

MediaMatrix®

MM™ 8800 Series

MM™ 8830

MM™ 8840

MM™ 8848

Operating Guide





Intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



Intended to alert the user of the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

CAUTION: Risk of electrical shock – DO NOT OPEN!

CAUTION: To reduce the risk of electric shock, do not remove cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

WARNING: To prevent electrical shock or fire hazard, do not expose this appliance to rain or moisture. Before using this appliance, read the operating guide for further warnings.



Este símbolo tiene el propósito de alertar al usuario de la presencia de "(voltaje) peligroso" que no tiene aislamiento dentro de la caja del producto que puede tener una magnitud suficiente como para constituir riesgo de corrientazo.



Este símbolo tiene el propósito de alertar al usuario de la presencia de instrucciones importantes sobre la operación y mantenimiento en la literatura que viene con el producto.

PRECAUCION: Riesgo de corrientazo – No abra.

PRECAUCION: Para disminuir el riesgo de corrientazo, no abra la cubierta. No hay piezas adentro que el usuario pueda reparar. Deje todo mantenimiento a los técnicos calificados.

ADVERTENCIA: Para evitar corrientazos o peligro de incendio, no deje expuesto a la lluvia o humedad este aparato. Antes de usar este aparato, lea más advertencias en la guía de operación.



Ce symbole est utilisé pur indiquer à l'utilisateur la présence à l'intérieur de ce produit de tension non-isolée dangereuse pouvant être d'intensité suffisante pour constituer un risque de choc électrique.



Ce symbole est utilisé pour indiquer à l'utilisateur qu'il ou qu'elle trouvera d'importantes instructions sur l'utilisation et l'entretien (service) de l'appareil dans la littérature accompagnant le produit.

ATTENTION: Risques de choc électrique – NE PAS OUVRIR!

ATTENTION: Afin de réduire le risque de choc électrique, ne pas enlever le couvercle. Il ne se trouve à l'intérieur aucune pièce pouvant être réparée par l'utilisateur. Confier l'entretien à un personnel qualifié.

AVERTISSEMENT: Afin de prévenir les risques de décharge électrique ou de feu, n'exposez pas cet appareil à la pluie ou à l'humidité. Avant d'utiliser cet appareil, lisez les avertissements supplémentaires situés dans le guide.



Dieses Symbol soll den Anwender vor unisolierten gefährlichen Spannungen innerhalb des Gehäuses warnen, die von Ausreichender Stärke sind, um einen elektrischen Schlag verursachen zu können.



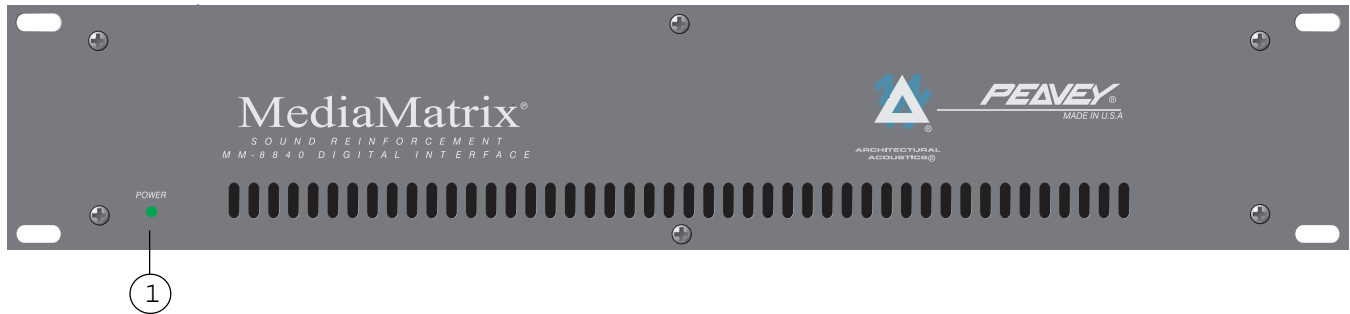
Dieses Symbol soll den Benutzer auf wichtige Instruktionen in der Bedienungsanleitung aufmerksam machen, die Handhabung und Wartung des Produkts betreffen.

VORSICHT: Risiko – Elektrischer Schlag! Nicht öffnen!

