Quick Start Guide

EN

ES

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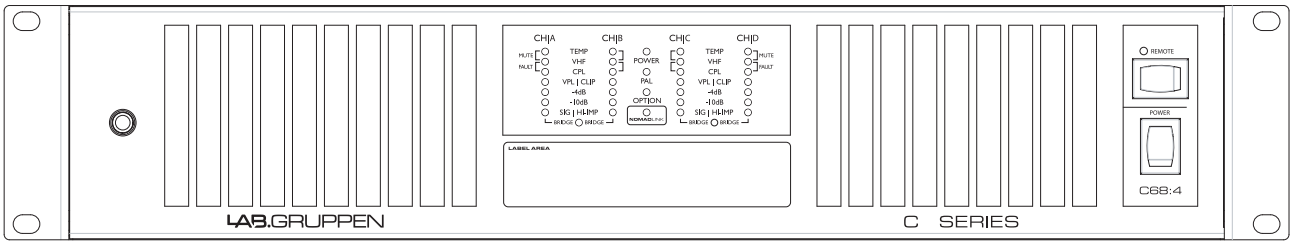
PT

IT

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C Series
C 88:4 / C 68:4 / C 48:4 / C 28:4 / C 16:4

Dedicated Installation Amplifiers

V 1.0

LAB.GRUPPEN

EN

ES

EN Important Safety Instructions

CAUTION
RISK OF ELECTRIC SHOCK!
DO NOT OPEN!
ATTENTION
RISQUE D'ÉLECTROCUTION !
NE PAS OUVRIR !

Terminals marked with this symbol carry electrical current of sufficient magnitude to constitute risk of electric shock. Use only high-quality professional speaker cables with ¼" TS or twist-locking plugs pre-installed. All other installation or modification should be performed only by qualified personnel.

This symbol, wherever it appears, alerts you to the presence of uninsulated dangerous voltage inside the enclosure - voltage that may be sufficient to constitute a risk of shock.

This symbol, wherever it appears, alerts you to important operating and maintenance instructions in the accompanying literature. Please read the manual.

Caution
To reduce the risk of electric shock, do not remove the top cover (or the rear section). No user serviceable parts inside. Refer servicing to qualified personnel.

Caution
To reduce the risk of fire or electric shock, do not expose this appliance to rain and moisture. The apparatus shall not be exposed to dripping or splashing liquids and no objects filled with liquids, such as vases, shall be placed on the apparatus.

Caution
These service instructions are for use by qualified service personnel only. To reduce the risk of electric shock do not perform any servicing other than that contained in the operation instructions. Repairs have to be performed by qualified service personnel.

1. Read these instructions.

2. Keep these instructions.

3. Heed all warnings.

4. Follow all instructions.

5. Do not use this apparatus near water.

6. Clean only with dry cloth.

7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.

8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.

9. 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 your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.

10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.

11. Use only attachments/accessories specified by the manufacturer.



12. Use only with the cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.

13. Unplug this apparatus during lightning storms or when unused for long periods of time.

14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

15. The apparatus shall be connected to a MAINS socket outlet with a protective earthing connection.

16. Where the MAINS plug or an appliance coupler is used as the disconnect device, the disconnect device shall remain readily operable.



17. Correct disposal of this product: This symbol indicates that this product must not be disposed of with household waste, according to the WEEE Directive (2012/19/EU) and your national law. This product should be taken to a collection center licensed for the recycling of waste electrical and electronic equipment (EEE). The mishandling of this type of waste could have a possible negative impact on the environment and human health due to potentially hazardous substances that are generally associated with EEE. At the same time, your cooperation in the correct disposal of this product will contribute to the efficient use of natural resources. For more information about where you can take your waste equipment for recycling, please contact your local city office, or your household waste collection service.

18. Do not install in a confined space, such as a book case or similar unit.

19. Do not place naked flame sources, such as lighted candles, on the apparatus.

20. Please keep the environmental aspects of battery disposal in mind. Batteries must be disposed-of at a battery collection point.

21. This apparatus may be used in tropical and moderate climates up to 45°C.

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LIMITED WARRANTY

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EN

ES

ES Instrucciones de seguridad

CAUTION
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Las terminales marcadas con este símbolo transportan corriente eléctrica de magnitud suficiente como para constituir un riesgo de descarga eléctrica. Utilice solo cables de altavoz profesionales y de alta calidad con conectores TS de 6,3 mm o de bayoneta prefijados. Cualquier otra instalación o modificación debe ser realizada únicamente por un técnico cualificado.

Este símbolo, siempre que aparece, le advierte de la presencia de voltaje peligroso sin aislar dentro de la caja; este voltaje puede ser suficiente para constituir un riesgo de descarga.

Este símbolo, siempre que aparece, le advierte sobre instrucciones operativas y de mantenimiento que aparecen en la documentación adjunta. Por favor, lea el manual.

Atención
Para reducir el riesgo de descarga eléctrica, no quite la tapa (o la parte posterior). No hay piezas en el interior del equipo que puedan ser reparadas por el usuario. Si es necesario, póngase en contacto con personal cualificado.

Atención
Para reducir el riesgo de incendio o descarga eléctrica, no exponga este aparato a la lluvia, humedad o alguna otra fuente que pueda salpicar o derramar algún líquido sobre el aparato. No coloque ningún tipo de recipiente para líquidos sobre el aparato.

Atención
Las instrucciones de servicio deben llevarlas a cabo exclusivamente personal cualificado. Para evitar el riesgo de una descarga eléctrica, no realice reparaciones que no se encuentren descritas en el manual de operaciones. Las reparaciones deben ser realizadas exclusivamente por personal cualificado.

1. Lea las instrucciones.

2. Conserve estas instrucciones.

3. Preste atención a todas las advertencias.

4. Siga todas las instrucciones.

5. No use este aparato cerca del agua.

6. Limpie este aparato con un paño seco.

7. No bloquee las aberturas de ventilación. Instale el equipo de acuerdo con las instrucciones del fabricante.

8. No instale este equipo cerca de fuentes de calor tales como radiadores, acumuladores de calor, estufas u otros aparatos (incluyendo amplificadores) que puedan producir calor.

9. No elimine o deshabilite nunca la conexión a tierra del aparato o del cable de alimentación de corriente. Un enchufe polarizado tiene dos polos, uno de los cuales tiene un contacto más ancho que el otro. Una clavija con puesta a tierra dispone de tres contactos: dos polos y la puesta a tierra. El contacto ancho y el tercer contacto, respectivamente, son los que garantizan una mayor seguridad. Si el enchufe suministrado con el equipo no concuerda con la toma de corriente, consulte con un electricista para cambiar la toma de corriente obsoleta.

10. Coloque el cable de suministro de energía de manera que no pueda ser pisado y que esté protegido de objetos afilados. Asegúrese de que el cable de suministro de energía esté protegido, especialmente en la zona de la clavija y en el punto donde sale del aparato.

11. Use únicamente los dispositivos o accesorios especificados por el fabricante.



12. Use únicamente la carretilla, plataforma, trípode, soporte o mesa especificados por el fabricante o suministrados junto con el equipo. Al transportar el equipo, tenga cuidado para evitar daños y caídas al tropezar con algún obstáculo.

13. Desenchufe el equipo durante tormentas o si no va a utilizarlo durante un periodo largo.

14. Confíe las reparaciones únicamente a servicios técnicos cualificados. La unidad requiere mantenimiento siempre que haya sufrido algún daño, si el cable de suministro de energía o el enchufe presentaran daños, se hubiera derramado un líquido o hubieran caído objetos dentro del equipo, si el aparato hubiera estado expuesto a la humedad o la lluvia, si ha dejado de funcionar de manera normal o si ha sufrido algún golpe o caída.

15. Al conectar la unidad a la toma de corriente eléctrica asegúrese de que la conexión disponga de una unión a tierra.

16. Si el enchufe o conector de red sirve como único medio de desconexión, éste debe ser accesible fácilmente.



17. Cómo debe deshacerse de este aparato: Este símbolo indica que este aparato no debe ser tratado como basura orgánica, según lo indicado en la Directiva WEEE (2012/19/EU) y a las normativas aplicables en su país. En lugar de ello deberá llevarlo al punto limpio más cercano para el reciclaje de sus elementos eléctricos / electrónicos (EEE). Al hacer esto estará ayudando a prevenir las posibles consecuencias negativas para el medio ambiente y la salud que podrían ser provocadas por una gestión inadecuada de este tipo de aparatos. Además, el reciclaje de materiales ayudará a conservar los recursos naturales. Para más información acerca del reciclaje de este aparato, póngase en contacto con el Ayuntamiento de su ciudad o con el punto limpio local.

18. No instale esta unidad en un espacio muy reducido, tal como encastrada en una librería o similar.

19. No coloque objetos con llama, como una vela encendida, sobre este aparato.

20. Tenga presentes todas las advertencias relativas al reciclaje y correcta eliminación de las pilas. Las pilas deben ser siempre eliminadas en un punto limpio y nunca con el resto de la basura orgánica.

21. Puede usar este aparato en lugares con climas tropicales y moderados que soporten temperaturas de hasta 45°C.

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FR Consignes de sécurité

CAUTION
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Les points repérés par ce symbole portent une tension électrique suffisante pour constituer un risque d'électrocution. Utilisez uniquement des câbles d'enceintes professionnels de haute qualité avec fiches Jack mono 6,35 mm ou fiches à verrouillages déjà installées. Toute autre installation ou modification doit être effectuée uniquement par un personnel qualifié.

Ce symbole avertit de la présence d'une tension dangereuse et non isolée à l'intérieur de l'appareil - elle peut provoquer des chocs électriques.

Attention
Ce symbol signale les consignes d'utilisation et d'entre ! Tien importantes dans la documentation fournie. Lisez les consignes de sécurité du manuel d'utilisation de l'appareil.

Attention
Pour éviter tout risque de choc électrique, ne pas ouvrir le capot de l'appareil ni démonter le panneau arrière. L'intérieur de l'appareil ne possède aucun élément réparable par l'utilisateur. Laisser toute réparation à un professionnel qualifié.

Attention
Pour réduire les risques de feu et de choc électrique, n'exposez pas cet appareil à la pluie, à la moisissure, aux gouttes ou aux éclaboussures. Ne posez pas de récipient contenant un liquide sur l'appareil (un vase par exemple).

Attention
Ces consignes de sécurité et d'entretien sont destinées à un personnel qualifié. Pour éviter tout risque de choc électrique, n'effectuez aucune réparation sur l'appareil qui ne soit décrite par le manuel d'utilisation. Les éventuelles réparations doivent être effectuées uniquement par un technicien spécialisé.

1. Lisez ces consignes.
2. Conservez ces consignes.
3. Respectez tous les avertissements.
4. Respectez toutes les consignes d'utilisation.
5. N'utilisez jamais l'appareil à proximité d'un liquide.
6. Nettoyez l'appareil avec un chiffon sec.
7. Veillez à ne pas empêcher la bonne ventilation de l'appareil via ses ouïes de ventilation. Respectez les consignes du fabricant concernant l'installation de l'appareil.
8. Ne placez pas l'appareil à proximité d'une source de chaleur telle qu'un chauffage, une cuisinière ou tout appareil dégageant de la chaleur (y compris un ampli de puissance).
9. Ne supprimez jamais la sécurité des prises bipolaires ou des prises terre. Les prises bipolaires possèdent deux contacts de largeur différente. Le plus large est le contact de sécurité. Les prises terre possèdent deux contacts plus une mise à la terre servant de sécurité. Si la prise du bloc d'alimentation ou du cordon d'ali-mentation fourni ne correspond pas à celles de votre installation électrique, faites appel à un électricien pour effectuer le changement de prise.
10. Installez le cordon d'alimentation de telle façon que personne ne puisse marcher dessus et qu'il soit protégé d'arêtes coupantes. Assurez-vous que le cordon d'alimentation est suffisamment protégé, notamment au niveau de sa prise électrique et de l'endroit où il est relié à l'appareil; cela est également valable pour une éventuelle rallonge électrique.
11. Utilisez exclusivement des accessoires et des appareils supplémentaires recommandés par le fabricant.



12. Utilisez exclusivement des chariots, des diables, des présentoirs, des pieds et des surfaces de travail recommandés par le fabricant ou livrés avec le produit. Déplacez précautionneusement tout chariot ou diable chargé pour éviter d'éventuelles blessures en cas de chute.
13. Débranchez l'appareil de la tension secteur en cas d'orage ou si l'appareil reste inutilisé pendant une longue période de temps.
14. Les travaux d'entretien de l'appareil doivent être effectués uniquement par du personnel qualifié. Aucun entretien n'est nécessaire sauf si l'appareil est endommagé de quelque façon que ce soit (dommages sur le cordon d'alimentation ou la prise par exemple), si un liquide ou un objet a pénétré à l'intérieur du châssis, si l'appareil a été exposé à la pluie ou à l'humidité, s'il ne fonctionne pas correctement ou à la suite d'une chute.
15. L'appareil doit être connecté à une prise secteur dotée d'une protection par mise à la terre.
16. La prise électrique ou la prise IEC de tout appareil dénué de bouton marche/arrêt doit rester accessible en permanence.



17. Mise au rebut appropriée de ce produit: Ce symbole indique qu'en accord avec la directive DEEE (2012/19/EU) et les lois en vigueur dans votre pays, ce produit ne doit pas être jeté avec les déchets ménagers. Ce produit doit être déposé dans un point de collecte agréé pour le recyclage des déchets d'équipements électriques et électroniques (EEE). Une mauvaise manipulation de ce type de déchets pourrait avoir un impact négatif sur l'environnement et la santé à cause des substances potentiellement dangereuses généralement associées à ces équipements. En même temps, votre coopération dans la mise au rebut de ce produit contribuera à l'utilisation efficace des ressources naturelles. Pour plus d'informations sur l'endroit où vous pouvez déposer vos déchets d'équipements pour le recyclage, veuillez contacter votre mairie ou votre centre local de collecte des déchets.
18. N'installez pas l'appareil dans un espace confiné tel qu'une bibliothèque ou meuble similaire.
19. Ne placez jamais d'objets enflammés, tels que des bougies allumées, sur l'appareil.
20. Gardez à l'esprit l'impact environnemental lorsque vous mettez des piles au rebus. Les piles usées doivent être déposées dans un point de collecte adapté.
21. Cet appareil peut être utilisé sous un climat tropical ou modéré avec des températures de 45°C maximum.

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DE Wichtige Sicherheitshinweise

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Vorsicht
Die mit dem Symbol markierten Anschlüsse führen so viel Spannung, dass die Gefahr eines Stromschlags besteht. Verwenden Sie nur hochwertige, professionelle Lautsprecherkabel mit vorinstallierten 6,35 mm MONO-Klinkensteckern oder Lautsprecherstecker mit Drehverriegelung. Alle anderen Installationen oder Modifikationen sollten nur von qualifiziertem Fachpersonal ausgeführt werden.

Achtung
Um eine Gefährdung durch Stromschlag auszuschließen, darf die Geräteabdeckung bzw. Geräterückwand nicht abgenommen werden. Im Innern des Geräts befinden sich keine vom Benutzer reparierbaren Teile. Reparaturarbeiten dürfen nur von qualifiziertem Personal ausgeführt werden.

Achtung
Um eine Gefährdung durch Feuer bzw. Stromschlag auszuschließen, darf dieses Gerät weder Regen oder Feuchtigkeit ausgesetzt werden noch sollten Spritzwasser oder tropfende Flüssigkeiten in das Gerät gelangen können. Stellen Sie keine mit Flüssigkeit gefüllten Gegenstände, wie z. B. Vasen, auf das Gerät.

Achtung
Die Service-Hinweise sind nur durch qualifiziertes Personal zu befolgen. Um eine Gefährdung durch Stromschlag zu vermeiden, führen Sie bitte keinerlei Reparaturen an dem Gerät durch, die nicht in der Bedienungsanleitung beschrieben sind. Reparaturen sind nur von qualifiziertem Fachpersonal durchzuführen.

1. Lesen Sie diese Hinweise.
2. Bewahren Sie diese Hinweise auf.
3. Beachten Sie alle Warnhinweise.
4. Befolgen Sie alle Bedienungshinweise.
5. Betreiben Sie das Gerät nicht in der Nähe von Wasser.
6. Reinigen Sie das Gerät mit einem trockenen Tuch.
7. Blockieren Sie nicht die Belüftungsschlitze. Beachten Sie beim Einbau des Gerätes die Herstellerhinweise.
8. Stellen Sie das Gerät nicht in der Nähe von Wärmequellen auf. Solche Wärmequellen sind z. B. Heizkörper, Herde oder andere Wärme erzeugende Geräte (auch Verstärker).
9. Entfernen Sie in keinem Fall die Sicherheitsvorrichtung von Zweipol- oder geerdeten Steckern. Ein Zweipolstecker hat zwei unterschiedlich breite Steckkontakte. Ein geerdeter Stecker hat zwei Steckkontakte und einen dritten Erdungskontakt. Der breitere Steckkontakt oder der zusätzliche Erdungskontakt dient Ihrer Sicherheit. Falls das mitgelieferte Steckerformat nicht zu Ihrer Steckdose passt, wenden Sie sich bitte an einen Elektriker, damit die Steckdose entsprechend ausgetauscht wird.
10. Verlegen Sie das Netzkabel so, dass es vor Tritten und scharfen Kanten geschützt ist und nicht beschädigt werden kann. Achten Sie bitte insbesondere im Bereich der Stecker, Verlängerungskabel und an der Stelle, an der das Netzkabel das Gerät verlässt, auf ausreichenden Schutz.
11. Das Gerät muss jederzeit mit intaktem Schutzleiter an das Stromnetz angeschlossen sein.
12. Sollte der Hauptnetzstecker oder eine Gerätesteckdose die Funktionseinheit zum Abschalten sein, muss diese immer zugänglich sein.
13. Verwenden Sie nur Zusatzgeräte/Zubehörteile, die laut Hersteller geeignet sind.



