software Features
All MAV Series matrix switchers are shipped with Extron's Windows®-based control software, which provides a simple, graphical interface for I/O configuration and other customization functions. The control software also includes an emulation mode for configuring an off-site matrix switcher. Once saved, the I/O configuration may be downloaded to the MAV Series switcher through the serial port. Most MAV Series models also support the download of the latest firmware revisions through the serial port, directly from Extron's website (www. Extron.com)


MCP 1000
Control Panel

Application Diagram



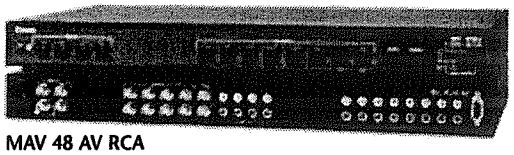


MAV 44 SVA
S-Video & Stereo Audio
Matrix Switcher

Composite Video	Description	Part Numbers
MAV 44 AV	Video & Balanced/Unbalanced Stereo Audio	60-553-21
MAV 44 AV RCA	Video & Unbalanced Stereo Audio	60-553-31

S-Video	Description	Part Numbers
MAV 44 SVA	Video & Balanced/Unbalanced Stereo Audio	60-553-22
MAV 44 SVA RCA	Video & Unbalanced Stereo Audio	60-553-32

NOTE: AV versions support audio on captive screw connectors.
AV RCA versions support audio on RCA connectors.



MAV 48 AV RCA
Composite Video & Stereo Audio
Matrix Switcher

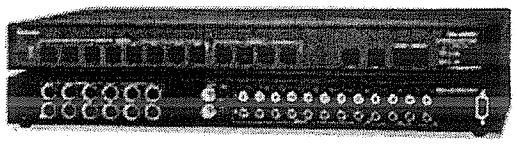
Composite Video	Description	Part Numbers
MAV 48 AV	Video & Balanced/Unbalanced Stereo Audio	60-605-21
MAV 48 AV RCA	Video & Unbalanced Stereo Audio	60-605-31

S-Video	Description	Part Numbers
MAV 48 SVA	Video & Balanced/Unbalanced Stereo Audio	60-605-22
MAV 48 SVA RCA	Video & Unbalanced Stereo Audio	60-605-32

MAV 62 SVA
S-video & Stereo Audio
Matrix Switcher

Composite Video	Description	Part Number
MAV 62 AV	Video & Balanced/Unbalanced Stereo Audio	60-215-01

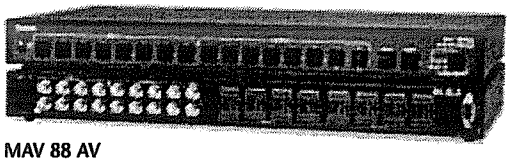
S-Video	Description	Part Number
MAV 62 SVA	Video & Balanced/Unbalanced Stereo Audio	60-419-01



MAV 84 SVA RCA
S-Video & Stereo Audio
Matrix Switcher

Composite Video	Description	Part Numbers
MAV 84 AV	Video & Balanced/Unbalanced Stereo Audio	60-554-21
MAV 84 AV RCA	Video & Unbalanced Stereo Audio	60-554-31

S-Video	Description	Part Numbers
MAV 84 SVA	Video & Balanced/Unbalanced Stereo Audio	60-554-22
MAV 84 SVA RCA	Video & Unbalanced Stereo Audio	60-554-32



MAV 88 AV
Composite Video & Stereo Audio
Matrix Switcher

Composite Video	Description	Part Numbers
MAV 88 V	Composite Video only	60-555-01
MAV 88 AV	Video & Balanced/Unbalanced Stereo Audio	60-555-21
MAV 88 AV RCA	Video & Unbalanced Stereo Audio	60-555-31

S-Video	Description	Part Numbers
MAV 88 SVA	Video & Balanced/Unbalanced Stereo Audio	60-555-22
MAV 88 SVA RCA	Video & Unbalanced Stereo Audio	60-555-32

- **150 MHz (-3dB) video bandwidth, fully loaded** – Ensures switching and distribution of signals without signal degradation. The 150 MHz (-3dB) is a worst case specification, ie., the MAV Matrix Switcher provides 150 MHz (-3dB) at full performance capacity when one input signal drives all outputs.

- **Quad standard** – MAV Series matrix switchers are capable of switching NTSC 3.58, NTSC 4.43, PAL, and SECAM video for worldwide compatibility.

- **Video genlock** – Allows for vertical interval switching and enables smooth, seamless transitions when switching between synchronous video sources.

- **QuickSwitch Front Panel Controller (QS-FPC™)** – The QS-FPC feature allows for touch-of-a-button input and output selection. Extron's QuickSwitch technology virtually eliminates the learning curve usually associated with switching the inputs and outputs of a matrix switcher by using a tactile front panel button for every input and output.

- **View I/O mode** – Allows users to easily see which individual inputs and outputs are actively connected. Available from the front panel or RS-232 control (except the MAV 62 models).

- **Global presets** – Frequently used I/O configurations may be saved and recalled either from the QuickSwitch Front Panel Controller or RS-232 serial control. This time-saving feature allows you to set up I/O configurations and store them in memory for future use. (Not available on MAV 62 models)

- **Balanced and unbalanced audio** – Accepts both balanced and unbalanced stereo audio signals on captive screw connectors. The video and RCA audio switchers only accept unbalanced stereo audio on RCA connectors.

