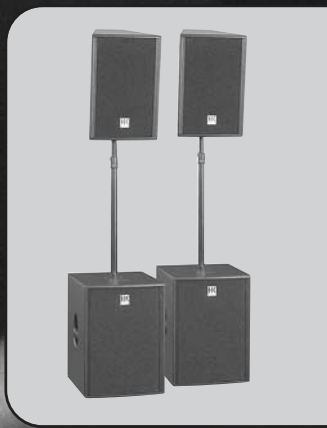




Portable
Sound



ELIAS
PX

Manual 1.1

English
Deutsch
Français
Español

Important Safety Instructions

Before connecting, read instructions

Important Advice on Safety!

Please read before use and keep for later use!

Wichtige Sicherheitshinweise!

Bitte vor Gebrauch lesen und für späteren Gebrauch aufbewahren!

- Read all of these instructions!
- Save these instructions for later use!
- Follow all warnings and instructions marked on the product!
- Do not use this product near water, i.e. bathtub, sink, swimming pool, wet basement, etc.
- Do not place this product on an unstable cart, stand or table. The product may fall, causing serious damage to the product or to persons!
- Slots and openings in the cabinet and the back or bottom are provided for ventilation; to ensure reliable operation of the product and to protect it from overheating, these openings must not be blocked or covered. This product should not be placed in a built-in installation unless proper ventilation is provided.
- This product should not be placed near a source of heat such as a stove, radiator, or another heat producing appliance.
- Use only the supplied power supply or power cord. If you are not sure of the type of power available, consult your dealer or local power company.
- Do not allow anything to rest on the power cord. Do not locate this product where persons will walk on the cord.
- Never break off the ground pin on the power supply cord.
- Power supply cords should always be handled carefully. Periodically check cords for cuts or sign of stress, especially at the plug and the point where the cord exits the unit.
- The power supply cord should be unplugged when the unit is to be unused for long periods of time.
- If this product is to be mounted in an equipment rack, rear support should be provided.
- This product should be used only with a cart or stand that is recommended by HK AUDIO®.
- Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in risk of fire or electric shock. Never spill liquid of any kind on the product.
- Do not attempt to service this product yourself, as opening or removing covers may expose you to dangerous voltage points or other risks. Refer all servicing to qualified service personnel.
- Clean only with dry cloth.
- 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 the safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
- Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
 - When the power cord or plug is damaged or frayed.
 - If liquid has been spilled into the product.
 - If the product has been exposed to rain or water.
 - If the product does not operate normally when the operating instructions are followed.
 - If the product has been dropped or the cabinet has been damaged.
 - If the product exhibits a distinct change in performance, indicating a need of service!
- Adjust only those controls that are covered by the operating instructions since improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.
- Exposure to extremely high noise levels may cause a permanent hearing loss.
- Individuals vary considerably in susceptibility to noise induced hearing loss, but nearly everyone will lose some hearing if exposed to sufficiently intense noise for a sufficient time. The U.S. Government's Occupational Safety and Health Administration (OSHA) has specified the following permissible noise level exposures:

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

- According to OSHA, any exposure in excess of the above permissible limits could result in some hearing loss.
- Ear plug protectors in the ear canals or over the ears must be worn when operating this amplification system in order to prevent a permanent hearing loss if exposure is in excess of the limits as set forth above. To ensure against potentially dangerous exposure to high sound pressure levels, it is recommended that all persons exposed to equipment capable of producing high sound pressure levels such as this amplification system be protected by hearing protectors while this unit is in operation.
- Fuses: Replace with IEC 127 (5x 20 mms) type and rated fuse with best performance only.

TO PREVENT THE RISK OF FIRE AND SHOCK HAZARD, DO NOT EXPOSE THIS APPLIANCE TO MOISTURE OR RAIN. DO NOT OPEN CASE; NO USER SERVICE-ABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

- The unit has been built by HK AUDIO® in accordance with IEC 60065 and left the factory in safe working order. To maintain this condition and ensure non-risk operation, the user must follow the advice and warning comments found in the operating instructions. The unit conforms to Protection Class 1 (protectively earthed).
- HK AUDIO® ONLY GUARANTEE THE SAFETY, RELIABILITY AND EFFICIENCY OF THE UNIT IF:
 - Assembly, extension, re-adjustment, modifications or repairs are carried out by HK AUDIO® or by persons authorized to do so.
 - The electrical installation of the relevant area complies with the requirements of IEC (ANSI) specifications.
 - The unit is used in accordance with the operating instructions.
 - The unit is regularly checked and tested for electrical safety by a competent technician.

