



Portable Sound



ACTOR DX

Manual 1.2

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 amplifier.
- 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.
- Place the product always in a way that the mains switch is easily accessible.
- 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 for 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:

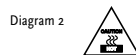
- If covers are opened or sections of casing are removed, except where this can be done manually, live parts can become exposed.
- If it is necessary to open the unit this must be insulated from all power sources. Please take this into account before carrying out adjustments, maintenance, repairs and 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.
- Place the product always in a way that the mains switch is easily accessible.
- 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.



- 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 1 (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:

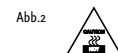
- Wenn Abdeckungen geöffnet oder Gehäuseteile entfernt werden, außer wenn dies von Hand möglich ist, können Teile freigelegt werden, die Spannung führen.
- Wenn ein Öffnen des Gerätes erforderlich ist, muss das Gerät von allen Spannungsquellen getrennt sein. Berücksichtigen Sie dies vor dem Abgleichen, vor einer Wartung, vor einer Instandsetzung und vor einem Austausch von Teilen.
- Ein Abgleichen, 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 berührunggefährliche 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 Netzkabel.
- Netzteil: Eine beschädigte Anschlussleitung kann nicht ersetzt werden. Das Netzteil darf nicht mehr betrieben werden.
- Vermeiden Sie einen Anschluss an das Stromnetz in Verteilerkästen zusammen mit vielen anderen Stromverbrauchern.
- Die Steckdose für die Stromversorgung muss nahe am Gerät angebracht und leicht zugänglich sein.

AUFSTELLUNGORT:

- 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 muss immer so aufgestellt werden, dass der Netzschalter frei zugänglich ist.
- 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 das 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 beaufschlagt oder benutzt wird, sollte der Netzstecker gezogen werden. Dies verhindert Schäden am Gerät aufgrund von Blitzschlag und Spannungsstoßen im Wechselstromnetz.





Welcome to the HK AUDIO family!

Thank you for choosing an HK AUDIO product.

ACTOR DX consists of two ADX 112 A mid/high units loaded with a 12" woofer, 1.4" driver and a DDO™ system controller, two ADX 115 A Sub subwoofers with an onboard 1,000 W Class D power amp, and two ADX 115 Sub B subwoofers, the passive complement to the Sub A bin.

You don't have to worry about tweaking frequencies and finessing levels, all you have to do is set up the system components, connect the signal-carrying cables and the power cords, and you're ready to roll.

An HK AUDIO® active system is made up of more than just two active cabinets; it is an end-to-end sound reinforcement solution consisting of subwoofers, mid/high units and meticulously matched electronic circuitry.

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 in the crowd of far more basic active cabinets.

All the best from the HK AUDIO team; enjoy your ACTOR DX system!

Warranty

Register your ACTOR DX 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 devices are used and by whom. This information will help us design future products. Your 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



Digital amping

– for enhanced efficiency and dynamics

With an extremely high efficiency rating topping the 90% mark, Class D digital power amps are substantially smaller, lighter, and more compact than comparable conventional amps. The reduced thermal load on components enhances reliability, while the far faster slew rate and higher attenuation factor audibly enhance the speed and accuracy of the system's dynamic response.



DDO™ Controller technology

The DDO™ Controller compensates for varying response of components such as low-frequency, midrange and high-frequency speakers, power amps, crossovers and so forth to forge a homogenous system with uniform dynamics and a sonic image with sharply defined contours.



DuoTilt™

– making the most of sonic energy

The novel DuoTilt™ pole mount allows sound energy to be utilized far more efficiently. DuoTilt™ offers 7.5° and 15° angles of tilt, enabling perfect mid/high unit-to-audience alignment. Troublesome ceiling reflections are minimized, making the sound clearer, tighter, and more focused.



Easy Setup and Handling

– for less pre-gig stress

Like all HK AUDIO Active Systems, ACTOR DX was designed as a cohesive system consisting of perfectly matched components. Painstaking effort was invested in ensuring ACTOR DX can be transported easily and set up quickly. Handling and EQing couldn't be any easier, with no complicated and time-consuming tweaking challenges to master.