- **Audio input gain and attenuation** – Allows installers to set the level of gain or attenuation for each audio input channel, eliminating noticeable differences when switching between sources.

- **Audio breakaway** – Provides the capability to break an audio signal away from its corresponding video signal, allowing the audio channels to be operated as a separate matrix switcher.

- **IR control** – MAV 44, MAV 48, MAV 84, and MAV 88 models can be controlled via the front panel or optional IR 501 remote control.

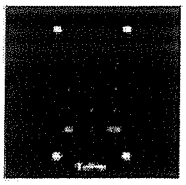
- **RS-232 Control** – Allows for firmware updates and serial control via a third-party control system using Extron's Simple Instruction Set (SIS™).

- **Simple Instruction Set (SIS™)** – Extron's SIS is a set of basic ASCII code commands that enable simple control from a third-party control system. Instead of programming in long, obscure strings of code, the SIS makes it easy to operate an Extron product using serial control.

- **Control software** – Provides a graphical, drag-and-drop interface for I/O configuration and other customization functions via serial control. The software also offers an emulation mode for configuration of an off-site matrix switcher. The I/O configuration may be saved for future downloading to the matrix switcher.

- **Downloadable firmware updates** – Firmware updates can be conveniently downloaded from the Extron Web site. Updates for new features and capabilities can be easily upgraded through the serial port. (Not available on MAV 62 models)

- **MCP 1000 and MKP 1000 control** – Optional remote control panels and keypads provide the flexibility to control a MAV Series matrix switcher from a remote location. Both are easy to use for one-button switching to select a particular input or preset.



MKP 1000

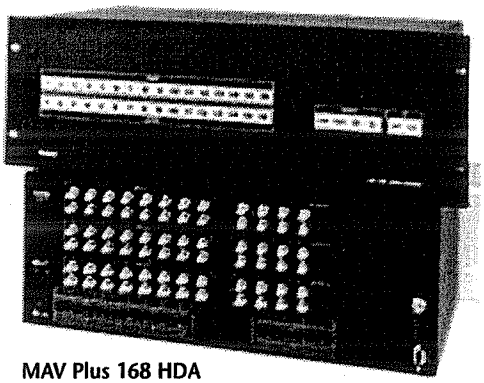
MCP 1000

- **Front panel security lockout** – If a MAV Series matrix switcher is installed in an unsecured environment where easy access is not desirable, the security lock-out feature may be implemented. During lock-out mode, a special button combination is required to operate the front panel controller.

- **Internal international power supply** – The 100-240VAC, 50/60Hz, autoswitchable, internal power supply provides worldwide power compatibility.

MAV Plus Series Matrix Switchers

For larger system designs requiring more inputs & outputs, or require the routing of HDTV, and/or component video, the MAV Plus Series includes 50 models in I/O sizes from 8x8 to 32x32. The MAV Plus Series features backlit I/O selection buttons, audio output volume control, and Extron's exclusive IP Link™ Ethernet monitoring and control technology. Visit the Extron website (www.extron.com) for more information.



MAV Plus 168 HDA
HDTV/Component and Stereo Audio Matrix Switcher

Gain ..... Unity
Bandwidth ..... 150 MHz (-3 dB), fully loaded
Differential phase error ..... <0.1° at 3.58 MHz and 4.43 MHz
Differential gain error ..... <0.1% at 3.58 MHz and 4.43 MHz
Crosstalk ..... <-50 dB @ 5 MHz
Switching speed ..... 20 ms (max.)

Number/signal type
MAV 44/48/62/84/88 video .. 4, 6, or 8 composite video, depending on model
MAV 44/48/62/84/88 S-video .. 4, 6, or 8 S-video, depending on model
Connectors
MAV 44/48/62/84/88 video .. 4, 6, or 8 female BNC, depending on model
MAV 44/48/62/84/88 S-video .. 4, 6, or 8 female 4-pin mini-DIN, depending on model
Nominal level ..... 1 Vp-p for Y of S-video, and for composite video
0.3 Vp-p for C of S-video
Min./max. levels ..... Analog: 0.4 V to 2.0 Vp-p no offset at unity gain
Impedance ..... 75 ohms
Return loss
MAV 62 Series ..... <-30 dB @ 5 MHz
All other models ..... Composite video: <-40 dB @ 0 to 10 MHz
S-video: <-25 dB @ 0 to 10 MHz
DC offset (max. allowable)
MAV 62 Series ..... 1.5 V
All other models ..... 5 V
External sync (genlock) ..... 0.2 V to 0.4 Vp-p
Input coupling ..... AC coupling only (except the MAV 62 Series)

