

CODA

C O D A A U D I O



LINUS6.4/D



INFORMATION FOR USE FOR MODELS CODA AUDIO LINUS6.4/D

The leading version of this brochure is the
English one which shall prevail to the
exclusion of the national translation on hand.

USER MANUAL v1.3



Manufacturer

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Subject to change. Please visit our website www.codaaudio.com for the latest version of this User Manual. Please note that the leading version of CODA Audio manuals is always the English one.



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IMPORTANT SAFETY INSTRUCTIONS

1. General

The amplifier may only be used in accordance with the information provided in the user manual. Before and during the usage of the amplifier please ensure that all recommendations, especially the safety recommendations as detailed in the user manual, are adhered to. The CODA Audio LINUS amplifier is designed for the amplification of pulsed audio signals. The amplifier should only be connected to loudspeakers with an average impedance as indicated.

2. User manual

Read the information before use (user manual) and heed all warnings. During the lifetime of the amplifier keep this user manual together with the warranty certificate in a safe place for later reference. The user manual forms an integral part of the amplifier. It is recommended to check the CODA Audio website for any updates and new versions of this manual.

Reselling the amplifier is only possible if the user manual is available. In case of reselling the amplifier, the reseller has to document any changes made to the amplifier in writing and pass the documentation on to the buyer.

3. Environments

Use this amplifier only in E1, E2, E3, E4 or E5 environments according to IEC/EN 55103-2:2010 "Electromagnetic compatibility - Product family standard for audio, video, and audio-visual and entertainment lighting control apparatus for professional use - Part 2: Immunity".

4. Mounting/placement

Do not place this amplifier on an unstable cart, stand, tripod, bracket, or table. The amplifier may fall, causing serious injury and serious damage to the product. Any mounting of the amplifier should follow the manufacturer's instructions. CODA Audio can recommend suitable mounting racks and accessories.

5. Mains connection

The amplifier may only be connected to a socket with a protective earth conductor. This is a class 1 device that always requires an external earth connection. A missing earth may cause unexpected and high voltages present on the metal casing and surrounding conductors. The main power switch on the front panel is a 'soft' switch. Ensure that the mains power can be isolated from the amplifier at any time.

6. Power cord protection

Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon them or against them, paying particular attention to cords and plugs and the point where they exit from the amplifier. If the cord is damaged in any way obtain a replacement cord before further use.



7. Heat

Do not use this amplifier near any heat sources such as radiators, heaters, stoves, or other apparatus that produce heat.

8. Water and moisture

Do not expose this device to rain or moisture. Do not use this amplifier near water (for example swimming pools and fountains). Do not place any objects containing liquids, such as bottles or glasses, on the top of the unit. Do not splash liquids on the unit. There is no protection against splashing water (IP-20 equipment).

9. Ventilation

Slots and openings in the cabinet are provided for ventilation to ensure reliable operation of the amplifier and to protect it from overheating. These openings must not be blocked or covered. This amplifier should not be installed unless proper ventilation is provided, and the following instructions are adhered to. When installing into racks, careful consideration should be taken to ensure that the force air cooling operates to its maximum efficiency. Cold air is drawn in through the front of the unit, with the hot air expelled from the rear. Ensure that the rear is not obstructed to allow the heat to escape. Do not install the amplifier above or below any other equipment that has a different forced air flow cooling design. If a space is to be left between multiple units, then a fixed rack space blank should be used. A vented or slotted space should not be used as this can significantly reduce the efficiency of the forced air cooling of the unit.

10. Interference of external objects and/or liquids with the appliance

Never push objects of any kind into this amplifier through any openings, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill liquid of any kind on the amplifier. Do not use the amplifier in a place where is the potential risk of objects/liquids falling onto or into the amplifier. Where possible, the amplifier should always be used within a protective case or rack.

11. Connections

Before connecting external equipment to the amplifier, ensure that it is safe to do so. Remove the mains supply from the equipment where necessary. Failure to do so may cause an electric shock and serious personal injury. Read the user manual of the other equipment carefully and follow the instructions when making the connections.

12. Lightning

For additional protection of this amplifier during lightning storms or when it is left unattended and/or unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the amplifier due to lightning and power line surges. Disconnection from the mains power supply can only be achieved by removing the plug from the mains socket or by external disconnecting all poles from the mains.



13. Damages that require service

Unplug this amplifier from the mains supply and refer to your dealer/distributor or other authorized repair workshop if any of the following situations occur:

- if liquid has been spilled or objects have fallen into the amplifier,
- if the amplifier has been exposed to rain or moisture
- if the amplifier has been dropped or damaged in any way,
- if the power supply cord or plug has been damaged,
- when the amplifier exhibits a distinct change from its normal function or performance,
- in case the amplifier has been used in a dusty environment for quite a period of time.

14. Servicing

All service and repair work must be carried out by a dealer/distributor authorized by CODA Audio. Do not attempt to service this amplifier yourself. Opening or removing covers may expose you to dangers or other hazards. The amplifier may only be opened by qualified personnel. Please refer to your dealer/distributor.

15. Spare parts

When spare parts are required, the dealer/distributor will only use spare parts specified by the manufacturer. The use of unauthorized spare parts may result in injury and/or damage through fire or electric shock or other electricity-related hazards.

16. Safety check

Upon completion of any service or repairs to this product, other than by the factory, ask the dealer/distributor to perform safety checks to determine that the amplifier works properly. Recommendations on how to carry out the safety test can be found in DIN VDE 0701-0702 "Maintenance, Modification and Test of Electronic Appliances".

17. Cleaning

Ensure that periodic cleaning of the dust filters is carried out to maintain the best possible cooling. Monitor the environment that the amplifier is operating in and adjust the cleaning frequency as necessary. Unplug this amplifier from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Clean only with dry cloth. For more details refer to chapter 8 "Maintenance Information" (p. 38).

18. Packaging and shipping

When shipping the CODA Audio LINUS amplifier, always use the original shipping carton and packing materials. For maximum protection repack the unit as it was originally packed at the factory.

19. Altitude (for China)

The amplifier shall be operated at altitudes below or equal 2000 m.





SYMBOLS

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	 CAUTION - HIGH VOLTAGE HAZARDS EXIST WITHIN THIS PRODUCT. REFER ALL SERVICING TO AUTHORIZED PERSONNEL
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	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED DANGEROUS VOLTAGE WITHIN THE PRODUCT'S ENCLOSURE.
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	THE EXCLAMATION MARK IS INTENDED TO ALERT THE USER TO IMPORTANT INSTRUCTIONS ALSO FOR MAINTENANCE IN THE LITERATURE ACCOMPANYING THE AMPLIFIER.
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	THE AMPLIFIER MAY ONLY BE CONNECTED TO A SOCKET WITH A PROTECTIVE EARTH CONDUCTOR.
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CONSIGNES DE SÉCURITÉ IMPORTANTES

1. Général

L'amplificateur ne doit être utilisé qu'en conformité avec les informations indiquées dans le manuel d'utilisation. Avant et pendant l'utilisation de l'amplificateur, s'assurer que toutes les consignes, surtout les consignes de sécurité décrites dans le mode d'emploi sont respectées. L'amplificateur LINUS a été construit pour l'amplification de signaux audio pulsés et ne doit être branché qu'à des enceintes ayant une impédance moyenne comme celle indiquée.

2. Mode d'emploi

Lisez les instructions d'utilisation (Manuel Utilisateur) et prêtez attention à tous les avertissements. Conserver ce mode d'emploi dans un endroit protégé durant toute la vie d'utilisation de l'amplificateur. Ce mode d'emploi fait partie intégrante de l'amplificateur. Il est recommandé de visiter régulièrement le site web de CODA Audio afin d'obtenir les mises à jour et nouvelles versions de ce manuel. La revente de l'amplificateur n'est possible qu'avec le mode d'emploi. Tout changement subi par l'amplificateur doit être documenté par écrit et transmis à l'acheteur dans le cas d'une revente.

3. Environnement

N'utilisez l'amplificateur que dans les environnements classés E1, E2, E3, E4 ou E5 selon la norme IEC/EN 55103-2 : 2010

« Compatibilité électromagnétique - Norme de famille de produits pour les appareils à usage professionnel audio, vidéo, audiovisuels et de commande de lumière pour spectacles. Immunité Norme de famille de produits pour les appareils à usage professionnel audio, vidéo, audiovisuels et de commande de lumière pour spectacles - Partie 2 : Immunité ».

4. Installation/emplacement

Ne pas placer l'amplificateur sur un chariot, un stand, un trépied, un support ou une table instable. Le produit pourrait chuter, s'endommager sérieusement et provoquer de graves blessures. Pour l'installation de l'amplificateur, observez les instructions du fabricant et utilisez les accessoires recommandés par le fabricant.

5. Connection secteur

Branchez l'amplificateur uniquement à une prise électrique avec une connexion à la terre. Ceci est un appareil de Classe 1 qui nécessite une connexion électrique avec prise de terre lors de chaque utilisation. Un défaut de terre peut être à l'origine de hautes tensions présentes sur le châssis métallique. L'interrupteur électrique étant un modèle 'soft', assurez-vous de la bonne isolation de l'amplificateur par rapport à l'alimentation électrique.



6. Protection du cordon d'alimentation

Les câbles d'alimentation électriques sont à disposer de manière à ne pas être piétinés ou coincés par des objets placés au-dessus ou contre eux-mêmes, tout en faisant attention aux câbles et aux fiches et particulièrement au connecteur de sortie de l'amplificateur. Le dispositif de déconnexion du secteur (le câble et connecteur secteur ou le disjoncteur thermique) doit être accessible à tout instant. Si le cordon d'alimentation est endommagé, prenez soin d'en changer avant chaque nouvelle utilisation.

7. Chaleur

Ne pas utiliser l'amplificateur près de sources de chaleur comme les radiateurs, les corps chauffants, les fourneaux ou d'autres dispositifs qui produisent de la chaleur.

