



SL Slave Amplifiers

User Manual



Order codes:

CRAM37 - SL 4060 100V 4 x 60W
CRAM22 - SL 4120 100V 4 x 120W
CRAM23 - SL 4240 100V 4 x 240W

WARNING

FOR YOUR OWN SAFETY, PLEASE READ THIS USER MANUAL CAREFULLY BEFORE YOUR INITIAL START-UP!

- Before your initial start-up, please make sure that there is no damage caused during transportation.
- Should there be any damage, consult your dealer and do not use the equipment.
- To maintain the equipment in good working condition and to ensure safe operation, it is necessary for the user to follow the safety instructions and warning notes written in this manual.
- Please note that damages caused by user modifications to this equipment are not subject to warranty.



CAUTION!
KEEP THIS EQUIPMENT
AWAY FROM RAIN,
MOISTURE AND LIQUIDS



CAUTION!
TAKE CARE USING
THIS EQUIPMENT!
HIGH VOLTAGE-RISK
OF ELECTRIC SHOCK!!

IMPORTANT:

The manufacturer will not accept liability for any resulting damages caused by the non-observance of this manual or any unauthorised modification to the equipment.

- Never let the power cable come into contact with other cables. Handle the power cable and all mains voltage connections with particular caution!
- Never remove warning or informative labels from the unit.
- Do not open the equipment and do not modify the unit.
- Do not switch the equipment on and off in short intervals, as this will reduce the system's life.
- Only use the equipment indoors.
- Do not expose to flammable sources, liquids or gases.
- Always disconnect the power from the mains when equipment is not in use or before cleaning! Only handle the power-cable by the plug. Never pull out the plug by pulling the power-cable.
- Make sure that the available voltage is 240V, 50Hz AC.
- Make sure that the power cable is never crimped or damaged. Check the equipment and the power cable periodically.
- If the equipment is dropped or damaged, disconnect the mains power supply immediately and have a qualified engineer inspect the equipment before operating again.
- If the equipment has been exposed to drastic temperature fluctuation (e.g. after transportation), do not connect power or switch it on immediately. The arising condensation might damage the equipment. Leave the equipment switched off until it has reached room temperature.
- If your product fails to function correctly, stop use immediately. Pack the unit securely (preferably in the original packing material), and return it to your Prolight dealer for service.
- Only use fuses of same type and rating.
- Repairs, servicing and power connection must only be carried out by a qualified technician. **THIS UNIT CONTAINS NO USER SERVICEABLE PARTS.**
- **WARRANTY:** Three years from date of purchase.

OPERATING DETERMINATIONS

If this equipment is operated in any other way, than those described in this manual, the product may suffer damage and the warranty becomes void. Incorrect operation may lead to danger e.g: short-circuit, burns and electric shocks etc.

Do not endanger your own safety and the safety of others!

Incorrect installation or use can cause serious damage to people and/or property.

SL Slave Amplifiers

This SL series slave amplifier from Clever Acoustics boasts a number of useful features and solid performance.

These four channel power amplifiers are ideally suited to commercial and industrial public address applications.

The four individual amplifiers are combined in a chassis of only 2 or 3 rack units.

- Four separate amplifiers in a single 19" rack mount chassis
- 70V, 100V and 4-16Ω loudspeaker outputs
- Balanced XLR line input for each channel
- Convenient phoenix type terminal block output connectors
- Temperature, over-load, clip and short circuit protection
- Power, signal, clip, protection and over temperature LEDs
- Fan cooled

SL 4060



SL 4120

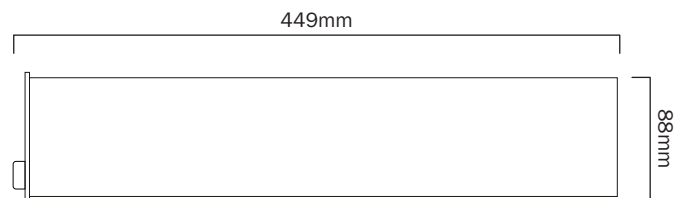
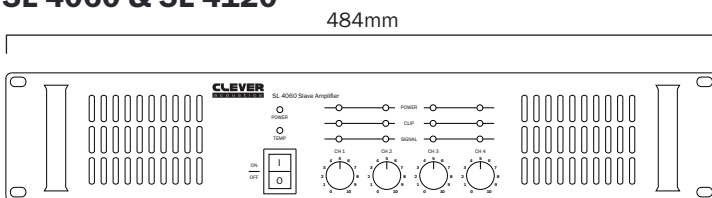