ADX 112 A



ADX 115 Sub A



ADX 115 Sub B

1 ACTOR DX System Components

ADX 112 A Mid/High Unit

These enclosures are loaded with one 12" HK AUDIO Custom speaker and one 1.4" compression driver with a 60° x 40° CD horn. Delivering 600 W, the Class D power amp is housed in a separate chamber along with the DDO™ Controller.

ADX 115 Sub A Subwoofer

The ACTOR DX A Sub's housing is split up into two chambers. The front chamber serves as the speaker cabinet for the 15" front-loaded loudspeaker, which has a power handling capacity of 500 W and a nominal impedance of 8 ohms. The power amp is housed in a separate compartment at the rear of the cabinet.

ADX 115 Sub B Subwoofer


The housings and speakers of the ADX 115 Sub Bs and Sub A are identical. The Sub B is the passive version of the Sub A.

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 ACTOR-DX system is sure to serve you well for a long time to come.

3 Setup and Cable Connections


3.1 The Standard ACTOR DX System

 The standard system comprises two ACTOR ADX 112 A mid/high units, two ADX 115 Sub A subwoofers and two ADX 115 Sub B subwoofers.

Always connect ACTOR DX starting at the top and working your way down (refer to the diagram on the rear panel of ACTOR DX components)! This may seem unusual if you are accustomed to working with active systems where signals are routed via paralleled pass-through jacks, which would allow connections to be made in any sequence. ACTOR DX, in contrast, features the DDO™ System Controller housed in the ADX 112 A mid/high unit. This controller lets you determine basic settings such as the system configuration, the mid/high unit's level and the subwoofer's level right on the mid/high unit. DDO™ then routes signals from the mid/high unit to Sub A.


Note: Always connect cords in the correct sequence. Never connect a cord carrying a signal from a mixer directly to Sub A because this bypasses the DDO™ system controller! Always connect signal sources to the "master" system input located on ACTOR DX mid/high units!

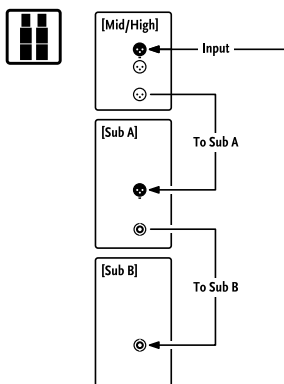
3.2 ACTOR DX Full-range Setup

 The full-range setup comprises two ACTOR ADX 112 A mid/high units.

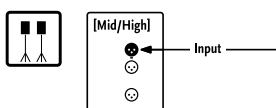
Select the appropriate system configuration on the system controller's control panel. In full-range mode, the subwoofer output (DDO™ controlled) is disabled to prevent handling errors.

3.3 ACTOR DX Club Set

 The club set comprises two ACTOR ADX 112 A mid/high units and two ADX 115 Sub A bins.



Standard system connections



Connections for full-range setup

3.4 Dual ACTOR DX System



The dual system comprises four ACTOR ADX 112 A mid/high units, four ADX 115 Sub A bins and four ADX 115 B Sub bins.

Connect cables from top to bottom as described above. Plug a microphone cord into the first mid/high unit's THROUGH port to route the mixer signal to the second ACTOR DX stack.

Ensure XLR connectors are wired as follows:

1= ground, 2= +, 3= -

3.5 Flying ACTOR ADX 112 A Mid/High Units

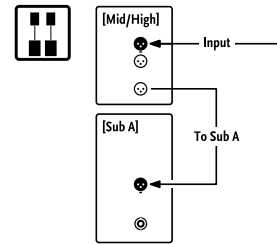
Use the HK AUDIO rigging frame to fly ACTOR DX mid/high units. To attach the frame, remove the countersunk M10 hex head bolts from the side panels. Bolt the rigging frame's brackets to the enclosure. Set the mid/high unit's inclination to the desired angle by loosening the knobs on the sides and firmly hand-tightening them again. The serrated plastic washers hold the mid/high unit in place.

