

LYNGDORF AUDIO MXA-8400

OWNER'S MANUAL

DK: For seneste version af denne manual og yderligere hjælp på dit lokale sprog, venligst besøg www.steinwaylyngdorf.com eller kontakt os på contact@lyngdorf.com

NO: For den nyeste versjonen av denne håndboken og ytterligere hjelp på ditt lokale språk vennligst besøk www.steinwaylyngdorf.com eller kontakt oss på contact@lyngdorf.com

SE: Gå till www.lyngdorf.com eller kontakta oss på contact@lyngdorf.com för den senaste versionen av denna handbok för och ytterligare hjälp på ditt språk.

FI: Saat uusimmat käsikirjaversio ja lisäapua omalla kielellä osoitteessa www.steinwaylyngdorf.com tai yhteyttä osoitteeseen contact@lyngdorf.com

DE: Für die aktuellste Version dieses Manuals sowie Bedienungshinweise in deutscher Sprache besuchen Sie die Website www.steinwaylyngdorf.com oder kontaktieren Sie uns per email contact@lyngdorf.com

NL: Voor de meest recente versie van deze handleiding en verdere hulp in uw eigen taal kunt u terecht op www.steinwaylyngdorf.com of neem contact met ons op via contact@lyngdorf.com

PL: W celu uzyskania najnowszej wersji tej instrukcji obsługi oraz dalszej pomocy w Twoim języku, odwiedź www.lyngdorf.com lub skontaktuj się z nami pod adresem contact@lyngdorf.com.

IT: Per ottenere l'ultima versione del presente manuale e ulteriore supporto nella lingua locale, visitare il sito www.acme.com o scrivere all'indirizzo contact@acme.com

ES: Para descargar la última versión de este manual de ayuda y otros recursos en su idioma local, visite la web www.acme.com o póngase en contacto con nosotros en el email contact@acme.com

CZ: Nejnovější verzi této příručky a další pomoc ve vašem místním jazyce naleznete na stránkách www.lyngdorf.com nebo nás kontaktujte na contact@lyngdorf.com

RU: Для получения последней версии этого руководства и консультаций на русском языке зайдите на сайт www.lyngdorf.com или свяжитесь с нами по адресу: contact@lyngdorf.com

Content

Welcome	4
Compliance	5
Important safety instructions	6
Pre-installation	7
Unpacking the product.....	7
Inventory	7
Operating voltage	8
Ventilation requirements	8
Front panel.....	9
Rear panel	10
Setting up the MXA-8400.....	11
Using Neutrik speakON connectors for 2-CHANNEL mode	14
Using Neutrik speakON connectors for BRIDGE MODE	15
Connecting the MXA-8400.....	16
Protection systems.....	17
Cleaning and maintenance	17
Technical assistance	17
Technical specifications	18

Welcome

Congratulations on your purchase of the MXA-8400 multichannel power amplifier. The MXA-8400 will deliver an audio experience that will far exceed your expectations. We thank you for placing your confidence in Lyngdorf Audio.

Please read all material carefully prior to installation. If you need additional assistance, contact your local Lyngdorf Audio representative first, or email contact@lyngdorf.com

For more in-depth information about the technologies used in Lyngdorf Audio products, please visit www.steinwaylyngdorf.com

Compliance

WEEE

The European Parliament and the Council of the European Union have issued the Waste Electrical and Electronic Equipment Directive. The purpose of the Directive is to prevent waste of electrical and electronic equipment and to promote reuse, recycling, and other forms of waste recovery. Lyngdorf products and the accessories packed with them are subject to the WEEE Directive. Please dispose of any waste materials in accordance with your local recycling regulations. Products and equipment which must be collected for reuse, recycling, and other forms of recovery are marked with the icon of the crossed-out waste receptacle.



FCC

Lyngdorf products and accessories comply with parts 15 and 68 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 any interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment. Equipment marketed to a consumer must comply with the necessary regulations in the configuration in which the equipment is marketed.