VORSICHT: Um das Risiko eines elektrischen Schlages zu vermeiden, nicht die Abdeckung entfernen. Es befinden sich keine Teile darin, die vom Anwender repariert werden könnten. Reparaturen nur von qualifiziertem Fachpersonal durchführen lassen.

ACHTUNG: Um einen elektrischen Schlag oder Feuergefahr zu vermeiden, sollte dieses Gerät nicht dem Regen oder Feuchtigkeit ausgesetzt werden. Vor Inbetriebnahme unbedingt die Bedienungsanleitung lesen.

MediaMatrix®



BoB Interface Features

- **Eight balanced audio inputs and eight balanced audio outputs, each utilizing 18-bit converters to transfer audio data to and from the MediaMatrix system.**
- **Eight analog control inputs that may be used to control a device in a MediaMatrix view.**
- **Eight digital control outputs that may be used to drive external TTL logic level devices.**
- **A digital interface, 9-pin D-type connector.**

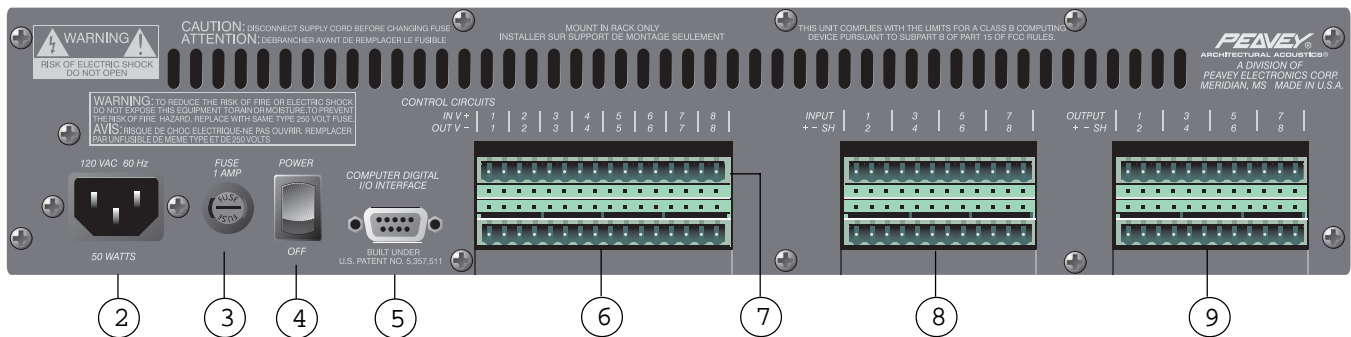
The MediaMatrix® MM-8800 series Break-Out-Box (BoB) provides the means of interconnection between the MediaMatrix MainFrame, MiniFrame or X-Frame, and other components of the audio system.

FRONT PANEL

POWER LED (1)

Illuminates when AC power is being supplied to the unit.

Rear Panel:



REAR PANEL

IEC LINE CORD INPUT (2)



Provided to accept the removable AC line cord.

FUSE (3)



WARNING: THE FUSE SHOULD ONLY BE REPLACED WHEN THE POWER CORD HAS BEEN DISCONNECTED FROM ITS POWER SOURCE.

CAUTION: USING A FUSE LARGER THAN THE RECOMMENDED SIZE COULD RESULT IN PERMANENT DAMAGE TO THE UNIT.



The fuse is located within the cap of the fuseholder. If the fuse should fail, IT MUST BE REPLACED WITH THE SAME TYPE AND VALUE IN ORDER TO AVOID DAMAGE TO THE EQUIPMENT AND TO PREVENT VOIDING THE WARRANTY. If the unit repeatedly blows fuses, it should be taken to a qualified service center for repair.

POWER SWITCH (4)

Switch to "On" position to turn on. The red LED will illuminate indicating power is being supplied to the unit.

COMPUTER DIGITAL I/O INTERFACE (5)

Connect the 9-pin D-type BoB cable here. This cable provides the link to the MediaMatrix system.

CONTROL CIRCUIT OUTPUTS (6)

These are TTL level outputs, switchable from within a MediaMatrix view. There are two electrical connections per channel; the right connection is the ground interface and the left connection is the TTL level output. See the *Wiring Connections* section for Control Output circuit examples.

CONTROL CIRCUIT INPUTS (7)

The inputs provide the means of controlling a device within a MediaMatrix view. There are two electrical connections per channel. See the *Wiring Connections* section for Control Input circuit examples.

