

EUROLIVE

E1220A/E1520A

User manual

A50-71533-00001

en



www.behringer.com



Important safety instructions






This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.




This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.


Warning

-  To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside; refer servicing to qualified personnel.
-  To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing and no objects filled with liquids, such as vases, shall be placed on the apparatus.
-  These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions unless you are qualified to do so.


Ventilation:

-  The appliance should be situated so that its location or position does not interfere with its proper ventilation. For example, the appliance should not be situated on a bed, sofa, rug, or similar surface that may block the ventilation openings, or placed in a built-in installation, such as a bookcase or cabinet that may impede the flow of air through the ventilation openings.

Check the floor:

-  Always check the floor for stability before you set up the speaker cabinet. Vibrating floors (e.g. elements/components on the stage) do not provide reliable support for speaker stacks. So, always set up your speakers on a solid and even support.

Make sure that speaker cabinets are set up properly:

-  Set up your speaker cabinet at a distance to dance floors or other audience areas, so as to avoid the possibility of somebody knocking over a speaker stack.

- 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 dry cloth.
- 7) Do not block any ventilation openings. Install in accordance with the manufacturer's 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) The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.
- 12) Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.
- 13) Use only attachments/accessories specified by the manufacturer.
- 14) Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
- 15) Unplug this apparatus during lightning storms or when unused for long periods of time.
- 16) 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.



WARNING

THIS EQUIPMENT IS CAPABLE OF DELIVERING SOUND PRESSURE LEVELS IN EXCESS OF 90 dB, WHICH MAY CAUSE PERMANENT HEARING DAMAGE.



EUROLIVE

Processor-Controlled 400-Watt 2-Way PA Loudspeaker/Floor Monitor

- ▲ High-power 400-Watt 2-way PA sound reinforcement speaker/floor monitor for live and playback applications
- ▲ Exceptional sound quality, wide frequency bandwidth and extensive dynamic range
- ▲ Integrated sound processor for ultimate system control and speaker protection
- ▲ Extremely powerful 12"/15" long-excursion driver provides incredibly deep bass and acoustic power
- ▲ Proprietary 1" HF driver for exceptional high-frequency reproduction
- ▲ Ultra-low noise Mic/Line input with Volume control and Clip LED
- ▲ Additional Line output allows linking of additional speaker systems
- ▲ Versatile enclosure profile allows different positioning:
 - 10 & 35 degree cluster and stacking mode
 - Stand mounting with 35-mm pole socket
 - Floor monitor wedge
- ▲ Ergonomically shaped handles for easy carrying and setup
- ▲ Rugged steel grill for optimal speaker protection
- ▲ High-quality components and exceptionally rugged construction ensure long life
- ▲ Conceived and designed by BEHRINGER Germany

E1220A/E1520A

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Foreword



Dear customer,
welcome to the community of EUROLIVE users, and thank you very much for expressing your confidence in us by purchasing these PA loudspeakers.

Writing this foreword for you gives me great pleasure, because it represents the culmination of many months of hard work delivered by our engineering team to achieve a very ambitious goal: to develop an outstanding PA system that offers a maximum in flexibility and performance through its impressive sound character and outstanding features. The

task of designing our new E1220A/E1520A certainly meant a great deal of responsibility, which we assumed by focusing on you, the discerning user and musician. Meeting your expectations also meant a lot of work and night shifts. But it was fun, too. Developing a product usually brings a lot of people together, and what a great feeling it is when all who participated in such a project can be proud of what they've achieved.

It is our philosophy to share our enjoyment with you, because you are the most important member of the BEHRINGER team. With your highly competent suggestions for new products you've made a significant contribution to shaping our company and making it successful. In return, we guarantee you uncompromising quality as well as excellent technical and audio properties at an extremely reasonable price. All of this will enable you to give free rein to your creativity without being hampered by budget constraints.

We are often asked how we manage to produce such high-quality devices at such unbelievably low prices. The answer is quite simple: it's you, our customers! Many satisfied customers mean large sales volumes enabling us to get better purchasing terms for components, etc. Isn't it only fair to pass this benefit on to you? Because we know that your success is our success too!

I would like to thank all of you who have made the E1220A/E1520A possible. You have all made your own personal contributions, from the developers to the many other employees at this company, and to you, the BEHRINGER user.

My friends, it's been worth the effort!