Note: For reasons of safety, use tested and certified load-securing devices only (for example, half-couplers, TV spigots, brackets, and so forth)!

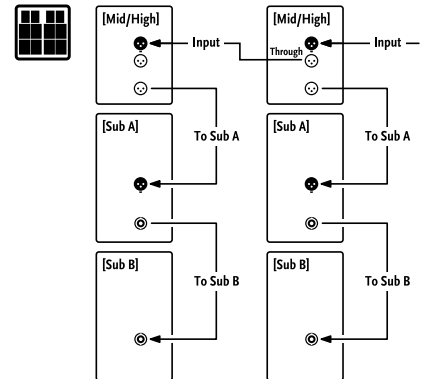
Ensure wall and pole mounts are designed to handle the load (an ACTOR ADX 112 A weighs 30 kg).

3.6 Using the ACTOR DX Tilt Unit

Using the optional tilt unit couldn't be easier: Proceed as if mounting the enclosure on a pole. Set the ACTOR DX tilt unit with the bottom plate facing down on the upper subwoofer and then set the ACTOR mid/high unit on it so the tilt unit's rod is inserted into one of the two holes (7.5° or 15°).



Club set connections



Dual system connections



ACTOR ADX 112 A with rigging bracket

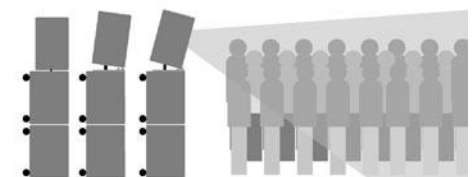
Question

Can I connect speakers other than an ACTOR DX mid/high unit to an ACTOR DX Sub A or Sub B subwoofer?

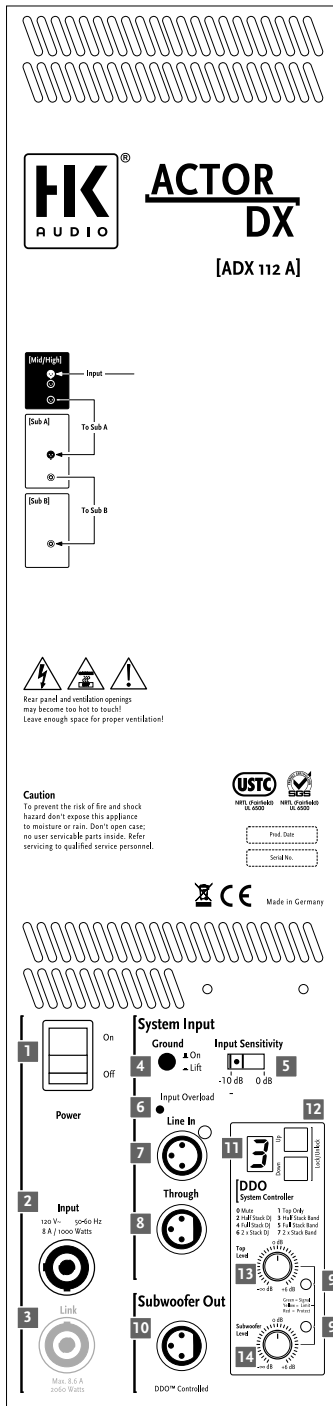
Answer

The system components are acoustically matched

for optimum audio performance and may be operated in the indicated configuration only. Using other mid/high units can degrade the sound and damage the power amp (e.g. the Sub A's). Sub A's nominal impedance is 4 ohms, and impedance may not fall short of this value. Connect no more than one Sub B to Sub A's speaker out.



The ACTOR DX tilt unit in action



4 Connections and Control Features

4.1 ACTOR ADX 112 A

1 Power Switch

Handling: This is the on/off switch for the active system. When engaged, the system controller's display lights up orange. Always switch the ACTOR DX active system on last, that is, after powering up all other components, and switch it off first before powering down all other connected devices.