Number/Signal type
MAV 44/48/62/84/88 video .. 2, 4, or 8 composite video, depending on model
MAV 44/48/62/87/88 S-video .. 2, 4, or 8 S-video, depending on model
Connectors
MAV 44/48/62/84/88 video .. 2, 4, or 8 female BNC, depending on model
MAV 44/48/62/84/88 S-video .. 2, 4, or 8 female 4-pin mini-DIN, depending on model
Nominal level ..... 1 Vp-p for Y of S-video, and for composite video
0.3 Vp-p for C of S-video
Min./max. levels ..... 0.4 V to 2.0 Vp-p (follows input)
Impedance ..... 75 ohms
Return loss
MAV 62 Series ..... <-30 dB @ 5 MHz
All other models ..... S-video: <-25 dB @ 5 MHz
Composite video: <-40 dB @ 5 MHz
DC offset
MAV 62 Series ..... ±5 mV max. with input at 0 offset
All other models ..... 15 mV typical (per output enabled with 70 ohm termination) with input at 0 offset
Switching type ..... Vertical interval

Genlock connectors ..... 2 BNC female
Standards ..... NTSC 3.58, NTSC 4.43, PAL, SECAM

Gain
MAV 44/48/84/88 Series..... Adjustable; the default is unity
MAV 62 Series..... Unbal. output: 0 dB; bal. output: +6 dB
Frequency response ..... 20 Hz to 20 kHz, ±0.5 dB
THD + Noise..... 0.03% @ 1 kHz, 0.3% @ 20 kHz at nominal level
S/N ..... >90 dB at max. output (unweighted)
Crosstalk..... <-65 dB @ 20 kHz, <-80 dB @ 1 kHz or below 60 Hz, fully loaded
Stereo channel separation
MAV 62 Series ..... >80 dB @ 1 kHz
All other models ..... >80 dB @ 20 Hz to 20 kHz
CMRR..... >75 dB @ 20 Hz to 20 kHz

Number/signal type
MAV 44/48/84/88 RCA ..... 4 or 8 stereo, unbalanced
MAV 44/48/62/84/88 Audio .. 4, 6, or 8 stereo, balanced/unbalanced
Connectors
MAV 44/48/84/88 RCA ..... 4 or 8 pairs of female RCA
MAV 44/48/62/84/88 Audio..... (4, 6, or 8) 3.5 mm captive screw connectors, 5 pole
Impedance
MAV 62 Series ..... >10k ohms unbalanced/balanced, DC coupled
All other models ..... >18k ohms unbalanced, 24k ohms balanced, DC coupled

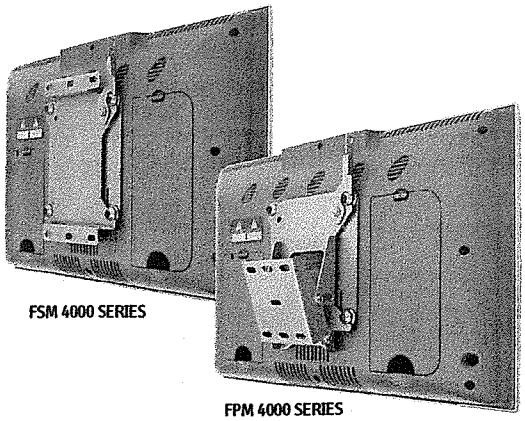
Nominal level
MAV 62 Series ..... -10 dBV (316 mV, consumer level)
All other models ..... Configurable: +4 dBu (1.23 V, professional level) or -10 dBV (316 mV, consumer level)
Max. level
MAV 62 Series ..... +19.5 dBu (balanced or unbalanced) at 1% THD+N
All other models ..... >+20 dBu (captive screw models) at 1% THD+N >+14 dBu (RCA models) at 1% THD+N
Input gain adjustment ..... –18 dB to +10 dB, adjustable per input; default = 0 dB.
NOTE: 0 dBu = 0.775 V(rms), 0 dBV = 1 V(rms), 0 dBV ≈ 2 dBu

Number/signal type
MAV 44/48/84/88 RCA ..... 4 or 8 stereo, unbalanced
MAV 44/48/62/84/88 Audio .. 2, 4 or 8 stereo, balanced/unbalanced
Connectors
MAV 44/48/84/88 RCA ..... 4 or 8 pairs of female RCA
MAV 44/48/62/84/88 Audio .. (2, 4 or 8) 3.5 mm captive screw connectors, 5 pole
Impedance ..... 50 ohms unbalanced, 100 ohms balanced
Gain error..... <±0.1 dB channel to channel
Nominal level ..... Configurable: +4 dBu (1.23 V, professional level) or -10 dBV (316 mV, consumer level)
Max. level (Hi-Z)
MAV 62 Series ..... >+18 dBu, balanced; >+12 dBu, unbalanced at 1% THD+N
All other models ..... >+24 dBu, balanced; >+18 dBu, unbalanced at 1%THD+N
Max. level (600 ohm)
MAV 62 Series ..... >+16 dBm, balanced; >+10 dBm, unbalanced at 1% THD+N
All other models ..... >+19 dBm, balanced; >+13 dBm, unbalanced at 1% THD+N

Global Presets
MAV 62 Series 0
All other models 16
Serial control port..... RS-232, 9-pin female D connector
Baud rate and protocol..... 9600, 8 data bits, 1 stop bit, no parity
Serial control pin configurations
MAV 62 Series ..... 2 = TX, 3 = RX, 5 = GND
All other models ..... 2 = TX, 3 = RX, 5 = GND, 9 = hardwired IR
IR controller module ..... IR 501 remote control (optional) (all models except MAV 62 Series)
Program control..... Extron's control/configuration program for Windows® Extron's Simple Instruction Set (SIS™)

