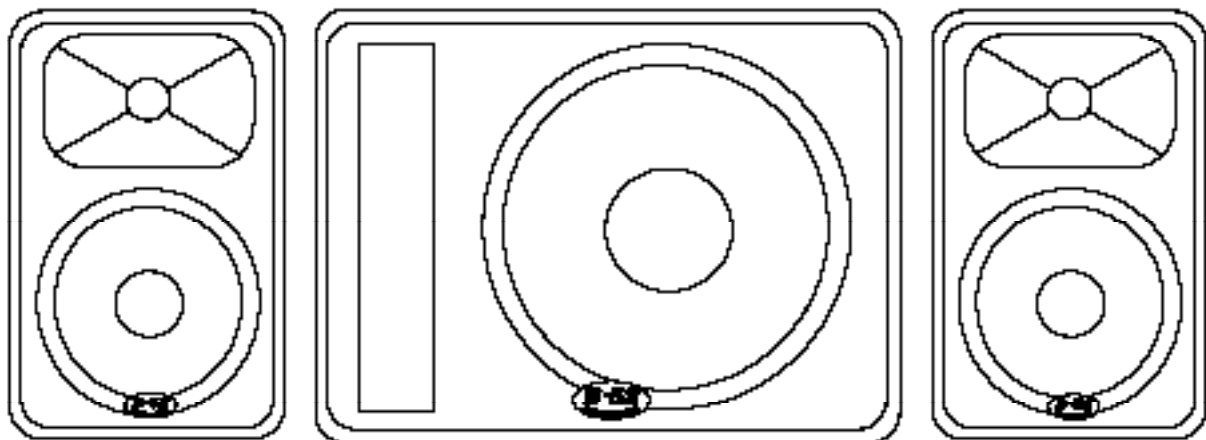




MATRIX
2000



1200-Watt Active Speaker System



SUGGESTED APPLICATIONS:

- Mobile DJ ■ Karaoke ■ Nightclub, Restaurant, Bar Install
- Corporate Audio / Video ■ Home Entertainment System
- Live Sound System ■ Stage Monitoring System
- Booth Monitoring System ■ Drum Monitoring

INSIDE THIS INSTRUCTION MANUAL

Important Safety Instructions / Specifications	2
Important Information.....	3
Amplifier Descriptions.....	4
Set-up & Warranty Information.....	6
Contact Information.....	8

IMPORTANT SAFETY INFORMATION

- 1) Read these instructions.
- 2) Follow all instructions.
- 3) Keep these instructions.
- 4) Heed all warnings.
- 5) Do not use the MATRIX 2000 near water. Be extremely cautious while moving the MATRIX 2000 in the rain or while transporting the system over wet surfaces as water can splash onto the amplifier.
- 6) Clean all external surfaces with a clean, dry and non-abrasive cloth.
- 7) Do not block any ventilation openings during the operation. Install this system in accordance with manufacturer's instructions.
- 8) Do not store or operate near heat sources such as radiators, stoves or other devices that may produce heat.
- 9) Do not attempt to defeat the polarization or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding-type plug has two blades and a third grounding prong. Proper use of the AC connector is required for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the outlet. If using a 3-prong to 2-prong converter, be certain to ground the metal tab or wire to earth ground.
- 10) Protect the power cord from being walked on or pinched, particularly at the plug and the point where it exits the MATRIX 2000 amplifier.
- 11) Only use attachments / accessories specified by B-52 Professional.
- 12) Use caution when transporting the system to avoid injury or tip over. Do not move the system in such a manner or at such a speed that you would run the risk of the satellites falling off the subwoofer box.
- 13) Unplug the MATRIX 2000 from the AC mains power source prior to a lightning storm or when not in use. This will minimize risk from electric shock occurring.
- 14) Refer all servicing to qualified and B-52 authorized repair personnel. Servicing is required when the MATRIX 2000 has been damaged in any way! Please seek immediate service if the power-cord or plug is damaged, liquid has spilled into any of the cabinets, the unit has been exposed to moisture or rain, the unit does not operate normally, or has been dropped.
- 15) To reduce the risk of fire or electric shock, do not expose the MATRIX 2000 to rain or moisture.
- 16) The MATRIX 2000 is not intended for outdoor fixed installations or in high moisture areas. Moisture can damage the speakers and can corrode the electrical contacts. Keep speakers out of extended or intense sunlight. The loudspeakers surrounds will prematurely dry out and finished surfaces may fade and be damaged by long-term exposure to ultra-violet light.

HEED ALL WARNINGS



WARNING: To reduce the risk of fire or electrical shock do not expose this equipment to rain or moisture.

CAUTION: Connect the power cable only after you have absolutely made sure that the local mains voltage matches the voltage specified on the device. If you connect to the wrong voltage, you may destroy the electronic components of the MATRIX 2000 system.

See page 4 for a complete description of factory-default voltage settings.