14. Verwenden Sie nur Wagen, Standvorrichtungen, Stative, Halter oder Tische, die vom Hersteller benannt oder im Lieferumfang des Geräts enthalten sind. Falls Sie einen Wagen benutzen, seien Sie vorsichtig beim Bewegen der Wagen-Gerätkombination, um Verletzungen durch Stolpern zu vermeiden.
15. Ziehen Sie den Netzstecker bei Gewitter oder wenn Sie das Gerät längere Zeit nicht benutzen.
16. Lassen Sie alle Wartungsarbeiten nur von qualifiziertem Service-Personal ausführen. Eine Wartung ist notwendig, wenn das Gerät in irgendeiner Weise beschädigt wurde (z. B. Beschädigung des Netzkabels oder Steckers), Gegenstände oder Flüssigkeit in das Geräteinnere gelangt sind, das Gerät Regen oder Feuchtigkeit ausgesetzt wurde, das Gerät nicht ordnungsgemäß funktioniert oder auf den Boden gefallen ist.



17. Korrekte Entsorgung dieses Produkts: Dieses Symbol weist darauf hin, das Produkt entsprechend der WEEE Direktive (2012/19/EU) und der jeweiligen nationalen Gesetze nicht zusammen mit Ihren Haushaltsabfällen zu entsorgen. Dieses Produkt sollte bei einer autorisierten Sammelstelle für Recycling elektrischer und elektronischer Geräte (EEE) abgegeben werden. Wegen bedenklicher Substanzen, die generell mit elektrischen und elektronischen Geräten in Verbindung stehen, könnte eine unsachgemäße Behandlung dieser Abfallart eine negative Auswirkung auf Umwelt und Gesundheit haben. Gleichzeitig gewährleistet Ihr Beitrag zur richtigen Entsorgung dieses Produkts die effektive Nutzung natürlicher Ressourcen. Für weitere Informationen zur Entsorgung Ihrer Geräte bei einer Recycling-Stelle nehmen Sie bitte Kontakt zum zuständigen städtischen Büro, Entsorgungsamt oder zu Ihrem Haushaltsabfallentsorger auf.
18. Installieren Sie das Gerät nicht in einer beengten Umgebung, zum Beispiel Bücherregal oder ähnliches.
19. Stellen Sie keine Gegenstände mit offenen Flammen, etwa brennende Kerzen, auf das Gerät.
20. Beachten Sie bei der Entsorgung von Batterien den Umweltschutz-Aspekt. Batterien müssen bei einer Batterie-Sammelstelle entsorgt werden.
21. Dieses Gerät ist in tropischen und gemäßigten Klimazonen bis 45° C einsetzbar.

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PT Instruções de Segurança Importantes

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Aviso!
Terminais marcados com o símbolo carregam corrente elétrica de magnitude suficiente para constituir um risco de choque elétrico. Use apenas cabos de alto-falantes de alta qualidade com plugues TS de ¼" ou plugues com trava de torção pré-instalados. Todas as outras instalações e modificações devem ser efetuadas por pessoas qualificadas.

Este símbolo, onde quer que o encontre, alerta-o para a leitura das instruções de manuseamento que acompanham o equipamento. Por favor leia o manual de instruções.

Atenção
De forma a diminuir o risco de choque eléctrico, não remover a cobertura (ou a secção de trás). Não existem peças substituíveis por parte do utilizador no seu interior. Para esse efeito recorrer a um técnico qualificado.

Atenção
Para reduzir o risco de incêndios ou choques eléctricos o aparelho não deve ser exposto à chuva nem à humidade. Além disso, não deve ser sujeito a salpicos, nem devem ser colocados em cima do aparelho objectos contendo líquidos, tais como jarras.

Atenção
Estas instruções de operação devem ser utilizadas, em exclusivo, por técnicos de assistência qualificados. Para evitar choques eléctricos não proceda a reparações ou intervenções, que não as indicadas nas instruções de operação, salvo se possuir as qualifi-cações necessárias. Para evitar choques eléctricos não proceda a reparações ou intervenções, que não as indicadas nas instruções de operação. Só o deverá fazer se possuir as qualificações necessárias.

1. Leia estas instruções.

2. Guarde estas instruções.

3. Preste atenção a todos os avisos.

4. Siga todas as instruções.

5. Não utilize este dispositivo perto de água.

6. Limpe apenas com um pano seco.

7. Não obstrua as entradas de ventilação. Instale de acordo com as instruções do fabricante.

8. Não instale perto de quaisquer fontes de calor tais como radiadores, bocas de ar quente, fogões de sala ou outros aparelhos (incluindo amplificadores) que produzam calor.

9. Não anule o objectivo de segurança das fichas polarizadas ou do tipo de ligação à terra. Uma ficha polarizada dispõe de duas palhetas sendo uma mais larga do que a outra. Uma ficha do tipo ligação à terra dispõe de duas palhetas e um terceiro dente de ligação à terra. A palheta larga ou o terceiro dente são fornecidos para sua segurança. Se a ficha fornecida não encaixar na sua tomada, consulte um electricista para a substituição da tomada obsoleta.

10. Proteja o cabo de alimentação de pisadelas ou apertos, especialmente nas fichas, extensões, e no local de saída da unidade. Certifique-se de que o cabo eléctrico está protegido. Verifique particularmente nas fichas, nos receptáculos e no ponto em que o cabo sai do aparelho.

11. O aparelho tem de estar sempre conectado à rede eléctrica com o condutor de protecção intacto.

12. Se utilizar uma ficha de rede principal ou uma tomada de aparelhos para desligar a unidade de funcionamento, esta deve estar sempre acessível.

13. Utilize apenas ligações/acessórios especificados pelo fabricante.



14. Utilize apenas com o carrinho, estrutura, tripé, suporte, ou mesa especificados pelo fabricante ou vendidos com o dispositivo. Quando utilizar um carrinho, tenha cuidado ao mover o conjunto carrinho/dispositivo para evitar danos provocados pela terpidação.

15. Desligue este dispositivo durante as trovoadas ou quando não for utilizado durante longos períodos de tempo.

16. Qualquer tipo de reparação deve ser sempre efectuado por pessoal qualificado. É necessária uma reparação sempre que a unidade tiver sido de alguma forma danificada, como por exemplo: no caso do cabo de alimentação ou ficha se encontrarem danificados; na eventualidade de líquido ter sido derramado ou objectos terem caído para dentro do dispositivo; no caso da unidade ter estado exposta à chuva ou à humidade; se esta não funcionar normalmente, ou se tiver caído.



17. Correcta eliminação deste produto: este símbolo indica que o produto não deve ser eliminado juntamente com os resíduos domésticos, segundo a Directiva REEE (2012/19/EU) e a legislação nacional. Este produto deverá ser levado para um centro de recolha licenciado para a reciclagem de resíduos de equipamentos eléctricos e electrónicos (EEE). O tratamento incorrecto deste tipo de resíduos pode ter um eventual impacto negativo no ambiente e na saúde humana devido a substâncias potencialmente perigosas que estão geralmente associadas aos EEE. Ao mesmo tempo, a sua colaboração para a eliminação correcta deste produto irá contribuir para a utilização eficiente dos recursos naturais. Para mais informação acerca dos locais onde poderá deixar o seu equipamento usado para reciclagem, é favor contactar os serviços municipais locais, a entidade de gestão de resíduos ou os serviços de recolha de resíduos domésticos.

18. Não instale em lugares confinados, tais como estantes ou unidades similares.

19. Não coloque fontes de chama, tais como velas acesas, sobre o aparelho.

20. Favor, obedecer os aspectos ambientais de descarte de bateria. Baterias devem ser descartadas em um ponto de coletas de baterias.

21. Esse aparelho pode ser usado em climas tropicais e moderados até 45°C.

LEGAL RENUNCIANTE

O Music Tribe não se responsabiliza por perda alguma que possa ser sofrida por qualquer pessoa que dependa, seja de maneira completa ou parcial, de qualquer descrição, fotografia, ou declaração aqui contidas. Dados técnicos, aparências e outras informações estão sujeitas a modificações sem aviso prévio. Todas as marcas são propriedade de seus respectivos donos. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Aston Microphones e Coolaudio são marcas ou marcas registradas do Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2022 Todos direitos reservados.

GARANTIA LIMITADA

Para obter os termos de garantia aplicáveis e condições e informações adicionais a respeito da garantia limitada do Music Tribe, favor verificar detalhes na íntegra através do website community.musictribe.com/pages/support#warranty.

IT Informazioni importanti

CAUTION
RISK OF ELECTRIC SHOCK!
DO NOT OPEN!
ATTENTION
RISQUE D'ÉLECTROCUTION !
NE PAS OUVRIR !

Attenzione
I terminali contrassegnati da questo simbolo conducono una corrente elettrica di magnitudine sufficiente a costituire un rischio di scossa elettrica. Utilizzare solo cavi per altoparlanti professionali di alta qualità con jack sbilanciati da 6,35mm. o connettori con blocco a rotazione. Tutte le altre installazioni o modifiche devono essere eseguite esclusivamente da personale qualificato.

Attenzione
Questo simbolo, ovunque appaia, avverte della presenza di una tensione pericolosa non isolata all'interno dello chassis, tensione che può essere sufficiente per costituire un rischio di scossa elettrica.

Attenzione
Questo simbolo, ovunque appaia, segnala importanti istruzioni operative e di manutenzione nella documentazione allegata. Si invita a leggere il manuale.

Attenzione
Per ridurre il rischio di scosse elettriche, non rimuovere il coperchio superiore (o la sezione posteriore). All'interno non ci sono parti riparabili dall'utente. Per la manutenzione rivolgersi a personale qualificato.

Attenzione
Per ridurre il rischio di incendi o scosse elettriche, non esporre questo apparecchio a pioggia e umidità. L'apparecchio non deve essere esposto a gocciolio o schizzi di liquidi e nessun oggetto contenente liquidi, come vasi, deve essere collocato sull'apparecchio.

Attenzione
Queste istruzioni di servizio sono destinate esclusivamente a personale qualificato. Per ridurre il rischio di scosse elettriche non eseguire interventi di manutenzione diversi da quelli contenuti nel manuale di istruzioni. Le riparazioni devono essere eseguite da personale di assistenza qualificato.

1. Leggere queste istruzioni.

2. Conservare queste istruzioni.

3. Prestare attenzione a tutti gli avvisi.

4. Applicare tutte le istruzioni.

5. Non utilizzare questo dispositivo vicino l'acqua.

6. Pulire esclusivamente con un panno asciutto.

7. Non bloccare le aperture di ventilazione. Installare in conformità con le istruzioni del produttore.

8. Non installare vicino a fonti di calore come radiatori, termoregolatori, stufe o altri apparecchi (inclusi amplificatori) che producono calore.

9. Non escludere la sicurezza fornita dalla spina polarizzata o con messa a terra. Una spina polarizzata ha due lame, una più larga dell'altra. Una spina con messa a terra ha due lame e un terzo polo di messa a terra. La lama larga o il terzo polo sono forniti per la vostra sicurezza. Se la spina fornita non si adatta alla presa, consultare un elettricista per la sostituzione della presa obsoleta.

10. Proteggere il cavo di alimentazione dal calpestio o essere schiacciato in particolare alle spine, prese di corrente e il punto in cui esce dall'apparecchio.

11. Utilizzare esclusivamente dispositivi/accessori specificati dal produttore.



12. Utilizzare solo carrelli, supporti, treppiedi, staffe o tavoli indicati dal produttore o venduti con l'apparecchio. Utilizzando un carrello, prestare attenzione quando si sposta la combinazione carrello/apparecchio per evitare lesioni dovute al ribaltamento.

13. Scollegare questo apparecchio durante i temporali o se non è utilizzato per lunghi periodi di tempo.

14. Per tutte le riparazioni rivolgersi a personale qualificato. La manutenzione è necessaria quando l'apparecchio è danneggiato in qualsiasi modo, come danneggiamento del cavo di alimentazione o della spina, versamento di liquido o oggetti caduti nell'apparecchio, se l'apparecchio è stato esposto a pioggia o umidità, se non funziona normalmente o è caduto.

15. L'apparecchio deve essere collegato a una presa di corrente elettrica con messa a terra di protezione.

16. Se la spina o una presa del dispositivo è utilizzata come dispositivo di disconnessione, deve essere facilmente utilizzabile.



17. Smaltimento corretto di questo prodotto: questo simbolo indica che questo dispositivo non deve essere smaltito insieme ai rifiuti domestici, secondo la Direttiva RAEE (2012/19 / UE) e la vostra legislazione nazionale. Questo prodotto deve essere portato in un centro di raccolta autorizzato per il riciclaggio di rifiuti di apparecchiature elettriche ed elettroniche (RAEE). La cattiva gestione di questo tipo di rifiuti potrebbe avere un possibile impatto negativo sull'ambiente e sulla salute umana a causa di sostanze potenzialmente pericolose che sono generalmente associate alle apparecchiature elettriche ed elettroniche. Nello stesso tempo la vostra collaborazione al corretto smaltimento di questo prodotto contribuirà all'utilizzo efficiente delle risorse naturali. Per ulteriori informazioni su dove è possibile trasportare le apparecchiature per il riciclaggio vi invitiamo a contattare l'ufficio comunale locale o il servizio di raccolta dei rifiuti domestici.

18. Non installare in uno spazio ristretto, come in una libreria o in una struttura simile.

19. Non collocare sul dispositivo fonti di fiamme libere, come candele accese.

20. Per lo smaltimento delle batterie, tenere in considerazione gli aspetti ambientali. Le batterie devono essere smaltite in un punto di raccolta delle batterie esauste.

21. Questo apparecchio può essere usato in climi tropicali e temperati fino a 45°C.

DISCLAIMER LEGALE

Music Tribe non si assume alcuna responsabilità per eventuali danni che possono essere subiti da chiunque si affidi in tutto o in parte a qualsiasi descrizione, fotografia o dichiarazione contenuta qui. Specifiche tecniche, aspetti e altre informazioni sono soggette a modifiche senza preavviso. Tutti i marchi sono di proprietà dei rispettivi titolari. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Aston Microphones e Coolaudio sono marchi o marchi registrati di Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2022 Tutti i diritti riservati .

GARANZIA LIMITATA

Per i termini e le condizioni di garanzia applicabili e le informazioni aggiuntive relative alla garanzia limitata di Music Tribe, consultare online i dettagli completi su community.musictribe.com/pages/support#warranty.

NL Belangrijke veiligheidsvoorschriften



Waarschuwing
Aansluitingen die gemerkt zijn met het symbool voeren een zodanig hoge spanning dat ze een risico vormen voor elektrische schokken. Gebruik uitsluitend kwalitatief hoogwaardige, in de handel verkrijgbare luidsprekerkabels die voorzien zijn van ¼" TS stekkers. Laat uitsluitend gekwalificeerd personeel alle overige installatie- of modificatiehandelingen uitvoeren.

Dit symbool wijst u altijd op belangrijke bedienings - en onderhoudsvoorschriften in de bijbehorende documenten. Wij vragen u dringend de handleiding te lezen.

Attentie
Verwijder in geen geval de bovenste afdekking (van het achterste gedeelte) anders bestaat er gevaar voor een elektrische schok. Het apparaat bevat geen te onderhouden onderdelen. Reparatiewerkzaamheden mogen uitsluitend door gekwalificeerd personeel uitgevoerd worden.

Attentie
Om het risico op brand of elektrische schokken te beperken, dient u te voorkomen dat dit apparaat wordt blootgesteld aan regen en vocht. Het apparaat mag niet worden blootgesteld aan neerdruppelend of opspattend water en er mogen geen met water gevulde voorwerpen – zoals een vaas – op het apparaat worden gezet.

Attentie
Deze onderhoudsinstructies zijn uitsluitend bedoeld voor gekwalificeerd onderhoudspersoneel. Om elektrische schokken te voorkomen, mag u geen andere onderhoudshandelingen verrichten dan in de bedieningsinstructies vermeld staan. Reparatiewerkzaamheden mogen alleen uitgevoerd worden door gekwalificeerd onderhoudspersoneel.

