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# CONGRATULATIONS ON YOUR PURCHASE OF THE B-52 MATRIX-1500 POWERED LOUDSPEAKER SPEAKER SYSTEM WITH BUILT-IN BBE® SONIC MAXIMIZER.

Please review all the information provided in this manual to ensure that you attain the best possible sound quality from your system. The B-52 MATRIX-1500 powered loudspeaker systems provide outstanding sound clarity and power for a variety of applications. The B-52 MATRIX-1500 is the perfect choice for any portable PA application requiring reliable and outstanding sound for live performance, presentation or playback for bands, DJ's, night clubs, presenters, schools, and Houses of Worship.

The MATRIX-1500 may be used as a stand-alone main speaker, or can be combined with additional MATRIX systems to form an even larger systems. The MATRIX-1500 features simple rear panel controls, with line level outputs for linking multiple systems. Please see the set-up diagrams at the end of this manual for examples of possible system configurations.

The MATRIX-1500 was designed using advanced acoustic and sound processing techniques with premium components, comprehensive protection circuitry and robust construction to provide years of consistent, reliable performance.

## Important Safety Instructions

Please keep this instruction manual for future reference and for the duration of owning the B-52 MATRIX-1500 powered system. Please carefully read and understand the instructions inside this owner's manual before attempting to operate your new powered loudspeaker.

This instruction manual includes essential safety information regarding the use and maintenance of the amplifier. Take special care to heed all warning symbols and signs inside this manual and those printed on the amplifier on the back of the loudspeaker.

#### WARNING

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THE AMPLIFIER TO WATER/MOISTURE, NOR SHOULD YOU OPERATE THE AMPLIFIER NEAR ANY WATER SOURCE.

The exclamation point triangular symbol is intended to alert the user to the presence of important operating and maintenance(servicing) instructions in the user manual accompanying the Amplifier.

The lightning flash with an arrow triangular symbol is intended to alert the user to the presence of non-insulated "dangerous voltage" within the product's enclosure, and may be of sufficient magnitude to constitute a risk of electric shock

#### WARNING

Handle the power supply cord with care.

Do not damage or deform it as it may cause electric shock or malfunction when used. Hold the plug attachment when removing from wall outlet. Do not pull on the power cord.

#### **IMPORTANT SAFETY PRECAUTIONS**

- **1. READ INSTRUCTIONS** All the safety and operating instructions should be read before this product is operated.
- **2. RETAIN INSTRUCTIONS** The safety and operating instructions should be retained for future reference.
- **3. HEED WARNINGS** All warnings on the amplifier and in the operating instructions should be adhered to.
- FOLLOW INSTRUCTIONS All operating and use instructions should be followed.
- **5.** DO NOT turn on the MATRIX-1500 amplifier module before connecting all other external devices.
- **6. WATER AND MOISTURE** Moisture can damage the MATRIX-1500 amplifier module and can cause corrosion of electrical contacts. The speaker system should not be used near water for example, a bathtub, washbowl, kitchen sink, laundry tub, wet basement, or near a swimming pool, and the like.
- 7. CARTS AND STANDS The speaker system should be used only with a cart or stand that is recommended by the manufacturer. A speaker and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the speaker and cart combination to overturn.
- **8. WALL OR CEILING MOUNTING** The product should never be mounted to a wall or ceiling.
- **9. HEAT** The amplifier on the back of the MATRIX-1500 system should be situated away from heat sources such as radiators, direct sun light, heat registers, stoves, or other sources (including amplifiers) that produce heat.

