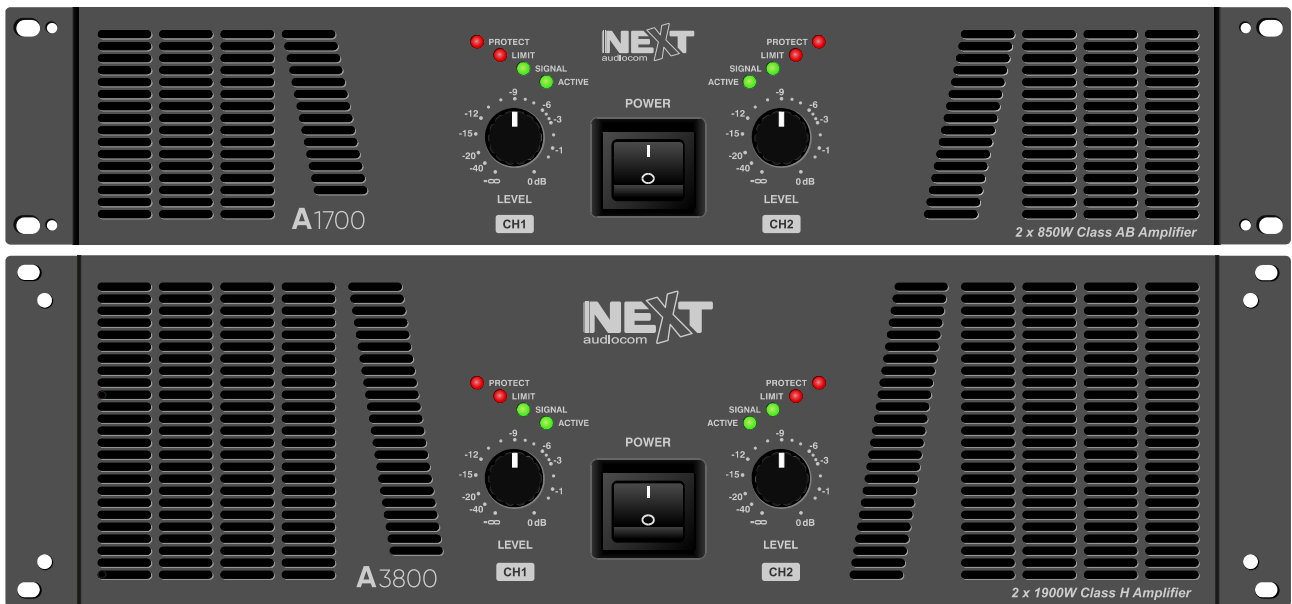




A1700 / A3800

USER MANUAL

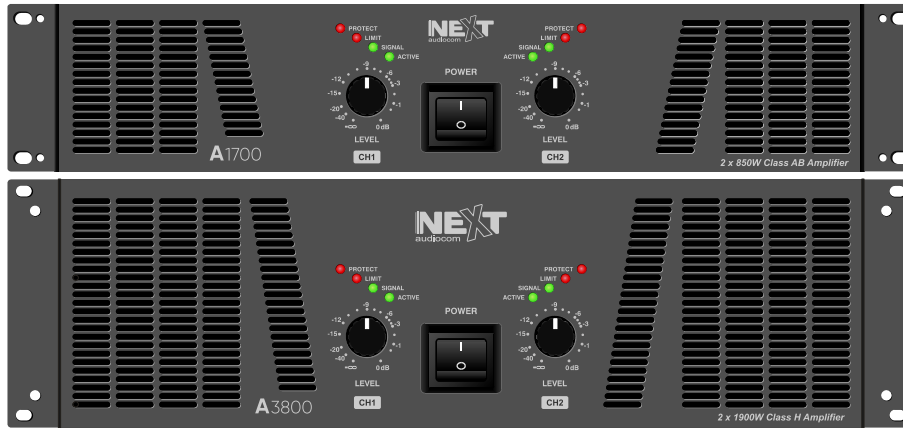


PROFESSIONAL POWER AMPLIFIERS

Before attempting to connect, operate or adjust this product, please read these instruction completely

A1700 / A3800

PROFESSIONAL POWER AMPLIFIER



FEATURES

Offering top power, superior performance and full professional operating features in a roadworthy compact chassis, the **A Series** are perfect for even the most demanding sound reinforcement installation and touring applications.

The operating amplifier instruction in this manual are for all the **A Series** professional power amplifiers. The operation and functions of these units are the same, except as noted.

- . Full operating features: detent volume controls; parallel balanced XLR and 1/4" TRS inputs; stereo (dual channel), parallel-input, or bridged mono operating modes with selector switch; Independent user defeatable clip limiters (compressor) 3 selectable input sensitivities, ground lift switch, binding post (banana plug) and speakon outputs.
- . Full safety/re liability features: 2 dual speed fans for cooling; soft start turn on, noise-free on-off; independent DC and thermal overload protection on each channel; short circuit and speaker protection; built-in current limiter.
- . Front panel led indicators: Active, Signal, Limit and protection
- . Roadworthy, rugged steel chassis (2U/3U)
- . Modular construction for easy servicing

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PERSONAL INFORMATION

Date of Purchase _____

Dealer's Name _____

City _____

State _____ Zip _____

Model # _____

Serial # _____

WARNING



An equilateral triangle enclosing a lightning flash/arrowhead symbol is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure which may be of sufficient magnitude to constitute a risk of electric shock.



An equilateral triangle enclosing an exclamation point is intended to alert the user to the presence of important operating and service instructions in the literature enclosed with this unit.

IMPORTANT SAFETY INSTRUCTIONS

When using this electronic device, basic precautions should always be taken, including the following:

1. Read all instructions before using the product.
2. Do not use this product near water (e.g., near a bathtub, washbowl, kitchen sink, in a wet basement, or near a swimming pool, etc.).
3. This product should be used only with a cart or stand that will keep it level and stable and prevent wobbling.
4. This product, in combination with headphones or speakers, may be capable of producing sound levels that could cause permanent hearing loss. Do not operate for a long period of time at a high volume level or at a level that is uncomfortable. If you experience any hearing loss or ringing in the ears, you should consult an audiologist.
5. The product should be positioned so that proper ventilation is maintained.
6. The product should be located away from heat sources such as radiators, heat vents, or other devices (including amplifiers) that produce heat.
7. The product should be connected to a power supply only of the type described in the operating instructions or as marked on the product. Replace the fuse only with one of the specified type, size, and correct rating.
8. The power supply cord should: (1) be undamaged, (2) never share an outlet or extension cord with other devices so that the outlet's or extension cord's power rating is exceeded, and (3) never be left plugged into the outlet when not being used for a long period of time.
9. Care should be taken so that objects do not fall into, and liquids are not spilled through, the enclosure's openings.
10. The product should be serviced by qualified service personnel if:
 - A. The power supply cord or the plug has been damaged.
 - B. Objects have fallen into, or liquid has been spilled onto the product.
 - C. The product has been exposed to rain.
 - D. The product does not appear to operate normally or exhibits a marked change in performance.
 - E. The product has been dropped, or the enclosure damaged.
11. Do not attempt to service the product beyond what is described in the user maintenance instructions. All other servicing should be referred to qualified service personnel.