SL 4240

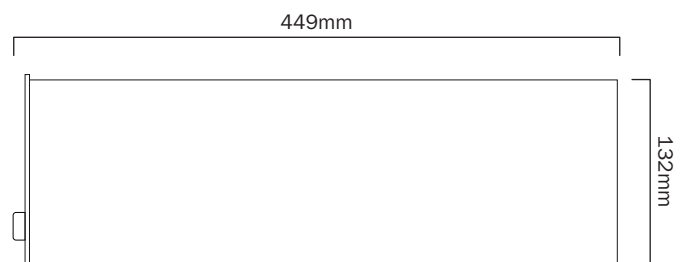
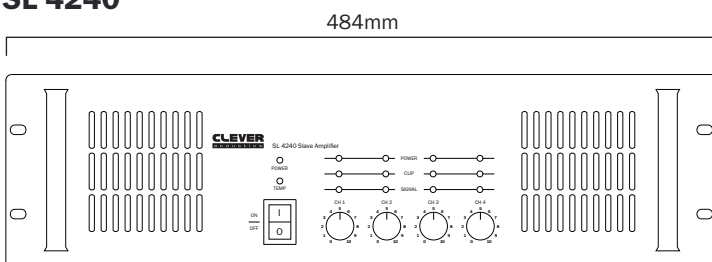


| Specifications | SL 4060 | SL 4120 | SL 4240 |
|--------------------|-------------------|-------------------|-------------------|
| Power output | 4 x 60Wrms | 4 x 120Wrms | 4 x 240Wrms |
| Speaker output | 70V, 100V & 4-16Ω | 70V, 100V & 4-16Ω | 70V, 100V & 4-16Ω |
| Frequency response | 50Hz-16kHz | 50Hz-16kHz | 50Hz-16kHz |
| Power supply | 240V AC 50Hz | 240V AC 50Hz | 240V AC 50Hz |
| Power consumption | 400W | 720W | 1500W |
| Dimensions | 88 x 484 x 448mm | 88 x 484 x 448mm | 132 x 484 x 449mm |
| Weight | 16kg | 22kg | 30kg |
| Order code | CRAM37 | CRAM22 | CRAM23 |

SL 4060 & SL 4120

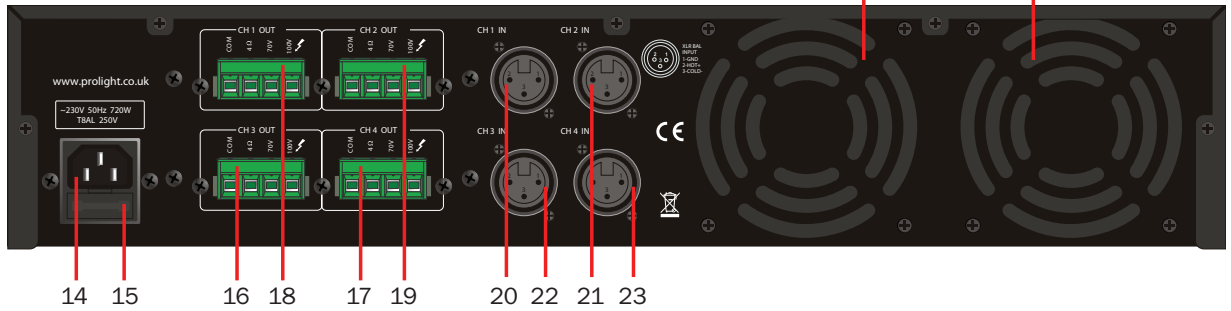
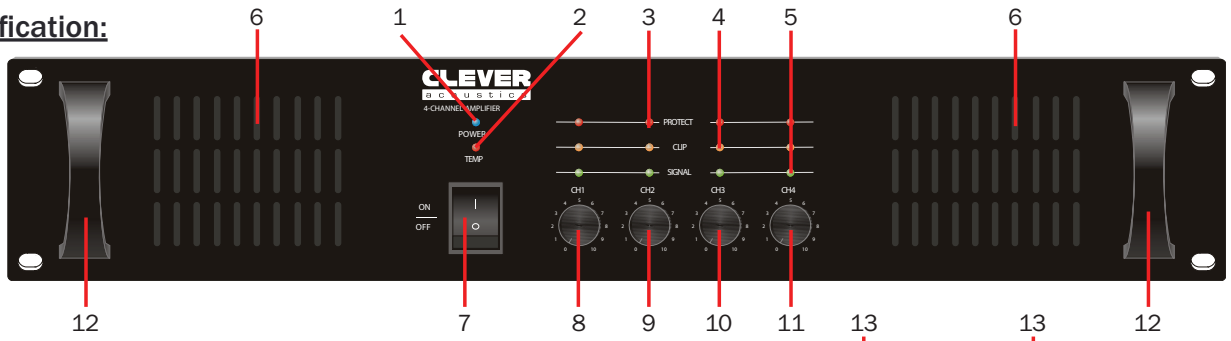


