

SB2A

OWNER'S MANUAL



SB2A

ACTIVE SUBWOOFER

350W + 350W EXTERNAL SPEAKER OUT



IMPORTANT SAFETY INSTRUCTIONS



WARNING: TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
AVIS: RISQUÉ DE CHOC ELECTRIQUE. NE PAS OUVRIR.

WARNING: CONNECT ONLY TO MAINS SOCKET WITH PROTECTIVE EARTHING CONNECTION.



The lightning flash with arrowhead symbol, within an equilateral triangle is 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.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.



The asterisk within an equilateral triangle is intended to inform the user to necessary installation or removal instructions regarding equipment or hardware use relating to the system.

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized 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. The wide blade or the third prong are provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped
14. To completely disconnect AC power from this apparatus, the power supply cord must be unplugged.
15. Do not expose this apparatus to dripping or splashing and ensure that no objects filled with liquids, such as vases, are placed on this apparatus.
16. The AC plug of the power supply cord shall remain readily operable.



Management of WEEE (waste electrical and electronic equipment) (applicable in Member States of the European Union and other European countries with individual national policies on the management of WEEE) The symbol on the product or on its packaging indicates that this product may not be treated as regular household waste, but has to be disposed through returning it at a Telex dealer.

IMPORTANT SERVICE INSTRUCTIONS

CAUTION: These servicing instructions are for use by qualified personnel only. To reduce the risk of electric shock, do not perform any servicing other than that contained in the Operating Instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

1. Security regulations as stated in the EN 60065 (VDE 0860 / IEC 65) and the CSA E65 - 94 have to be obeyed when servicing the appliance.
2. Use of a mains separator transformer is mandatory during maintenance while the appliance is opened, needs to be operated and is connected to the mains.
3. Switch off the power before retrofitting any extensions, changing the mains voltage or the output voltage.
4. The minimum distance between parts carrying mains voltage and any accessible metal piece (metal enclosure), respectively between the mains poles has to be 3 mm and needs to be minded at all times. The minimum distance between parts carrying mains voltage and any switches or breakers that are not connected to the mains (secondary parts) has to be 6 mm and needs to be minded at all times.
5. Replacing special components that are marked in the circuit diagram using the security symbol (Note) is only permissible when using original parts.
6. Altering the circuitry without prior consent or advice is not legitimate.
7. Any work security regulations that are applicable at the location where the appliance is being serviced have to be strictly obeyed. This applies also to any regulations about the work place itself.
8. All instructions concerning the handling of MOS - circuits have to be observed.

NOTE:



SAFETY COMPONENT (MUST BE REPLACED BY ORIGINAL PART)

TABLE OF CONTENTS

Important Safety and Service Instructions	2
System Description	4
Safety First	5
System Setup	6
Amplifier Controls	7
FCC Information	8
Specifications	9
Dimensions	9
Block Diagram	10
Frequency Response	10

SYSTEM DESCRIPTION

Thank you for choosing the Electro-Voice® SB2A loudspeaker system. Please take time to consult this manual so that you can understand all the features built into your EV system and fully utilize all its performance capabilities.

The Electro-Voice SB2A powered subwoofer is a fully integrated audio system with carefully matched electronics and transducers. This product makes it easy to setup a high quality sound system quickly with a minimum amount of cables and external electronics.

The additional speaker output is useful to connect either a second subwoofer (e.g. SB122) or a fullrange cabinet (e.g. Zx1, Sx80, or Sx300).

System Features – SB2A

- Integrated Amplifier with 350W for Internal Woofer and 350W for Optional External Speaker
- Selectable Speakon® Output for Additional Sub or Fullrange System
- XLR and 1/4" TRS Input Connector
- XLR Parallel Output Connector
- LED Indicators for Signal and Limit
- Lockable IEC Mains Connector
- Easy Fullrange System Setup with Optional Zx1, Sx80 or Sx300

When setting up, installing and using the Electro-Voice SB2A speaker system, there are a number of precautions that you should follow:

When Electro-Voice SB2A speakers are used for portable applications they should be positioned directly on the floor.

Please make sure that the floor or stage is solid and secure.

Electro-Voice SB2A speakers include a 1-3/8 inch pole mount, which allows a smaller full-range loudspeaker to be elevated on top.

WARNING: The SB2A is very lightweight and has a small footprint.