1. Lees deze voorschriften.

2. Bewaar deze voorschriften.

3. Neem alle waarschuwingen in acht.

4. Volg alle voorschriften op.

5. Gebruik dit apparaat niet in de buurt van water.

6. Reinig het uitsluitend met een droge doek.

7. Let erop geen van de ventilatie-openingen te bedekken. Plaats en installeer het volgens de voor-schriften van de fabrikant.

8. Het apparaat mag niet worden geplaatst in de buurt van radiatoren, warmte-uitlaten, kachels of andere zaken (ook versterkers) die warmte afgeven.

9. Maak de veiligheid waarin door de polarisatie- of aardingsstekker wordt voorzien, niet ongedaan. Een polarisatiestekker heeft twee bladen, waarvan er een breder is dan het andere. Een aardingsstekker heeft twee bladen en een derde uitsteeksel voor de aarding. Het bredere blad of het derde uitsteeksel zijn er voor uw veiligheid. Mocht de geleverde stekker niet in uw stopcontact passen, laat het contact dan door een elektricien vervangen.

10. Om beschadiging te voorkomen, moet de stroomleiding zo gelegd worden dat er niet kan worden over gelopen en dat ze beschermd is tegen scherpe kanten. Zorg zeker voor voldoende bescherming aan de stekkers, de verlengkabels en het punt waar het netsnoer het apparaat verlaat.

11. Het toestel met altijd met een intacte aarddraad aan het stroomnet aangesloten zijn.

12. Wanneer de stekker van het hoofdnetwerk of een apparaatstopcontact de functionele eenheid voor het uitschakelen is, dient deze altijd toegankelijk te zijn.

13. Gebruik uitsluitend door de producent gespeci-ficeerd toebehoren c.q. onderdelen.



14. Gebruik het apparaat uitsluitend in combinatie met de wagen, het statief, de driepoot, de beugel of tafel die door de producent is aangegeven, of die in combinatie met het apparaat wordt verkocht. Bij gebruik van een wagen dient men voorzichtig te zijn bij het verrijden van de combinatie wagen/apparaat en letsel door vallen te voorkomen.

15. Bij onweer en als u het apparaat langere tijd niet gebruikt, haalt u de stekker uit het stopcontact.

16. Laat alle voorkomende reparaties door vakkundig en bevoegd personeel uitvoeren. Reparatiewerk-zaamheden zijn nodig als het toestel op enige wijze beschadigd is geraakt, bijvoorbeeld als de hoofd-stroomkabel of -stekker is beschadigd, als er vloeistof of voorwerpen in terecht zijn gekomen, als het aan regen of vochtigheid heeft bloot-gestaan, niet normaal functioneert of wanneer het is gevallen.



17. Correcte afvoer van dit product: dit symbool geeft aan dat u dit product op grond van de AEEA-richtlijn (2012/19/EU) en de nationale wetgeving van uw land niet met het gewone huishoudelijke afval mag weggooien. Dit product moet na afloop van de nuttige levensduur naar een officiële inzamelpost voor afgedankte elektrische en elektronische apparatuur (AEEA) worden gebracht, zodat het kan worden gerecycleerd. Vanwege de potentieel gevaarlijke stoffen die in elektrische en elektronische apparatuur kunnen voorkomen, kan een onjuiste afvoer van afval van het onderhavige type een negatieve invloed op het milieu en de menselijke gezondheid hebben. Een juiste afvoer van dit product is echter niet alleen beter voor het milieu en de gezondheid, maar draagt tevens bij aan een doelmatiger gebruik van de natuurlijke hulpbronnen. Voor meer informatie over de plaatsen waar u uw afgedankte apparatuur kunt inleveren, kunt u contact opnemen met uw gemeente of de plaatselijke reinigingsdienst.

18. Installeer niet in een kleine ruimte, zoals een boekenkast of iets dergelijks.

19. Plaats geen open vlammen, zoals brandende kaarsen, op het apparaat.

20. Houd rekening met de milieuaspecten van het afvoeren van batterijen. Batterijen moeten bij een inzamelpunt voor batterijen worden ingeleverd.

21. Dit apparaat kan worden gebruikt in tropische en gematigde klimaten tot 45 ° C.

WETTELIJKE ONTKENNING

Music Tribe aanvaardt geen aansprakelijkheid voor enig verlies dat kan worden geleden door een persoon die geheel of gedeeltelijk vertrouwt op enige beschrijving, foto of verklaring hierin. Technische specificaties, verschijningen en andere informatie kunnen zonder voorafgaande kennisgeving worden gewijzigd. Alle handelsmerken zijn eigendom van hun respectievelijke eigenaren. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Aston Microphones en Coolaudio zijn handelsmerken of gedeponeerde handelsmerken van Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2022 Alle rechten voorbehouden.

BEPERKTE GARANTIE

Voor de toepasselijke garantievoorwaarden en aanvullende informatie met betrekking tot de beperkte garantie van Music Tribe, zie de volledige details online op community.musictribe.com/pages/support#warranty.

SE Viktiga säkerhetsanvisningar



Varning
Uttag markerade med symbolen leder elektrisk strömstyrka som är tillräckligt stark för att utgöra en risk för elchock. Använd endast högkvalitativa, kommersiellt tillgängliga högtalarkablar med förhandsinstallerade ¼" TS-kontakter. All annan installering eller modifikation bör endast utföras av kompetent personal.

Den här symbolen hänvisar till viktiga punkter om användning och underhåll i den medföljande dokumentationen. Var vänlig och läs bruksanvisningen.

Försiktighet
Minska risken för elektriska stötar genom att aldrig ta av höljet upptill på apparaten (eller ta av baksidan). Inuti apparaten finns det inga delar som kan repareras av användaren. Endast kvalificerad personal får genomföra reparationer.

Försiktighet
För att minska risken för brand och elektriska stötar ska apparaten skyddas mot regn och fukt. Apparaten går inte utsättas för dropp eller spill och inga vattenbehållare som vaser etc. får placeras på den.

Försiktighet
Serviceinstruktionen är enbart avsedd för kvalificerad servicepersonal. För att undvika risker genom elektriska stötar, genomför inga reparationer på apparaten, vilka inte är beskrivna i bruksanvisningen. Endast kvalificerad fackpersonal får genomföra reparationerna.

1. Läs dessa anvisningar.

2. Spara dessa anvisningar.

3. Beakta alla varningar.

4. Följ alla anvisningar.

5. Använd inte apparaten i närheten av vatten.

6. Rengör endast med torr trasa.

7. Blockera inte ventilationsöppningarna. Installera enligt tillverkarens anvisningar.

8. Installera aldrig intill värmekällor som värme-element, varmluftsintag, spisar eller annan utrustning som avger värme (inklusive förstärkare).

9. Ändra aldrig en polariserad eller jordad kontakt. En polariserad kontakt har två blad – det ena bredare än det andra. En jordad kontakt har två blad och ett tredje jordstift. Det breda bladet eller jordstiftet är till för din säkerhet. Om den medföljande kontakten inte passar i ditt uttag, ska du kontakta en elektriker för att få uttaget bytt.

10. Förlägg elkabeln så, att det inte är möjligt att trampa på den och att den är skyddad mot skarpa kanter och inte kan skadas. Ge i synnerhet akt på områdena omkring stickkontakterna, förlängningskablarna och på det ställe, där elkabeln lämnar apparaten, är tillräckligt skyddade.

11. Apparaten måste alltid vara ansluten till elnätet med intakt skyddsledare.

12. Om huvudkontakten, eller ett apparatuttag, fungerar som avstängningsenhet måste denna alltid vara tillgänglig.

13. Använd endast tillkopplingar och tillbehör som angetts av tillverkaren.



14. Använd endast med vagn, stativ, trefot, hållare eller bord som angetts av tillverkaren, eller som sålts till-sammans med apparaten. Om du använder en vagn, var försiktig, när du förflyttar kombinationen vagn-apparat, för att förhindra olycksfall genom snubbling.

15. Dra ur anslutningskontakten und åskväder eller när apparaten inte ska användas under någon längre tid.

16. Låt kvalificerad personal utföra all service. Service är nödvändig när apparaten har skadats, t.ex. när en elkabel eller kontakt är skadad, vätska eller främmande föremål har kommit in i apparaten, eller när den har fallit i golvet.



17. Kassera produkten på rätt sätt: den här symbolen indikerar att produkten inte ska kastas i hushållssoporna, enligt WEEE direktivet (2012/19/EU) och gällande, nationell lagstiftning. Produkten ska lämnas till ett auktoriserat återvinningsställe för elektronisk och elektrisk utrustning (EEE). Om den här sortens avfall hanteras på fel sätt kan miljön, och människors hälsa, påverkas negativt på grund av potentiella risksubstanser som ofta associeras med EEE. Avfallshanteras produkten däremot på rätt sätt bidrar detta till att naturens resurser används på ett bra sätt. Kontakta kommun, ansvarig förvaltning eller avfallshanteringsföretag för mer information om återvinningscentral där produkten kan lämnas

18. Installera inte i ett trångt utrymme, t.ex. i en bokhylsa eller liknande enhet.

19. Placera inte källor med öppen eld, t.ex. tända ljus, på apparaten.

20. Tänk på miljöaspekterna vid kassering av batterier. Batterier måste kasseras på ett batteriuppsamlingsställe.

21. Denna apparat kan användas i tropiska och måttliga klimat upp till 45 ° C.

FRISKRIVNINGSKLAUSUL

Music Tribe tar inget ansvar för någon förlust som kan drabbas av någon person som helt eller delvis förlitar sig på någon beskrivning, fotografi eller uttalande som finns här. Tekniska specifikationer, utseenden och annan information kan ändras utan föregående meddelande. Alla varumärken tillhör respektive ägare. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Aston Microphones och Coolaudio är varumärken eller registrerade varumärken som tillhör Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2022 Alla Rättigheter reserverade.

BEGRÄNSAD GARANTI

För tillämpliga garantivillkor och ytterligare information om Music Tribes begränsade garanti, se fullständig information online på community.musictribe.com/pages/support#warranty.

PL Ważne informacje o bezpieczeństwie





Uwaga
Terminale oznaczone symbolem przenoszą wystarczająco wysokie napięcie elektryczne, aby stworzyć ryzyko porażenia prądem. Używaj wyłącznie wysokiej jakości fabrycznie przygotowanych kabli z zainstalowanymi wtyczkami ¼" TS. Wszystkie inne instalacje lub modyfikacje powinny być wykonywane wyłącznie przez wykwalifikowany personel techniczny.



Ten symbol informuje o ważnych wskazówkach dotyczących obsługi i konserwacji urządzenia w dołączonej dokumentacji. Proszę przeczytać stosowne informacje w instrukcji obsługi.



Uwaga
W celu wyeliminowania zagrożenia porażenia prądem zabrania się zdejmowania obudowy lub tylnej ścianki urządzenia. Elementy znajdujące się we wnętrzu urządzenia nie mogą być naprawiane przez użytkownika. Naprawy mogą być wykonywane jedynie przez wykwalifikowany personel.



Uwaga
W celu wyeliminowania zagrożenia porażenia prądem lub zapalenia się urządzenia nie wolno wystawiać go na działanie deszczu i wilgotności oraz dopuszczać do tego, aby do wnętrza dostała się woda lub inna ciecz. Nie należy stawiać na urządzeniu napełnionych cieczą przedmiotów takich jak np. wazony lub szklanki.



Uwaga
Prace serwisowe mogą być wykonywane jedynie przez wykwalifikowany personel. W celu uniknięcia zagrożenia porażenia prądem nie należy wykonywać żadnych manipulacji, które nie są opisane w instrukcji obsługi. Naprawy wykonywane mogą być jedynie przez wykwalifikowany personel techniczny.

PL

1. Proszę przeczytać poniższe wskazówki.
2. Proszę przechowywać niniejszą instrukcję.
3. Należy przestrzegać wszystkich wskazówek ostrzegawczych.
4. Należy postępować zgodnie z instrukcją obsługi.
5. Urządzenia nie wolno używać w pobliżu wody.
6. Urządzenie można czyścić wyłącznie suchą szmatką.
7. Nie zasłaniać otworów wentylacyjnych.
W czasie podłączania urządzenia należy przestrzegać zaleceń producenta.
8. Nie stawiać urządzenia w pobliżu źródeł ciepła takich, jak grzejniki, piece lub urządzenia produkujące ciepło (np. wzmacniacze).
9. W żadnym wypadku nie należy usuwać zabezpieczeń z wtyczek dwubiegunowych oraz wtyczek z uziemieniem. Wtyczka dwubiegunowa posiada dwa wtyki kontaktowe o różnej szerokości. Wtyczka z uziemieniem ma dwa wtyki kontaktowe i trzeci wtyk uziemienia. Szerszy wtyk kontaktowy lub dodatkowy wtyk uziemienia służą do zapewnienia bezpieczeństwa użytkownikowi. Jeśli format wtyczki urządzenia nie odpowiada standardowi gniazdka, proszę zwrócić się do elektryka z prośbą o wymienienie gniazda.
10. Kabel sieciowy należy ułożyć tak, aby nie był narażony na deptanie i działanie ostrych krawędzi, co mogłoby doprowadzić do jego uszkodzenia. Szczególną uwagę zwrócić należy na odpowiednią ochronę miejsc w pobliżu wtyczek i przedłużaczy oraz miejsce, w którym kabel sieciowy przymocowany jest do urządzenia.
11. Urządzenie musi być zawsze podłączone do sieci sprawnym przewodem z uziemieniem.
12. Jeżeli wtyk sieciowy lub gniazdo sieciowe w urządzeniu pełnią funkcję wyłącznika, to muszą one być zawsze łatwo dostępne.
13. Używać wyłącznie sprzętu dodatkowego i akcesoriów zgodnie z zaleceniami producenta.



14. Używać jedynie zalecanych przez producenta lub znajdujących się w zestawie wózków, stojaków, statywów, uchwytów i stołów. W przypadku posługiwania się wózkiem należy zachować szczególną ostrożność w trakcie przewożenia zestawu, aby uniknąć niebezpieczeństwa potknięcia się i zranienia.
15. W trakcie burzy oraz na czas dłuższego nieużywania urządzenia należy wyjąć wtyczkę z gniazdka sieciowego.
16. Wykonywanie wszelkich napraw należy zlecać jedynie wykwalifikowanym pracownikom serwisu. Przeprowadzenie przeglądu technicznego staje się konieczne, jeśli urządzenie zostało uszkodzone w jakikolwiek sposób (dotyczy to także kabla sieciowego lub wtyczki), jeśli do wnętrza urządzenia dostały się przedmioty lub ciecz, jeśli urządzenie wystawione było na działanie deszczu lub wilgoci, jeśli urządzenie nie funkcjonuje poprawnie oraz kiedy spadło na podłogę.



17. Prawidłowa utylizacja produktu: Ten symbol wskazuje, że tego produktu nie należy wyrzucać razem ze zwykłymi odpadami domowymi, tylko zgodnie z dyrektywą w sprawie zużytego sprzętu elektrycznego i elektronicznego (WEEE) (2012/19/EU) oraz przepisami krajowymi. Niniejszy produkt należy przekazać do autoryzowanego punktu zbiórki zużytego sprzętu elektrycznego i elektronicznego. Niewłaściwe postępowanie z tego typu odpadami może wywołać szkodliwe działanie na środowisko naturalnej i zdrowie człowieka z powodu potencjalnych substancji niebezpiecznych zaliczanych jako zużyty sprzęt elektryczny i elektroniczny. Jednocześnie, Twój wkład w prawidłową utylizację niniejszego produktu przyczynia się do oszczędnego wykorzystywania zasobów naturalnych. Szczegółowych informacji o miejscach, w których można oddawać zużyty sprzęt do recyklingu, udzielają urzędy miejskie, przedsiębiorstwa utylizacji odpadów lub najbliższy zakład utylizacji odpadów.
18. Nie instaluj w ograniczonej przestrzeni, takiej jak półka na książki lub podobny zestaw.
19. Nie stawiaj na urządzeniu źródeł otwartego ognia, takich jak zapalone świece.
20. Należy pamiętać o środowiskowych aspektach utylizacji baterii. Baterie należy utylizować w punkcie zbiórki baterii.
21. To urządzenie może być używane w klimacie tropikalnym i umiarkowanym do 45 °C.

ZASTRZEŻENIA PRAWNE

Music Tribe nie ponosi odpowiedzialności za jakiekolwiek straty, które mogą ponieść osoby, które polegają w całości lub w części na jakimkolwiek opisie, fotografii lub oświadczeniu zawartym w niniejszym dokumencie. Specyfikacje techniczne, wygląd i inne informacje mogą ulec zmianie bez powiadomienia. Wszystkie znaki towarowe są własnością ich odpowiednich właścicieli. Midas, Klark Teknik, Lab Gruppen, Lake, Tannoy, Turbosound, TC Electronic, TC Helicon, Behringer, Bugera, Aston Microphones i Coolaudio są znakami towarowymi lub zastrzeżonymi znakami towarowymi firmy Music Tribe Global Brands Ltd. © Music Tribe Global Brands Ltd. 2022 Wszystkie prawa zastrzeżone.