BUILT-IN AMPLIFIER:

Subwoofer Power Output:	600 W / 8 Ohms
12" Two-Way Power Output:	2 x 300 W / 4 Ohms
Line in:	XLR Female
Parallel out:	XLR Male
Input Impedance:	48 k Ohms
Speaker Out:	Speakon NL4 Style Connector
Power Requirement:	115V<->50/60Hz<->10A 230V<->50/60Hz<->5A

ACTIVE CROSSOVER:

Crossover Frequency:	120 Hz; 24 dB / Octave
----------------------	------------------------

SUBWOOFER:

Speaker:	1 x 18" Cast-Framed, 4" Voice Coil Custom Subwoofer
Nominal Impedance:	8 Ohms
Subwoofer Freq. Response:	30 – 120 Hz
Max. SPL:	129 dB
Weight:	160 lbs.
Dimensions (Transport):	35" (H) x 28" (W) x 23" (D)

12" TWO-WAY SPEAKERS:

Speaker Input:	Speakon style connector (pin 1+ = +, pin 1- = -)
Loudspeaker:	12" Custom Built B-52 Transducer
Compression Driver:	1" Exit Titanium Diaphragm on Constant Directivity Horn
HF Dispersion:	90° x 40°
Nominal Impedance:	4 Ohms
Active Freq. Response:	120 – 20K Hz
Crossover Frequency (passive):	2K Hz 12 dB/Octave
Maximum SPL:	126 dB
Weight:	40 lbs.
Dimensions (Upright):	23" (H) x 14" (W) x 13" (D)

COMPLETE SYSTEM:

Weight:	245 lbs.
Dimensions (Transport):	47" (H) x 24" (W) x 28" (D)

Note: Specifications are subject to change without notice

The MATRIX 2000 Active Speaker System

Congratulations on your purchase of this B-52 Professional MATRIX 2000.

The MATRIX 2000 is a complete sound reinforcement solution consisting of two 12" two-way speakers and an 18" subwoofer, equipped with a built-in three-channel amplifier. The three-channel amplifier houses all the electronics required to run the system. The electronic circuitry was fine tuned to match all of the components for the best possible sound. The MATRIX 2000 is designed for easy operation, as you do not need to worry about tweaking frequencies and finessing levels. All you have to do is set up the system's components, connect the XLR right and left signal cables, speaker cables and power cord and you're ready to go!

18" SUBWOOFER:

The 18" subwoofer enclosure is divided into two separate compartments. The front chamber serves as the cabinet for the cast-framed, 4" voice coil, 18" subwoofer. The rear chamber houses all of the system's electronic circuitry, which includes the amplification for all three components, power supply, compressor and preamps. The 18" subwoofer has a power handling capability of 600 watts and a nominal impedance of 8 ohms.

12" TWO-WAY SPEAKERS:

Each 12" two-way speaker is loaded with a B-52 custom designed 12" loudspeaker and a 1" titanium diaphragm compression driver, mounted to a 90° x 40° constant directivity horn. The speakers are designed to be pole mounted, can sit as stage monitors and have built-in (3/8" – 16 TPI) flying hardware for permanent installations. The front panel of both two-way speakers are convex so as to fit perfectly on to the subwoofer's front grille for easy transport. Each two-way speaker has the power handling capability of 300 watts and a nominal impedance of 4 ohms.

Using the Speakon-style Connector:

To establish a connection, plug the connector and rotate it clockwise until it engages. Before you unplug it, you will first need to disengage the safety catch. To accomplish this, pull the catch towards yourself.

Connections: Pin 1+ = +, Pin 1- = -, Pin 2+ and Pin 2- are not connected.

CAUTION: The system's components are matched for the best possible sound quality and may only be operated in the specified configuration provided in this manual. **DO NOT CONNECT ADDITIONAL SATELLITE SPEAKERS TO THE AMPLIFIER.** Connecting additional speakers may hinder the sound quality and can damage the power amplifier.

TRANSPORTING THE SYSTEM:

Place the subwoofer on to its casters and place the included cover over the subwoofer. Next, place the included covers over the two 12" two-way speakers and close the zippers. It is recommended that you transport the subwoofer and satellites separately. You may transport all the components at the same time by placing the satellite speakers on to the subwoofer's front panel facing down. Secure the satellite speakers to the subwoofer with the included locking strap by fastening it to the bar handles on the side of the subwoofer cabinet.

Caution: Use caution when transporting the system to avoid injury or tip over. Do not move the system in such a manner or at such a speed that you would run the risk of the satellites falling off the subwoofer box.

Hearing damage, prolonged exposure to excessive SPL

B-52 Pro-Audio speakers, including the MATRIX 2000, are capable of producing sound pressure levels (SPL) sufficient to cause permanent hearing damage to performers, production crews or people in the audience. Hearing protection devices such earplugs are highly recommended. Caution should be taken to avoid extended SPL.