INSTALLATION

This manual contains important information on operating your **A** Series amplifier correctly and safely. Please read it carefully before operating your amplifier. If you have any questions, contact your **NEXT** dealer.

UNPACKING

Carefully open the shipping carton and check for any noticeable damage. Every **NEXT A** series amplifier is completed tested and inspected before leaving the factory and should arrive in perfect condition. If you find any damage, notify the shipping company immediately. Be sure to save the carton and all packing materials for carrier inspection.

CONTENTS

- . Owner's manual
- . **A** Series amplifier (verify that the unit's serial number is the same as shown on shipping carton)
- . **AC Power cord**
- . Warranty Card

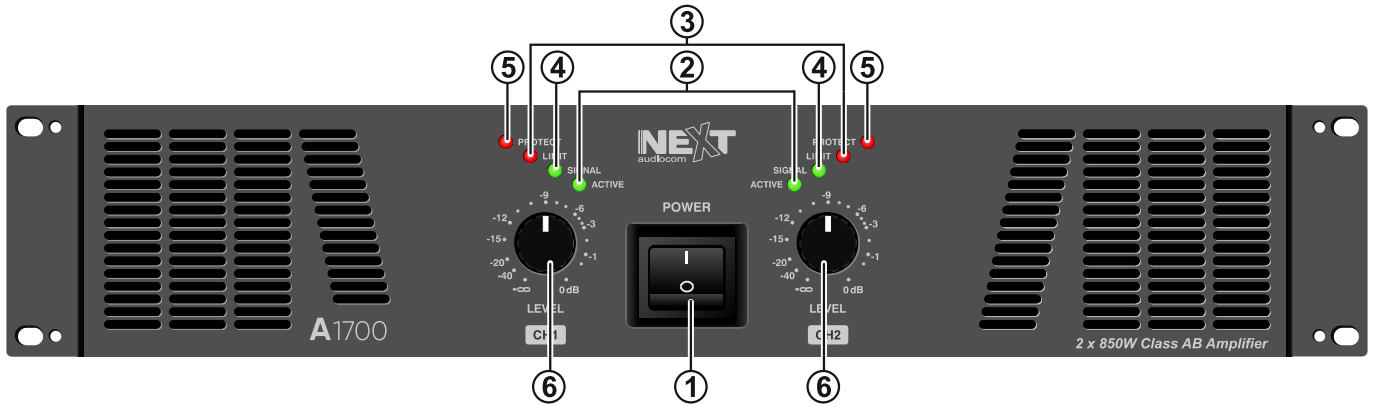
RACK MOUNTING

The **A** Series amplifiers are designed for standard 19" rack mounting as well as "stack" mounting without a cabinet. Use 4 screws and washers for mounting to the front rack rails. It is also a good idea to support the amps also in the rear, especially for mobile use where the amps will be subjected to strong vibrations.

AMPLIFIER COOLING

Also pay close attention to the cooling requirements. Never block the air vents in the back side and front of the amplifier. Do not install the amplifier in a location that is exposed to direct rays of the sun, or near hot appliances or radiators. Excessive heat can adversely affect the cabinet and the internal components. Installation of the amplifier in a damp or dust environment may result in malfunction or accident. If installed in a rack please be sure to open completely the back door. Periodically remove the internal dust by using compressed air through the external ventilation holes.

FRONT & REAR CONNECTIONS (A1700)



FRONT PANEL

1. POWER SWITCH

To turn the unit ON or OFF, press the upper or lower portion of this button. Before turning on the amplifier, check all connections and turn down the level controls. A momentary muting is normal when turning the amplifier on or off.

(Caution: Always turn on your power amplifier last, after all your other connected equipment, and always turn off your power amplifier before your other connected equipment.)

2. ACTIVE LED INDICATORS

These LEDs illuminate when the power is turned "ON".

3. LIMIT LED INDICATORS

These LEDs illuminate if any section of the power amplifier's output are within 3dB of clipping. Occasional blinking of the LEDs are acceptable, but if they remain on more than intermittently you should turn down either the power amplifier's level controls or reduce the output level of the preceding component to avoid audible distortion.

4. SIGNAL LED INDICATORS

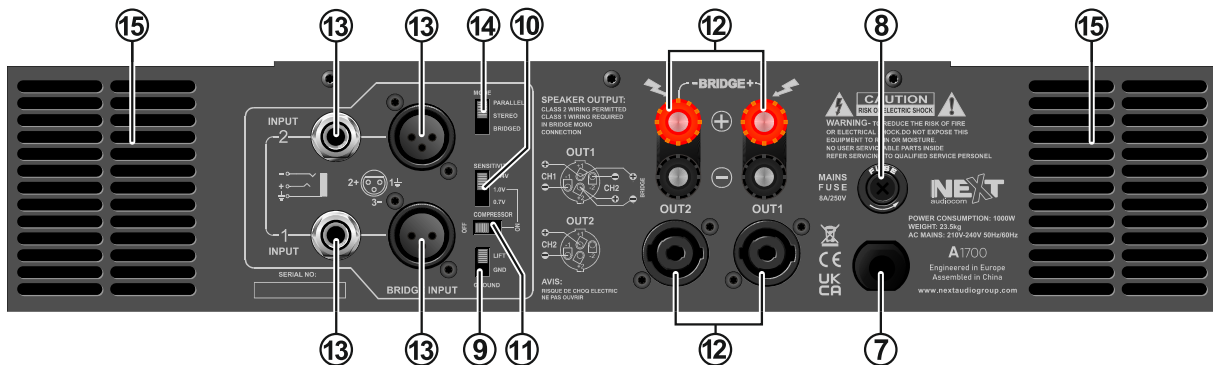
These LEDs illuminate to confirm the presence of an input signal greater than 100mV at that channel of the amplifier

5. PROTECT LED INDICATORS

These LEDs illuminate if the power amplifier's output connection is shorted, the load impedance is too low. Or if there is an internal malfunction. When either of these LEDs is lit up, turn OFF the power and check the output's connection to verify that it is correct, then turn ON the power again.

6. LEVEL CONTROLS

These control the level of signal coming into each channel. The actual voltage attenuation of the amplifier is shown in dB. Turn these controls counterclockwise if the Limit LEDs illuminate steadily (indicating a too strong input signal).



REAR PANEL

7. POWER CONNECTOR

The cord connector is used to connect the AC power source to your power amplifier.