8. Eau et humidité

Ne pas exposer le Produit à la pluie ou à l'humidité, ne pas utiliser le Produit à proximité d'eau et ne pas utiliser le Produit s'il est mouillé (par exemple dans des pièces humides ou près d'une piscine). Ne placez jamais des objets contenant des liquides sur le produit (comme par exemple des bouteilles ou des verres). Ne versez pas de liquides sur le Produit. Il s'agit d'un produit IP20 sans protection contre les éclaboussures.

9. Ventilation

Les grilles et les ouvertures dans le boîtier servent à la ventilation et assurent un bon fonctionnement de l'amplificateur tout en le protégeant de la surchauffe. Ces ouvertures ne doivent être ni bloquées ni couvertes. L'amplificateur ne doit être installé que dans un endroit convenablement ventilé et aéré, selon les recommandations du fabricant données dans ce manuel. Lors d'une installation en Rack, assurez-vous d'une aération maximum afin de permettre le refroidissement de l'appareil. L'air froid rentre par l'avant de l'appareil alors que l'air chaud sortira par l'arrière. Assurez-vous que l'arrière de l'appareil n'est pas obstrué afin de permettre une bonne extraction de la chaleur. N'installez pas l'amplificateur ni au dessus ni au dessous d'un appareil n'ayant pas le même système de refroidissement. Si un espace doit-être laissé entre plusieurs appareils alors vous devrez ajouter des faces avant dans les Racks afin de combler ces vides. Aucun ventilateur ni système spécial ne devra être utilisé car ils pourraient réduire le refroidissement naturel de l'appareil.

10. Intrusion d'objets externes et / ou liquides dans l'amplificateur

Ne jamais introduire d'objets d'aucune sorte dans l'amplificateur au travers des ouvertures car ils pourraient être en contact avec des tensions électriques dangereuses ou provoquer un court-circuit de composants et ainsi un feu ou un choc électrique. Ne jamais renverser de liquide sur l'amplificateur. N'utilisez pas l'amplificateur dans un lieu où des objets, du liquide pourrait couler sur ou dans l'amplificateur.

11. Branchements

Avant de connecter des équipements externes à l'amplificateur, assurez-vous de pouvoir le faire en toute sécurité. Débranchez l'alimentation électrique des équipements externes si besoin. Faute de quoi il y a un risque de choc électrique et de lésions sérieuses. Lisez attentivement le mode d'emploi des autres dispositifs et suivez les instructions des autres équipements lors de tous branchements.



12. Foudre

Pour une protection renforcée de l'amplificateur, le débrancher de la prise secteur pendant les orages ou quand il est sans surveillance et / ou non utilisé pendant un temps prolongé. Ainsi, vous éviterez un endommagement de l'amplificateur dû à la foudre et aux surtensions. La déconnexion du secteur n'est possible qu'en retirant la prise de l'alimentation générale ou en débranchant tous les contacts du réseau électrique.

13. Dommages nécessitant une intervention

Dans les cas suivants, débranchez l'amplificateur du réseau électrique et contactez votre revendeur / distributeur ou un atelier autorisé :

- du liquide a été renversé ou des objets sont tombés dans l'amplificateur
- l'amplificateur a été exposé à la pluie ou à l'humidité
- l'amplificateur est tombé ou a été abîmé de quelque façon que ce soit
- le cordon d'alimentation ou la fiche électrique est endommagé
- l'amplificateur ne fonctionne pas de manière normale comme décrit dans le mode d'emploi
- l'amplificateur a été utilisé dans un environnement poussiéreux pendant un temps prolongé

14. Entretien

Toute opération de maintenance ou réparation doit être effectuée par un revendeur / distributeur certifié par CODA Audio. N'essayez pas d'entretenir l'amplificateur par vous-même. L'ouverture de l'amplificateur ou retirer le capot pourrait vous exposer à une tension électrique dangereuse ou à d'autres risques, l'amplificateur ne doit être ouvert que par du personnel qualifié. Veuillez contacter votre revendeur / distributeur.

15. Réparation et pièces de rechange

Si des pièces de rechange sont nécessaire, assurez-vous que votre revendeur / distributeur n'utilise que des pièces de rechange certifiées par le constructeur. L'utilisation de pièces de rechange non autorisées peut causer des lésions et / ou des endommagements par le feu, choc électrique, ou d'autres dangers d'origine électrique.

16. Contrôle de sécurité

Après un entretien ou une réparation du produit fait en dehors de l'Usine, demander au revendeur / distributeur de faire des contrôles de sécurité pour s'assurer que l'amplificateur est en parfait état de fonctionnement. Des conseils pour

les contrôles de sécurité se trouvent dans la norme DIN VDE 0701-0702, « Entretien, modifications et test des appareils électriques ».

**17. Nettoyage**

Assurez-vous de nettoyer périodiquement les filtres à poussière en face avant afin d'assurer un refroidissement optimal de l'appareil. Surveillez l'environnement dans lequel l'amplificateur fonctionne et ajuster les fréquences de nettoyage des filtres en conséquence. Débrancher l'amplificateur de la prise électrique avant de le nettoyer. Ne pas utiliser de produits liquides ou vaporisés. Nettoyez uniquement avec des linges secs. Voir également 8. "Maintenance Information", p. 38.

18. Emballage et expédition

Pour expédier l'amplificateur LINUS veuillez toujours utiliser le carton et l'emballage d'origine. Pour une protection maximale, toujours emballer l'unité comme elle l'a été à sa sortie d'usine.

19. Altitude (pour la Chine)

L'amplificateur ne doit pas être utilisé à des altitudes dépassant 2000 m.





SYMBOLES

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WICHTIGE SICHERHEITSHINWEISE

1. Allgemeines

Der Verstärker darf nur in Übereinstimmung mit den Anweisungen und Informationen in dieser Anleitung genutzt werden. Stellen Sie vor und während der Nutzung des Verstärkers sicher, dass allen Anweisungen, insbesondere den Sicherheitsanweisungen Folge geleistet wird. Die CODA Audio LINUS Verstärker sind darauf ausgelegt ein gepulstes Audiosignal zu verarbeiten und zu verstärken. An den Verstärker dürfen ausschließlich Lautsprecher mit den in dieser Anleitung spezifizierten Impedanzen angeschlossen werden.

2. Anleitung

Lesen Sie die Anleitung vor der Benutzung des Verstärkers sorgfältig und beachten Sie alle Warnungen und Sicherheitshinweise. Bewahren Sie diese Bedienungsanleitung zusammen mit dem Garantieschein zum späteren Nachschlagen an einem sicheren Ort auf. Diese stellt einen integralen Bestandteil des Verstärkers dar. Wir empfehlen die CODA Audio Webseite regelmäßig nach Updates und/oder neuen Versionen der Anleitung zu prüfen. Der Wiederverkauf des Verstärkers ist nur möglich, wenn die Benutzeranleitung vorhanden ist. Im Falle des Wiederverkaufs ist der Wiederverkäufer verpflichtet alle Änderungen, die er am Verstärker vorgenommen hat, zu dokumentieren und dem Käufer zur Verfügung zu stellen.

3. Einsatzumgebung

Benutzen Sie den Verstärker nur in E1, E2, E3, E4 oder E5 Umgebungen gemäß IEC/EN 55103-2:2010 „Elektromagnetische Verträglichkeit - Produktfamiliennorm für Audio-, Video- und audiovisuelle Einrichtungen sowie für Studio-Lichtsteuereinrichtungen für professionellen Einsatz - Teil 2: Störfestigkeit“.

4. Montage/Aufstellung

Platzieren Sie den Verstärker nicht auf einem instabilen Wagen, Ständer, Dreibein, Rahmen oder Tisch. Dies kann zu ernsthaften Verletzungen von Personen und/oder Beschädigungen des Verstärkers führen. Jegliche Montage darf nur gemäß der Anleitung des Herstellers erfolgen. Es ist nur Montagezubehör zu verwenden, welches vom Hersteller freigegeben wurde.

5. Netzanschluss

Der Verstärker darf nur an Anschlüsse mit einem dedizierten Erdungsleiter angeschlossen werden. Bei dem Verstärker handelt es sich um ein Gerät der Gerätekategorie 1, welches zu jeder Zeit geerdet sein muss. Fehlende Erdung kann unerwartete und hohe Spannungen am Gehäuse und den umliegenden Leitungen verursachen. Da es sich beim Hauptschalter auf der Vorderseite des Gerätes um einen Soft-Switch handelt, muss sichergestellt werden, dass der Verstärker jederzeit vollständig von der Stromquelle getrennt/isoliert werden kann.



6. Netzkabelschutz

Das Netzkabel muss immer so verlegt werden, dass es nicht eingeklemmt, geknickt, überfahren, überlaufen, oder beschädigt werden kann. Dabei ist insbesondere auf die verstärkerseitigen Anschlüsse der Kabel zu achten, da es hier ansonsten auch zu Beschädigungen des Verstärkers kommen kann. Falls Kabel in jedweder Weise beschädigt sind, sorgen Sie für entsprechenden Ersatz vor der weiteren Verwendung.

7. Umgebungstemperatur

Setzen Sie den Verstärker nicht in der Nähe von Hitzequellen wie Heizungen, Heizlüftern, Thermen, Herden oder anderen Wärmequellen ein.

8. Wasser und Feuchtigkeit

Setzen Sie den Verstärker nicht Regen oder Feuchtigkeit aus. Setzen Sie den Verstärker nicht in der Nähe von Wasser (z.B. Schwimmbecken, Brunnen) ein. Stellen Sie keine Gegenstände auf dem Verstärker ab, die Flüssigkeit enthalten (z.B. Gläser, Tassen, Flaschen). Schützen Sie den Verstärker gegen Spritzwasser. Es handelt sich hierbei um IP20 Equipment.