WARNING:

- If covers are opened or sections of casing are removed, except where this can be done manually, live parts can become exposed.
- If it is necessary to open the unit this must be insulated from all power sources. Please take this into account before carrying out adjustments, maintenance, repairs and before replacing parts.
- The appliance can only be insulated from all power sources if the mains connection is unplugged.
- Adjustment, maintenance and repairs carried out when the unit has been opened and is still live may only be performed by specialist personnel who are authorized by the manufacturer (in accordance with VBG 4) and who are aware of the associated hazards.
- Loudspeaker outputs which have the IEC 417/5036 symbol (Diagram 1, below) can carry voltages which are hazardous if they are made contact with. Before the unit is switched on, the loudspeaker should therefore only be connected using the lead recommended by the manufacturer.
- Where possible, all plugs on connection cables must be screwed or locked onto the casing.
- Replace fuses only with IEC127 type and specified ratings.
- It is not permitted to use repaired fuses or to short-circuit the fuse holder.
- Never interrupt the protective conductor connection.
- Surfaces which are equipped with the "HOT" mark (Diagram 2, below), rear panels or covers with cooling slits, cooling bodies and their covers, as well as tubes and their covers are purposely designed to dissipate high temperatures and should therefore not be touched.
- High loudspeaker levels can cause permanent hearing damage. You should therefore avoid the direct vicinity of loudspeakers operating at high levels. Wear hearing protection if continuously exposed to high levels.

MAINS CONNECTION:

- The unit is designed for continuous operation.
- The set operating voltage must match the local mains supply voltage.
- The unit is connected to the mains via the supplied power unit or power cable.
- Power unit: Never use a damaged connection lead. Any damage must be rectified by a competent technician.
- Avoid connection to the mains supply in distributor boxes together with several other power consumers.
- The plug socket for the power supply must be positioned near the unit and must be easily accessible.

PLACE OF INSTALLATION:

- The unit should stand only on a clean, horizontal working surface.
- The unit must not be exposed to vibrations during operation.
- Keep away from moisture and dust where possible.
- Do not place the unit near water, baths, wash basins, kitchen sinks, wet areas, swimming pools or damp rooms. Do not place objects containing liquid on the unit - vases, glasses, bottles etc.
- Ensure that the unit is well ventilated.
- Any ventilation openings must never be blocked or covered. The unit must be positioned at least 20 cm away from walls. The unit may only be fitted in a rack if adequate ventilation is ensured and if the manufacturer's installation instructions are followed.
- Keep away from direct sunlight and the immediate vicinity of heating elements and radiant heaters or similar devices.
- If the unit is suddenly moved from a cold to a warm location, condensation can form inside it. This must be taken into account particularly in the case of tube units. Before switching on, wait until the unit has reached room temperature.
- Accessories: Do not place the unit on an unsteady trolley, stand, tripod, base or table. If the unit falls down, it can cause personal injury and itself become damaged. Use the unit only with the trolley, rack stand, tripod or base recommended by the manufacturer or purchased together with the unit. When setting the unit up, all the manufacturer's instructions must be followed and the setup accessories recommended by the manufacturer must be used. Any combination of unit and stand must be moved carefully. A sudden stop, excessive use of force and uneven floors can cause the combination of unit and stand to tip over.
- Additional equipment: Never use additional equipment which has not been recommended by the manufacturer as this can cause accidents.
- To protect the unit during bad weather or when left unattended for prolonged periods, the mains plug should be disconnected. This prevents the unit being damaged by lightning and power surges in the AC mains supply.

Diagram 1



Diagram 2



- Das Gerät wurde von HK AUDIO® gemäß IEC 60065 gebaut und hat das Werk in sicherheitstechnisch einwandfreiem Zustand verlassen. Um diesen Zustand zu erhalten und einen gefahrlosen Betrieb sicherzustellen, muss der Anwender die Hinweise und die Warnvermerke beachten, die in der Bedienungsanleitung enthalten sind. Das Gerät entspricht der Schutzklasse I (schutzgeerdet).
- DIE SICHERHEIT, ZUVERLÄSSIGKEIT UND LEISTUNG DES GERÄTES WIRD VON HK AUDIO® NUR DANN GEWÄHRLEISTET, WENN:
 - Montage, Erweiterung, Neueinstellung, Änderungen oder Reparaturen von HK AUDIO® oder von dazu ermächtigten Personen ausgeführt werden.
 - die elektrische Installation des betreffenden Raumes den Anforderungen von IEC (ANSI)-Festlegungen entspricht.
 - das Gerät in Übereinstimmung mit der Gebrauchsanweisung verwendet wird.

