



Service Documents

Confidential, for authorized service technicians only!
Do not disclose this information to or share these documents
with third parties.

Vertraulich! Nur für autorisierte Servicetechniker!
Nicht zur Weitergabe an Dritte freigegeben!

L.U.C.A.S IMPACT SUB

Note!

The components used in this product - particularly parts affecting safety as well as speakers and transformers - were developed and manufactured to certain specifications. Please use original spare parts only to ensure the product remains fully functional and safe.

Achtung!

Die in diesem Produkt verwendeten Komponenten, insbesondere sicherheitsrelevante Teile, Lautsprecher und Transformatoren wurden nach spezifischen Vorgaben entwickelt und gefertigt. Bitte benutzen Sie ausschließlich Original-Ersatzteile – nur so ist die volle Funktionalität und Sicherheit gewährleistet.



TECHNICAL SERVICE:

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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.
- 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 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 LevelBA, 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 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



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 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 GEWÄHRLISTET, 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 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 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.

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

Abb.1

Abb.2



Conseils de Securite Importants!

Priere de lire avant l'emploi et a conserver pour utilisation ulterieure!

- L'appareil a été conçu par HK AUDIO® selon la norme IEC 60065 et a quitté l'entreprise dans un état irréprochable. Afin de conserver cet état et d'assurer un fonctionnement sans danger de l'appareil nous conseillons à l'utilisateur la lecture des indications de sécurité contenues dans le mode d'emploi. L'appareil est conforme à la classification I (mise à terre de protection).
- SURETE, FIABILITE ET EFFICACITE DE L'APPAREIL NE SONT GARANTIS PAR HK AUDIO® QUE SI:
- Montage, extension, nouveau réglage, modification ou réparation sont effectués par HK AUDIO® ou par toute personne autorisée par HK AUDIO®.
- L'installation électrique de la pièce concernée correspond aux normes IEC (ANSI).
- L'utilisation de l'appareil suit le mode d'emploi.

AVERTISSEMENT:

- A moins que cela ne soit manuellement possible, tout enlèvement ou ouverture du boîtier peut entraîner la mise au jour de pièces sous tension.
- Si l'ouverture de l'appareil est nécessaire, celui-ci doit être coupé de chaque source de courant. Ceci est à prendre en considération avant tout ajustement, entretien, réparation ou changement de pièces.
- Ajustement, entretien ou réparation sur l'appareil ouvert et sous tension ne peuvent être effectués que par un spécialiste autorisé par le fabricant (selon VBG4). Le spécialiste étant conscient des dangers liés à ce genre de réparation.
- Les sorties de baffles qui portent le signe IEC 417/5036 (fig. 1, voir en bas) peuvent être sous tension dangereuse. Avant de brancher l'appareil utiliser uniquement le câble de raccordement conseillé par le fabricant pour raccorder les baffles.
- Toutes les prises des câbles de raccordement doivent être, si possible, vissées ou verrouillées sur le boîtier.
- L'utilisation de fusibles rafistolés ou court-circuités est inadmissible – seulement: IEC127.
- L'utilisation de fusibles rafistolés ou court-circuités est inadmissible.
- Ne jamais interrompre la connexion du circuit protecteur.
- Il est conseillé de ne pas toucher aux surfaces pourvues du signe "HOT" (fig. 2, voir en bas), aux parois arrière ou caches munis de fentes d'aération, éléments d'aération et leurs caches ainsi qu'aux tubes et leurs caches. Ces éléments pouvant atteindre des températures élevées pendant l'utilisation de l'appareil.
- Les Niveaux de puissance élevés peuvent entraîner des lésions auditives durables. Evitez donc la proximité de haut-parleurs utilisés à haute puissance. Lors de haute puissance continue utilisez une protection auditive.

BRANCHEMENT SUR LE SECTEUR:

- L'appareil est conçu pour une utilisation continue.
- La tension de fonctionnement doit concorder avec la tension secteur locale.
- Le raccordement au réseau électrique s'effectue avec l'adaptateur ou le cordon d'alimentation livré avec l'appareil.
- Adaptateur: Un câble de raccordement abîmé ne peut être remplacé. L'adaptateur est inutilisable.
- Evitez un raccordement au réseau par des boîtes de distribution surchargées.
- La prise de courant doit être placée à proximité de l'appareil et facile à atteindre.

LIEU D'INSTALLATION:

- L'appareil doit être placé sur une surface de travail propre et horizontale.
- L'appareil en marche ne doit en aucun cas subir des vibrations.
- Evitez dans la mesure du possible poussière et humidité.
- L'appareil ne doit pas être placé à proximité d'eau, de baignoire, lavabo, évier, pièce d'eau, piscine ou dans une pièce humide. Ne placez aucun vase, verre, bouteille ou tout objet rempli de liquide sur l'appareil.
- L'appareil doit être suffisamment aéré.
- Ne jamais recouvrir les ouvertures d'aération. L'appareil doit être placé à 20 cm du mur au minimum. L'appareil peut être monté dans un Rack si une ventilation suffisante est possible et si les conseils de montage du fabricant sont suivis.
- Evitez les rayons de soleil et la proximité de radiateurs, chauffages etc.
- Une condensation d'eau peut se former dans l'appareil si celui-ci est transporté brusquement d'un endroit froid à un endroit chaud. Ceci est particulièrement important pour des appareils à tubes. Avant de brancher l'appareil attendre qu'il ait la température ambiante.
- Accessoires: L'appareil ne doit être placé sur un chariot, support, trépied, bâti ou table instable. Une chute de l'appareil peut entraîner aussi bien des dommages corporels que techniques. Utilisez l'appareil uniquement avec un chariot, Rack, support, trépied ou bâti conseillé par le fabricant ou vendu en combinaison avec l'appareil. Les indications d'installation conseillées par le fabricant sont à utiliser. Un ensemble support et appareil doit être déplacé avec précaution. Des mouvements brusques et des revêtements de sol irréguliers peuvent entraîner la chute de l'ensemble.
- Équipements supplémentaires: Ne jamais utiliser un équipement supplémentaire n'ayant pas été conseillé par le fabricant, ceci pouvant entraîner des accidents.
- Afin de protéger l'appareil pendant un orage ou s'il ne doit pas être utilisé pendant un certain temps, il est conseillé d'enlever la prise au secteur. Ceci évite des dommages dus à la foudre ou à des coups de tension dans le réseau à courant alternatif.

Fig. 1



Fig. 2



Importanti avvertimenti di sicurezza!

Leggere attentamente prima dell'uso e conservare per un utilizzo successivo:

- L'apparecchio è stato costruito dalla HK AUDIO® secondo la normativa europea IEC 60065 ed ha lasciato il nostro stabilimento in stato ineccepibile. Per garantire il mantenimento di tale stato e un utilizzo assolutamente privo di rischi l'utente è tenuto ad osservare le indicazioni e gli avvertimenti di sicurezza contenuti nelle istruzioni per l'uso. L'apparecchio rispetcia il livello di sicurezza I (collegato a terra).
- Sicurezza, affidabilità e prestazioni dell'apparecchio vengono garantiti dalla HK AUDIO® solo ed esclusivamente se:
- Montaggio, ampliamento, rimessa a punto, modifiche e riparazioni vengono eseguite dalla HK AUDIO® stessa o da personale da essa autorizzato.
- Gli impianti elettrici nei locali prescelti per l'uso dell'apparecchio rispondono alle normative stabilite dall'ANSI.
- L'apparecchio viene utilizzato come indicato nel libretto delle istruzioni per l'uso.

Avvertimenti:

- In caso di apertura di parti di rivestimento o rimozione di parti dell'involucro, a meno che non si tratti di pezzi rimovibili semplicemente a mano, possono venire alla luce parti dell'apparecchio conduttrici di tensione.
- Se l'apertura dell'apparecchio dovesse risultare necessaria è indispensabile staccare precedentemente quest'ultimo da tutte le fonti di tensione. Rispettare tale misura di prevenzione anche prima di un allineamento, di operazioni di manutenzione, della messa in esercizio o della sostituzione di componenti all'interno dell'apparecchio.
- Allineamento, operazioni di manutenzione o eventuali riparazioni dell'apparecchio in presenza di tensione vanno eseguite esclusivamente da personale specializzato ed autorizzato, in grado di eseguire tali operazioni evitando rischi connessi.
- Le uscite degli altoparlanti contrassegnate dai caratteri IEC 417/5036 (vedi illustrazione 1 a fondo pag.) possono essere conduttrici di tensione pericolosa con cui evitare il contatto. Per questo motivo, prima di accendere l'apparecchio, collegare quest'ultimo agli altoparlanti servendosi esclusivamente del cavetto d'allacciamento indicato dal produttore.
- Tutte le spine e i cavi di collegamento devono essere avvitati o fissati all'involucro dell'apparecchio per quanto possibile.
- Utilizzare esclusivamente fusibili del tipo IEC 127 con la indicata corrente nominale.
- L'utilizzo di fusibili di sicurezza non integri e la messa in corto circuito del sostegno di metallo sono proibite.
- Non interrompere mai il collegamento con il circuito di protezione.
- Superfici contrassegnate dalla parola "HOT" (vedi illustrazione 2 a fondo pag.), così come griglie di aerazione, dispositivi di raffreddamento e i loro rivestimenti di protezione, oppure valvole e i relativi rivestimenti protettivi possono surriscaldarsi notevolmente durante l'uso e per questo motivo non vanno toccate. L'ascolto di suoni ad alto volume può provocare danni permanenti all'udito. Evitate perciò la diretta vicinanza con altoparlanti ad alta emissione di suono e utilizzate cuffie protettive in caso ciò non sia possibile.

Alimentazione:

- L'apparecchio è concepito per il funzionamento continuo.
- La tensione di esercizio deve corrispondere alla tensione di rete a cui ci si allaccia.
- L'allacciamento alla rete elettrica avviene tramite alimentatore o cavetto d'alimentazione consegnato insieme all'apparecchio.
- Alimentatore: un cavo di connessione danneggiato non può essere sostituito. L'alimentatore non può più essere utilizzato.
- Evitate un allacciamento alla rete di corrente utilizzando cassette di distribuzione sovraccariche.
- La spina di corrente deve essere situata nelle vicinanze dell'apparecchio e facilmente raggiungibile in qualsiasi momento.

Locali di collocamento:

- Opportuno collocare l'apparecchio su una superficie pulita e orizzontale.
- Non sottoporre l'apparecchio in funzione a scosse e vibrazioni.
- Proteggere l'apparecchio per quanto possibile da umidità e polvere.
- Non collocare l'apparecchio vicino ad acqua, vasche da bagno, lavandini, lavelli da cucina, locali umidi o piscine. Non appoggiare recipienti contenenti liquidi - vasi, bicchieri, bottiglie, ecc. - sull'apparecchio.
- Provvedere ad una buona aerazione dell'apparecchio.
- Eventuali aperture previste per la ventilazione dell'apparecchio non vanno ne bloccate, ne mai coperte. L'apparecchio va collocato ad almeno 20 cm di distanza dalle pareti circostanti e può essere inserito tra altre componenti di un impianto solo in caso di sufficiente ventilazione e qualora le direttive di montaggio del produttore vengano rispettate.
- Evitare di esporre l'apparecchio ai raggi del sole e di collocarlo direttamente nelle vicinanze di fonti di calore come caloriferi, stufette, ecc.
- Se l'apparecchio viene trasportato rapidamente da un locale freddo ad uno riscaldato può succedere che al suo interno si crei della condensa. Ciò va tenuto in considerazione soprattutto in caso di apparecchi a valvole. Attendere che l'apparecchio abbia assunto la temperatura ambiente prima di accenderlo.
- Accessori: non collocare l'apparecchio su carrelli, supporti, treppiedi, superfici o tavoli instabili. Se l'apparecchio dovesse cadere a terra potrebbe causare danni a terzi o danneggiarsi irrimediabilmente. Utilizzate per il collocamento dell'apparecchio supporti, treppiedi e superfici che siano consigliate dal produttore o direttamente comprese nell'offerta di vendita. Per il collocamento dell'apparecchio attenervi strettamente alle istruzioni del produttore, utilizzando esclusivamente accessori da esso consigliati. L'apparecchio in combinazione ad un supporto va spostato con molta attenzione. Movimenti bruschi o il collocamento su pavimenti non piani possono provocare la caduta dell'apparecchio e del suo supporto.
- Accessori supplementari: non utilizzate mai accessori supplementari che non siano consigliati dal produttore, potendo essere ciò causa di incidenti.
- Per proteggere l'apparecchio in caso di temporali o nel caso questo non venisse utilizzato per diverso tempo si consiglia di staccare la spina di corrente. In questo modo si evitano danni all'apparecchio dovuti a colpi di fulmine o ad improvvisi aumenti di tensione nel circuito di corrente alternata.

Illustrazione 1



Illustrazione 2



¡Indicaciones de seguridad importantes!

¡Léanse antes de utilizar el aparato y guardense para so uso posterior!

- El aparato ha sido producido por HK AUDIO® según el IEC 60065 y salió de la fábrica en un estado técnicamente perfecto. Para conservar este estado y asegurar un funcionamiento sin peligros el usuario debe tener en cuenta las indicaciones y advertencias contenidas en las instrucciones de manejo. El aparato corresponde a la clase de protección I (toma de tierra protegida).
- LA SEGURIDAD, LA FIABILIDAD Y EL RENDIMIENTO DEL APARATO SOLO ESTAN GARANTIZADOS POR HK AUDIO® CUANDO:
- el montaje, la ampliación, el reajuste, los cambios o las reparaciones se realicen por HK AUDIO® o por personas autorizadas para HK AUDIO®;
- la instalación eléctrica del recinto en cuestión corresponda a los requisitos de la determinación del IEC (ANSI);
- el aparato se use de acuerdo con las indicaciones de uso.

ADVERTENCIA:

- Si se destapan protecciones o se retiran piezas de la carcasa, exceptuando si se puede hacer manualmente, se pueden dejar piezas al descubierto que sean conductoras de tensión.
- Si es necesario abrir el aparato, éste tiene que estar aislado de todas las fuentes de alimentación. Esto se debe tener en cuenta antes del ajuste, de un entretenimiento, de una reparación y de una sustitución de las piezas.
- Un ajuste, un entretenimiento o una reparación en el aparato abierto y bajo tensión sólo puede ser llevado a cabo por un especialista autorizado por el productor (según VBG 4) que conozca a fondo los peligros que ello conlleva.
- Las salidas de altavoces que estén provistas de la característica IEC 417/5036 (figura 1, véase abajo) pueden conducir tensiones peligrosas al contacto. Por ello es indispensable que antes de poner en marcha el aparato; la conexión se haya realizado únicamente con el cable de empalmes recomendado por el productor.
- Las clavijas de contacto al final de los cables conectores tienen que estar atornilladas o enclavadas a la carcasa, en tanto que sea posible.
- Sólo se pueden utilizar fusibles del tipo IEC 127 con la intensidad de corriente nominal indicada.
- El uso de fusibles reparados o la puesta en cortocircuito del soporte es inadmissible.
- El empalme del conductor de protección no se puede interrumpir en ningún caso.
- Las superficies provistas de la característica "HOT" (figura 2, véase abajo), los paneles de fondo trasero o las protecciones con ranuras de ventilación, los cuerpos de ventilación y sus protecciones, así como las válvulas electrónicas y sus protecciones pueden alcanzar temperaturas muy altas durante el funcionamiento y por ello no se deberían tocar.
- Niveles elevados de la intensidad de sonido pueden causar continuos daños auditivos; por ello debe evitar acercarse demasiado a altavoces que funcionen a altos niveles. En tales casos utilice protecciones auditivas.

ACOMETIDA A LA RED:

- El aparato está proyectado para un funcionamiento continuo.
- La tensión de funcionamiento ajustada tiene que coincidir con la tensión de la red del lugar.
- La conexión a la red eléctrica se efectuará con la fuente de alimentación o con el cable de red que se entreguen con el aparato.
- Fuente de alimentación: una línea de conexión dañada no se puede sustituir. La fuente de alimentación no puede volver a ponerse en funcionamiento.
- Evite una conexión de la red eléctrica a distribuidores con muchas tomas de corriente.
- El enchufe para el suministro de corriente tiene que estar cerca del aparato y ser de fácil acceso.

SITUACION:

- El aparato debería estar situado en una superficie limpia y totalmente horizontal.
- El aparato no puede estar expuesto a ningún tipo de sacudidas durante su funcionamiento.
- Se deben evitar la humedad y el polvo.
- El aparato no puede ponerse en funcionamiento cerca del agua, la bañera, el lavamanos, la pila de la cocina, un recinto con tuberías de agua, la piscina o en habitaciones húmedas. Tampoco se pueden poner objetos llenos de líquido - jarrones, vasos, botellas, etc. - encima de él.
- Procure que el aparato tenga suficiente ventilación.
- Las aberturas de ventilación existentes no se deben bloquear ni tapar nunca. El aparato debe estar situado como mínimo a 20 cm de la pared. El aparato sólo se puede montar en un rack, si se ha procurado la suficiente ventilación y se han cumplido las indicaciones de montaje del productor.
- Evite los rayos del sol directos así como la proximidad a radiadores, electro-radiadores o aparatos similares.
- Si el aparato pasa repentinamente de un lugar frío a otro caliente, se puede condensar humedad en su interior. Esto se debe tener en cuenta sobretodo en los aparatos con válvulas electrónicas. Antes de poner en marcha el aparato se debe esperar hasta que éste haya adquirido la temperatura ambiental.
- Accesorios: el aparato no se puede colocar encima de carros, estantes, trípodes, soportes o mesas inestables. Si el aparato se cae puede causar daños personales y se puede estropear. Coloque el aparato sólo en un carro, rack, estante, trípode o soporte recomendado por el productor o que se le haya vendido junto con el aparato. En la instalación se deben seguir las indicaciones del productor así como utilizar los accesorios recomendados por el mismo para colocarlo encima. El conjunto del aparato con el pedestal se debe mover con mucho cuidado. Un paro brusco, la aplicación de una fuerza desmesurada o un suelo irregular puede ocasionar la caída de todo el conjunto.
- Piezas adicionales: no utilice nunca piezas adicionales que no estén recomendadas por el productor, ya que se podrían provocar accidentes.
- Para proteger el aparato de una tormenta o si no se supervisa ni utiliza durante algún tiempo, se debería desconectar la clavija de la red. Así se evitan daños en el aparato a causa de un rayo y golpes de tensión en la red de corriente alterna.