(CAUTION : Always operate the unit with the AC ground wire connected to the electrical system ground)

8. FUSE

Fuse holders for 8A/250V fuses. If these fuses continuously blow, shut off the unit and have it serviced by qualified service personnel.

9. GROUND LIFT SWITCH

Switch up to disconnect the chassis from ground if necessary to eliminate hum caused by ground loops.

10. SENSITIVITY SELECTOR SWITCH

The A Series amplifiers offer 3 SENSITIVITY of operation: 0.7V, 1.0V & 1.44V.

11. COMPRESSOR SELECTOR SWITCH

The A Series amplifiers offer OFF or COMPRESSOR. The Compressor only works when 1.0V Sensitivity is selected.

FRONT & REAR CONNECTIONS (A1700)

12. L/R CHANNEL OUTPUT CONNECTORS

Connections are as described on the rear panel and in the **CONNECTIONS** section on page 5 of this manual.

13. BALANCED INPUT CONNECTORS (1/4" TRS & XLR)

These 1/4" (6.3mm) TRS (Tip/Ring/Sleeve) phone jacks and XLR connectors are compatible with balanced inputs and are wired as Tip/Pin 3 = (-), Ring/Pin 2 = (+), and Sleeve/Pin 1 = Ground. Since the TRS phone jacks and XLR connectors are internally wired in parallel, you can parallel this unit with another amplifier by using either the LINE1/4" jack or the XLR (depending on which you're using to input your signal) to output the signal to the input connectors of the other amplifier.

The 1/4" TRS phone jacks can also be used for unbalanced inputs. For TRS phone plugs, simply connect the Ring to the Sleeve (ground). For 1/4" TS phone plugs, no change is necessary however signal. Balanced connections are recommended as they are less prone to AC hum. For long cable runs a source output impedance of less than 600 ohms is needed to avoid signal loss. For short cable runs an unbalanced signal input should be suitable. For stereo (two-channel) operation, use the inputs for both CH-1 and CH-2; for parallel or bridged mono operation, use only CH-1 input. (See MODE SELECTOR SWITCH below for more explanation.)

14. MODE SELECTOR SWITCH

The A Series amplifiers offer 3 modes of operation: PARALLEL, STEREO & BRIDGED. Slide the switch to one of the three positions for you application.

. **PARALLEL (MONO) INPUT** - This mode allows both channels to operate in parallel with the same signal and without requiring a Y-cord. In this mode the inputs for both channels are

internally connected, so that you only need to feed a signal into one of the channels. This still allows independent level control of each channel. It also enables easy "daisy-chaining" with other amps by using the other channel of input connectors.

(Note: Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.)

(Note: Do not use both unbalanced and balanced cables in the same set-up as that can unbalance all the connections when daisy-chaining, resulting in hum.)

. **STEREO INPUT** - This is the most common mode generally used, and allows independent control of 2 separate signals such as stereo playback, main and monitor live mixes, and bi-amp operation (highs in one channel and lows in the other).

. **BRIDGED MONO** - This mode combines the power of both channels to drive a single speaker. In this mode the amp produces 4 times the peak power and 3 times the sustained power into a 4 or 8 ohm speaker than each channel can deliver separately in stereo or parallel mode.

(CAUTION: In this mode the amplifier can deliver high power into a speaker. Make sure that the speaker, connectors and wiring can handle this output. Note that for prolonged overdriven outputs into a 4 ohm speaker the mains fuse may blow, so care must be taken not to overload the amplifier in such operation.)

Connect the input signal to CH-1 input for bridged mono operation.

15. VENTILATION HOLES

Hot air exhausts out the rear of the amplifier. In order to prevent abnormal increase in temperature do not block these holes.

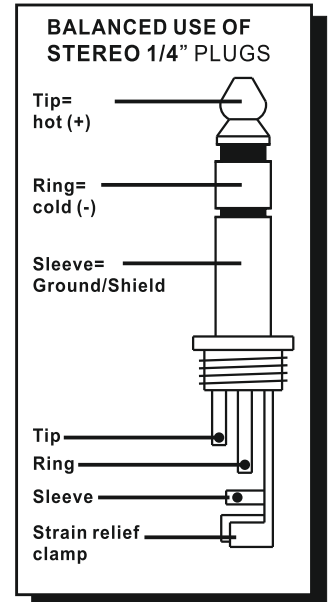
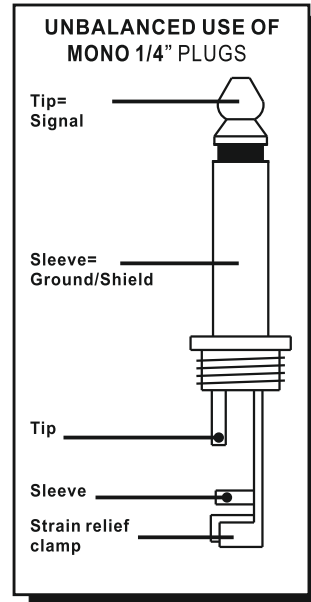
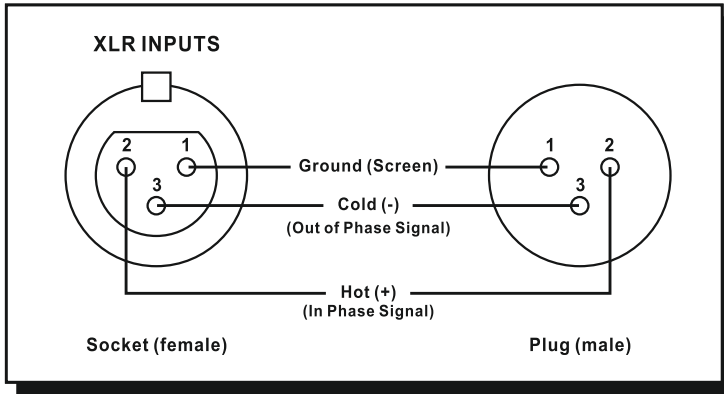
The fan speed is varied automatically to maintain the proper internal operating temperature.

CONNECTIONS (A1700)

The following instructions describe the most common ways to install your amplifier into a sound system.

1. Turn off the amplifier power switch before making any connections.
2. The **A** Series amplifiers may be operated in one of three modes (stereo, bridged-mono, and parallel mono). Refer to the following wiring diagrams for the speaker connections you wish to make.