2 Mains Input

Connecting cords: Use the factory-included Powercon cable 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 ACTOR DX system's electronic components.

3 Link (only 220-240 V version)

Connecting cords: The Powercon Link socket is wired in parallel to the Mains Input. Connect other load consumers (for example, another ACTOR DX mid/high unit or an ACTOR DX Sub A bin) to it.

Heads up: The Powercon Link socket can handle loads up to 8.6 A and 2060 W (at 230 volts). This means you can use it to power up to but no more than two additional ACTOR DX components.

Note: Always switch on ACTOR DX components one after another to prevent a sudden spike in the venue's power supply. Otherwise the power surge may cause the house circuit breaker to trip.

4 Ground

Ground lift button for separating the signal and chassis ground in the event of humming noises. 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 all cords connected to ACTOR DX as well as all signal cables routed to the mixing console for damage (see also Tips and Tricks).

5 Input Sensitivity

This selector matches the preamp's input sensitivity to the mixer's output signal level.

Engage this switch to select either -10 dB (for example, for unbalanced 1/4" jacks and consumer level devices) or +0 dB (for example, for balanced XLR ports and professional mixers).

Recommendation: Select +0 dB when using a professional-grade mixer sporting balanced outputs. This lets you take advantage of console faders' full control range and helps prevent overloads. Opt for -10 dB A when using a console with a lower output level (unbalanced 1/4" output).

6 Input Overload

This LED lights up when the input level is too high and the entire system (preamp and controller) is being overdriven. Not only does this result in unpleasant distortion, it can also harm the system's components. If the red LED lights up, reduce the level (volume) at the mixer!

7 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= -.

8 Through

Connecting cords: Use this parallel output to route the incoming line signal to other components (for example, to additional ACTOR DX mid/high units) via XLR cords.

9 Limiter LEDs

These are the active system's "rev counters," serving to indicate the limiter's operating status.

10 Subwoofer Output

Connecting cords: Use this output to send the subwoofer signal from the DDO™ controller to an ACTOR ADX 115 Sub A via an XLR cord. Ensure XLR connectors are wired as follows: 1= ground, 2= +, 3= -.

11 Display

Read-out: The numeric display indicates the currently selected system configuration.

0 Mute

- 1 Top only 1 mid/high unit Full-range mode
- 2 Half Stack DJ 1 mid/high unit, 1 Sub A
- 3 Half Stack Band 1 mid/high unit, 1 Sub A
- 4 Full Stack DJ 1 mid/high unit, 1 Sub A+ Sub B
- 5 Full Stack Band 1 mid/high unit, 1 Sub A+ Sub B
- 6 Dual Stack DJ 2 mid/high units, 2 Sub A+ Sub B
- 7 Dual Stack Band 2 mid/high units, 2 Sub A + Sub B

- L Locked buttons are disabled
- U Unlocked buttons are enabled

12 Up/Down Buttons

Use these buttons to select system configurations.

Operation: To enable the buttons, press Up and Down simultaneously and hold for about one to two seconds. The letter U (for unlocked) appears briefly in the display. Now you can press Up and/or Down to select the desired setup (see the table above). The buttons are automatically disabled soon thereafter. The letter L (locked) appears briefly in the display.

13 Top Level

Operation: Use this knob to determine the volume of the mid/high unit. The standard setting is 0 dB at the 12 o'clock position. This means the level is neither boosted nor cut.

More about limiter LEDs

A dedicated LED indicates the limiter status for the mid/high-range signal path and the subwoofer circuit, respectively.

What do the lights mean?