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Introduction

Welcome

Thank you for choosing Lab Gruppen C Series power amplifiers for your sound reinforcement system installation. We are confident that you will be very pleased with the performance, configuration flexibility, reliability, and long-term durability offered by the C Series products.

This manual provides a comprehensive guide to the features and functionality of C Series model C 88:4, C 68:4, C 48:4, C 28:4 and C 16:4 amplifiers. Please read through it in its entirely to become fully acquainted with the many configuration options and multiple layers of protection circuitry.

To facilitate timely installation and use of this C Series product, we have included a Quick Guide Overview (section 4). This brief summary, in conjunction with Installation (section 3), contains the basic information needed to safely install the amplifier and place it in service. However, we highly recommend reading through this manual in its entirety, beginning with Main Features and Technologies and continuing through Operation and Performance. As you become thoroughly familiar with all aspects of operation, you may learn of features or options that will affect your choices on amplifier modes or loudspeaker system configuration.

Lab Gruppen C Series power amplifiers are designed and built specifically for the unique demands of permanent installation applications. C Series amplifiers offer the optimum combination of high-quality audio reproduction, flexible features, ease of installation, and 100% reliability in normal use.

By packing four or eight channels of reconfigurable power amplification into a 2U chassis, the C Series achieves unprecedented power and channel density. The benefits of compact dimensions include reduced rack space requirements and minimal heat build-up. The flexible output stages enable each amplifier channel to be set for either low impedance or constant voltage (70 V / 100 V) mode. NomadLink, an easy-to-use network for monitoring and control, is implemented as a standard feature on all C Series amplifiers.

Although C Series features and facilities are tailored to installation applications, at the heart of each amplifier is the same advanced technology that has made Lab Gruppen the benchmark of quality for touring concert systems: exceptional sonic performance, rugged construction, proven reliability, and protection features that anticipate every unwelcome possibility.

NOTE: This manual is shipped with C Series amplifi er models C 88:4, C 68:4, C 48:4, C 28:4 and C 16:4. All references to "C Series" in this manual apply to all four of these models. A different manual is shipped with models C 20:8X, C 10:8X, C 10:4X and C 5:4X. References to C Series in this document may or may not apply to these C. . .X models.

Main Features

Your new C Series amplifier incorporates a number of sophisticated technologies – many of them proprietary to Lab Gruppen – that are provided to ensure the best possible performance and many years of reliable operation. Familiarizing yourself with these technologies will prove invaluable in setting up and optimizing your loudspeaker system.

Class TD amplifier and Regulated Switch Mode Power Supply (R.SMPS)

Lab Gruppen's patented Class TD technology combines the exceptional efficiency of a Class D amplifier with the high sonic quality associated with Class B designs. Class TD also incorporates the same basic concepts behind Class H designs, but here they are refined and pushed to a higher level to achieve much greater efficiency.

The Class TD output sections work in concert with Lab Gruppen's unique, regulated switch-mode power supply (R.SMPS) to create a superior overall power amplifier topology. This ensures stable, full output power over an extremely wide range of mains voltage levels. Sagging or fluctuating mains voltage will not affect the power output delivered to the loudspeakers.

Amplifier gain

For greater flexibility in system integration, C Series amplifiers allow gain adjustment from +23 dB to +44 dB in 3 dB steps. This feature accommodates any combination of input device and loudspeaker type. For example, if the input signal is weak, the gain can be boosted to maintain maximum power output while avoiding a poor signal- to-noise ratio. This gain adjustment feature makes it easier to achieve an optimal balance between headroom and noise floor.

Voltage Peak Limiter (VPL)

The Voltage Peak Limiter (VPL) feature allows user adjustments that determine maximum voltage output, thus matching the amplifier to the connected speaker load. Whether the connected load is low impedance (2 to 16 ohms) or high impedance (70 V / 100 V), the VPL feature can be set to ensure that neither temperature nor current limitations are exceeded before reaching the desired voltage threshold.

Protection and performance optimization

Appropriate and reliable power amplification is vital to any audio system. Inadequate or faulty power amplification could cause damage to the loudspeakers, or in some cases to the power amplifiers themselves. To prevent any damage or costly service interruptions, C Series amplifiers offer advanced features to protect both internal circuits and any connected loads. These features even protect the mains fuse that, in extreme cases, could be overloaded.

Following are short descriptions of standard built-in C Series protection features:

- **CPL** (Current Peak Limiter) ensures that the amplifier's output does not exceed the safe current handling parameters of amplifier components.
- **Temperature protection** ensures that the amplifier will not be damaged by exceeding thermal limits.
- **PAL** (Power Average Limiter) limits the maximum average power consumption according to the power supply and mains-breaker capabilities.
- **VHF** (Very High Frequency) protection circuits mute the output of the amplifier when nondynamic continuous signals above 10 kHz are detected.
- **DC protection** ensures destructive DC signals will not appear at the amplifier outputs. If such conditions occur an internal fuse opens and fault indication is displayed.
- **Low-impedance** (short circuit) protection provides a fault warning indication and shuts down the output stage when, for example, an input signal is present and a malfunctioning cable or driver is short circuiting the output.
- **High-impedance** warning reports an alert when, at the same time, output signal is high and no current draw is measured. This situation might occur when no speakers are connected, or when a driver is blown.
- **Low inrush current** ensures that the mains breaker will not trip when several power amplifiers are turned on simultaneously.

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NomadLink / Ethernet control and monitoring network

The NomadLink network allows easy setup and control of C Series power amplifiers and other devices. The patented network topology allows automatic detection and addressing of multiple amplifiers, and is controlled from a PC via an NLB 60E NomadLink Bridge & Network Controller using standard TCP/IP communication. Phantom powering through the network cables allows the software to detect devices that are not currently turned on or connected to the mains. This ensures very high reliability and redundancy levels while allowing connected amplifiers to remain on standby with no power consumption.

Cable connections can be daisy-chained for easier system setup. This also reduces total component costs, simplifies installation, and makes daily operation more convenient. There is no need to create a star topology using many switches as with, for example, an Ethernet system. Individual amplifier addresses do not need to be manually entered: you will automatically know where an individual amplifier resides in the network.

A daisy chain network-loop, in combination with the automatic addressing of devices, enables Lab Gruppen's proprietary DeviceControl software to automatically create a precise picture of all connected devices and their relative position in the chain. By quickly creating a clear overview of the entire system configuration, DeviceControl provides flexible control over very large amplifier systems. Set-up time is minimized, and critical information is readily available for monitoring performance and solving problems during operation.

Via NomadLink, you can simultaneously monitor all metering data as well as any fault or warning indications. NomadLink also allows you to remotely control power on and power off, as well as engage Mute and Solo functions on individual channels.

NOTE: If the amplifier malfunctions due to dirty dust filters, any required repairs are not covered by the warranty.

Installation

Unpacking

Carefully open the shipping carton and check for any noticeable damage. Every Lab Gruppen amplifier is tested and inspected before leaving the factory and should arrive in perfect condition. If any damage is discovered, please notify the shipping company immediately. Only the consignee may institute a claim with the carrier for damage incurred during shipping. Save the carton and packing materials for the carrier's inspection. Should you ever need to ship the amplifier, always use the original packaging materials.

Mounting

The amplifier is two rack units high (2U) and will fit into a standard EIA 19" rack. The depth is 343 mm (13.5"). The weight is approximately 8.5 kg (18.75 lbs.) depending on model type.

Free airflow from front-to-rear of the amplifier must be possible. Therefore, no doors or rack-lids should be mounted in front of or behind the amplifiers.

Amplifiers may be stacked directly on top of each other. There is no need for spacing in between units, though this might enable more convenient installation of cabling on the rear panel.

Cooling

The amplifier uses a forced-air cooling system with air flow from front to rear, maintaining a low operating temperature within defined limits. Front-to-rear airflow is preferred as cooler air is present at the front in nearly all applications. (This allows higher continuous power levels without encountering thermal problems.) Never attempt to reverse the airflow. The amplifier modules require a pressure chamber between the fans and heat sink, and this effect functions only in one direction.

Make sure that there is an adequate air supply in front of the amplifier, and that the rear of the amplifier has sufficient space to allow the exhaust to escape. If the amplifier is rack-mounted, do not use covers or doors on the front or rear of the rack.

Should a heat sink overheat, the temperature sensing circuits will mute the overheating channel. If the power supply overheats, another sensing circuit will mute all output channels until the power supply cools to safe operating temperature. An early warning before shut down will be indicated on the front panel LEDs, and a warning will be sent through the NomadLink network.

Always make sure that the dust-filters behind the detachable front panel are clean to ensure maximum possible airflow.

NOTE: If the amplifier malfunctions due to dirty dust filters, any required repairs are not covered by the warranty.

To calculate the maximum heat emission value when installing the amplifiers in rooms with an air-conditioning system, please refer to the Current Draw and Thermal Emissions specifications provided in the Appendix (section 6.4xxx).

Operating Voltage

The label placed to the right of the mains cable on the rear of the amplifier indicates the AC mains voltage for which the amplifier is wired and approved: 115 V or 230 V. Connect the power cable only to the AC source type referred to on the label. The warranty will not cover damage caused by connecting to an incorrect type of AC mains.

Lab Gruppen switch-mode amplifiers use primary switching. Because the mains power is rectified directly in front of the transformer, the amplifier is insensitive to mains frequency. It may be connected to 50 or 60 Hz sources, and actually will operate on line frequencies from DC to 400 Hz.

If the power plug mounted at the factory is not appropriate for your country, it can be removed and the proper connector wired in its place as follows:

BLACK or BROWN	**LIVE**
WHITE or BLUE	**NEUTRAL**
GREEN or GREEN/YELLOW	**EARTH (GROUND)**

If you are not 100% confident of your competence to replace the mains plug, engage qualified personnel to do the job.

Once a suitable AC supply is connected, the amplifier can be turned on using the front-panel power switch. The amplifier then goes through a soft-start sequence as it self-checks its circuits. The fans will blow at high speed before dropping to idle, and the "power" LED will illuminate.

Inrush power is controlled and limited during "soft start", enabling multiple amplifiers to be powered up simultaneously.

Grounding

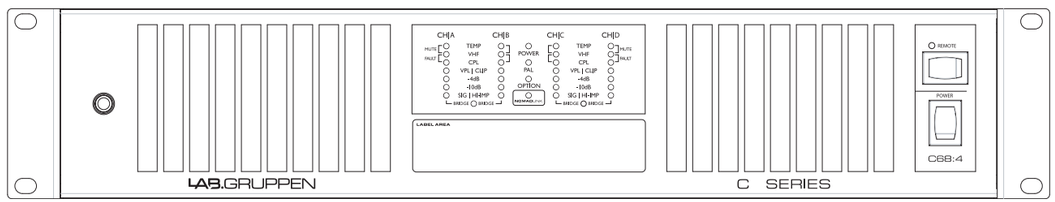
There is no ground lift switch or terminal on the C Series amplifiers. The signal ground is always floating, via a resistor, to chassis and therefore the grounding system is automatic.

In the interests of safety, never disconnect the earth (ground) pin on the AC power cord.

Use balanced input connections to avoid hum and interference.

Product Overview

Front Panel Overview



The amplifier's front panel presents the performance and fault condition indicators, power and remote switches, and a removable dust-filter cover. Four level potentiometers located behind the cover provide individual attenuation for the four amplifier channels. Range is 0 dB to -infinity. The 12 o'clock position indicates -10 dB attenuation. A label area is located beneath the LED display.

To remove the dust-filter cover, loosen the thumbscrew at the far left. This allows removal of the dust-filters for cleaning, and provides access to channel attenuation. The front cover may be made "tamper resistant" by replacing the thumbscrew with a Philips head or safety Torx screw. Thread size is M3.

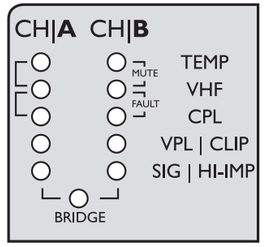
NOTE: Never operate the amplifier without the dust-filters in place.

Power on/off and remote switch

The Power on/off switch is located on the right side. A second switch, labeled "REMOTE," is located above the Power switch. When the Remote switch is on, (with the mains connected and power switch turned on) the yellow LED above it will illuminate indicating that external power on/off commands from the NomadLink network connection will switch the amplifier on or off. When Remote is activated the amplifier will not switch on until a "Power On" command is received from the network. When the remote switch is off, it is not possible to switch amplifier power on or off using NomadLink network control.

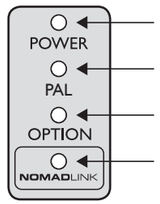
Front-panel LED's

The front-panel LED area includes the following indicators per channel:



- **Temperature mute** (Yellow constant)
- **VHF** (Very High Frequency) protection active (output muted) (Yellow)
- **Mute** channel via NomadLink network (2x Yellow)
- **CPL** (Current Peak Limiter) active (Orange flashing)
- **CPL (Orange constant with output muted):** constant (output muted): Low impedance / short circuit detection
- **Fault** (Yellow plus Orange)
- **VPL** (Voltage Peak Limiter) active, VPL/Clip (Red)
- **4 dB** signal level (Green)
- **-10 dB** signal level (Green)
- **-40 dB** signal level (Green)
- **Hi-Imp** open load detected (Red)
- **Bridge mode** operation on (Yellow). Ch. A+B, C+D, E+F, G+H bridged.

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(PWR) Power on (Green)

(PAL) Power Average Limiter active (Red)

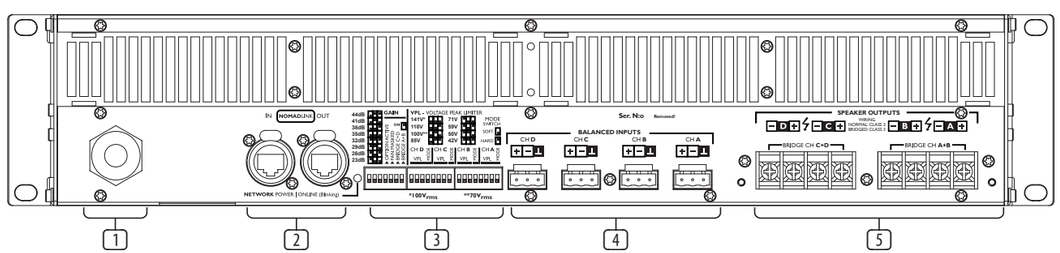
Option active (Yellow)

NomadLink network active (Blue)

NOTE: When no VPL, CPL or PAL indicators are illuminated, and the VPL DIP-switch is set to maximum at the specified nominal load, the amplifier channel is able to deliver maximum rated output power.

NOTE: When the network is connected, the blue NomadLink LED will illuminate even when mains power is not connected. NomadLink receives phantom power from the network supplied by the NLB 60E.

Rear panel



1 Mains input 115 V and 230 V operation (Not selectable)

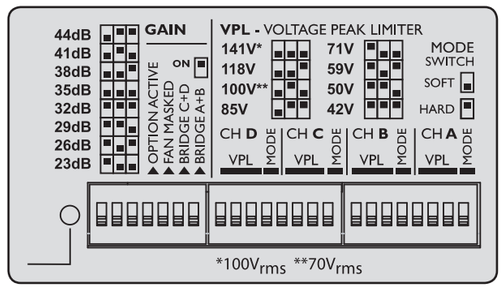
2 NomadLink network In and Out on EtherCon-housed RJ45 connections

3 DIP-switches for adjusting key features (see below)

4 3-pole Phoenix input connectors

5 2-pole screw terminal output connections

The DIP-switch features



The following features may be adjusted using the DIP-switches on the rear-panel of the amplifier.

Gain – Set for all four or eight channels from +29 to +38 dB in 3 dB steps.

Fan Masked – When on, engages the intelligent fan feature; fan speed is lowered when no signal is present.

Bridge Mode – Switches the channel pairs into bridge mode operation. An automatic -6 dB gain compensation is applied.

VPL – Voltage Peak Limiter adjustment is provided for 8 individual levels. Select the setting most appropriate for connected speakers. See Appendix for details.

Mode – Select VPL mode between Hard and Soft. For channels driving sub-woofers and low-end frequencies, it is recommended to use the Hard setting for optimal operation. For mid- and high-frequency drivers, always select Soft.

NomadLink / Ethernet network setup

The amplifier includes, as a standard feature, internal facilities for the NomadLink monitoring and control network. All features of the NomadLink network are accessible via a PC running Lab Gruppen's proprietary DeviceControl software. A single rackspace NLB 60E NomadLink Bridge & Network Controller accepts the TCP/IP data stream from the computer and converts it to the NomadLink protocols. Even when no computer is connected, the NLB 60E can initiate stand-alone power on/off and muting functions, as well as report any fault or warning conditions.

The PC is connected to the NLB 60E using a standard Ethernet interface and a crossed Cat-5 cable (peer-to-peer setup). If a hub or switch is in the network, standard "straight" Cat-5 cables must be used. The front and rear Ethernet connections on the NLB 60E can be used individually, but only one PC at a time running DeviceControl can access the subnet.