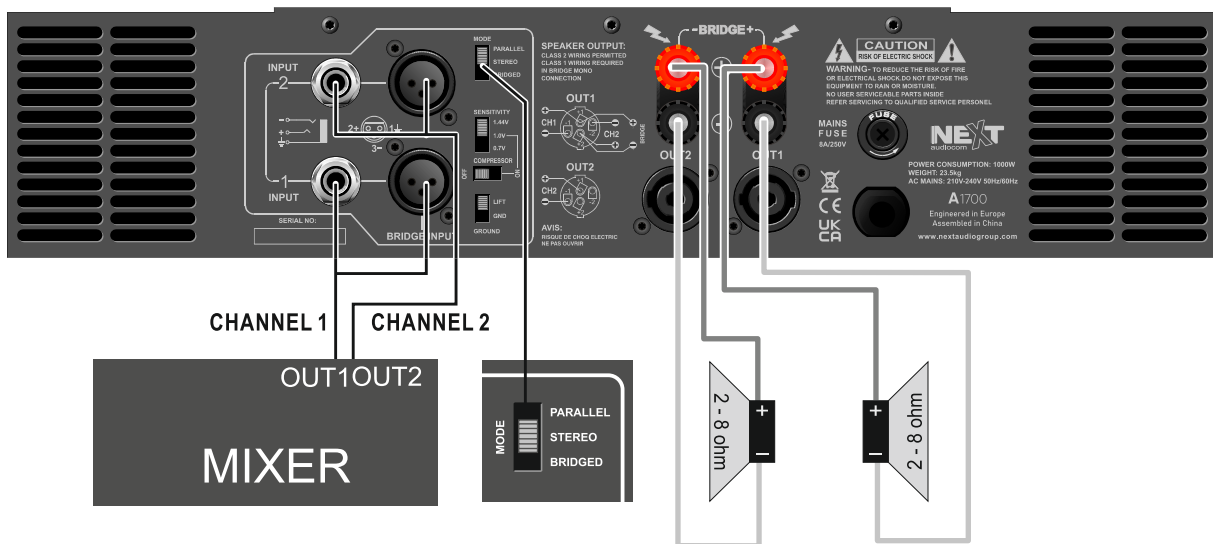
(Note: **NEXT** Systems assumes no liability for damaged speakers resulting from improper wiring, careless amplifier use, or over powering.)



. Stereo (Two-Channel) Mode

To put the amplifier into stereo mode, first turn the amplifier off, then slide the **MODE SELECTOR SWITCH (14)** to the middle "STEREO" position, and properly connect the input/output wiring as shown.

(Note: Do not connect a speaker load less than 2 ohm as it can damage your amplifier.)



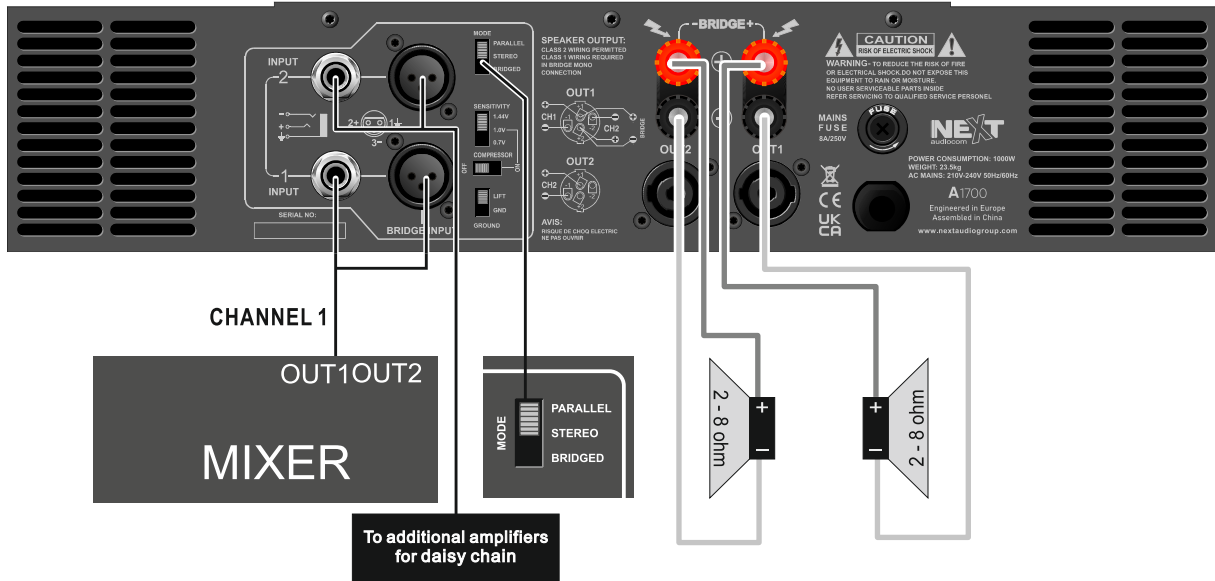
CONNECTIONS (A1700)

. Parallel (Mono) Mode

To put the amplifier in parallel-mono mode, first turn the amplifier off, then slide the **MODE SELECTOR SWITCH (14)** to the top "PARALLEL (MONO)" position and properly connect the input/output wiring as shown. A signal into any input connector will drive both channels directly. You can patch the input signal on to any other amps using any of the remaining input jacks.

(Note: Do not connect a speaker load less than 2 ohm as it can damage your amplifier.)

[Note: Do not use the "PARALLEL (MONO)" switch when feeding the amp with 2 separate signals.]