9. Belüftung

Die Schächte und Öffnungen am Kabinett sind für die Ventilation vorgesehen, um einen verlässlichen Betrieb des Verstärkers zu gewährleisten und diesen vor Überhitzung zu schützen. Diese Öffnungen dürfen nicht blockiert oder verdeckt werden. Der Verstärker darf nicht installiert werden, sofern keine ausreichende Belüftung sichergestellt ist. Bei der Installation in einem Gehäuse ist dafür Sorge zu tragen, dass ein ungehinderter Luftstrom zur Sicherstellung der maximalen Kühlleistung, gewährleistet ist. Kalte Luft wird durch den vorderen Teil des Gerätes eingeblasen und die heiße Luft an der Rückseite des Gerätes wieder ausgestoßen. Stellen Sie sicher, dass die Rückseite nicht blockiert ist und die heiße Luft daran hindert zu entweichen. Es ist untersagt den Verstärker ober- oder unterhalb eines Gerätes zu installieren, welches ein anderes Luftstromdesign hat. Wenn mehrere Geräte zusammen in einem Rack montiert werden, muss zwischen den einzelnen Geräten ein Platzhalter fest installiert werden. Dieser Platzhalter darf weder luftdurchlässig noch mit Luftschlitzen versehen sein, da dies signifikant die Leistungsfähigkeit des Luftstroms verringert.

10. Störung durch externe Objekte und/oder Flüssigkeiten

Versuchen Sie niemals Objekte jedweder Art durch die Öffnungen in den Verstärker zu bekommen. Dies kann zu Kontakt mit spannungsführenden Elementen führen, was einen Brand und/oder elektrischen Schlag verursachen kann. Verschütten Sie niemals Flüssigkeiten jedweder Art auf das Gerät. Verwenden Sie den Verstärker nicht in einer Umgebung, in der potentiell Gegenstände und/oder Flüssigkeit auf und/oder in den Verstärker gelangen könnten. Der Verstärker sollte möglichst in einem schützenden Gehäuse und/oder Rack verwendet werden.

11. Verbindung

Bevor Sie externes Equipment an den Verstärker anschließen, prüfen Sie, ob es sicher ist, dies zu tun. Trennen Sie das Equipment von der Stromversorgung, wenn notwendig. Zuwiderhandlungen können zu einem Stromschlag und ernsthaften Verletzungen führen. Lesen Sie Bedienungsanleitung des anzuschließenden Gerätes sorgfältig bevor Sie die Verbindung herstellen.



12. Blitzschlag

Trennen Sie den Verstärker vom Netz für zusätzlichen Schutz des Verstärkers während eines Gewitters oder wenn dieser für längere Zeit nicht benutzt/beaufsichtigt wird. Dies verhindert eine Beschädigung des Verstärkers durch Blitzeinschlag und/oder Netzschwankungen. Eine vollständige Trennung des Verstärkers vom Stromnetz erfolgt nur durch Abziehen des Netzsteckers.

13. Schäden die Serviceleistungen erfordern

Trennen Sie den Verstärker vom Stromnetz und kontaktieren Sie Ihren Händler/Distributor oder ein autorisiertes Service Center, wenn eine der folgenden Situationen eingetreten ist:

- Flüssigkeit wurde auf den Verstärker verschüttet,
- Fremdkörper sind in den Verstärker gelangt,
- der Verstärker war Regen oder Feuchtigkeit ausgesetzt,
- der Verstärker wurde mechanisch beschädigt,
- das Netzkabel/der Netzstecker sind beschädigt,
- der Verstärker zeigt ein abnormales Verhalten im Betrieb,
- der Verstärker wurde längere Zeit in einer staubigen Umgebung eingesetzt.

14. Service

Jegliche Reparaturarbeiten müssen durch eine von CODA Audio autorisierte Stelle durchgeführt werden. Versuchen Sie nicht den Verstärker selbst zu reparieren, da das Öffnen des Verstärkers Sie gefährlichen Spannungen und anderen Risiken aussetzen kann. Der Verstärker darf nur von qualifiziertem und autorisiertem Personal geöffnet werden. Bitte wenden Sie sich an Ihren Händler.

15. Ersatzteile

Sofern Ersatzteile benötigt werden, stellen Sie bitte sicher, dass Ihr Händler nur vom Hersteller freigegebenen Ersatzteile benutzt. Die Nutzung von nicht freigegebenen Ersatzteilen kann Verletzungen und/oder Schäden durch Feuer, Stromschlag oder andere verwandte elektrische Gefahren verursachen.

16. Sicherheitstest

Nach Beendigung von Servicearbeiten an dem Produkt ist es ratsam Sicherheitstests vom Hersteller oder einem von ihm autorisierten Servicepartner (z.B. Händler/Vertrieb) durchführen zu lassen, um sicher zu stellen, dass der Verstärker sachgemäß funktioniert. Empfehlungen zur Durchführung eines solchen Tests können der DIN VDE 0701-0702 „Instandsetzung, Änderung und Prüfung elektrischer Geräte“ entnommen werden.

**17. Reinigung**

Stellen Sie sicher, dass die Staubfilter regelmäßig gereinigt werden, um die bestmögliche Kühlung des Verstärkers aufrechtzuerhalten. Achten Sie auf die Betriebsumgebung des Verstärkers und stimmen Sie die Reinigung der Staubfilter dementsprechend ab. Trennen Sie den Verstärker vom Netz bevor Sie mit der Reinigung beginnen. Benutzen Sie nur einen trockenen Lappen und keine flüssigen Reiniger oder Aerosole. Vgl. dazu auch 8. "Maintenance Information", S. 3.

18. Verpackung und Versand

Nutzen Sie für den Versand des Verstärkers nur die originale Kartontage. Für ein Maximum an Sicherheit soll der Verstärker vor dem Versand so verpackt werden, wie er ursprünglich vom Werk geliefert wurde.

19. Einsatzhöhe

Der Verstärker soll nur in Höhen bis 2000 m über Meeresspiegel eingesetzt werden.





SYMBOLE

	CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN	 CAUTION - HIGH VOLTAGE HAZARDS EXIST WITHIN THIS PRODUCT. REFER ALL SERVICING TO AUTHORIZED PERSONNEL
---	---	---

	THE LIGHTNING FLASH WITH ARROWHEAD SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF UNINSULATED DANGEROUS VOLTAGE WITHIN THE PRODUCT'S ENCLOSURE.
---	---

	THE EXCLAMATION MARK IS INTENDED TO ALERT THE USER TO IMPORTANT INSTRUCTIONS ALSO FOR MAINTENANCE IN THE LITERATURE ACCOMPANYING THE AMPLIFIER.
---	--

	WARNING - TO PREVENT FIRE OR SHOCK HAZARD, DO NOT EXPOSE THIS AMPLIFIER TO RAIN OR MOISTURE.
---	---

	CAUTION - RISK OF ELECTRIC SHOCK- DO NOT OPEN.
---	---

	THE AMPLIFIER SHALL ONLY BE OPERATED AT ALTITUDES BELOW OR EQUAL 2000 m.
---	---

	THE AMPLIFIER MAY ONLY BE CONNECTED TO A SOCKET WITH A PROTECTIVE EARTH CONDUCTOR.
---	---

**CE CONFORMITY****Declaration of conformity in accordance to EC Directives:**

Electromagnetic compatibility (Council Directive 2014/30/EU, EMC)

Low-voltage electrical equipment (Council Directive 2014/35/EU, LVD)

2011/65/EU (RoHS2 Directive)



Manufacturer's name: **CODA Audio GmbH**

Manufacturer's address: **Boulevard der EU 6, 30539 Hannover, Germany**

declares that the product with the model name: **LINUS6.4** conforms to the following standards:

CISPR 32:2015

CISPR 32:2015 + A1:2019

IEC 61000-3-2:2018 + A1:2020

IEC 62368-1:2023

The operating conditions and application environments presupposed in the information for use (user manual) are to be kept accordingly.

Svetlomid Aleksandrov

EC DECLARATION OF CONFORMITY

Hannover, 14.10.2025



1. WELCOME TO CODA AUDIO

CODA Audio is a leading designer and manufacturer of high-quality pro audio loudspeaker systems.

Core to our products are a number of unique patented driver technology designs which provide outstanding dynamic results as well as improved precision and reliability over conventional components.

To ensure the highest quality and control over our products, we have our own manufacturing facility in Europe which produces all of the driver and cabinet components. Further benefits to this approach include substantial reductions in cost and quicker times to market for new products.

We have a wide product range offering high quality solutions to satisfy the most discerning and complex professional sound reinforcement applications, ranging from portable to installation to touring.

CODA Audio is represented via a global network of experienced and technically qualified international distributors. We believe that the best way to get to know us better is by listening to our loudspeakers because:

HEARING IS BELIEVING.



2. THE AMPLIFIER

2.1 Unpacking

Please unpack and inspect your new amplifier for any damage that may have occurred during transit. If damage is found, notify the transportation company immediately. Only you as the consignee may initiate a claim for shipping damage.

CODA Audio will be happy to cooperate fully as needed. Please save the shipping carton as evidence of damage for the shipper's inspection.

Even if the amplifier has arrived in perfect condition, save all packing materials for any future transport of the unit.

When shipping the LINUS6.4/6.4D amplifier, always use the original shipping carton and packing materials. For maximum protection, repack the unit as it was originally packed at the factory.

NOTE: Never ship the amplifier without the original packaging materials.

2.2 The amplifier

The LINUS6.4/6.4D amplifier offers a power output of:

- 1600 W peak per channel @ 4 Ω / channel
- 2200 W peak per channel @ 2.7 Ω / channel
- 3000 W peak per channel @ 2 Ω / channel (Asymmetric)
- 3200 W peak per bridged channel pair @ 8 Ω
- 6000 W peak per bridged channel pair @ 4 Ω (Asymmetric)

For a complete overview of rated power data please refer to chapter 5 'SPECIFICATION'.

The LINUS6.4/6.4D power amplifier is fitted with a Switched Mode Power Supply (SMPS) with PFC (Power factor Correction) for 100V - 240 V operation, which significantly reduces the weight and size (only 1U) of the amplifier. The SMPS is controlled by dual microprocessors which monitor the supply rails and the mains voltage.

The SMPS automatically regulates the supply rails according to output voltage demand. The advantage is that the heat generation is far lower than usual when the amplifier is in an idle state.