Amplifier Module Precautions

Do not attempt to service the MATRIX 2000 by yourself. Refer all servicing to a B-52 Professional Authorized Service Center or directly to B-52. Service is required when the MATRIX 2000 has had liquid spilled on or inside the subwoofer or speakers, has been damaged in any way, the speaker has been exposed to rain or moisture, does not operate normally or has been dropped.

WARNING – Shock Hazard:

To reduce the risk of fire or electrical shock, do not expose this unit to rain or moisture. Do not operate your MATRIX 2000 near a pool or other standing water. Make sure all blades on the polarized power plug are fully inserted into the power source. Ensure the power cord is not stretched, pinched or otherwise abused. Ensure the power cord is routed to avoid foot traffic. Your MATRIX 2000 amplifier should be cleaned only with a dry cloth.

CAUTION:

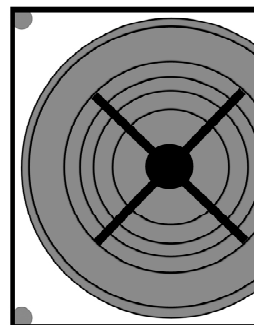
- 1) Do not hang the speakers by yourself. You must have a professional and licensed contractor hang the speakers. Speakers not properly flown/hung can fall causing injury or extreme cases, death.
- 2) B-52 Professional speakers, especially the MATRIX 2000, can produce high-levels of energy. When placed on slippery surfaces such as polished wood or smooth tiles, the subwoofer may move because of its intense bass output. Precautions should be taken to ensure the subwoofer does not fall off a stage or raised surface.
- 3) Turn the gain knobs all the way down before turning the system ON or OFF.
- 4) Make sure the active subwoofer is connected to the two-way speakers before powering the system up.
- 5) Make sure your mixer and all other signal sources are turned ON before connecting the MATRIX 2000.
- 6) The MATRIX 2000 should always be switched ON last after you switch ON all connected devices.

GETTING TO KNOW YOUR MATRIX 2000 AMPLIFIER

1. **AMPLIFIER:** The MATRIX 2000 amplifier panel.
2. **LEFT SPEAKER OUTPUT:** Speakon-style connector output for left satellite speaker.
3. **COOLING FANS:** The two fans keep the amplifier cool during operation. Ensure these cooling fans are clear of external obstructions for efficient operation.
4. **POWER CORD CONNECTOR:** For attachment of the included power cord.
5. **FUSE HOLDER:** Contains primary fuse.
See warning below for important safety information.
6. **POWER ON/OFF SWITCH:** Turns the MATRIX 2000 on or off. Red lights indicates ON.
7. **VOLTAGE SWITCH:** Enables the MATRIX 2000 to be switch from 115 volts to 230 volts.
See warning below for important safety information.
8. **RIGHT SPEAKER OUTPUT:** Speakon-style connector output for right satellite speaker.
9. **PHASE SWITCH:** Sets the absolute polarity of the 18" subwoofer. Set the switch to the position where the bass sounds the loudest. If no difference is heard, place in the ON position.
10. **SUBWOOFER GAIN CONTROL:** Controls the level of the subwoofer.
11. **GROUND/LIFT SWITCH:** Removes earth ground from circuit to eliminate excessive 60-cycle hum caused by ground loops.
12. **RIGHT SATELLITE GAIN CONTROL:** Controls the levels of Gain to the right side satellite speaker.
13. **RIGHT FULL-RANGE OUTPUT:** Sends full range signal out to other systems.
14. **RIGHT FULL-RANGE INPUT:** Connect the right channel from your signal source to this connector (such as your mixer or CD player).
15. **LEFT SATELLITE GAIN CONTROL:** Controls the levels of Gain to the left side satellite speaker.
16. **LEFT FULL-RANGE OUTPUT:** Sends full range signal out to other devices.
17. **LEFT FULL-RANGE INPUT:** Connect the left channel from your signal source to this connector (such as your mixer or CD player).
18. **REINFORCEMENT SCREW:** This screw connects the amplifier panel to the subwoofer cabinet. Remove this screw in order to remove the amplifier from the subwoofer cabinet. This should only be done by an authorized B-52 Service Center.