Thank you very much,

Uli Behringer

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1. Introduction





Thank you for the confidence you have placed in us by purchasing the BEHRINGER EUROLIVE E1220A/E1520A speaker. Targeting DJs and presenters, these extremely robust, high-power loudspeakers offer amazing performance, durability and portability that have made the series of EUROLIVE loudspeakers so widely used and appreciated.

With powerful 400 Watts, wide frequency bandwidth and extensive dynamic range, these sound reinforcement speakers deliver truly impressive sound. The powerful long-excursion drivers crank out big tone in the bottom end and mid-range, while the state-of-the-art 1" HF drivers deliver crisp and detailed highs. Each speaker has been optimized for maximum reliability through the integrated sound processor, ensuring ultimate system control and speaker protection. The enclosure's shape not only allows use in an upright position, but can also be tilted for use as a floor monitor. It also offers a high degree of durability that can endure even the harshest road conditions.

1.1 Before you get started


1.1.1 Shipment

Your E1220A/E1520A was carefully packed at the assembly plant to assure secure transport. Should the condition of the cardboard box suggest that damage may have taken place, please inspect the unit immediately and look for physical indications of damage.


-  **Damaged equipment should NEVER be sent directly to us. Please inform the dealer from whom you acquired the unit immediately as well as the transportation company from which you took delivery. Otherwise, all claims for replacement/repair may be rendered invalid.**
-  **Please always use the original packaging to avoid damage due to storage or shipping.**
-  **Never let unsupervised children play with the E1220A/E1520A or with its packaging.**
-  **Please dispose of all packaging materials in an environmentally friendly fashion.**


1.1.2 Initial operation

Be sure that there is enough space around the unit for cooling. To avoid overheating, do not place the E1220A/E1520A on top of power amps or near radiators, etc.


 **Blown fuses must be replaced by fuses of the same type and rating. Please refer to the "SPECIFICATIONS" for further details.**

The mains connection is made using the enclosed power cord and a standard IEC receptacle. It meets all international safety certification requirements.

 **Please make sure that all equipment is properly grounded at all times. For your own safety, never remove or disable the ground conductor of the unit or of the AC power cord.**

 **The sound quality may diminish within the range of powerful broadcasting stations and high-frequency sources. Increase the distance between the transmitter and the device and use shielded cables for all connections.**

Warning

 **This loudspeaker is capable of producing extreme volumes. Please keep in mind that high sound pressures do not only temporarily damage your sense of hearing, but can also cause permanent hearing damage. Be careful to select a suitable volume at all times.**

1.1.3 Online registration

Please remember to register your new BEHRINGER equipment right after your purchase by visiting www.behringer.com (alternatively www.behringer.de) and read the terms and conditions of our warranty carefully.

Should your BEHRINGER product malfunction, our goal is to have it repaired as quickly as possible. To arrange for warranty service, please contact the retailer from whom the equipment was purchased. Should your BEHRINGER dealer not be located in your vicinity, contact directly one of our subsidiaries. Corresponding contact information is included in the original equipment packaging (Global Contact Information/European Contact Information). Should your country not be listed, please contact the distributor nearest you. A list of distributors can be found in the support area of our website (www.behringer.com).

Registering your purchase and equipment with us helps us process your repair claims quicker and more efficiently.

Thank you for your cooperation!

2. Control elements and connections

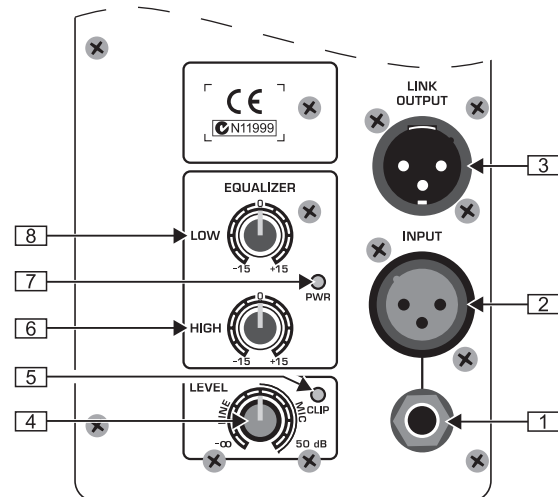


Fig. 2.1: Control elements and connections (E1220A and E1520A)