Do not attempt to pole-mount a speaker system larger than ZX1 or Sx80 on the SB2A

Route cables and position the SB2A so that performers, production crew and audience members will not trip over the cabinet or cables and pull the speaker system over. Secure cables with wire ties or tape whenever possible.



If you intend to hang or fly the SB2A (for example in combination with Sx300), only do so safely with the correct hardware and accessories MB200 and MB300. Consult the Sx Series Rigging Manual (p/n 534780) for instructions.

WARNING: Suspending any object is potentially dangerous and should only be attempted by individuals who have a thorough knowledge of the techniques and regulations of rigging objects overhead.

Electro-Voice strongly recommends that SB2A speakers be suspended taking into account all current national, federal, state and local regulations. It is the responsibility of the installer to ensure that SB2A speakers are safely installed in accordance with all such regulations.

If SB2A speakers are suspended, Electro-Voice® strongly recommends that the system be inspected at least once a year.

If any sign of weakness or damage is detected, remedial action should be taken immediately.

For further information regarding the necessary hardware kits and their use please consult the accessory documentation.

There are data sheets for each EV Suspension and Array Kit that should also be consulted prior to suspending speakers.



Electro-Voice does not recommend use of SB2A speakers outdoors without protection from rain or in high moisture environments.

Electro-Voice SB2A loudspeakers are easily capable of generating sound pressure levels sufficient to cause permanent hearing damage to anyone within normal coverage distance. Caution should be taken to avoid prolonged exposure to sound pressure levels exceeding 90 dB.



CAUTION: This appliance has no user-serviceable parts inside. Leave any servicing and maintenance to qualified service technicians only.

Make connections to these terminals as described in the owner's manual.

SYSTEM SETUP

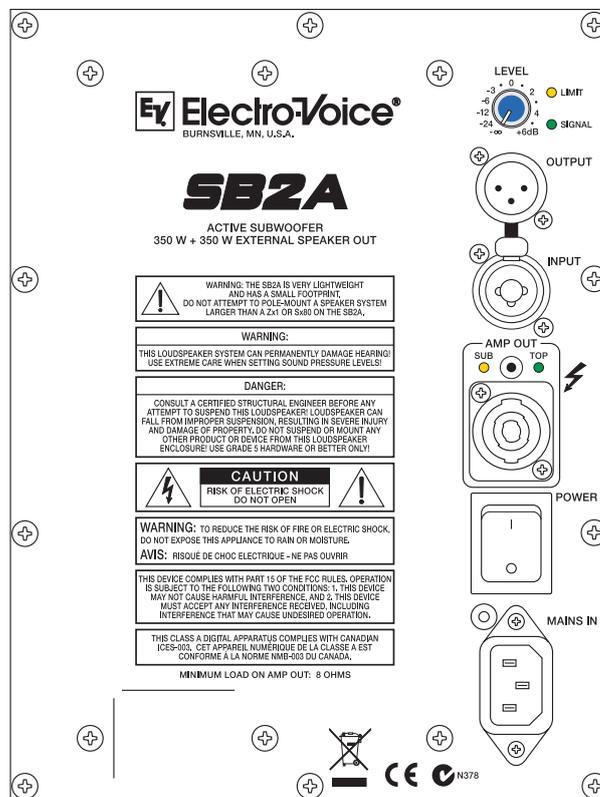
To get the SB2A into operation as quickly as possible, please observe the following steps and precautions:

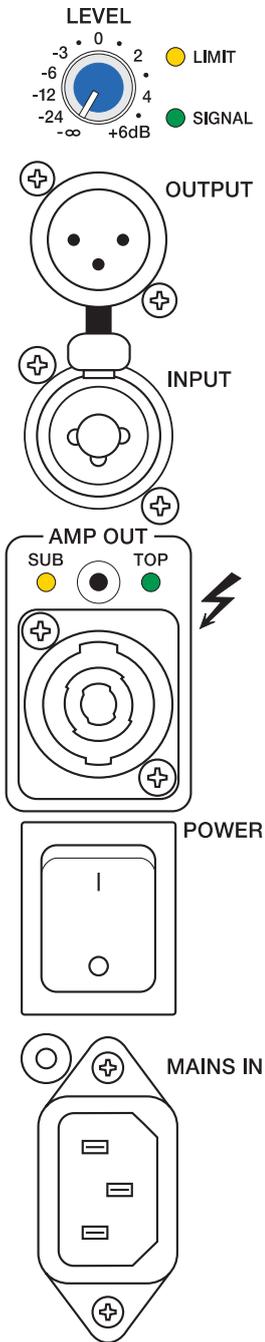
- Plug the 3-terminal IEC-standard AC cable into a grounded line receptacle. Extension cords can be used to lengthen the AC cable as necessary but make sure that they are 3-conductor 14 gauge or greater, and that they are properly grounded to avoid electrical hazards and extraneous noise.
- Be sure that the SB2A is plugged into an AC power source that is capable of supplying the correct voltage. If the line voltage drops too much, the built-in amplifiers won't be able to develop their rated power and sound quality will suffer.
- Under high signal conditions, the 120V SB2A amplifier can draw 3 - 4 amps of current (2 amps at 230V). Be cautious of what else is plugged into the same electrical service line to avoid electrical problems and poor performance.