- **10. POWER SOURCES** This product should be operated only from the type of power source indicated on the rating label. If you are not sure of the type of power supply to your home, consult your product dealer or local power company.
- **11. GROUNDING OR POLARIZATION** Do not defeat the safety purpose of the polarization or grounding-type plug. The wide blade or the third prong is provided for your safety. If the provided plug does not fit your outlet, consult an electrician for replacement of the obsolete outlet. Do not defeat the safety purpose of the 3rd pin grounding prong.
- **12. POWER-CORD PROTECTION** Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to the cord in correspondence of plugs, convenience receptacles, and the point where they exit from the amplifier.
- **13. CLEANING** The speaker and amplifier should be cleaned only as recommended by the manufacturer. Clean by wiping with a dry cloth. Avoid getting water inside the speaker or amplifier.
- **14. NON-USE PERIODS** The power cord of the amplifier should be unplugged from the outlet when left unused for a long period of time.
- **15. OBJECT AND LIQUID ENTRY** Care should be taken so that objects do not fall and liquids are not spilled into the enclosure through openings.
- **16. DAMAGE REQUIRING SERVICE** The amplifier should be serviced by qualified service personnel when:
  - A. The power supply cord or the plug has been damaged; or
  - B. Objects have fallen, or liquid has been spilled into the amplifier; or
  - C. The amplifier has been exposed to rain; or
  - D. The amplifier does not appear to operate normally or exhibits a marked change in performance; or
  - E. The amplifier has been dropped, or the enclosure damaged.
- 17. Keep the speaker system out of extended or intense direct sun light.
- **18.** No containers filled with any type of liquid should be placed on or near the speaker system.
- **19. SERVICING** The user should not attempt any service to the speaker and/or amplifier beyond that described in the operating instructions. All other servicing should be referred to qualified service personnel.
- 20. VENTILATION Slots and openings in the amplifier are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating. These openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack.
- **21. ATTACHMENTS** do not use attachments not recommended by the product manufacturer, as they may cause hazards.
- **22. ACCESSORIES** Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult, and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product.

- **23. LIGHTNING** For added protection during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
- **24. REPLACEMENT PARTS** When replacement parts are required, besure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.
- **25. SAFETY CHECK** Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.
- **26. FUSES** Always use the correct rating and type of fuse as indicated on the rear panel of the amplifier. Note the proper rating fuse is determined by the AC line voltage in the country this speaker system is being operated. COMPLETELY DISCONNECT POWER CORD FROM AMPLIFIER BEFORE ATTEMPTING TO REPLACE FUSE!
- 27. AC SELECT SWITCH: This switch must be set to match the AC line voltage in the country this speaker system is being operated. To change the setting, loosen (do not remove) the two screws used to hold the protective plastic cover. Slide the cover to the left and slide the actuator to match the voltage in your country. Once the voltage is set, tighten back the two screws.

COMPLETELY DISCONNECT POWER CORD FROM AMPLIFIER BEFORE ATTEMPTING TO CHANGE AC VOLTAGE SETTINGS!

28. THE B-52 MATRIX-2500 LOUDSPEAKERS ARE NOT DESIGNED FOR TEMPORARY OR PERMANENT SUSPENSION. ANY ATTEMPT TO SUSPEND THE SUBWOOFER OR SATELLITE SPEAKERS OF THE MATRIX-2500 COULD RESULT IN INJURY OR DEATH.

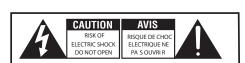
To prevent electric shock, do not use a polarized plug with an extension cord, receptacle or other outlet unless the blades can be fully inserted to prevent blade exposure.

## HEARING DAMAGE AND PROLONGED EXPOSURE TO EXCESSIVE SPLs

The B-52 MATRIX-1500 system is capable of producing extremely loud volume levels that can cause permanent hearing damage to performers, production crews or the audience. Hearing protection is recommended during long-term exposure to high SPLs (sound pressure levels). Remember, if it hurts, it is definitely too loud! Long term exposure to high SPLs first causes temporary threshold shifts; limiting your ability to hear the actual loudness and exercise good judgment. Repeated long term exposure to high SPLs will cause permanent hearing loss.

Please note the recommended exposure limits in the accompanying table. More information about these limits is available on the US government Occupational Safety and Health (OSHA) website at: www.osha.gov

Permissible Noise Exposures (1)		
Duration per day, hours	Sound level dBA slow response	
8	90	
6	92	
4	95	
3	97	
2	100	
1.5	102	
1	105	
0.5	110	
0.25 or less	115	



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

AVERTISEEMENT: Pour réduire les risques d'incendie et d'électrocution, ne pas exposer ce matérial à la pluie ou à l'humidité.



THIS SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE UNIT.



APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND THAT NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.