Power..... 100 VAC to 240 VAC, 50/60 Hz, 15 watts, internal, autoswitchable
Rack mount
MAV 62 Series ..... Yes, with optional 1U rack shelf, part #60-190-01 or 60-604-01
All other models ..... Yes, with included brackets, part #70-077-03
Also furniture mountable with an optional under-desk mounting kit, part #70-222-01
Enclosure type ..... Metal
Enclosure dimensions
MAV 62 Series ..... 1.75" H x 8.75" W x 9.5" D (1U high, half rack wide) 4.4 cm H x 22.2 cm W x 24.1 cm D
All other models ..... 1.75" H x 17.4" W x 8.5" D (1U high, full rack wide) 4.4 cm H x 44.2 cm W x 21.6 cm D (Depth excludes connectors. Width excludes rack ears.)
Product weight
MAV 62 Series ..... 3.3 lbs (1.5 kg)
All other models ..... 7.0 lbs (3.2 kg)
Shipping weight
MAV 62 Series ..... 6 lbs (3 kg)
All other models ..... 10 lbs (5 kg)
Listings..... UL, CUL
Compliances
MAV 62 Series ..... CE
All other models ..... CE, FCC Class A, VCCI, AS/NZS, ICES
NOTE: All nominal levels are at ±10%.

Specifications are subject to change without notice.



FSM 4000 SERIES

FPM 4000 SERIES

FSM/FPM WALL MOUNTS

Q2™ MOUNTING SYSTEM

the focus:

Chief's FSM 4000 Series Static Wall Mount holds Small Flat Panel Displays close to the wall for an exceptionally slim appearance at an attractive price.

Chief's FPM 4000 Series Pitch-Adjustable Wall Mount provides rigid pitch adjustment to help you achieve the optimum viewing angle for your Small Flat Panel Display. The FSM and FPM use Chief's Q2™ Mounting System for easy installation, stable mounting, quick release and optional security.

FEATURES

- Quick installation
- Non-VESA® Compliant interface brackets available
- Includes interface bracket
- Ships assembled
- Low profile
- Display installs in portrait/landscape views
- Touchscreen compatible
- Two mounting methods:
  Single wall stud
  Drywall mounting
- 1" vertical or lateral shift
- Exclusive Q2™ Mounting System secures Small Flat Panel Display with a lockable latch
- VESA® Compliant – see below for details HT

FSM SPECIFICATIONS

- Depth from Wall: 7/8"
- Overall Dimensions: H x W x D
  7 5/8" x 5 5/8" x 7/8" /
  193.7mm x 142.9mm x 22.22mm
  on most models
- Interface brackets compatible with all other 4000 Series products
- Color: Silver Metallic
- Weight Capacity: 45 lbs. stud mounted
  30 lbs. drywall mounted.

FPM SPECIFICATIONS

- Depth from Wall: 1 1/2"
- Overall Dimensions: H x W x D
  6 7/8" x 5 5/8" x 1 1/2"
  174.6mm x 142.9mm x 38.1mm
  on most models
- Pitch Adjustments: Loosen screws to adjust pitch then retighten to secure. Interface brackets compatible with all other 4000 Series products (5 degrees up, 18 degrees down and set pitch for touchscreen use).
- Color: Silver Metallic
- Weight Capacity: 45 lbs. stud mounted
  30 lbs. drywall mounted

FAQ

Q. What if my display is not listed on the cross-reference?

A. Chief's Q2™ mounts fit 75mm x 75mm and 100mm x 100mm VESA® compliant displays. If the mounting hole pattern on the back of your display matches either of these dimensions, order the 4100 Series model of the mount you want: FSM-4100 or FPM-4100. If your hole pattern does not reflect either of these standards, please contact Chief Customer Service at 1.800.582.6480 (domestic) / 952.894.6918 (international) to determine if Chief has a model to fit your display. Chief is constantly designing brackets to fit new displays on the market.

Q. What if my display weighs 45 lbs. or more?

A. Chief also provides mounts for Large Flat Panel Displays that are 45 lbs. and heavier. See pages 25–45 for a variety of mounting solutions.

ORDERING STEPS

1. Determine the FSM/FPM model number you need by cross-referencing the manufacturer and model number of your Small Flat Panel Display. For the most recent cross-reference chart, visit www.chiefmfg.com or call Customer Service at 1.800.582.6480 (domestic) / 952.894.6280 (international).
2. Verify that your display meets the weight capacity.
3. Decide which accessories you need.

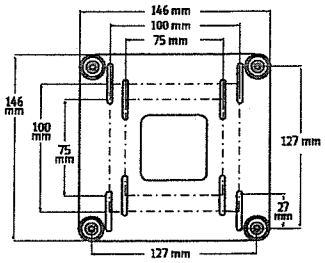
RECOMMENDED ACCESSORIES

FSA-1000 Lockable latch with security flag and set screw..... Page 23

FOR MORE ACCESSORIES SEE PAGES 17–24.