Figura 1



Figura 2





Welcome to the HK AUDIO family!

Thank you for choosing an HK AUDIO product.

L.U.C.A.S IMPACT 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 protects it from overloads and makes this system so very easy to operate.

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

An HK AUDIO active system is so much more than merely a pair of active cabinets on tripods; it is an end-to-end sound-reinforcement solution consisting of subwoofer, satellites and meticulously matched circuitry.

Our engineers developed new technologies to satisfy the stringent requirements of such an advanced system. These unique features make this active HK AUDIO sound reinforcement system stand out from the crowd.

Best wishes from the HK AUDIO team. We hope you enjoy your L.U.C.A.S IMPACT system as much as we enjoyed developing it!

Garantie

Register your L.U.C.A.S IMPACT 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.

Important note: Be sure to register the subwoofer and satellites separately using one registration card each.

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 purchase. We are also interested in learning where our products are used and by whom. 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
66959 St. Wendel, Germany

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1	L.U.C.A.S IMPACT System Components	6
2	Transport	6
3	Connections and Control Features	7
4	Tips and Tricks	9
5	L.U.C.A.S IMPACT Accessories	9
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Unique features for premium performance

DDO™ Controller technology

The DDO™ controller compensates for the varying response of PA 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.

Digital amping for enhanced efficiency and dynamic response

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

Multi-band limiting and companding

Several matched limiters and compressors are fine-tuned and optimised to process different frequency ranges. This speaker-independent approach to signal processing results in natural-sounding dynamic response across the entire frequency spectrum and produces a powerful yet finely balanced sonic image.

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 render frequencies so low that they exceed the useful range of the speaker cabinet. The subsonic filter protects the amp from these frequencies, thereby increasing the entire system's output power.

- Protects both power amps and speakers from harmful ultralow frequencies.
- Enables cleaner and tighter bass response and higher output levels.

Making the most of sonic energy with MonoTilt™

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.

Easy setup and handling for less pre-gig stress

Like all HK AUDIO active rigs, L.U.C.A.S IMPACT was conceived as a cohesive system comprising painstakingly matched components. This rig was engineered for easy portability and swift set-up. Operation is simple, with no complicated tweaking required.

- Genuine system design: All components are precision-matched.
- Swift set-up & easy operation to save time
- Less stress = more fun + better music



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

Subwoofer

The L.U.C.A.S IMPACT subwoofer's housing is split into two chambers. The front chamber serves as the speaker cabinet for the 15" direct-loaded loud-speaker, which has a power-handling capacity of 700 W RMS and a nominal impedance of 8 ohms. The active electronic circuitry, the power unit, DDO™ digital controllers and Class D power amps are housed in a separate compartment at the rear of the cabinet.

Satellites

Satellites are loaded with a 8" HK AUDIO Custom speaker and a 1" compression driver with a 60° x 40° CD horn. They are rated for 250 W RMS power-handling capacity and a nominal impedance of 8 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.

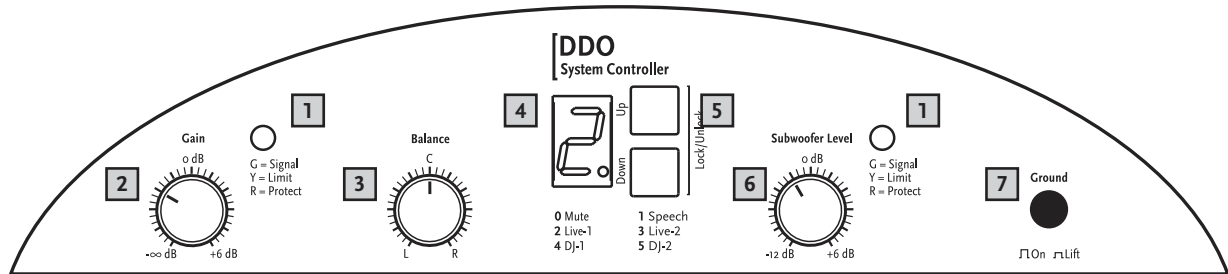
2 Transport

To transport the system, simply set the subwoofer on its casters and place the satellites onto the subwoofer with the foam-rubber grille side facing down. Secure the satellites, for example, using a locking strap. Use original HK Audio L.U.C.A.S IMPACT protective covers to gear up your personal system for the rigors of the road. Amply padded and protected against moisture, your L.U.C.A.S IMPACT is sure to deliver satisfying performance for a long time to come.

More about limiters

Limiters are designed to protect power amps and the speakers connected to them from damage. The functionality and response of a limiter is determined by parameters called attack time, threshold and release time. Adjusting these parameters incorrectly can degrade the sound and bring about dynamic distortion. At peak volume levels, for example, vocals may fail to cut through the mix and instruments that are played percussively may lose their punch and dynamics.

HK AUDIO limiting technologies are more than merely technical tools serving to protect components. We put a premium on authenticity, that is, retaining an audio event's true dynamics. This explains why our limiters are first and foremost designed to optimise the sound, though they of course also protect the system.



L.U.C.A.S IMPACT -- user panel

3 Connections and Control Features

L.U.C.A.S IMPACT Subwoofer

1 Limiter LEDs

Much like rev counters, these LEDs indicate the active system's operating status. For more info, read the sidebar "More about Limiter LEDs."

2 Gain

Operation: Turn the Gain knob all the way down (counterclockwise) before switching the system on.

Ensure the system is connected to the satellites and all other connected components are on before powering it up. Be sure to switch on the connected mixer as well as all signal sources connected to it, for example, keyboards, amps, effects, and so forth.

After you power the system up, set the Gain knob to the 0 dBV or 12 o'clock 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 at this setting. If this is the case, twist the Gain knob to the far right.)

If you hear distortion or a saturated 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 IMPACT at the signal source, adjust the input sensitivity using the Gain knobs. (see also Tips and Tricks—section 4).

3 Balance

Operation: Twist the Balance knob to the left or right to adjust the relative balance of levels between the left and right channels.

4 Display

Display: The numeric display indicates the currently selected system configuration (0 to 5).

0 Mute - System switched to silent mode.

Zero sound signal reproduction.

1 Speech - Set-up for speech.

This mode places emphasis upon vocal and spoken language reproduction. To minimize subsonic interference and background noise over the microphone, the subwoofer level is reduced.

2 Live 1 - Set-up 1 for use during live performance.

The Live 1 setup enables punchy, dynamic bass with rapid transient response. Vocals are likewise predominant in this sound profile.

3 Live 2 - Set-up 2 for use during live performance.

The Live 2 set-up delivers softer and deeper bass reproduction at a slightly lower level. The vocals are slightly less in the foreground when compared to the Live 1 set-up.

4 DJ 1 - Set-up 1 for reproduction of music from CDs.

The DJ 1 set-up provides an ideal setting for CD reproduction, with strong deep bass, discreet midrange and accentuated highs.

5 DJ 2 - Set-up 2 for reproduction of CD/ MP3 music.

Like DJ1 above, the DJ 2 set-up can also be used for CD reproduction, but is optimised for MP3-encoded sources to revitalize the sound with more dynamic bass, smoother highs and a more natural, less compressed sound.

Note: A flashing display indicates that the controller has muted the input. This mute function is triggered via the input signal level. The system is muted when its level falls below the threshold value. The system is enabled as soon as the input signal level rises above the threshold value.

5 Up/Down Buttons

Press these buttons to change system configurations. Operation: Simultaneously press and hold the Up and Down buttons for about 1-2 seconds. Once the letter U (Unlock) appears briefly in the display you can use the Up and Down buttons to select the desired setup. The buttons lock again automatically after a moment, at which time the letter L (Lock) appears briefly in the display.

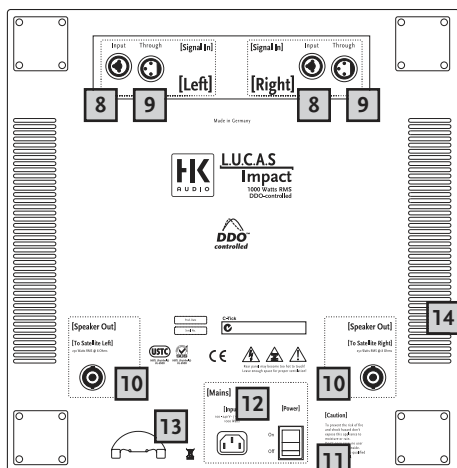
6 Subwoofer Level

Handling: When this knob is set to the 12 o'clock position, the subwoofer's and the satellite's respective volumes are matched, ensuring the proper balance between the subwoofer's bass output and the satellites' mid/high-range output. If desired, you can twist the Subwoofer Level knob to the left, i.e. counterclockwise, to cut the subwoofer's level by as much as -12 dB and to the right to boost it by as much as 6 dB.

7 Ground

Ground lift button for separating the signal and chassis ground in the event of hum. To rid the system of low-frequency hum, press the Ground switch in. If this doesn't solve the problem, check all power and audio cables connected to L.U.C.A.S IMPACT for damage, as well as all cables routing signals to the mixing console (see also Tips and Tricks in Section 4).

L.U.C.A.S IMPACT Manual 1.0



L.U.C.A.S IMPACT - user panel rear

8 Input Left and Input Right (Combination XLR/1/4" jacks)

L.U.C.A.S IMPACT is equipped with separate left and right channel inputs for connecting to a mixer.

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

You can also use a 1/4" Tip-Ring-Sleeve plug to route signals via balanced circuits. Unbalanced signals can be patched in via a mono plug.

9 Through Left, Through Right

Connections: Parallel outputs for routing the line signal (left or right) to other systems, outboard components, monitor power amps, etc., via XLR cables

10 Speaker Out (To Satellite Left und Right)

Connections: Connect these Speakon® outputs to the left and right L.U.C.A.S IMPACT satellites using speaker cables equipped with Speakon® connectors. Note: Be sure to rotate the Speakon® connectors clockwise until they lock in place!

11 Power Switch

Operation: On/off switch for the active system. The display on the system controller glows orange to indicate that the system is on.

Note: Once you have engaged the Power switch, it will take several seconds for the display to light up and the system to be ready for operation. This is standard procedure and does not indicate a malfunction.

The active L.U.C.A.S IMPACT system should always be switched on last after you power up all equipment connected to it, and should be switched off first before you switch off all the other equipment connected to it.

12 Mains Input

Connections: Use the factory-included mains cable (power cord) to connect from this socket to a wall receptacle. Caution! Make sure the local mains voltage matches the voltage specified on the device. Connecting the system to the wrong mains voltage may destroy the L.U.C.A.S IMPACT system's electronic components.

13 Mains Cable Tab

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

14 Fans

These fans (on the side and back of the housing) keep the power amp modules cool. Always keep the fan and ventilation vents free of dirt and debris, and ensure they remain unobstructed so air can circulate freely.

L.U.C.A.S IMPACT Satellite

Input

Connections: Connect the Speakon® inputs to the left and right L.U.C.A.S IMPACT satellite outputs using speaker cables equipped with Speakon® connectors.

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.

4 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 or any other liquids well away from the cabinets to protect their electronic components from short circuits.
- To ensure proper ventilation, make sure the subwoofer is placed a sufficient distance away from walls and isn't covered by curtains and the like. This is vital to keep the power amps cool.
- Ensure that the vents on the subwoofer's side panels are free of dirt and that the fan blades can rotate freely. Otherwise, electronic components may overheat and suffer damage.
- L.U.C.A.S IMPACT takes care of delivering optimum sound—so provide it with optimum input signals! Noise such as hum is generally caused by defective cables, the wrong type of cables, or unbalanced signals being fed to the mixing console. Check all audio cables and mains cables.
- Avoid 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 L.U.C.A.S IMPACT have sufficient power ratings, and that they are not distorting from being driven at their respective limits. Provide a clean, undistorted signal to the system that won't require backing off the Gain knob to clean it up.
- Avoid ground loops! If, for example, you connect the mixer to one mains circuit/wall outlet, and L.U.C.A.S IMPACT to another, you may encounter a ground loop. To prevent this problem, always connect the L.U.C.A.S IMPACT 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!

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

HK AUDIO Speaker Add On Package

This is the complete L.U.C.A.S IMPACT 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 IMPACT

This set comprises one cover for the subwoofer and two covers for the satellites. Tear-resistant and water-repellant, these rugged covers are thickly padded to afford lasting protection for the L.U.C.A.S IMPACT system during transport.

To learn more about Original HK Audio Accessories, talk to your HK AUDIO dealer or visit www.hkaudio.com.

6 Troubleshooting

The display does not light up 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.

The display lights up, but there is no sound coming from the cabinets.

- 1 Check the cables connected to the Left and Right inputs.
- 2 Check if the signal sources (mixer, keyboard, CD player) are on.
- 3 Is the Gain knob turned up?
- 4 Check the speaker cables for damage.
- 5 Check if the Speakon™ connectors are fully engaged in their sockets (rotated to the right). They must be locked in place to establish an electrical connection.

The subwoofer's low frequency output is too soft.

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

Sound seems distorted.

- 1 Check the LED displays on your mixer. They should not be constantly in the red. If necessary, reduce the volume at the mixer.
- 2 If the LED displays on your mixer are in the green, turn back L.U.C.A.S IMPACT's Gain knob.
- 3 Watch the LEDs of the Limit Left, Limit Right and Limit Subwoofer displays on L.U.C.A.S IMPACT's control panel. These may light up yellow, but only intermittently. Under no circumstances may they continuously illuminate yellow. If this is the case, turn the Gain down (knob counterclockwise).

Annoying hum

- 1 Check the cables connecting the source of the audio signal to L.U.C.A.S IMPACT. Replace any damaged cords.
- 2 If you cannot pinpoint the cause of the humming, press the Ground switch in. This should remedy the problem in most cases.

This is to certify that

HK AUDIO® L.U.C.A.S IMPACT

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 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, 01/03/06

* Stamer Musikanlagen manufactures exclusively for HK AUDIO®.

7 Technical Specifications

L.U.C.A.S IMPACT Subwoofer

Line In:	XLR female (pin 1= ground; 2= +, 3= -)
Input:	Electronically balanced & floating
Input impedance:	47 k ohms
Sensitivity:	0 dBV (=1V)
Max. input level:	+ 20 dBu
Parallel out:	XLR male (pin 1= ground; 2=+, 3= -)
Speaker outputs:	Speakon® NL 4 (pin 1+= +, 1-= -)

Digital controller:	
Sampling frequency:	24 bits/ 48 kHz
Internal signal processing:	56 bits

Amplifiers:	
Subwoofer output:	1x 700 W RMS / Class D power amp
Satellites output:	2x 250 W RMS / Class D power amp
Protective circuits:	DDO™ controlled multi-band limiter

Speakers:	
Woofers:	1x 15"
Subwoofer frequency response:	45 Hz -130 Hz, ± 3 dB 36 Hz -130 Hz, - 10 dB

SPL 1W / 1m:	101 dB (half space)
Max. SPL / 1m:	127 dB @ 10% THD (half space)

Weights and measures:	
Weight:	32 kg / 70.4 lbs.
Dimensions without casters:	47.5 cm x 47 cm x 58.5 cm
(WxHxD)	18 3/4 " x 18 1/2" x 23"

L.U.C.A.S IMPACT Satellite

Inputs:	
Speaker input:	Speakon NL 4 (pin 1+= +, 1-= -)
Speakers:	
Woofers:	1x 8"
Driver:	1x 1"
Directivity:	60°x 40° CD horn

Overall nominal impedance:	8 ohms
Nominal power handling:	250 W RMS
SPL 1W / 1m:	103 dB (half space)
Max. SPL / 1m:	125 dB @ 10% THD (half space)
Frequency response:	130 Hz - 19 kHz, +/- 3 dB
(via DDO™ Controller)	
Crossover frequency (passive):	2.2 kHz/ 12 dB / octave
Driver protection:	Dynamic protective circuit
Pole mount:	HK Audio MonoTilt™ 36 mm, -10°