## **Features**

#### 1200W THREE CHANNEL AMP

- 700W sub channel Class G
- 2 x 250W sat channels
- BBE<sup>®</sup> Sonic Maximizer with HF process and LF contour controls
- · Stereo inputs and full range outputs
- Built-in compressor/limiter and subsonic filter
- Thermal and short circuit protection circuitry
- Large torrodial transformer with industrial grade power supply
- · Integrated signal processing
- Built-in stereo crossover
- · Efficient and quiet 2-speed fan cooling
- 115V/230V voltage select

#### **COMPONENTS:**

#### 15" Celestion® Subwoofer

- 700-watts RMS
- Celestion high excursion 15" low-frequency driver
- 3" high temperature voice coil and advanced magnet cooling

## 10" Celestion® Speaker

- 250-watts RMS
- Celestion®10" low frequency driver with high temperature voice coil and advanced magnet cooling
- Speakers are pole mountable or can be used as stage monitors

## **Compression Drivers:**

 1" exit Celestion® Compression Driver with PETP film diaphragm

## Horns:

• 90° x 40° ellipitical wave guides

## PETP-FILM DIAPHRAGM COMPRESSION DRIVER (SATELLITE SPEAKERS)

- Optimized acoustic and magnetic design achieves outstanding clarity and reliability
- A one-piece, PETP film diaphragm and surround optimizes energy transfer for greater efficiency
- Patented clamping system yields low distortion performance while improving the mid-band response
- Polyimide-insulated, copper-clad aluminium voice coil is edgewound on a glass-fiber former producing lower distortion and superior power-to-weight ratio
- A matched wave front phase corrector produces a coherent sound wave at the horn throat, yielding detailed and dynamic mid and high frequency response

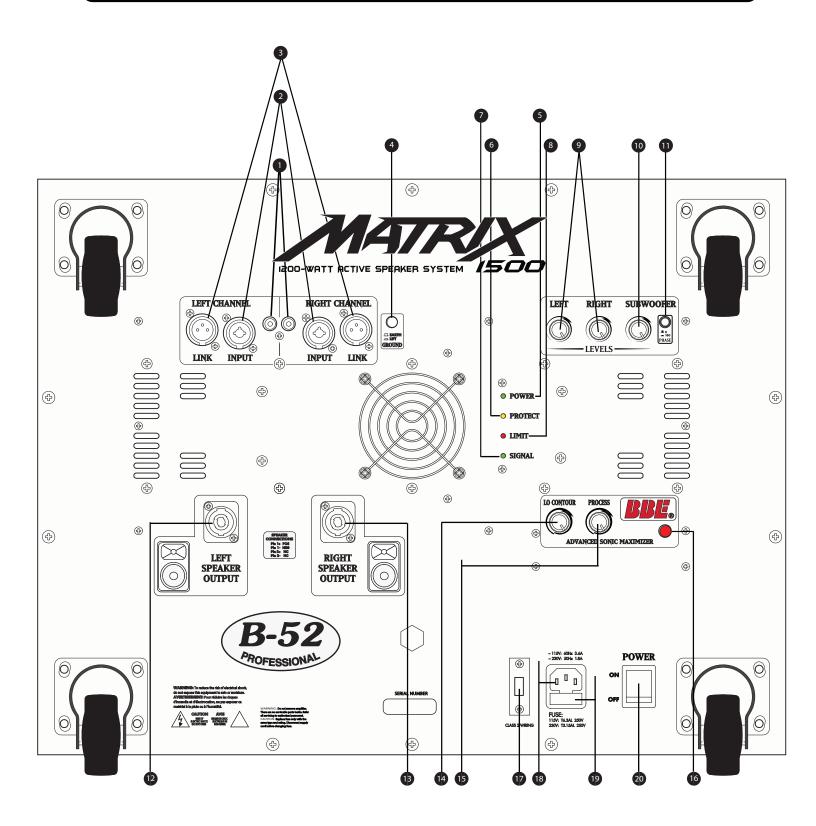
#### **CABINET FEATURES**

- Made in U.S.A.
- 5/8" birch plywood construction (Satellite Speakers)
- 3/4" birch plywood construction (Subwoofer)
- · Reinforced internal bracings
- Environmentally friendly scratch resistant black paint finish
- 16-gauge, wrap-around steel grilles
- Metal handles and rubber feet
- Speakon® connectors (cables not included)
- 1 3/8" Metal pole mounting cup on satellite speakers
- · Heavy duty 3" casters

#### **BBE®SONIC MAXIMIZER**

- The BBE<sup>®</sup>Sonic Maximizer circuitry takes already great sounding systems to the next level
- Adds punch and depth that can be both heard and felt
- Improves the clarity and intelligibility of vocals, musical instruments and adds overall depth to the audio program
- Controls for LF (low frequency) Contour and HF (high frequency) Process to adjust the exact amount of BBE® processing added to your mix
- Red illiminated ON/OFF switch to activate BBE® processing.