-  **1** Use this 1/4" stereo jack to connect a signal source that has 1/4" output.
- 2** Use this XLR connector to connect a signal source that has XLR output.
-  **Always use either the XLR or the 1/4" jack input, and use the LEVEL control **4** to adapt the input sensitivity. Never use both inputs at the same time!**
- 3** The *LINK OUTPUT* is directly connected to the inputs of the E1220A/E1520A and carries the input signal with no processing applied. In this way, you can route the signal to the input of another device (for example, a second E1220A/E1520A).
- 4** To set the volume of the LINE or MIC signal, use the *LEVEL* control. The left half of the control range is for attenuating the LINE signal. The right half is for raising the level of the MIC signal.
- 5** The *CLIP* LED lights up when signal distortion occurs. Reduce the volume with the *LEVEL* control until the *CLIP* LED does not light up any more, or occasionally lights up at signal peaks.
-  **We would like to draw your attention to the fact that extremely loud sound levels may damage your hearing as well as your headphones/loudspeakers. Turn the *LEVEL* control fully to the left before you switch on the unit. Be careful to select a suitable volume at all times.**
- 6** The *HIGH* control adjusts the level of the high-frequency range.
- 7** The *PWR* LED lights up when the loudspeaker is put into operation.
- 8** The *LOW* control adjusts the level of the low-frequency range.



Fig. 2.2: Control elements and connections (E1220A and E1520A)

- [9] The mains connection is established using a cable with an IEC mains connector. This cable is packaged with the E1220A/E1520A. To avoid ground-loop hum, loudspeakers and mixing consoles should be connected to the same power circuit.
- [10] You can replace fuses at the **FUSE SWITCH** of the E1220A/E1520A. Always replace fuses with the same type. Please follow the instructions given in chapter 5 "SPECIFICATIONS."
- [11] Press **POWER** to turn on your E1220A/E1520A.
- [12] **The POWER switch does not fully disconnect the unit from the mains. To disconnect the unit from the mains, pull out the main cable plug or appliance coupler. When installing the product, ensure the plug or appliance coupler is readily operable. Unplug the power cord completely when the unit is not used for prolonged periods of time.**
- [12] **SERIAL NUMBER**

3. Application examples

Turn the **LEVEL** control fully to the left before you switch on the unit with the **POWER** switch. Then, raise the volume to a suitable level.

3.1 Using a mixing console

A common way to use 2 E1220A/E1520A loudspeakers is with a mixing console. In this case, connect each of the main outputs that are on the mixing console to a E1220A/E1520A loudspeaker. The E1220A/E1520A includes XLR and 1/4" connectors. To avoid interference, use only XLR or 1/4" jack cables.

3.2 Using several E1220A/E1520A loudspeakers

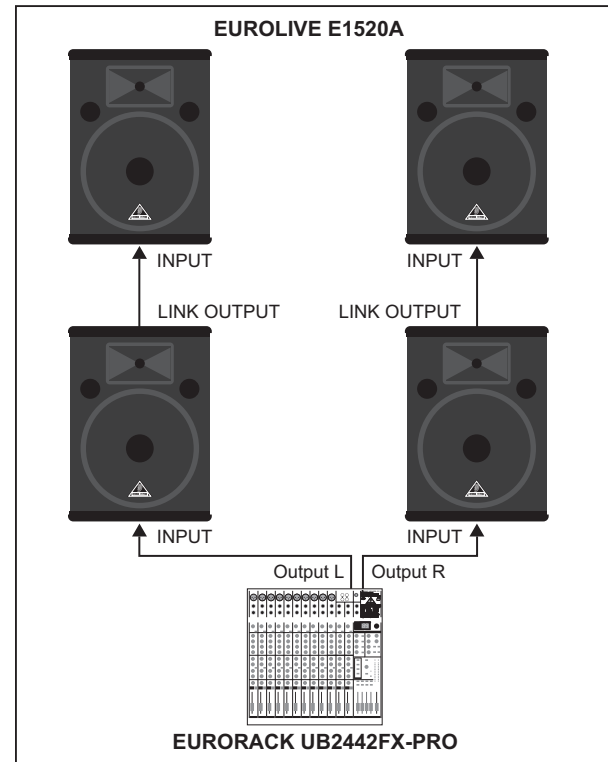


Fig. 3.1: Wiring several E1220A/E1520A loudspeakers using the **LINK OUTPUT** connector

For larger rooms, you can connect several E1220A/E1520A speakers using the **LINK OUTPUT** connector [3] (see fig. 3.1).