CAUTION: Before turning the power on, make sure that the level controls are down to avoid transients or unexpected loud sound.

Caution: For trouble - free operation exceeding a maximum ambient temperature of +40°C (104°F) is not permissible.

This is a Class A product according to FCC rules. In a domestic environment this product may cause radio interferences in which case the user may be required to take adequate measures.





LEVEL

dB-scaled level control for adjusting the power amp's overall amplification.

The level control affects the volume of the internal subwoofer as well as the AMP OUT connector.

To prevent distortion and clipping of pre-linked mixing consoles, the control should generally be set to a value between 0dB and +6dB.

LIMIT

The LED brief blinking indicates that the power amplifier is operated at its limits.

Short-term blinking is uncritical, because the integrated limiter keeps distortion under control.

Constant lighting of the LED indicates that the sound is negatively affected. Reducing the output volume is strongly recommended.

SIGNAL

indicates that an audio signal is present at the input.

It lights even if the level control is at its minimum position.

OUTPUT

This connector is connected in parallel to the input allowing the through connection of the input audio signal.

INPUT

Electronically balanced input for the connection of high-level signal sources like mixing consoles or signal processors. Connections can be established using 1/4" TRS or XLR-type connectors.

Caution:

To prevent the occurrence of spurious noise, prior to connecting/disconnecting the input, set the level control to its counterclockwise stop.

AMP OUT

Output socket for connecting an external speaker cabinet. Before plugging in you have to set the mode switch to it's correct position:

SUB: Connection of a passive subwoofer (e.g. SB122).

TOP: Connection of a passive mid-high-range cabinet (e.g. Zx1, Sx80, Sx300).

The chosen mode is displayed by the associated LED.

If neither LEDs light up after activation of the power switch, please contact your dealer.

The AMP OUT connector is dedicated for one speaker system with a minimum impedance of 8 ohms.

POWER

AC switch for switching the SB2A's power ON or OFF.

The switch lights after turning the power ON. If the switch is not lit upon turning the power on, make sure that the AC cord is correctly connected and the outlet is properly working. If the switch still fails to light, please contact your dealer.

MAINS IN

AC connection is established via a locking IEC-connector.

A 20' (5m) long AC cord with fitting IEC-plug is supplied.

To unplug the mains cord, you have to push the yellow button to unlock the connection!

If the supplied cable is lost, you may also use a standard IEC-cable without locking-mechanism.

FCC Information

1. IMPORTANT:

Do not modify this unit! Changes or modifications not expressly approved by the manufacturer could void the user's authority, granted by the FCC, to operate the equipment.