## **MATRIX-1500 Rear Controls & Operation**



## RCA INPUT CONNECTIONS (UNBALANCED)

One for the left channel's audio input and one for the right channel's audio input. From your mixer, insert the left channel's RCA connector into the left channel's (L) INPUT connector. Connect the right channel of your mixer by inserting the RCA connector into the right channel's (R) INPUT connector on the amplifier.

## 2 XLR INPUT CONNECTIONS (BALANCED)

One for the left channel's audio input and one for the right channel's audio input.

Balanced connections should be used as much as possible to reduce AC hum and interference, especially with long runs of cable. The input impedance is 20k Ohm for balanced connections.

From your mixer, insert the left channel's XLR connector into the left channel's (L) INPUT connector. Connect the right channel of your mixer by inserting the XLR connector into the right channel's (R) INPUT connector on the amplifier.

## LINK (FULL RANGE) OUTPUT CONNECTIONS

The link output connectors are wired in parallel with the inputs, allowing connection of multiple systems in a "daisy-chain" fashion. Use these outputs marked LINK (Left and/or Right) when you are connecting to other speakers and/or to other powered loudspeakers.

NOTE: Make sure to power OFF the MATRIX-1500 and/or other powered loudspeakers connected to the OUTPUT before turning off the subwoofer power. This will prevent any unwanted transients (thuds, lowpops) from coming out of the connected loudspeakers.

#### GROUND LIFT SWITCH

The MATRIX-1500 amplifier is equipped with a GROUND LIFT switch. Powered loudspeakers are often fed by long run signal cables, connected to power outlets different than the audio source's. This may create an audible hum or buzz due to ground loops or other connection problems. The GROUND LIFT switch will help you to avoid these issues.

It is a good idea to keep the GROUND LIFT switch in EARTH position unless you have hum or buzz coming from your speakers. If you do hear hum or buzz, toggle switch into LIFT position.

WARNING: NEVER BREAK EARTH CONNECTION IN YOUR AC PLUG. IT MAY CAUSE PERMANENT DAMAGE TO THE AMPLIFIER AND MAY CAUSE DANGER OF ELECTRICAL SHOCK TO YOU AND OTHERS.

#### 5 LED POWER INDICATOR

The green LED POWER indicator, located on the back of the amplifier, will illuminate when the AC Power switch is in the "ON" position. The LED POWER indicator will dim and turn off when the AC Power switch is in the "OFF" position or AC mains power has been disconnected from the loudspeaker.

If the POWER indicator does not illuminate when the loudspeaker is powered on, verify the AC mains line cord is properly connected to the loudspeaker and inserted into the AC outlet. Verify the AC outlet at the venue of operation is functioning properly. In the event of the AC mains outlet functioning properly, but the loudspeaker fails to operate, the loudspeaker may require servicing.

Please contact support@B-52pro.com for service instructions.

## 6 PROTECT LED INDICATOR

If the power module overheats, the amplifier will go into "protection mode" to limit further temperature rise. The amplifier will take about 30 seconds to several minutes for the temperature to drop and resume operation.

 Overheating is usually caused by excessive ambient temperature, direct sunlight for a prolonged period of time during operation, or playing the loudspeaker past its operational limits.
 If thermal overheating occurs, reduce signal level to avoid constant illumination of the LIMIT LED INDICATOR. Make sure the air vents

#### LIMIT LED INDICATOR

The red LIMIT indicator alerts the user that the amplifier output signal is clipping and therefore is being compressed by the built-in clip-limiter.

Momentary Bright Red Flashes

• Indicates that the amplifier is clipping briefly causing overdrive distortion and the internal limiter is reducing gain.

on the back of the amplifier are not blocked.

 The MATRIX-1500 employ a sophisticated compressor-limiter circuitry, which is nearly inaudible at moderate overdrive conditions. It is normal to see the occasional flashing of the red LIMIT LED.

#### **Continuous Bright Red Light**

Indicates continuous and gross overloading of the amplifier. Such
overloads are audible and may lead to overheating of the amplifier
and shortening the life of the speaker components. If the amplifier is
grossly overloaded and the red LIMIT LED is on the most of the time,
the operator should reduce the signal level so that LIMIT LED only
flashes occasionally.

## SIGNAL LED INDICATOR

The green SIGNAL indicator alerts the operator to the presence of an input signal at the amplifier.

- If there is no indication, check the gain settings on the amplifier and increase the gain if necessary. Check input connections and audio source for signal. If no output persists, try a different signal cable from your mixer to the MATRIX-1500.
- If the green SIGNAL LED remains illuminated without a source connected, the amp may need servicing.