NOTE: Many newer laptop computers will allow peer-to-peer connection with the NLB 60E using a standard "straight" Cat-5 cable instead of a crossed cable.

The default fixed TCP/IP address of the NLB 60E is 192.168.1.166. The subnet mask is 255.255.255.0. For further system configuration details, please refer to instructions supplied with the NLB 60E unit.

The NomadLink connections between amplifiers use standard "straight" Cat-5/RJ45 equipped cables.

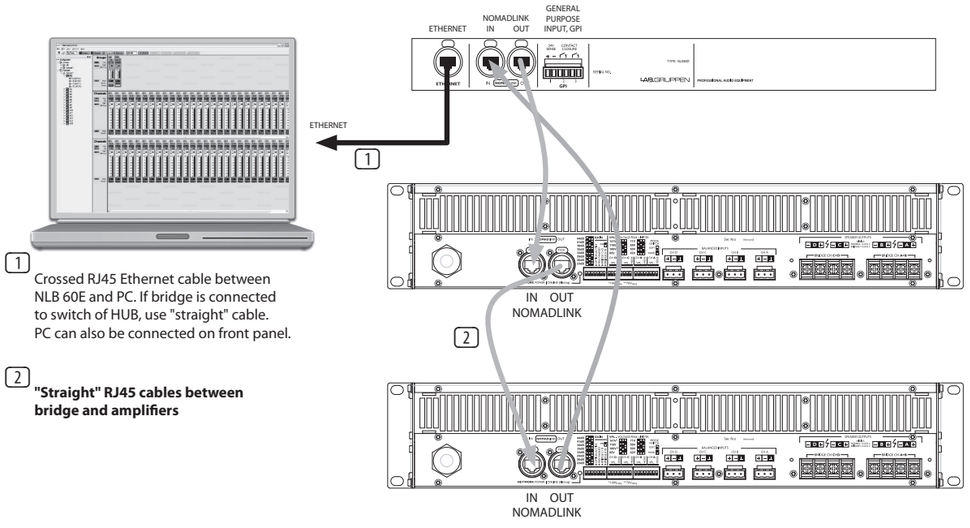
NOTE: US National Differences cl.16.3 requires that NomadLink network cables must be rated VW-1.

The OUT port from the NLB 60E must be connected to the IN port of the first amplifier. The OUT port from the first amplifier in turn connects to the next amplifier's IN port to form a daisy-chain The OUT port on the last amplifier is connected to the IN port on the NLB 60E to close the loop.

NOTE: There are performance limitations to cable lengths on a NomadLink network, both in terms of total cable length in the loop and between any two devices. These limitations follow standard Ethernet cabling protocols. Read the Operation and Performance chapter in this manual, or the Operation Manual supplied with the NLB 60E, to ensure the network is configured within these constraints.

TIP: Although the network will function as an open loop under most circumstances, it is strongly recommended that the loop be closed by connecting the last amplifier's OUT port to the NLB 60E's IN port. Doing so will improve redundancy and communication speed.

External contact closures and 24 V low/high triggers can be connected to the GPI connectors on the NLB 60E for control of fire-alarm systems or external power sequencers. For more details read the instructions supplied with the NLB 60E.



1 Crossed RJ45 Ethernet cable between NLB 60E and PC. If bridge is connected to switch of HUB, use "straight" cable. PC can also be connected on front panel.

2 **"Straight" RJ45 cables between bridge and amplifiers**

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Operation and performance

Introduction

The following sections provide comprehensive information on amplifier connection, setup, operation, and performance. The detailed information included here is essential to realizing the full functionality of the C Series amplifiers.

Operation precautions

- Make sure that the Power switch and the Remote switch on the amplifier front-panel are set to "off" before making any input, output or network connections, and also before manipulating the DIP-switches on the rear-panel.
- Make sure that the AC mains voltage is correct and matches the voltage printed on the rear-panel of the amplifier (115 V or 230 V).
- Make sure that no signal is present at the input to the amplifier when powering up. This could produce an unintentionally loud initial volume from the speakers.

Signal flow and headroom

Signal flow blocks

All C Series amplifiers have the same signal flow and feature set. The only difference is the amplifier's maximum output current per channel.

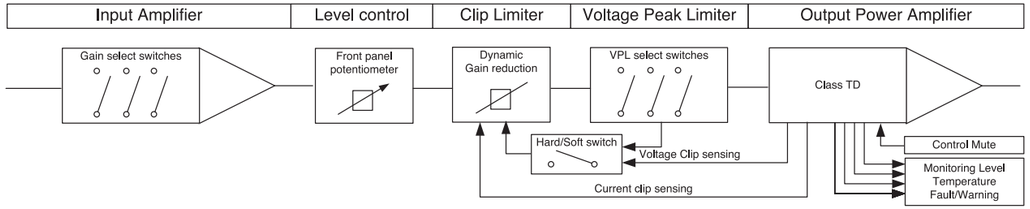
The input stage of all C Series amplifiers has a high sensitivity to provide ample system headroom. This in effect means that the input stage is almost impossible to clip.

Overall amplifier input gain is adjusted using the input stage DIP-switches. Please note that the gain setting is global, affecting all four channels. Following the input stage, the dedicated level control on each channel allows signal attenuation from 0 dB to minus infinity.

The CPL (Current Peak Limiter) section dynamically limits the input signal based on three parameters: sensed current level, feedback from the output stage, and sensed voltage clip from the VPL (and output amplifier voltage clip if "Soft Clip" activated). This ensures that power output is maintained within the design limits of the amplifier.

The adjustable VPL (Voltage Peak Limiter) sets the maximum output voltage and therefore also the maximum output power. Eight (8) different voltage stages are available using the DIP-switches on the rear-panel. See table in Appendix section with VPL ratings at typical loads.

The sophisticated output section monitors faults and generates appropriate warnings, which are displayed on the amplifier front-panel and transmitted through the NomadLink network. These alerts allow the operator to adjust system settings and thereby avoid problems. In the rare event that conditions are extraordinarily severe, the amplifier will shut down until the fault or problem setting has been rectified or adjusted. These sensing circuits are also employed to feed back voltage and current level information, via a side chain, to the limiters. Sensing circuits also transmit local amplifier module temperature and power supply temperature to the appropriate protection mechanisms. Read the Protection, Faults and Warnings section for further details.



Headroom, sensitivity and VPL / Gain settings

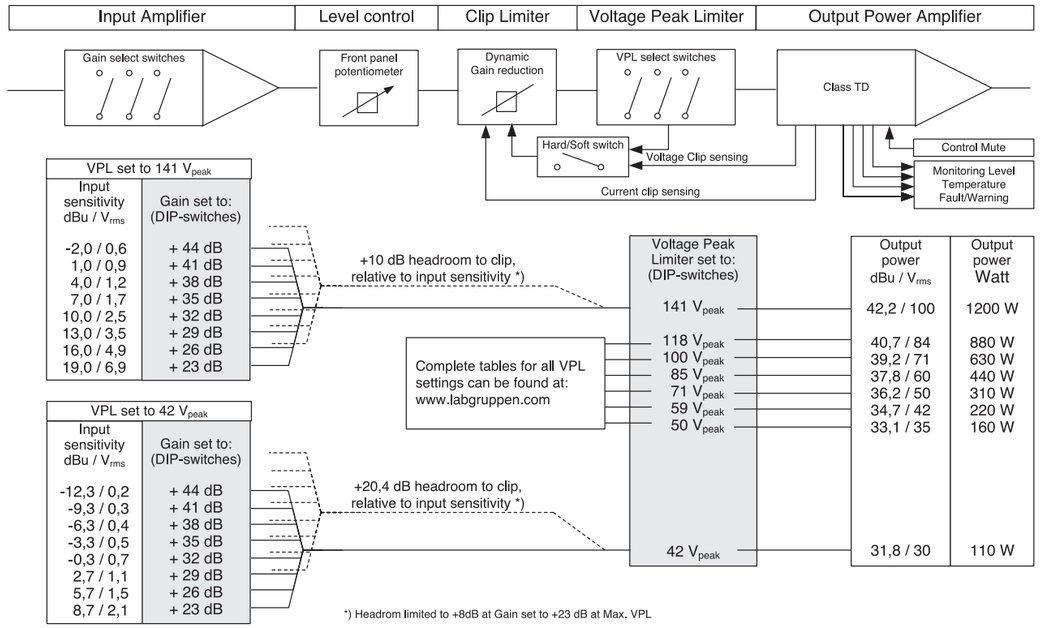
The input amplifier and limiter system is designed to accommodate extremes of performance. Typically, exceeding maximum input by much as +10 dB will only result in a 1% increase in distortion. The following schematics illustrate how the adjusable VPL and Gain circuitry affect input sensitivity and output power:

The tables to the left of the drawing below show input sensitivity for a C 68:4 with an 8 ohm load and 141 V peak (max.) and 42 V peak (min.) respectively for the eight different gain stages between +23 dB and +44 dB. The resulting output power is displayed in dBu, Vrms and Watts in the tables to the far right. Complete input sensitivity tables for all VPL and Gain settings for as applicable to C Series models can be found at www.labgruppen.com.

The headroom available through the input stage to the clip limiter is shown by the dotted lines as +10 dB at 141 V peak and +20.4 dB at 42 V peak. These lines illustrate the additional signal level that can be accepted at the input before any significant distortion will appear at the input stage.

NOTE: If you use the level potentiometer in the signal chain to reduce the level by an amount greater than the headroom relative to input sensitivity, AND you drive the amplifier to clip level, you are in danger of clipping the input stage before the current or voltage peak limiters are activated.

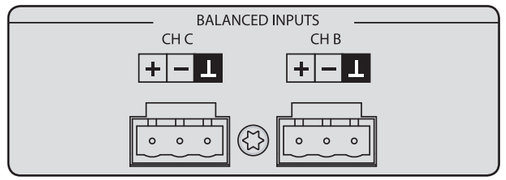
NOTE: When bridging two channels, you must add +6 dB to the input sensitivity to achieve maximum output voltage due to the automatic -6 dB gain compensation inserted by the amplifier.



Audio Input and Output connections, setup and features

Balanced / Unbalanced Input connection

Two electronically balanced Phoenix-type inputs are available. Follow the +,– and Ground labels when connecting the input signal.



If an unbalanced connection is desired this can be achieved by summing the minus ("COLD") and Ground terminals and using the + terminal as the "HOT" signal. For the best possible performance, the summing of ground and minus wires should be done at the source unit end of the cable (e.g. a CD player).

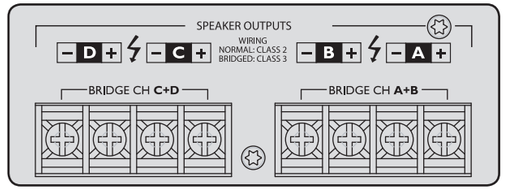
Four connectors are supplied for attaching cables to the inputs. The type of connector used is: Phoenix Contacts, Part number MSTB 2,5/3-STZ-5,08.

NOTE: When linking the same source signal to several input channels, be aware that there is a limit to the number of channels an output source can "drive". A typical output source (e.g. a DSP crossover unit) can drive up to four amplifier channels before external line-drivers might be required to buffer the signal.

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Output operation and connection

Screw-terminal connectors with + and – poles are provided at each channel output for connection of the speakers.



Make sure that the speaker cables are connected correctly and tightly, and that accurate polarity is maintained to all speakers in the system.

As the amplifier outputs produce high voltage, do not connect or disconnect speaker cables when the mains power is on. Also, attach the safety cover on the speaker terminals for safe operation and to comply with electrical product approvals.

Output bridge mode

It is possible to bridge channels in pairs of two (A+B and C+D for example). When bridged, the input source must be connected to input A (A+B) or C (C+D) respectively. Output speaker cables must be connected to the plus pole on channel A or C and the minus pole on B or D.

The main benefit of bridging the output is a doubling of output voltage. Bridging can be used to turn the amplifier into a three-channel amplifier with, for example, 2 x 1200 W and 1 x 2400 W at 4 ohms utilizing the C 48:4, or simply to achieve an impressive 200 Vrms supply per channel.

Most power amplifier designs, when bridged, automatically introduce a +6 dB input gain boost which can lead the user to conclude that said amplifier delivers "more than double the power" when in bridge mode. This is clearly not the case, as the gain boost artificially enhances perceived power at the cost of headroom. The C Series amplifiers work on globally set constant gain, and automatically compensate the input gain by -6 dB. For example, if the amplifier is configured in a three-channel mode, then the selected gain is maintained from input to output on all channels.

Amplifier Input Gain

All C Series amplifiers feature adjustable input gain. This versatility enables the amplifier to accommodate a multitude of system configurations with various input sources and speaker layouts.

Amplifier gain is set globally for all four channels. The range is +23 dB to +44 dB in 3 dB steps. Individual channel fine level adjustment is available using the potentiometers on the front panel.

The unique adjustable input gain feature of the C Series makes it easier to attain the optimum balance between headroom and signal-to-noise ratio in the signal path. A weak signal at the input might require the gain to be raised in order to achieve maximum output power with the lowest signal-to-noise ratio. A "hot" input signal, however, would require a lowering of the gain to avoid sending the amplifier into Voltage or Current clipping.

See Appendix to review the table containing Gain versus VPL setting implications for input sensitivity and output power.

NOTE: Bridge mode operation automatically compensates by -6 dB, keeping all channels at the same gain.

Channel gain/level (front-panel pots)

Individual channel gain (level) may be adjusted using the potentiometers located on the front-panel behind the dust filter cover. Range is from 0 dB to -infinity in 21 steps. The attenuation is logarithmic, with the 12 o'clock position indicating -10 dB.

Use your fingers or a screwdriver to adjust the potentiometers.

NOTE: If the level control is used to attenuate to a lower level than the headroom relative to input sensitivity AND the amplifier input is driven into clip, there is a danger of clipping the input stage before the current or voltage peak limiters are activated.

Amplifier sensitivity

Sensitivity is defined as how many volts (rms) or dBu (referred to 0.775 Vrms) are required to achieve full (maximum) output power. As the output power varies with the load impedance, 4 ohms is usually the common reference.

Since C Series amplifiers are capable of providing multiple maximum output power levels through use of the VPL feature, many sensitivity calculations may be required for a single amplifier. We recommend use of the DeviceControl software to simplify this process. DeviceControl's Device View page, used in combination with the DIP-switch settings display, will automatically produce a sensitivity calculation from the given data (VPL, Gain and load).

Output Voltage Peak Limiter (VPL)

The Voltage Peak Limiter (VPL) is a unique feature in C Series amplifiers. It is used to select the maximum power available on each output channel. Four levels can be set using the DIP-switches on the amplifier's rear panel.

V peak	Vrms
141	100
118	84
100	70
85	60
71	50
59	42
50	35
42	30

The values for VPL are displayed as maximum Voltage Peak. To translate Voltage Peak into Vrms, you must divide the Voltage Peak values by 1.41 (see table).

The VPL allows you to set the correct maximum output peak power for optimum performance with the connected speakers. The correct setting depends on the system type (low or high impedance) and the specific load connected to the channel. Since each channel can be configured to deliver either very high voltage peak power OR high current draw at low impedances, it is important to set the VPL correctly.

To configure an individual output channel for a constant voltage system, you simply adjust the DIP-switches to the desired voltage. However, when using an output for a low-impedance system (4, 8 or 16 ohms), then you may need to adjust the VPL to a lower setting to avoid either delivering excessively high continuous power to the speaker or overheating of the output channel through high current draw. For example, with a very "hot" continuous output signal, the temperature could rise to a critical level and activate Temp warning or even Temp Mute. Lowering the VPL setting usually will solve this situation.

If the Current Peak Limiter is active or indicates low impedance, lowering the VPL setting can rectify this situation as well.

Constant voltage 70 V and 100 V systems setup and operation

When using C Series amplifiers to drive constant voltage (high-impedance) speaker systems at 70 Vrms or 100 V peak, you can in most cases simply connect the speakers to the amplifier output terminals, select the correct VPL setting, and place the amplifier in service.

Output Current Peak Limiter (CPL)

The Current Peak Limiter (CPL) ensures that the amplifier will not be damaged by trying to deliver current to the outputs exceeding the physical limitations the transistors. The CPL keeps the amplifier within the Safe Operating Area. The CPL is non-adjustable and has different limit values depending on model type. The maximum output current values for the four C…X models are:

- C 88:4, 35.5 Arms per channel
- C 68:4, 24.5 Arms per channel
- C 48:4, 17.5 Arms per channel
- C 28:4, 12 Arms per channel
- C 16:4, 8.5 Arms per channel

CPL activity is indicated by illumination of an orange LED for each channel on the front-panel. Warnings also are shown in the DeviceControl software's GUI.

A steadily illuminated orange CPL LED indicates a short circuit situation (or very low impedance). The output will mute for 6 seconds before measuring the output impedance again. This will continue until the short circuit is fixed, at which time the output will automatically un-mute. An input signal must be present to allow detection of short circuit or low impedance conditions.

