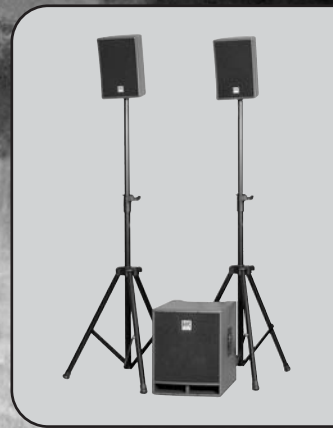




Portable Sound



L.U.C.A.S.[®]
600
LIGHTWEIGHT ULTRA COMPACT ACTIVE SYSTEM

Manual 1.0

English
Deutsch
Français
Español



Die L.U.C.A.S-Familie

Important Safety Instructions

Before connecting, read instructions

- 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.
- 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 these 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 dBA, 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.

Important Advice on Safety!

Please read before use and keep for later use!

- 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 isolated from all power sources. Please take this into account before carrying out adjustments, maintenance, repairs and before replacing parts.
- 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



Wichtige Sicherheitshinweise!

Bitte vor Gebrauch lesen und für späteren Gebrauch aufbewahren!

- 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 Warnmerkmale 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 DAMIT 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.

WARNUNG:

- 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 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 berührungsgefährlich sein. 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 Verteilerdosen zusammen mit vielen anderen Stromverbrauchern.
- Die Steckdose für die Stromversorgung muss nahe am Gerät angebracht und leicht zugänglich sein.

AUFSTELLUNGSSORT:

- 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 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 beaufichtigt oder benutzt wird, sollte der Netzstecker gezogen werden. Dies verhindert Schäden am Gerät aufgrund von Blitzschlag und Spannungstößen im Wechselstromnetz.

Abb.1

Abb.2





Welcome to the HK AUDIO® family!

Thank you for choosing an HK AUDIO® product. L.U.C.A.S 600 consists of two satellites and a subwoofer equipped with a power amp and all the electronics required to drive the bass bin and satellite. Painstakingly fine-tuned to match the speakers for the best possible sound and superior impulse response, the electronic circuitry makes this system easy to operate and safely prevents it from overloading. 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 cables and power cables, and you're ready to perform.

An HK AUDIO® active system is more than just two powered cabinets mounted on tripods; it is an end-to-end sound reinforcement solution consisting of a subwoofer, satellite speakers and meticulously matched electronics.

Our engineers developed new technologies to satisfy the stringent requirements of such an advanced system. Six unique and sophisticated features make an active HK AUDIO® sound reinforcement system stand out from the crowd of far more basic active cabinets.

Enjoy your L.U.C.A.S 600!
Your HK AUDIO® team!

Warranty

Register your L.U.C.A.S 600® 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 and by whom our devices are used. This information will help us design future products. Your data is of course protected by privacy laws.

Thank you.

HK AUDIO®
Technical Service
Postfach 1509
D-66595 St. Wendel, Germany

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Six unique features for premium performance

Easy set up and operation

All HK AUDIO® active systems were conceived as perfectly matched parts to form a finely functioning whole. We did not simply slap together existing speaker cabinets and declare them a "system"; each part of the system was designed specifically to work with all the rest. The result of these fresh designs is that each system works splendidly as a harmonious whole. Furthermore, every one of these systems is easy to transport, quick to set up and a pleasure to work with.

- all components designed to function together as one system
- swift setup & easy operation save time and avoid hassles
- Less stress = more fun + better music

OFR™ Optimized Frequency Response technology

HK AUDIO®'s unique OFR™ technology enhances the frequency response of the system for a richer, smoother sound. As your volume needs change during a performance, special active filters manage system frequency compensation with the precision of a 31-band EQ and the transparency of a parametric EQ, but without the phase problems or degradation in signal quality commonly associated with an external EQ. OFR™ automatically ensures system linearity and full-spectrum clarity from the initial sound check to the final encore.