AUDIO INPUTS (8)

Each of these eight channels is a balanced analog audio input to the MediaMatrix system. See the *Wiring Connections* section for Audio Input wiring examples.

AUDIO OUTPUTS (9)

Each of these eight channels is a balanced analog audio output from the MediaMatrix system. See the *Wiring Connections* section for Audio Output wiring examples.

SPECIFICATIONS

SYSTEM SPECIFICATIONS

Maximum Input Level:

+18 dBu or +24 dBu

Input Impedance:

Greater than 12K ohms for +18 dBu full scale
Greater than 15K ohms for +24 dBu full scale
Electronically Balanced

Maximum Output Level:

+16 dBu, +12 dBu, +18 dBu, or +24 dBu
(600 ohm load)

Output Impedance:

200 ohms, electronically balanced

Power Requirements:

Domestic: 120V AC, 60 Hz, 50W
Export: 230V AC, 50/60 Hz, 50W

Dimensions & Weight:

3.5" H x 19" W x 11.25" D (excluding connectors)
17 lbs.

Included Accessories:

IEC Line Cord
6' BoB Cable
(2) 16-position Phoenix-type connectors
(4) 12-position Phoenix-type connectors

ANALOG TO DIGITAL CONVERTER

MM-8830: 18-bit, 64x oversampled, 32 kHz sample rate
MM-8840: 18-bit, 64x oversampled, 44.1 kHz sample rate
MM-8848: 18-bit, 64x oversampled, 48 kHz sample rate

Frequency Response:

MM-8830: ± 1.0 dB, 20 Hz to 16 kHz
MM-8840: ± 0.5 dB, 20 Hz to 20 kHz
MM-8848: ± 0.5 dB, 20 Hz to 20 kHz

Signal-to-Noise Ratio:

MM-8830: Greater than 96 dB
MM-8840: Greater than 98 dB
MM-8848: Greater than 100 dB

Crosstalk:

MM-8830: Greater than 95 dB
MM-8840: Greater than 95 dB
MM-8848: Greater than 97 dB

Total Harmonic Distortion:

MM-8830: Less than 0.01% at 1 kHz
MM-8840: Less than 0.01% at 1 kHz
MM-8848: Less than 0.01% at 1 kHz

DIGITAL TO ANALOG CONVERTER

MM-8830: 18-bit, 64x oversampled, 32 kHz sample rate
MM-8840: 18-bit, 64x oversampled, 44.1 kHz sample rate
MM-8848: 18-bit, 64x oversampled, 48 kHz sample rate

Frequency Response:

MM-8830: ± 1.0 dB, 20 Hz to 16 kHz
MM-8840: ± 0.5 dB, 20 Hz to 20 kHz
MM-8848: ± 0.5 dB, 20 Hz to 20 kHz

Signal-to-Noise Ratio:

MM-8830: Greater than 92 dB
MM-8840: Greater than 95 dB
MM-8848: Greater than 96 dB

Crosstalk:

MM-8830: Greater than 91 dB
MM-8840: Greater than 94 dB
MM-8848: Greater than 95 dB

Total Harmonic Distortion:

MM-8830: Less than 0.01% at 1 kHz
MM-8840: Less than 0.01% at 1 kHz
MM-8848: Less than 0.01% at 1 kHz



*Due to our efforts for constant improvements,
features and specifications listed herein are subject to change without notice.*

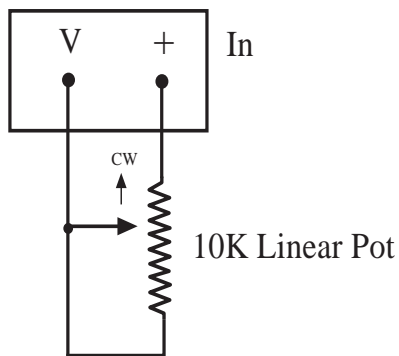
Wiring Diagram

Control Input Examples

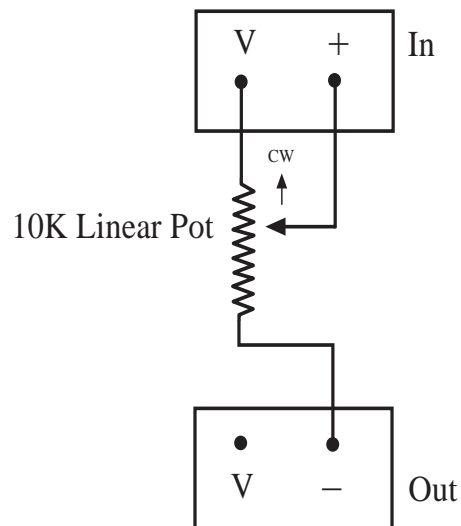
Input Sources:

- Linear example allows control of device by tracking pot linearly.
• Nonlinear example allows control of device by tracking pot nonlinearly.
- Switch allows binary control of a device in a MediaMatrix view.
- Variable DC supply can be used to control device - **NO MORE THAN 10V!**

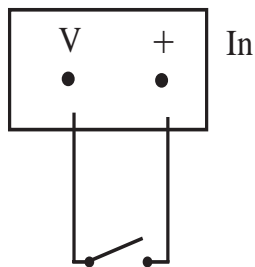
(1) Linear Example



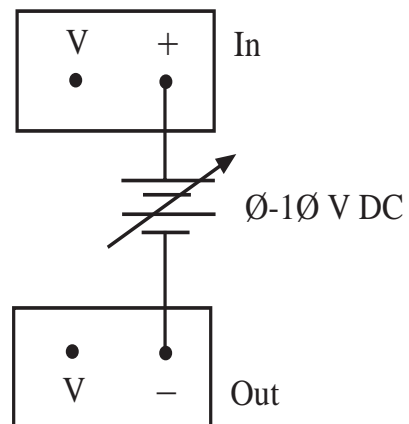
(1) Nonlinear Example



(2) Switch



(3) DC Supply

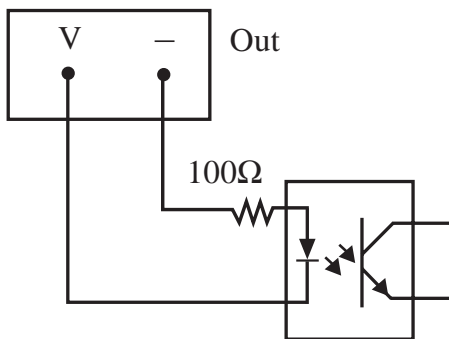


Wiring Diagram

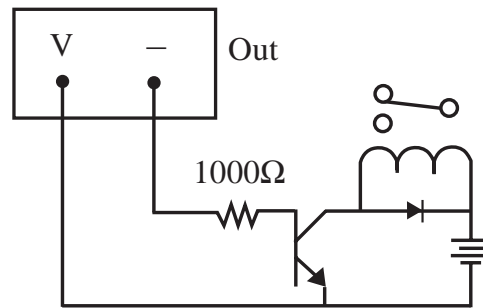
Control Output Examples

The eight control outputs appear on a separate Phoenix connector on the back of the Break-Out-Box. They provide logic outputs from the system. The output voltage is TTL format. Outputs are capable of sourcing 6ma and sinking 20ma while maintaining valid TTL levels. There are two electrical connections for each channel output control. When viewing the unit from the back, the left connection is the positive terminal. These outputs can be used to control devices as follows:

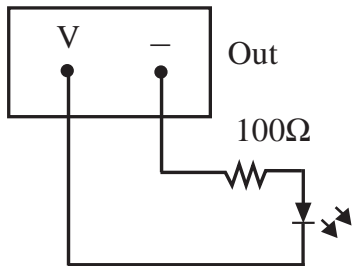
An Opto-Isolator:



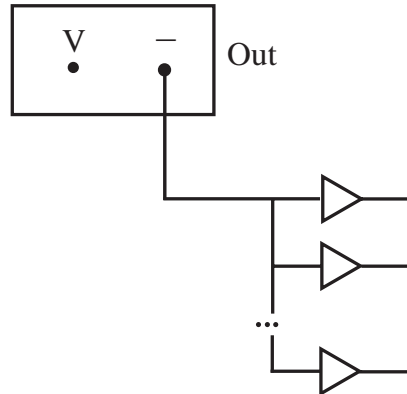
A Relay:



An LED:



Up to 15 TTL Loads:

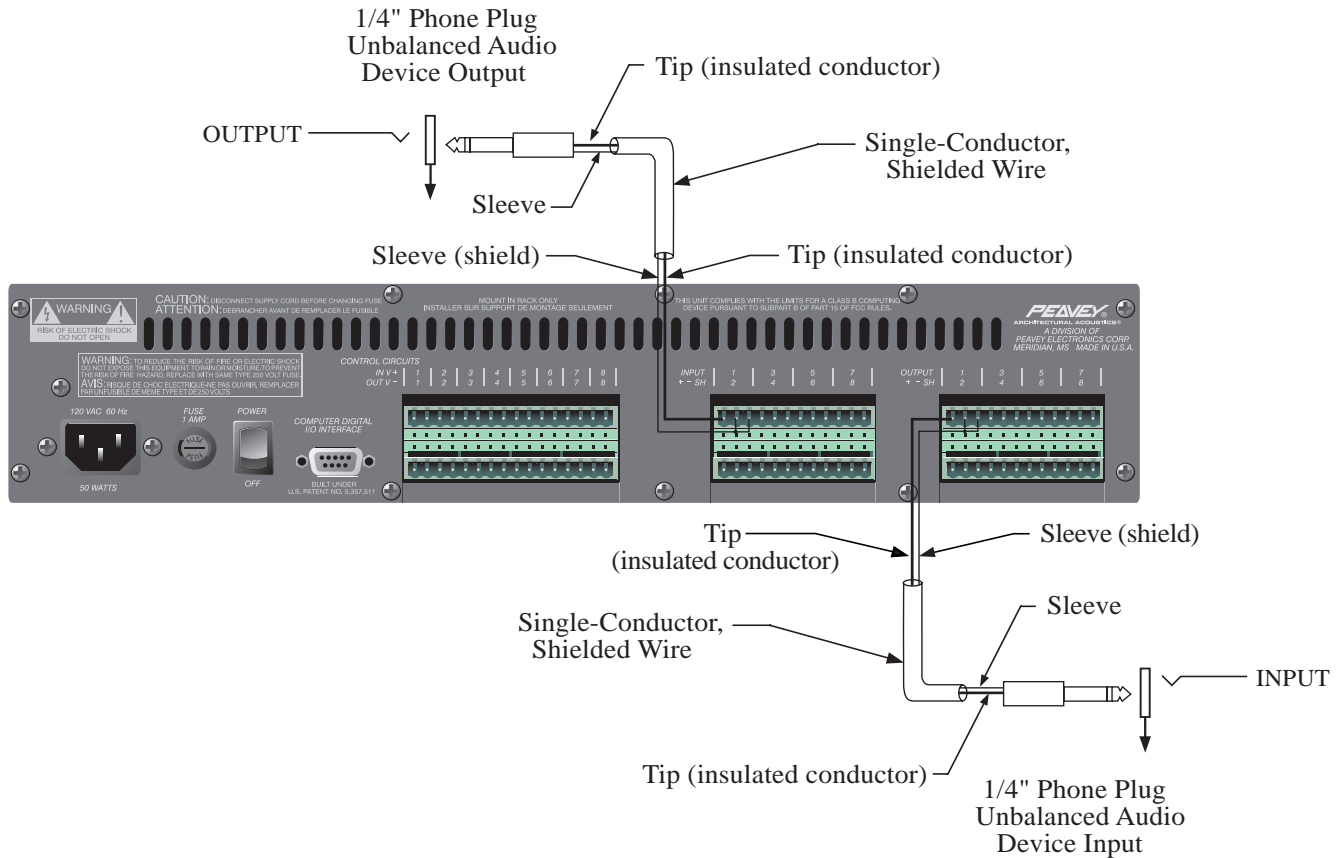


Wiring Diagram

Using the Breakout Box with an Unbalanced Audio Device

1. Unbalanced audio device output to balanced BoB input.