The LINUS6.4/6.4D uses a Linux operating system for controlling and monitoring the power amp. This has four main advantages over more traditional power amp systems:

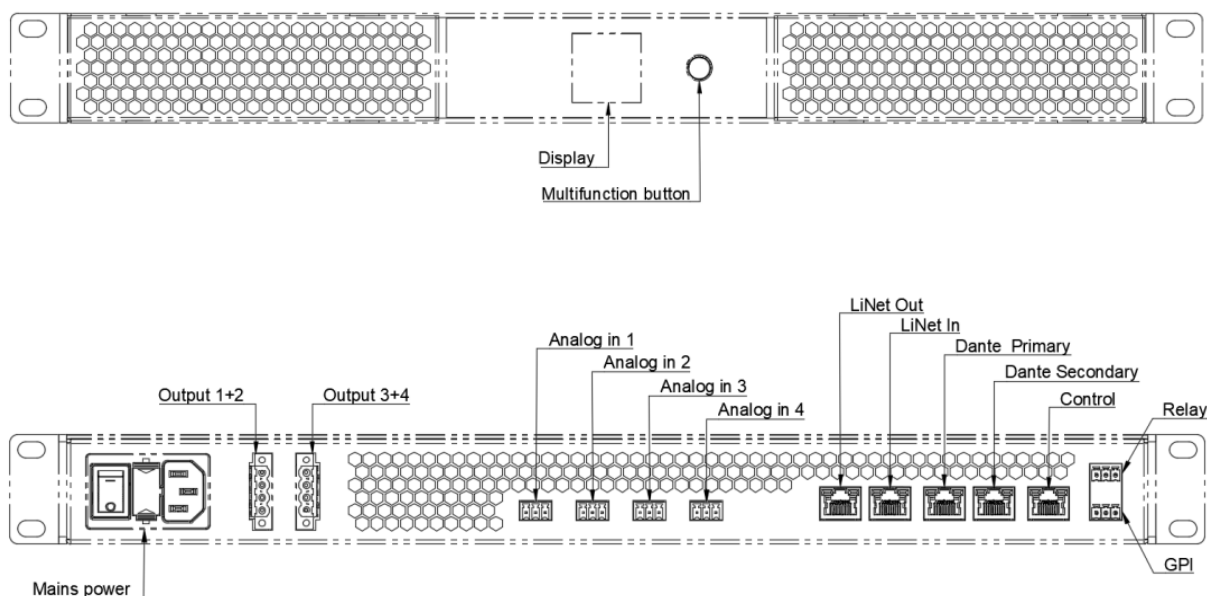
- Fast network communication
- Multiple controlling protocols are available to suit external control demand by 3rd party applications
- Fast real-time controlling of parameters
- The operating system always saves its last state upon loss of power



The LINUS6.4/6.4D has been designed as an intelligent and powerful amplifier for performing specialised tasks within a complex audio system. Users can adapt the power amp to meet their specific audio requirements before use.

The high resolution 240x240 pixels full colour IPS display mounted on the front of the LINUS6.4/6.4D amplifier allows the indication of the most important information, such as status, output level, limiting, mains voltage and loaded preset.

Since there are a lot of parameters available, it is important that users familiarise themselves thoroughly with the entire range of settings and programmable features before using the power amp. If you have any questions regarding features and/or functions of your LINUS6.4/6.4D amplifier, CODA Audio will be pleased to provide you with further information. Alternatively, contact your dealer or distributor.

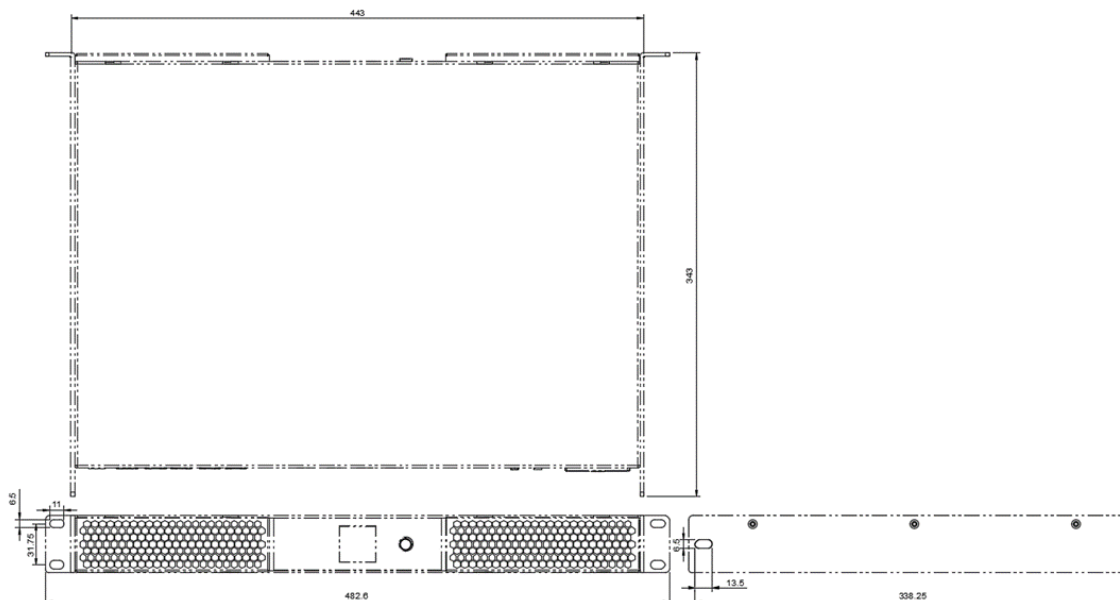




3. INSTALLATION

3.1 Mounting

Use four screws and washers when mounting the amplifier to the front rack rails. For mobile use, the amplifier should also be secured using the 19" mounting elements on the rear panel.



3.2 Cooling

Under normal operation of the power amp, overheating should never be a problem. The air is taken in from the front and out through the back. It is of course essential that, while the power amp is running, the air is able to circulate freely. The efficiency of the cooling will depend on both the immediate environment (e.g. an enclosed rack, direct sunlight) and if the front filter is clogged. If the amp is installed in a case, the open area at the back of the case must be at least 100 cm². This area should be in line with the amp. Always keep 1HE rack unit space open between adjacent amplifiers.

3.3. Mains

3.3.1 Mains supply

Only connect the LINUS6.4/6.4D amplifier to an appropriate AC circuit and outlet in accordance with the requirements indicated on the rating plate. Only use the supplied mains cable which is supplied with the amplifier for safety reasons.

CLASS 1 EQUIPMENT.
MUST BE EARTHED.
100-240V ~ 1000VA
50 - 60Hz



3.3.2 Inrush current limitation

The LINUS6.4/6.4D SMPS uses a processor which always limits the mains inrush current. This limiter will take action under any of the following conditions:

- when connecting the amplifier to the mains through the mains cable
- when switching the amplifier on through an external mains breaker
- the mains voltage was lost (e.g. a short voltage drop).
- This limiter will confine the mains current to a value smaller than 16 Arms*.

*Maximum rms value of inrush current over one half-cycle of the mains voltage according to IEC/EN 55032:2016-02

(Electromagnetic compatibility of multimedia equipment - Emission requirements: German version EN 55032:2012/ AC:2013).

NOTE: Even under normal conditions the mains current can reach levels up to 12 A/32 A (240 V/100 V) and even higher for very short periods of time. This could cause lamps to flicker if connected to the same mains as the amplifier. The impedance of an AC circuit should be less than 0,157 Ω to avoid flicker according to EN 61000-3-11 "Electromagnetic compatibility –

Part 3-11: Limits – limitation of voltage changes, voltage fluctuations and flicker in the public low-voltage supply systems – Equipment with rated current ≤ 75 A and subject to conditional connection" (IEC 77A/929/CDV:2016).

If in any doubt, consult your local power provider. Never attempt to measure this impedance level with your Ω meter. This may damage your meter and expose you to the risk of electric shock.

3.3.3 Mains power consumption and current draw

Due to the huge output power of the LINUS 6.4/6.4D, the mains current draw can get very high when demanding large output powers. Please refer to following table for an overview of mains currents and power consumption under different operating conditions.

Operating condition	Mains current (4 Ω)	Power consumption (4 Ω)	Output power (4 Ω)
Amplifier standby (output stage off)	0.20 A	8 W	0 W
Idle (power on)	0.40 A	23 W	0 W
100 W per channel / 1/8th	2.30 A	500 W	400 W
200 W per channel / 1/4th	4.30 A	1000 W	800 W
250 W per channel / 1/3rd	6.10 A	1200 W	1000 W



Mains current draw and power consumption @ 230 V, 50 Hz.

Measured with pink noise with crest factor of 12 dB to present typical music signal. For 115 V mains operation, the current values can be multiplied by 2.

Please note that the values given here are typical values only, measured on a standard 230 V/50 Hz outlet. The actual mains current draw can vary depending on the music signal and the mains characteristics (especially the mains impedance) of any specific installation.

3.4 Signal inputs

The LINUS6.4/6.4D amplifier offers three different input signal sources:

Analog

In this mode the analog signals connected to the Phoenix input connectors will be used as input signal.

LiNET

With the LiNET setting the input signals are taken from the LiNET Digital Audio interface.

DANTE

With the DANTE setting the input signals are taken from the DANTE Digital Audio Interface.

3.4.1 Analog input

Phoenix type 1840379 3.81mm:

Pin 1 = Hot (in polarity, "+")

Pin 2 = Cold (out of polarity, "-")

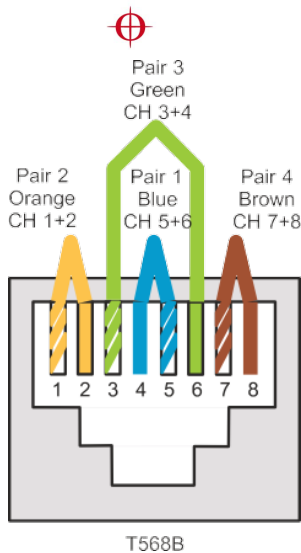
Pin 3 = Ground (chassis/earth)



Always use symmetrically (balanced) shielded cable to connect the amplifier.