WARNING:

- Wenn Abdeckungen geöffnet oder Gehäuseteile entfernt werden, außer wenn dies von Hand möglich ist, können Teile freigelegt werden, die Spannung führen.
- Wenn ein Öffnen des Gerätes erforderlich ist, muss das Gerät von allen Spannungsstellen getrennt sein. Berücksichtigen Sie dies vor dem Abgleich, vor einer Wartung, vor einer Instandsetzung und vor einem Austausch von Teilen.
- Ein Abgleich, eine Wartung oder eine Reparatur am geöffneten Gerät unter Spannung darf nur durch eine vom Hersteller autorisierte Fachkraft (nach VBG 4) geschehen, die mit den verbundenen Gefahren vertraut ist.
- Lautsprecher-Ausgänge, die mit dem IEC 417/5036-Zeichen (Abb. 1, s.unten) versehen sind können berührungsfähige Spannungen führen. Deshalb vor dem Einschalten des Gerätes Verbindung nur mit dem vom Hersteller empfohlenen Anschlusskabel zum Lautsprecher herstellen.
- Alle Stecker an Verbindungskabeln müssen mit dem Gehäuse verschraubt oder verriegelt sein, sofern möglich.
- Es dürfen nur Sicherungen vom Typ IEC 127 und der angegebenen Nennstromstärke verwendet werden.
- Eine Verwendung von geflickten Sicherungen oder Kurzschließen des Halters ist unzulässig.
- Niemals die Schutzleiterverbindung unterbrechen.
- Oberflächen, die mit dem "HOT"-Zeichen (Abb. 2, s.unten) versehen sind, Rückwände oder Abdeckungen mit Kühlschlitzen, Kühlkörper und deren Abdeckungen, sowie Röhren und deren Abdeckungen können im Betrieb erhöhte Temperaturen annehmen und sollten deshalb nicht berührt werden.
- Hohe Lautstärkepegel können dauernde Gehörschäden verursachen. Vermeiden Sie deshalb die direkte Nähe von Lautsprechern, die mit hohen Pegeln betrieben werden. Verwenden Sie einen Gehörschutz bei dauernder Einwirkung hoher Pegel.

NETZANSCHLUSS:

- Das Gerät ist für Dauerbetrieb ausgelegt.
- Die eingestellte Betriebsspannung muss mit der örtlichen Netzspannung übereinstimmen.
- Der Anschluss an das Stromnetz erfolgt mit dem mitgelieferten Netzteil oder Netzkaabel.
- Netzteil: Eine beschädigte Anschlussleitung kann nicht ersetzt werden. Das Netzteil darf nicht mehr betrieben werden.
- Vermeiden Sie einen Anschluss an das Stromnetz in Verteilerdosen zusammen mit vielen anderen Stromverbrauchern.
- Die Steckdose für die Stromversorgung muss nahe am Gerät angebracht und leicht zugänglich sein.

AUFSTELLUNGSCORT:

- Das Gerät sollte nur auf einer sauberen, waagerechten Arbeitsfläche stehen.
- Das Gerät darf während des Betriebs keinen Erschütterungen ausgesetzt sein.
- Feuchtigkeit und Staub sind nach Möglichkeit fernzuhalten.
- Das Gerät darf nicht in der Nähe von Wasser, Badewanne, Waschbecken, Küchenspüle, Nassraum, Swimmingpool oder feuchten Räumen betrieben werden. Keine mit Flüssigkeit gefüllten Gegenstände -Vase, Gläser, Flaschen etc. auf das Gerät stellen.
- Sorgen Sie für ausreichende Belüftung der Geräte.
- Eventuelle Ventilationsöffnungen dürfen niemals blockiert oder abgedeckt werden. Das Gerät muß mindestens 20 cm von Wänden entfernt aufgestellt werden. Das Gerät darf nur dann in ein Rack eingebaut werden, wenn für ausreichende Ventilation gesorgt ist und die Einbauanweisungen des Herstellers eingehalten werden.
- Vermeiden Sie direkte Sonneneinstrahlung sowie die unmittelbare Nähe von Heizkörpern und Heizstrahlern oder ähnlicher Geräte.
- Wenn das Gerät plötzlich von einem kalten an einen warmen Ort gebracht wird, kann sich im Geräteinneren Kondensfeuchtigkeit bilden. Dies ist insbesondere bei Röhrengeräten zu beachten. Vor dem Einschalten solange warten bis das Gerät Raumtemperatur angenommen hat.
- Zubehör: Das Gerät nicht auf einen instabilen Wagen, Ständer, Dreifuß, Untersatz oder Tisch stellen. Wenn das Gerät herunterfällt, kann es Personenschäden verursachen und selbst beschädigt werden. Verwenden Sie das Gerät nur mit einem vom Hersteller empfohlenen oder zusammen mit dem Gerät verkauften Wagen, Rack, Ständer, Dreifuß oder Untersatz. Bei der Aufstellung des Gerätes müssen die Anweisungen des Herstellers befolgt und muss vom Hersteller empfohlene Aufstellzubehör verwendet werden. Eine Kombination aus Gerät und Gestell muss vorsichtig bewegt werden. Plötzliches Anhalten, übermäßige Kraftanwendung und ungleichmäßige Böden können das Umkippen der Kombination aus Gerät und Gestell bewirken.
- Zusatzvorrichtungen: Verwenden Sie niemals Zusatzvorrichtungen, die nicht vom Hersteller empfohlen wurden, weil dadurch Unfälle verursacht werden können
- Zum Schutz des Gerätes bei Gewitter oder wenn es längere Zeit nicht beaufichtigt oder benutzt wird, sollte der Netzstecker gezogen werden. Dies verhindert Schäden am Gerät aufgrund von Blitzschlag und Spannungsstößen im Wechselstromnetz.