- makes outboard system equalizers superfluous
- perfectly matched to every system
- adapts the system to different volume requirements: a full sound spectrum at any level



More about limiters

Limiters are designed to protect power amps and the speakers connected to them from harm. The functionality and response of a limiter is determined by the parameters Attack Time, Threshold and Release Time. Adjusting these parameters incorrectly can degrade the sound and introduce dynamic distortion. At peak volume levels, for example, vocals may fail to cut through the mix and instruments that are played percussively can lose their punch and dynamics.

HK AUDIO® limiting technologies are more than merely technical tools serving to protect components. We put a premium on the authenticity of the sound being reproduced, retaining an audio event's true dynamics. In other words, while our limiters do a great job of protecting the system electronically, they are first and foremost instruments of audio integrity.



DynaClip™ Limiter for the bass power amp

HK AUDIO®'s DynaClip™ technology is a dynamic limiting function specifically developed for improved low-end performance. DynaClip™ minimizes the inharmonic distortion that limiting generates, and thereby maximizes low-frequency energy usage and enhances the overall efficiency of the LF power amp.

- perfectly matched to the LF power amp
- more low-end punch through more efficient energy usage

Opto-Limiter for the mid/high-range power amp

Mid/high-range signals and low frequencies are as different as apples and oranges. So we use a different kind of limiter with our mid/high-range power amps. Our Opto-Limiter, which is based on technology developed for high-end recording gear, ensures minimized signal degradation, resulting in sound that is pure and transparent.

- applies studio technology to live performance systems
- improved signal quality due to lower distortion near threshold
- enhanced performance resulting from higher useable volume levels
- protects satellites from overload

Subsonic Filter

The integrated subsonic filter cuts unwanted ultra-low frequencies. Infra-sub-bass signals resulting from stage rumble, wind or similar sources place heavy demands on the power amp to produce frequencies so low that they exceed the useful range of the speaker cabinet itself. The subsonic filter protects the amp from these frequencies and thereby increases the actual useable output power of the entire system.

- protects power amp and speaker from harmful ultra-sub-low frequencies
- enables cleaner and tighter bass reproduction

24 dB/octave Electronic Crossover with phase correction

Using an electronic crossover rather than a passive crossover allows for a much finer division of labor in assigning the responsibility for certain frequencies to certain parts of the speaker system. A steep slope of 24 dB per octave ensures that each section of the system receives only the frequencies it has been designed for, enabling it to reproduce the signal more cleanly and with finer detail.

- unlike passive crossovers, no signal power loss

1 L.U.C.A.S 600 System Components

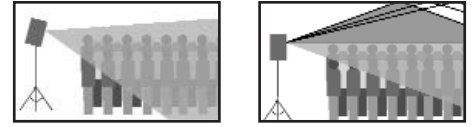
Subwoofer

The L.U.C.A.S 600 subwoofer's housing is split into two chambers. The front chamber serves as the speaker cabinet for the 12" direct-loaded loudspeaker, which has a power handling capacity of 300 RMS and a nominal impedance of 8 ohms. The active electronic circuitry with power supply, preamps and power amps are housed in a separate compartment at the rear of the cabinet.

Satellite speakers

Satellites are loaded with an 8" HK AUDIO® Custom speaker and a 1" driver with a 90° x 40° CD horn. They are rated for 150 W RMS power handling capacity and a nominal impedance of 4 ohms.

The newly developed, integrated MonoTilt™ pole mount allows sound energy to be utilized with great efficiency. Troublesome ceiling reflections are minimized; the sound is clearer, tighter, and more focused. Beyond that, the cabinet is stabilized at its center of gravity - no wobbling, tilting, or unintentional turning.



Aligning the HK AUDIO® MonoTilt™

2. Transport

To transport the system, simply set the subwoofer on its wheels and place the satellites onto the subwoofer with the foam-rubber grille side facing down. The concave front of the satellites fits the curvature of the subwoofer's grille snugly for transportation purposes. Secure the satellites with the included lockdown strap. Use original HK AUDIO®, L.U.C.A.S 600 protective covers to gear your personal system up for the rigors of the road. Amply padded and protected against moisture, your L.U.C.A.S 600 is sure to deliver satisfying performance for a long time to come.