The green LED indicates that the given input is receiving a signal. As long as the LED lights up green, the system is operating at low-to-medium levels, with plenty of headroom available for the power amps. Yellow indicates that the system is

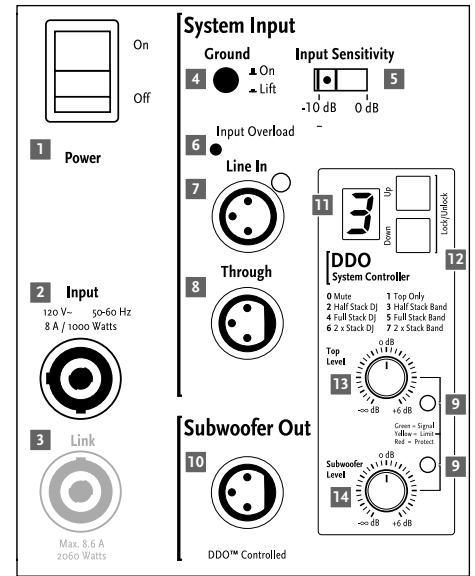
14 Subwoofer Level

Operation: When the knob is set to the 12 o'clock position, the subwoofer's and the mid/high unit's respective volumes are matched, ensuring bass and mid/high ranges are rendered in balanced musical proportion. If desired, twist the Subwoofer Level knob to the left to decrease and to the right to increase the subwoofer's level by up to 6 dB.

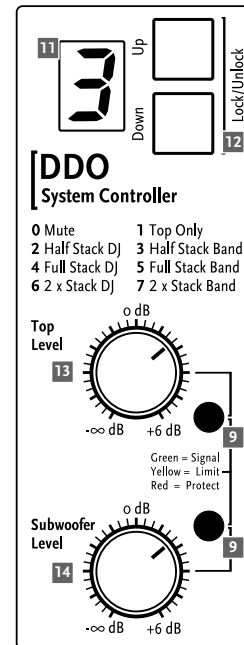
Tip: If necessary or desired, use the Subwoofer Level knob to boost or cut bass frequencies below 100 Hz rather than resorting to the mixer's master EQ.

15 Rigging Points

Attach the ACTOR DX rigging frame here to fly the mid/high unit from a truss or similar suspension device.



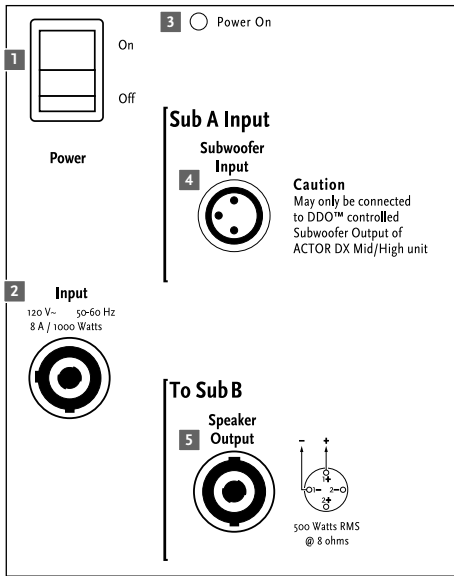
ACTOR ADX 112 A control features



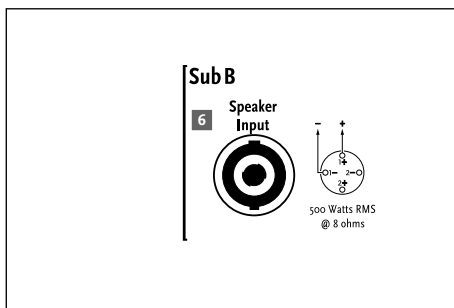
Control features of the ACTOR DX system controller

being pushed close to its threshold. The yellow LED may flash at regular intervals, but it may not illuminate continuously. If it does this, back off the volume on your mixer.

If the LED constantly lights up red, there is a problem in the power amp and the system will shut down. In this case, have a qualified service technician check the device.



Control features of the ACTOR DX 115 Sub A



Control features of the ACTOR DX 115 Sub B

4.2 ACTOR DX 115 Sub A

1 Power Switch

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

2 Mains Input

Connecting cords: Use the factory-included Powercon 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 ACTOR DX system's electronic components.

3 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.

4 Subwoofer Input

Connecting cords: To patch the signal from the DDO™ controller to a Sub A bin, plug one end of a mic cord equipped with XLR connectors into the mid/high unit's Subwoofer output and the other into the Subwoofer Input. Ensure XLR connectors are wired as follows: 1= ground, 2= +, 3= -.