#### SATELLITE CHANNELS LEVEL CONTROLS

Turn the right and left LEVELs control clockwise to increase gain and counter clockwise to decrease gain of the satellite channels. When operating with the GAIN set at 2/3 volume or below, it may be possible to exceed the headroom of input circuitry. If this is the case, reduce the input signal strength and increase the gain of the amplifier.

### SUBWOOFER LEVEL CONTROL

Turn the sub LEVEL control clockwise to increase gain and counter clockwise to decrease gain of the subwoofer. When operating with the GAIN set at 2/3 volume or below, it may be possible to exceed the headroom of input circuitry. If this is the case, reduce the input signal strength and increase the gain of the loudspeaker amplifier.

NOTE: The subwoofer channel and satellite channels work in tandem. Set the the satellite levels first and then adjust the subwoofer channel for your prefererd balance.

Always observe the red LIMIT LED on the amplifier panel. This LED lights when a signal is clipping and the compressor-limiter is activated. The MATRIX-1500 amplifiers employ a sophisticated limiter circuitry, which monitors signal condition at all three amplifier channels and compresses the output signal when necessary to protect the loudpseakers from damages.

Limiter circuitry works very unobtrusively; you may not even notice when it activates. It may prompt you to push input signal more, but it is a good practice to have red LIMIT LEDs blink occasionally and not constantly. A constant LIMIT LED light indicates a gross overloading condition and should be avoided. Reduce the signal level if the LIMIT LED lights or blinks constantly.

NOTE that LEVEL control provides about 12dB attenuation in middle position. You will find that in most cases the best sound (lowest distortions and lowest noise) will be achieved when LEVEL controls are set somewhere between middle and full clockwise position.

## 11 PHASE SWITCH

The MATRIX-1500 has a PHASE switch. When the PHASE switch is set to 0, the polarity is such that a positive input will cause the subwoofer cone to push outward. When set to 180, the input signal's polarity is reversed and a positive input will cause the loudspeaker's cone to pull inward.

When all of the loudspeakers in a system are operating with the same polarity, a positive polarity signal causes the excursion (the forward motion) of all loudspeaker cones. In turn, this sets up a positive reinforcement of the sound wave (each loudspeaker reinforces the output of the other loudspeakers). This effect refers to the speakers being "in phase" The effect of proper "phasing" is most noticeable in low (bass) frequencies. If a loudspeaker's phase is incorrect, its cone moves inward while the properly phased loudspeaker's cones move outward. The inward movement, of the improperly phased loudspeaker, will effectively cancel the bass response of a similarly-sized driver in the system. This results in a reduction of the bass output. It is important to maintain correct phasing in a loudspeaker system, in order to operate at maximum performance. Incorrect polarity can be caused by incorrectly wired cables, interconnecting cables, and mixer functions set incorrectly.

Phasing is also influenced by the mutual positioning and orientation of the loudspeakers in a system. It is possible to have proper polarization (of all cables and equipment) and still achieve better bass response by having the subwoofer set to reverse polarity. Bass response also will change with the listener's position in the room. During testing, monitor the bass response from several different locations in the venue.

#### How to Use the PHASE Switch:

Start with the PHASE switch in the 0 position. Next, with your system playing at or near its expected operating level, change the polarity of the subwoofer. Walk around the venue and evaluate the overall bass response, and select the phase setting that produces the best overall bass response.

## 12 LEFT SPEAKER OUTPUT

Use a cable with Speakon to Speakon® connectors to connect from the LEFT output of the MATRIX-1500 amplifier to the satellite speaker positioned to the left of your subwoofer.

## 13 RIGHT SPEAKER OUTPUT

Use a cable with Speakon to Speakon connectors to connect from the RIGHT output of the MATRIX-1500 amplifie to the satellite speaker positioned to the left of your subwoofer.

**NOTE -** The cables are connected to 1+ and 1- of the Speakon connectors.

## BBE®LF CONTOUR

Use this knob to adjust the low frequency portion of BBE $^{\oplus}$ processing. The LF Contour will process the subwoofer and satellite speakers and enhance the bass output of your system.

## 15 BBE®HF PROCESS

Use this knob to adjust the high frequency portion of the BBE®processing. The HF PROCESS will provide clearer mids and highs and will enhance the vocal reproduction of the MATRIX-1500 satellite speakers.