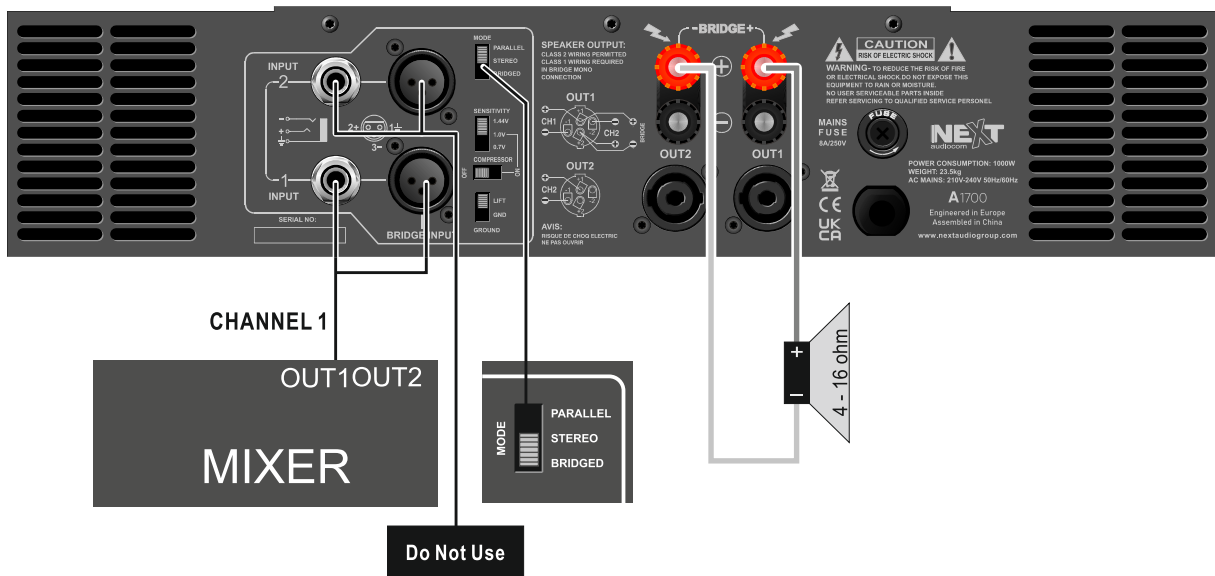


. Bridged Mono Mode

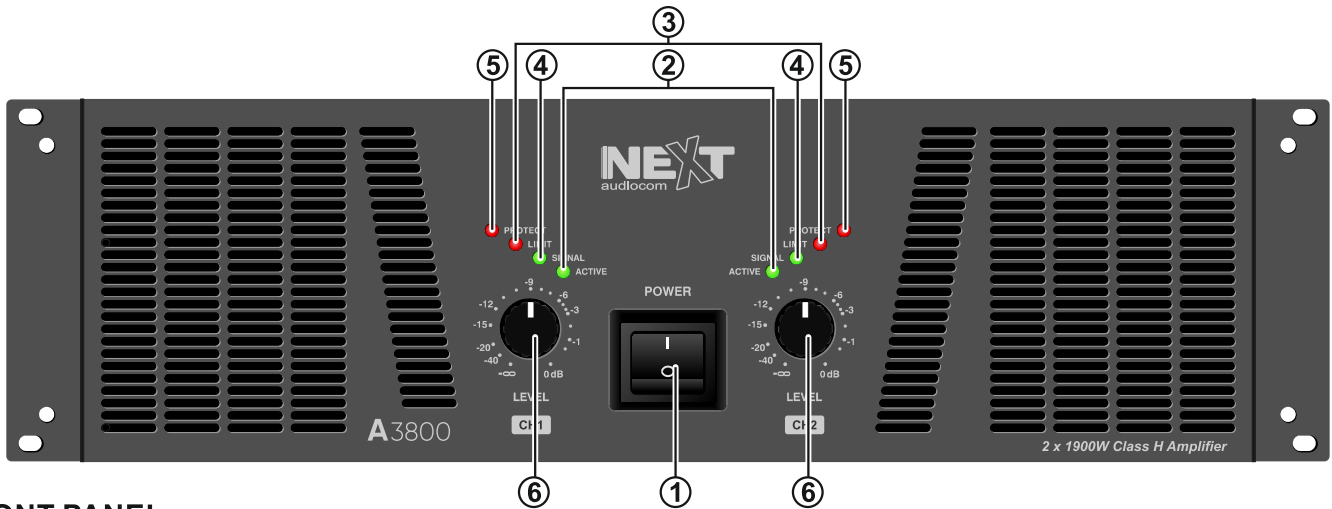
To put the amplifier in bridged mono mode, turn the amplifier off and slide the **MODE SELECTOR SWITCH (14)** toward the bottom "BRIDGED" position and properly connect the input/output wiring as shown. The signal is input into CH-1. Keep the level control of channel "2" turned completely down (counter clockwise).

(Note: Do not connect a speaker load of less than 4 ohm as it can damage your amplifier.)

(Note: This mode produces a large amount of power. Be sure that your wiring and speaker can handle it.)



FRONT & REAR CONNECTIONS (A3800)



FRONT PANEL

1. POWER SWITCH

To turn the unit ON or OFF, press the upper or lower portion of this button. Before turning on the amplifier, check all connections and turn down the level controls. A momentary muting is normal when turning the amplifier on or off.

(Caution: Always turn on your power amplifier last, after all your other connected equipment, and always turn off your power amplifier before your other connected equipment.)

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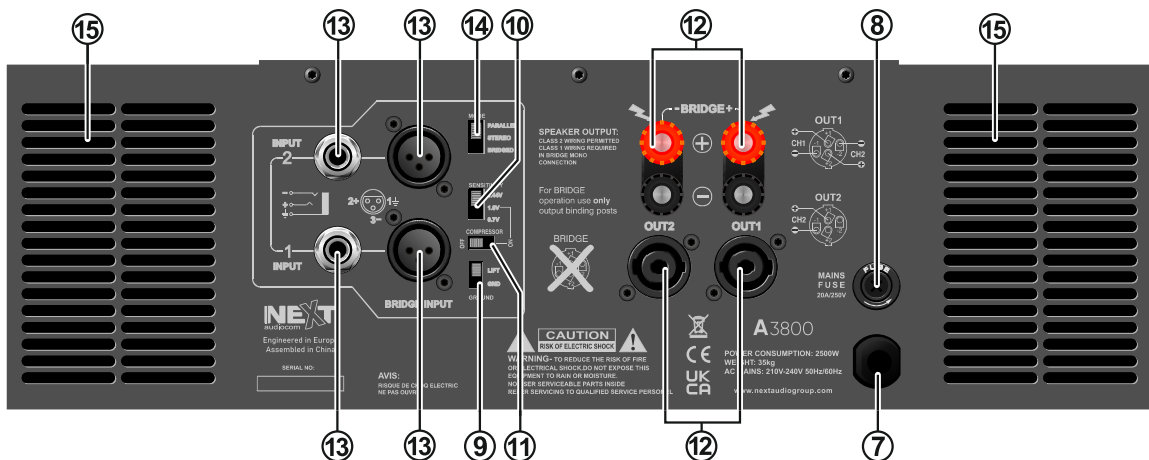
These LEDs illuminate to confirm the presence of an input signal greater than 100mV at that channel of the amplifier

5. PROTECT LED INDICATORS

These LEDs illuminate if the power amplifier's output connection is shorted, the load impedance is too low. Or if there is an internal malfunction. When either of these LEDs is lit up, turn OFF the power and check the output's connection to verify that it is correct, then turn ON the power again.

6. LEVEL CONTROLS

These control the level of signal coming into each channel. The actual voltage attenuation of the amplifier is shown in dB. Turn these controls counterclockwise if the Limit LEDs illuminate steadily (indicating a too strong input signal).



REAR PANEL

7. POWER CONNECTOR

The cord connector is used to connect the AC power source to your power amplifier.

(CAUTION : Always operate the unit with the AC ground wire connected to the electrical system ground)

8. FUSE

Fuse holders for 20A/250V fuses. If these fuses continuously blow, shut off the unit and have it serviced by qualified service personnel.

9. GROUND LIFT SWITCH

Switch up to disconnect the chassis from ground if necessary to eliminate hum caused by ground loops.

10. SENSITIVITY SELECTOR SWITCH

The A Series amplifiers offer 3 SENSITIVITY of operation: 0.7V, 1.0V & 1.44V.

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The A Series amplifiers offer OFF or COMPRESSOR. The Compressor only works when 1.0V Sensitivity is selected.