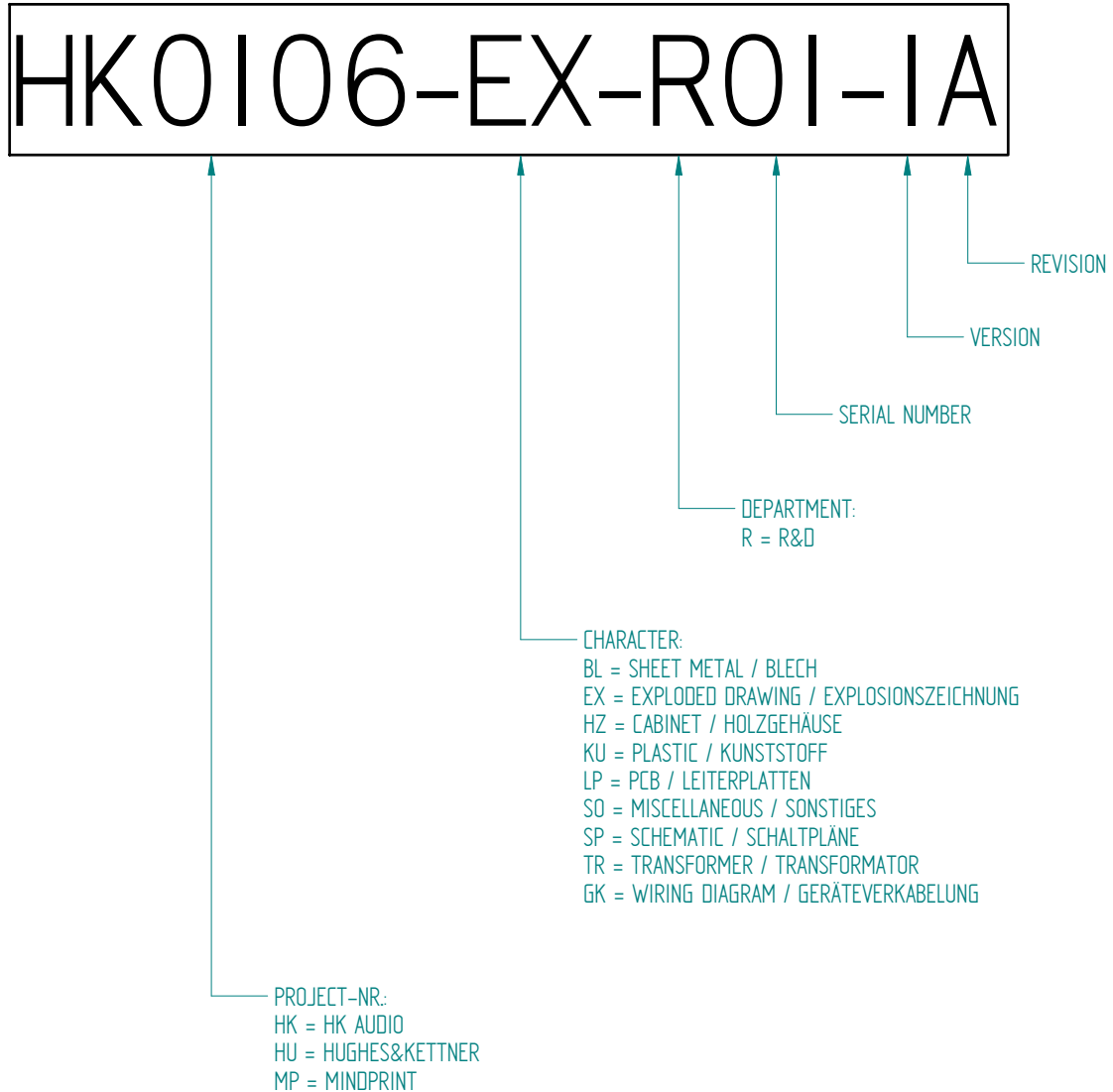
Weights and measures:	
Weight:	7.5 kg / 16.5 lbs.
Dimensions (WxHxD):	25.8 cm x 38.5 cm x 28.5 cm 10 1/8" x 15 1/8" x 11 1/4"

General electrical data::

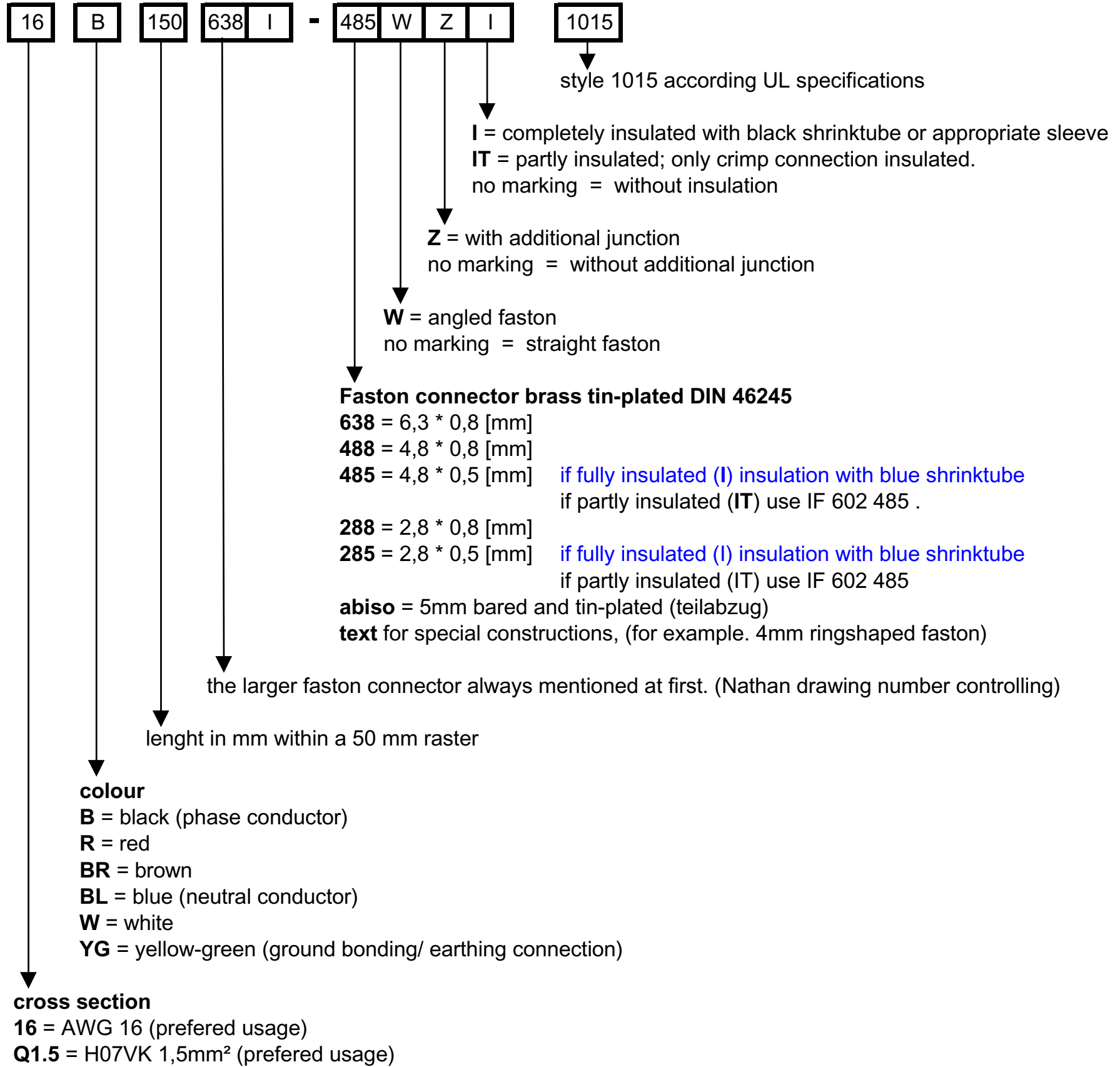
Protection class 1 (protectively earthed)

Max. current consumption: 4.4 A (220 – 240 V) • 8 A (110 – 120 V)
 Max. power consumption: 1000 Watts
 Mains voltage range: +/- 10%
 Internal fuses: 250V/ T 8A IEC127
 Ambient temperature range during operation: -10° C to +35° C

DRAWING-NUMBERS EXAMPLE



Standard for single wire confection.



wire designation:

P + lfd Nr. = AWG single wire black, red, blue, brown or white

E + lfd Nr. = AWG single wire green- yellow

L + lfd Nr. = twisted AWG double wire, length specification always in twisted condition

FQL + lfd Nr. = crossover wiring H07VK

Regarding special wirings like wiring harness or similar, drawings will be prepared and appropriate drawing numbers will be stored in the article archive.



Service Documents

HK1005

L.U.C.A.S

IMPACT

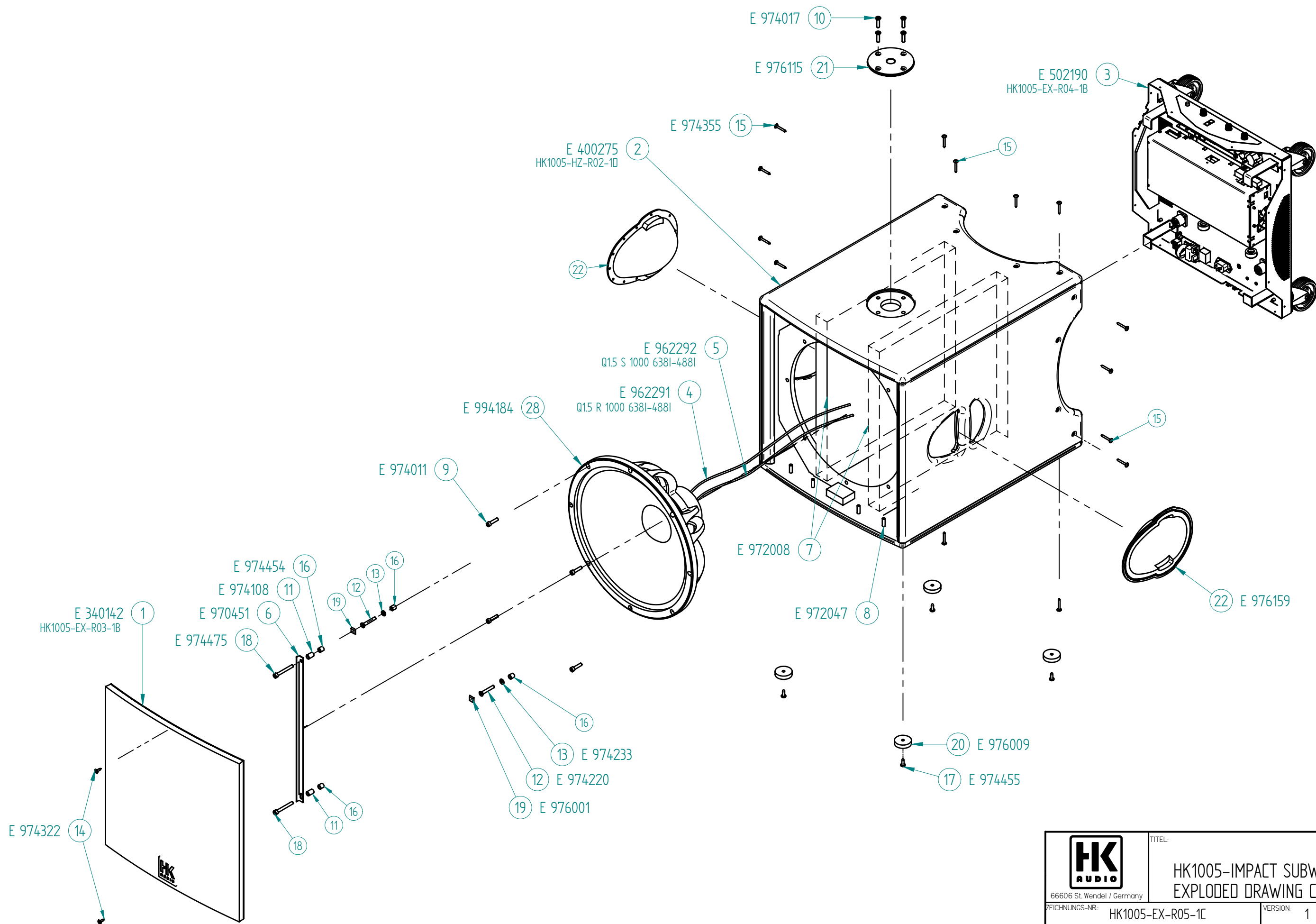
SUB

Confidential, for authorized service technicians only! Do not disclose this information to or share these documents with third parties.



TECHNICAL SERVICE:

Stamer Musikanlagen GmbH • Magdeburger Str. 8 • 66606 St.Wendel • Germany
Music & Sales P.E. GmbH • Leipziger Str. 3 • 66606 St.Wendel • Germany



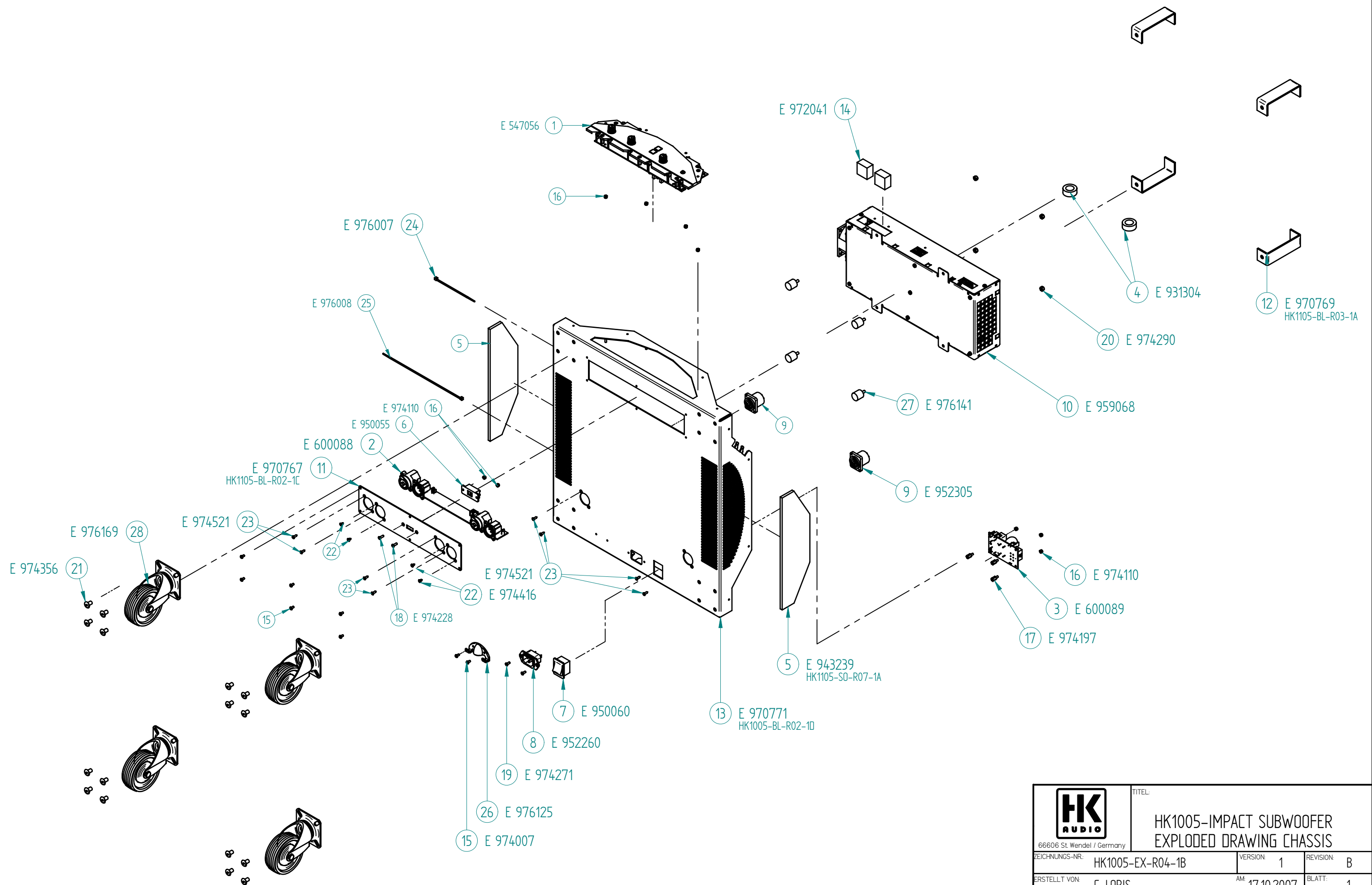
INDEX	ÄNDERUNG	ZEICHNER
1B-201106	rubberfoot with screw+plug AD= 1705 PA	C. Loris
	removed	
1C-231007	update for service-manual	C. Loris

	TITEL: HK1005-IMPACT SUBWOOFER EXPLODED DRAWING COMPLETE		
66606 St. Wendel / Germany			
ZEICHNUNGS-NR.: HK1005-EX-R05-1C		VERSION: 1	REVISION: C
ERSTELLT VON: C. LORIS		AM: 23.10.2007	BLATT: 1
GEPRÜFT/ FREIGEgeben VON:		AM:	2 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATEINAME: HK1005-EX-R05-1C-GESAMT_BASS			

pos. no.	part-no. 1	description	Beschreibung	quantity
1	340142	front grille assembly Impact subwoofer	Lucas Impact Frontgitterbaugruppe	1
2	400275	wooden cabinet Lucas Impact subwoofer	Holzgeh. Lucas Impact Bass	1
3	502190	chassis Lucas Impact 100-240V	Chassis Lucas Impact 100-240V	1
4	962291	stranded wire, color: red, 1000mm	Litze FQL21 rot 1000mm	1
5	962292	stranded wire, color: black, 1000mm	Litze FQL21 schwarz 1000mm	1
6	970451	front grill reeinforcement profile 15"	Blech Verstreuungswinkel 15"	1
7	972008	damping wool	Dämmwolle Hochbauschvlies	0,50 qm
8	972047	PE-foam tube	PE-Schaumstoff-Röhrchen	8
9	974011	hexagon socket head cap screw, M6x25, black	Inbusschraube M6*25 sw	4
10	974017	hexagon socket countersunk head screw, M6x25, black	Inbussenkschraube M6x25 sw	4
11	974108	plastic PCB spacer, 6.2x10x15, Polyamid black	Dist.Hülse PE 6,2*10*15 [mm]	2
12	974220	hexagon socket countersunk head screw, M6x40, black	Inbussenkschraube M6x40 sw	2
13	974233	washer, form A, D=6.4mm, zinc plated	Unterleg-Scheibe 6,4 vz	2
14	974322	ABC-Spax-S screws for backwall, 4x20, black	Rückwandschraube, 4*20 sw	2
15	974355	cross recessed panhead tapping screw with collar, 3.9x30, black	Blechschr. KFR-Kopf 3,9* 30 sw	14
16	974454	plastic PCB spacer, 6.2x10x10, Polyamid black	Dist.Hülse PE 6,2*10*10[mm]	4
17	974455	ABC-Spax-S chipboard screw, panhead Z, 5x16, black	Pan Head-Z ABC-Spax sw 5*16	4
18	974475	hexagon socket head cap screw, M6x50, black	Inbusschraube M6*50 sw	2
19	976001	rubber foot square, self-adhesive, black	Gummifuss quadr. selbstkleb. sw	2
20	976009	rubber foot D38*H11 [mm]	Gummifuss D38*H11 [mm]	4
21	976115	connector plate, M20	Befestigungsplatte M20	1
22	976159	plastic dish Premium One	Griffinnenschale Premium One	2
23*	982037	sealing tape 2x6mm	Iso-Zell-Band fadenvers. 2*6mm	0,22 lfdm
24*	982044	sealing tape 2x15mm	Iso-Zell-Band fadenvers. 2*15mm	1,54 lfdm
25*	982078	sealing tape 2x20mm	Iso-Zell-Band fadenvers. 2*20mm	0,50 lfdm
26*	986016	foam glue, Alfa D 4572	Klebstoff Alfa D 4572	xxx
27*	988165	1k polyurethane glue, 310mltrs. tube	Polyurethan 1-K Kleber, 310ml Kartusche	xxx
28	994184	B&C 15NW76-80HMS 3" Coil	B&C 15NW76-80HMS 3" Coil	1