TIP: If the CPL LED is steadily illuminated orange while the output is muted and the -4 dB signal LED is NOT on, then the amplifier output is detecting a short circuit or low impedance condition. The problem can be solved by checking input and output cables and examining the state of the loudspeaker load. If there is no short circuit present, then the condition may be rectified by lowering the VPL or input levels.

If the CPL indicator is lit continuously, then the amplifier is delivering excessive current and is being forced into a current limiting state (output muted).

GPIO connection and operation

Introduction

The C Series amplifiers incorporate a sophisticated and comprehensive set of protection features. Faults and warnings are indicated on the front-panel and reported via the NomadLink network for indication on the DeviceControl GUI.

Safe Operating Area Detector (SOAD)

The Safe Operating Area Detector (SOAD) compares output voltage against output current to ensure that the output transistors are working inside their safe operating area.

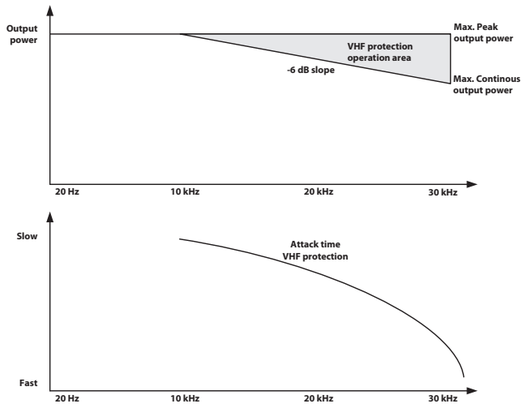
The SOAD provides fault monitoring and input to the Current Peak Limiter (CPL). The SOAD has no dedicated indicator, and its operation is revealed only in conjunction with features such as the CPL.

Very High Frequency protection

All C Series amplifiers include protection circuits that detect continuous Very High Frequency (VHF) content in the input signals. The detection begins at approximately 10 kHz and moves upwards to include ultrasonic signals. If VHF signals are detected, the output will mute for 6 seconds before re-measuring. Once no continuing VHF signal is detected, the output un-mutes and returns to normal operation.

This feature recognizes that continuous full-scale VHF signals do not appear in "natural" sources such as music. Any such signals can therefore be considered as a fault when present. VHF protection is essential for avoiding damage to high frequency drivers.

The VHF protection operational area is dependent on output power level and frequency. The illustration below shows a decreasing threshold on the output power level, starting at approximately 10 kHz and rising with a -6 dB slope. This defines the VHF protection area. When continuous output power above the threshold line is detected the VHF protection becomes active.



The Attack time for the VHF protection is increasingly shorter at higher frequencies. For example, an ultrasonic continuous signal will cause the outputs to mute rapidly, where it will take several milliseconds for a 10 kHz continuous signal to trigger the output mute. This is shown in the illustration above.

The VHF protection is NOT a limiter and does not alter the amplifier's frequency response. It is implemented solely to detect continuous VHF content. The amplifier will always pass VHF peaks at full power, with no effect on musical "transients".

The VHF protection is indicated by a yellow LED on the amplifier front-panel, with output muting for six seconds when in action. It is reported as a fault via the NomadLink network on the DeviceControl GUI.

TIP: If you bench test the amplifier using a continuous, full scale sine-wave input above 10 kHz, the VHF protection will activate and prevent measurement of full peak output power. (Output will be muted long before maximum output power is attained.) To measure the true peak output power, use a burst signal.

DC protection

DC protection is implemented on each output to prevent damage to connected loudspeakers. DC present at the output will trigger muting and illuminate the fault LED indicator. Any DC present at the output indicates a hardware malfunction that requires servicing of the amplifier.

High-impedance warning (open load)

A high-impedance (open load) condition is indicated when an input signal above approximately -29 dB is detected and no functioning loudspeakers are connected to the amplifier. The fault in indicated by a red Sig/Hi-imp LED. The indicator is green when a valid load is present under the same input signal conditions.

NOTE: Since the high-impedance detection initially triggers only when the input signal rises above -29 dB, it might cause the indicator to first turn green, and then red, even in situations where no speaker is connected.

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Low-impedance protection (short circuit)

A low-impedance or short-circuit fault is detected when current draw is high (Current Peak Limiter active) and when, simultaneously, output signal is low (-4 dB LED does not illuminate). When this occurs, the amplifier protects the output stage from damage by muting the output signal and bypassing the circuits. Indication of this fault is a constant orange illumination of the Current Peak Limiter (CPL) LED on the front-panel. The protection will sequence at six second intervals to re-measure conditions. If the low-impedance fault is no longer detected, the amplifier will un-mute.

NOTE: If the CPL turns constant orange, the output is muted, and the -4 dB signal LED is ON, then the amplifier has gone into maximum current protection. This situation is caused by an excessive input signal and is not due to a short circuit. Turn down the input signal to avoid or remedy this situation.

Temperature protection

Thermal measurement points are provided on each output channel as well as on the power supply. If these sensors detect temperatures above the specified maximums, a high temperature warning will be indicated by a flashing Temp LED on the front panel. The warning also will be transmitted to the Device Control GUI via the NomadLink network.

As the amplifier approaches a thermal protection threshold, the warning LED sequence will start with short "on-time" bursts. If the amplifier continues to overheat and approaches the temperature limit, the flashing sequence will be defined by longer and longer on-time bursts until the protection mode is activated.

If the temperature becomes too high to continue safe operation, the overheated output channel(s) will be muted until the temperature returns to an acceptable level.

Fully active temperature protection (with muting) is indicated by a constantly illuminated Temp LED. It will also be indicated as a fault via the NomadLink network on the DeviceControl GUI.

Temperature measurements will continue at six second intervals. The output will un-mute when the channel or power supply returns to a safe operating temperature.

Power Average Limiter (PAL)

The Power Average Limiter (PAL) controls the current-drawing relationship between the power supply and the mains inlet. PAL limits the maximum average power consumption according to the power supply capabilities, ensuring that the PSU will not overload. In addition, in the larger models that potentially could pull more current from the mains than the mains fuses are specified to handle (more than 16 A), PAL limits the amplifier's maximum current draw to prevent blowing the mains fuse.

Soft-Start

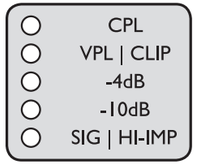
High powered amplifiers with inadequate inrush limiting can pull considerable current from the mains at turn-on. This can result in fast acting mains breakers tripping. Such is not the case with C Series amplifiers in most circumstances. The C Series amplifiers have very low inrush power as the capacitors are charged slowly, and in a controlled manner, ensuring that breakers will not trip.

Several amplifiers will, under normal conditions, be able to be powered up simultaneously. If you do experience problems powering up multiple amplifiers simultaneously (normally experienced only in very large installations), use the NomadLink network and the NLB60E to establish a power sequence with pre-set delays before the start-up of each subsequent amplifier.

Front-panel monitoring

Level indicators

Four signal/level/clip LEDs per channel are contained on the C Series front panels



- **Orange** CPL (Current Peak Limiter) flashing indicates signal exceeds the limits of the output devices and limiting is in effect.
- **Red** VPL/CLIP indicates that the signal has exceeded maximum output voltage. (Maximum voltage is determined by rear-panel VPL settings.)
- **Green** - 4 dB indicates output signal has reached this level.
- **Green** - 10 dB indicates output signal has reached this level.
- **Signal / Hi-Imp** (Green/red) indicates an output signal above -44 dB. If it turns RED, this indicates that a high-impedance ("open" connection) has been detected at the output. This can be a fault such as a disconnected cable or malfunctioning loudspeaker driver. However, it could indicate acceptable high impedance, such as a sub-bass enclosure with high impedance at a certain frequency. When the -10 dB signal LED is on AND the Hi-Imp LED turns red then the amplifier has detected an open load (no speaker is connected).

For more detailed signal level indications use the DeviceControl software application.

Level adjust

Level adjust potentiometers (one per channel) are located behind the removable dust-filter cover on the amplifier's front-panel. It is not possible to adjust the level settings with the cover in place.

Step	Attenuation	Step	Attenuation
1 (Min)	-Inf. dB	12	-8.7 dB
2	-Inf. dB	13	-7.4 dB
3	-50 dB	14	-6.0 dB
4	-40 dB	15	-4.5 dB
5	-35 dB	16	-2.7 dB
6	-21.5 dB	17	-0.6 dB
7	-21.5 dB	18	-0.3 dB
8	-14.7 dB	19	-0.1 dB
9	-12.9 dB	20	0 dB
10	-11.4 dB	21 (Max)	0 dB
11	-10.0 dB		

Level adjust potentiometers (one per channel) are located behind the removable dust-filter cover on the amplifier's front-panel. It is not possible to adjust the level settings with the cover in place.

The potentiometer's operational range is 0 dB to -infinity in 31 steps. Attenuation is logarithmic, with 12 o'clock position being -10 dB. See table to the above with increments.

It is not possible to adjust the individual channel attenuation from the NomadLink network or elsewhere on the amplifier.

Use fingers or a screwdriver to adjust the potentiometers.

Mute indication

Individual channel Mute is indicated by illumination of the two yellow LEDs at the top of the channel's LED bargraph. If both LEDs are illuminated and all other indications are normal, then the channel has been muted by a command from the NLB 60E front-panel or the DeviceControl application. Otherwise, a Mute could indicate a fault condition.

Performance, Warning and Fault indicators

- Power on/off (green) indicates that mains power is switched on.
- NomadLink (blue) indicates that the network is connected. The NomadLink LED will light up even before the mains power is connected and switched on as it takes phantom power from the NomadLink network cable.
- Bridge mode (yellow) indicates if two channels are bridged using the DIP-switch on the rear panel.
- CPL, Current Peak Limiter (orange), when flashing indicates the maximum possible current draw has been reached.
- CPL, Current Peak Limiter (orange), when constant indicates excessive current draw caused by a short circuit on the output or very low operational impedance. When detected, the output will mute for six seconds before re-measuring the output impedance. This will continue until the short circuit is removed. CPL remains constant orange in a fault condition only when an input signal is present.
- Temperature (yellow) warning is indicated by a flashing LED. If the amplifier goes into thermal protect (output muted) the LED illuminates constant yellow.
- VHF, Very High Frequency protection (yellow), indicates that potentially harmful continuous high frequencies have been detected on the input signal. The output is muted.
- PAL, Power Average Limiter (red), indicates that the amplifier is limiting because the power supply and/or the mains-inlet fuse has reached maximum capability.
- Hardware fault is indicated when both the CPL and VHF indicators light up simultaneously. The amplifier requires servicing before being placed back in operation.

NomadLink network and DeviceControl software

NomadLink network in the amplifiers

All C Series amplifiers are equipped with the proprietary NomadLink network interface. This includes two RJ45 connections in standard housings: one IN and one OUT.

Use standard straight Cat-5 Ethernet cables with RJ45 connectors to connect the amplifier to the NLB 60E NomadLink Bridge and Network Controller or to daisy-chain multiple amplifiers.

NOTE: It is very important that two IN or two OUT ports are NEVER connected to each other. This will cause the NomadLink communication and DeviceControl to exhibit erratic behavior and display inaccurate data. However, this situation will not damage the amplifier circuitry.

Up to 60 amplifiers can be connected to one NLB 60E in a daisy-chain or closed loop.

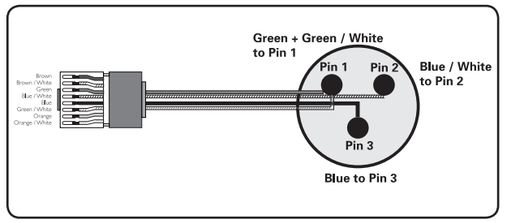
When the NLB 60E is powered up, the NomadLink network receives phantom power. This causes the blue NomadLink LED on the amplifier front panel and the NomadLink LED on the rear panel to light up. NomadLink is active even when the amplifier has mains power disconnected or is not yet powered up.

The amplifier does not have a stand-by power supply for the network. The network is solely powered from the NLB 60E. Should an amplifier fail or be inadvertently disconnected from the mains, network integrity is fully maintained and all amplifiers remain visible on the system.

Connection and setup

The NomadLink network requires use of an NLB 60E NomadLink Bridge & Network Controller. The NomadLink network is established by connecting the NLB 60E OUT port to the first amplifier's IN port. Then a daisy-chain is established by connecting the first amplifier's OUT port to the next amplifier's IN port, and so on. If a closed loop network is desired for improved redundancy (highly recommended), the last amplifier's OUT port must be connected to the NLB 60E's IN port.

For all connections, straight Cat-5 RJ45-equipped Ethernet cables should be used.



TIP: Optimal NomadLink performance can only be assured when using Cat-5 cables. However, as NomadLink is only using two wires + ground for communication and phantom power it is possible to create converters from RJ45 to, for example, XLR connectors using 2-wire shielded cable. The NomadLink network can then be operated using a standard tie-line in a multicore signal distribution system. See the drawing below for an example of how to create a converter.

NOTE: If any cable format or connection other than Cat-5 (or better) and RJ45 is utilized, network performance may be compromised. In this event Lab Gruppen cannot guarantee that the NomadLink network will be fully operational.

NomadLink network cable lengths

The connection between the NLB 60E and your PC is a standard Ethernet network running the TCP/IP protocol. Cable distances between NLB 60E and your PC follow standard rules for Ethernet systems.

In situations where the amplifiers and the NLB 60E will be positioned in different locations at some distance from each other, or where groups of amplifiers within a single subnet with up to 60 units will be installed with a distance in between, these general rules applying to Ethernet cabling limitations may be considered.

- Rule 1: The maximum cable length in between any two devices may not exceed 300 meters / 980 feet.
- Rule 2: In a non-closed-loop daisy-chained subnet the total maximum cable length is 400 meters / 1300 feet.
- Rule 3: In a closed-loop subnet the total maximum cable length is 700 meters / 2300 feet.

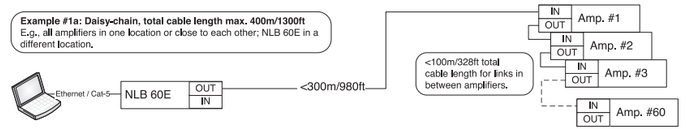
Ethernet network cable lengths

The connection between the NLB 60E and your PC is a standard Ethernet network running the TCP/IP protocol. Cable distances between NLB 60E and your PC follow standard rules for Ethernet systems.

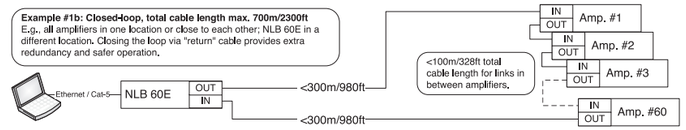
Contact your an IT expert or an authoritative source for more details.

Below are typical examples of NomadLink network setups:

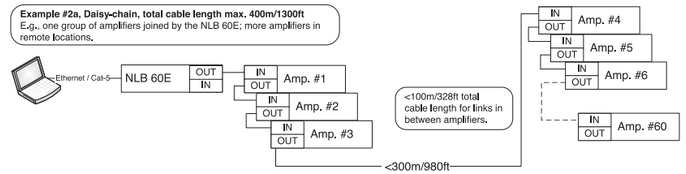
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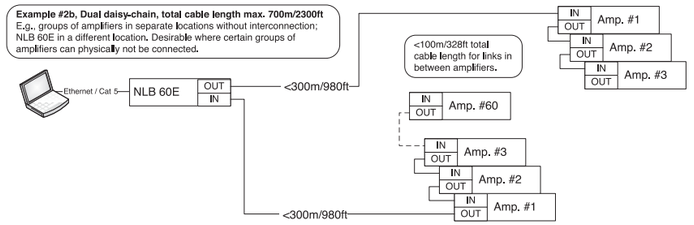
NomadLink daisy chain configuration



NomadLink closed loop configuration



NomadLink closed loop daisy chain configuration



NomadLink dual daisy chain closed loop configuration

DeviceControl software

DeviceControl is Lab Gruppen's proprietary software application for monitoring and controlling networked FP+ Series and other Lab Gruppen NomadLink-ready power amplifier. DeviceControl runs on a Windows PC, which connects via Ethernet to the NLB 60E NomadLink Bridge & Network Controller. DeviceControl provides comprehensive monitoring of amplifier status as well as control of amplifier power on/off and individual channel mute and solo functions.

Please review the DeviceControl Operation Manual for more detailed information.

Third Party Control and Monitoring Capabilities

The NLB 60E NomadLink Bridge & Network Controller can be integrated with third party control systems via its Ethernet connection. All amplifier control functions, fault and warning notifications that would otherwise be displayed via the DeviceControl software can be replicated in a third party control GUI.

Please note that NLB 60E Firmware Ver 2.1.0 (or later) must be used in order to utilize the third party control and monitoring capabilities of the NomadLink network. Both the firmware package and the control protocol documentation, which describes the functionality and programming requirements for third party integration, can be found under the Software & Firmware section of our website at: http://labgruppen.com/index.php/support/software_firmware/

Appendix

Maintenance

During normal operation your C Series amplifier will provide trouble-free service. The only user maintenance required is to periodically vacuum clean the foam dust filters behind the front grille.