SL 4240

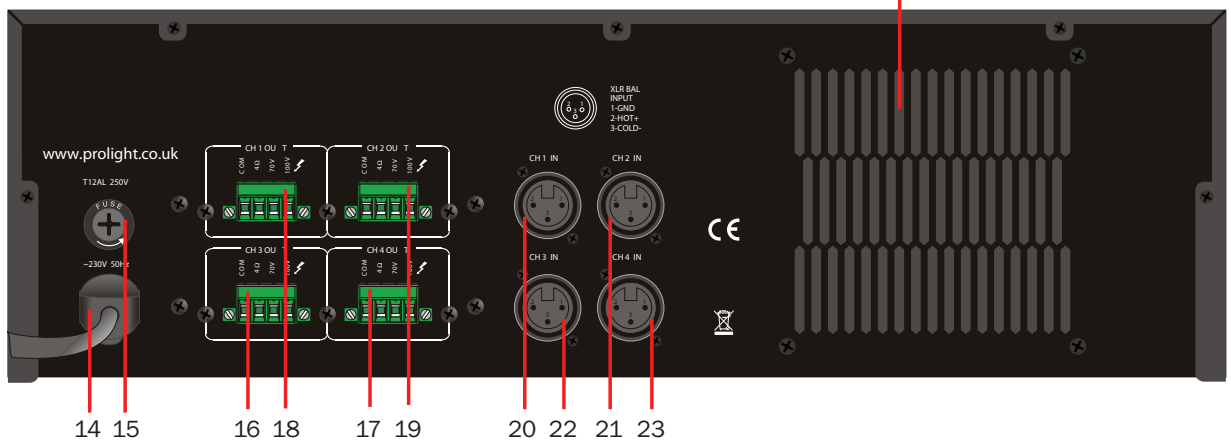
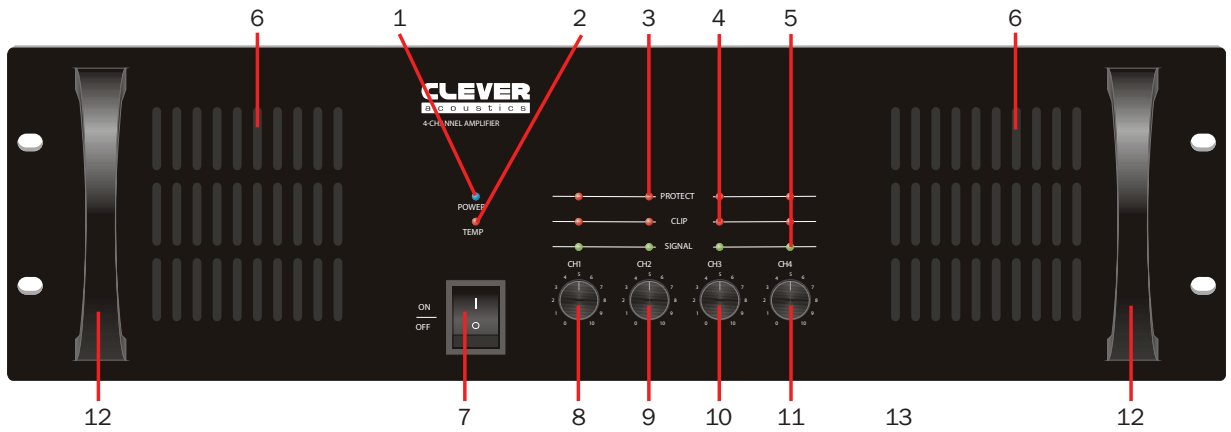