3.3 Direct connection of a stereo signal source

When you use two E1220A/E1520A loudspeakers, you can directly connect one stereo signal source, for example, a CD player. In this case, each of the speakers is connected to 1 signal-source output. (If necessary, use the appropriate adaptor.)

4. Installation

Both audio inputs of the BEHRINGER E1220A/E1520A and the LINK OUTPUT connector are fully balanced. To maximize interference compensation, try to establish balanced connections to other equipment, whenever possible.

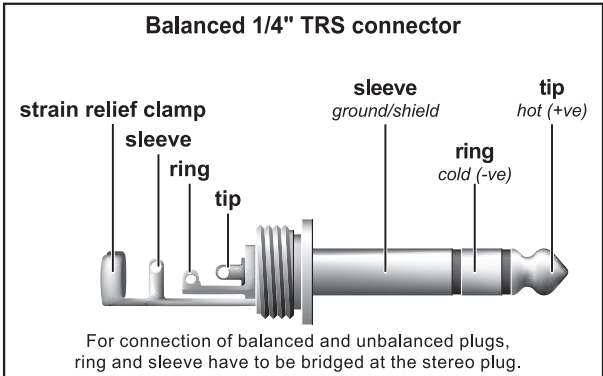


Fig. 4.1: 1/4" TRS connector

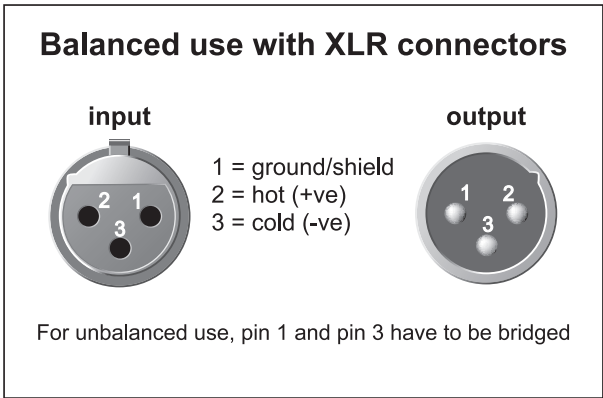



Fig. 4.2: XLR connector

 **Make sure that only competent personnel install your E1220A/E1520A. They must be sufficiently earthed during and after the installation process. Otherwise, electrostatic discharges may negatively affect the operating characteristics of your equipment.**

5. Specifications

Output power	
Low-frequency range	
RMS @ 1% THD	200 W @ 8 Ω
Peak power	320 W @ 8 Ω
High-frequency range	
RMS @ 1% THD	50 W @ 8 Ω
Peak power	80 W @ 8 Ω
Input	
XLR connector (servo-balanced)	
Sensitivity	-40 to +4 dBu
Input impedance	24 kΩ
1/4" jack (servo-balanced)	
Sensitivity	-40 to +4 dBu
Input impedance	24 kΩ
Link output	
XLR connector	
System data	
E1220A	
Frequency range	60 Hz to 20 kHz
Crossover frequency	2.2 kHz (12 dB)
Maximum sound pressure level	124 dB @ 1 m
Limiter	optical
Dynamic Equalizer	Processor-controlled
E1520A	
Frequency range	50 Hz to 20 kHz
Crossover frequency	2 kHz (12 dB)
Maximum sound pressure level	125 dB @ 1 m
Limiter	optical
Dynamic Equalizer	Processor-controlled
Equalizer	
HIGH	12 kHz / ± 15 dB
LOW	80 Hz / ± 15 dB
Power supply	
Mains voltage/fuses	
100 -120 V~, 50/60 Hz	T 5,0 A H 250 V
220 -230 V~, 50/60 Hz	T 2,5 A H 250 V
Power consumption	max. 400 W
Mains connector	Standard IEC receptacle
Dimensions/Weight	
E1220A	
Dimensions (H x W x D)	approx. 400 x 410 x 585 mm approx. 15.7" x 16.1" x 23"
Weight	approx. 22.3 kg approx. 49 lbs.
E1520A	
Dimensions (H x W x D)	approx. 465 x 485 x 640 mm approx. 18.3" x 19" x 25.2"
Weight	approx. 26.3 kg approx. 58 lbs.

BEHRINGER is constantly striving to maintain the highest professional standards. As a result of these efforts, modifications may be made from time to time to existing products without prior notice. Specifications and appearance may differ from those listed or illustrated.