2. NOTE:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

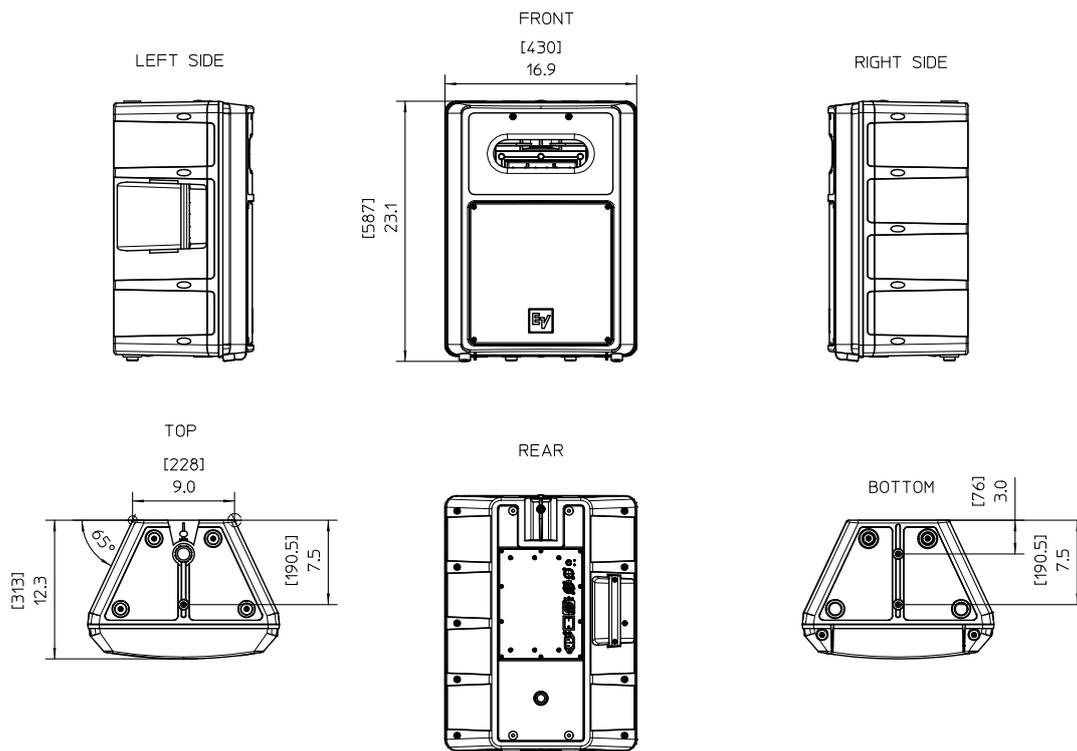
- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

SPECIFICATIONS

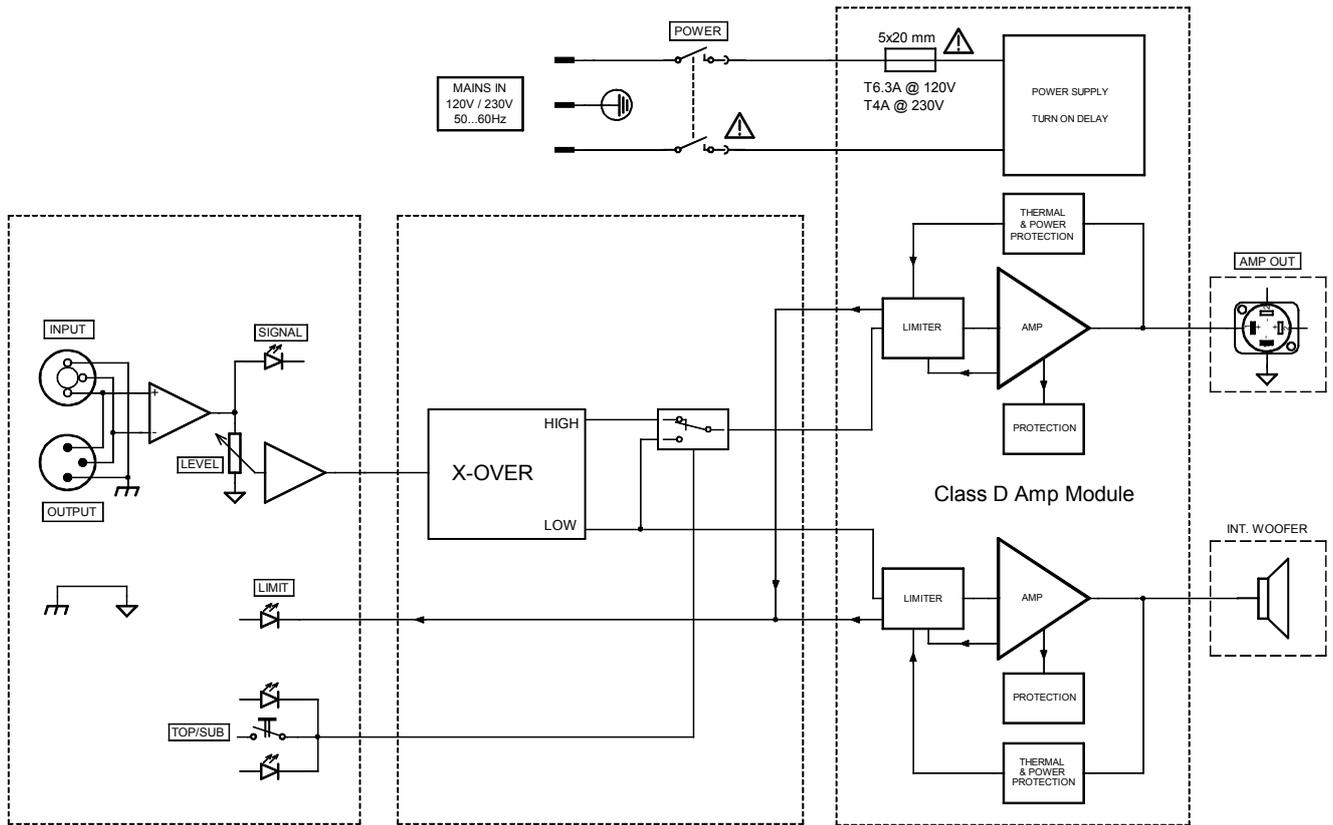
Freq. Response ¹ (-3 dB):	55 Hz - 165 Hz
Freq. Range ¹ (-10 dB)	43 Hz - 275 Hz
Hipass Amplifier Frequency Range:	66 Hz - 16 kHz
Coverage:	Essentially Omnidirectional
Subwoofer Amplifier Power:	350W RMS max.
Switchable Amplifier Power:	350W RMS max.
AMP OUT Nominal Impedance:	8 Ohms min.
Transducer:	12" (300mm) EVS-12SB Woofer
Connectors: Line Input: Parallel Output: Speaker Output	XLR and ¼" Phone Combination XLR Speakon® NL4
Power Requirement:	120V AC or 230V AC 50-60Hz, 100 Watts
Enclosure Material:	Copolymer
Grille:	Powder Coated Steel
Max. Ambient Temperature	40°C (104°F)
Dimensions (H x W x D):	23.1" x 16.9" x 12.3" (587 x 430 x 313mm)
Net Weight:	17.1 kg (37.6 lbs)
Shipping Weight:	18.4 kg (40.5 lbs)