Important safety instructions

Warnings



Caution: Risk of electrical shock. Do not open.

Caution: To reduce the risk of electrical shock, do not remove cover.

No user-serviceable parts inside. Refer servicing to qualified personnel.

Explanation of graphical symbols



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.



The lightning with arrowhead within an equilateral triangle is intended to alert the user to the presence of uninsulated “Dangerous Voltage” within the product’s enclosure that may be of sufficient magnitude to constitute a risk of electrical shock to a person.

Important safety instructions

Please refer to the “Important safety instructions” sheets in the shipping box.

Pre-installation

Please read all material carefully prior to installation. If you need additional assistance, contact your Lyngdorf Audio representative, or visit www.steinwaylyngdorf.com.

Unpacking the product

Carefully remove the unit and accessories from the carton and check for shipping damage. Contact the shipper and your Lyngdorf Audio representative immediately, if the unit bears any sign of damage.

Keep the shipping carton and all packing material for future use. If this unit is shipped for service without the original packing, damage could occur and void the warranty.

Inventory

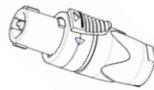
Check the list below to ensure that all necessary product components have been delivered. Report all discrepancies to your Lyngdorf Audio representative immediately.



Lyngdorf MXA-8400



Mains cord



8 x Neutrik speakON NL4 connector



Owner's manual

Operating voltage

Lyngdorf Audio products must be connected to the mains power system only.

The MXA-8400 will automatically detect voltage between 100-240v.



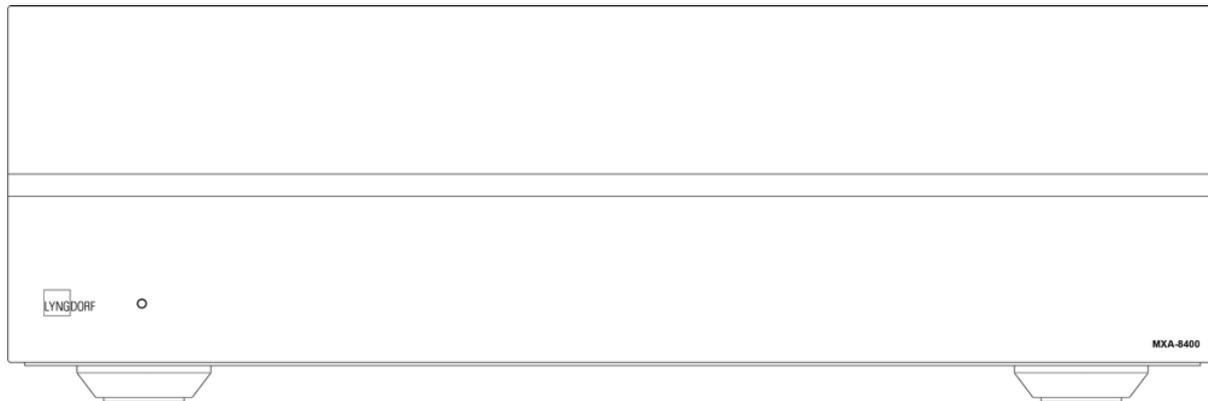
Ventilation requirements

The MXA-8400 does not have a built-in fan, nor does it require special measures to ensure heat dissipation. It should be placed according to these guidelines:

- Allow at least 2 inches / 5 cm of free space on all sides.
- Place it in an environment free of excessive heat and sunlight.
- Place it on a firm, level surface.
- Do not place it on a soft surface (carpet, fabrics).