FRONT & REAR CONNECTIONS (A3800)

12. L/R CHANNEL OUTPUT CONNECTORS

Connections are as described on the rear panel and in the **CONNECTIONS** section on page 9 of this manual.

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(Note: Do not select this "Parallel" mode when feeding the amplifier with 2 separate signals.)

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Connect the input signal to CH-1 input for bridged mono operation.

15. VENTILATION HOLES

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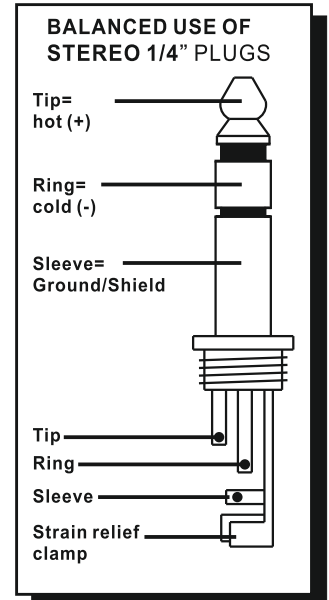
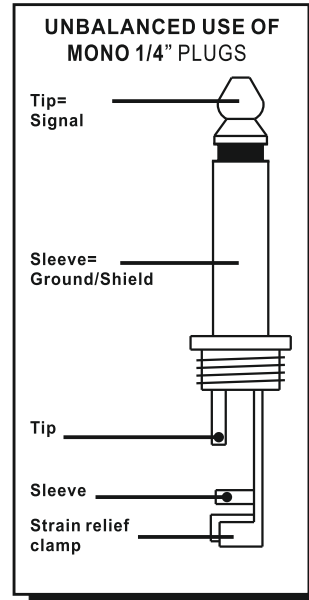
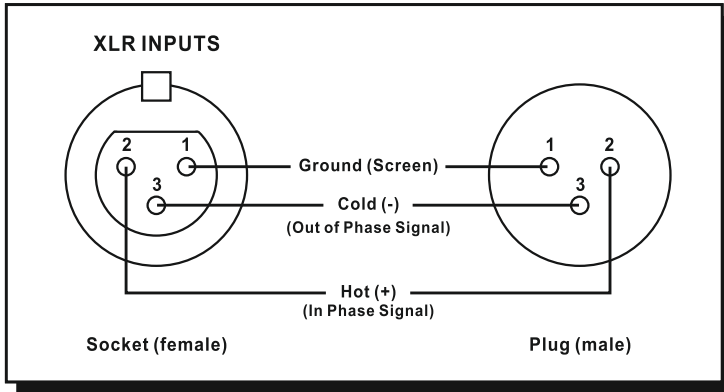
The fan speed is varied automatically to maintain the proper internal operating temperature.

CONNECTIONS (A3800)

The following instructions describe the most common ways to install your amplifier into a sound system.

1. Turn off the amplifier power switch before making any connections.
2. The **A** Series amplifiers may be operated in one of three modes (stereo, bridged-mono, and parallel mono). Refer to the following wiring diagrams for the speaker connections you wish to make.

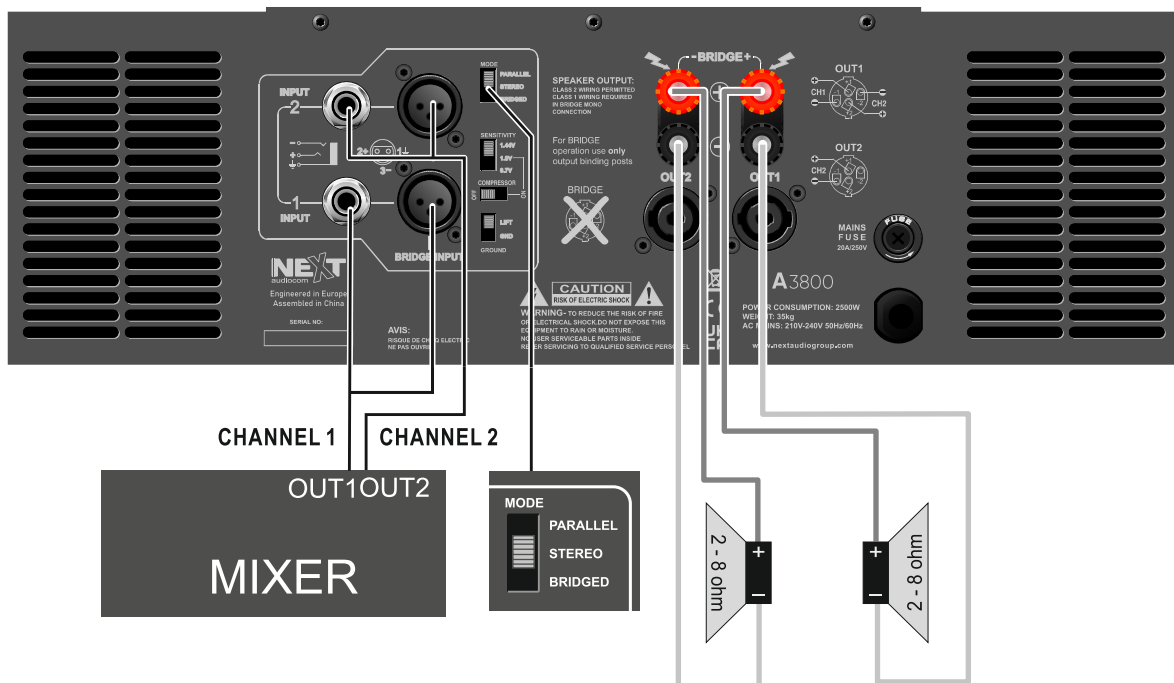
(Note: **NEXT** Systems assumes no liability for damaged speakers resulting from improper wiring, careless amplifier use, or over powering.)



. Stereo (Two-Channel) Mode

To put the amplifier into stereo mode, first turn the amplifier off, then slide the **MODE SELECTOR SWITCH (14)** to the middle "STEREO" position, and properly connect the input/output wiring as shown.

(Note: Do not connect a speaker load less than 2 ohm as it can damage your amplifier.)