3.4.2 LiNET AES/EBU input/output

Eight audio channels are arranged in four AES/EBU pairs. The AES/EBU input and output connectors allow you to receive and send multichannel digital audio streams to other AES/EBU-compatible devices (like other LINUS6.4/6.4D amplifiers for example). Please note that although the AES/EBU and Ethernet connectors use the same connector type (RJ45), the physical transmission protocols are different. So, any direct connection between the AES/EBU connectors and standard Ethernet connectors will not work



LiNET AES/EBU RJ45 pin wiring		
RJ45-Pin	Color	Channel (polarity)
1	orange-white	1/2 (+)
2	orange	1/2 (-)
3	green-white	3/4 (+)
4	blue	5/6 (-)
5	blue-white	5/6 (+)
6	green	3/4 (-)
7	brown-white	7/8 (+)
8	brown	7/8 (-)

3.4.3 DANTE

The DANTE Primary / Secondary connector (LINUS6.4D only) allows you to receive unicast or multicast digital audio streams from any DANTE enabled transmitter. Please note, that LINUS devices are only receivers and therefore third-party software and hardware is needed to build a DANTE network. For further information regarding DANTE please visit www.audinate.com.

3.5 Remote control inputs (Ethernet / PoE)

The Ethernet link network connector allows you to access the LINUS6.4/6.4D from a host computer for remote control, firmware update and downloading DSP presets. Please note that for setting up proper network connection you need to use the CODA Audio LINUS Control software.

The ethernet link supports PoE (Power over Ethernet) IEEE 802.3af (15.4W). Feeding PoE power to the control port of Linus 6.4 will keep operating the control and dsp section of the Linus 6.4 in case of losing mains power. After the mains power comes back online withing range, it will take only 3 seconds until the amplifier outputs audio again.

3.6 Power outputs

3.6.1 Phoenix Connection

Phoenix Output 1 connector is connected to the channel 1 and 2 amplifier outputs. Phoenix Output 2 connector is connected to the channel 3 and 4 amplifier outputs. The pin configuration of the Phoenix type 1825336 connectors is as follows:

		Normal mode	Bridge mode
Output 1	Pin 1	Channel 1 +	Channel 1 +
	Pin 2	Channel 1 -	
	Pin 3	Channel 2 +	
	Pin 4	Channel 2 -	Channel 1 -
Output 2	Pin 1	Channel 3 +	Channel 3 +
	Pin 2	Channel 3 -	
	Pin 3	Channel 4 +	
	Pin 4	Channel 4 -	Channel 3 -





WARNING!

The output connectors are marked with the lightning flashes indicate high voltages that are potentially life threatening. Wiring to these terminals requires installation by an instructed person or the use of ready-made leads or cords.

Custom wiring should only be carried out by qualified personnel.

To prevent electric shock, do not operate the amplifier with any of the conductor portion of the speaker wire exposed.

NOTE: For reasons of safety and performance do only use high-quality fully insulated speaker cables of stranded copper wire. Use the largest wire size that is economically and physically practical. Make sure that the cables are not longer than necessary. Always terminate the speaker wires with crimped wire ferrules for the correct cable size.

3.7 GPI Remote control

Phoenix 3.81mm type 1840379:

Pin 1 = Common

Pin 2 = GPI1 (5-24V to activate, unipolar) - Default function = Mute ALL ON upgoing, Mute ALL OFF downgoing

Pin 3 = GPI2 (5-24V to activate, unipolar) - Default function = Standby ON upgoing, Standby OFF downgoing



3.8 Relay Remote control

Phoenix 3.81mm type 1840379

Pin 1 = Common

Pin 2 = Normally Open - Default function = Contact closes when amplifier stage is running OK

Pin 3 = Normally Closed - Default function = Contact opens when amplifier stage is running OK





4. OPERATION

4.1 Front panel user interface

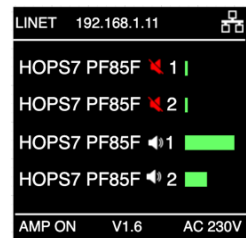
The front panel user interface of the Linus 6.4 is a display of 240x240 pixel full colour IPS LCD with a wide viewing angle in conjunction with a multifunction illuminated button.

4.1.1 Home page

The top of the display indicates the network connectivity status.

The centre of the display indicates the audio related settings and output level. The speaker icons next to the channel name indicate mute or unmute.

The bottom part of the display shows device status information such as mains voltage, amp stage status and the software version.



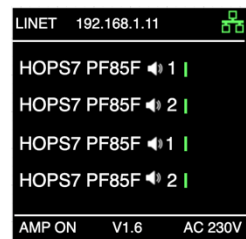
4.1.2 Network status

The network icon on the right top of the display indicates if the control network connector is connected.

White indicates the control network is not physically connected.

Green indicates the control network is connected.

Further the IP address is shown as well as the address assignment type (DHCP or STATIC). Linus Control only uses static IP addressing.



4.1.3 Audio level indicators

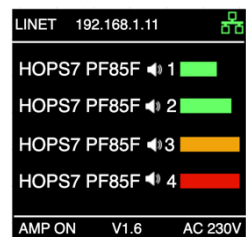
Each amplifier channel has an output level bar. The colour of each of the level bars can be green, yellow or red.

Green: normal operation

Orange: there is -1 dB of gain reduction (limiting)

Red: there is -3 dB of gain reduction (limiting)

If one or more channels is limiting 3dB, the multifunction button will also flash red.





4.1.4 LINET Signal input

The LINUS6.4 has offers 8x LINET input signal channels (AES/EBU). The input Channel is displayed between the mute symbol and the output meter.

Additional Symbol description

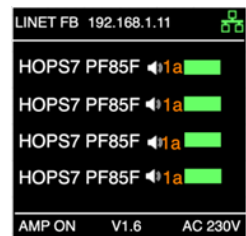
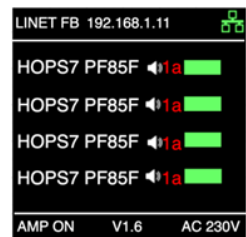
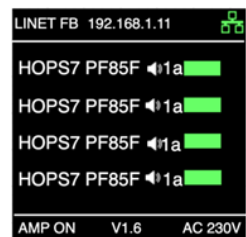
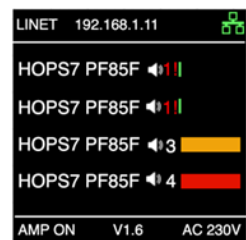
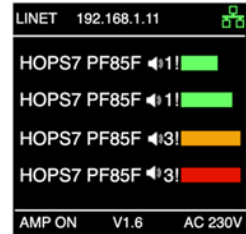
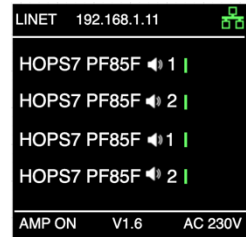
Summed Signals are displayed with an "Exclamation Mark"!

Lost LINET signals (AES/EBU clock not locked) are highlighted with red

LINET with activated Analog Fallback option "FB" and analog signal input character following the LINET input signal channel

LINET with activated Analog Fallback option "FB" and analog signal input character following the LINET input signal channel -> Red characters indicate a lost LINET (AES/EBU) Clock, input channel receive Audio from analog input signal channel

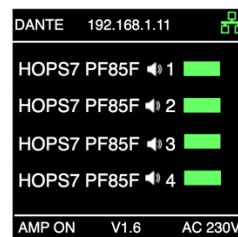
LINET with activated Analog Fallback option "FB" and analog signal input character following the LINET input signal channel -> Orange characters indicate locked LINET (AES/EBU) Clock, input channel receive Audio from analog input signal channel.





4.1.5 DANTE Signal input

The LINUS6.4 iD includes a DANTE Card with Primary/Secondary connection. Activated DANTE Source indicated as following



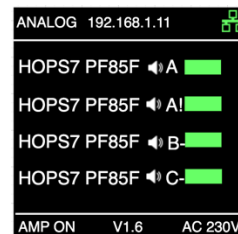
4.1.6 Analog Signal input

Analog inputs selected

Additional symbol description

A! Summed Analog input channels

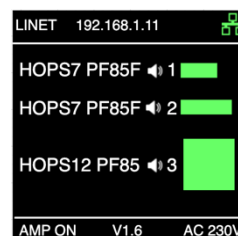
C- Polarity reversed at Analog Input channel C



4.1.7 Normal or bridge mode

The LINUS6.4 has 4 amplifier channels. Alternatively, each channel pair (1-2 and/or 3-4) can be bridged to become a higher-powered channel by combining 2 channels. This will double the output voltage.

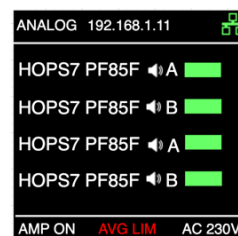
The image on the right shows channel 3-4 set in bridge mode, while channel 1-2 are in normal mode.



4.1.8 Average power limit

Linus 6.4 has a very high dynamic headroom required by musical signals. The amplifier continuously calculates the average current of all channels and will limit the average power if exceeded.

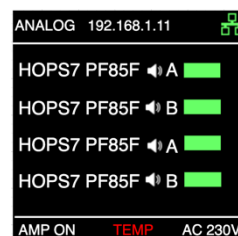
On the image on the right, you see this will be indicated by "AVG LIM" in red on the bottom of the display.



4.1.9 Overtemperature

In case of the internal measured temperature goes above 70degC, a thermal limiter will become active. The amplifier will stay operational, but a gain reduction of 20dB will be applied until the temperature is again under maximum threshold.

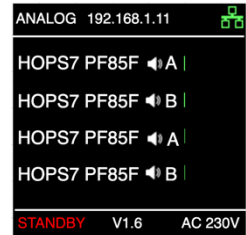
The image on the right shows this will be indicated by "TEMP!" in red on the bottom of the display.