Front panel

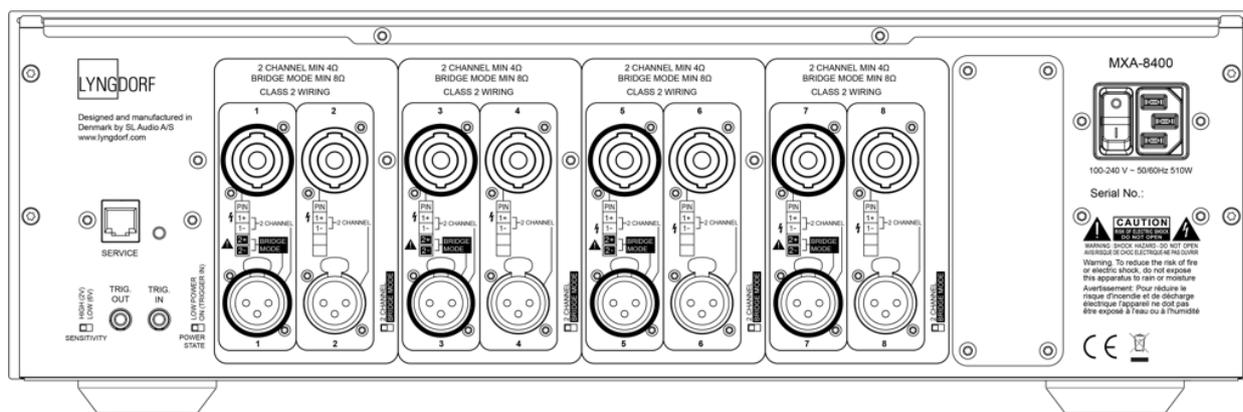


Front panel LED

The LED light on the left indicates the operation status.

- Continuous light: The MXA-8400 is on.
- Slow blinking: The MXA-8400 is in standby mode.
- Continuous fast blinking: The MXA-8400 has detected a fault. Switch off the MXA-8400. Contact your Lyngdorf Audio representative or Lyngdorf Audio on the website www.steinwaylyngdorf.com.

Rear panel



Speaker outputs 1 – 8

Neutrik speakON NL 4-pole sockets

2 CHANNEL mode min. 4 ohm load / BRIDGE MODE min. 8 ohm load

Mains switch and mains connector

IEC C14, 100 – 240V, 50/60Hz

SERVICE network port

For service only

SENSITIVITY switch

HIGH: 2V / LOW: 2V

TRIGGER OUT, TRIGGER IN

OUT: 3.5 mm mono mini jack, 12V

IN: 3.5 mm mono mini jack, 5-24V DC or 4-14V 50Hz AC

POWER STATE switch

LOW POWER / ON (TRIGGER IN)

Balanced XLR inputs 1 - 8

Pin 1: Chassis (Ground). Pin 2: Positive. Pin 3: Negative.

2 CHANNEL / BRIDGE MODE switch

For bridging channel pairs 1-2, 3-4, 5-6, 7-8

Setting up the MXA-8400

Speaker outputs

Connect each loudspeaker to the intended MXA-8400 speaker socket 1 - 8, using the provided Neutrik speakON NL4 connectors.



Always turn off the MXA-8400 and other components in the system before connecting or disconnecting loudspeakers.

Every output has the same performance specifications and provides the same sound quality. Outputs 5 - 8 have an inverted configuration internally, compared to outputs 1 - 4. This is to utilize the power supply to the best possible extent and to ensure equal power conditions for all channels. This configuration does not affect the XLR input connections nor speaker output connections. All amplifier channels must be connected in the same way.

Mains switch and mains connector



Be sure that the power cable plug is inserted firmly in the connector inlet. If you intend not to use the amplifier for long periods of time, for example during vacation, switch off the mains switch.

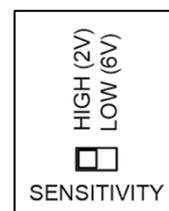
SERVICE network port

This port is only intended to be used by Lyngdorf Audio for service purposes.

SENSITIVITY switch

The MXA-8400 can be set to match the output voltage of your pre-amp or processor. Please refer to the technical specifications or owner's manual of the pre-amp or processor to verify its output voltage, or contact the manufacturer.