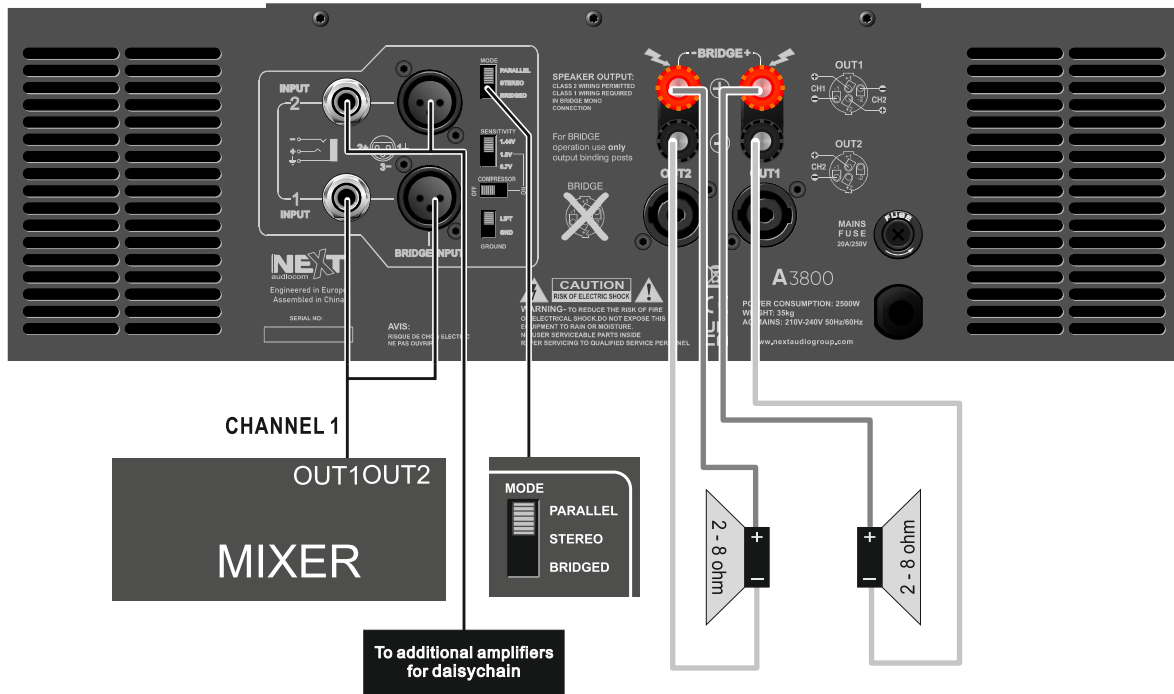
CONNECTIONS (A3800)

. Parallel (Mono) Mode

To put the amplifier in parallel-mono mode, first turn the amplifier off, then slide the **MODE SELECTOR SWITCH (14)** to the top "PARALLEL (MONO)" position and properly connect the input/output wiring as shown. A signal into any input connector will drive both channels directly. You can patch the input signal on to any other amps using any of the remaining input jacks.

(Note: Do not connect a speaker load less than 2 ohms as it can damage your amplifier.)

[Note: Do not use the "PARALLEL (MONO)" switch when feeding the amp with 2 separate signals.]