Abb.1

Abb.2





Welcome to the HK AUDIO family!

Thank you for choosing an HK AUDIO® product.

With ELIAS PX, you now have at your disposal a two-way active PA system that combines state-of-the-art technology with very easy operation, as well as a professional tool for mastering demanding sound reinforcement challenges. The system comprises two EPX 112 A cabinets for rendering mid/high-range frequencies and two EPX 115 A Sub subwoofers for low-range frequencies. All the circuitry required to operate each enclosure is integrated in that same enclosure. Power amps, crossovers, controller circuitry, limiters and the bottom-end–response enhancing Dynaclip™ circuitry combine in each loud-speaker cabinet to form a self-contained, cohesive unit. No more lengthy cables, no more passive components. What's more, the circuitry is matched precisely to each cabinet's speakers. All this adds up to make ELIAS PX a better performing and better sounding system that offers enhanced pulse response and maximum protection against overload.

Our engineers developed new technologies to satisfy the stringent requirements of such an advanced system. With its unique and sophisticated features every active HK AUDIO sound reinforcement system stands out from the rest of the crowd.

All the best from the HK AUDIO team; enjoy your ELIAS PX!

Warranty

Register your ELIAS PX using the enclosed warranty card to extend your warranty to five years free of charge! Use the convenient **online registration** option at www.hkaudio.com.

If you are unable to register online, please fill out the enclosed warranty card completely and mail or fax it to us. The registration is only valid if the warranty registration card is filled out and returned to HK AUDIO® or the device is registered via the Internet within 30 days of the date of purchase. We are also interested in learning where our products are used and by whom. This information will help us design future products. Your personal information is of course protected by privacy laws.

Thank you!

HK AUDIO®
Technical Service
Postfach 1509
D-66959 St. Wendel
Germany

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Unique features for premium performance

Opto-Limiter

for the mid/high-range

Mid/high-range signals and low frequencies must be processed in different ways. This is why ELIAS PX is equipped with an Opto-limiter based on technology initially developed for high-end recording gear. Its soft-knee attack sounds more pleasant and inconspicuous. The signal's original envelope remains virtually intact, ensuring far more natural-sounding dynamic response.

- Ultra-low distortion for enhanced signal quality
- Soft-knee attack for far more harmonious and unobtrusive limiting
- The initial waveform remains uncorrupted for natural-sounding dynamic response

1" driver

for natural-sounding response

ELIAS PX mid/high units feature a professional-grade 1" driver engineered to deliver low-distortion performance even at threshold levels and conjure a natural-sounding sonic image. In combination with a 60° x 40° horn, it provides the focused directivity required to satisfy real-world sound reinforcement demands.

DynaClip™ Limiter

for the bass power amp

HK AUDIO's DynaClip™ technology was developed specifically for enhancing low-end performance. The DynaClip™ Limiter compensates for the subwoofer's slower initial transient response and audibly improves pulse behavior. This makes the most of low-frequency energy, and enhanced efficiency translates to more power.

- More efficient use of energy for more powerful low-end punch
- Compensates for transient response of speaker diaphragms for improved pulse behavior
- Fine-tuned for peak bass power amp performance

DuoTilt™

– making the most of sonic energy

The novel DuoTilt™ pole mount enables sound energy to be utilized more efficiently. It offers two angles of tilt (7.5° and 15°), allowing satellites to be aligned perfectly toward the audience. Troublesome ceiling reflections are minimized; the sonic image becomes clearer, tighter, and more focused.