- Set switch to HIGH to match an input voltage around 2V
- Set switch to LOW to match an input voltage around 6V



TRIGGER OUT and TRIGGER IN

The MXA-8400 is equipped with 3.5mm mono mini jack sockets to switch the unit on and off (standby) controlled by another device, or to switch on and off subsequent devices.

- When a trigger cable is used, the POWER STATE switch must be set to ON (TRIGGER IN).
- To switch on and off (standby) controlled by another device, connect the trigger output from the controlling device to the TRIGGER IN of the MXA-8400. If no trigger voltage is applied, the MXA-8400 is in standby mode. If a DC voltage of 5-24V or a 50Hz AC voltage of 4-17V is applied, the MXA-8400 will switch from standby to on.
- To let the MXA-8400 control a subsequent device, connect the MXA-8400 TRIGGER OUT to the subsequent device's trigger input. When the MXA-8400 is switched from standby to on, it will trigger the subsequent device to switch on. Note: The trigger signal is delayed slightly so that multiple MXA-8400 or multiple other devices can switch on without overloading the mains power.



POWER STATE switch

- If the MXA-8400 should be permanently on, set the POWER STATE switch to ON. An incoming audio signal will be instantly forwarded to the speakers.
- If the MXA-8400 should switch on and off (standby) following an external trigger signal, set the POWER STATE switch to ON (TRIGGER IN).
- If the MXA-8400 should turn on by an audio signal from the input, set the POWER STATE switch to LOW POWER. If no audio signal is detected within approx. 15 minutes, the MXA-8400 will switch back to standby.



2-CHANNEL / BRIDGE MODE

The MXA-8400 is an 8-channel amplifier which allows bridging two amplifier channels to provide double the voltage and up to quadruple the output power with the same speaker impedance. For example: 200W in 8 ohms in 2 CHANNEL MODE becomes 800W in 8 ohms in BRIDGE MODE.

- The channel pairs 1-2, 3-4, 5-6 and 7-8 can be bridged respectively. Set the intended channel pair switch to either 2-CHANNEL or BRIDGE MODE.



- To change between 2-CHANNEL mode and BRIDGE MODE, the MXA-8400 must be fully powered off or in standby mode.
- In BRIDGE MODE, each amplifier pair always uses the first XLR input and the first speaker output. For example: When channels 1 and 2 are bridged, the signal will be taken from the XLR 1 input and amplified through speaker output 1. The XLR 2 input and the speaker output 2 cannot be used.
- In 2-CHANNEL mode, connect the speaker cable wires to the 1+ and 1- cable clamps inside the Neutrik SpeakOn connector.
- In BRIDGE MODE, connect the speaker cable wires to the 2+ and 2- cable clamps inside the Neutrik SpeakOn connector.
- In unbridged 2-CHANNEL mode, the minimum nominal speaker impedance is 4 Ohm. In BRIDGE MODE, the minimum nominal speaker impedance is 8 Ohm.



Please refer to the speaker manufacturer's technical specifications and check the nominal speaker impedance (IEC). The IEC (International Electrotechnical Commission) standard for rated speaker impedance is as follows: The minimum impedance shall not fall below 80% of the nominal impedance over the defined frequency range of the speaker. For example:

4 Ohm speakers have a minimum impedance no less than 3.2 Ohm.

8 Ohm speakers have a minimum impedance no less than 6.4 Ohm.

Balanced XLR inputs 1 - 8

Connect each analog audio output channel from your external pre-amp or processor to the intended balanced XLR input 1 – 8 on the MXA-8400.

Every input has the same performance specifications and same sound quality.

Note: Always turn off the MXA-8400 and other components in the system before connecting or disconnecting anything to the balanced XLR inputs.