Note: Never patch the mixer's line and/or master signal directly into Sub A's Subwoofer Input. This bypasses the system's controller, crossover, equalization and protection circuitry, risking serious damage to the subwoofer. Read chapter 3, Setup and Cable Connections, for more on this.

5 To Sub B Speaker Output

Connecting cords: Use this parallel Speakon® output to connect a passive ACTOR DX B Sub bin.

Note: Be sure to twist the Speakon™ connectors clockwise until they lock in place! You must first disengage the safety catch before you can unplug the connector. To do this, pull the bayonet catch towards the cord. Pin assignments are pin 1+ = +, pin 1- = -.

Feel free to use a four-core cable if you wish, though pin 2+ and 2- remain unused, of course.

4.3 ACTOR DX 115 Sub B

6 Sub B In

Connecting cords: Connect the Speakon® input to the ACTOR DX 115 Sub A bin's Speaker Output using a suitable loudspeaker cord.

5 Tips and Tricks

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 circuits.

Ensure that the ducts on the enclosures' rear panels are free of dirt and the devices are ventilated properly. Otherwise, electronic components may overheat and suffer damage.

ACTOR DX 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.

Prevent distortion! Not only is it unpleasant to your audience's ears, it also endangers your equipment. Make sure all components that are connected directly and indirectly to ACTOR DX have sufficient power ratings, and that they don't distort because they're running at their respective limits. Provide an undistorted signal to the system that doesn't have to be cleaned up by backing off the Gain knob.

Avoid ground loops! You may encounter a ground loop when the mixer is grounded via a mains cord which isn't connected to the same mains circuit as ACTOR DX. To prevent this problem, always connect the ACTOR DX system and the mixing console to the same electrical circuit (same phase!). If your equip-

ment 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 ACTOR DX Accessories

HK AUDIO ACTOR DX Tilt-Unit

Designed to hold the ACTOR DX mid/high unit, the tilt unit is placed on the subwoofer, with the DuoTilt™ fitting offering a choice of 7.5° or 15° angles.

HK AUDIO Dust Covers for ACTOR DX

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

HK AUDIO ACTOR DX Rigging Frame

Easy-to-mount U bracket for attaching half-couplers, TV spigots and clamps.

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 or display does not light up red 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 the cabinets produce no sound.

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

- 3 Are the Gain knobs turned up?
- 4 Check the speaker cords for damage.
- 5 Check if the Speakon™ connectors are locked (twisted to the right). An electrical connection is established only if their locking mechanism engages.

The subwoofer's low frequency output is weak.

- 1 Check the setting of the Subwoofer Level knob. Set Sub A's volume to the desired level using the Subwoofer Level.
- 2 Check if the system configuration "Top Only" is selected on the system controller. This mutes the subwoofers.

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, but the sound is still distorted, back off the Level knobs on the ACTOR ADX 112 A enclosures.
- 3 Observe the Input Overload indicator and the Limiter LEDs on the ACTOR DX mid/high units' control panels. It is acceptable for these to flash yellow from time to time, but under no circumstances may the yellow LEDs illuminate continuously. If they do, turn down the Level knobs. Check also the Input Sensitivity setting. If the signal is saturated, set it to +0 dB.

Annoying hum

- 1 Check the cords connecting the signal source to ACTOR DX. Replace damaged cords.
- 2 If you cannot pinpoint the cause of the humming, engage Ground Lift. This should remedy the problem in most cases.