1

2



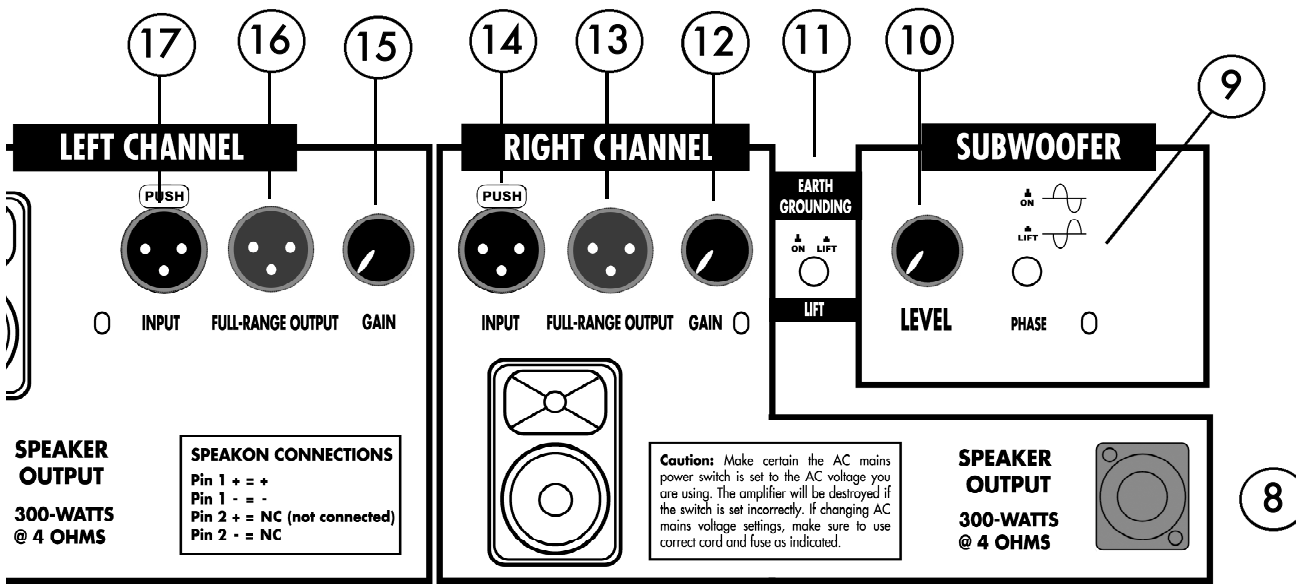
IMPORTANT: VOLTAGE SWITCH & FUSE HOLDER

U.S.A Customers: The MATRIX 2000 is already positioned to the correct voltage (115v) and has in place the correct fuse. **DO NOT** change the position of the voltage switch or fuse value while operating in the U.S.

International Customers: The MATRIX 2000 is shipped internationally from our U.S. factory, with the voltage switch and fuse correctly set to your country's requirements. **DO NOT** change the position of the voltage switch or fuse value.



WARNING
or elect
this eq
Please r
Manual
all warn

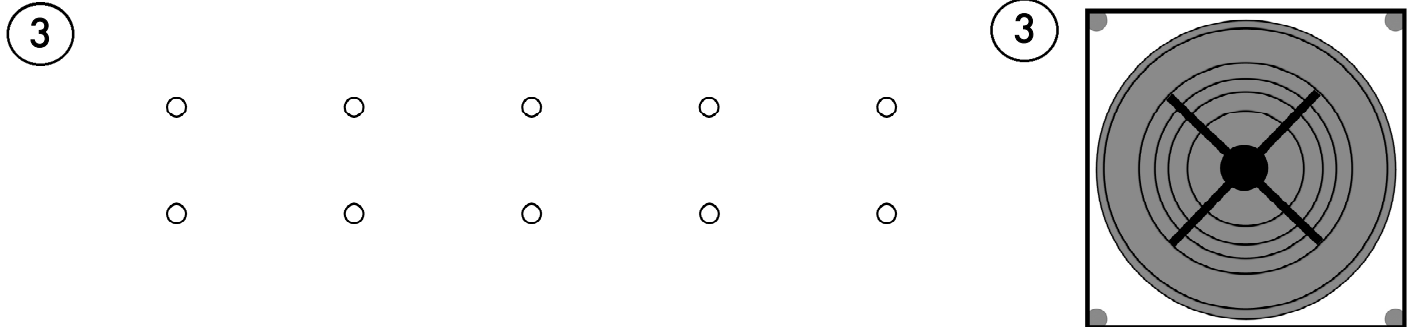


SPEAKER OUTPUT
300-WATTS
@ 4 OHMS

SPEAKER CONNECTIONS
Pin 1 = +
Pin 1 = -
Pin 2 = NC (not connected)
Pin 2 = NC

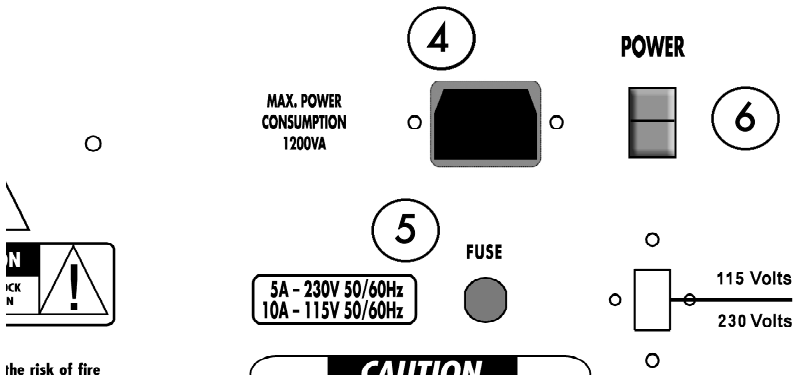
Caution: Make certain the AC mains power switch is set to the AC voltage you are using. The amplifier will be destroyed if the switch is set incorrectly. If changing AC mains voltage settings, make sure to use correct cord and fuse as indicated.

