LFA2225 LFA2350 LFA2765 LFA4225 LFA4765 LFA41100

LYONFORGE

Lyonforge Amplifier Series
Instruction Manual

In Compliance with the following directives: RoHS Directive (2002/95/EU) and WEEE Directive (2002/96/EU)
If this product is no longer functional or reaches the end of its usable life, please take it to an approved recycling plant.

RoHS

UK CA

Version 1.0

www.terralec.co.uk

Dear Customer,

Thank you for purchasing the Lyonforge Power Amplifier. This unit has been designed and manufactured to the highest standards so you can be assured you have made a good investment. For your safety and to ensure you make full use of the product's features, please make sure you read this manual in full.

Safety Advice:

- Read this manual in full before operating this product.
- Keep this manual in a safe place for future reference.
- Heed all warnings and instructions, both in this manual and on the product.
- Carry and transport this product with care. Dropping this product may result in serious mechanical failure.
- The manufacturer accepts no responsibility for injury or damage caused as a result of not following the manual provided.
- This amplifier is not waterproof and should not be used outside.
- In the event of any liquid entering the housing, unplug immediately and contact a qualified engineer.

Protection from Electric Shock:

- Only connect this unit to suitable sound systems with the correct cable and wiring configuration.
- Do not attempt to remove the cable by pulling the mains cable.
- Cleaning should be carried out with a soft, dry cloth.
- Do not expose this unit to any liquids.
- Do not operate near exposed water or in high humidity.
- Choose a suitable route for cables, ensuring trip hazards are avoided and the cable is not at risk of being crushed.
- Do not open this unit to service. There are no user serviceable parts inside. Any servicing or repairs should be carried out by a qualified engineer only. Any attempt to service or adapt this unit will leave your warranty void and could result in serious malfunction or injury.

Protection from Fire:

- Do not place near sources of heat or ignition.
- Do not cover or block any ventilation holes.
- Check your AC wall socket will take the power you are applying to avoid overloading the mains supply.

Protection from Injury and Damage:

- Do not attempt to modify this unit.
- Check this unit matches the sound system spec before plugging it in to your mains socket.
- In the event that any object or liquid enters the amplifier, switch off immediately, remove from the mains and consult a qualified engineer.
- Should you experience any malfunction or damage to the cable, disconnect from the mains immediately and consult a qualified engineer.
- All parts should be replaced with genuine spare parts and carried out by a qualified engineer.

Contents & Unpacking:

Before beginning your initial setup, check the unit has not been damaged in transit. In the event there is damage to the housing or internal components, contact your dealer immediately.

1 x Amplifer 1 x IEC Power Cable 1 x User Manual

Introduction:

Lyonforge 1U power amplifiers are a versatile solution for professional audio installations in theatres, schools, restaurants, pubs, and more. Designed for both front-of-house and background music applications, these amplifiers combine high performance with a compact and reliable design.

Housed in an ultra-compact 19-inch rackmount chassis with a height of just 1U (44mm), the amplifiers are available in 2- and 4-channel versions, with multiple power ratings to suit a wide range of speaker systems. Their lightweight construction is based on a soft-start switch-mode power supply, delivering consistent performance with excellent reliability.

The amplifiers offer three operating modes—stereo, mono, and bridged—and feature an efficient cooling system with temperature-controlled fans to ensure quiet and stable operation. A built-in peak limiter helps prevent signal distortion and protects speaker drivers from damage. Input sensitivity is adjustable with options of 0.775V, 1.0V, and 32dB, allowing compatibility with various audio sources.

All models are well protected against DC faults, overheating, overload, and short circuits. Connectivity includes balanced XLR inputs, with XLR link outputs on the 2-channel version for easy expansion to additional amplifiers. Speaker outputs are provided via Speakon connectors, ensuring secure and professional-grade connections.

Compact, powerful, and engineered for demanding environments, Lyonforge amplifiers deliver outstanding performance for any installation.