¹ Half Space Measurement.

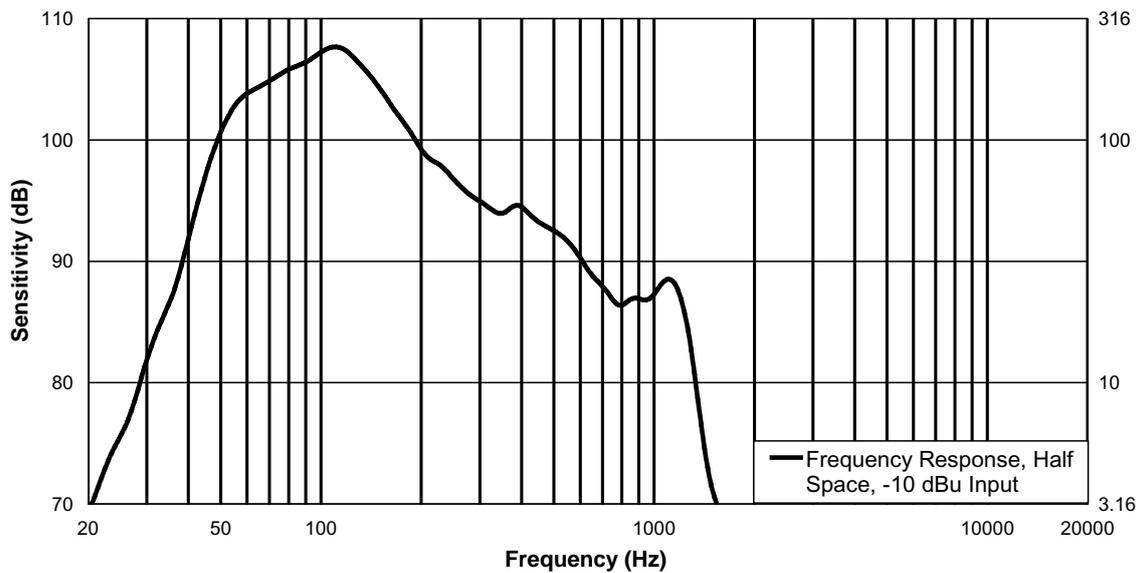
DIMENSIONS



BLOCK DIAGRAM



FREQUENCY RESPONSE



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Canada–Ph: 1-866-505-5551

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Fax: 1-952-736-4212

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Specifications subject to change without notice.

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