Question

Can I connect speakers other than L.U.C.A.S 600 satellites to a L.U.C.A.S 600 subwoofer?

Answer

The system components are acoustically matched for optimum audio performance and may be operated in the indicated configuration only. Using other satellites can degrade the sound and damage the power amp. The outputs' nominal impedance is 4 ohms, and impedance may not fall below this value. Be sure to connect no more than one satellite cabinet to each speaker output.

Question

Why does the L.U.C.A.S 600 satellite lack hand grips?

Answer

Grips can be detrimental to an enclosure's audio properties, for example, by causing rattling, resonant, hissing and other noises. Smaller housings are particularly susceptible to this. In view of these small, light enclosure, we put a higher value on audio quality. For convenient transportation, we recommend that you use L.U.C.A.S 600 protective covers, which feature integrated grips.



Upper control panel of the L.U.C.A.S 600



L.U.C.A.S 600 rear view

3 Connections and Control Features

L.U.C.A.S 600 Subwoofer

1 Limiter LEDs

Like the "rev counter" of an engine, these LEDs serve to indicate the limiter's operating status.

2 Gain Left, Gain Right

Operation: Turn the Gain knobs all the way down (counterclockwise) before powering the system up. Ensure the system is connected to the satellites and all other components before powering it up. Switch on the connected mixer as well as all signal sources connected to it – for example, keyboards, amps, effects, and so forth – first!

After you power the system up, rotate the Gain Left and Right knobs to the right to the 0 dBV setting. This is the preferred level if you have connected a mixer.

Note: If you connect a CD player or a keyboard directly to the system, you may not be able to achieve peak volume.

If you hear distortion or an overdriven signal, first check the signal sources and, if possible, reduce the output signal level there. If you are unable to turn down the level of the signal sent to L.U.C.A.S 600 at the signal source, adjust input gain using the Gain knobs. (see also Tips and Tricks)

3 Subwoofer Level

Operation: When set to the center position, the subwoofer's volume is matched to the satellites' levels to achieve a balanced sound with an even distribution of low frequency (subwoofer) and high frequency (satellite) signals. If you want to boost or cut low frequencies, simply rotate the Subwoofer Level knob to the left down to -12 dB or right up to +6 dB.

4 Power-On LED

This LED lights up when the Power switch (see rear panel) is set to On and the system is plugged into a mains power supply.

5 Ground

The Ground Lift button is intended to separate the signal ground from the chassis ground in the event of hum. If you encounter low frequency hum, activate the Ground Lift switch. If this doesn't solve the problem, check all cables connected to L.U.C.A.S 600 for damage, as well as all cables that are carrying signals routed to the mixing console (see also Tips and Tricks). The ground circuit is interrupted when this button is pressed in.

6 Input Left and Input Right (Combination XLR/3/4" jack ports)

L.U.C.A.S 600 is equipped with separate left and right channel inputs to accept the signals coming from the mixer outputs.

Connecting the cables: Connect the cables that carry the signal coming from your mixer (master left/right, line out, or a similar circuit) to the balanced inputs using a microphone cable equipped with XLR connectors. The XLR connectors' pin assignments must be as follows: 1= ground, 2= +, 3= -.

You can also use a 3/4" Tip-Ring-Sleeve plug to route signals via balanced circuits. Unbalanced signals can be patched in via a mono plug.

7 Through Left, Through Right

Connecting the cables: These are parallel output for routing the incoming Line signals (left or right) to other systems, outboard components, monitor power amps, etc., via XLR cables.

8 To Satellite Left and Right

Connecting the cables: Connect these Speakon® outputs to the left and right L.U.C.A.S 600 satellite speakers using cables equipped with Speakon® connectors.

Note: Be sure to rotate the Speakon® connectors clockwise until they lock in place!

9 Fans

These fans keep the power amp modules cool. Always keep the fan and ventilation vents free of dirt and debris, ensuring they remain unobstructed so air can circulate freely.

10 Mains Input

Connecting the cables: Use the factory-included mains cable to connect from a wall socket to here.