Layout identification:

**SL 4060
& SL 4120**



SL 4240



- 01 - Power LED
- 02 - TEMP LED
- 03 - PROT LED
- 04 - CLIP LED
- 05 - SIGNAL LED
- 06 - Fan vent
- 07 - On/off power switch

- 08 - CH1 volume control
- 09 - CH2 volume control
- 10 - CH3 volume control
- 11 - CH4 volume control
- 12 - Carry handles
- 13 - Fan vent
- 14 - Power input
- 15 - Mains fuse

- 16 - CH1 loudspeaker output terminals
- 17 - CH2 loudspeaker output terminals
- 18 - CH3 loudspeaker output terminals
- 19 - CH4 loudspeaker output terminals
- 20 - CH1 XLR signal input
- 21 - CH2 XLR signal input
- 22 - CH3 XLR signal input
- 23 - CH4 XLR signal input

Layout identification:**1. Power LED:**

This LED will illuminate once the amplifier is switched on and is ready for use.

2. TEMP LED:

Temperature LED will illuminate when overheating. Switch off the amplifier and leave to cool down.

3. PROT LED:

This LED will illuminate when the unit goes into protect mode. Switch off the amplifier and check the output connections for faults or short circuits before powering on and resuming operation.

4. Clip LED:

This LED will flash when the output signal starts to distort. At this point turn the master volume anti-clockwise to prevent damage.

5. Signal LED:

This LED will light up when signal is being received.

6. Fan vent:

Do not obstruct, keep clear of dust.

7. ON/OFF power switch:

Use the switch to power the unit on or off.

8. CH1 volume control:

Use this control to increase or decrease the volume of channel 1.

9. CH2 volume control:

Use this control to increase or decrease the volume of channel 2.

10. CH3 volume control:

Use this control to increase or decrease the volume of channel 3.

11. CH4 volume control:

Use this control to increase or decrease the volume of channel 4.

12. Carry handles:

12. Carry handles

13. Fan vent:

Do not obstruct, keep clear of dust.

14. Power input:

240V 50Hz.

15. Mains fuse:

If the mains fuse requires replacement, use the same type and value as originally supplied.

16. CH1 loudspeaker output terminals:

Connectors for 4-16Ω or 70V and 100V speakers.

17. CH2 loudspeaker output terminals:

Connectors for 4-16Ω or 70V and 100V speakers.

18. CH3 loudspeaker output terminals:

Connectors for 4-16Ω or 70V and 100V speakers.

19. CH4 loudspeaker output terminals:

Connectors for 4-16Ω or 70V and 100V speakers.

20. CH1 XLR signal input:

Balanced line level signal input from mixer amplifiers.

21. CH12 XLR signal input:

Balanced line level signal input from mixer amplifiers.

22. CH3 XLR signal input:

Balanced line level signal input from mixer amplifiers.

23. CH4 XLR signal input:

Balanced line level signal input from mixer amplifiers.

Rack installation

The SL Series are rack mountable. The rack you use should be a double door rack where you can open the front and rear panel. When mounting the amplifier into the rack, please make sure that there is enough space around the amplifier for the clear flow of cool air and the exhaust of hot air.

Be careful when mounting the amplifier into the rack. Put the heaviest products into the lower part of the rack. Be aware that fastening the amplifier with four screws on the front panel is not sufficient to absorb impact from road transit vibrations, additional support may be required.

Inputs

Short cables runs improve the sound quality remarkably. Input cables should be short and direct, since high frequencies will mostly be absorbed if the cables are unnecessarily long. Besides that a longer cable may lead to humming and noise problems. If the cable runs are unavoidable, you should use balanced cables.