6. Warranty

§ 1 Other warranty rights and national law

1. This warranty does not exclude or limit the buyer's statutory rights provided by national law, in particular, any such rights against the seller that arise from a legally effective purchase contract.
2. The warranty regulations mentioned herein are applicable unless they constitute an infringement of national warranty law.

§ 2 Online registration

Please do remember to register your new BEHRINGER equipment right after your purchase by visiting www.behringer.com (alternatively www.behringer.de) and kindly read the terms and conditions of our warranty carefully.

Registering your purchase and equipment with us helps us process your repair claims quicker and more efficiently.

Thank you for your cooperation!

§ 3 Warranty

1. BEHRINGER (BEHRINGER International GmbH including all BEHRINGER subsidiaries listed on the enclosed page, except BEHRINGER Japan) warrants the mechanical and electronic components of this product to be free of defects in material and workmanship for a period of one (1) year* from the original date of purchase, in accordance with the warranty regulations described below. If the product shows any defects within the specified warranty period that are not excluded from this warranty as described under § 5, BEHRINGER shall, at its discretion, either replace or repair the product using suitable new or reconditioned parts. In the case that other parts are used which constitute an improvement, BEHRINGER may, at its discretion, charge the customer for the additional cost of these parts.
2. If the warranty claim proves to be justified, the product will be returned to the user freight prepaid.
3. Warranty claims other than those indicated above are expressly excluded.

§ 4 Return authorization number

1. To obtain warranty service, the buyer (or his authorized dealer) must call BEHRINGER (see enclosed list) during normal business hours BEFORE returning the product. All inquiries must be accompanied by a description of the problem. BEHRINGER will then issue a return authorization number.
2. Subsequently, the product must be returned in its original shipping carton, together with the return authorization number to the address indicated by BEHRINGER.
3. Shipments without freight prepaid will not be accepted.

§ 5 Warranty regulations

1. Warranty services will be furnished only if the product is accompanied by a copy of the original retail dealer's invoice. Any product deemed eligible for repair or replacement under the terms of this warranty will be repaired or replaced.

2. If the product needs to be modified or adapted in order to comply with applicable technical or safety standards on a national or local level, in any country which is not the country for which the product was originally developed and manufactured, this modification/adaptation shall not be considered a defect in materials or workmanship. The warranty does not cover any such modification/adaptation, irrespective of whether it was carried out properly or not. Under the terms of this warranty, BEHRINGER shall not be held responsible for any cost resulting from such a modification/adaptation.
3. Free inspections and maintenance/repair work are expressly excluded from this warranty, in particular, if caused by improper handling of the product by the user. This also applies to defects caused by normal wear and tear, in particular, of faders, crossfaders, potentiometers, keys/buttons, tubes, guitar strings, illuminants and similar parts.
4. Damages/defects caused by the following conditions are not covered by this warranty:
 - ▲ improper handling, neglect or failure to operate the unit in compliance with the instructions given in BEHRINGER user or service manuals.
 - ▲ connection or operation of the unit in any way that does not comply with the technical or safety regulations applicable in the country where the product is used.
 - ▲ damages/defects caused by force majeure or any other condition that is beyond the control of BEHRINGER.
5. Any repair or opening of the unit carried out by unauthorized personnel (user included) will void the warranty.
6. If an inspection of the product by BEHRINGER shows that the defect in question is not covered by the warranty, the inspection costs are payable by the customer.
7. Products which do not meet the terms of this warranty will be repaired exclusively at the buyer's expense. BEHRINGER will inform the buyer of any such circumstance. If the buyer fails to submit a written repair order within 6 weeks after notification, BEHRINGER will return the unit C.O.D. with a separate invoice for freight and packing. Such costs will also be invoiced separately when the buyer has sent in a written repair order.

§ 6 Warranty transferability

This warranty is extended exclusively to the original buyer (customer of retail dealer) and is not transferable to anyone who may subsequently purchase this product. No other person (retail dealer, etc.) shall be entitled to give any warranty promise on behalf of BEHRINGER.

§ 7 Claim for damages

Failure of BEHRINGER to provide proper warranty service shall not entitle the buyer to claim (consequential) damages. In no event shall the liability of BEHRINGER exceed the invoiced value of the product.

* Customers in the European Union please contact BEHRINGER Germany Support for further details.

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