TECHNICAL INFORMATION

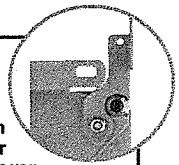
For product and technical information, visit www.chiefmfg.com.



VESA®

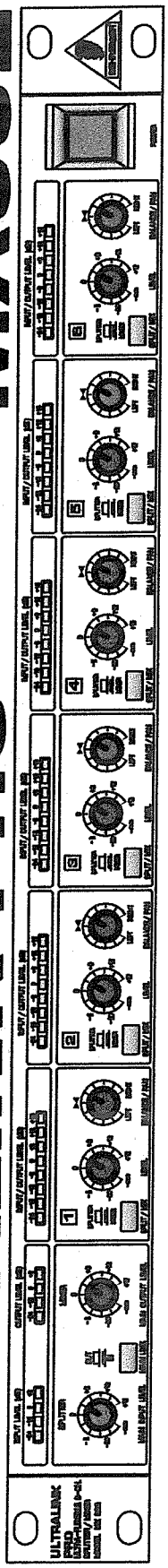
VESA® is a Flat Panel Monitor Physical Mounting Interface (FPMPMI™)Standard. A VESA® hole pattern can be one of two sizes: 75mm x 75mm or 100mm x 100mm.

Q2™ Mounting System



Quick, easy and versatile, Chief's exclusive Q2™ Mounting System is designed to make Small Flat Panel mounts exceptionally user-friendly. Q2™ uses self aligning mating components, a steel latching flag and an optional security accessory to help you easily guide, latch and lock your screen to the mount. Due to its universal mounting pattern, Q2™ allows you to install the display in either portrait or landscape mode, quickly and easily change out displays, or move a display between mounts.

ULTRALINK PRO MX882



Technical Specifications

ENGLISH

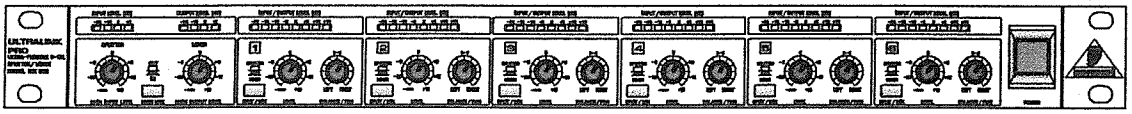
Version 1.1 May 2000

BEHRINGER®

www.behringer.com

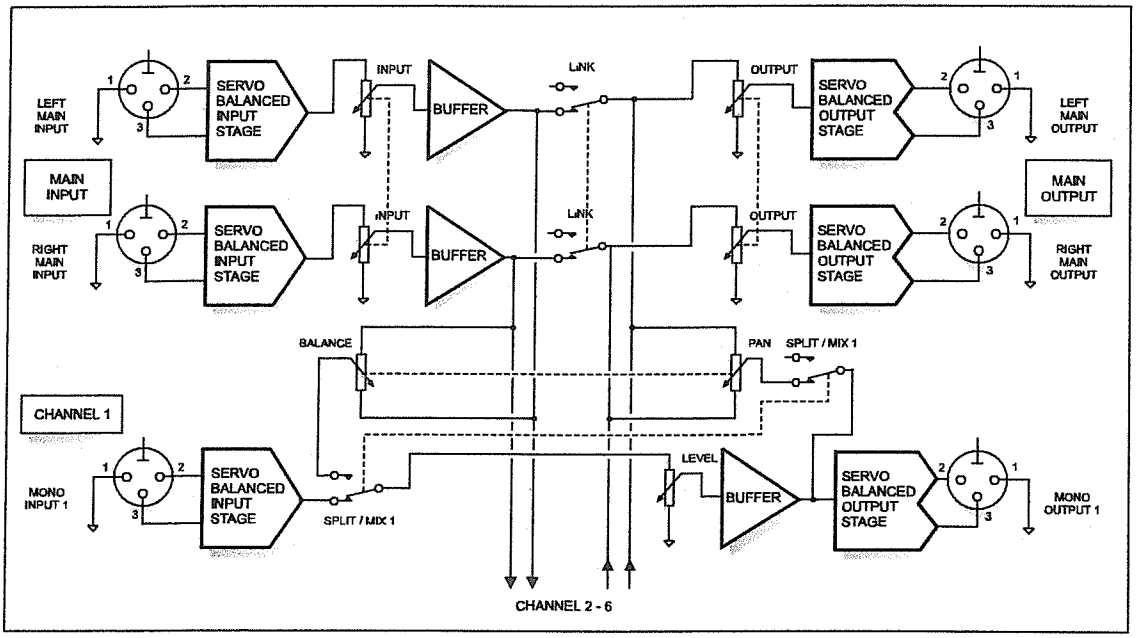
ULTRALINK PRO

Ultra-flexible, multi-purpose 8-channel Signal Router for stage and studio applications