## 16 BBE®ON/OFF SWITCH

This switch is used to activate the BBE®processing built into your MATRIX-1500 system. The switch will illuminate when turned ON clearly indicating that the BBE®processing is activated. BBE®processes both the sound of subwoofer itself, as well as the satellite speakers.

### **BBE®SONIC MAXIMIZER**

Benefits: The BBE®Sonic Maximizer circuitry built-in to the MATRIX-1500 takes already great sounding systems to the next level by adding punch and depth that can be both heard and felt. BBE® processing will dramatically improve the clarity and intelligibility of vocals, musical instruments and will add overall depth to the audio program. A control for both the LF (low frequency) Contour and HF (high frequency) Process is provided to adjust the exact amount of BBE®processing added to your mix.

How it works: Phase and amplitude integrity is essential to accurate sound reproduction. These relationships define a sound's "sound". When these complex relationships pass through a speaker, the proper order is lost. The higher frequencies are delayed. A lower frequency may reach the listener's ear first or perhaps simultaneously with that of a higher frequency. The listener perceives this loss of sound integrity in the reproduced sound as "muddy" and "smeared." BBE®Sound, Inc. conducted extensive studies of numerous speaker systems over a ten year period. With this knowledge, it became possible to identify the characteristics of an ideal speaker and to distill the corrections necessary to return the fundamental and harmonic frequency structures to their correct order.

**Tips for using**: A single function button switches the BBE® process on or off, which is useful for comparing the processed sound to the unprocessed sound. The switch illuminates red when the BBE® process is on. The LF Contour control is for adjusting the level of phase corrected low frequencies in the program material. The HF Process control adjusts the level of phase corrected high frequencies in the program material.

## AC SELECT SWITCH

Make sure AC Select Switch is set to voltage appropriate for your country. NOTE: Connecting the MATRIX-1500 to AC voltage not matching to AC Select Switch will damage the amplifier and may create the risk of electric shock

#### AC MAINS

Insert the IEC power cord fully into the IEC inlet on the power amplifier module.

NOTE: Turn OFF the power switch on the MATRIX-1500 before connecting the AC power cord. The correct AC line voltage should be selected on the rear panel. For operation in the United States, leave the voltage selector on the amplifier set to 115V. Connecting to the wrong line voltage will damage the amplifier and may create the risk of electric shock. AC Mains Disconnection - Turn the AC power switch to the off position. To remove the AC power cord, grasp the IEC connector's plastic body and gently remove the IEC connector from the socket by pulling it straight toward you.

## MAIN FUSE

Make sure to install the appropriate fuse and rating as indicated on the panel.

## 20 POWER SWITCH

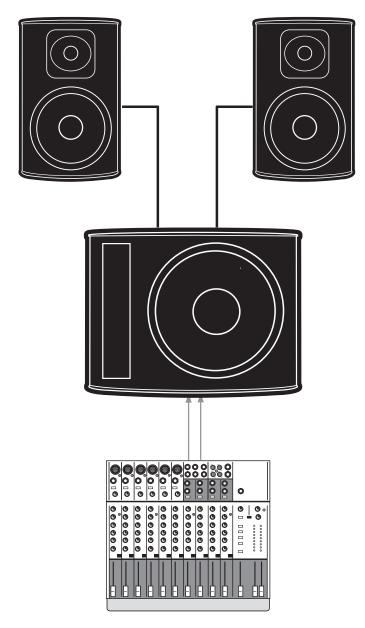
Push in the top of the power switch to apply AC power to the powered loudspeaker's amplifier. Push in the bottom of the power switch to turn the loudspeaker amplifier off. When turned on, the blue POWER indicator LED on the front grille will illuminate, along with the POWER and PROTECT LED on the amplifier. After a few seconds, the yellow PROTECT LED indicator will dim and turn off

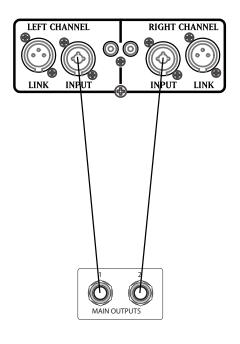
NOTE that System Power Sequencing prevents unexpected sounds from your system (pops, clicks, thumps), make sure to power ON your MATRIX-1500 in the proper order. Improper sequencing while powering ON your equipment can damage the loudspeakers. Power the loudspeaker system ON and OFF in the proper order to avoid unexpected sounds and damage to your loudspeakers.