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 electronic components of the L.U.C.A.S 600 system.

11 Power Switch

Operation: On/off switch for the active system. The Power LED in the upper control panel lights up red to indicate that the system is on.

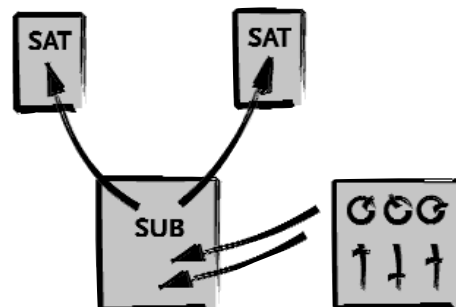
The active L.U.C.A.S 600 system should always be switched on last, that is, after you switch on all equipment connected to it; and it should be switched off first, that is, before you switch off anything that is connected to it.

12 Fuse

Mains fuse. Always unplug the mains cable before replacing the fuse! Replace only with another fuse of the same type and rating (indicated next to the label Fuse).

13 Mains Cable Tab

Clamp the power cable into the tab to prevent it from being pulled out inadvertently.



How to set up L.U.C.A.S 600

More about Limiter LEDs

Dedicated LEDs indicate the limiter status, one for the left signal path, one for the right, and one for the subwoofer.

How do I interpret this display?

The green LED indicates that the 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 being pushed close to its threshold. It's OK if the yellow LED flashes on and off intermittently, but it should not stay on continuously. If it does this, back off the volume on your mixer.

More about pin assignments

The XLR jack's pin assignments comply with the international IEC 268-12 norm. In accordance with this norm, pin 1 is the ground, pin 2 carries the positive signal and pin 3 carries the negative signal. The stereo-style T-R-S 3/4" jack's tip carries the positive signal, its ring carries the negative signal, and the ground circuit is routed via the sleeve. When you insert an unbalanced mono plug, the input automatically switches to unbalanced operating mode.



HK AUDIO® Speaker Stand Add On Package



HK AUDIO® Protective Covers for L.U.C.A.S 600



HK AUDIO® L.U.C.A.S 600 Wall Mount

L.U.C.A.S 600 Satellites

1 Input

Connecting the cables: Connect the satellite speakers' Speakon® inputs to the L.U.C.A.S 600 system's Left and Right outputs using cables equipped with Speakon® connectors.

Note: Be sure to rotate 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 cable.

2 Attaching the Wall Mount

On the back of the housing you'll find two recessed M5 threads designed to accept the optional wall mount.

4 Tips and Tricks

1 Always clamp the power cable into the tab that is designed to hold it in place. It is located on the rear panel of the electronics chassis. This prevents the mains power cable from being pulled out inadvertently.

2 Don't expose electronic circuitry to moisture! When you set the system up outdoors, be sure to protect it against rain. Keep soft drinks, beer or any other liquids well away from the cabinets to protect their electronic components from short circuits.

3 To ensure proper ventilation, make sure the subwoofer is placed a sufficient distance away from walls and isn't covered by curtains or similar materials. This is crucial to prevent the power amps from overheating.

4. Ensure that the ventilation ducts on the subwoofer's rear panel always remain free of dirt, debris and other obstructions, and that the fan can rotate freely. Otherwise, the electronic components may overheat and suffer damage.

5 L.U.C.A.S 600 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 cables, or unbalanced signals routed into the mixing console. Check all signal and mains cables for integrity.

6 Prevent distortion! Not only is it unpleasant to the ears of your audience, it can also damage your equipment. Make sure all components that are connected directly and indirectly to the L.U.C.A.S 600 system 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 by adjusting the output level of the sending device.

7 Avoid ground loops! For example, you may encounter a ground loop when the mixer is grounded via a mains cable which isn't connected to the same mains circuit as the L.U.C.A.S 600 system. To prevent this problem, always connect L.U.C.A.S 600 and the mixing console to the same electrical circuit (same phase!). If your equipment hums despite this precaution, the Ground Lift button can be a great help.

Caution: Never tape over the plug's ground terminal – this endangers lives!