- Use it as Effects Mixer, for P.A. Monitoring, Live Sound Systems, Theaters, Conference Rooms, Hotels, Churches, etc.
- Any channel can be selected either as Mixer or Splitter
- You can use it as 8-IN, 2-OUT Line Mixer
- You can use it as 2-IN, 8-OUT Line Splitter
- You can use it as 6-IN, 6-OUT Line Driver or DI-box
- You can use it as independent line driver to convert -10 dBV into +4 dBu or vice versa
- Extremely high headroom - offering more dynamic range
- Ultra-wide bandwidth from 2 Hz to 200 kHz for "open" sound
- Offers you 6 mono inputs, 6 mono outputs, 2 main inputs and 2 main outputs
- Offers you 6 Input Level controls, 6 Balance/Pan controls, a Main Input and a Main Output control
- A Main Link switch allows you to route the Main Input to the Main Output to link several units
- Accurate 4 / 8-segment LED metering for each individual gain section
- Servo-balanced gold-plated XLR and 1/4" TRS inputs and outputs
- Completely versatile DI-Box due to servo-balanced inputs and outputs
- Ultra-low noise 4580 audio operational amplifiers for outstanding sound performance
- High-quality detented potentiometers and illuminated switches
- Manufactured under ISO9000 certified management system

BLOCK DIAGRAM



MAIN Section

Both main inputs interface via the MAIN INPUT LEVEL control with the input bus as well as with the main outputs. The MAIN OUTPUT LEVEL control determines the output level of the signals which are summed by the second bus (i.e., the output bus) and are subsequently routed to the main outputs.

SPLIT Mode

In SPLIT mode, the main input signal is sent via the BALANCE control to the output buffer amplifiers of the mono channels, with the LEVEL control determining the output level of the respective channel. The maximum gain is +15 dB.

MIX Mode

In MIX mode, the input signals of the mono channels are "collected" via the LEVEL and PAN controls and are routed to the output bus. In this mode, the LEVEL control determines the amount of each channel at the output bus, while the PAN control is responsible for the allocation of the input signal to the left and right main outputs.

Additionally, the input signal is routed to the respective mono outputs, i.e., the circuit acts as a matching amplifier. The LEVEL control allows for level compensation of up to +15 dB.

SPECIFICATIONS

AUDIO INPUTS

Connectors	XLR and 1/4" jack
Type	RF filtered, servo-balanced input
Impedance	50 kOhms balanced, 25 kOhms unbalanced
Nominal operating level	-10 dBV to +4 dBu
Max. input level	+21 dBu balanced and unbalanced
CMRR	Typ. 40 dB, > 55 dB @ 1 kHz

AUDIO OUTPUTS

Connectors	XLR and 1/4" jack
Type	electronically servo-balanced output stage
Impedance	60 Ohms balanced, 30 Ohms unbalanced
Max. output level	+22 dBu balanced and unbalanced

SYSTEM SPECIFICATIONS

Frequency response	5 Hz to 200 kHz, +/- 3 dB
S/N ratio	>95 dBu, unweighted, 22 Hz to 22 kHz
THD	0.002 % typ. @ +4 dBu, 1kHz, gain 1

FUNCTION CONTROLS

Main input level	variable
Main ouput level	variable
Level	variable for each channel
Balance/pan	placing in the stereo field

FUNCTION SWITCHES

Main Link	links the main input signal to the main output
Split/mix	changeover from split to mix mode for each channel

INDICATORS

Input level (main)	4-digit LED display: -24/-12/0/+6 dB
Ouput level (main)	4-digit LED display: -24/-12/0/+6 dB
Input/output level	8-digit LED display: -24/-18/-12/-6/0/+6/+12/+18 dB

POWER SUPPLY

Mains Voltages	USA/Canada	120 V ~, 60 Hz
	U.K./Australia	240 V ~, 50 Hz
	Europe	230 V ~, 50 Hz
	General export model	100 - 120 V ~, 200 - 240 V ~, 50 - 60 Hz
Power Consumption	max. 35 Watts	
Fuse	100 - 120 V ~: **T 630 mA H**	
	200 - 240 V ~: **T 315 mA H**	
Mains Connection	Standard IEC receptacle	

PHYSICAL

Dimension	app. 1 3/4" (44.5 mm) * 19" (482.6 mm) * 8.5" (217 mm)
Net Weight	app. 3.0 kg
Shipping Weight	app. 3.8 kg

Middle Atlantic Products, Inc.

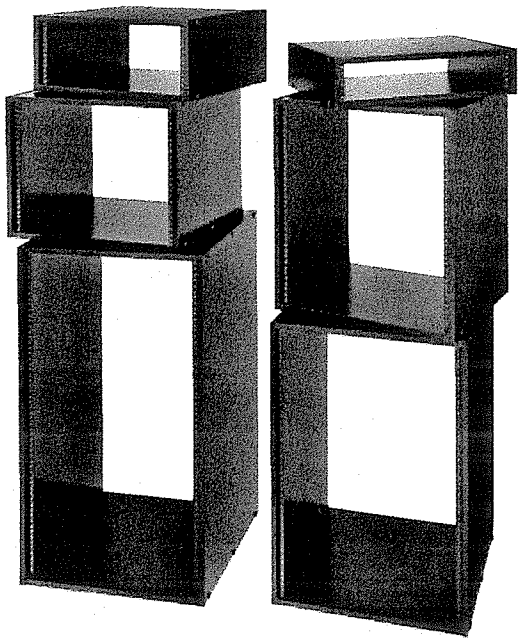
RK/BRK Wooden Studio Racks

EIA Compliant

The RK/BRK Series 19" Equipment Racks

Features

- High quality black laminate finish
- 5/8" furniture grade MDF board construction
- 11-gauge threaded rackrails, pre-installed
- Assembles easily with included allen key
- Decorative screw caps and feet provided
- Available in 2 depths, 6 heights
- Caster kit available
- All assembly hardware included