- Power On Sequence Turn ON all source devices (CD players, mixers) then turn ON the MATRIX-1500.
- Power OFF Sequence: Turn OFF the MATRIX-1500, then power down all sourcedevices.

# **Set-up Diagrams**

## **MATRIX-1500 SYSTEM**

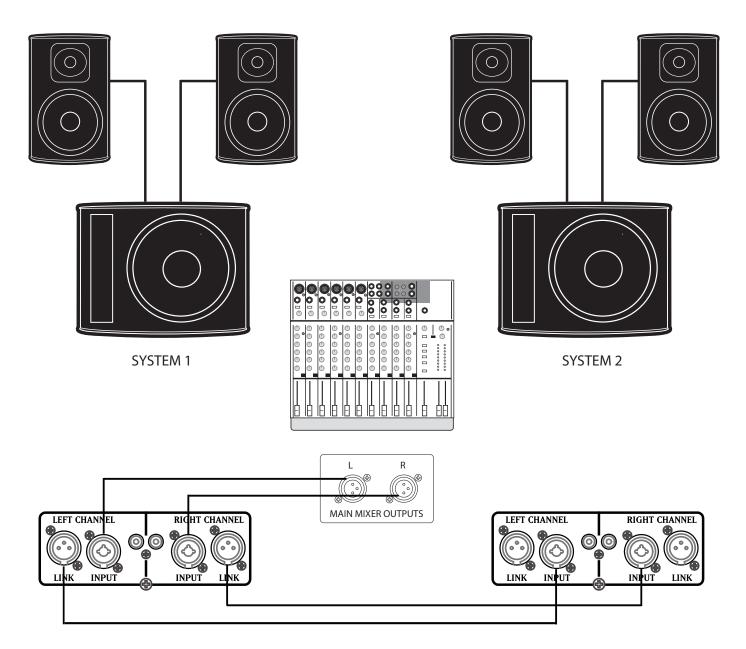




#### Checklist

- Make certain loudspeakers are Powered OFF and Levels turned down
- Connect the Mixer's Main Left Output to the Left Input of the MATRIX-1500.
- Connect the Mixer's Main Right Output to the Right Input of the MATRIX-1500.
- Connect the Left Speakon® Output to the Left Satellite Speaker.
- Connect the Right Speakon® Output to the Right Satellite Speaker.
- Set Subwoofer BBE® to ON if desired.
- Power ON Mixer, then Power ON MATRIX-1500
- Bring the Mixer's volume up to normal operating level.
- Adjust the Satellite and Subwoofer Level controls on the MATRIX-1500.
- Do not adjust the Level so high that the Red LIMIT LED is constantly lit.

## **Linking Multiple MATRIX-1500 Systems**



#### Checklist

- Also known as Daisy-Chaining, linking multiple systems will send the exact same input signal from one system to the next.
- Make certain loudspeakers are Powered OFF and Levels turned down.
- Connect the Mixer's Main Left Output to the Left Input of System 1.
- Connect the Left Link Output of System 1 to the Left input of System 2.
- Connect the Mixer's Main Right Output to the Right Input of System 1.
- Connect the Right Link Output of System 1 to the Left input of System 2.
- Turn down the Mixer's volume.
- Set Main Speaker BBE®to ON if desired

- Power ON Mixer, then Power ON the MATRIX-1500.
- Bring the Mixer's volume up to normal operating level.
- Adjust the Level controls on the sytems. Do not adjust the Level so high that the Red LIMIT LED is constantly lit.
- Set the Phase switch on both systems to 0.
- Change the Phase on only one system to 180 and hear if the total sound output is louder. If so, keep this setting. If not set back to 0.

# **Specifications**

Configuration Active 15" Subwoofer and two 10" 2-way full-range speakers

Transducers:

Subwoofer Celestion/15" TF-1530X

subwoofer with 3" voice coil.