SPEAKER OUTPUT
300-WATTS
@ 4 OHMS



MATRIX 2000

18 **IMPORTANT:** This screw must be removed before completely removing the amplifier.



the risk of fire or not expose to moisture. Read instruction manual and heed

CAUTION
Never change the voltage setting or the fuse while the power cord is connected to AC mains voltage. Upon changing the voltage of the MATRIX 2000, the correct fuse **MUST** also be placed in the fuse holder before operation. Please read the instruction manual before changing the voltage or fuse.

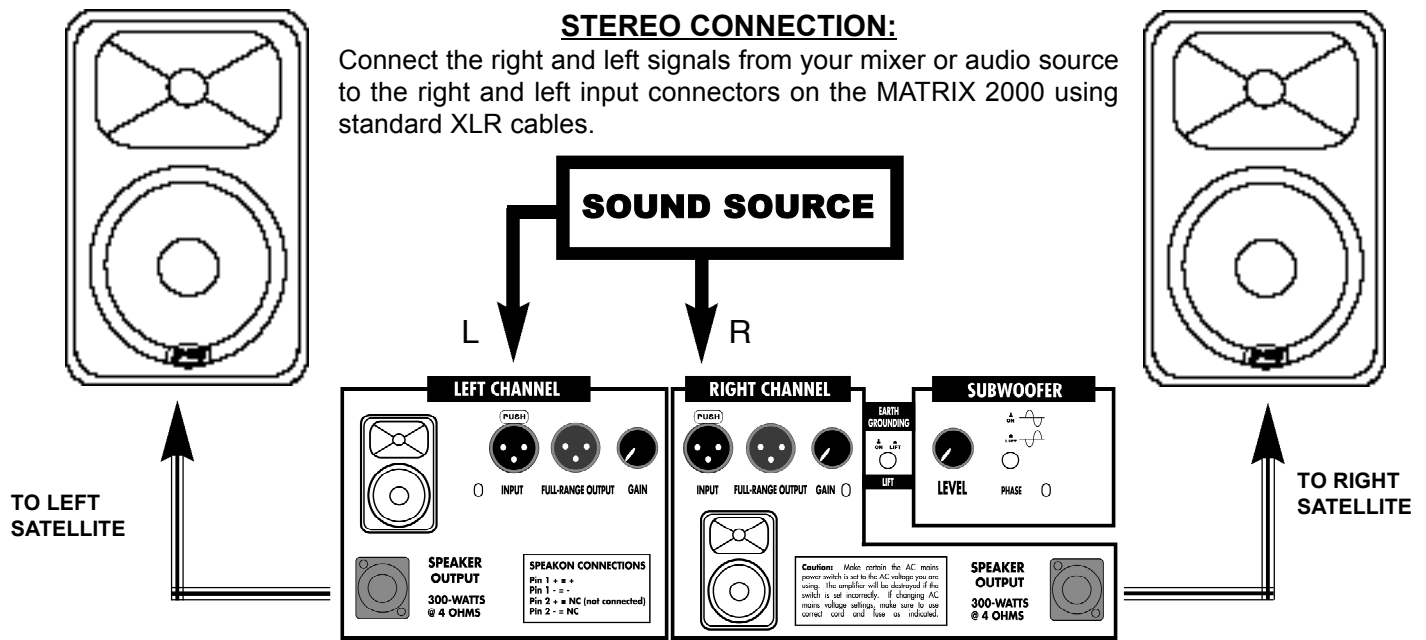


1200-WATT THREE-PIECE ACTIVE SPEAKER SYSTEM

Setting Up Your MATRIX 2000

STEREO CONNECTION:

Connect the right and left signals from your mixer or audio source to the right and left input connectors on the MATRIX 2000 using standard XLR cables.



SETTINGS:

Subwoofer Level Control: It is recommended to set the Subwoofer Gain control to 3/4" of the way up (3 o'clock position). If you wish to add bass, simply turn up the Subwoofer Gain control.

Satellite Speaker Gain Controls: Set the right and left volume controls for the 12" two-way speakers to 3/4" of the way up (3 o'clock position). With these settings, the MATRIX 2000 should be balanced. If you wish to add more mid/high output, simply turn up the Gain controls for the satellite speakers.

Ground Lift Switch: At times you may experience a low-frequency hum. Engage the ground lift switch to eliminate this hum. If this does not eliminate the hum, please check cabling and sound sources.

Phase Switch: The phase switch sets the absolute polarity of the 18" subwoofer. Set the switch to the position where the bass sounds the loudest. If no difference is heard, place in the ON position.