RK/BRK's

Architects' and Engineers' Specifications

- RK/BRK racks shall be MAP part # (B)RK-X (X=rack spaces required).
- The RK/BRK rack shall be constructed of the following materials:
  1. Rack rail shall be 11-gauge steel, with tapped 10-32 holes in universal E.I.A. spacing.
  2. Top, bottom & sides shall be 5/8" furniture grade MDF board.
  3. Assembly hardware shall be 2-1/4" joint connector screws.
  4. Black plastic screw caps shall snap in place, to cover the included hardware.
- An allen key shall be included for assembly.

WEIGHT CAPACITY

Models are rated to 150 lb. weight capacity.

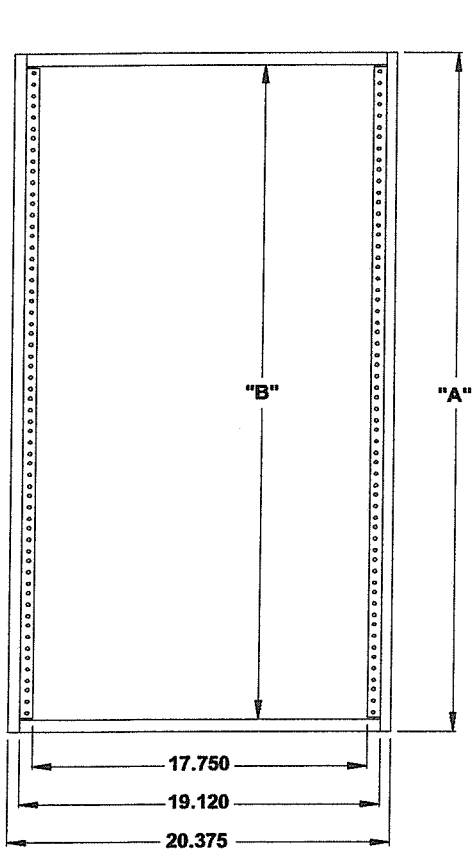
OPTIONS

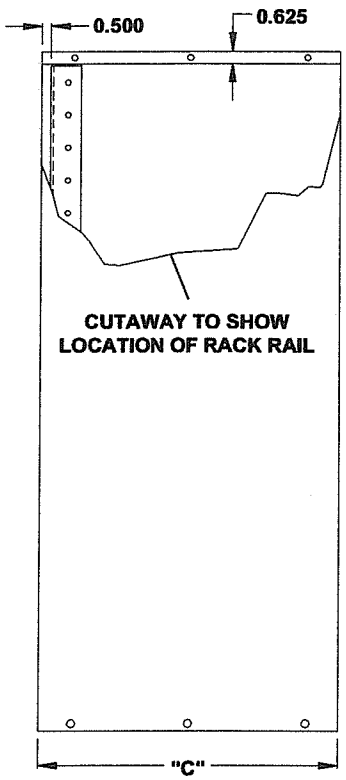
- Casters, set of four, Part #RKW.

96-032 / rev 1a / 12-15-00 / RK/BRK Wooden Studio Racks

North Corporate Drive, Riverdale, NJ 07457 • 420 Easy Street, Simi Valley, CA 93021 • 3802 West 128th Street, Alsip, IL 60803
Voice: 973-839-1011 Fax: 973-839-1976

RK/BRK basic dimensions





PART #	OVERALL HEIGHT 'A'	RACKING HEIGHT 'B'	OVERALL DEPTH 'C'
RK2	5.00	3.50	16.00
RK4	8.50	7.00	16.00
RK8	15.50	14.00	16.00
RK12	22.50	21.00	16.00
RK16	29.50	28.00	16.00
RK20	36.50	35.00	16.00
BRK8	15.50	14.00	18.00
BRK12	22.50	21.00	18.00
BRK16	29.50	28.00	18.00
BRK20	36.50	35.00	18.00

North Corporate Drive, Riverdale, NJ 07457 • 420 Easy Street, Simi Valley, CA 93021 • 3802 West 128th Street, Alsip, IL 60803
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PD Series
Slim Power Strips

Middle Atlantic Products, Inc.

www.middleatlantic.com

c UL us LISTED

High density power strips feature a slim, low-profile design and staggered outlets to accommodate plug-in power supplies

Features

- UL and CSA listed
- Slim low-profile design requires less space
- Up to 24 outlets depending on model
- Outlets spaced to accommodate plug-in power supplies
- Light-weight anodized aluminum chassis
- (1) 15 amp circuit
- Circuit breaker or MOV surge & EMI filter & breaker protected, depending on model
- Mounting hardware included
- Includes 10' power cord terminated with NEMA 5-15P plug

* For additional Vertical Power Strips, please see A&E Spec # 96-938

PD-815SC-NS

PD-2415SC-NS

Architects' and Engineers' Specifications

High density slim power strip shall be Middle Atlantic Products model # PD-__-__ with __ outlets and 15 amps (refer to chart). Slim power strip shall be __" long x 1.25" deep x 1.6" wide and shall have __ NEMA 5-15R outlets in unique spacing pattern that allows up to __ plug-in power supplies (refer to chart). Slim power strip includes 15 amp __ protection and mounting hardware (refer to chart). Terminated with 10' power cord and NEMA 5-15P plug.