OFR™

Optimized Frequency Response Technology

A new technology unique to HK AUDIO, OFR™ helps this system deliver assertive yet well-balanced sound at every volume level. OFR™ corrects for the non-linear frequency response inherent in the speaker components and adapts the system's sound output to comply with the way the human ear hears at different levels.

- Fine-tuned to each system
- Compensates for non-linear frequency response
- Adapts the system to differing volume levels
- Powerful, balanced sound in every situation

Easy Setup and Handling

– less pre-gig stress

Like all HK AUDIO Active Systems, ELIAS PX was designed as a cohesive unit consisting of perfectly matched components. Painstaking effort was invested to ensure ELIAS PX can be transported easily and set up quickly. Handling and EQing couldn't be any easier.

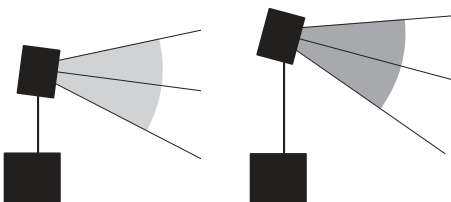
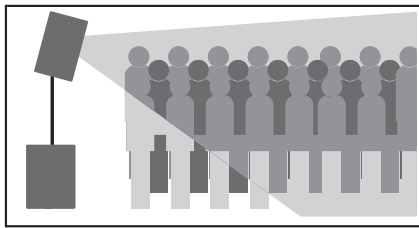




ELIAS EPX 112 A



ELIAS EPX 115 Sub A



7.5° and 15° angles of tilt

1 ELIAS PX System Components

EPX 112 A Mid/High Unit

These enclosures are loaded with one 12" HK AUDIO Custom speaker and one 1" compression driver with a 60° x 40° CD horn. Delivering 400 W RMS, the power amp and other electronic circuitry are housed in a separate chamber.

The novel integrated HK AUDIO DuoTilt™ pole mount allows sound energy to be utilized far more efficiently. Troublesome ceiling reflections are minimized, enhancing punch and clarity. The cabinet is stabilized at its center of gravity - no wobbling or unintentional tilting or turning.

EPX 115 Sub A Subwoofer

The ELIAS PX subwoofer's housing is split into two chambers. The front chamber serves as the speaker cabinet for the 15" direct-loaded woofer with 400-watt RMS power-handling capacity and 8-ohm nominal impedance. The power amp and other circuitry are housed in a separate compartment at the rear of the cabinet.

2 Transport

To transport the system, simply set the subwoofers on their casters and place the mid/high units onto the subwoofers with the foam rubber grille side facing down. Use original HK AUDIO covers to get your system ready to handle the rigors of the road. Padded and protected against moisture, your ELIAS PX system is sure to serve you well for a long time to come.

3 Setup and Cable Connections

3.1 Aligning Speakers with DuoTilt™


The new, integral DuoTilt™ pole mount enables sound energy to be used far more efficiently. Offering two different angles of 7.5° and 15°, it lets you angle the speakers directly at the audience. DuoTilt™ stabilizes the cabinet at its center of gravity with no wobbling or unintentional tilting or turning.

Your choice of DuoTilt™ angle 7.5° or 15° depends on the required speaker height and the size of the room. The front opening of the HK Audio DuoTilt™ inclines the cabinet 7.5°, and the rear opening 15°.

If you set mid/high units on fully extended tripods or mounting poles, select 15° to minimize ceiling reflections.

If you want to address an audience where the majority of listeners are farther from the speakers, opt for 7.5°.

3.2 ELIAS PX Standard Setup

 The Standard Setup comprises two ELIAS EPX A 112 mid/high units and two ELIAS EPX 115 A Sub subwoofers.

With the benefit of the ELIAS PX system's integrated design, it takes but a few minutes to connect cables. Before you get started, make sure the mains switch is set to the OFF position.


Connect cords carrying signals from your mixer (master left/right, line out, or similar circuit) to the balanced input socket of any component. It doesn't matter which component you connect first—subwoofer or mid/high unit. Using a standard XLR microphone cord, patch the signal from this first component's Through output jack to the next component's Input. Connect all subsequent components in the same manner.

You can vary the number of the components freely without having to cope with compatibility, frequency separation or impedance problems, which lets you flexibly adapt the ELIAS PX system to your needs.

Connect the power cable only after you have made sure that the local mains voltage matches the voltage specified on the device. Connecting to the wrong mains voltage may destroy ELIAS PX's electronic components.