INDEX	ÄNDERUNG	ZEICHNER
1B-201106	rubberfoot with screw+plug AD= 1705 PA	C. Loris
	removed	
1C-231007	update for service-manual	C. Loris

		TITEL: HK1005-IMPACT SUBWOOFER EXPLODED DRAWING COMPLETE	
66606 St. Wendel / Germany			
ZEICHNUNGS-NR.:	HK1005-EX-R05-1C	VERSION:	1
ERSTELLT VON:	C. LORIS	AM:	23.10.2007
GEPRÜFT/ FREIGEgeben VON:		AM:	2 BLÄTTER
WERKSTOFF:	OBERFLÄCHE: n/a		
DATE/NAME:	HK1005-EX-R05-1C-GESAMT_BASS		



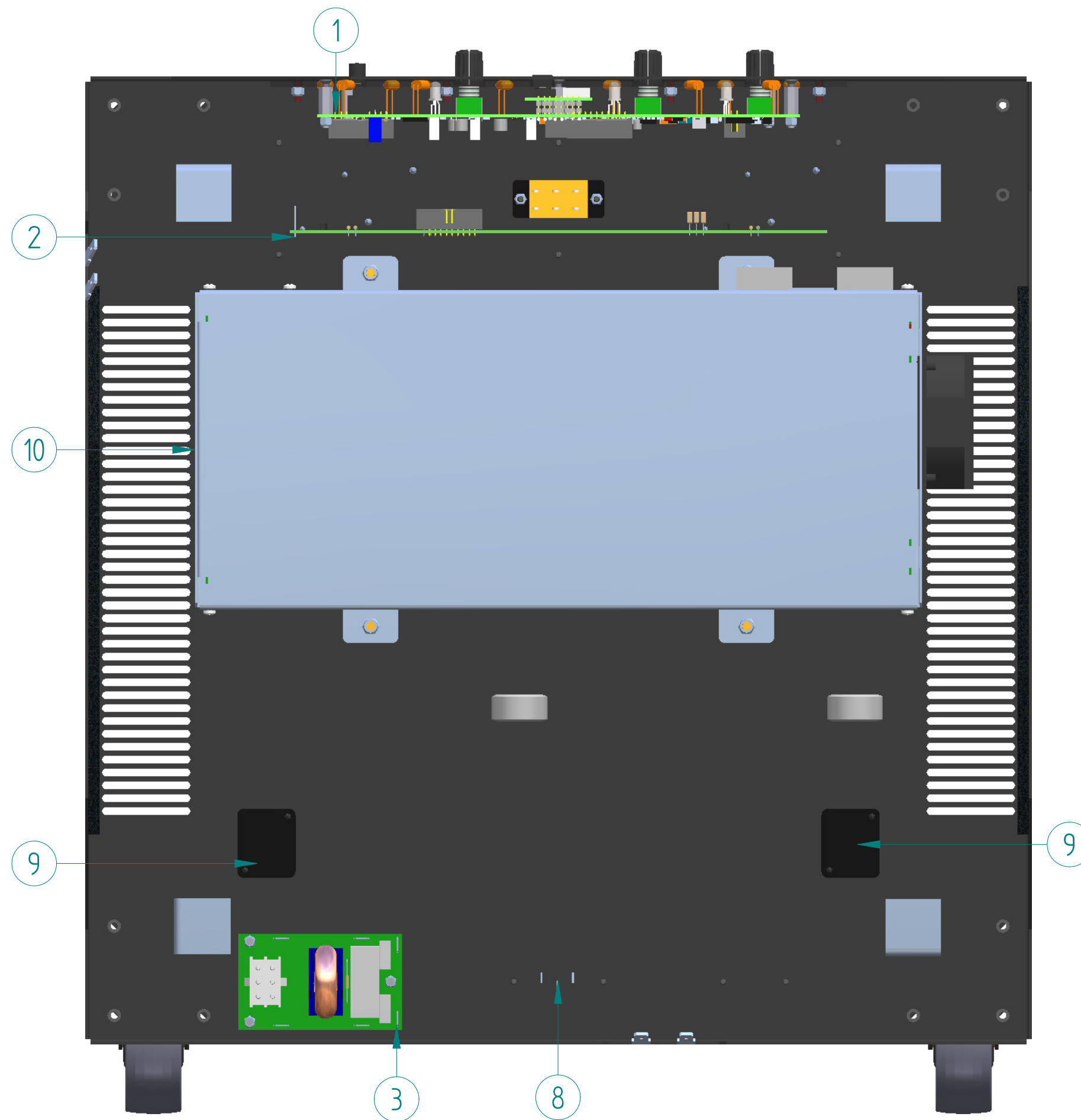
INDEX	ÄNDERUNG	ZEICHNER
1B-171007	neuer Schiebeschalter u. Speakon- buchse, Verkabelung aktualisiert	C. Loris

 66606 St. Wendel / Germany	TITEL: HK1005-IMPACT SUBWOOFER EXPLODED DRAWING CHASSIS		
ZEICHNUNGS-NR.: HK1005-EX-R04-1B	VERSION: 1	REVISION: B	
ERSTELLT VON: C. LORIS	AM: 17.10.2007	BLATT: 1	
GEPRÜFT/ FREIGEgeben VON:		AM:	5 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATEI-NAMEN: HK1005-EX-R04-1B-CHASSIS			

pos. no.	part-no. 1	description	Beschreibung	quantity
1	547056	54 Lucas Impact Preamp Assembly	54 Lucas Impact Vorstufe	1
2	600088	60 Inputboard Lucas Max	60 Inputboard Lucas Max	1
3	600089	60 Mains Filter Lucas Impact 100-240V	60 Netzfilt.Lucas Imp 100-240V	1
4	931304	ferrite teroid core, 25x15x12	Ferritring, geschlossen 25x15x12	2
5	943239	dust protection, acoustic foam, black, PPI15, 5mm	Staubschutz Lucas Max "07"	2
6	950055	Slide Switch 2xum T22205B	Schiebeschalter 2xum T22205B	1
7	950060	hi-inrush, mains rocker switch, C13150VB	Netzschalter gross C1350VB	1
8	952260	power inlet, type 6100.3300, Schurter	Netzbuchse Typ 6100.3300	1
9	952305	speakon chassis connector, NL4MP-3	Speakonbuchse 4pol eckig, NL4MP-3	2
10	959068	QuadAMP, 4ch PWM unit, RD0303	QuadAMP, 4ch PWM Modul, RD0303	1
11	970767	LUCAS MAX, preamp cover plate	Blech Lucas MAX Vorstufemodul	1
12	970769	Lucas Max castor stabilizer	Blech Lucas Max Stützwinkel	4
13	970771	Subwoofer Sheet Metal Chassis, Lucas Impact	Blech Lucas Impact Bass Chassis	1
14	972041	rubber punching 25x25x15	Zellkaut.-Stanzteil 25x25x15	2
15	974007	hexagon socket oval head screw, M3x6, black	Linsenschr.m.Innens. M3*6 sw	8
16	974110	self locking hexagon nut with plastic insert, M3, zinc plated	Stopmutter M3 vz	9
17	974197	hexagon PCB spacer, type B, M3x8, zinc plated	Dist. Bol Innen/Außengew. M3*8 vz	3
18	974228	cross recessed raised countersunk screw, M3x10, black	Linsensenkschraube M3*10 sw	2
19	974271	cross recessed raised countersunk screw, M3x8, black	Linsensenkschraube M3*8 sw	2
20	974290	self locking hexagon nut with plastic insert, M4, zinc plated	Stopmutter M4 vz	4
21	974356	blind rivet steel standard, 6x10, black	Blindniete Stahl schw. 6*10	16
22	974416	cross rec. raised counters. tap. screw w. cutting slot, 2.9x6.5, black	Senkschr. f. Kunststoff 2,9*6,5, sw	4
23	974521	cross rec. raised counters. tap. screw w. cutting slot, 2.9x9.5, black	Senkschr. f. Kunststoff 2,9*9,5, sw	8
24	976007	cable tie 2,5x100 (mm)	Kabelbinder natur 2,5x100 (mm)	12
25	976008	cable tie 2,6x200 (mm)	Kabelbinder natur 2,6x200 (mm)	1
26	976125	mains cable strain relief, HKAudio custom made	Kabelhalter HK Audio	1
27	976141	rubberbuffer 15x15 B	Gummipuffer GM-Puffer 15x15 B	4
28	976169	Swivel castor LPA-TPA 75K-FK, black	Lenkrolle 75mm RAL2005 schwarz	4
29*	986016	foam glue, Alfa D 4572	Klebstoff Alfa D 4572	xxx
30*	988206	pre-cut part transfer tape 1573	Transferbandzuschnitt 1573	0,30 lfm

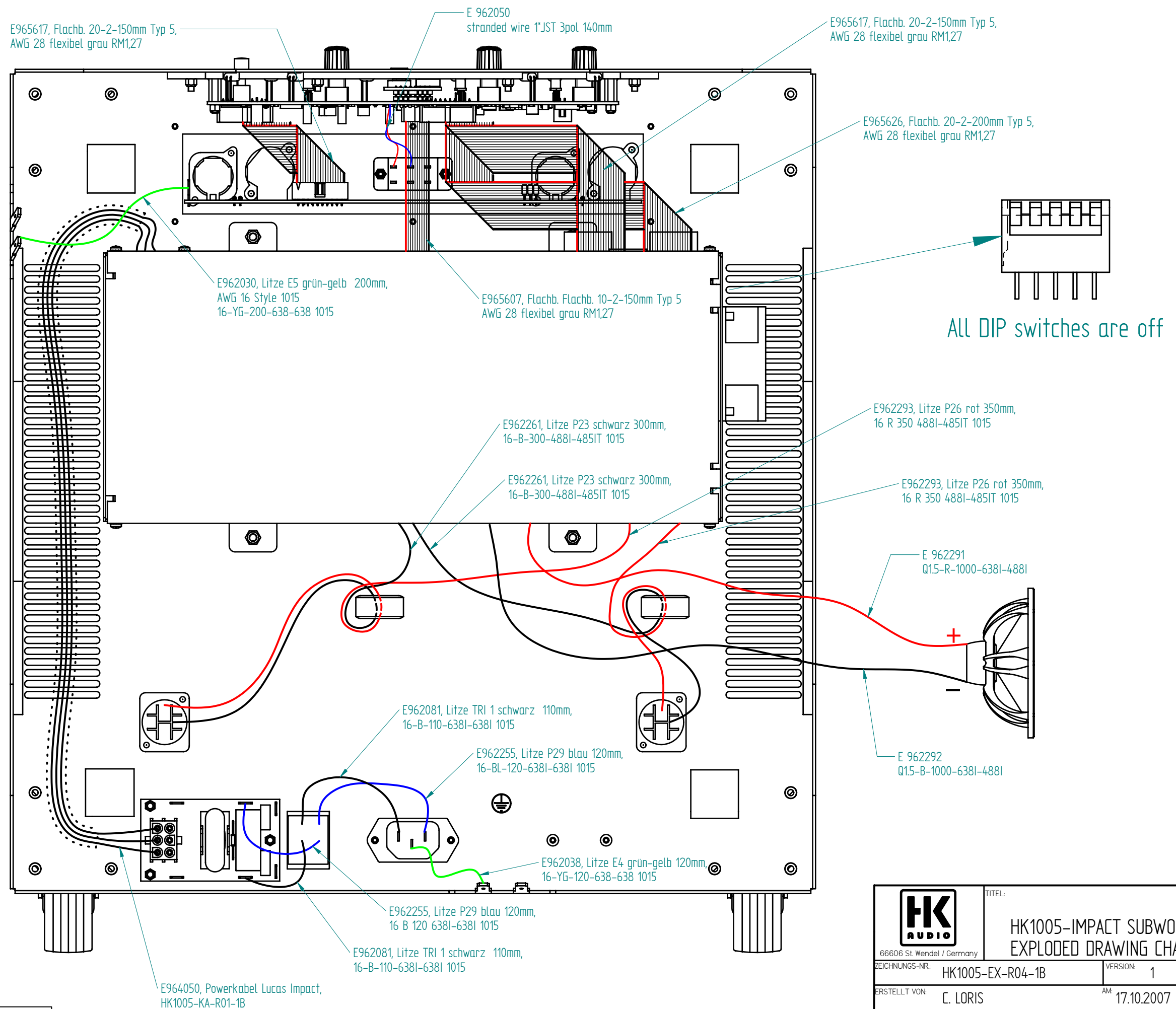
INDEX	ÄNDERUNG	ZEICHNER
1B-171007	neuer Schiebeschalter u. Speakon- buchse, Verkabelung aktualisiert	C. Loris

		TITEL:	
66606 St. Wendel / Germany		HK1005-IMPACT SUBWOOFER EXPLODED DRAWING CHASSIS	
ZEICHNUNGS-NR.: HK1005-EX-R04-1B		VERSION: 1	REVISION: B
ERSTELLT VON: C. LORIS		AM: 17.10.2007	BLATT: 2
GEPRÜFT/ FREIGEgeben VON:		AM:	5 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATE/NAME: HK1005-EX-R04-1B-CHASSIS			



INDEX	ÄNDERUNG	ZEICHNER
1B-171007	neuer Schiebeschalter u. Speakon- buchse, Verkabelung aktualisiert	C. Loris

		TITEL: HK1005-IMPACT SUBWOOFER EXPLODED DRAWING CHASSIS	
66606 St. Wendel / Germany			
ZEICHNUNGS-NR.: HK1005-EX-R04-1B		VERSION: 1	REVISION: B
ERSTELLT VON: C. LORIS		AM: 17.10.2007	BLATT: 3
GEPRÜFT/ FREIGEgeben VON:		AM:	5 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATEI-NAMEN: HK1005-EX-R04-1B-CHASSIS			



INDEX	ÄNDERUNG	ZEICHNER
1B-171007	neuer Schiebeschalter u. Speakon-buchse, Verkabelung aktualisiert	C. Loris

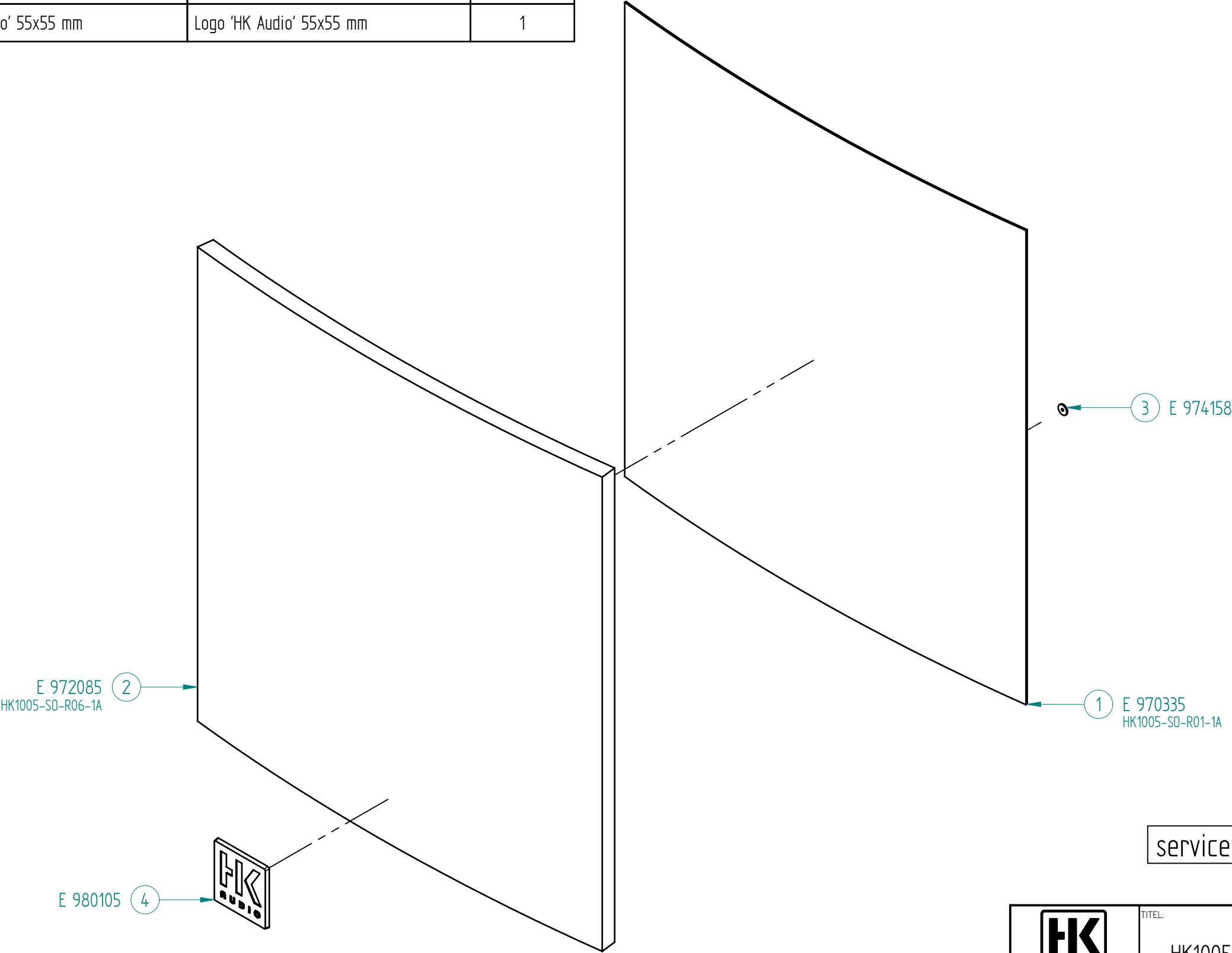
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66606 St. Wendel / Germany		HK1005-IMPACT SUBWOOFER EXPLODED DRAWING CHASSIS	
ZEICHNUNGS-NR.: HK1005-EX-R04-1B		VERSION: 1	REVISION: B
ERSTELLT VON: C. LORIS		AM: 17.10.2007	BLATT: 4
GEPRÜFT/ FREIGEgeben VON:		AM:	5 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATEI NAME: HK1005-EX-R04-1B-CHASSIS			