8 Technical Specifications

ACTOR ADX 112 A

Connections:	1x XLR Line In 1x XLR Line Through 1x XLR Subwoofer Output
Line In:	XLR female (pin 1= Ground; 2= +, 3= -)
Input:	Electronically balanced & floating
Input impedance:	20 k ohms
Sensitivity:	Switchable from -10 dB to 0 dB (= +4 dBu)
Max. input level:	+22 dBu
Frequency response +/- 3dB:1)	80 Hz – 19 kHz full-range mode 130 Hz – 19 kHz Stop-only mode
Axial sensitivity 1W@1m:2)	106 dB
Maximum SPL @1m: 2)	129 dB @ 10% THD
Mid/high-range amplifier:	1x 600 W/ Class D
Active protective circuits:	DDO™ Controller Multiband Limiter, Subsonic Filter
Midrange speaker:	12"
Tweeter/ driver:	1.4"
Directivity:	60° x 40° CD horn
Crossover frequency:	950 Hz, 12 dB/octave
Pole mount:	HK AUDIO DuoTilt™, 36 mm, 7.5°, 15°
Rigging points:	4 M10 threaded bushings for attaching an optional rigging-bracket
Accessories:	ACTOR DX Tilt-Unit, 7.5°, 15°
Dimensions (WxDxH):	39 cm x 65 cm x 42 cm 15 1/4" x 25 5/8" x 16 1/2"
Weight:	32 kg/ 70.6 lbs.
General electrical data:	
Protection class 1 (protectively earthed)	
Max. current consumption:	13 A (220 - 240 V) 8 A (100 - 120 V)
Max. power consumption:	1000 W
Mains voltage range:	+/- 10%
Ambient temperature range during operation:	-10° C to +35° C
Internal fuses:	T8A

1) Via active crossover

2) All measurements taken under half-space conditions

ACTOR ADX 115 Sub A

Connections:	1x XLR Subwoofer Input 1x XLR Subwoofer Through 1x Speakon® Parallel Out XLR female (pin 1= Ground; 2= +, 3= -)
Subwoofer Input:	Electronically balanced & floating
Input:	20 k ohms
Input impedance:	+10 dBu (turned all the way up)
Sensitivity:	+22 dBu
Max. input level:	48 Hz – 130 Hz
Frequency response +/- 3dB: 1)	104 dB
Axial sensitivity 1W@1m: 2)	126 dB @ 10% THD
Maximum SPL @1m: 2)	1x 1000 W / Class D
Subwoofer amplifier:	DDO™ Controller, Multiband Limiter, Subsonic Filter
Active protective circuits:	15"
Woofer:	M20 thread base plate
Pole mount:	Four 100 mm castors on the rear panel
Castors	48 cm x 65 cm x 66 cm incl. castors
Dimensions (WxHxD):	18 7/8" x 25 5/8" x 26"
Weight:	36.6 kg/ 80.0 lbs.

General electrical data:

Protection class 1 (protectively earthed)	
Max. current consumption:	4.4 A (220 - 240 V) 8 A (100 - 120 V)
Max. power consumption:	1000 W
Mains voltage range:	+/- 10%
Ambient temperature range during operation:	-10° C to +35° C
Internal fuses:	T8A

ACTOR ADX 115 Sub B

Connections:	1x Speakon® Input
Nominal power handling:	500 W RMS/ 8 ohms
Frequency response +/- 3dB: 1)	48 Hz – 130 Hz
Axial sensitivity t 1W@1m: *)	104 dB
Maximum SPL @1m: *)	126 dB @ 10% THD
Woofer:	15"
Pole mount:	-
Castors	Four 100 mm castors on the rear panel
Dimensions (WxHxD):	48 cm x 65 cm x 66 cm incl. castors
	18 7/8" x 25 5/8" x 26"
Weight:	33.7 kg/ 74.3 lbs.

This is to certify that

HK AUDIO® ACTOR DX

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 according to EMC Directive 89/336/EEC including amendment 93/68/EEC and the low voltage Directive 73/23/EEC including amendment 93/68/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.