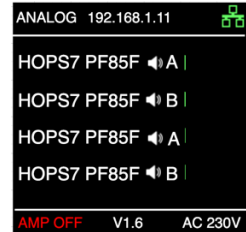
4.1.10 Standby

Amplifier has been switched into standby operation (with LINUS Control or 3rd Party commands). Amplifier power supply is turned off and delivers no output



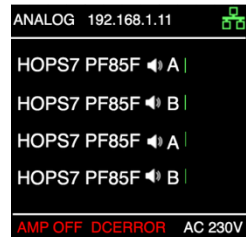
4.1.11 Power over Ethernet (PoE)

Amplifier's ethernet port is connected to a PoE network switch and the main power supply is detached or switched off (with the switch on rear side of the unit)



4.1.12 DCERROR

DCERROR is shown in case the amp stages are disabled due to DC voltage on the outputs. Feature implemented from FW v2.1.



4.1.13 Manual Mute

A short press of the multifunction button will mute all channels and will flash the button in green colour. Pressing the button again will unmute all channels and the buttons will become steady green again.



4.2 App control

4.2.1 Connecting to the amp

Activating WiFi

The LINUS6.4 App requires the integrated WiFi hotspot of the LINUS6.4 amplifier to be active. To enable WiFi, please press and hold the Mute button on the frontpanel of the amplifier. This will display a QR-Code which you can scan with your mobile device's camera to automatically connect to the amplifier's WiFi network.

Installing the App

Once connected to the amplifier's WIFI network, please open the web browser on your mobile device and enter the IP address **172.24.0.1**. You will be prompted with a login page. At this point, you can install the LINUS6.4 App on your device. On Apple devices, this can be done by clicking the "Share" button and scrolling down to select the option "Add to Home Screen". You can choose a name for the App and need to click "Add" in the top right corner afterwards. Now there should be an App with the CODA logo installed on your Home Screen.

Login

Once you are connected to the amplifier's WIFI and have opened the App, you will be prompted with a login screen. Click login to start controlling the amplifier.

Warning

Like the Frontpanel Menu on CODA's other amplifiers, the LINUS6.4 App can not be used at the same time as LINUS Control. There has to be only one Control instance (either the App or LINUS Control) modifying the state of the amplifier at any given time. Otherwise changes made in LINUS Control will not be reflected in LINUS Control and vice versa, putting the device in a torn state that matches neither the App nor LINUS Control.

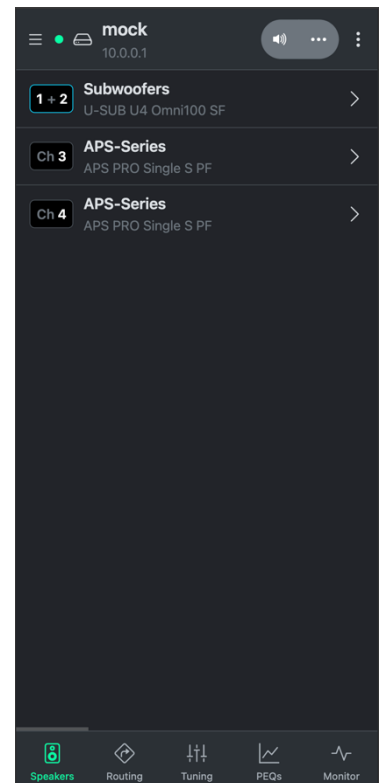
To ensure that only one Control instance is connected, the amplifier will disconnect the App and its WiFi hotspot once LINUS Control is connected to it. After LINUS Control is disconnected, the WiFi hotspot can be enabled and the App can be connected again.



4.2.2 Tabs

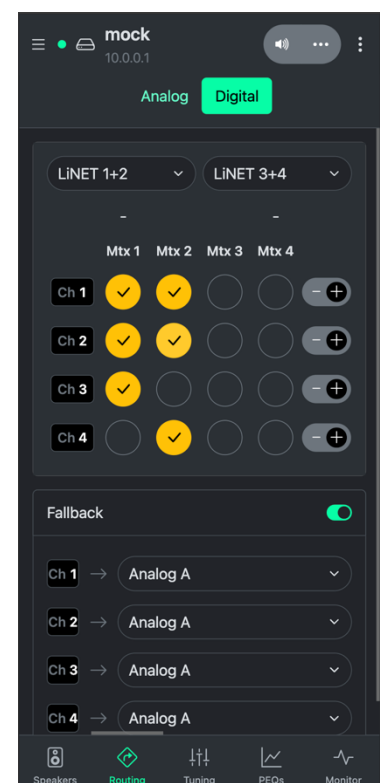
Speakers Tab

In the Speakers Tab, you can load speaker presets without connecting to LINUS Control. Clicking a channel opens the Preset list, containing all speaker presets that are currently supported for LINUS6.4. At the top of the Preset list, you can switch between Single-Ended ("Normal") and Bridge Presets. Bridged channel pairs are displayed as one channel in the Speakers Tab (e.g.: "1+2").



Routing Tab

The Routing Tab offers the same input routing options that can be found in LINUS Control. At the top, you can switch between Analog and Digital inputs. To the right of each line in the Routing Matrix, there is a polarity invert switch for that amplifier output. If LiNET is selected as input signal type, the Analog Fallback Routing list appears below the Routing Matrix.





Tuning Tab

In the Tuning Tab, you will find the same Tuning Tools as in LINUS Control. Click on the abbreviated loudspeaker name at the top of the Tuning Tab to select that channel for tuning. To apply the same tuning parameters to multiple channels, channels can be grouped at the top of the page.



Clicking on the button right of the channel selection buttons will open the Grouping dialog.

Figure 3: Here you can link multiple amplifier channels (columns) to one virtual Tuning Group (rows). The same Grouping logic applies to the PEQs Tab.

Pressing the unit behind a tuning value and dragging up or down opens a slider which can be used as an alternative way of adjusting tuning parameters.

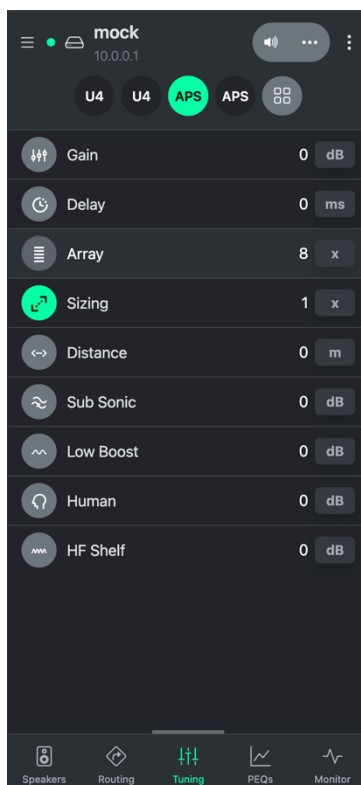


Figure 1: Tuning-Tab

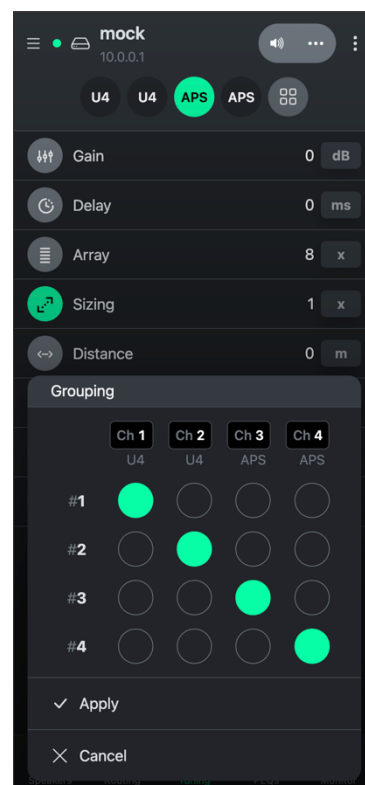


Figure 2: Grouping dialog

PEQs Tab

The PEQs Tab offers 7 additional parametric equalisers for each output channel. A PEQ is enabled if its number is highlighted in green. The filter type can be set to either Bell, High-Shelf or Low-Shelf. A PEQ can be adjusted by clicking its row in the PEQ list.

This will open a window with parameters for filter type, gain, cutoff frequency and bandwidth. The Grouping logic in the PEQs Tab works the same as, and is mirrored in the Tuning Tab.

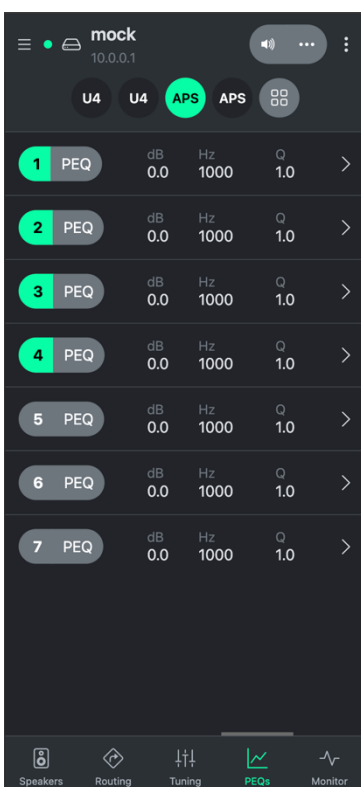


Figure 4: PEQs Tab

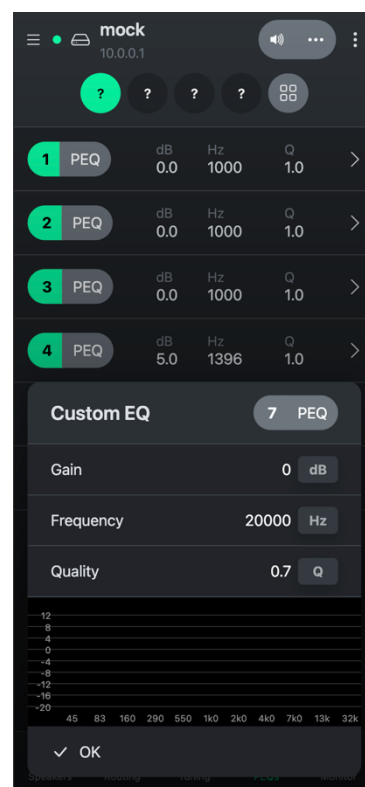
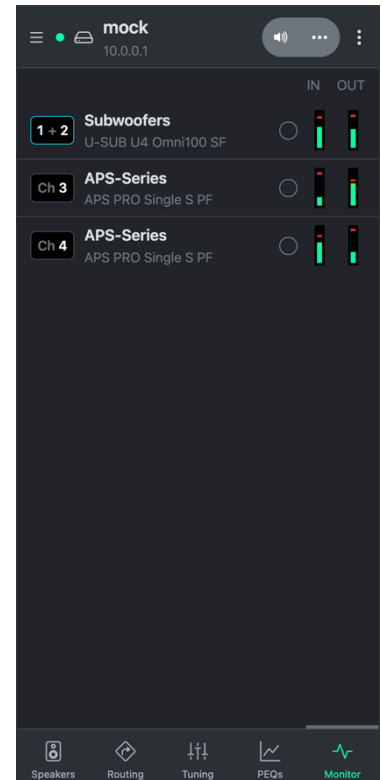