Pos.	Artikel-Nr. 1	Artikel-Nr. 2	Artikel-Nr. 3	description	Titel	Menge
1	962030			stranded wire I6-YG-200-638-368 I0I5	Litze I6-YG-200-638-368 I0I5	1
2	962038			stranded wire I6-YG-I20-638-638 I0I5	Litze I6-YG-I20-638-638 I0I5	1
3	962050			stranded wire I*JST 3pol I40mm	Litze I*JST 3pol I40mm	1
4	962081			stranded wire I6-B-I10-638I-638I I0I5	Litze I6-B-I10-638I-638I I0I5	2
5	962255			stranded wire I6-BL-I20-638I-638I I0I5	Litze I6-BL-I20-638I-638I I0I5	2
6	962261			stranded wire I6-B-300-488I-485IT I0I5	Litze I6-B-300-488I-485IT I0I5	2
7	962291			stranded wire QI.5-R-I000-638I-488I	Litze QI.5-R-I000-638I-488I	1
8	962292			stranded wire QI.5-B-I000-638I-488I	Litze QI.5-B-I000-638I-488I	1
9	962293			stranded wire I6-R-350-488I-485IT I0I5, AWG, UL, CSA	Litze I6-R-350-488I-485IT I0I5, AWG, UL, CSA	2
10	964050			powercable Lucas Impact	Powerkabel Lucas Impact	1
11	965607			flat ribbon cable I0-2-I50 typ 5	Flachbandkabel I0-2-I50 typ 5	1
12	965617			flat ribbon cable 20-2-I50mm typ 5	Flachbandkabel 20-2-I50mm Typ 5	2
13	965626			flat ribbon cable 20-2-200mm typ 5	Flachbandkabel 20-2-200mm typ 5	1

INDEX	ÄNDERUNG	ZEICHNER
1B-171007	neuer Schiebeschalter u. Speakon- buchse, Verkabelung aktualisiert	C. Loris

 66606 St. Wendel / Germany	TITEL: HK1005-IMPACT SUBWOOFER EXPLODED DRAWING CHASSIS		
	ZEICHNUNGS-NR.: HK1005-EX-R04-1B	VERSION: 1	REVISION: B
	ERSTELLT VON: C. LORIS	AM: 17.10.2007	BLATT: 5
	GEPRÜFT/ FREIGEgeben VON:	AM:	5 BLÄTTER
	WERKSTOFF:	OBERFLÄCHE: n/a	
DATEI NAME: HK1005-EX-R04-1B-CHASSIS			

pos. no.	part-no. 1	description	Beschreibung	quantity
1	970335	front grille	Streckgitter	1
2	972085	acoustic foam anthracite 15mm	Akustikschaum Anthrazit 15mm	1
3	974158	snapon retaining ring (for logo)	Schnellbefestiger f. Logo	1
4	980105	logo 'HK Audio' 55x55 mm	Logo 'HK Audio' 55x55 mm	1

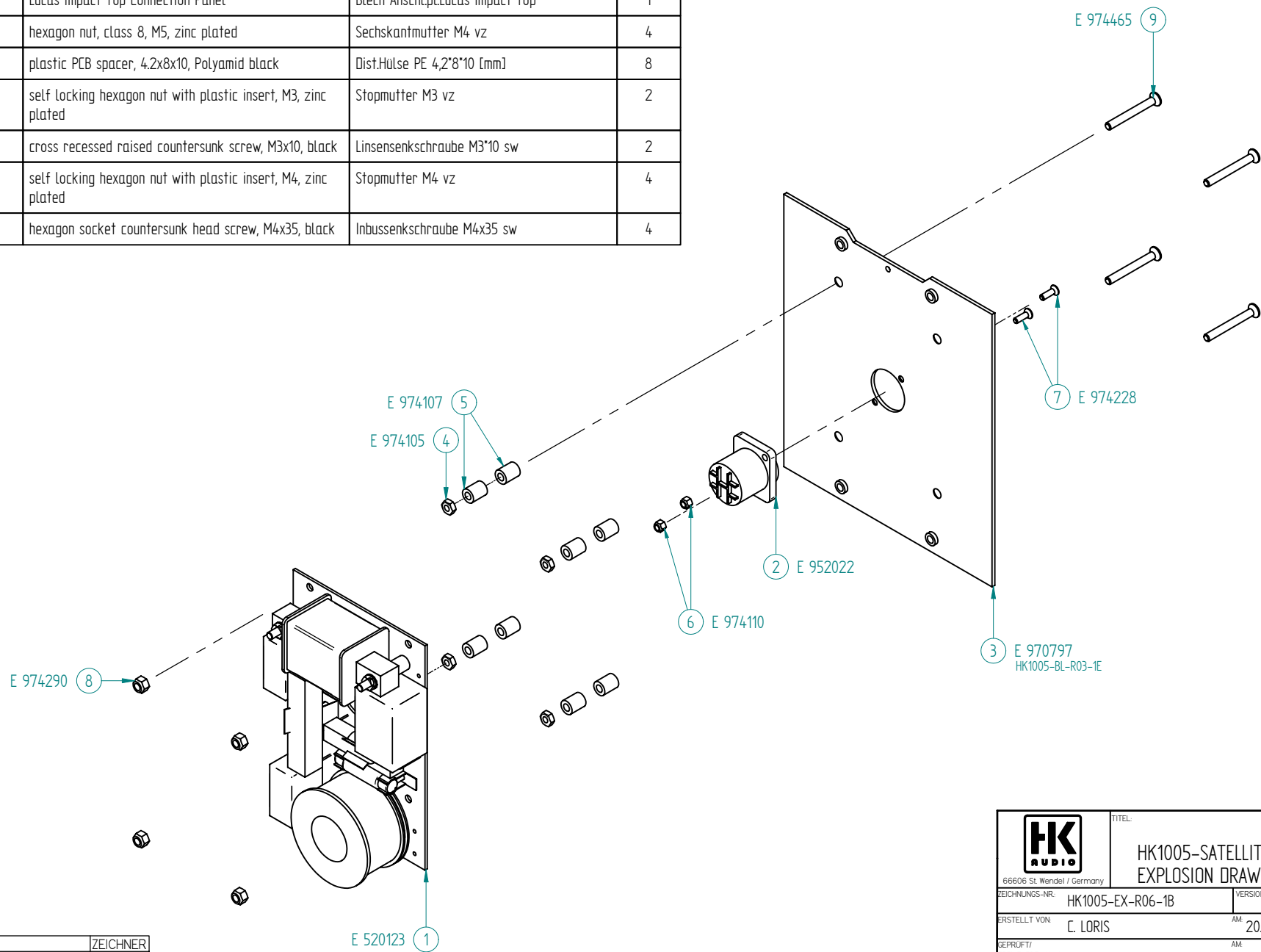


service-nr.: E 340142

INDEX	ÄNDERUNG	ZEICHNER
1B-231007	update for service-manual	C. Loris

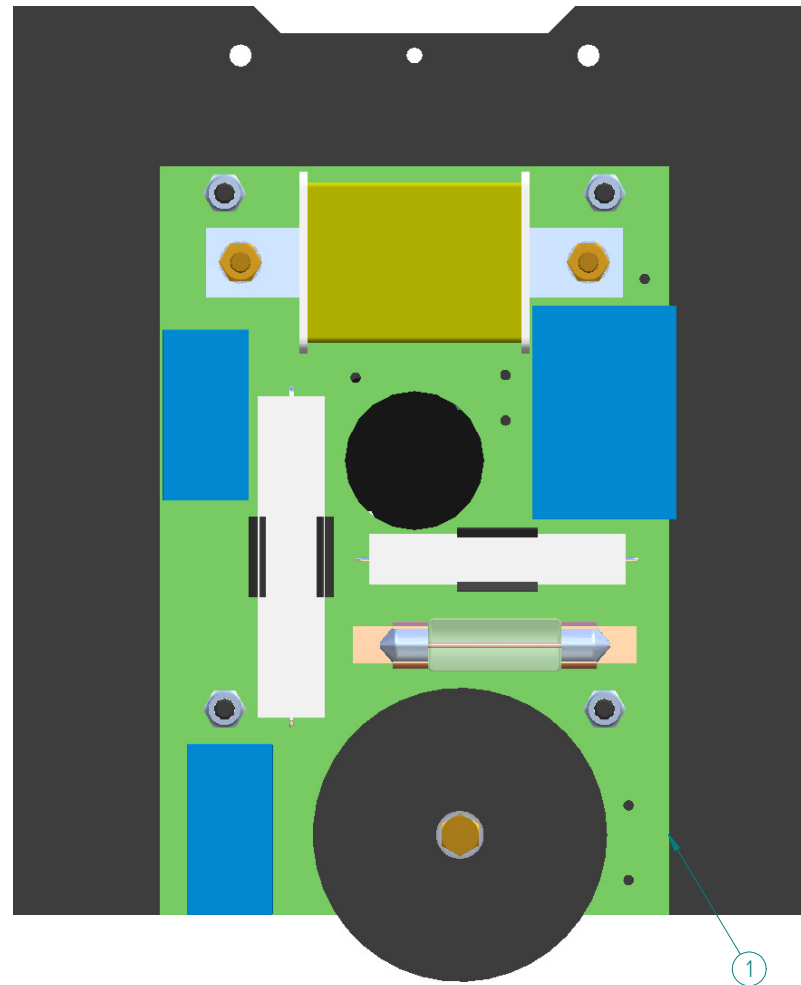
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66606 St. Wendel / Germany		HK1005-IMPACT SUBWOOFER EXPLODED DRAWING FRONT GRILLE	
ZEICHNUNGS-NR.: HK1005-EX-R03-1B		VERSION: 1	REVISION: B
ERSTELLT VON: C. LORIS		AM: 23.10.2007	BLATT: 1
GEPRÜFT/ FREIGEgeben VON:		AM:	1 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATEINAME: HK1005-EX-R03-1B-FRONTGITTER_BASS			

pos.no.	part-no. 1	description	Bezeichnung	quantity
1	520123	52 crossover circuit PCB, Impact Top	52 Freqw. Lucas Impact Top	1
2	952022	speakon chassis connector, NL4MP	Speakonbuchse 4pol. eckig	1
3	970797	Lucas Impact Top Connection Panel	Blech Anschl.p.Lucas Impact Top	1
4	974105	hexagon nut, class 8, M5, zinc plated	Sechskantmutter M4 vz	4
5	974107	plastic PCB spacer, 4.2x8x10, Polyamid black	Dist.Hülse PE 4,2*8*10 [mm]	8
6	974110	self locking hexagon nut with plastic insert, M3, zinc plated	Stopmutter M3 vz	2
7	974228	cross recessed raised countersunk screw, M3x10, black	Linsensenkschraube M3*10 sw	2
8	974290	self locking hexagon nut with plastic insert, M4, zinc plated	Stopmutter M4 vz	4
9	974465	hexagon socket countersunk head screw, M4x35, black	Inbussensschraube M4x35 sw	4



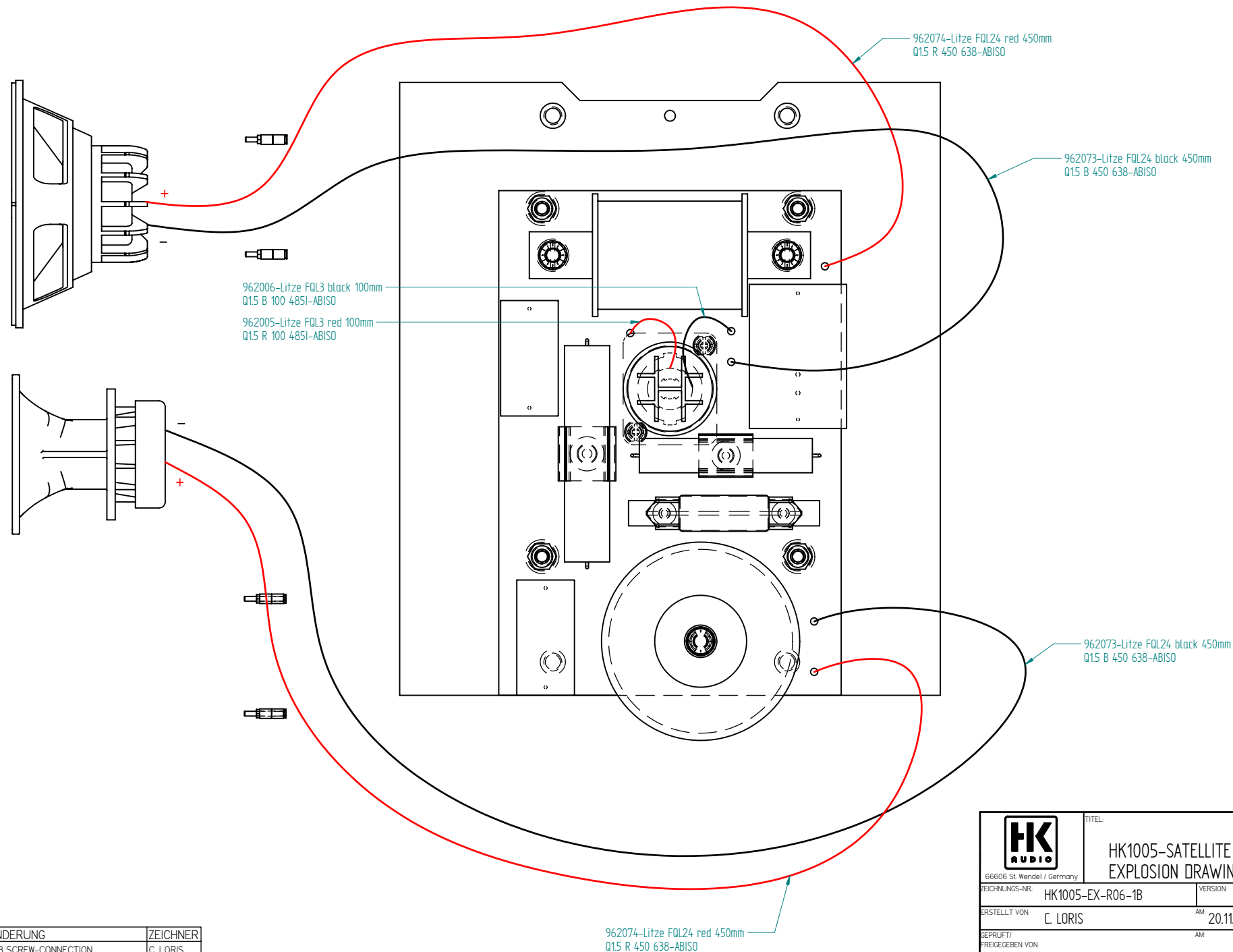
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IB 201106	PCB SCREW-CONNECTION	C. LORIS

	TITEL: HK1005-SATELLITE CROSSOVER EXPLOSION DRAWING		
66606 St. Wendel / Germany	ZEICHNUNGS-NR. HK1005-EX-R06-1B		VERSION 1 REVISION B
ERSTELLT VON C. LORIS	AM 20.11.2006	BLATT: 1	
GEPRÜFT/ FREIGEgeben VON	AM	4 BLÄTTER	
WERKSTOFF:		OBERFLÄCHE: n/a	
DATENAME: HK1005-EX-R06-1B-CROSSOVER			



INDEX	ÄNDERUNG	ZEICHNER
IB 201106	PCB SCREW-CONNECTION	C. LORIS

 66606 St. Wendel / Germany		TITEL:	
		HK1005-SATELLITE CROSSOVER EXPLOSION DRAWING	
ZEICHNUNGS-NR.	HK1005-EX-R06-1B	VERSION	1
ERSTELLT VON	C. LORIS	AM	20.11.2006
GEPRÜFT/ FREIGEgeben VON:		AM	
WERKSTOFF:		OBERFLÄCHE:	n/a
DATEI-NAME:	HK1005-EX-R06-1B-CROSSOVER		