5. L.U.C.A.S 600 Accessories

HK AUDIO® Speaker Add-On Package

The complete L.U.C.A.S 600 accessory kit consisting of two aluminum cabinet tripods, one gig bag and two speaker cables.

HK AUDIO® Protective Covers for L.U.C.A.S 600

Comprises one subwoofer cover and two satellite covers. Extremely tear-resistant, water-repellent and thickly upholstered, these covers afford lasting protection for L.U.C.A.S 600 during transport.

HK AUDIO® L.U.C.A.S 600 Wall Mount

Bracket for mounting L.U.C.A.S 600 satellites on walls.

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

6 Troubleshooting

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

- 1 Check if the power cable is plugged into the Mains Input.
- 2 Check if the mains power supply is providing current.
- 3 Check for a blown fuse. If this is the case, set the Power On switch to the Off position, unplug the mains cable, and replace the fuse with a fuse of the same type and rating (see Technical Specifications).

The Power-On LED lights up red, but the cabinets are producing no sound.

- 1 Check the cables that you connected to the Left and Right inputs.
- 2 Check whether the signal sources (mixer, keyboard, CD player) are on.
- 3 Are the Gain Left and Gain Right knobs turned up?
- 4 Check the speaker cables for damage.
- 5 Check if the Speakon™ connectors are engaged in their sockets (rotated to the right). Only then will a good electrical connection be established.

The subwoofer's low frequency output is too soft.

- 1 Check the setting of the Subwoofer Level knob. Set the volume of the subwoofer to the desired level using this knob.

The signal seems distorted.

- 1 Check the LED displays at your mixer. They should not be constantly in the red. If necessary, back off the volume at the mixer.
- 2 If the LED displays at your mixer are in the green, back off the Gain Left and Gain Right knobs on L.U.C.A.S 600.
- 3 Observe the LEDs of the Limit Left, Limit Right and Limit Subwoofer displays on L.U.C.A.S 600's control panel. These should light up yellow for no more than an instant. Under no circumstances may the yellow LEDs illuminate continuously. If this is the case, turn down the Gain knobs.

Annoying humming

- 1 Check the cables that you are using to connect the signal source to L.U.C.A.S 600. Replace damaged cables. If you cannot pinpoint the cause of the humming, press Ground Lift. This should remedy the problem in most cases.

7 Technical Specifications

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This is to certify that

HK AUDIO® L.U.C.A.S 600

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
GmbH*
Magdeburger Str. 8
66606 St.Wendel

A handwritten signature in black ink, appearing to read "L. Stamer".

Lothar Stamer Dipl.Ing.
Managing Director
St.Wendel, 12/22/03

* Stamer Musikanlagen manufactures exclusively for HK AUDIO®.

Für das folgend bezeichnete Erzeugnis

HK AUDIO® L.U.C.A.S 600

wird hiermit bestätigt, dass es den wesentlichen Schutzanforderungen entspricht, die in der Richtlinie des Rates zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten über die elektromagnetische Verträglichkeit (89/336/EWG) und der Niederspannungsrichtlinie (73/23/EWG) festgelegt sind. Diese Erklärung gilt für alle Exemplare, und bestätigt die Ergebnisse der Messungen, die durch die Qualitätssicherung der Fa. Stamer Musikanlagen GmbH durchgeführt wurden. Zur Beurteilung des Erzeugnisses hinsichtlich elektromagnetischer Verträglichkeit wurden folgende Normen herangezogen: EN 50081-1 • EN 50082-1. Zur Beurteilung der Einhaltung der Niederspannungsrichtlinie wurde folgende Norm herangezogen: EN 60065

Diese Erklärung wird verantwortlich für den Hersteller



Stamer Musikanlagen
GmbH*
Magdeburger Str. 8
66606 St.Wendel

abgegeben durch

A handwritten signature in black ink, appearing to read "L. Stamer".

Lothar Stamer Dipl.Ing.
Geschäftsführer
St.Wendel, den 22/12/03

* Stamer Musikanlagen stellt exklusiv für HK AUDIO® her.

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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