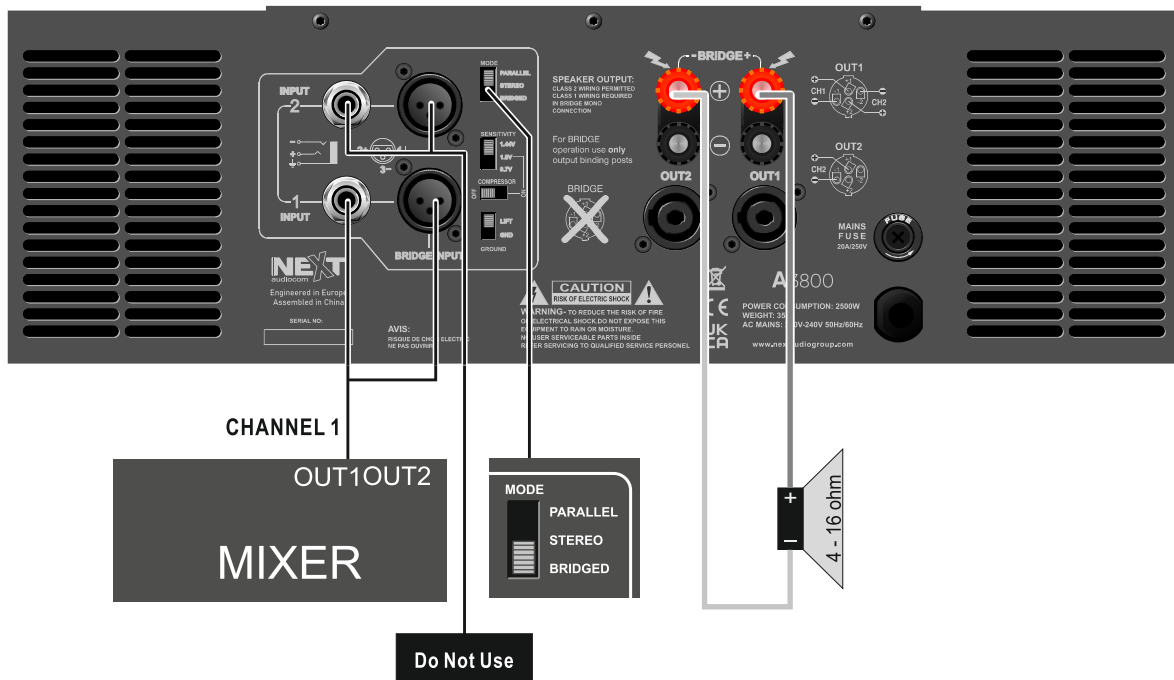


. Bridged Mono Mode

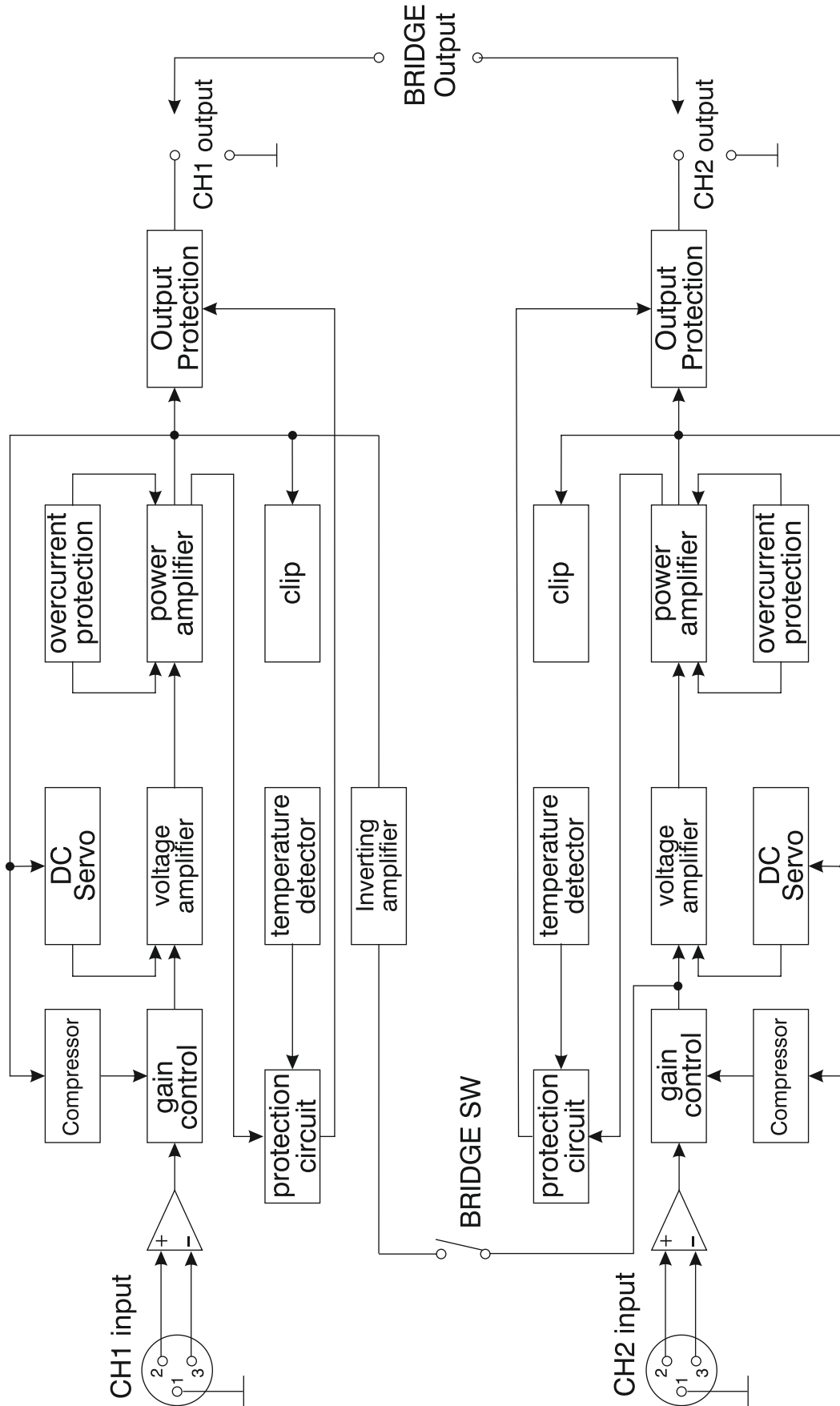
To put the amplifier in bridged mono mode, turn the amplifier off and slide the **MODE SELECTOR SWITCH (14)** toward the bottom "BRIDGED" position and properly connect the input/output wiring as shown. The signal is input into CH-1. Keep the level control of channel "2" turned completely down (counter clockwise).

(Note: Do not connect a speaker load of less than 4 ohm as it can damage your amplifier.)

(Note: This mode produces a large amount of power. Be sure that your wiring and speaker can handle it.)



BLOCK DIAGRAM



SPECIFICATIONS

	A1700	A3800
SPECIFICATIONS		
Output Power - Stereo 8 ohm	400W + 400W	1000W + 1000W
Output Power - Stereo 4 ohm	625W + 625W	1500W + 1500W
Output Power - Stereo 2 ohm	850W + 850W	1900W + 1900W
Output Power - Bridge 8 ohm	1250W	3000W
Output Power - Bridge 4 ohm	1700W	3800W
FREQUENCY RESPONSE @ Half Pwr	15Hz - 25kHz(+0/-1dB)	
THD+Noise @ 1kHz Full Power	<0.03%	<0.035%
IMD 60Hz & 7kHz, 4:1	<0.038%	<0.04%
SIGNAL TO NOISE RATIO (SNR)	>102dB	>105dB
SLEW RATE (input filter limited)	40V/uS	
DAMPING FACTOR 1kHz @ 8ohm	>400:1	
INPUT SENSITIVITY	SELECTABLE (0.77V / 1.0V / 1.44V)	
INPUT IMPEDANCE	10kohm Balanced to ground	
INPUT CONNECTORS	Female XLR-3 & 6.35mm TRS Jack	
OUTPUT CIRCUIT TYPE	Class AB	Class H
OUTPUT CONNECTORS	4 Pole SpeakON & Binding posts	
PROTECTIONS	Full short-circuit, Open-circuit, Thermal, Soft-start, DC Voltage, Sub/Ultrasonic and RF	
LED INDICATORS (per channel)	Active, Signal, Limit, Protect	
PANEL CONTROLS	FRONT-2 input attenuators REAR- Ground lift, mode selection, compressor	
COOLING	Front-to-Back via 2 variable-speed fans	
POWER SUPPLY VOLTAGE	210VAC - 240VAC 50Hz/60Hz	
POWER SUPPLY FUSE	8A (250V)	20A (250V)
DIMENSIONS(W x D x H)	483 x 453 x 88.8mm	483x453x132mm
WEIGHT	23.5kg	35kg

The specifications above are correct at the time of printing of this manual. For improvement purposes, all specifications for this unit, including design and appearance, are subject to change without prior notice.

NOTES

WARRANTY, CORRECT DISPOSAL AND CERTIFICATES

if you suspect that your amplifier is defective, check your system configuration and amplifier settings to determine the origin of the problem. In many cases, incorrect audio interfacing, poor cabling, or other system level impairments are the cause of problems in audio systems. For technical assistance beyond the information given in this manual, please contact your local dealer or distributor.

NEXT Audiocom products are warranted, by NEXT Audiocom, against manufacturing defects in materials or craftsmanship over a period of 2 years counting from the date of original purchase for final customer. The original receipt of purchase is mandatory for warranty validation purposes, and the product must have been bought from a NEXT Audiocom authorized dealer.

The warranty can be transferred to a subsequent owner during the warranty period, however, this cannot extend the warranty period beyond the original warranty period of two years from the original date of purchase stated on the NEXT Audiocom's invoice. During the warranty period NEXT Audiocom will, at its own discretion, either repair or replace a product which prove to be defective provided that the product is returned in its original packaging, shipping prepaid, to an authorized NEXT Audiocom service agent or distributor.

NEXT Audiocom cannot be held responsible for defects caused by unauthorized modifications, improper use, negligence, exposure to inclement weather conditions, act of God or accident, or any use of this product that is not in accordance with the instructions provided by this manual and/or NEXT Audiocom. NEXT Audiocom is not liable for consequential damages. This warranty is exclusive, and no other warranty is expressed or implied.

This warranty does not affect your statutory rights.

When to be definitively put out of operation, take the product to a local recycling plant for a disposal which is not harmful to the environment.

Devices marked with this symbol must not be disposed of as household waste. Contact your retailer or local authorities for more information.



Hereby, CVAELECTRONICA, LDA declares that this equipment type is in compliance with the mandatory directives for the CE certification. The full text of the EU declaration of conformity is available at the following internet address: www.nextaudiogroup.com/en/apoio-ao-cliente/downloads



NEXT Audiocom

e-mail: info@nextaudiogroup.com

www.nextaudiogroup.com