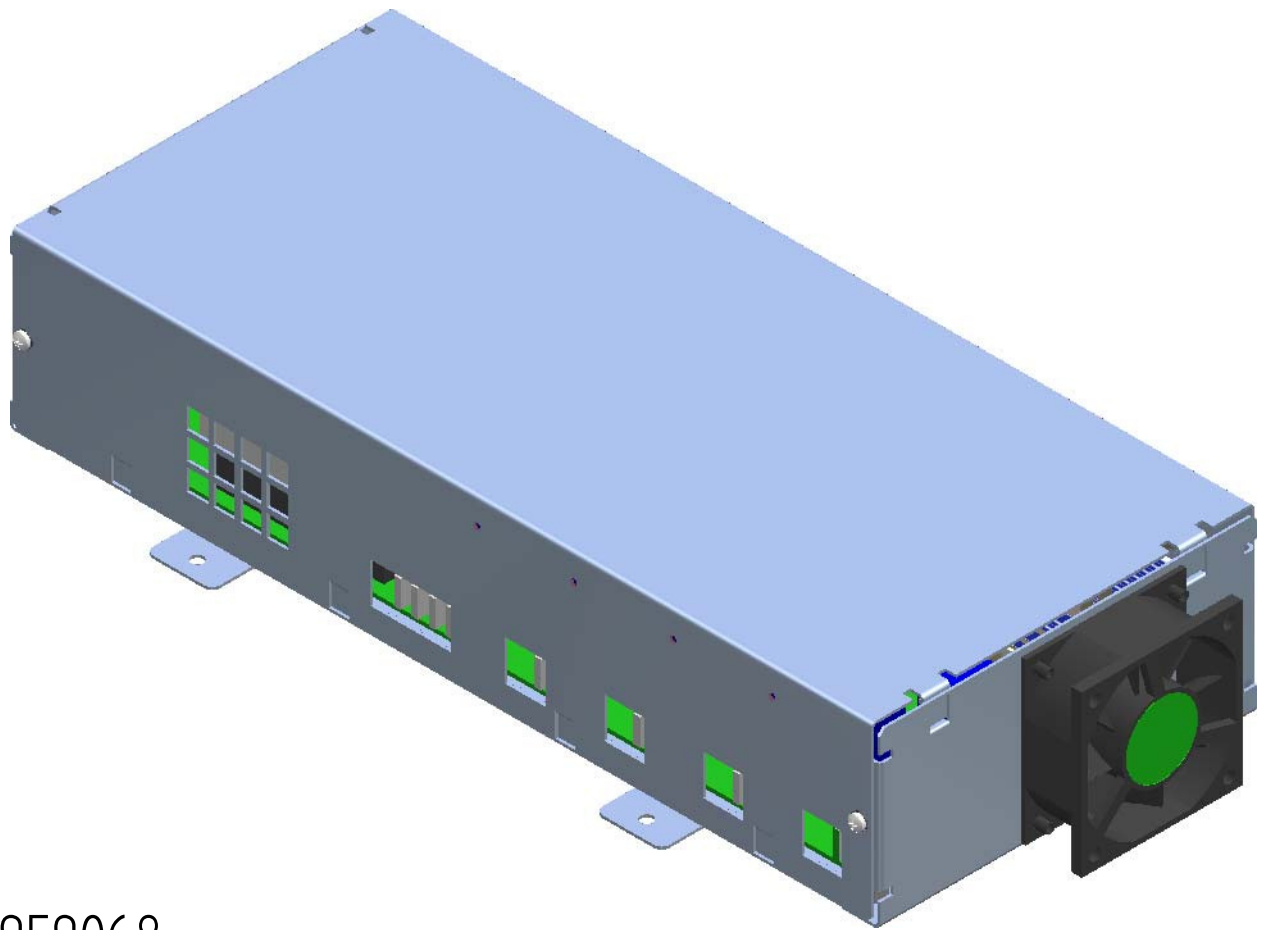
INDEX	ÄNDERUNG	ZEICHNER
IB 201106	PCB SCREW-CONNECTION	C. LORIS

		TITEL: HK1005-SATELLITE CROSSOVER EXPLOSION DRAWING	
66606 St. Wendel / Germany		ZEICHNUNGS-NR. HK1005-EX-R06-1B	VERSION 1
ERSTELLT VON C. LORIS		AM 20.11.2006	REVISION B
GEPRÜFT/ FREIGEgeben VON		AM	BLATT: 3
WERKSTOFF:		OBERFLÄCHE: n/a	
DATENNAME: HK1005-EX-R06-1B-CROSSOVER		4 BLÄTTER	

Pos.	Artikel-Nr. 1	Artikel-Nr. 2	Artikel-Nr. 3	description	Titel	Menge
1	962005			stranded wire Q1.5-R-100-485I-ABISO	Litze Q1.5-R-100-485I-ABISO	1
2	962006			stranded wire Q1.5-B-100-485I-ABISO	Litze Q1.5-B-100-485I-ABISO	1
3	962073			stranded wire Q1.5-B-450-638-ABISO	Litze Q1.5-B-450-638-ABISO	2
4	962074			stranded wire Q1.5-R-450-638-ABISO	Litze Q1.5-R-450-638-ABISO	2

INDEX	ÄNDERUNG	ZEICHNER
1B 201106	PCB SCREW-CONNECTION	C. LORIS

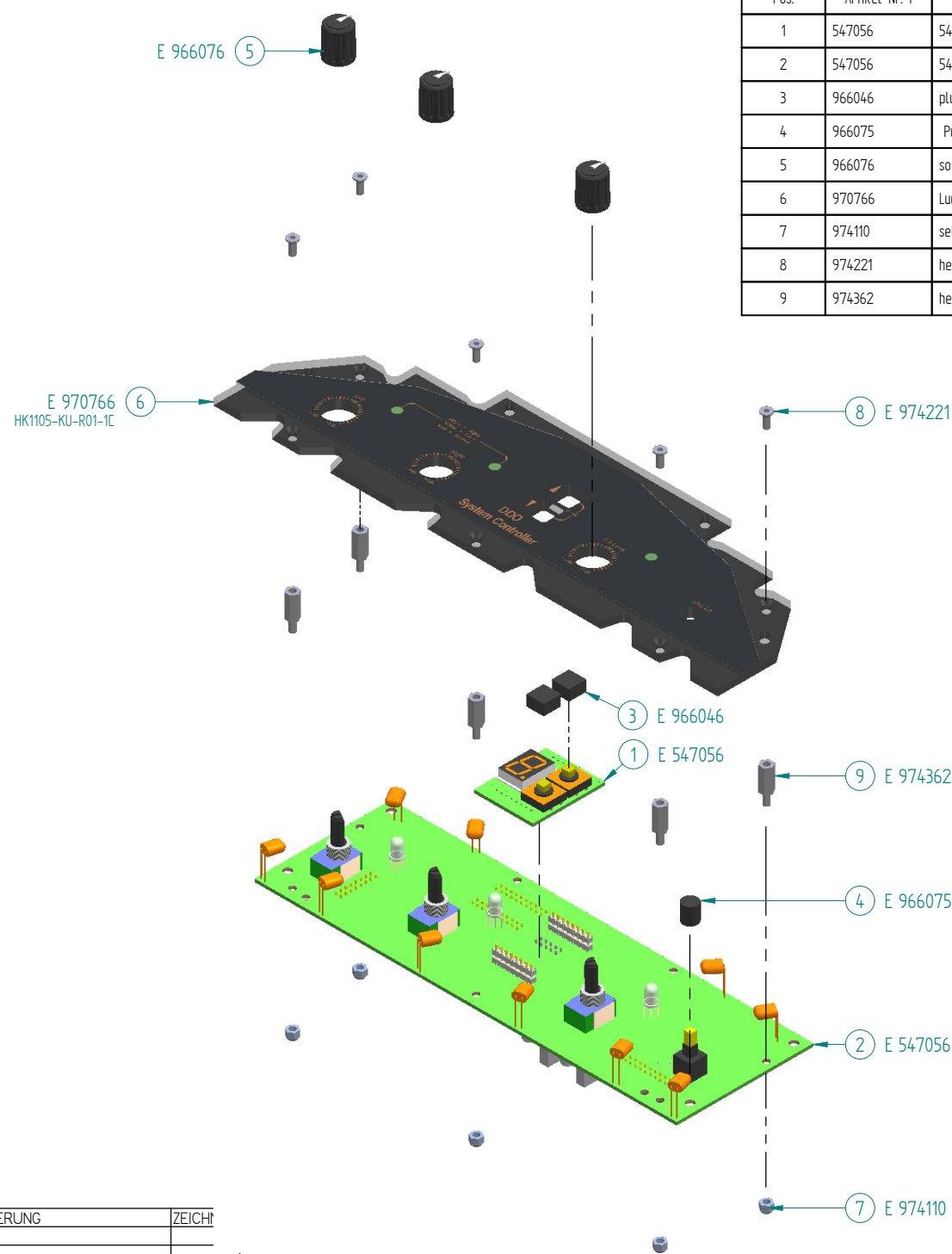
		TITEL:	
66606 St. Wendel / Germany		HK1005-SATELLITE CROSSOVER EXPLOSION DRAWING	
ZEICHNUNGS-NR. HK1005-EX-R06-1B		VERSION 1	REVISION B
ERSTELLT VON C. LORIS		AM 20.11.2006	BLATT 4
GEPRÜFT / FREIGEgeben VON		AM	4 BLÄTTER
WERKSTOFF:		OBERFLÄCHE: n/a	
DATE/NAME: HK1005-EX-R06-1B-CROSSOVER			



E 959068
QuadAMP, 4ch PWM unit

To ensure the procedure of our quality assurance (burn-in-test, quality-test,...) please send the complete module to our technical service for replacement.

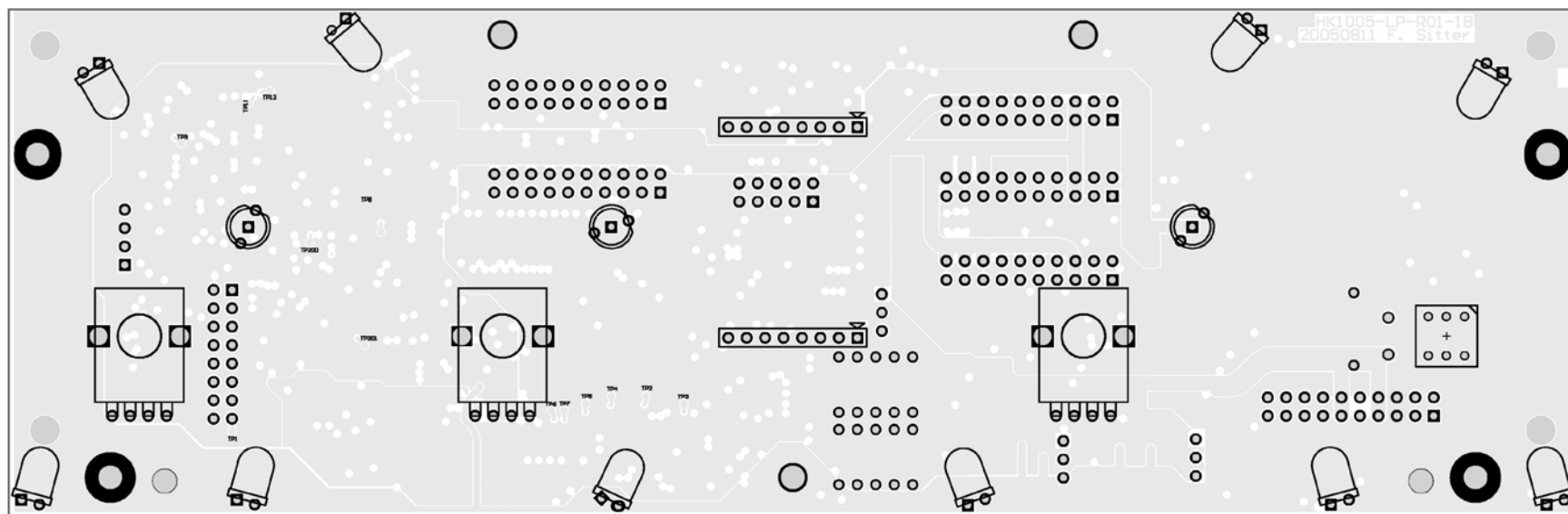
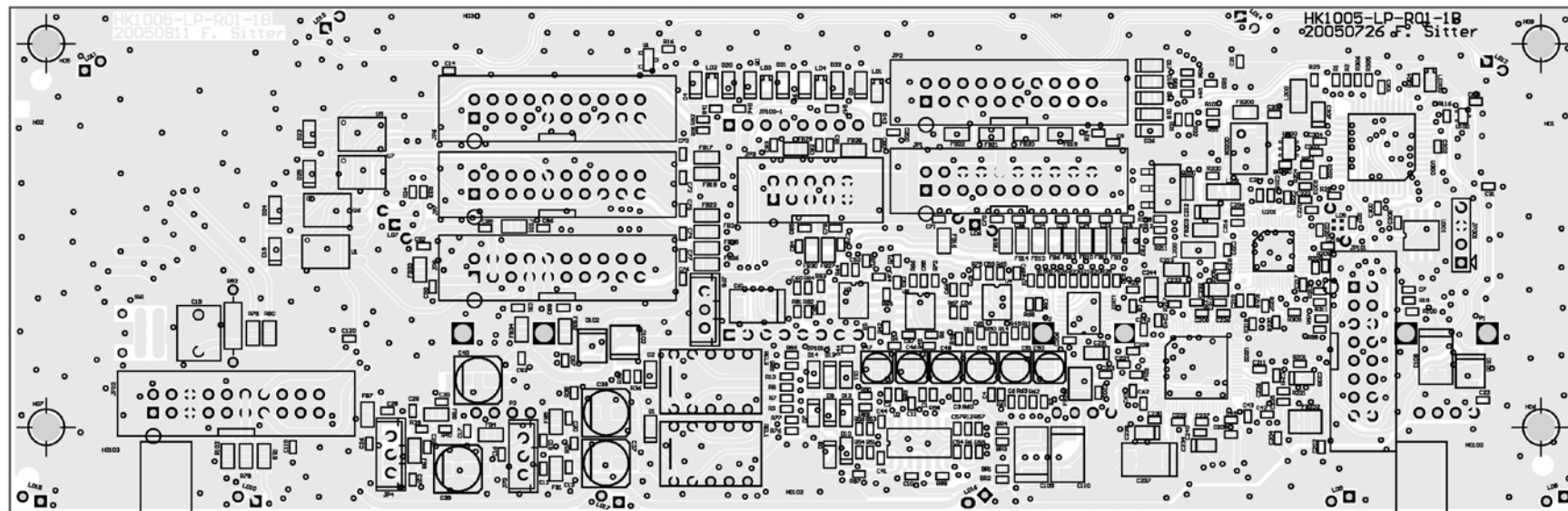
For customer inquiry please contact our service-team.



Pos.	Artikel-Nr. 1	description	Titel	Menge
1	547056	54 Lucas Impact Preamp (Display PCB)	54 Lucas Impact Vorstufe (Displayplatine)	1
2	547056	54 Lucas Impact Preamp (PCB only)	54 Lucas Impact Vorstufe (Platine)	1
3	966046	plunger type key top, 9*9, B32-1210	Knopf-Taster 9*9 B32-1210	2
4	966075	Push-Bottom-Trio	Knopf-Switch TRIO	1
5	966076	softtouch poti knob, REAN, flexifit, F313	Knopf-Poti 13mm sw/sw/ws	3
6	970766	Lucas MAX/Impact, control panel, acryl glass	Plexiglas Lucas Max	1
7	974110	self locking hexagon nut with plastic insert, M3, zinc plated	Stopmutter M3 vz	5
8	974221	hexagon socket countersunk head screw, M3x8, zinc plated	Inbusschraube M3x8 vz	5
9	974362	hexagon PCB spacer, type B, M3x12, zinc plated	Dist. Bol Innen/Außengew. M3*12 vz	5

INDEX	ÄNDERUNG	ZEICHNUNG

		TITEL:	
66606 St. Wendel / Germany		HK1005-SUB PREAMP ASSEMBLY EXPLOSION DRAWING	
ZEICHNUNGS-NR.	HK1005-EX-R07-1A	VERSION	1
ERSTELLT VON:	C. LORIS	AM	03.05.2006
GEPRÜFT / FREIGEgeben VON:	AM	BLATT:	1
WERKSTOFF:	OBERFLÄCHE: n/a		
DATEI-NAM:	HK1005-EX-R07-1A-PREAMP		



INDEX	ÄNDERUNG	ZEICHNER

		TITEL:	
66606 St. Wendel / Germany		HK1005 -- L.U.C.A.S. IMPACT PCB VIEW PREAMP	
ZEICHNUNGS-NR.	HK1005-SP-R01-1C	VERSION	1
ERSTELLT VON	MICHAEL BOHLENDER	AM	29.06.2006
GEPRÜFT/ FREIGEgeben VON	MICHAEL BOHLENDER	AM	29.06.2006
WERKSTOFF:	FR4, 4 layers, 155mm	OBERFLÄCHE:	chem. NiAu, 35µm CU
DATEI-NR.	HK1005-LP-R01-1C-Preamp-Layout		