Figure 5: EQ parameter dialog



Monitor Tab

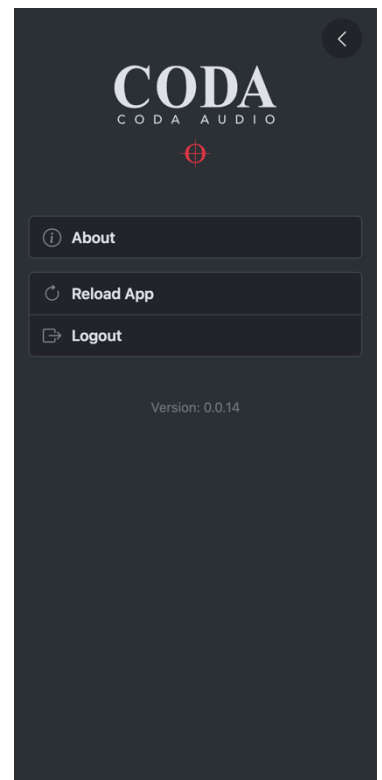
The Monitor Tab shows Input and Output signal levels of the individual amplifier channels. Bridged channel pairs are displayed as one output ("1+2" for example). Click a channels to open a more detailed meter view.



4.2.3 App-Menu

App Menu

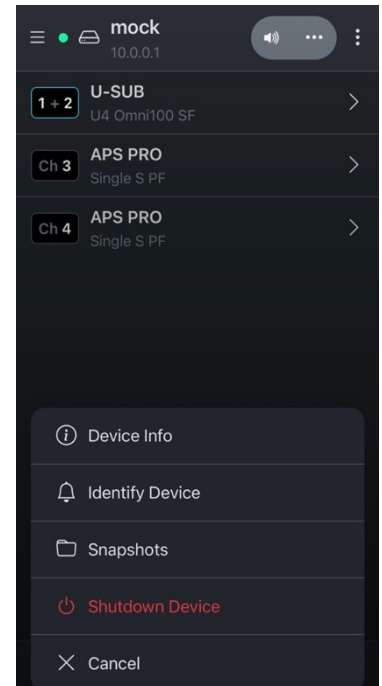
The button (three horizontal lines) in the top left of the App's user interface opens the App menu. If the App ever gets disconnected from the amplifier for whatever reason, please click the "Reload App" button. This will reconnect to the amplifier and refresh the current state.





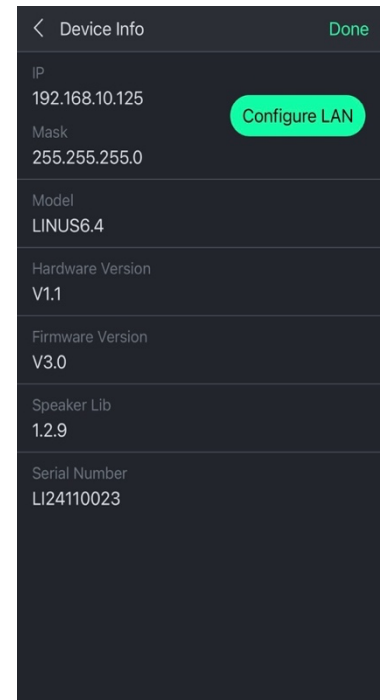
Device Menu

The three vertical dots in the top right of the App's user interface open the Device menu. Here you can access additional functionality: "Identify Device" will flash the display of the amplifier, so you can verify that you are connected to the correct unit (same as Identify button in LINUS Control). "Shutdown Device" puts the amp into Standby (same as Power button on Amps page in LINUS Control).



Device Info

The Device Info page shows device specific information like hardware & firmware version, speaker library version, serial number, etc. It also shows the IP address and subnet mask the amplifier currently has configured on its Ethernet Control port (not on the WiFi network that the App uses).





Click the “Configure LAN” button to set a new static IP address or subnet mask for LINUS Control to connect to. Click Apply after making changes in the “Configure LAN” dialog.

Snapshots

The LINUS6.4 App can recall Snapshots that have been saved on the amplifier by LINUS Control or save and recall new Snapshots without connecting to LINUS Control.

There are 20 Snapshot slots available on LINUS6.4, which are empty by default. After selecting one of the slots, a dialog with the options “Load snapshot” and “Save snapshot” opens.

After selecting “Save snapshot”, a name for the new Snapshot can be entered, and confirmed by clicking “Save snapshot”.



4.4 Mains protection

4.4.1 Inrush current limitation

Within one second of the LINUS6.4/6.4D amplifiers being connected to the mains, the mains current limiter will charge the capacitors in a controlled way, limiting the maximum mains current during startup. This current is never higher than the maximum peak current in operation.

4.4.2 Mains overvoltage detection

The mains voltage is continuously monitored by the SMPS. If the mains input voltage exceeds 265 V, the main power supply switches off. It will switch on again after the voltage is back within specified range

4.5 Main SMPS protection

4.5.1 Overcurrent protection

The main SMPS (Switched Mode Power Supply) transformer current of your LINUS6.4/6.4D amplifier is continuously monitored. If overcurrent occurs, the main SMPS will limit the current. Should there be an internal failure, this feature prevents other parts from being damaged.

4.5.2 Overload protection

The output stage is permanently monitored for possible overload situations. There are varying limiting levels of the look-forward overload protection depending on connected output load. These limits will be set automatically from a load measurement on each output channel. This improves reliability without degrading sound quality when driving complex loads. In case of extremely high output levels with heavily clipped output signals and low loudspeaker impedances $< 2 \Omega$ or $< 4 \Omega$ in bridge mode, this additional protection will reduce the amplifier stage output power very quickly. If activated, this indicates that the amplifier is running close to its absolute maximum power capacity and the limit LEDs on the front panel are flashing.

In normal operation (no limiting) this protection should never be activated.

4.5.3 Thermal protection

The temperature of the main SMPS transformer of your LINUS6.4/6.4D amplifier is permanently monitored. If the temperature exceeds 70° C/158° F, a thermal limiter will act on the total system power and avoid a SMPS shutdown.

4.6 Fans

The fans mounted in your LINUS6.4/6.4D amplifier operate permanently, but as long as the temperature remains below 40°C /104°F, they will run at their slowest speed. The highest detected temperature from the heatsinks of each channel and SMPS controls the speed of the fans. Above 40°C/104°F the speed is increased until it reaches its maximum value.



5. SPECIFICATION

GENERAL

Number of output channels	4
Output stage	Class D-IC
Internal sample rate / bit-depth	48 kHz/64 bit
Signal-to-noise ratio (22 Hz - 20 kHz, 4 Ω - analog input)	> 105 dB (unweighted) > 108 dB (A-weighted)
Signal-to-noise ratio (22 Hz - 20 kHz, 4 Ω - digital input)	> 113 dB (unweighted) > 116 dB (A-weighted)
Frequency response (8 Ω load with CLEAR preset)	20 Hz – 20 kHz = (+0.3 dB/-0.2 dB)
THD+N & IMD (4 Ω load @ 1/2 output power)	20 Hz – 20 kHz = < 0.05%
Latency (input to loudspeaker output)	Minimum 2.70 ms AES/EBU input Minimum 2.00 ms Analog input
Protection circuits	Inrush current limiter Thermal limiter Output DC SMPS over-current Output overload
Indicators	Mute Status Limit Signal Protection Ethernet control Power on
Ethernet connection	1 x 100 Mbps RJ45 Control 2 x 1000 Mbps RJ45 Dante™



AC MAINS

AC mains input connector	IEC
AC mains voltage (nominal)**	100V – 240V AC
AC mains voltage (maximum)**	90V - 264V AC
AC mains frequency	47 – 63 Hz
Power consumption* (1/4 power = 200 W @ 4Ω to represent typical music signal)	Amplifier in standby = 8 W Amplifier idle = 23 W Amplifier ¼ power = 1000 W


INPUT

Input sources	Analog & LiNET & DANTE™
Analog input impedance (balanced)	44 kΩ
Maximum input level (analog differential)	+21 dBu / 8.7 Vrms
Input connections	4 x Phoenix 1840379 Analog 1 x RJ45 LINET IN (8 x CH) 1 x RJ45 LINET LINK (8 x CH) 2 x RJ45 DANTE IN (4 x CH)
Supported digital input formats (Internal SRC)	44.1 kHz / 48 kHz / 88.2 kHz / 96 kHz / 176.4 kHz / 192 kHz

OUTPUT

RMS output power* (20 Hz - 20 kHz, THD < 0.01%) (all channels driven, 12dB crest factor)	500 W @ 8 Ω 800 W @ 4 Ω 1500 W @ 2 Ω 1600 W @ 8 Ω bridged 3000 W @ 4 Ω bridged (2ch BTL, 2ch SE)
Peak output power* (20 Hz - 20 kHz, 12 dB Crest Factor) (all channels driven)	1000 W @ 8 Ω 1600 W @ 4 Ω 3000 W @ 2 Ω 3200 W @ 8 Ω bridged 6000 W @ 4 Ω bridged (2ch BTL, 2ch SE)
Maximum output voltage*	+/- 90 V pk SE +/- 180 V pk BTL
Maximum output current*	+/- 50 A pk
Damping factor (8 Ω load, 1 kHz and below)	> 2500
Minimum output load	2 Ω per channel 4 Ω in bridged mode
Power output connections	2x PHOENIX 4P (Connector supplied with amplifier)


THERMAL

Operating temperature	+5° C to +55° C 41° F to 131° F
Thermal output (BTU/h)	85.3 = Idle 700 = 20% 1621 = 50% 3156 = 100%
Thermal output (kWh)	0.025 = Idle 0.205 = 20% 0.475 = 50% 0.925 = 100%
Cooling	2 x thermally controlled fans. Hot air expelled at rear.