In some extreme cases it may be necessary for authorized service personnel to clean the inside of the amplifier. These conditions usually occur after prolonged use in extreme environments such as those using "cracked oil" smoke machines. If you are using your amplifier in a heavy duty application, it is recommended to have your amplifier serviced every three years purely as a preventative action.

FAQ

Following are common questions asked about Lab Gruppen C Series power amplifiers together with helpful answers.

Q: What is the input sensitivity of the amplifiers?

A: Input sensitivity is calculated from the amplifier gain, maximum output voltage and load. As gain and output voltage are adjustable in C Series amplifiers, you need to look this information up in a table found in the Appendix section of this manual. Input sensitivity also is automatically calculated in the DeviceControl software application.

Q: What are the maximum cable lengths allowed when using the NomadLink network?

A: NomadLink uses a daisy-chain topology to connect amplifiers and an NLB 60E in a network. Standard RJ45-equipped Cat-5 cables are used throughout. The daisy chain may be made into a closed-loop by connecting a return cable to the NLB 60E from the last amplifier.

General rules of cable lengths:

- The maximum cable length in between any two devices may not exceed 300 meters / 980 feet.
- In a non-closed-loop daisy-chained subnet the maximum cable length is 400 meters / 1300 feet.
- In a closed-loop subnet the maximum cable length is 700 meters / 2300 feet.

Exceeding these limits may result in lost contact with the devices, or loss of phantom powering due to cable resistance.

Q: How long can cable-runs be on the Ethernet network connecting the NLB 60E to the PC?

A: On the Ethernet side, normal Ethernet cable limits apply. This is typically a maximum of 80 meters / 300 feet between each device. Follow standard installation procedures for Ethernet. Distances beyond 100 meters may require use of a repeater, a format converter, or optical cables.

Q: Why is the NomadLink network a closed-loop topology?

A: Technically speaking, the closed loop is optional. The purpose of closing the loop is primarily to provide a secondary path to the amplifiers. If cables are broken or disconnected in either direction, all amplifiers still may be addressed by the network.

Q: How can I be sure that no protection circuits or safety functions interfere with the output signal?

A: If no Clip or Warning LEDs on the front panel light up, you can be fully confident that the rated maximum output power in the full frequency range is available for your speakers. No limiting or gain-reduction takes place without a warning or fault indication.

Additional documentation

In case you didn't find what you were looking for in this Operation Manual, check out the website at www.labgruppen.com, where you can find a multitude of additional documentation for C Series.

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Current Draw and Thermal Dissipation Specifications

The following tables contain information on measured current consumption as well as calculated heat dissipation during normal operation (⅛ rated power); and during extreme heavy duty operation (¼ rated power).

C 88:4									
Level	Load	Rated power	Line Current *2)		Watt *1)			Thermal Dissipation	
			115 VAC	230 VAC	In	Out	Dissipated	BTU/hr	kCal/hr
Standby with remote power off via NomadLink					0	0	0	0	0
Powered on, idling.					139	0	139	475	120
			Amp (I)		Watt				
Pink noise (⅛ rated power)	8 Ω / Ch.	1250 x 4	17.6	8.8	1177	625	552	1884	475
	16 Ω / Bridged	2500 x 2							
	4 Ω / Ch.	2100 x 4	27	13.5	1914	1050	864	2949	743
	8 Ω / Bridged	4200 x 2							
	*2 Ω / Ch. *4)*	*2200 x 4*	*33.6*	*16.8*	*2221*	*1150*	*1071*	*3655*	*921*
	*4 Ω / Bridged *4)*	*4400 x 2*							
	100 V / Ch.	2000 x 4	26.2	13.1	1838	1000	838	2860	721
	200 V / Bridged	N/R							
Pink noise (max power) *3)	8 Ω / Ch.	1250 x 4	30.0	16.0	2006/2140	1145/1221	860/918	2935/3133	739/789
	16 Ω / Bridged	2500 x 2							
	4 Ω / Ch.	2100 x 4	30.0	16.0	2127/2268	1230/1312	896/956	3058/3263	770/822
	8 Ω / Bridged	4200 x 2							
	2 Ω / Ch.	2300 x 4	30.0	16.0	1983/2115	1016/1084	966/1031	3297/3519	831/886
	4 Ω / Bridged	4600 x 2							
	100 V / Ch.	2000 x 4	30.0	16.0	5992/2236	3467/1294	883/942	3014/3216	759/810
	200 V / Bridged	4000 x 2							
Mains connector, 230 V CE version			16 A, CEE7						
Mains connector, 115 V ETL version			30A Twist Lock						

*1) The amplifier's PSU operates as a non-resistive load, so the calculation "Volts x Amps = Watts" would not be correct. Instead, measured and specified here is what is known as the "Active Power" in the amplifier providing useful, real-world values of power consumption and heat dissipation.

*2) Current draw figures measured at 230 V. 115 V figures are 230 V figures multiplied by two.

*3) Figures measured at maximum sustainable power without tripping the mains fuse. Listed separately for 30 A/115 V and 16 A/230 V operation. Note that the max. power condition is very extreme and will not occur during normal operation. Also note that the mains breaker will not be tripped even if operation is **momentarily** in excess of max. ratings.

**4) Italics used for conditions that, if sustained over long time periods, may trigger the mains breaker. Therefore these measurements should not be used when calculating cooling requirements as they cannot be sustained by the mains breaker over time.*

C 68:4

Level	Load	Rated power	Line Current *2)		Watt *1)			Thermal Dissipation	
			115 VAC	230 VAC	In	Out	Dissipated	BTU/hr	kCal/hr
Standby with remote power off via NomadLink					0	0	0	0	0
Powered on, idling.					133	0	133	454	114
			Amp (I)		Watt				
Pink noise (⅛ rated power)	8 Ω / Ch.	1200 x 4	16.0	8.0	1123	600	523	1784	450
	16 Ω / Bridged	2400 x 2							
	4 Ω / Ch.	1700 x 4	22.4	11.2	1578	850	728	2484	626
	8 Ω / Bridged	3400 x 2							
	2 Ω / Ch.	1200 x 4	21.2	10.6	1378	600	778	2655	669
	4 Ω / Bridged	2400 x 2							
	100 V / Ch.	1600 x 4	21.0	10.5	1463	800	663	2262	570
	200 V / Bridged	3200 x 2							
Pink noise (¼ rated power) *3)	8 Ω / Ch.	1200 x 4	32.6	16.3	2429	1600	829	2829	713
	16 Ω / Bridged	2400 x 2							
	4 Ω / Ch.	1700 x 4	38.8	19.4	2697	1700	997	3402	857
	8 Ω / Bridged	3400 x 2							
	4 Ω / Ch.	1200 x 4	35.2	17.6	2296	1200	1096	3740	942
	8 Ω / Bridged	2400 x 2							
	100 V / Ch.	1600 x 4	35.4	17.7	2605	1600	1005	3429	864
	200 V / Bridged	3200 x 2							
Mains connector, 230 V CE version			16 A, CEE7						
Mains connector, 115 V ETL version			20 A / 5-20P						

*1) The amplifier's PSU operates as a non-resistive load, so the calculation "Volts x Amps = Watts" would not be correct. Instead, measured and specified here is what is known as the "Active Power" in the amplifier providing useful, real-world values of power consumption and heat dissipation.

*2) Current draw figures measured at 230 V. 115 V figures are 230 V figures multiplied by two.

*3) Figures measured at maximum power before amplifier protection and limiter features are engaged. Typically this is between ¼ and ⅓ of rated power. Note that the max. power condition is very extreme and will not occur during normal operation. Also note that the mains breaker will not be tripped even if operation is in excess of max. ratings.

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C 48:4

Level	Load	Rated power	Line Current *2)		Watt *1)			Thermal Dissipation	
			115 VAC	230 VAC	In	Out	Dissipated	BTU/hr	kCal/hr
Standby with remote power off via NomadLink					0	0	0	0	0
Powered on, idling.					123	0	123	420	106
			Amp (I)		Watt				
Pink noise (⅛ rated power)	8 Ω / Ch.	1000 x 4	13,8	6,9	945	500	445	1518	383
	16 Ω / Bridged	2000 x 2							
	4 Ω / Ch.	1200 x 4	17,4	8,7	1171	600	571	1948	491
	8 Ω / Bridged	2400 x 2							
	2 Ω / Ch.	600 x 4	12,4	6,2	769	300	469	1600	403
	4 Ω / Bridged	1200 x 2							
	100 V / Ch.	900 x 4	13,2	6,6	840	450	390	1331	335
	200 V / Bridged	1800 x 2							
Pink noise (¼ rated power) *3)	8 Ω / Ch.	1000 x 4	28,2	14,1	2116	1333	783	2670	673
	16 Ω / Bridged	2000 x 2							
	4 Ω / Ch.	1200 x 4	30,6	15,3	2168	1200	968	3303	832
	8 Ω / Bridged	2400 x 2							
	4 Ω / Ch.	600 x 4	21,6	10,8	1368	600	768	2620	660
	8 Ω / Bridged	1200 x 2							
	100 V / Ch.	900 x 4	26,4	13,2	1827	1200	627	2139	539
	200 V / Bridged	1800 x 2							
Mains connector, 230 V CE version			16 A, CEE7						
Mains connector, 115 V ETL version			20 A / 5-20P						

*1) The amplifier's PSU operates as a non-resistive load, so the calculation "Volts x Amps = Watts" would not be correct. Instead, measured and specified here is what is known as the "Active Power" in the amplifier providing useful, real-world values of power consumption and heat dissipation.

*2) Current draw figures measured at 230 V. 115 V figures are 230 V figures multiplied by two.

*3) Figures measured at maximum power before amplifier protection and limiter features are engaged. Typically this is between ¼ and ⅓ of rated power. Note that the max. power condition is very extreme and will not occur during normal operation. Also note that the mains breaker will not be tripped even if operation is in excess of max. ratings.

EN

C 28:4

Level	Load	Rated power	Line Current *2)		Watt *1)			Thermal Dissipation	
			115 VAC	230 VAC	In	Out	Dissipated	BTU/hr	kCal/hr
Standby with remote power off via NomadLink					0	0	0	0	0
Powered on, idling.					123	0	123	420	106
			Amp (I)		Watt				
Pink noise (⅛ rated power)	8 Ω / Ch.	700 x 4	11.6	5.8	727	350	377	1286	324
	16 Ω / Bridged	1400 x 2							
	4 Ω / Ch.	700 x 4	13.0	6.5	775	350	425	1450	365
	8 Ω / Bridged	1400 x 2							
	2 Ω / Ch.	300 x 4	9.4	4.7	529	150	379	1293	326
	4 Ω / Bridged	600 x 2							
	100 V / Ch.	700 x 4	10.4	5.2	663	350	313	1068	269
	200 V / Bridged	1400 x 2							
Pink noise (¼ rated power) *3)	8 Ω / Ch.	700 x 4	24.0	12.0	1589	933	656	2237	564
	16 Ω / Bridged	1400 x 2							
	4 Ω / Ch.	700 x 4	20.8	10.4	1359	700	659	2249	567
	8 Ω / Bridged	1400 x 2							
	4 Ω / Ch.	300 x 4	14.0	7.0	843	300	543	1853	467
	8 Ω / Bridged	600 x 2							
	100 V / Ch.	700 x 4	21.4	10.7	1458	933	525	1790	451
	200 V / Bridged	1400 x 2							
Mains connector, 230 V CE version			16 A, CEE7						
Mains connector, 115 V ETL version			20 A / 5-20P						

*1) The amplifier's PSU operates as a non-resistive load, so the calculation "Volts x Amps = Watts" would not be correct. Instead, measured and specified here is what is known as the "Active Power" in the amplifier providing useful, real-world values of power consumption and heat dissipation.

*2) Current draw figures measured at 230 V. 115 V figures are 230 V figures multiplied by two.

*3) Figures measured at maximum power before amplifier protection and limiter features are engaged. Typically this is between ¼ and ⅓ of rated power. Note that the max. power condition is very extreme and will not occur during normal operation. Also note that the mains breaker will not be tripped even if operation is in excess of max. ratings.

C 16:4

Level	Load	Rated power	Line Current *2)		Watt *1)			Thermal Dissipation	
			115 VAC	230 VAC	In	Out	Dissipated	BTU/hr	kCal/hr
Standby with remote power off via NomadLink					0	0	0	0	0
Powered on, idling.					129	0	129	440	111
			Amp (I)		Watt				
Pink noise (⅛ rated power)	8 Ω / Ch.	400 x 4	8.6	4.3	526	200	326	1112	280
	16 Ω / Bridged	800 x 2							
	4 Ω / Ch.	300 x 4	8.2	4.1	485	150	335	1143	288
	8 Ω / Bridged	600 x 2							
	2 Ω / Ch.	n.r.							
	4 Ω / Bridged	n.r.							
	100 V / Ch.	400 x 4	7.6	3.8	463	200	263	897	226
	200 V / Bridged	800 x 2							
Pink noise (¼ rated power) *3)	8 Ω / Ch.	400 x 4	16.2	8.1	1046	533	513	1749	441
	16 Ω / Bridged	800 x 2							
	4 Ω / Ch.	300 x 4	15.2	7.6	953	400	553	1887	475
	8 Ω / Bridged	600 x 2							
	2 Ω / Ch.	n.r.							
	4 Ω / Bridged	n.r.							
	100 V / Ch.	400 x 4	14.4	7.2	944	533	411	1401	353
	200 V / Bridged	800 x 2							
Mains connector, 230 V CE version			16 A, CEE7						
Mains connector, 115 V ETL version			15 A / 5-15P						

*1) The amplifier's PSU operates as a non-resistive load, so the calculation "Volts x Amps = Watts" would not be correct. Instead, measured and specified here is what is known as the "Active Power" in the amplifier providing useful, real-world values of power consumption and heat dissipation.

*2) Current draw figures measured at 230 V. 115 V figures are 230 V figures multiplied by two.

*3) Figures measured at maximum power before amplifier protection and limiter features are engaged. Typically this is between ¼ and ⅓ of rated power. Note that the max. power condition is very extreme and will not occur during normal operation. Also note that the mains breaker will not be tripped even if operation is in excess of max. ratings.

Specifications

	C 88:4	C 68:4	C 48:4	C 28:4	C 16:4	C 20:8X	C 10:8X	C 10:4X	C 5:4X
Model									
Number of channels	4	4	4	4	4	8	8	4	4
Peak total output all channels driven	8800 W	6800 W	4800 W	2800 W	1600 W	2000 W	1000 W	1000 W	500 W
Peak output voltage per channel	141 V	141 V	141 V	141 V	141 V	100 V	100 V	100 V	100 V
Max. output current per channel	35.5 Arms	24.5 Arms	17.5 Arms	12 Armss	8.5 Arms	8 Arms	5.6 Arms	8 Arms	5.6 Arms
Max Output Power									
16 ohms per ch. (all ch.'s driven)	650 W	650 W	625 W	600 W	400 W	250 W	125 W	250 W	125 W
8 ohms per ch. (all ch.'s driven)	1250 W	1200 W	1000 W	700 W	400 W	250 W	125 W	250 W	125 W
4 ohms per ch. (all ch.'s driven)	2100 W	1700 W	1200 W	700 W	300 W	250 W	125 W	250 W	125 W
2 ohms per ch. (all ch.'s driven)	2200 W	1200 W	600 W	300 W	140 W	125 W	60 W	125 W	60 W
Hi-Z per ch. (all ch.'s driven): 70 Vrms / 100 V peak	2200 W	1600 W	1100 W	700 W	400 W	250 W	125 W	250 W	125 W
Hi-Z per ch. (all ch.'s driven): 100 Vrms / 141 V peak	1700 W	1200 W	900 W	700 W	400 W	n.a.	n.a.	n.a.	n.a.
16 ohms Bridged per ch. [1]	2500 W	2400 W	2000 W	1400 W	800 W	500 W	250 W	500 W	250 W
8 ohms Bridged per ch. [1]	4200 W	3400 W	2400 W	1200 W	600 W	500 W	250 W	500 W	250 W
4 ohms Bridged per ch. [1]	4400 W	2400 W	1200 W	600 W	n.r 4)	250 W	125 W	250 W	125 W
2 ohms Bridged per ch. [1]	n.r [4]	n.r [4]	n.r [4]	n.r [4]	n.r [4]	n.r [4]	n.r [4]	n.r [4]	n.r [4]
Hi-Z Bridged per ch. [1]: 140 Vrms / 200 V peak	4400 W	3200 W	1800 W	1400 W	800 W	500 W	250 W	500 W	250 W