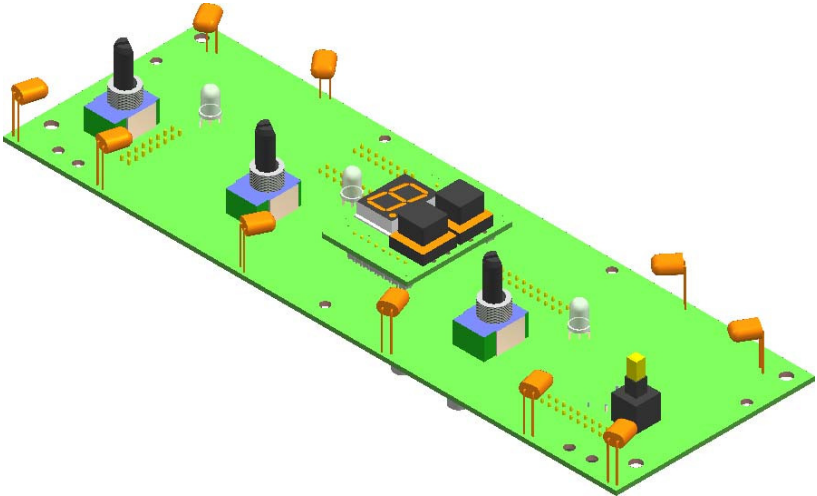
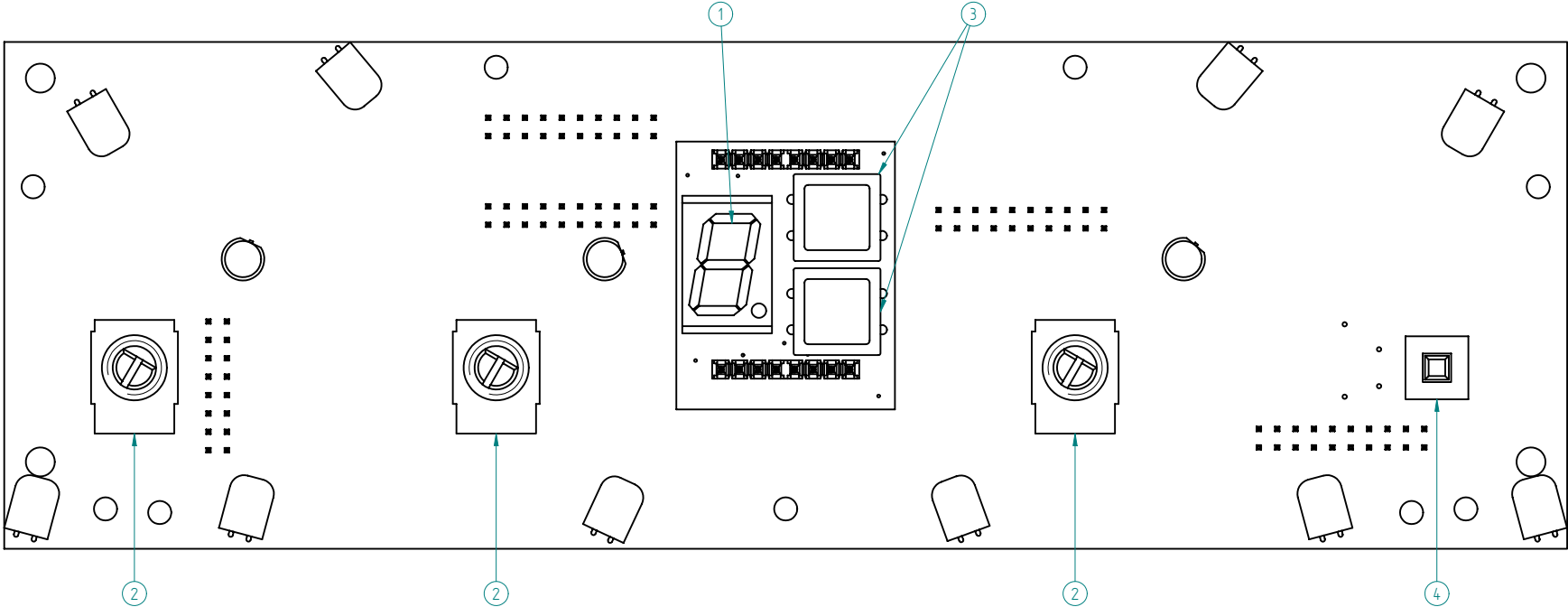
Spare Parts List for:HK1005-SP-R01-1C

Project: LUCAS IMPACT

Project Number: HK1005

Assembly: Preamp

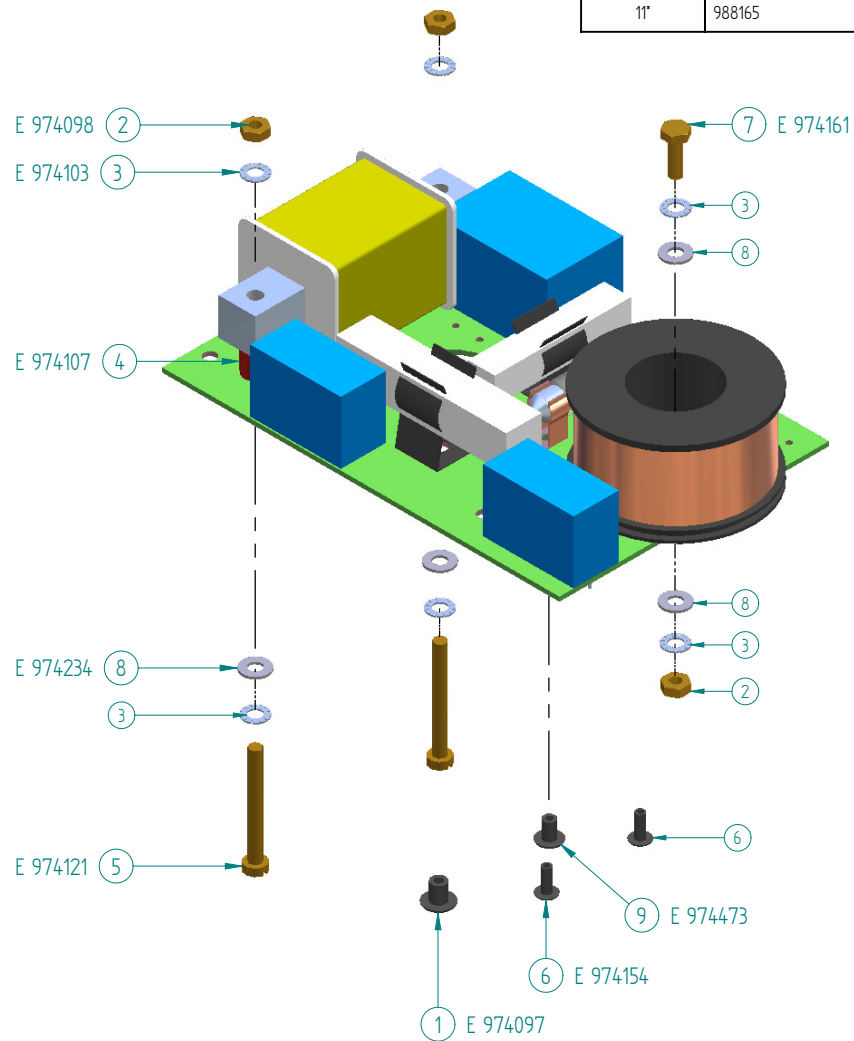
Pos.	Article No.	Description	Bezeichnung	Reference Designators	Quantity
1	836004	Surface mount LED display	7-Segmentdispl. Orange SMD14mm	LD100	1
2	914091	Poti B10K lin mono CC heavy T	Poti B10K lin mono CC heavy T	P3, P2, P1	3
3	950021	tactile push button with projected plunger	Taster Tac-Sw itch B3F-4055	SW100, SW101	2
4	950083	Push Button Sw itch, vertical, (2 Pals)	Druckschalter ohne LED 11,25mm	SW1	1



INDEX	ÄNDERUNG	ZEICHNER

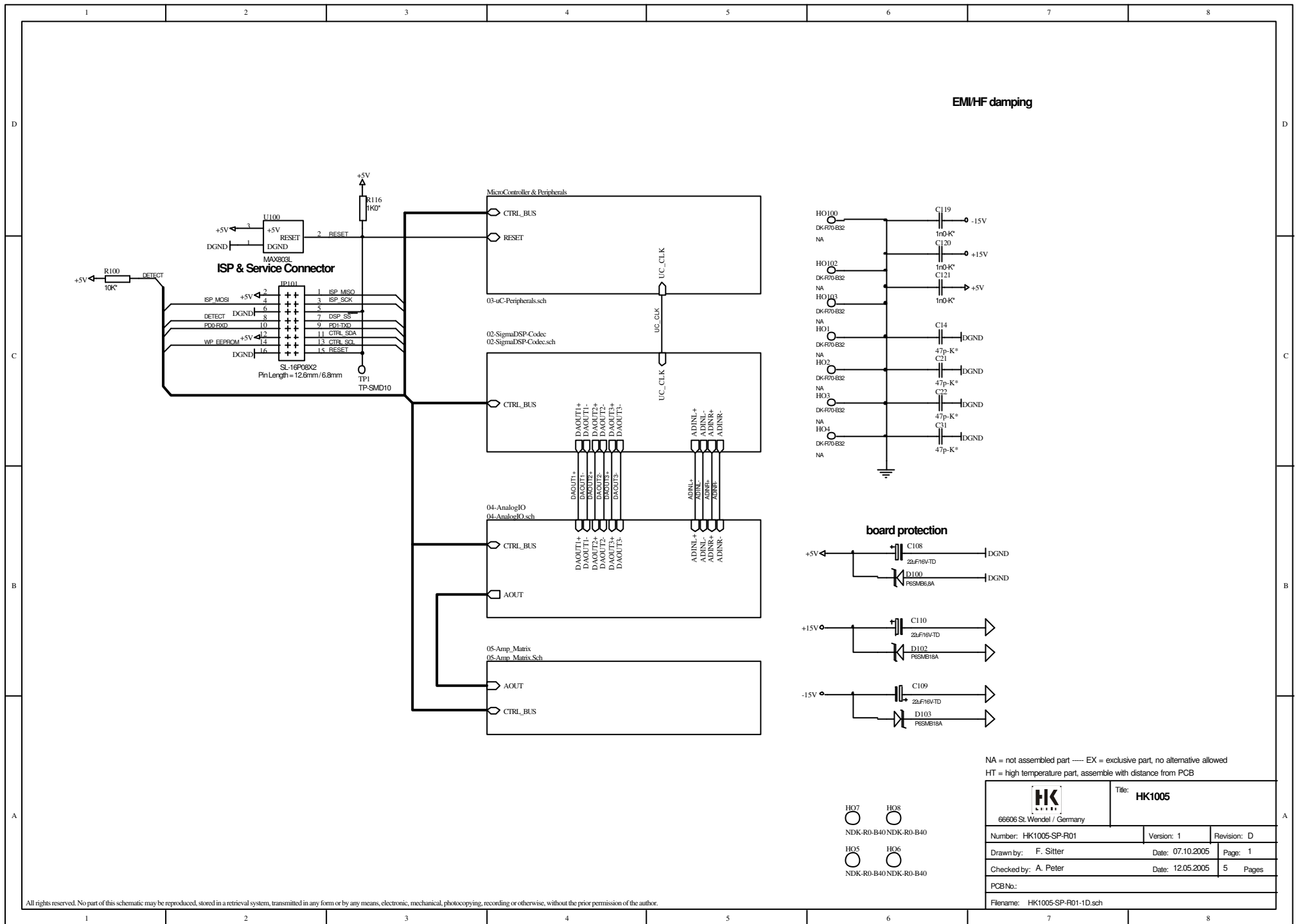
		TITEL:	
66606 St. Wendel / Germany		HK1005 -- L.U.C.A.S. IMPACT PREAMP PCB SPARE PARTS	
ZEICHNUNGS-NR.	HK1005-SP-R01-1A	VERSION	1
ERSTELLT VON:	MICHAEL BOHLENDER	AM	29.06.2006
GEPRÜFT / FREIGEgeben VON:	MICHAEL BOHLENDER	AM	29.06.2006
WERKSTOFF:	OBERFLÄCHE: n/a		
DATENAME:	HK1005-SP-R01-1C-Preamp		

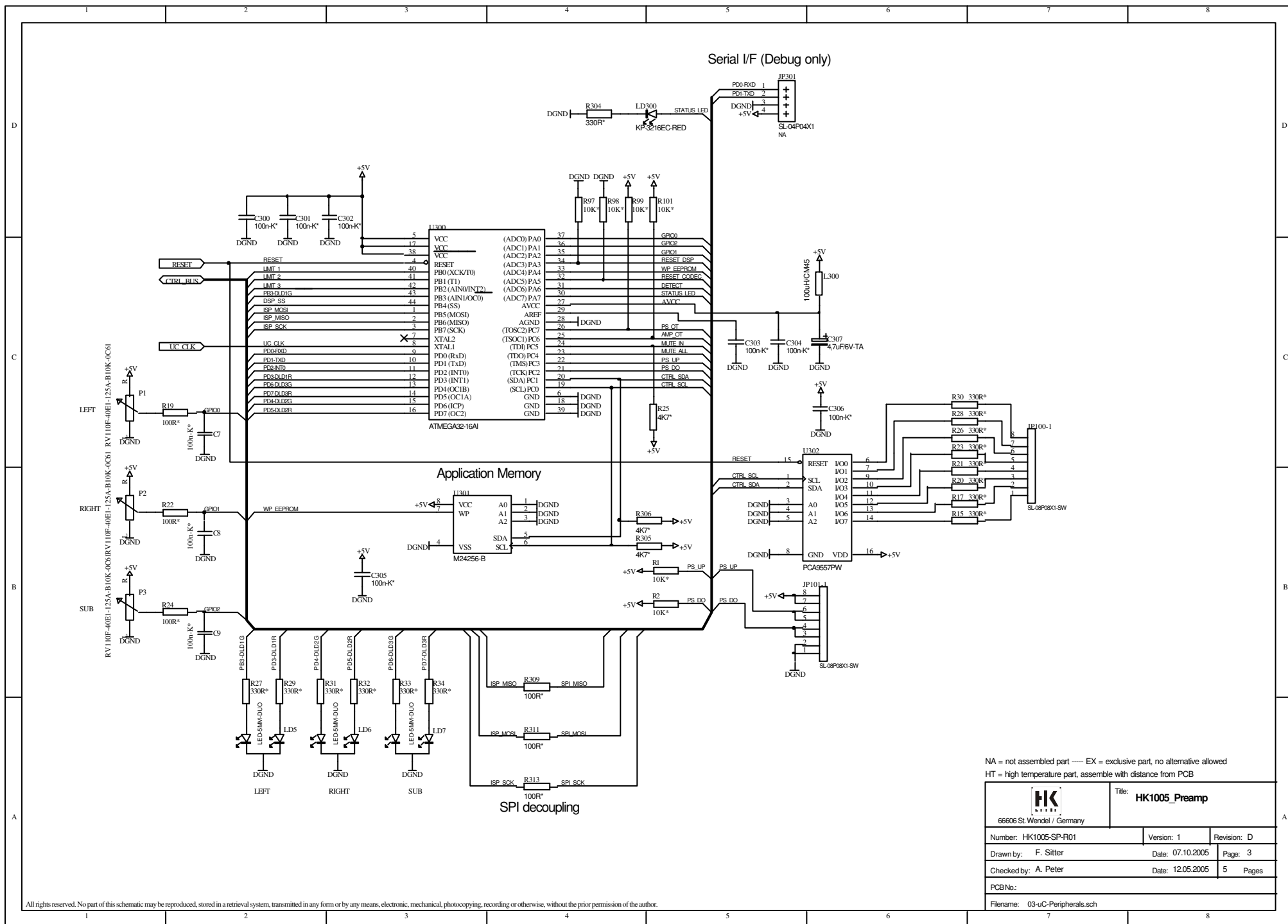
Pos.	Artikel-Nr. 1	description	Titel	Menge
1	974097	blind rivet alu/steel standard, 5.0x6.0	Blindniete Alu-FLARUKO 5,0*6,0	1
2	974098	hexagon nut, class 8, M5, brass	Sechskantmutter M4 ms	3
3	974103	toothed lock washer, D=4.3, AZ, zinc plated	Fächer-Scheibe az, 4,3 vz	6
4	974107	plastic PCB spacer, 4.2x8x10, Polyamid black	Dist.Hülse PE 4,2*8*10 [mm]	2
5	974121	slotted cheese head screw, M4x35, brass	Zylinderschraube M4*35 ms	2
6	974154	blind rivet steel standard, 3.0x8, black	Blindniete Stahl schw. 3,0*8	2
7	974161	hexagon head screw, M4x12, brass	Sechskantschraube, M 4*12 ms	1
8	974234	washer, form A, D=4.3mm, zinc plated	Unterleg-Scheibe 4,3 vz	4
9	974473	blind rivet alu/steel standard, 4.0x6.0	Blindniete Alu-FLARUKO 4,0*6,0	1
10*	988011	silicon glue, 310mltrs tube	Silicon transparent, 310ml Kartusche	xxx
11*	988165	1k polyurethane glue, 310mltrs. tube	Polyurethan 1-K Kleber, 310ml Kartusche	xxx