PHYSICAL

Dimensions (W x H x D)	483 x 44 x 345 mm / 19" x 1.73" x 13.58" (1U) (size including back mounting ears)
Shipping dimensions (W x H x D)	600 x 63 x 400mm / 23.62" x 2.48" x 15.75"
Net weight	5.75 kg 12.7 lbs
Shipping weight	6 kg / 13.23 lbs.

* Typical values – some variation may exist due to component tolerances.

** Voltage range should not be exceeded. Amplifier output power performance will degrade below nominal voltage.



6. PERFORMANCE

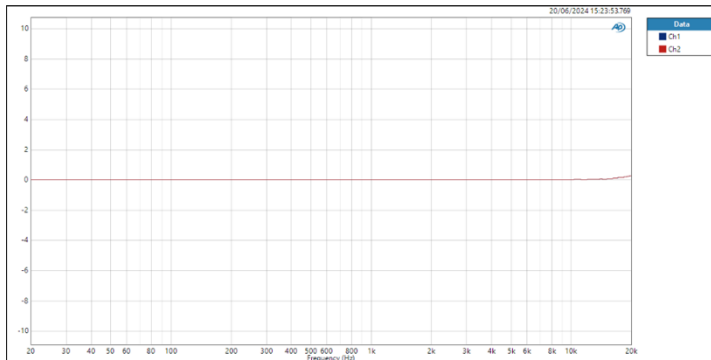


Figure 6.1

FR w/AES17-filter @8Vrms, 4 Ω
(measurement of a typical performance)

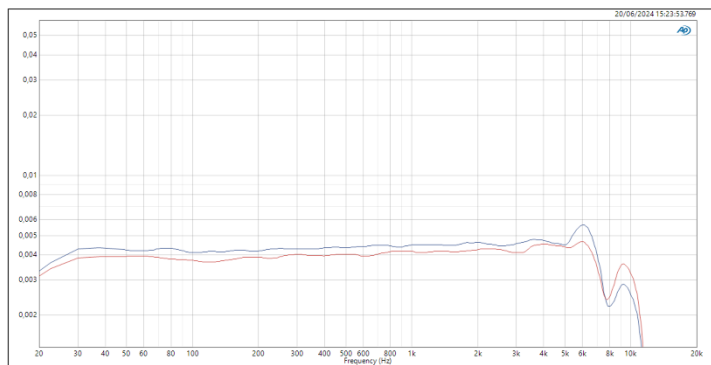


Figure 6.2

THD w/AES17-filter @ 20 Hz --> 20 kHz, 8Vrms, 4 Ω
(measurement of a typical performance)

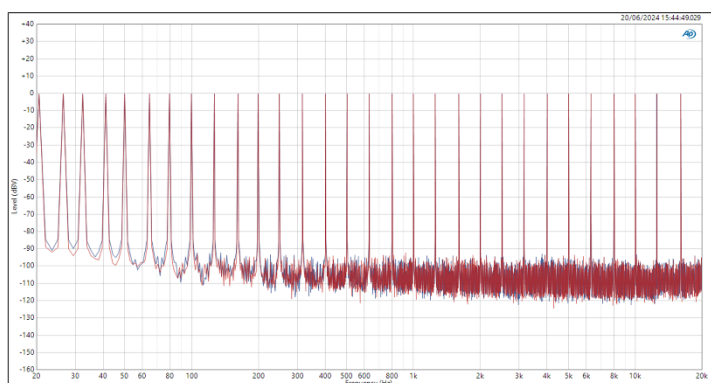


Figure 6.3

IMD spectrum w/AES17-filter @ APx 32 Multitone,
total test signal amplitude 18Vp, 4 Ω (measurement of
a typical performance)

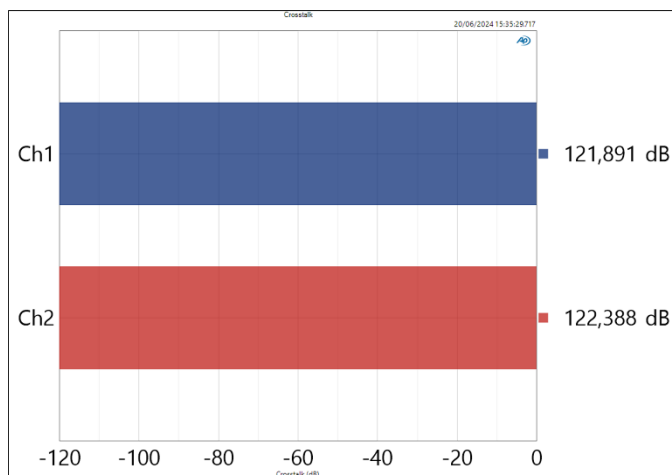


Figure 6.4

Channel separation OR crosstalk
@ 1KHz
(measurement of a typical performance)

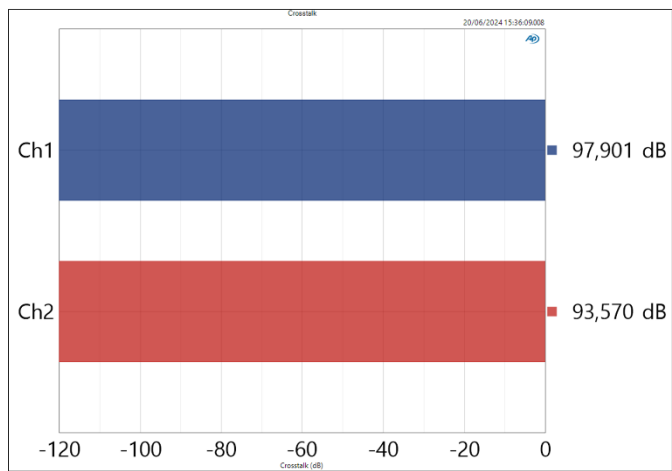


Figure 6.5

Channel separation OR crosstalk
@ 10KHz
(measurement of a typical performance)



7. WARRANTY

7.1 Warranty

CODA Audio guarantees the LINUS6.4/6.4D amplifier to be free from defective material and/or workmanship for a period of five (5) years from the date of sale. When a defect occurs under normal installation and use, CODA Audio will repair the product under this warranty. In this event, please return the amplifier to your dealer/distributor together with a copy of your sales receipt as proof of purchase.

This warranty provides that examination of the returned product must indicate in our judgement a manufacturing defect.

7.2 Items excluded from this warranty

CODA Audio is not liable for any damage caused by shipping accidents, misuse, abuse, operation with incorrect AC voltage, operation with faulty peripheral equipment, modification or alteration without prior factory approval, service by an unauthorized service centre and normal wear and tear. Amplifiers on which the serial number has been removed or defaced are not eligible for warranty service.

7.3 What CODA Audio will do

CODA Audio (or its appointed agent) undertakes to rectify any defect regardless of the reason for failure (unless excluded from this warranty), by repair, replacement or refund as it sees fit.

7.4 How to obtain warranty service

You must notify your dealer/distributor of your need for warranty service. All components must be shipped in the original packaging.

7.5 CODA Audio's product improvement

CODA Audio reserves the right to improve the technical standard of its products without giving prior notice. If in any doubt, please consult your dealer/distributor or contact CODA Audio directly for clarification. We are always working on making CODA products even better and accessible all over the world. Please check our website for the latest list of approvals and certificates.

**7.6 WARRANTY FORM**

PLEASE ENCLOSE THIS COMPLETED FORM WITH THE AMPLIFIER, DO NOT SEND IT SEPARATELY!

Company name: _____

Contact: _____

Address: _____

Telephone: _____

Fax: _____

Email address: _____

Model: _____

Serial number: _____

Purchase date: _____

Expired warranty/If the warranty has expired, payment will be:

Cash ☐

Cheque ☐

VISA ☐

MasterCard ☐

Shipping address _____

To transport the amplifier, the original packing materials must be used. Please return the amplifier to the following address or to your nearest CODA Audio appointed distributor.

Nature of problem occurred. Please describe the conditions that existed when the problem occurred and what attempts were made to correct it:

Other equipment in your system:

Our website: www.codaaudio.com provides a complete list of licensed CODA Audio dealers/distributors.



8. MAINTENANCE INFORMATION

Cleaning and servicing work on the inside of the amplifier must only be carried out by qualified personnel.

Qualified personnel is defined as a person who has gained specialised relevant knowledge of electronic engineering through education, training, and experience, and who has sufficient knowledge of all relevant governmental work safety regulations to be in a position to judge the safe functioning of power amplifiers based on technical rules according to IEC/ EN 62368-1:2018 ("Safety Requirements for Audio, Video or similar Electronic Appliances").

In order to guarantee the safe functioning of the amplifier, it has to be checked regularly, depending on its application but at least once a year, by a properly qualified person.

Advice on how to carry out these checks can be found in DIN VDE 0701-0702:2008-06 "Safety Checks for Electronic Appliances". An amplifier that is considered to be unsafe must be labelled accordingly and stored in a safe place to prevent this amplifier being used mistakenly.

9. DECOMMISSIONING

During the decommissioning process of the amplifier, all legally prescribed rules and procedures must be adhered to.

10. WHAT'S IN THE BOX

Shipped with Schuko to IEC 10 A, 1 m cable

6x Phoenix 1840379 for the analog inputs, GPI inputs and GPO outputs

2x Phoenix 1825336 for the loudspeaker outputs

[illegible]