Performance with Gain:	35 dB and VPL: 100 V / C 88:4: 35 dB and VPL: 141 V	32 dB and VPL: 100 V
THD 20 Hz - 20 kHz for 1 W	<0.1%	<0.1%
THD at 1 kHz and 1 dB below clipping	<0.05%	<0.05%
Signal To Noise Ratio	>112 dBA	>112 dBA
Channel separation (Crosstalk) at 1 kHz	>70 dB	>70 dB
Frequency response (1 W into 8 ohms) +0/-3 dB	6.8 Hz - 34 kHz	6.8 Hz - 34 kHz
Input impedance	20 kOhm	20 kOhm
Common Mode Rejection (CMR)	>50 dB, 20 Hz - 20 kHz	>50 dB, 20 Hz - 20 kHz
Output impedance @ 100 Hz	30 mOhm	48 mOhm
Voltage Peak Limiter (VPL), max. peak output		
VPL, selectable per ch. [3]	141, 118, 100, 85, 71, 59, 50, 42 V	100, 63, 45, 32 V
VPL, when bridged [1] [3]	282, 236, 200, 170, 142, 118, 100, 84 V	200, 126, 90, 64 V
Voltage Peak Limiter mode (per ch.)	Hard / Soft	Hard / Soft
Gain and Level		
Amplifier gain selectable (all channels) [1] – rear-panel switches	23, 26, 29, 32, 35, 38, 41, 44 dB	29, 32, 35, 38 dB
Default gain	35 dB	32 dB
Level adjustment (per ch.)	Front-panel potentiometer, 21 position detented from -inf to 0 dB, hidden behind security panel/dust filter grille	Front-panel potentiometer, 21 position detented from -inf to 0 dB, hidden behind security panel/dust filter grille
Connectors and switches		
Input connectors (per ch.)	3-pin Phoenix, electronically balanced	3-pin Phoenix, electronically balanced
Output connectors (per ch.)	Barrier strip 2-pole screw terminals	Barrier strip 2-pole screw terminals
Output bridge mode	A+B and/or C+D, inputs A and C are input source	A+B, C+D, E+F, G+H, inputs A, C, E, G are signal source
High pass filter	N/A	Fixed at 35 Hz, switchable per channel
NomadLink network	On board, 2 x RJ45 connectors IN and OUT	On board, 2 x RJ45 connectors, IN and OUT
Intelligent fans (on/off)	Yes, depending on presence of output signal	Yes, depending on presence of output signal
Power on/off and Remote enable on/off	Individual switches on front panel	Individual switches on front panel
Cooling	Two fans, front-to-rear airflow, temperature controlled speed	Two fans, front-to-rear airflow, temperature controlled speed
General Purpose Outputs (GPO)	N/A	Contact Closure types, 2-pole Phoenix
General Purpose Inputs (GPI)	N/A	Contact Closure types, 2-pole Phoenix

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	C 88:4	C 68:4	C 48:4	C 28:4	C 16:4	C 20:8X	C 10:8X	C 10:4X	C 5:4X
Front-panel indicators									
Common	NomadLink Network; Power Average Limiter (PAL) [2]; Power on					NomadLink Network; Power Average Limiter (PAL) [2]; Power on			
Per channel	Signal present / High-impedance; -10 dB and -4 dB output signal;Voltage Peak Limiter (VPL); Current Peak Limiter (CPL): Very High Frequency (VHF); High temperature; Fault; Mute					Signal present / High-impedance; Voltage Peak Limiter (VPL); Current Peak Limiter (CPL): Very High Frequency (VHF); High temperature; Fault; Mute			
Power									
Operating voltage, 230 V / 115 V nominal	130-265 V / 65 -135 V [6]					Universal power supply 65-265 V			
Minimum power-up voltage, 230 V / 115 V	171 V / 85 V					80 V			
Power Average Limiter (PAL) [2]	Yes					Yes			
Power Factor Correction (PFC)	No					Yes			
Soft-start / Inrush Current Draw	Yes / max. 5 A					Yes / max. 5 A			
Mains connector [5]	230 V CE: 16 A, CEE7; 115 V ETL: 20 A / NEMA 5-20P; C16:4: 15A/NEMA 5-15P					IEC Inlet			
Dimensions	W: 483 mm (19"), H: 88 mm (2 U), D: 343 mm (13.5")					W: 483 mm (19"), H: 88 mm (2 U), D: 343 mm (13.5")			
Weight	12 kg (26.4 lbs.)					8.5 kg (18.75 lbs.)			
Finish	Black painted steel chassis with gray painted steel front					Black painted steel chassis with gray painted steel front			

Note 1): Automatic -6 dB gain compensation when bridging channels. Ch.'s A+B and/or C+D, E+F, G+H, can be bridged individually.

Note 2): PAL can reduce the maximum output power to keep the power supply operating safely, and/or to prevent excessive current draw tripping the mains breaker. Refer to Operation Manual.

Note 3): For sine waves, peak voltage output values translate to Vrms with the formula V/1.41 = Vrms. E.g. 100 V peak equals app. 70 V peak. Hence, outputs can be set for high-impedance loads without requiring a transformer.

Note 4): Regarding n.r. (not recommended) notes: The amplifier will be fully operational in bridge-mode into 2 ohm and high impedance (Hi-Z) loads, but due to physical constraints in the construction, the max. output power will not be significanty higher than running individual channels and therefore this mode of operation is not recommended.

Note 5): C 88:4 mains connector: 30 A Twist lock.

Note 6): Separate 230 V or 115 V versions available. Not selectable on the amplifier.

All specifications are subject to change without notice.

Other important information

EN Important information

1. Register online. Please register your new Music Tribe equipment right after you purchase it by visiting musictribe.com. Registering your purchase using our simple online form helps us to process your repair claims more quickly and efficiently. Also, read the terms and conditions of our warranty, if applicable.

2. Malfunction. Should your Music Tribe Authorized Reseller not be located in your vicinity, you may contact the Music Tribe Authorized Fulfiller for your country listed under “Support” at musictribe.com. Should your country not be listed, please check if your problem can be dealt with by our “Online Support” which may also be found under “Support” at musictribe.com. Alternatively, please submit an online warranty claim at musictribe.com BEFORE returning the product.

3. Power Connections. Before plugging the unit into a power socket, please make sure you are using the correct mains voltage for your particular model. Faulty fuses must be replaced with fuses of the same type and rating without exception.

FR Informations importantes

1. Enregistrez-vous en ligne. Prenez le temps d’enregistrer votre produit Music Tribe aussi vite que possible sur le site Internet musictribe.com. Le fait d’enregistrer le produit en ligne nous permet de gérer les réparations plus rapidement et plus efficacement. Prenez également le temps de lire les termes et conditions de notre garantie.

2. Dysfonctionnement. Si vous n’avez pas de revendeur Music Tribe près de chez vous, contactez le distributeur Music Tribe de votre pays : consultez la liste des distributeurs de votre pays dans la page “Support” de notre site Internet musictribe.com. Si votre pays n’est pas dans la liste, essayez de résoudre votre problème avec notre “aide en ligne” que vous trouverez également dans la section “Support” du site musictribe.com. Vous pouvez également nous faire parvenir directement votre demande de réparation sous garantie par Internet sur le site musictribe.com AVANT de nous renvoyer le produit.

3. Raccordement au secteur. Avant de relier cet équipement au secteur, assurez-vous que la tension secteur de votre région soit compatible avec l’appareil. Veillez à remplacer les fusibles uniquement par des modèles exactement de même taille et de même valeur électrique — sans aucune exception.

PT Outras Informações Importantes

1. Registre-se online. Por favor, registre seu novo equipamento Music Tribe logo após a compra visitando o site musictribe.com Registrar sua compra usando nosso simples formulário online nos ajuda a processar seus pedidos de reparos com maior rapidez e eficiência. Além disso, leia nossos termos e condições de garantia, caso seja necessário.

2. Funcionamento Defeituoso. Caso seu fornecedor Music Tribe não esteja localizado nas proximidades, você pode contatar um distribuidor Music Tribe para o seu país listado abaixo de “Suporte” em musictribe.com. Se seu país não estiver na lista, favor checar se seu problema pode ser resolvido com o nosso “Suporte Online” que também pode ser achado abaixo de “Suporte”em musictribe.com. Alternativamente, favor enviar uma solicitação de garantia online em musictribe.com ANTES da devolução do produto.

3. Ligações. Antes de ligar a unidade à tomada, assegure-se de que está a utilizar a voltagem correcta para o modelo em questão. Os fusíveis com defeito terão de ser substituídos, sem qualquer excepção, por fusíveis do mesmo tipo e corrente nominal.

NL Belangrijke informatie

1. Registreer online. Registreer uw nieuwe Music Tribe-apparatuur direct nadat u deze hebt gekocht door naar musictribe.com te gaan. Door uw aankoop te registreren via ons eenvoudige online formulier, kunnen wij uw reparatieclaims sneller en efficiënter verwerken. Lees ook de voorwaarden van onze garantie, indien van toepassing.

2. Storing. Mocht uw door Music Tribe geautoriseerde wederverkoper niet bij u in de buurt zijn gevestigd, dan kunt u contact opnemen met de door Music Tribe Authorized Fulfiller voor uw land vermeld onder “Support” op musictribe.com. Als uw land niet in de lijst staat, controleer dan of uw probleem kan worden opgelost door onze "Online Support", die u ook kunt vinden onder "Support" op musictribe.com. U kunt ook een online garantieclaim indienen op musictribe.com VOORDAT u het product retourneert.

3. Stroomaansluitingen. Voordat u het apparaat op een stopcontact aansluit, moet u ervoor zorgen dat u de juiste netspanning voor uw specifieke model gebruikt. Defecte zekeringen moeten zonder uitzondering worden vervangen door zekeringen van hetzelfde type en dezelfde waarde.

PL Ważna informacja

1. Zarejestrować online. Zarejestruj swój nowy sprzęt Music Tribe zaraz po zakupie na stronie musictribe.com. Zarejestrowanie zakupu za pomocą naszego prostego formularza online pomaga nam szybciej i efektywniej rozpatrywać roszczenia dotyczące naprawy. Przeczytaj również warunki naszej gwarancji, jeśli dotyczy.

2. Awaria. Jeśli Twój autoryzowany sprzedawca Music Tribe nie znajduje się w pobliżu, możesz skontaktować się z autoryzowanym dostawcą Music Tribe dla swojego kraju, wymienionym w sekcji „Wsparcie” na stronie musictribe.com. Jeśli Twojego kraju nie ma na liście, sprawdź, czy Twój problem może zostać rozwiązany przez nasze „Wsparcie online”, które można również znaleźć w sekcji „Wsparcie” na stronie musictribe.com. Alternatywnie, prześlij zgłoszenie gwarancyjne online na musictribe.com PRZED zwrotem produktu.

3. Połączenia zasilania. Przed podłączeniem urządzenia do gniazdka sieciowego upewnij się, że używasz odpowiedniego napięcia sieciowego dla danego modelu. Wadliwe bezpieczniki należy bez wyjątku wymienić na bezpieczniki tego samego typu i wartości.

ES Aspectos importantes

1. Registro online. Le recomendamos que registre su nuevo aparato Music Tribe justo después de su compra accediendo a la página web musictribe.com. El registro de su compra a través de nuestro sencillo sistema online nos ayudará a resolver cualquier incidencia que se presente a la mayor brevedad posible. Además, aproveche para leer los términos y condiciones de nuestra garantía, si es aplicable en su caso.

2. Averías. En el caso de que no exista un distribuidor Music Tribe en las inmediaciones, puede ponerse en contacto con el distribuidor Music Tribe de su país, que encontrará dentro del apartado “Support” de nuestra página web musictribe.com. En caso de que su país no aparezca en ese listado, acceda a la sección “Online Support” (que también encontrará dentro del apartado “Support” de nuestra página web) y compruebe si su problema aparece descrito y solucionado allí. De forma alternativa, envíenos a través de la página web una solicitud online de soporte en periodo de garantía ANTES de devolvernos el aparato.

3. Conexiones de corriente. Antes de enchufar este aparato a una salida de corriente, asegúrese de que dicha salida sea del voltaje adecuado para su modelo concreto. En caso de que deba sustituir un fusible quemado, deberá hacerlo por otro de idénticas especificaciones, sin excepción.

DE Weitere wichtige Informationen

1. Online registrieren. Bitte registrieren Sie Ihr neues Music Tribe-Gerät direkt nach dem Kauf auf der website musictribe.com. Wenn Sie Ihren Kauf mit unserem einfachen online Formular registrieren, können wir Ihre Reparaturansprüche schneller und effizienter bearbeiten. Lesen Sie bitte auch unsere Garantiebedingungen, falls zutreffend.

2. Funktionsfehler. Sollte sich kein Music Tribe Händler in Ihrer Nähe befinden, können Sie den Music Tribe Vertrieb Ihres Landes kontaktieren, der auf musictribe.com unter „Support“ aufgeführt ist. Sollte Ihr Land nicht aufgelistet sein, prüfen Sie bitte, ob Ihr Problem von unserem „Online Support“ gelöst werden kann, den Sie ebenfalls auf musictribe.com unter „Support“ finden. Alternativ reichen Sie bitte Ihren Garantieanspruch online auf musictribe.com ein, BEVOR Sie das Produkt zurücksenden.

3. Stromanschluss. Bevor Sie das Gerät an eine Netzsteckdose anschließen, prüfen Sie bitte, ob Sie die korrekte Netzspannung für Ihr spezielles Modell verwenden. Fehlerhafte Sicherungen müssen ausnahmslos durch Sicherungen des gleichen Typs und Nennwerts ersetzt werden.

IT Informazioni importanti

1. Registratevi online. Vi invitiamo a registrare il nuovo apparecchio Music Tribe subito dopo averlo acquistato visitando musictribe.com. La registrazione dell'acquisto tramite il nostro semplice modulo online ci consente di elaborare le richieste di riparazione in modo più rapido ed efficiente. Leggete anche i termini e le condizioni della nostra garanzia, qualora applicabile.

2. Malfunzionamento. Nel caso in cui il rivenditore autorizzato Music Tribe non si trovi nelle vostre vicinanze, potete contattare il Music Tribe Authorized Fulfiller per il vostro paese, elencato in “Support” @ musictribe.com. Se la vostra nazione non è elencata, controllate se il problema può essere risolto tramite il nostro “Online Support”che può anche essere trovato sotto “Support” @ musictribe.com. In alternativa, inviate una richiesta di garanzia online su musictribe.com PRIMA di restituire il prodotto.

3. Collegamento all’alimentazione. Prima di collegare l'unità a una presa di corrente, assicuratevi di utilizzare la tensione di rete corretta per il modello specifico. I fusibili guasti devono essere sostituiti, senza eccezioni, con fusibili dello stesso tipo e valore nominale.

SE Viktig information

1. Registrera online. Registrera din nya Music Tribe-utrustning direkt efter att du köpt den genom att besöka musictribe.com. Att registrera ditt köp med vårt enkla onlineformulär hjälper oss att behandla dina reparationsanspråk snabbare och mer effektivt. Läs också villkoren i vår garanti, om tillämpligt.

2. Fel. Om din Music Tribe-auktoriserade återförsäljare inte finns i din närhet kan du kontakta Music Tribe Authorized Fulfiller för ditt land listat under “Support” på musictribe.com. Om ditt land inte är listat, kontrollera om ditt problem kan hanteras av vår “Onlinesupport” som också finns under “Support” på musictribe.com. Alternativt kan du skicka in ett online-garantianspråk på musictribe.com INNAN du returnerar produkten.

3. Strömanslutningar. Innan du ansluter enheten till ett eluttag, se till att du använder rätt nätspänning för just din modell. Felaktiga säkringar måste bytas ut mot säkringar av samma typ och märkning utan undantag.

FEDERAL COMMUNICATIONS COMMISSION COMPLIANCE INFORMATION

Lab Gruppen

C Series

Responsible Party Name: **Music Tribe Commercial NV Inc.**

Address: **122 E. 42nd St.1,
8th Floor NY, NY 10168,
United States**

Email Address: **legal@musictribe.com**

C Series

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Operation of this equipment in a residential environment could cause radio interference.

Important information:
Changes or modifications to the equipment not expressly approved by Music Tribe can void the user's authority to use the equipment.

Intertek

Hereby, Music Tribe declares that this product is in compliance with Directive 2014/35/EU,Directive 2014/30/EU, Directive 2011/65/EU and Amendment 2015/863/EU, Directive 2012/19/EU, Regulation 519/2012 REACH SVHC and Directive 1907/2006/EC.

Standards applied:
EMC Emission EN55032, Class A. EMC Immunity EN55035,
Electrical Safety EN62368-1, Class I

This equipment is tested and listed according to the U.S. safety standard ANSI/ UL 62368-1 and Canadian safety standard CSA C22.2 NO. 62368-1. Intertek made the tests and they are a Nationally Recognized Testing Laboratory (NRTL).

Full text of EU DoC is available at https://community.musictribe.com/

EU Representative: Music Tribe Brands DK A/S
Address: Gammel Strand 44, DK-1202 København K, Denmark

UK Representative: Music Tribe Brands UK Ltd.
Address: 6 Lloyds Avenue, Unit 4CL London EC3N 3AX, United Kingdom