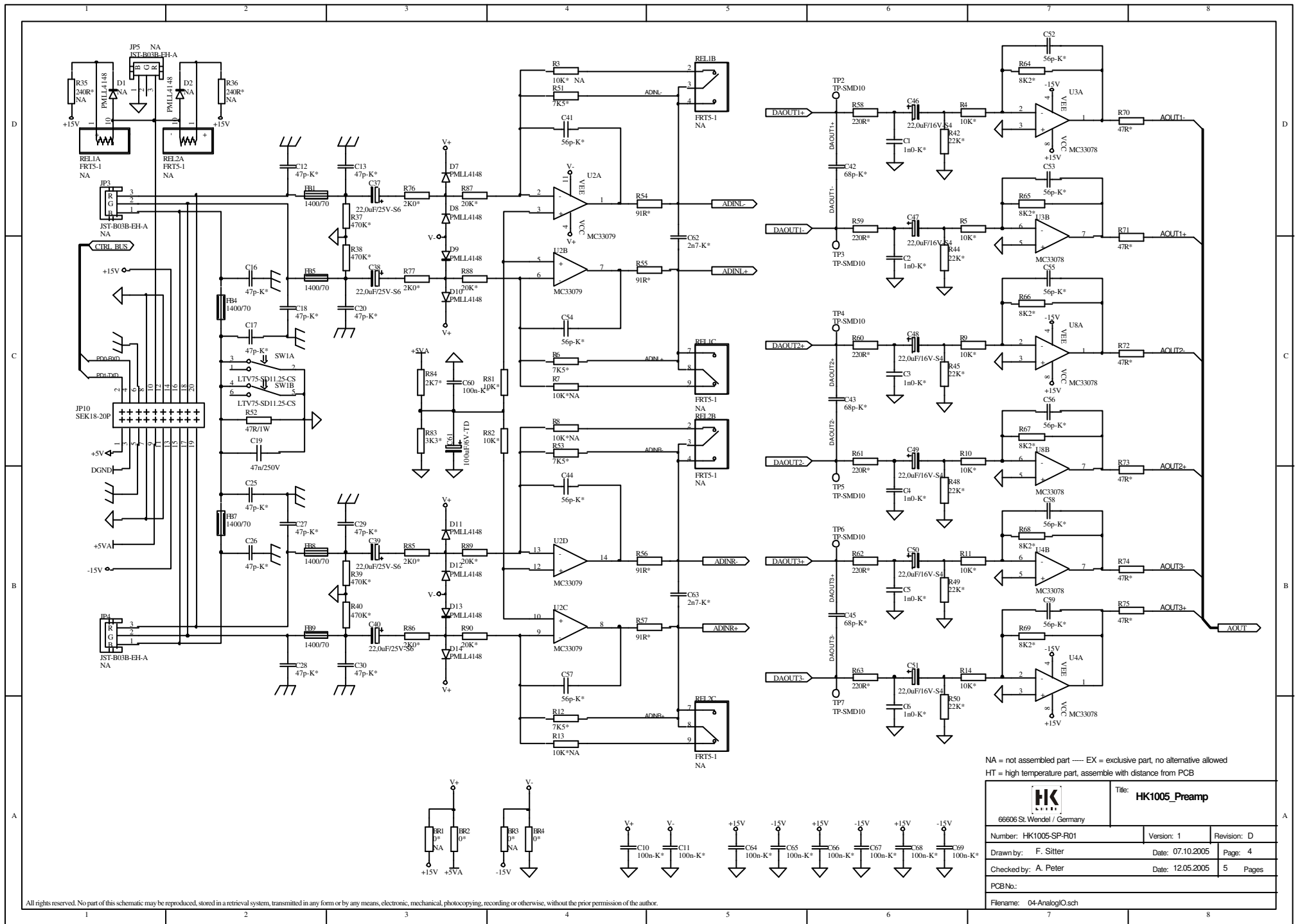


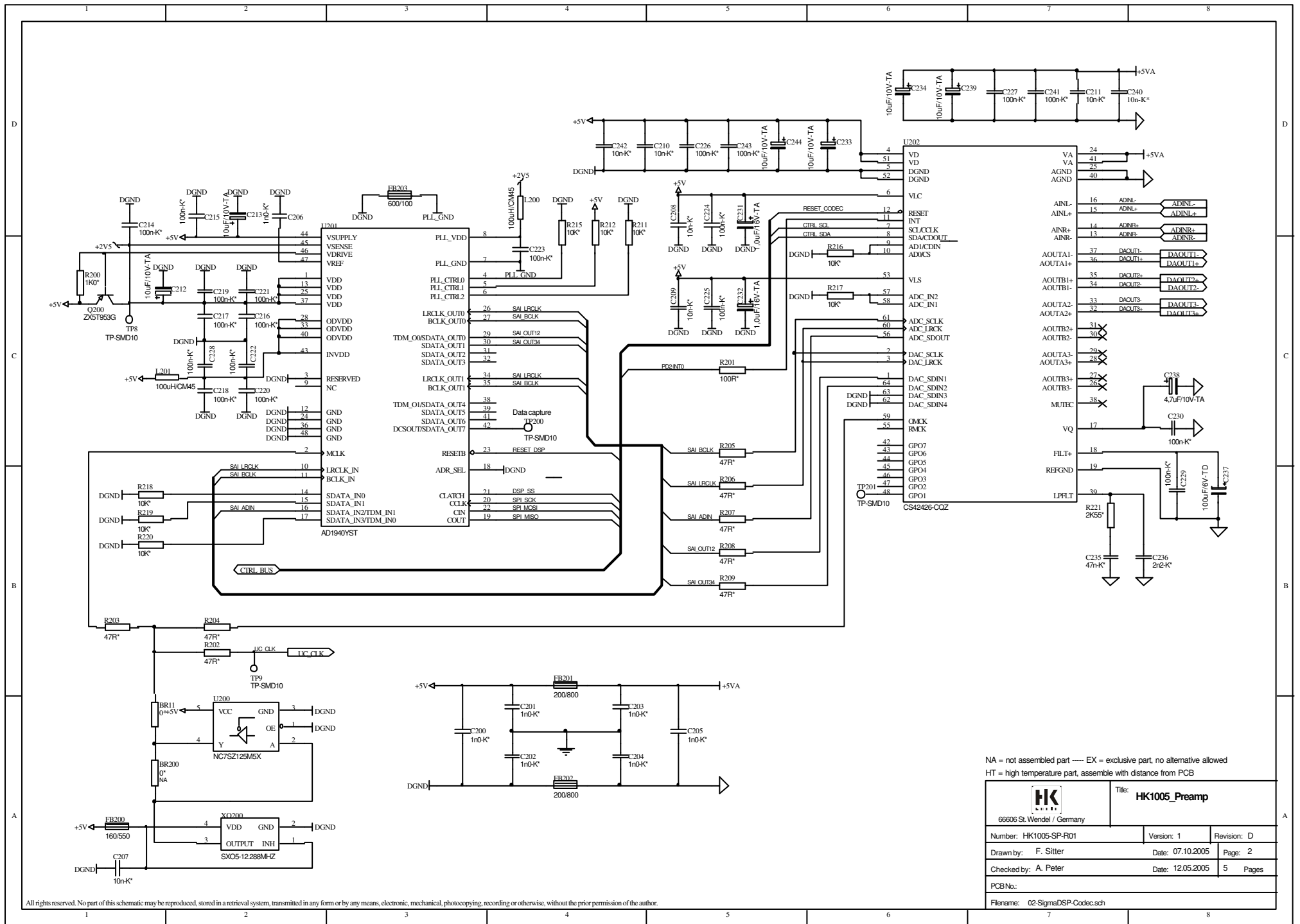
INDEX	ÄNDERUNG	ZEICHNER

		TITEL: HK1005-SATELLITE CROSSOVER PCB ASSEMBLY EXPLOSION DRAWING		
66606 St. Wendel / Germany		ZEICHNUNGS-NR.	HK1005-EX-R08-1A	VERSION 1
ERSTELLT VON:		C. LORIS	AM 03.05.2006	REVISION: A
GEPRÜFT / FREIGEgeben VON:		AM	1	BLATT: 1
WERKSTOFF:		OBERFLÄCHE: n/a		
DATEI NAME:		HK1005-EX-R08-1A-CROSSOVER-PCB		



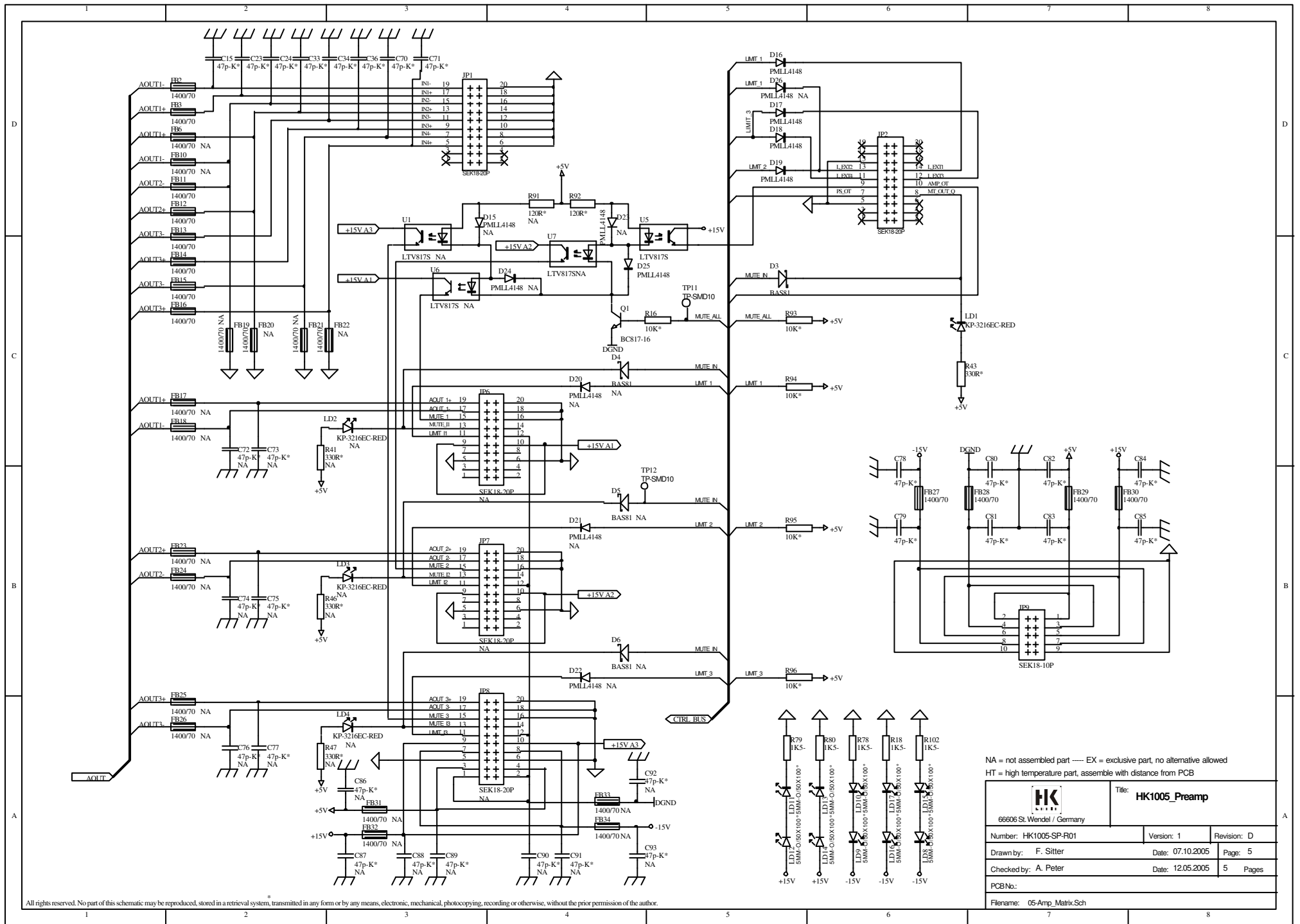


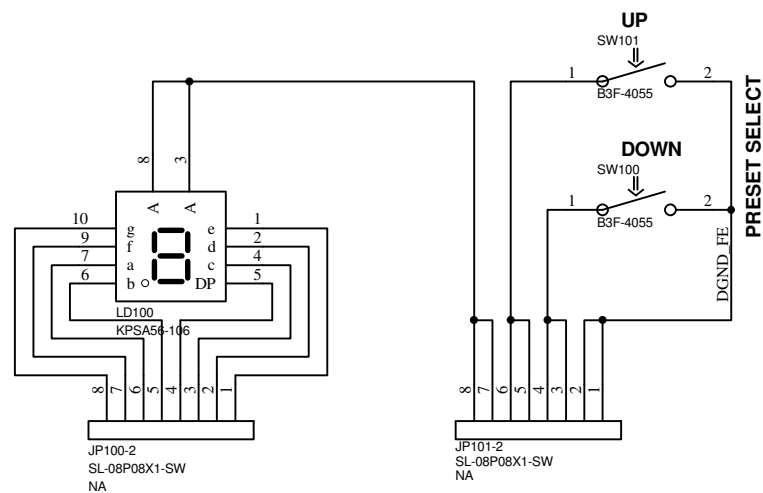




NA = not assembled part — EX = exclusive part, no alternative allowed
HT = high temperature part, assemble with distance from PCB

 66606 St. Wendel / Germany		Title: HK1005_Preamp	
Number: HK1005-SP-R01		Version: 1	Revision: D
Drawn by: F. Sitter		Date: 07.10.2005	Page: 2
Checked by: A. Peter		Date: 12.05.2005	5 Pages
PCB No.:			
Filename: 02-SigmaDSP-Codec.sch			

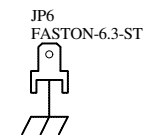
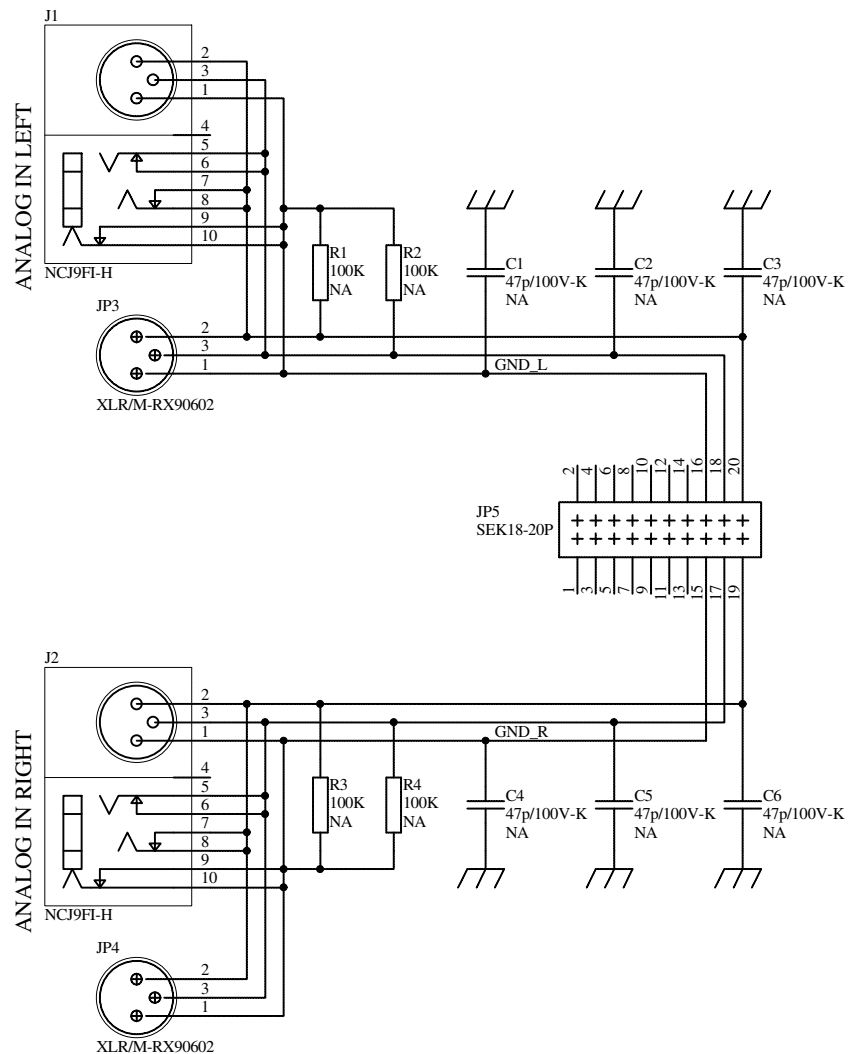




NA = not assembled part ----- EX = exclusive part, no alternative allowed
 HT = high temperature part, assemble with distance from PCB

 66606 St. Wendel / Germany		Title: HK1005 LED Board	
Number: HK1005-SP-R03		Version: 1	Revision: A
Drawn by: F. Sitter		Date: 09.08.2005	Page: 1
Checked by: Name geprüft		Date: 01.01.2001	1 Pages
PCB No.:			
Filename: HK1005-SP-R03-1A.sch			

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NA = not assembled part ----- EX = exclusive part, no alternative allowed
HT = high temperature part, assemble with distance from PCB

 66606 St. Wendel / Germany		Title: HK1005-Input_Analog_Board	
Number: HK1005-SP-R04		Version: 1	Revision: B
Drawn by: F. Sitter		Date: 09.08.2005	Page: 1
Checked by: Name geprüft		Date: 01.01.2001	1 Pages
PCB No.:			
Filename: HK1005-SP-R04-1B.sch			

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MAINS IN

2A

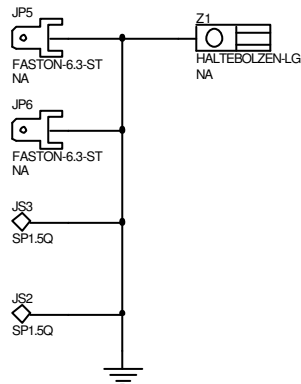
1A

2B

FILTER OUT

1B

CHASSIS CONNECTORS



NA = not assembled part — EX = exclusive part, no alternative allowed
HT = high temperature part, assemble with distance from PCB

 66606 St. Wendel / Germany		Title: HK1005 Power Filter Mains EMI Filter	
Number: HK1005-SP-R06		Version: 1	Revision: A
Drawn by: Frank Sitter		Date: 30.09.2005	Page: 1
Checked by: Michael Bohlander		Date: 17.06.2005	1 Pages
PCB No.: HK0502-LP-R05-2A.PCB			
Filename: HK1005-SP-R06-1A.Sch			

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