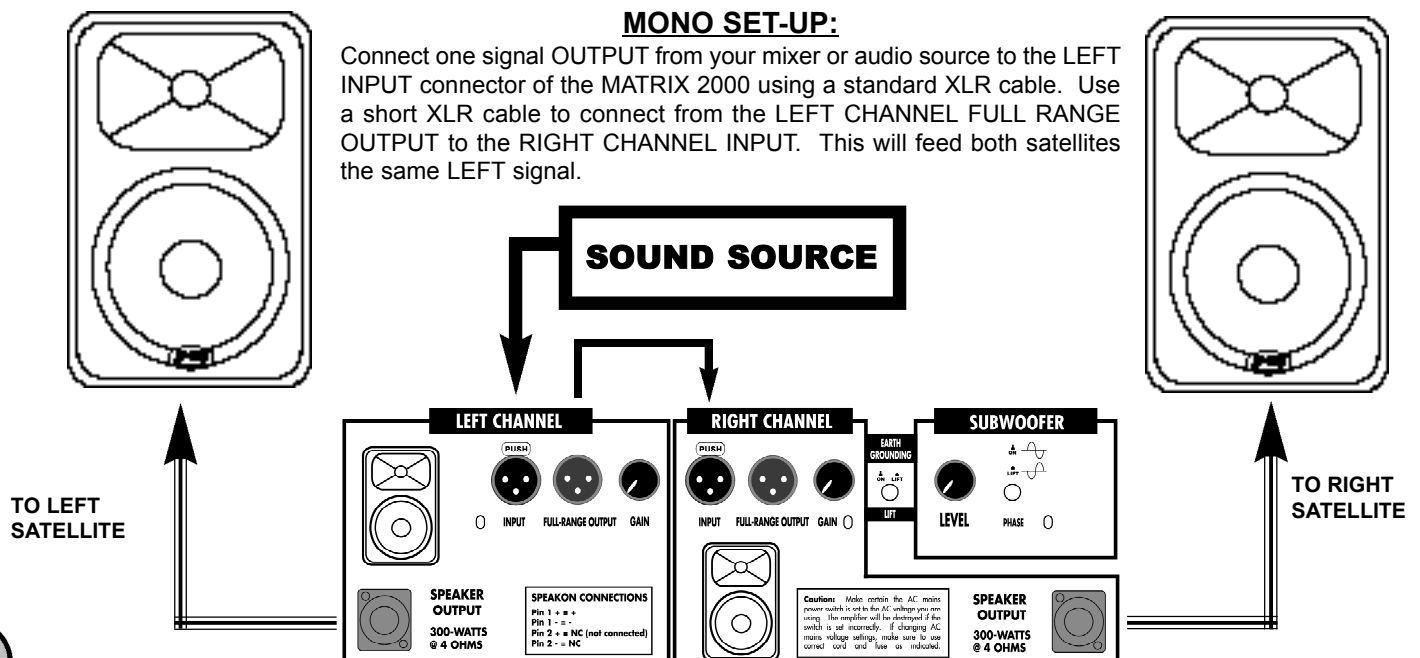
Reducing Distortion: During operation, if your MATRIX 2000 produces high levels of distortion, check the sound source and reduce the volume levels. If it is not possible to reduce the volume at the source, simply turn down the gain levels on the rear amplifier panel of the MATRIX 2000.

CAUTION: Connect the power cable only after being absolutely certain the local mains voltage matches the voltage specified on the device. If you connect to the wrong voltage, you may destroy the components of the MATRIX 2000.