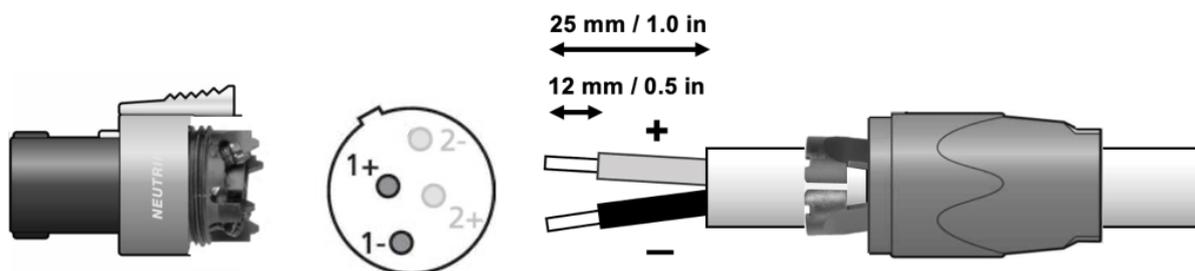
Using Neutrik speakON connectors for 2-CHANNEL mode

Neutrik speakON is a professional industry standard for loudspeaker connections. It provides a silver-plated, low-resistance, low-mass contact for best signal connection with lowest mass storage effects, and is designed for very high current up to 50 amperes. The turn-and-lock mechanism with touch-proof contacts and a high level of strain relief on the cable allows a very reliable, durable, and easy cable connection.

Neutrik speakON allows a bare metal wire diameter between 1.5 - 4 mm² / 16 - 12 AWG, to be screwed or soldered to the silver-plated clamps inside.

Connecting the speaker cable in 2-CHANNEL mode (up to 8 channels)

- Cut and strip back the speaker cable according to the illustration below: 25mm/1.0 inch for each insulated wire, 12mm/0.5 inch for each metal wire.



- Unscrew the blue Neutrik bushing and remove the black cable clamp. Pull both over the speaker cable, to be tightened later.
- Insert the two bare metal wires in the silver-plated cable clamps inside the Neutrik connector. Tighten each wire end using a POZIDRIV® #1  screwdriver. Pay attention to the 1+ and 1- markings, otherwise the audio signal will be out of phase. 
- Push back the black cable clamp up to the Neutrik connector and align the nose with the recess.
- Finish the connector installation by screwing the blue Neutrik bushing onto the connector.
- The Neutrik speakON connector is ready to be used.

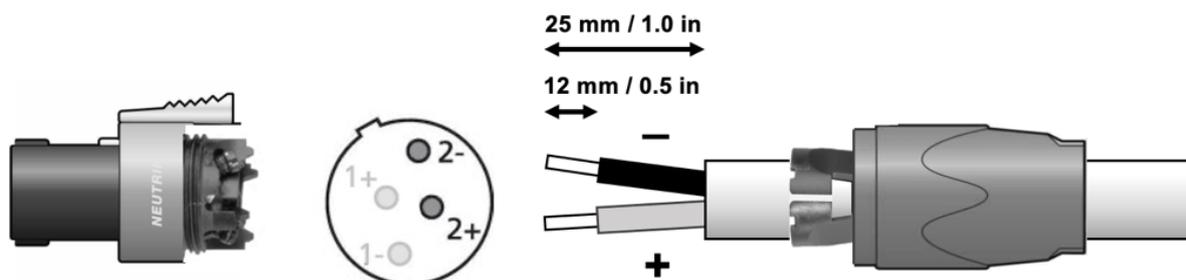
Using Neutrik speakON connectors for BRIDGE MODE

Neutrik speakON is a professional industry standard for loudspeaker connections. It provides a silver-plated, low-resistance, low-mass contact for best signal connection with lowest mass storage effects, and is designed for very high current up to 50 amperes. The turn-and-lock mechanism with touch-proof contacts and a high level of strain relief on the cable allows a very reliable, durable, and easy cable connection.

Neutrik speakON allows a bare metal wire diameter between 1.5 - 4 mm² / 16 - 12 AWG, to be screwed or soldered to the silver-plated clamps inside.

Connecting the speaker cable in BRIDGE MODE

- Cut and strip back the speaker cable according to the illustration below: 25mm/1.0 inch for each insulated wire, 12mm/0.5 inch for each metal wire.