2. Balanced BoB output to unbalanced audio device input.

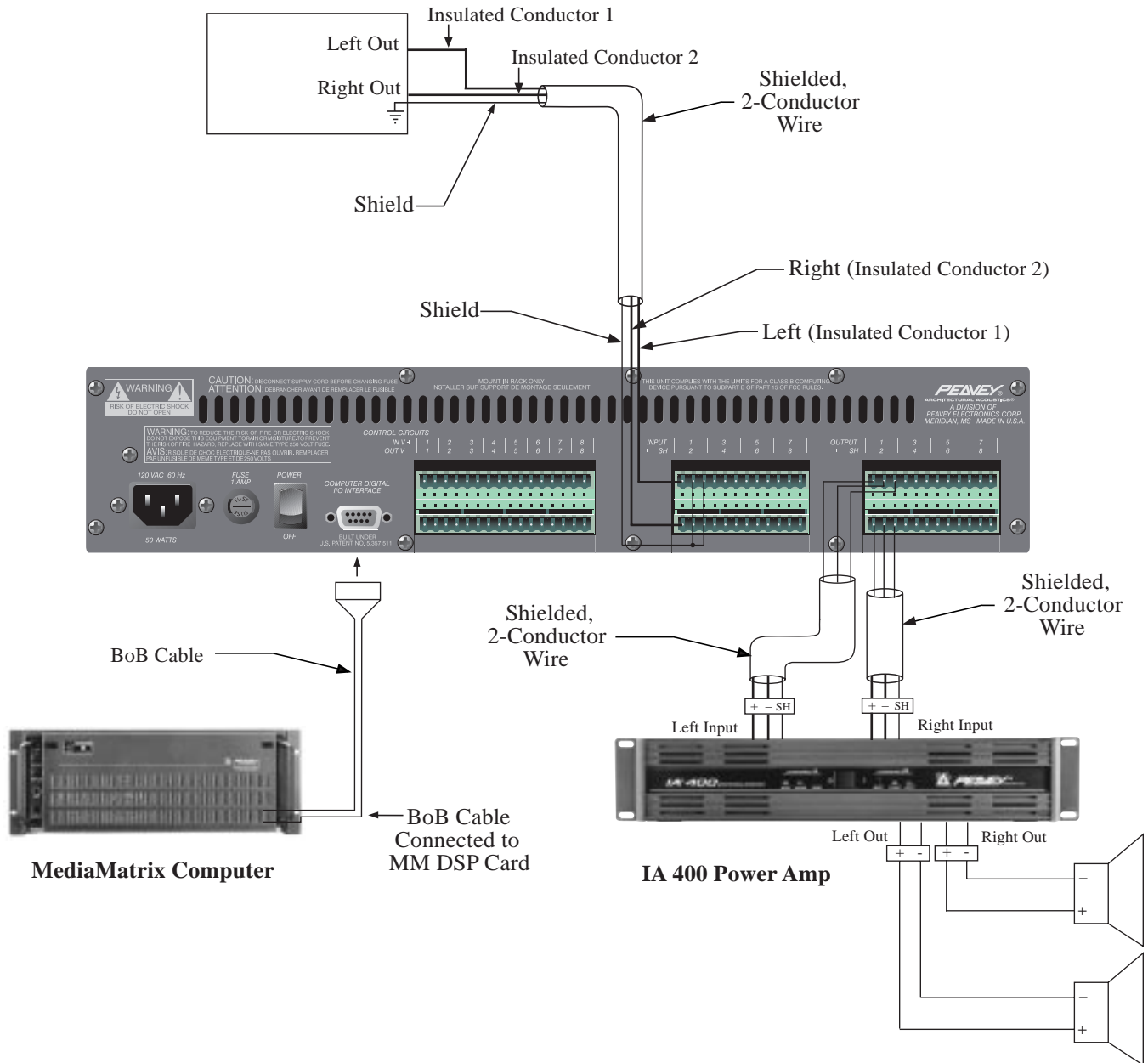
Note: Be sure to ground the unused negative terminal on the BoB input/output.