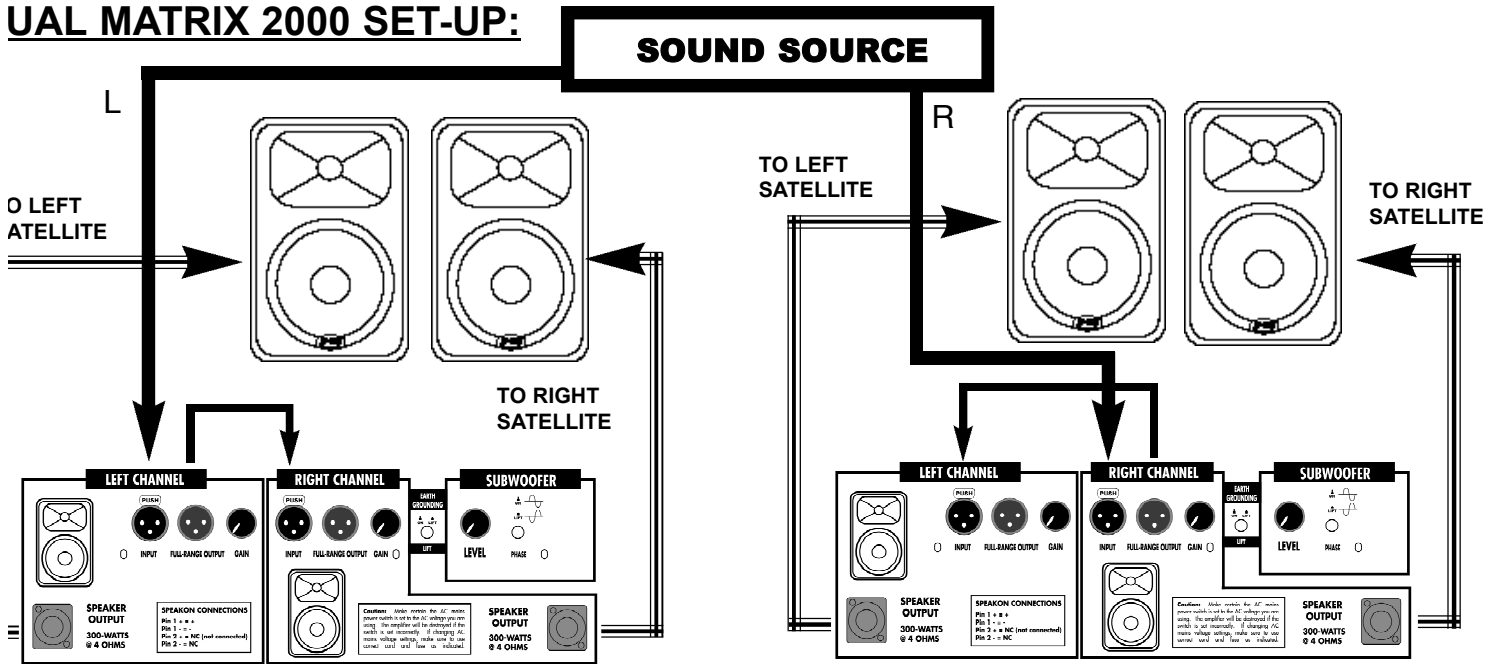
CAUTION: The amplifier's Left and Right speaker outputs are designed to only power the satellite speakers of the MATRIX 2000, which have a nominal impedance of 4 ohms. You should not attempt to connect additional speakers to the MATRIX 2000 amplifier as this may damage the amplifier and void your warranty.

MONO SET-UP:

Connect one signal OUTPUT from your mixer or audio source to the LEFT INPUT connector of the MATRIX 2000 using a standard XLR cable. Use a short XLR cable to connect from the LEFT CHANNEL FULL RANGE OUTPUT to the RIGHT CHANNEL INPUT. This will feed both satellites the same LEFT signal.



UAL MATRIX 2000 SET-UP:



Using a dual MATRIX 2000 system will cover a wider area and can be used for larger venues. It is recommended that the subwoofers be placed near each other as this will result in low-frequency coupling and provide a stronger bass output.

Step 1: Connect the RIGHT signal OUTPUT from your mixer or audio source to the RIGHT INPUT connector on the first MATRIX 2000 using a standard XLR cable. Use a short XLR cable to connect from the RIGHT CHANNEL

FULL RANGE OUTPUT to the LEFT CHANNEL INPUT (see diagram). This will feed both satellites the same RIGHT signal.

Step 2: Connect the LEFT signal OUTPUT from your mixer or audio source to the LEFT INPUT connector on the second MATRIX 2000 using a standard XLR cable. Use a short XLR cable to connect from the LEFT CHANNEL FULL RANGE OUTPUT to the RIGHT CHANNEL INPUT (see diagram). This will feed both satellites the same LEFT signal.

B-52 Limited Warranty

Thank you for choosing a B-52 sound product. B-52 manufactures some of the world's best sounding and most reliable professional speaker systems, amplifiers and components. E.T.I. Sound Systems, Inc., makers of B-52, takes great pride in thoroughly testing each B-52 product prior to shipment.

B-52 CABINETS: E.T.I. Sound Systems, Inc. offers a LIFETIME warranty (effective January 1, 2002) to the original purchaser that a B-52's cabinet construction will be free from defects in material and workmanship. A dated sales receipt will establish coverage under this warranty. This warranty does not cover service or parts to repair damage caused by neglect, abuse, normal wear and cosmetic appearance of the cabinetry not directly attributed to defects in material or workmanship, or service, repair, modifications of the cabinet, which has not been authorized or approved by E.T.I. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above.

LOUDSPEAKER AND MID-RANGE COMPONENTS: E.T.I. Sound Systems, Inc. warrants the original purchaser that B-52 loudspeakers and/or midrange components will be free from defects in material and workmanship for a period of (5) FIVE YEARS from the original purchase date (effective January 1, 2002). A dated sales receipt will establish coverage under this warranty. This warranty will automatically terminate (5) years after the original retail sales date. This (5) five-year warranty does not cover service or parts to repair damage caused by accident, disaster, misuse, abuse, burnt voice-coils, over-powering, negligence, inadequate packing or shipping procedures and service, repair or modifications of the component which has not been authorized or approved by E.T.I.. This warranty is in lieu of all other expressed warranties. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above.