Satellite Speakers Celestion 10" speaker

with 2.5" voice coil

Celestion/B-52 COMP-4-CLB

Compression driver with PETP Film

Frequency Range 35Hz - 20kHz
Frequency Response 46Hz - 18kHz
High Frequency Dispersion 90° x 40°
Maximum peak SPL 136dB

Power Output LF: 400Wrms Class G HF: 100Wrms Class AB+B

System Power 1200W

Input Impedance 20k Ohm Balanced 10k Ohm Unbalanced

Electronic Crossover 3rd order Butterworth @ 100 Hz

Controls Right and Left Level Knobs

BBE ON/OFF

BBE HF Process, LF Contour

Sub Level Knob Ground lift switch Power switch Phase Switch 115/230V switch

Indicators Power

Protect Limit Signal

Cooling 2 SpeeD Fan

Amplifier Protection Short circuit

Clip-limiter
Overheat mute
SOA output stage
Driver DC protection
Subsonic filter

Turn-on mute and soft ramp Turn-on inrush current limiting

# **Specifications**

**Power Consumption** (1/8 power pink noise)

Connectors **RCA Inputs** 

Balanced female XLR inputs

Balanced male XLR link output

Input Sensitivity (3) 775mV (0dBu)

**Enclosure** Black painted birch plywood

5A

Metal handles Hardware

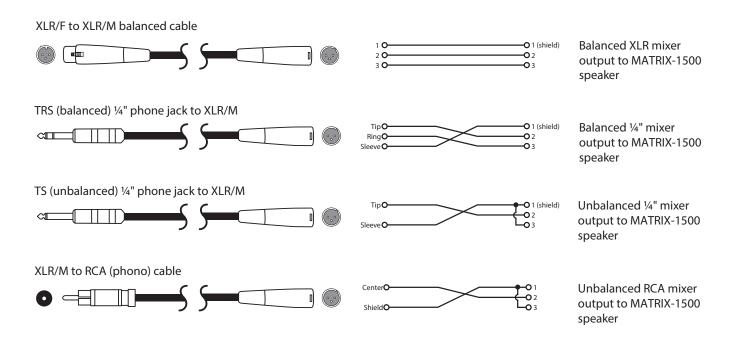
Rubber feet

Pole Mounting Cup on Satellite Speakers

Grille Powder coated 16 gauge steel

Casters Heavy Duty 3" Casters

## **Cables and Connectors**





#### So we may serve you better, please register on-line at www.B-52Pro.com

Thank you for choosing this B-52 Pro-Audio sound product. B-52 manufactures some of the world's best sounding and most reliable professional speaker systems and components. E.T.I. Sound Systems, Inc., manufacturers of B-52, takes great pride in thoroughly testing each B-52 product prior to shipment. Please read the warranty terms and conditions below and carefully read the provided Limited Warranty Card for additional terms and conditions.

**LOUDSPEAKER COMPONENTS (LF AND HF):** E.T.I. Sound Systems, Inc. warrants the original purchaser that the B-52 loudspeakers will be free of defects in material and workmanship for a period of (2) TWO YEARS from the original purchase date. A dated sales receipt will establish coverage under this warranty. This warranty will automatically terminate (2) two years after the original sales date. See provided Limited Warranty Card for additional terms and conditions.

**B-52 AMPLIFIER:** E.T.I. Sound Systems, Inc. warrants the original purchaser that the B-52 amplifier will be free from defects in material and workmanship for a period of (2) TWO YEARS from the original purchase date. A dated sales receipt will establish coverage under this warranty. This warranty will automatically terminate (2) two years after the original sales date. If this product is defective in materials or workmanship as warranted above, your sole remedy shall be repair or replacement as provided above. See provided Limited Warranty Card for additional terms and conditions.

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

**INCIDENTAL OR CONSEQUENTIAL DAMAGE:** In no event E.T.I. Sound Systems, Inc. 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. Sound Systems, Inc. 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 that may vary from State to State. See provided Limited Warranty card for additional terms and conditions.

**RETURN PROCEDURES:** In the unlikely event that a defect should occur, follow the procedure outlined below. Defective products must be shipped together with a proof of purchase, freight prepaid and insured to the Authorized B-52 Dealer from whom you purchased the product or directly E.T.I. Sound Systems, Inc. If a product must be returned directly to E.T.I. Sound Systems, Inc. for warranty replacement/repair, a Return Authorization Number (RAN) must be obtained from our Customer Service Department prior to shipping the product. You may obtain RAN by calling 800-344-4ETI.

#### NEVER RETURN THE ENTIRE CABINET - JUST THE DEFECTIVE COMPONENT.

See provided Limited Warranty card for additional terms and conditions.

**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 is issued in accordance with the 1972 Consumer Product Safety Act. In addition, we ask that you complete the brief questionnaire so me may analyze your answers and in this way, help us evaluate our customer needs. See provided Limited Warranty card for additional terms and conditions.

All trademarks and registered trademarks mentioned herein are recognized as the property of their respective holders.

Amplifier module made in China Speaker cabinet assembled in USA