Wiring Diagram

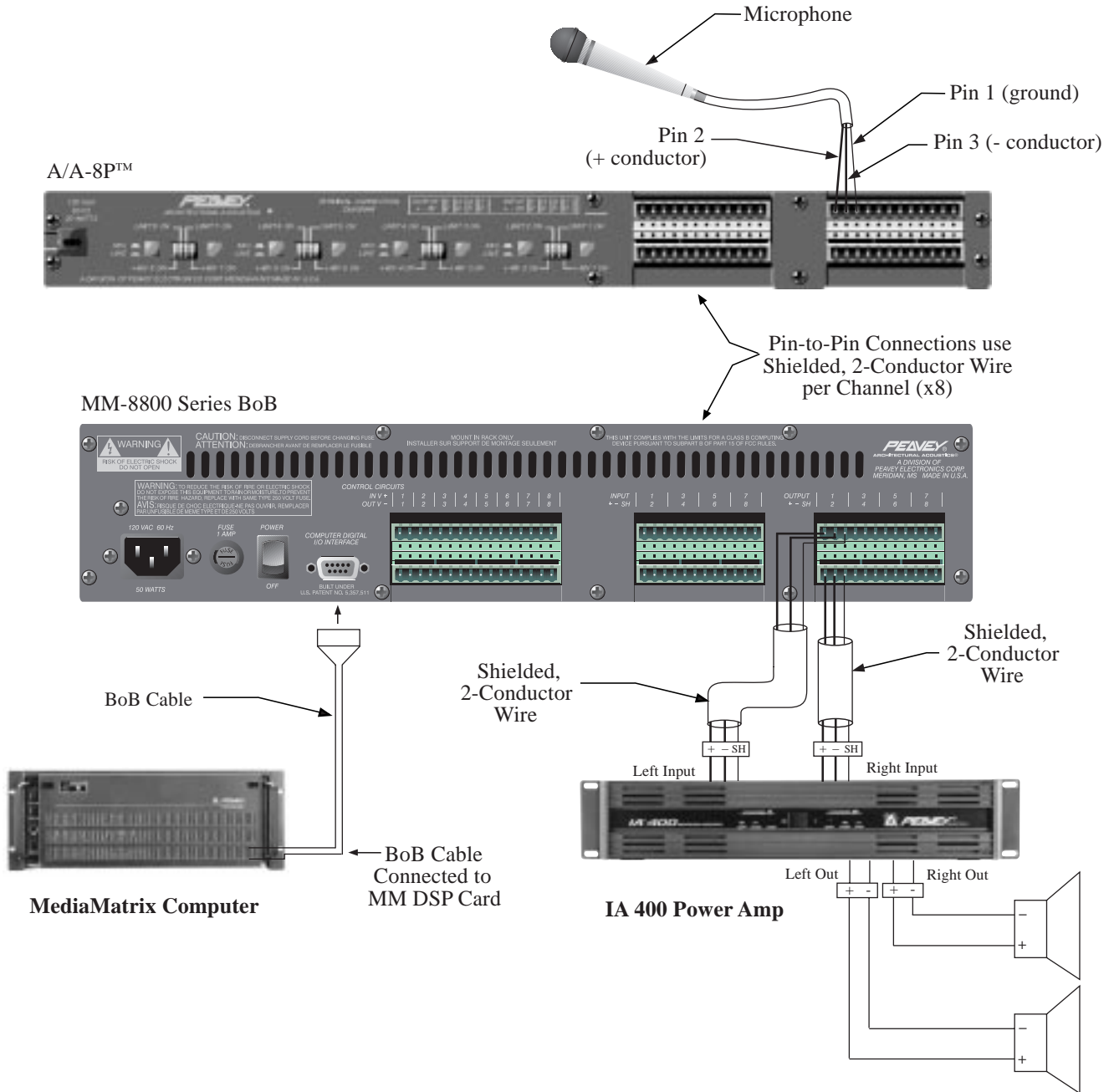
CD Player or Other Line Level Audio Device

Note: If using an unbalanced audio source, be sure to ground the unused negative inputs on the BoB.



Wiring Diagram

MediaMatrix System with Microphone Preamp



For further information on other Peavey Architectural
Acoustics products, ask your Authorized Peavey
Sound Contractor for the appropriate
Peavey Architectural Acoustics catalog/publication:

The BluePrint

Commercial Sound for Permanent Installations

Engineered Sound Products for Permanent Installations



Be Sure to Ask About Products in the Following Categories:

Modular Series Mixer, Mixer/Amplifiers

Rack Kits for MA™ Series Products

Wall Mount Mixer/Amplifiers

Non-powered Mixers

Powered Mixers

Equalizers-Analog

Equalizers-Programmable

Electronic Crossover/Delay Processors

Power Amplifiers

Loudspeaker Systems

Acoustical Components

Utility Amplifiers, Mixer/Amplifiers

Rack Kits for UMA™ Series Products

Telephone Paging

Zone Paging Systems

Mixers and Mixing Consoles

Power Amplifiers

Loudspeaker Systems

Microphones

LIMITED WARRANTY

Peavey Electronics Corporation warrants to the original purchaser of this new Architectural Acoustics product that it is free from defects in material and workmanship. If within one (1) year from date of purchase a properly installed product proves to be defective and Peavey is notified, Peavey will repair or replace it at no charge. (Note: Batteries and patch cords not covered.) "Original purchaser" means the customer for whom the product is originally installed.