HIGH-FREQUENCY DEVICES: E.T.I. Sound Systems, Inc. offers a LIFETIME warranty (effective January 1, 2002) to the original purchaser that B-52 high frequency (tweeters) devices will be free from defects in material and workmanship. A dated sales receipt will establish coverage under this warranty. This warranty does not warranty neglect or abuse. **NO WARRANTY IS OFFERED ON HIGH-FREQUENCY DEVICES IN B-52 SYSTEMS WITH A BI-AMP SWITCH OPTION.** The lifetime warranty on high-frequency devices does not cover service or parts to repair damage caused by accident, disaster, misuse, abuse, negligence, inadequate packing or shipping procedures or service, repair or modifications of the product which has not been authorized or approved by E.T.I. This warranty is in lieu of all other expressed warranties. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above.

AMPLIFIERS: E.T.I. Sound Systems, Inc. warrants the original purchaser that B-52 amplifiers will be free from defects in material and workmanship for a period of (2) TWO YEARS from the original purchase date (effective January 1, 2002). A dated sales receipt will establish coverage under this warranty. This warranty will automatically terminate (2) years after the original retail sales date. This (2) two-year warranty does not cover service or parts to repair damage caused by accident, disaster, misuse, abuse, over-powering, negligence, inadequate packing or shipping procedures and service, repair or modifications of the amplifier which has not been authorized or

This Limited Warranty is effective as of January 1, 2002. Any warranty claim on B-52 products purchased before this date may be subject to monetary charges. Warranty valid ONLY to original purchaser with PROOF OF PURCHASE.

approved by E.T.I.. This warranty is in lieu of all other expressed warranties. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above.

RETURN PROCEDURES: In the unlikely event that a defect should occur, follow the procedure outlined below. Defective products must be shipped, together with **proof of purchase**, freight pre-paid and insured to the Authorized B-52 Dealer from whom you purchased the product or directly to E.T.I. Sound Systems. If a product must be returned to E.T.I. Sound Systems for warranty replacement/repair, a **Return Authorization Number** must be obtained from our Customer Service Department prior to shipping the product.

NEVER RETURN THE ENTIRE CABINET—JUST THE DEFECTIVE COMPONENT. Identify and remove the defective component. If you are uncertain which component is defective, or need directions for removing a component, please contact our Customer Service Department for assistance. Components which are a part of an original B-52 speaker box must be sent directly to E.T.I. Products must be shipped in the original packaging or its equivalent; in any case, the risk of loss or damage in transit is to be borne by the purchaser. The Return Authorization Number must appear in large print directly below the shipping address. Always include a brief description of the defect, along with your correct return address and telephone number. When calling to inquire about a returned product, always refer to the Return Authorization Number. If E.T.I. determines that the unit was defective in materials or workmanship at any time during the warranty period, E.T.I. has the option of repairing or replacing the product at no additional charge, except as set forth below. All replaced parts become a property of E.T.I. Products replaced or repaired under this warranty will be returned via ground-shipping-within the United States-freight prepaid. **E.T.I. is not responsible for costs associated with expedited shipping, either to E.T.I. or the return of the product to the customer.**

INCIDENTAL OR CONSEQUENTIAL DAMAGE: In no event will E.T.I. be liable for any incidental or consequential damages arising out of the use or inability to use of any B-52 product, even if E.T.I. or a B-52 dealer has been advised of the possibility of such damages, or any other claim by any other party. Some states do not allow the exclusion or limitation of consequential damages, so the above limitation and exclusion may not apply to you. This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

FOR YOUR PROTECTION: Please complete and mail the **Purchase Information Card** within (10) ten days of the date of purchase so that we may contact you directly in the event a safety notification issued in accordance with the 1972 Consumer Product Safety Act. In addition, we ask that you complete the brief questionnaire so we may analyze your answers and in this way, help us evaluate our customer needs.

CUSTOMER SERVICE: Our dedicated staff is ready to help you with any B-52 warrant or product questions you may have. Please call 323-277-4100 (9:00AM to 4:00PM Pacific Standard Time).



E.T.I. Sound Systems, INC.
3383 Gage Ave., Huntington Park, CA, 90255



FEATURES:

- ◆ **1 x 18" 600-watt subwoofer**
- ◆ **2 x 12" two-way 300-watt satellite speakers**
- ◆ **18" subwoofer with cast-aluminum frame and 4" voice coil**
- ◆ **1" titanium diaphragm compression driver**
- ◆ **Built-in 3-channel amplifier powers subwoofer and satellite speakers**
- ◆ **Speakers fit atop subwoofer, which features four 4" casters for easy transport**
- ◆ **13-ply Baltic birch construction**
- ◆ **Speakers are pole mountable, include built-in flying hardware and can be placed as stage monitors**
- ◆ **Speakon™ connectors (cables not included)**
- ◆ **All three components include a FREE dust cover!**

B-52 PROFESSIONAL

3383 Gage Avenue, Huntington Park, CA, 90255

Phone: 323-277-4100 Fax: 323-277-4108

National: 1-800-344-4ETI

Internet: www.B-52PRO.com

E-mail: info@B-52PRO.com