- Lyonforge 2- and 4-Channel Power Amplifiers
- Suitable for Professional Installations in Theatres, Schools, Restaurants, Pubs, and More
- Ideal for Both Front-of-House and Background Music Applications
- Ultra-Compact 19” Rackmount Chassis with a Height of Just 1U (44mm)
- Available in 2- and 4-Channel Configurations with
- Various Power Ratings to Suit Different Speaker Systems
- Lightweight Design Based on a Soft-Start Switch-Mode Power Supply for High Efficiency and Reliability
- Supports Three Operating Modes: Stereo, Mono, and Bridged
- Efficient Cooling System with Temperature-Controlled Fans for Quiet, Stable Operation
- Built-In Peak Limiter to Prevent Signal Distortion and Protect Speaker Drivers
- Adjustable Input Sensitivity: 0.775V, 1.0V, and 32dB
- Comprehensive Protection Against DC Faults, Overheating, Overload, and Short Circuits
- Balanced XLR Inputs, with XLR Link Outputs on 2-Channel Models for Easy Daisy-Chaining
- Speakon Speaker Outputs for Secure and Professional Connections
- Compact, Durable, and Designed for Demanding Audio Environments

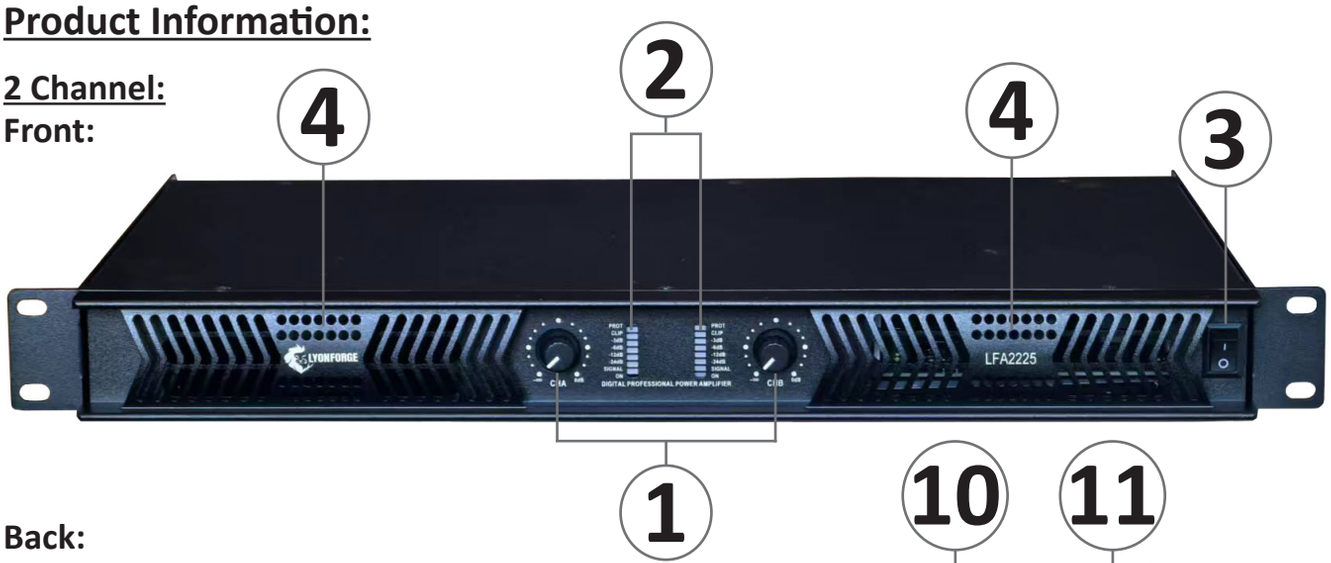
Specifications:

Product:	LFA2225	LFA2350	LFA2765	LFA4225	LFA4765	LFA41100
Power Supply	240Vac	240Vac	240Vac	240Vac	240Vac	240Vac
Power Stereo 4 Ω	2 x 225W	2 x 350W	2 x 765W	4 x 225W	4 x 765W	4 x 765W
Power Stereo 8 Ω	2 x 150W	2 x 190W	2 x 400W	4 x 150W	4 x 400W	4 x 600W
Power Bridged 8 Ω	440W	680W	1350W	2 x 440W	2 x 1350W	2 x 2100W
Power Consumption	2 x 225W	2 x 350W	2 x 675W	4 x 225W	4 x 765W	4 x 1100W
THD + N (Stereo 8 Ω)	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%	<0.1%
Freq. Response (+/- 1dB)	20-20.000Hz	20-20.000Hz	20-20.000Hz	20-20.000Hz	20-20.000Hz	20-20.000Hz
Input Sensitivity	0.775V ~ 1V ~ 32dB	0.775V ~ 1V ~ 32dB	0.775V ~ 1V ~ 32dB	0.775V ~ 1V ~ 32dB	0.775V ~ 1V ~ 32dB	0.775V ~ 1V ~ 32dB
S/N Ratio (A-weighted)	>100dB	>100dB	>100dB	>100dB	>100dB	>100dB
Slew Rate	>20V/ms	>20V/ms	>20V/ms	>20V/ms	>20V/ms	>20V/ms
Dimensions	490 x 270 x 50mm	490 x 270 x 50mm	490 x 270 x 50mm	485 x 327 x 50mm	485 x 327 x 50mm	485 x 327 x 50mm
Weight	4.14kg	4.14kg	4.14kg	5.42kg	5.42kg	5.42kg

Product Information:

2 Channel:

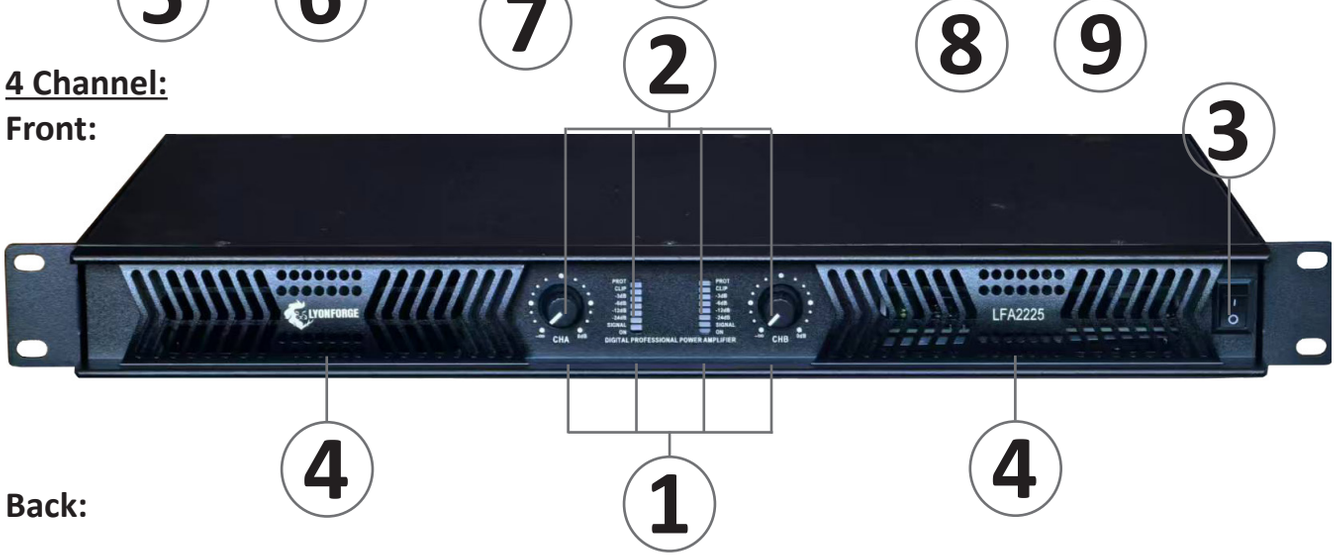
Front:



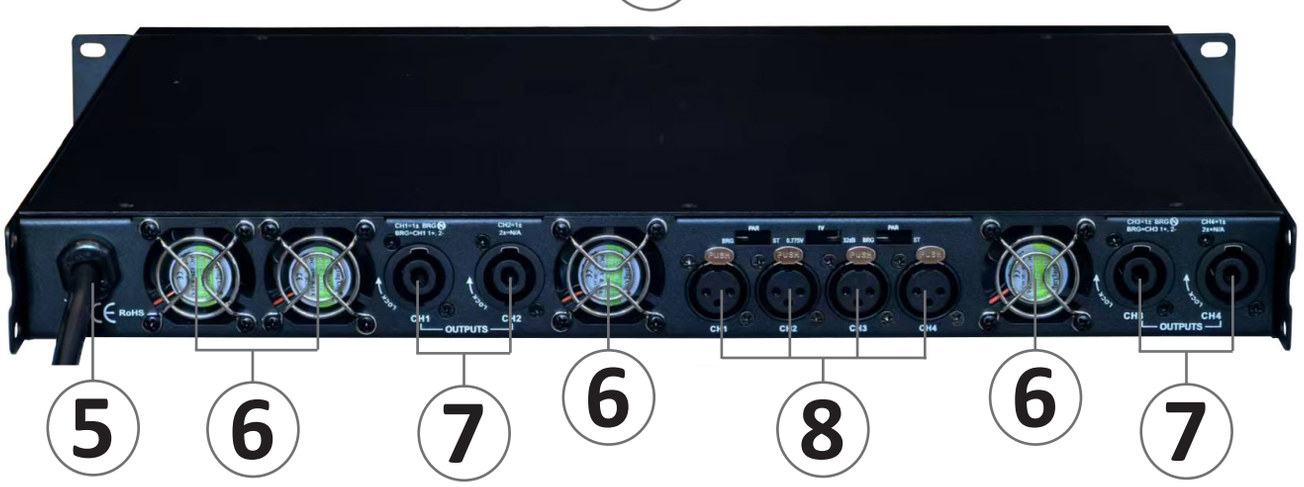
Back:

4 Channel:

Front:

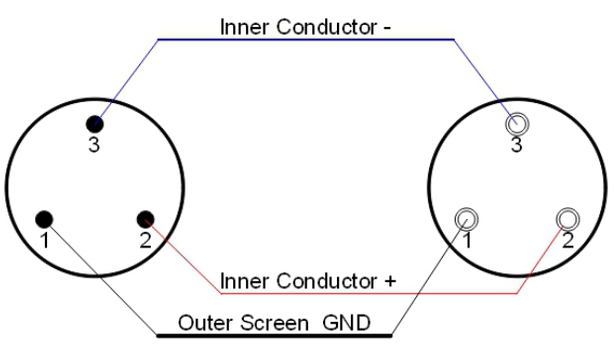


Back:

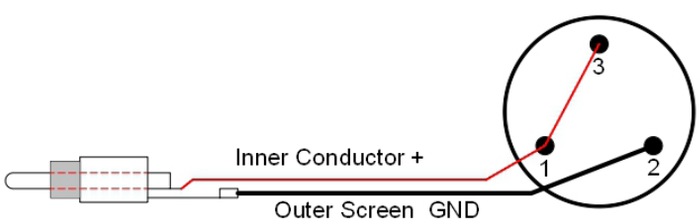


Product Information:

	Name	Use
1	Gain Controls	These potentiometers are used to control the input sensitivity of each channel of the amplifier.
2	VU LEDs	These LEDs indicate audio signal being present, power to the amplifier and fault protection. **Signal LEDs**- These indicate when an audio signal is present and at what dB level. **Fault Protection/ Clip**- These light up briefly on power up. When an audio signal is distorting, the LEDs will flash. If the amplifier gets too hot, there is an electrical problem, DC overload or a short circuit and the Fault Protection will activate.
3	Power Switch	Used to turn the amplifier on and off.
4	Ventalation for Fans	During normal operation, fans need to pull air from the front of the amplifier. It is important these do not get blocked and are cleaned regularly.
5	Power Input	Used to supply power to the amplifier. 2 Channel versions use an IEC Cable and 4 Channel versions use a hard wired cable.
6	Fans	During normal operation, these pull out hot air via the front ventalation holes. Make sure these fans are not covered, to prevent the amplifier from overheating.
7	Speakon Outputs	Used for connecting passive speaker cabinets. **IMPORTANT: ONLY USE +1 -1 CONNECTIONS AND ONLY USE TWO CORE CABLE FOR STANDARD OPERATING MODE.**
8	Balanced XLR Inputs	You can connect these inputs to balanced or unbalanced line level audio sources, such as a mixer. See diagrams below:



Balanced Wiring (XLR - XLR)



Line Unbalanced Connection XLR - Phono/RCA

	Name	Use
9	Balanced XLR Outputs	Only on 2 Channel amplifiers: Can be used to send the audio signal to the next amplifier.
10	Operation Mode	Used to set the operation mode. The standard mode is stereo.
11	Input Sensitivity Switch	With this switch, you can perfectly adapt the input sensitivity of the amplifiers (0.775V, 1V, 32dB).

How To Use:

Stereo Operation:

1- Connect an audio signal to the Inputs (8).
2- Set operation mode to stereo (10).
3- Connect passive speakers to the Speakon Sockets (7).
4- Make sure the mains voltage is 90V - 260Vac 50/60Hz before connecting the mains cable to a suitable wall socket (5).
5- Set input gain controls to zero (1).
6- Make sure there is a music signal at the input.
7- Turn on the amplifier (3).
8- Adjust the input gain controls to a desired level (1).

IMPORTANT NOTES:

On the 2 Channel Amplifier, Output 1 also carries the output signal of Channel 2.
On the 4 Channel Amplifier, Output 1 also carries the signal of Channel 2 and Channel 3 also carries the signal of Channel 4.

Please ensure you only use 4-Core speaker cables for carrying two channels down one cable when using Outputs 1 on the 2 Channel version and 1 & 3 on the 4 Channel version.
Normally, we recommend 2-Core speaker cables for most situations. If unsure, please check with the distributor of the amplifier.

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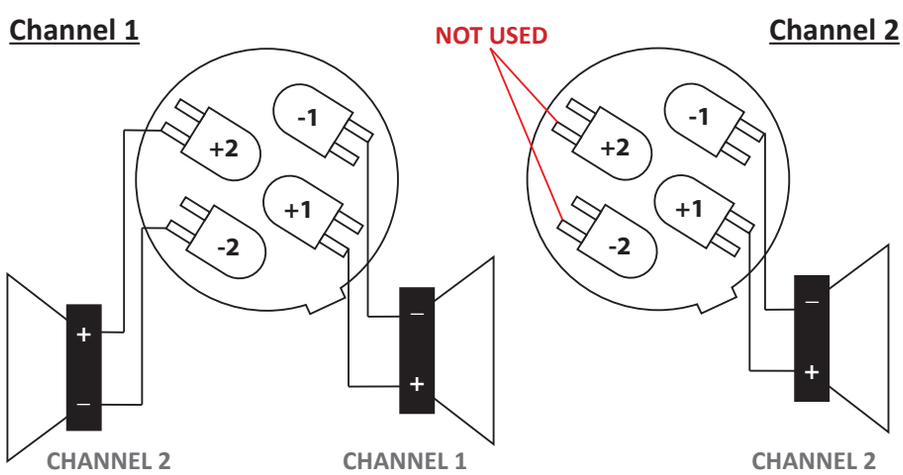
2 Channel Amplifier:



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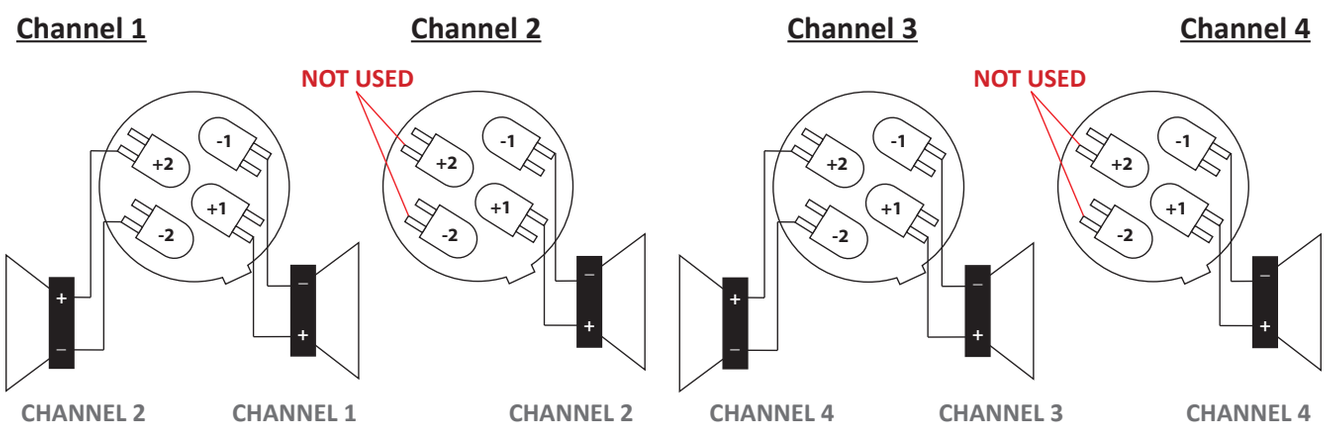
4 Channel Amplifier:



How To Use:

Bridge Operation:

1- Connect an audio signal to Input 1 (2 Channel Amplifier).
Connect an audio signal to to Inputs 1 and 3 (4 Channel Amplifier) (8).
2- Set operation mode to bridged (10).
3- Connect a passive speaker to Output 1 (2 Channel Amplifier).
Connect a passive speaker to Outputs 1 and 3 (4 Channel Amplifier).
4- Make sure the mains voltage is 90V - 260Vac 50/60Hz before connecting the mains cable to a suitable wall socket (5).
5- Set input gain controls to zero (1).
6- Make sure there is a music signal at the input.
7- Turn on the amplifier (3).
8- Adjust Input 1 gain to adjust the volume (2 Channel Amplifier).
Adjust Input Gains 1 and 3 to adjust the volume (4 Channel Amplifier) (1).

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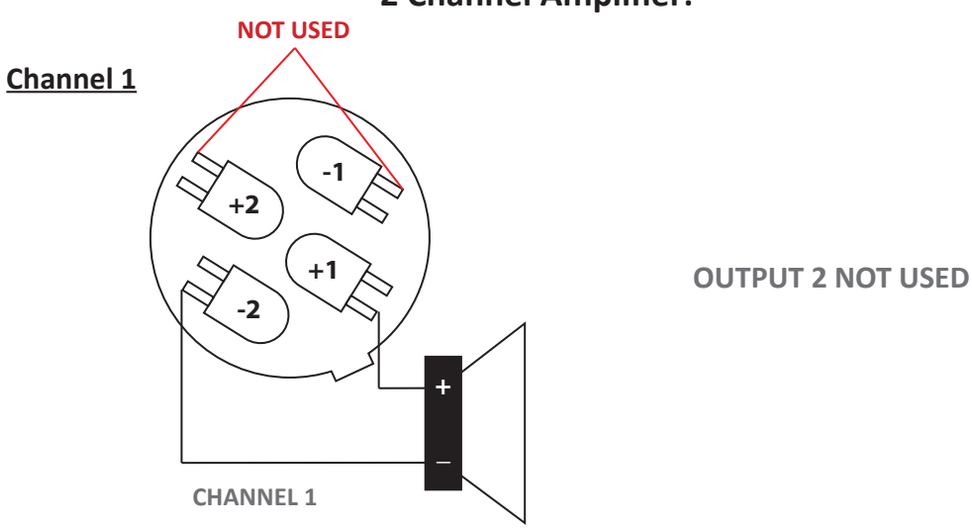
2 Channel Amplifier:



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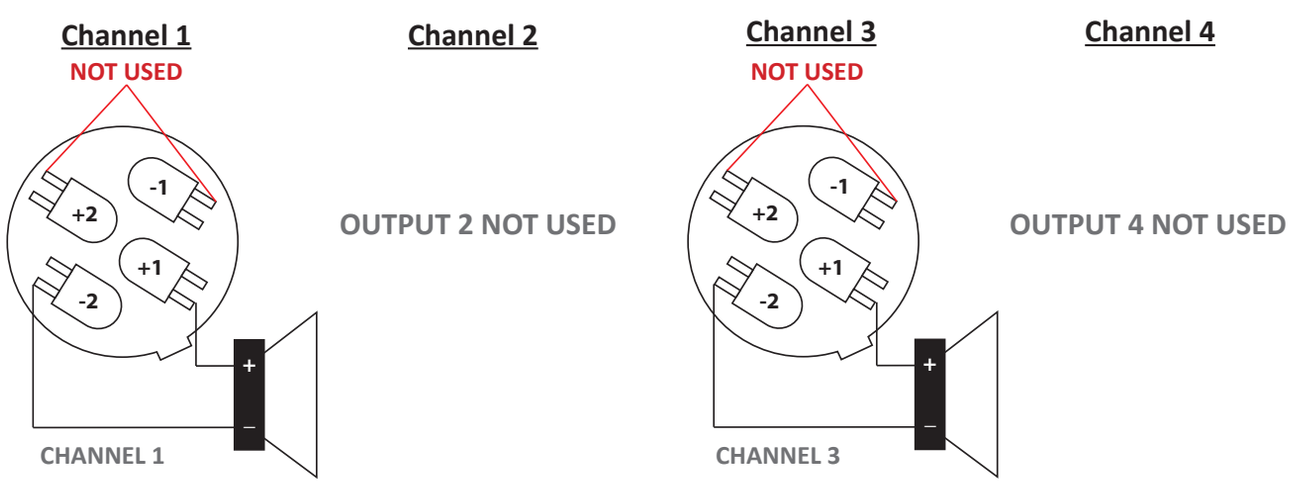
4 Channel Amplifier:



How To Use:

Parallel Operation:

1- Connect an audio signal to Input 1 (2 Channel Amplifier).
Connect and audio signal to Inputs 1 and 3 (4 Channel Amplifier).
2- Set operation mode to parallel (10).
3- Connect passive speakers to the Speakon Sockets (7).
4- Make sure the mains voltage is 90V - 260Vac 50/60Hz before connecting the mains cable to a suitable wall socket (5).
5- Set input gain controls to zero (1).
6- Make sure there is a music signal at the input.
7- Turn on the amplifier (3).
8- Adjust the input gain controls to a desired level (1).

IMPORTANT NOTES:

All volume controls still work to control each output, even though only Input 1 is used on the 2 Channel amplifier and Inputs 1 & 3 on the 4 Channel amplifier.
On the 2 Channel Amplifier, Output 1 also carries the output signal of Channel 2.
On the 4 Channel Amplifier, Output 1 also carries the signal of Channel 2 and Channel 3 also carries the signal of Channel 4.