The metal cleat below the Mains socket prevents the power cord from being pulled out accidentally. Feed the power cable through this mains cord cleat to assure the cable is relieved of undue tension.

3.2 ELIAS PX Fullrange Setup

 The full-range setup comprises two ELIAS EPX 112 A mid/high units.

When operating mid/high units without subwoofers, please set the mode switch to Full-range so that the entire frequency range including low frequencies is rendered.

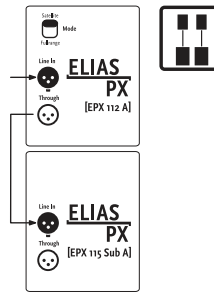
3.3 ELIAS PX Extension Setup

 The extension setup comprises two ELIAS EPX 112 A mid/high units and four ELIAS EPX 115 Sub A subwoofers.

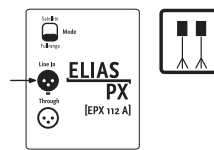
The procedure for setting up components and connecting cords is the same as for a standard ELIAS PX system, with the addition of two more subwoofers.

3.4 Using the Tilt Unit to Align an Extension Setup's Mid/High Units

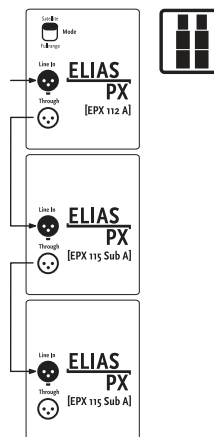
Mounting the optional tilt unit couldn't be easier: Proceed as if mounting the enclosure on a pole. Set the tilt unit with the bottom plate facing down atop the upper subwoofer, and then set the ELIAS PX mid/high unit on it in such a way that the tilt unit's rod is inserted into one of the two holes (7.5° or 15°).



Standard system connections



Full-range setup connections



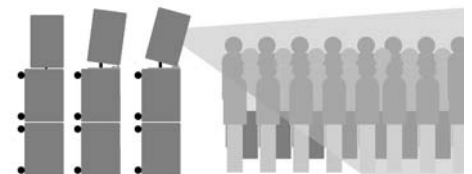
Extension setup connections

Question

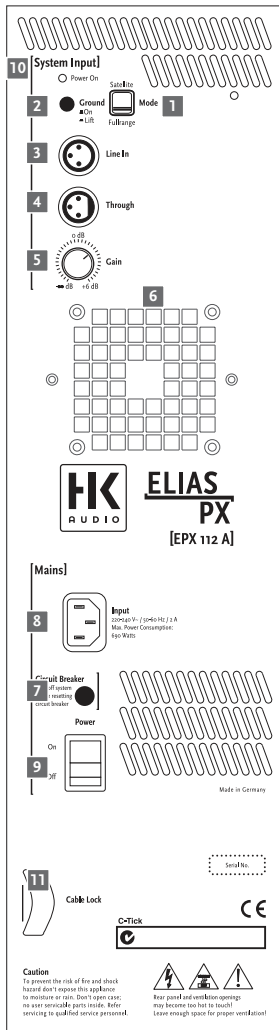
Can I connect speakers other than an ELIAS PX Sub A subwoofer to an ELIAS PX mid/high unit?

Answer

The system components are acoustically matched for optimum audio performance and may be operated in the indicated configuration only. Using other subwoofers can degrade the sound.



Tilt unit in action



ELIAS EPX 112 A controls

4 Connections and Control Features

ELIAS EPX 112 A

1 Mode Switch

Operation: This switch configures the ELIAS PX mid/high unit for use in full-range mode (without subwoofers) or for use as a satellite in combination with the subwoofer.

2 Ground

Ground Lift button for separating the signal and chassis ground if humming noises occur. In the event of low-frequency hum, engage the Ground Lift switch. The ground circuit is severed when this button is pressed. If this doesn't solve the problem, check for damage to any cord connected to ELIAS PX as well as all cords routing signals to the mixing console (see also Tips and Tricks).

3 Line In

Connecting cords: Connect cords carrying signals from your mixer (master left/right, line out, or a similar circuit) to the balanced inputs using a mic cord equipped with XLR connectors.

Ensure XLR connectors are wired as follows:

1= ground, 2= +, 3= -.

4 Line Through

Connecting cords: Use this parallel output to route the incoming line signal to other components (for example, additional ELIAS PX systems or other components) via XLR cords.

5 Gain

Operation: Use this knob to adjust the input signal level. The standard setting is 0 dB at the 12 o'clock position. For weaker signal sources such as small mixers equipped with unbalanced circuitry and RCA connectors or _" jacks, you can boost levels by up to +6 dB (twist the Gain knobs to the far right).