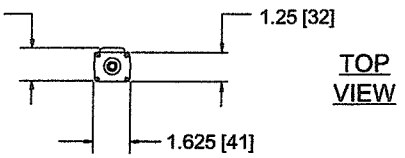
OPTIONS

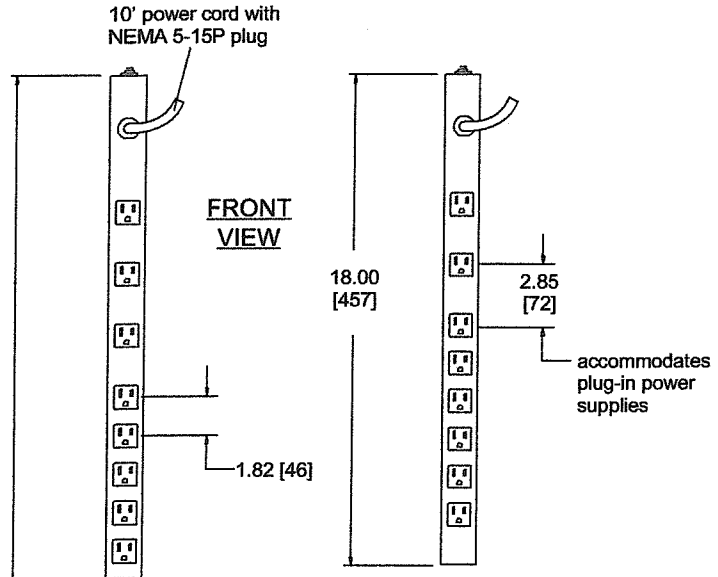
- Model # PB-XS, rackmounting bracket mounts any extra-short power strip (PD-815SC, PD-815SC-NS) between rackrail of any rack. Includes cable management tie points

US: Riverdale, NJ • Simi Valley, CA • Harvey, IL • Voice: 973-839-1011 Fax: 973-839-1976 • www.middleatlantic.com
Canada: Ottawa, ON • Port Coquitlam, BC • Voice: 613-836-2501 Fax: 613-836-2690 • www.middleatlantic.ca

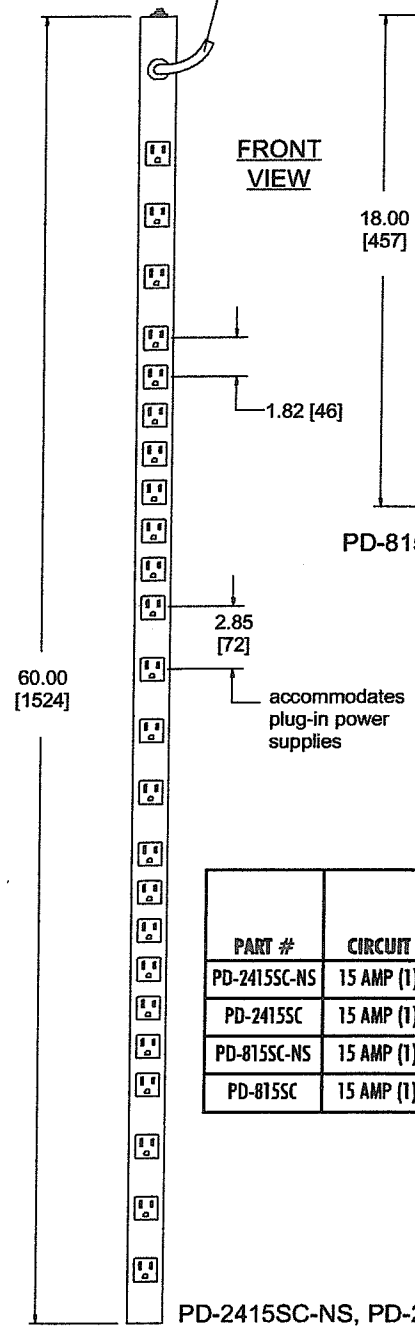
PD Series
Slim power strips basic dimensions

All dimensions in inches unless otherwise noted [All dimensions in brackets are millimeters]





PD-815SC-NS, PD-815SC



PD-2415SC-NS, PD-2145SC

PART #	CIRCUIT	PROTECTION	# OF OUTLETS	OVERALL LENGTH	# OF PLUG-IN POWER SUPPLIES ACCOMMODATED
PD-2415SC-NS	15 AMP (1)	CIRCUIT BREAKER	24	60" [1524]	11
PD-2415SC	15 AMP (1)	MOV SURGE + EMI FILTER + BREAKER	24	60" [1524]	11
PD-815SC-NS	15 AMP (1)	CIRCUIT BREAKER	8	18" [457]	3
PD-815SC	15 AMP (1)	MOV SURGE + EMI FILTER + BREAKER	8	18" [457]	3

Middle Atlantic Products, Inc.