***Please ensure you only use 4-Core speaker cables for carrying two channels down one cable when using Outputs 1 (2 Channel Amp) and 1 & 3 (4 Channel Amp).**
Normally, we recommend 2-Core speaker cables for most situations. If unsure, please check with the distributor of the amplifier.

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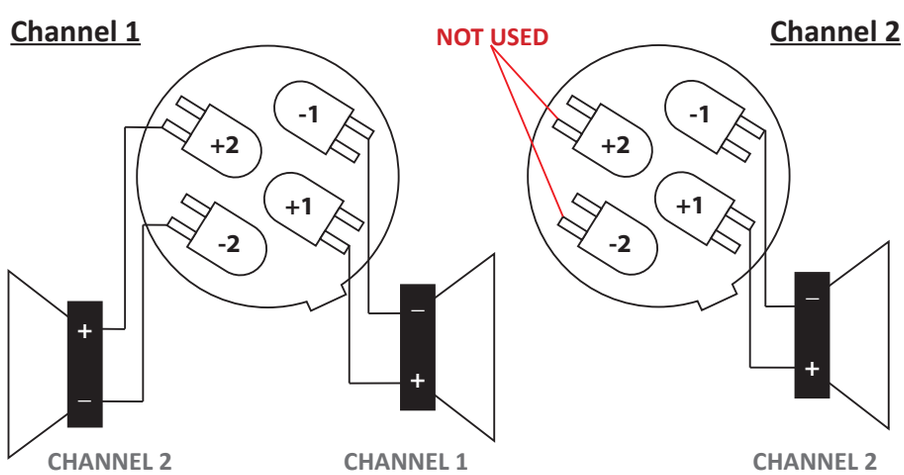
2 Channel Amplifier:



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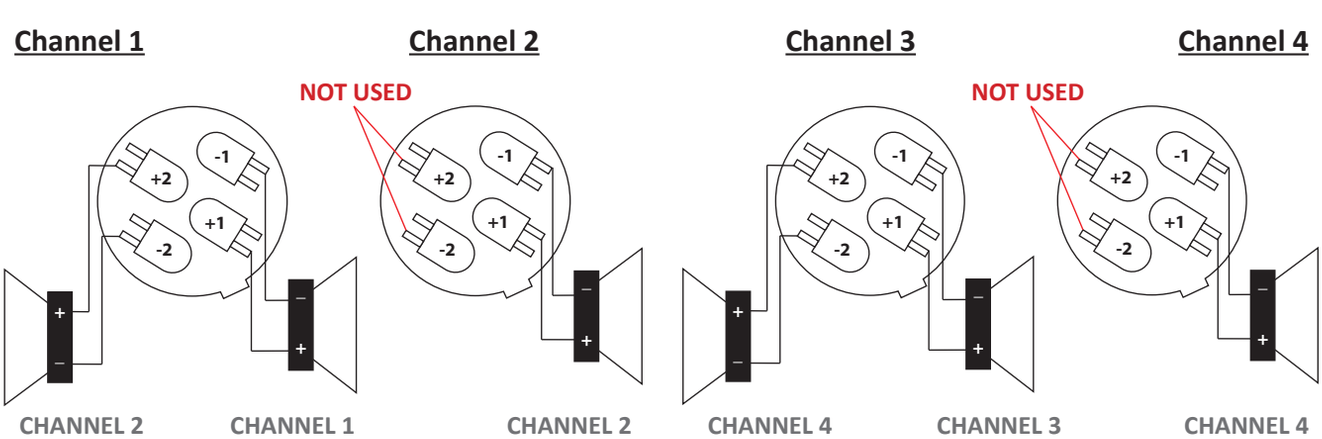
4 Channel Amplifier:



Thank you for taking the time to read this information.
For further information, please contact sales@terralec.com or visit www.terralec.co.uk