6 Fan

This ventilator keeps the power amp modules cool. Always make sure that the fan and the vents are free of dirt and debris and that they remain unobstructed so air can circulate freely.

7 Circuit Breaker

Operation: This automatic circuit breaker serves the same purpose as a standard fuse. If it trips, first switch the system off entirely (Power switch set to OFF). Then after you have identified and fixed the problem, you can reset the circuit breaker by simply pressing it.

8 Mains Input

Connecting cords: Use the factory-included mains cord to connect this socket to a wall receptacle.

Caution! Make sure the local mains voltage matches the voltage specified on the device. If you connect the system to the wrong mains voltage, you may destroy the ELIAS PX system's electronic components.

9 Power Switch

Operation: This is the on/off switch for the active system. When engaged, the Power On LED lights up. Always switch the ELIAS PX active system on last, that is, after powering up all other components such as the mixing console, and switch it off first before powering down all other connected devices.

10 Power On LED

This LED lights up when the Power switch is set to On and the system is connected to a mains power supply.

11 Mains Cord Cleat

Secure the power cord with this cleat to prevent it from being pulled out inadvertently.

5 Tips and Tricks

1 Do not expose electronic circuitry to moisture! When you set the system up outdoors, be sure to protect it against rain. Keep soft drinks, beer and all other liquids well away from the cabinets to protect their electronic components from short-circuiting.

2 Ensure that the vents on the enclosures' rear panels are free of dirt and the devices are ventilated properly. Otherwise, the electronic components are likely to overheat and be damaged by thermal breakdown.

3 ELIAS PX delivers optimum sound, so you should provide it with optimum input signals! Noise such as humming is generally caused by defective cables, the wrong type of cords, or unbalanced signals routed into the mixing console. Check all signal and mains cables.

4 Prevent distortion! Not only is it unpleasant to your audience's ears, it can also damage your equipment. Make sure all components that are connected directly and indirectly to ELIAS PX have sufficient power ratings, and that they don't distort as a result of operating at or beyond their respective limits. Provide an undistorted signal to the system in the first place, so that it doesn't have to be cleaned up by backing off the system's Gain knob.

5 Avoid ground loops! A ground loop can occur when the mixer and ELIAS PX are each connected to two different mains circuits. To prevent this problem, always connect the ELIAS PX system and the mixing console to the same electrical circuit (same phase!). If your equipment hums despite this precaution, the Ground Lift switch can be a great help.

CAUTION: Never tape over the plug's ground terminal - this endangers lives!

6 ELIAS PX Accessories

HK AUDIO Tilt-Unit

Designed to hold the ELIAS PX mid/high unit, the tilt unit is placed on the subwoofer, with the Duo-Tilt™ fitting offering a choice of 7.5° or 15° angles.

HK AUDIO Dust Covers for ELIAS PX

This set comprises subwoofer and satellite covers. Extremely tear resistant, water repellent and thickly padded, these covers afford lasting protection for the ELIAS PX system during transport.

To learn more about original HK AUDIO accessories, talk to your HK AUDIO dealer or visit www.hkaudio.com.

7 Troubleshooting

The Power On LED does not light up when switched on.

- 1 Check if the power cord is plugged into the Mains Input.
- 2 Check if the mains power supply is providing current.
- 3 Check if the house circuit breaker has tripped.

The Power On LED lights up red, but no sound is coming from the cabinets.

- 1 Check the cords connected to the inputs.
- 2 Check if the signal sources (mixer, keyboard, CD player, etc.) are on.
- 3 Check if the Gain knobs are turned up.

The subwoofer's low frequency output is weak.

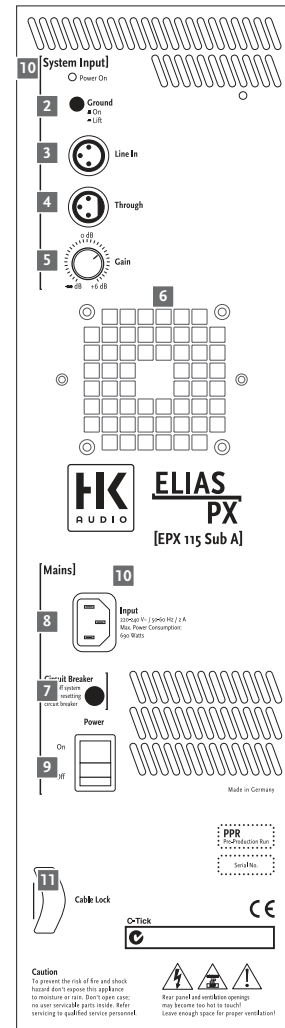
- 1 Check the Subwoofer Gain knob's setting

The signal sounds distorted.