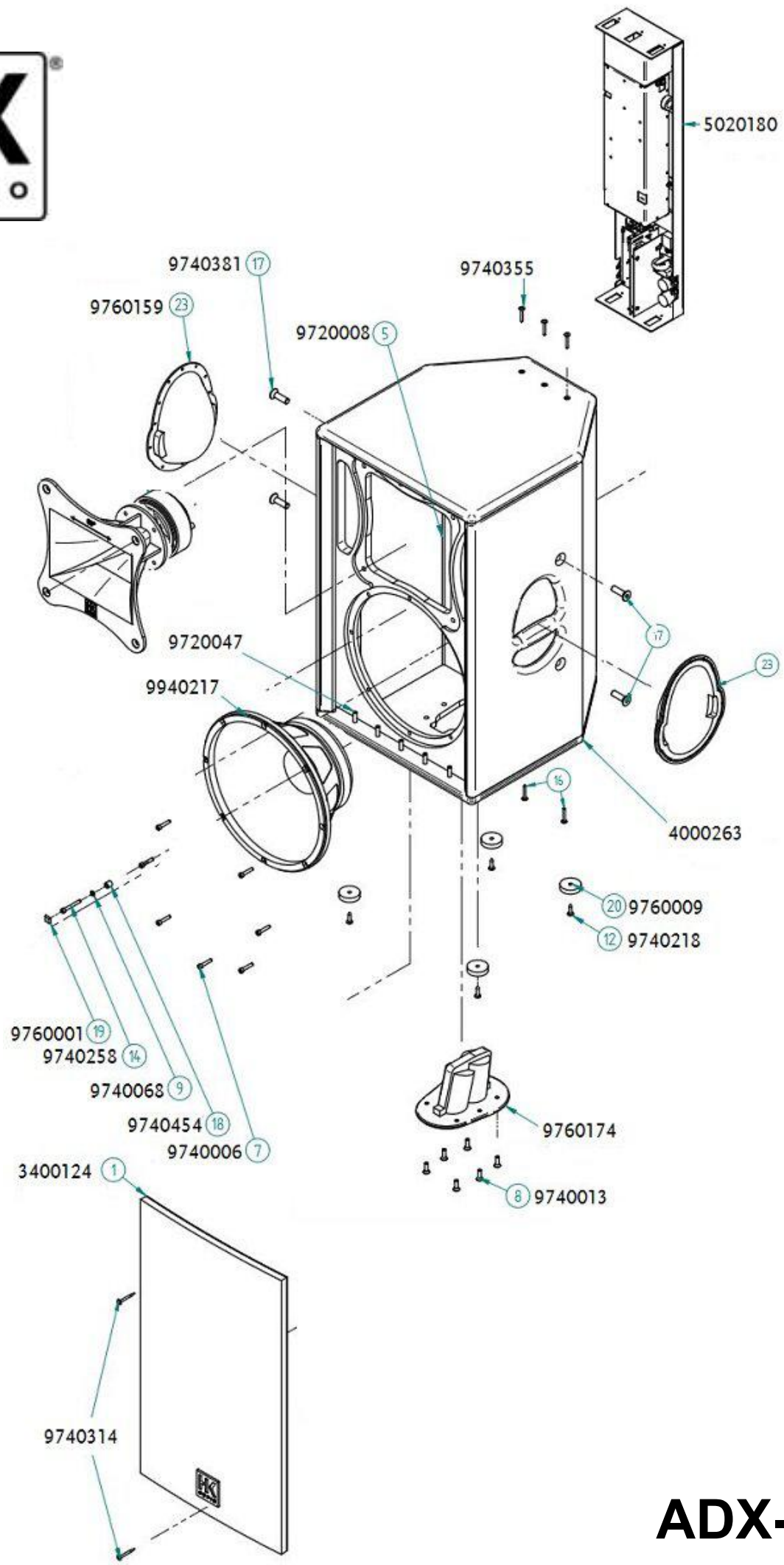
STAMER
STAMER MUSIKANLAGEN GMBH

Magdeburger Str. 8
66606 St.Wendel



Lothar Stamer Dipl.Ing.
Managing Director
St.Wendel, 04/15/05

Version 1.0 09/2007



ADX-112

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Copyright 2008 Music & Sales GmbH • 02/2008



HK Audio® • Postfach 1509 • 66595 St. Wendel
Germany • info@hkaudio.com • www.hkaudio.com
International Inquiries: fax +49-68 51-905 215
international@hkaudio.com