Damage resulting from improper installation, interconnection of a unit or system of another manufacturer, accident or unreasonable use, neglect or any other cause not arising from defects in material and workmanship is not covered by this warranty. The warranty is valid only as to products purchased and installed in the United States and Canada.

THIS LIMITED WARRANTY IS IN LIEU OF ANY AND ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR USE. UNDER NO CIRCUMSTANCES WILL PEAVEY BE LIABLE FOR ANY LOST PROFITS, LOST SAVINGS, INCIDENTAL DAMAGES OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PRODUCT, EVEN IF PEAVEY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGE. THIS LIMITED WARRANTY IS THE ONLY EXPRESSED WARRANTY ON THIS PRODUCT, AND NO OTHER STATEMENT, REPRESENTATION, WARRANTY, OR AGREEMENT BY ANY PERSON SHALL BE VALID OR BINDING UPON PEAVEY.

Peavey's liability to the original purchaser for damages for any cause whatsoever and regardless of the form of action is limited to the actual damages up to the greater of Five Hundred Dollars (\$500) or an amount equal to the purchase price of the product that caused the damage or that is the subject of or is directly related to the cause of action. This limitation of liability will not apply to claims for personal injury or damage to real property or tangible personal property allegedly caused by Peavey's negligence. For information on service under this warranty, call a Peavey customer service representative at (601) 483-5376.

IMPORTANT SAFETY INSTRUCTIONS

WARNING: When using electric products, basic cautions should always be followed, including the following.

1. Read all safety and operating instructions before using this product.
2. All safety and operating instructions should be retained for future reference.
3. Obey all cautions in the operating instructions and on the back of the unit.
4. All operating instructions should be followed.
5. This product should not be used near water, i.e., a bathtub, sink, swimming pool, wet basement, etc.
6. This product should be located so that its position does not interfere with its proper ventilation. It should not be placed flat against a wall or placed in a built-in enclosure that will impede the flow of cooling air.
7. This product should not be placed near a source of heat such as a stove, radiator, or another heat producing amplifier.
8. Connect only to a power supply of the type marked on the unit adjacent to the power supply cord.
9. Never break off the ground pin on the power supply cord. For more information on grounding, write for our free booklet "Shock Hazard and Grounding."
10. Power supply cords should always be handled carefully. Never walk or place equipment on power supply cords. Periodically check cords for cuts or signs of stress, especially at the plug and the point where the cord exits the unit.
11. The power supply cord should be unplugged when the unit is to be unused for long periods of time.
12. If this product is to be mounted in an equipment rack, rear support should be provided.
13. Metal parts can be cleaned with a damp rag. The vinyl covering used on some units can be cleaned with a damp rag or an ammonia-based household cleaner if necessary. Disconnect unit from power supply before cleaning.
14. Care should be taken so that objects do not fall and liquids are not spilled into the unit through the ventilation holes or any other openings.
15. This unit should be checked by a qualified service technician if:
 - a. The power supply cord or plug has been damaged.
 - b. Anything has fallen or been spilled into the unit.
 - c. The unit does not operate correctly.
 - d. The unit has been dropped or the enclosure damaged.
16. The user should not attempt to service this equipment. All service work should be done by a qualified service technician.
17. This product should be used only with a cart or stand that is recommended by Peavey Electronics.
18. Exposure to extremely high noise levels may cause a permanent hearing loss. Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures.

Duration Per Day In Hours	Sound Level dBA, Slow Response
8	90
6	92
4	95
3	97
2	100
1 1/2	102
1	105
1/2	110
1/4 or less	115

According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.

Ear plugs or protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.

SAVE THESE INSTRUCTIONS!



Features and specifications subject to change without notice.

A Division of **Peavey Electronics Corporation**

711 A Street / Meridian, MS 39301 / U.S.A. / (601) 483-5376 / Fax (601) 486-1154
#80300361