- 1 Check the LED displays on your mixer. Ensure they are not constantly in the red. If necessary, back off the volume at the mixer.
- 2 If the LED displays on your mixer are in the green, turn ELIAS PX's Gain knobs to reduce the input level.

Annoying hum

- 1 Check the cords connecting the signal source to ELIAS PX. Replace damaged cords.
- 2 If you cannot pinpoint the cause of the hum, press the Ground Lift switch. This should remedy the problem in most cases.



ELIAS EPX 115 Sub A controls

8 Technical Specifications

ELIAS EPX 112 A

| | |
|--|---|
| Connections: | 1x XLR Line In 1x XLR Line Through |
| Line In: | XLR female (pin 1= Ground; 2= +, 3= -) |
| Input: | Electronically balanced & floating |
| Input impedance: | 20 k ohms |
| Max. input level: | +22 dBu |
| Frequency response +/- 3dB: ¹ | 80 Hz – 19 kHz fullrange mode 130 Hz – 19 kHz satellite mode |
| Axial sensitivity 1W@1m: ² | 104 dB |
| Maximum SPL @1m: ² | 128 dB @ 10% THD |
| Mid/high-range amplifier: | 400 W RMS |
| Active protection circuitry: | Opto limiter, subsonic filter |
| Midrange speaker: | 12" |
| Tweeter/ driver: | 1" |
| Directivity: | 60° x 40° CD horn |
| Crossover frequency: | 2 kHz, 12 dB/ octave |
| Pole mount: | HK AUDIO DuoTilt™, 36 mm, 7.5°, 15° |
| Accessories: | Tilt Unit, 7.5°, 15° |
| Dimensions (WxHxD): | 39 x 45 x 58,5 cm 15" x 23" x 17-7/8" |
| Weight: | 22 kg/ 48.5 lbs. |

ELIAS EPX 115 Sub A

| | |
|--------------------------------|--|
| Connections: | 1x XLR Subwoofer Input 1x XLR Subwoofer Through |
| Subwoofer Input: | XLR female (pin 1= Ground; 2= +, 3= -) |
| Input: | Electronically balanced & floating |
| Input impedance: | 20 k ohms |
| Max. input level: | +22 dBu |
| Frequency response +/- 3dB: 1) | 48 Hz – 130 Hz |
| Axial sensitivity 1W@1m: 2) | 104 dB |
| Maximum SPL @1m: 2) | 126 dB @ 10% THD |
| Subwoofer amplifier: | 400 W RMS |
| Active protective circuits: | DynaClip™ Limiter, Subsonic Filter |
| Woofers: | 15" |
| Pole mount: | M20 thread base plate |
| Wheels | 4x 80 mm casters on the rear panel |
| Dimensions (WxHxD): | 46,5 x 66 x 64,5 cm incl. casters 18-1/4 x 25-1/2 x 26" |
| Weight: | 35 kg/ 77 lbs. |

General electrical data:

| | |
|---|---|
| Protection class 1 (protectively earthed) | |
| Max. current consumption: | 2.7 A (230 V) 5.4 A (117 V) 6.3 A (100 V) |
| Mains voltage 230 V Power fuse: | T 2A (EPX 112 A and EPX 115 A) |
| Mains voltage 117 V Power fuse: | T 4A or SB 4A (EPX 112 A and EPX 115 A) |
| Mains voltage 100 V Power fuse: | T 4A (EPX 112 A and EPX 115 A) |
| Max. power consumption: | 690 VA |
| Mains voltage range: | +/- 10% |
| Ambient temperature range: | -10° C to +35° C |
| Internal fuses: | 4x T 4A |

1) Via active crossover

2) All measurements taken under half-space conditions

This is to certify that

HK AUDIO® ELIAS PX

complies with the provisions of the Directive of the Council of the European Communities on the approximation of the laws of the Member States relating to electromagnetic compatibility (EMC Directive 89/336/EEC) and the low voltage Directive (73/23/EEC).

This declaration of conformity of the European Communities is the result of an examination carried out by the Quality Assurance Department of STAMER GmbH in accordance with European Standards EN 50081-1, EN 50082-1 and EN 60065 for low voltage, as laid down in Article 10 of the EMC Directive.


Stamer Musikanlagen
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Magdeburger Str. 8
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Lothar Stamer Dipl.Ing.
Managing Director
St. Wendel, 04/15/05

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