Outputs

The high damping factor of your amplifier supplies a clear sound reproduction. Unnecessarily long and thin cables used for low impedance (4-16Ω) speakers will influence the damping factor and thus the low frequencies in a negative way.

Connect your speaker systems via the speaker terminals (COM = -VE)

Examples: 1) COM + 4-16Ω
 2) COM + 70V
 3) COM + 100V

Note: Please do not use more than one pair of output terminals

Connections To The Mains

Before connecting the amplifier to the local mains voltage outlet should be checked to ensure the available supply is 240V~AC 50Hz. This product is CLASS1 and requires a protective mains earth to be connected at all times. DO NOT remove or disconnect the earth.

Power On/Off Procedure

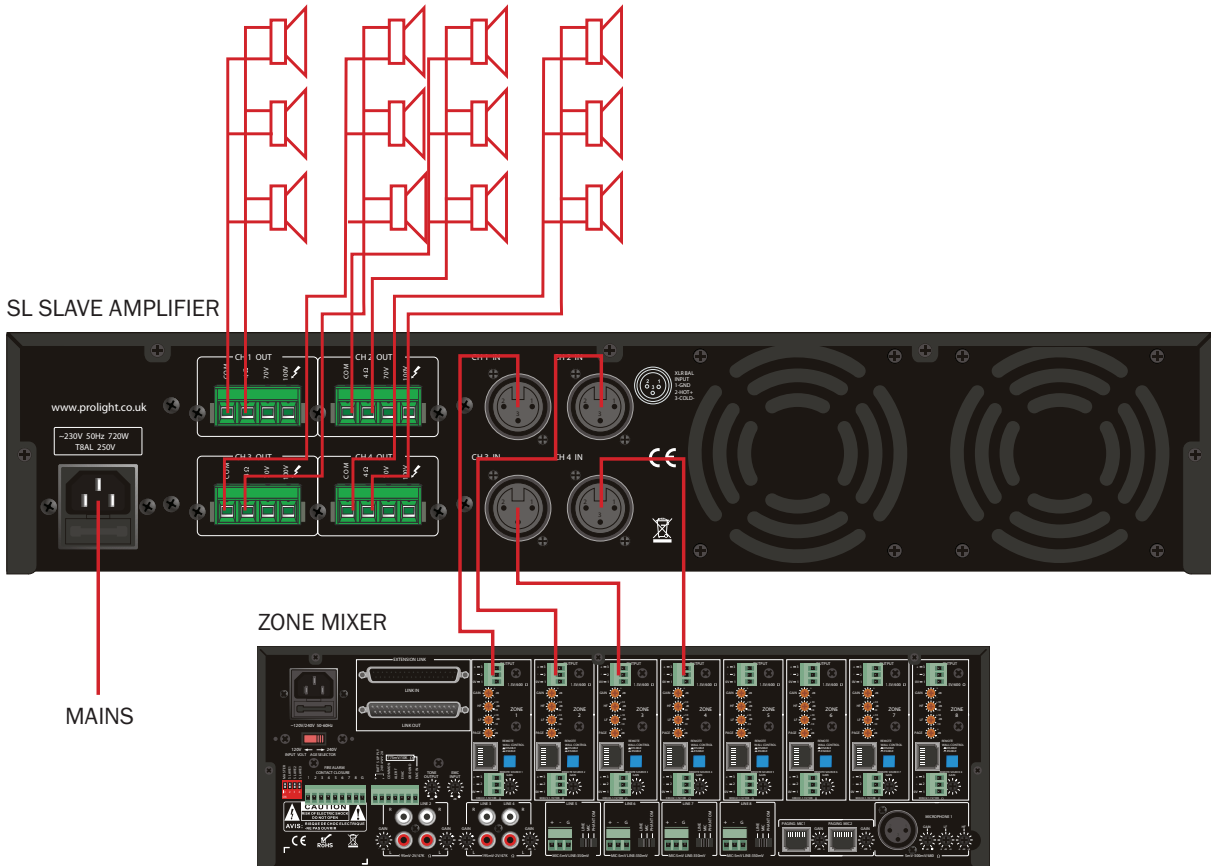
After connecting your amplifier to the mains, turn all controls counter clockwise to the “min” position. Turn on audio sources (MP3 players, CD players, Microphones etc) before powering the amplifier ON. The last product to be switched on is the amplifier.