- Unscrew the blue Neutrik bushing and remove the black cable clamp. Pull both over the speaker cable, to be tightened later.
- Insert the two bare metal wires in the silver-plated cable clamps inside the Neutrik connector. Tighten each wire end using a POZIDRIV® #1  screwdriver. Pay attention to the 2+ and 2- markings, otherwise the audio signal will be out of phase. 
- Push back the black cable clamp up to the Neutrik connector and align the nose with the recess.
- Finish the connector installation by screwing the blue Neutrik bushing onto the connector.
- The Neutrik speakON connector is ready to be used.

Connecting the MXA-8400

1. Switch off and disconnect the MXA-8400 from mains power.
2. Set the SENSITIVITY switch, POWER STATE switch, and BRIDGE MODE switch accordingly, matching your system.
3. Connect each analog audio output channel from the external pre-amp or processor to the intended balanced XLR input on the MXA-8400.
4. Connect each loudspeaker to the intended speaker output channel on the MXA-8400 by inserting the wired Neutrik speakON connector to the Neutrik socket on the back. Lock the connection with a short twist to the right side until you hear and feel a click.

To disconnect a Neutrik speakON connector, pull back its metal grip and unlock the connector with a short twist to the left side.

5. Connect the MXA-8400 to mains power.
6. Switch on the external pre-amp or processor first.
7. Switch on the MXA-8400 using the power switch on the back.
The MXA-8400 is ready for operation.
8. Adjust the pre-amp's or processor's volume control according to the desired level, and start playing from the sound source.

Protection systems

The MXA-8400 is protected from overload and failure by several protection systems. All systems are continuously active while the amplifier is powered on and operating.

In the internal power supply, the processed power is continuously measured over time. This means the power supply of the MXA-8400 will be able to process enormous amounts of power within short time period, but if excessive power draw continues over longer time, the PSU will close down to protect itself and the house mains installation.

The amplifier outputs will protect themselves individually against over-current by limiting the current. If continuous operation at the current limit threshold is seen (running in current-limiting more than approximately 12% over time) a mute cycle is triggered. If the short circuit or over current situation continues, overload protection triggers after approximately 10ms. During a mute cycle the output stage is disabled (left in high-impedance state) for approximately 1 second. Following a mute cycle, normal operation is automatically resumed and no involvement from user is required.

Cleaning and maintenance

The MXA-8400 does not require any regular maintenance except to keep its exterior clean. Simply wipe it with a clean, soft cloth. Do not use cleaner or any liquid directly on the product. A small amount of non-abrasive cleaner on the cloth can be used to remove any dirt or fingerprints. Do not use abrasive cleaners or cleaners containing liquid solvents.

Technical assistance

If you have any questions regarding your Lyngdorf product, please contact your nearest Lyngdorf representative or contact Lyngdorf Audio:

SL Audio A/S
Rævevej 3
7800 Skive
Denmark
E-mail: contact@lyngdorf.com
Web: www.steinwaylyngdorf.com

Technical specifications

Description:	8-channel power amplifier
Power rating:	8 x 400 W @4Ω (2-CHANNEL mode) 8 x 200 W @8Ω (2-CHANNEL mode) 4 x 800 W @8Ω (BRIDGE mode)
Max. output current:	25A
Max. output voltage:	60V peak (2-CHANNEL mode) 120V peak (BRIDGE mode)
Gain:	HIGH Sensitivity mode 26.1 dB (2-CHANNEL mode) 31.7 dB (BRIDGE mode) LOW Sensitivity mode 16.6 dB (2-CHANNEL mode) 22.2 dB (BRIDGE mode)
Input sensitivity:	2V (HIGH Sensitivity mode) 6V (LOW Sensitivity mode)
Dimensions (W x H x D):	45 x 14.5 x 34.9 cm / 17.7 x 5.7 x 13.7 inches
Weight:	10.3 kg / 22 lb
Finish:	Matte black
Item no:	900010406