If you wish to power off the system, turn the amplifier’s master volume control counter clockwise to the “min” position before switching the amplifier OFF before any audio sources are switched off. By following this procedure it will prevent acoustic shocks to the speakers or potential damage to system components.

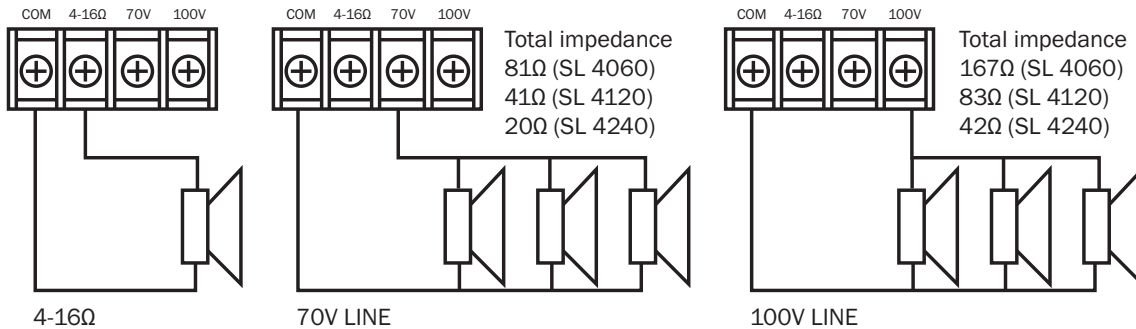
Operation

1. After connecting all audio source and powering on the power amplifier, adjust the and the master volume.
2. The Clever Acoustics amplifier features output signal LED with PEAK indication. Should the PEAK indicator illuminate (flashing) the output of the amplifier is too high, turn the master volume anti-clockwise to reduce the output.
3. The Clever Acoustics amplifier all features protection with LED indication. Should the PROTECT indicator illuminate, turn the master volume control anti-clockwise fully and switch off the amplifier for 15 seconds as the amplifier may have entered PROTECT mode temporarily due to a peak signal, care should then be taken to ensure all input levels are set correctly. If the amplifier persists to enter PROTECT mode the amplifier should be switched off and left to cool for 5-10 minutes before switching back on. If the PROTECT indicator remains lit this indicates a problem with the amplifier or amplifier load (ie Short Circuit).
4. Speaker & Amplifier systems can produce high sound pressure levels, please operate all controls with caution to ensure people are not exposed to excessive or dangerous sound pressure levels.

Panel connections:




Speaker connections:



Notes:

- Both the 4 - 16Ω, 70V and 100V terminals cannot be used at the same time.
- Impedances indicated in the figures represent the total speaker system (load) impedances. Loads presented to the amplifier must be equal to or greater than listed above. Speaker impedances must be measured using a true impedance meter, do not standard multimeters.



WARNING!
BE SURE TO ATTACH THE SUPPLIED TERMINAL COVER ATTACHED AFTER CONNECTION. BECAUSE HIGH VOLTAGE IS APPLIED TO THE SPEAKER TERMINALS, CARE SHOULD BE TAKEN NEVER TOUCH THESE TERMINALS TO AVOID ELECTRIC SHOCK.
ALL SPEAKER CONNECTIONS SHOULD BE MADE USING BARE WIRE OR SUITABLE INSULATED CRIMP TERMINALS. PLEASE ENSURE NO LOOSE STRANDS ARE PRESENT AS THESE MAY SHORT ACROSS TERMINALS CAUSING DAMAGE TO THE AMPLIFIER.



***Correct Disposal of this Product
(Waste Electrical & Electronic Equipment)***

**(Applicable in the European Union and other European countries
with separate collection systems)**

This marking shown on the product or its literature, indicates that it should not be disposed with other household wastes at the end of its working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate this from other types of wastes and recycle it responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take this item for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product should not be mixed with other commercial wastes for disposal.

