

PL SERIES

DIGITAL POWER AMPLIFIERS

Order ref: 172.232UK, 172.238UK

User Manual





Caution: Please read this manual carefully before operating
Damage caused by misuse is not covered by the warranty

Features

- Class H, 2-step architecture
- Compact and light weight
- High efficiency, high output
- Independent dual-level clip limiters
- Independent dual-level high-pass filters
- Stereo, Parallel or Bridge Mono modes
- Fully balanced signal path
- Dual fan cooling
- Soft-start on power up
- Multi-level system protection

Introduction:

Thank you for choosing this Citronic Powerlite amplifier. This product has been designed to exacting standards to provide accurate, immediate high power on demand whilst remaining very lightweight and compact for easy portability. The class H architecture and innate protection circuitry are designed to provide reliable service for many years. Please, however, read and follow these instructions to attain the best performance from this amplifier and avoid mis-use through incorrect operation.

Warning:

To prevent the risk of fire or electric shock, do not expose any of the components to rain or moisture. If liquids are spilled on the casing, stop using immediately, allow unit to dry out and have checked by qualified personnel before further use.

Avoid impact, extreme pressure or heavy vibration to the case

No user serviceable parts inside – Do not open the case – refer all servicing to qualified service personnel.

Safety

- Check for correct mains voltage and condition of IEC lead before connecting to power outlet.
- Ensure speaker leads are good condition with no short connections or damaged plugs
- Check impedance of speaker loads do not exceed the minimum stated load for the amplifier
- Do not allow any foreign objects to enter the case or through the ventilation grilles.

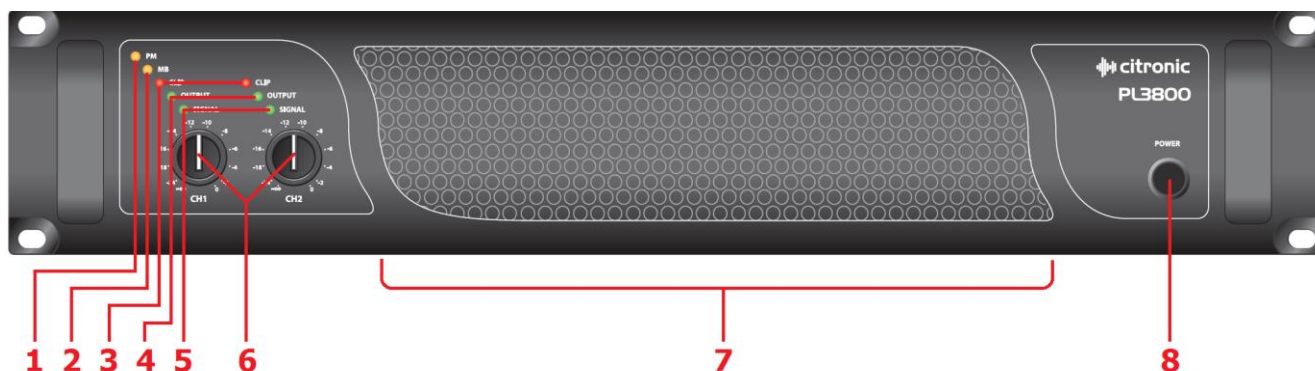
Placement

- Keep out of direct sunlight and away from heat sources.
- Keep away from damp or dusty environments.
- When rack-mounting, ensure adequate support for the base of the amplifier and firm fixings for the front.
- Ensure adequate air-flow and do not cover cooling vents at the front and rear of the amplifier
- Ensure adequate access to controls and connections

Cleaning

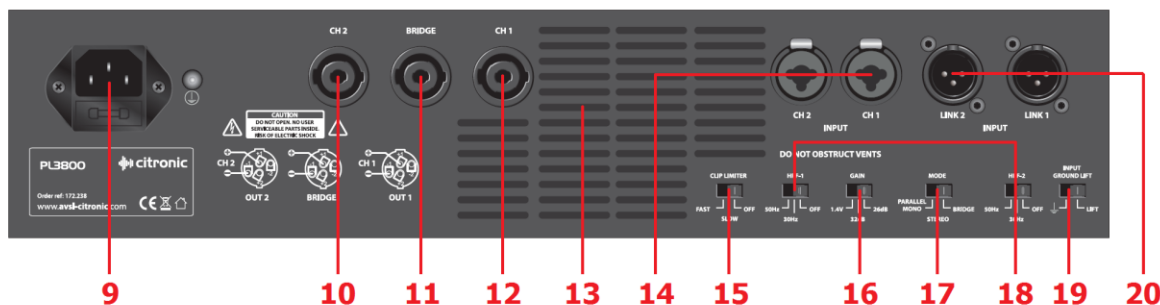
- Use a soft cloth with a neutral detergent to clean the casing as required
- Use a vacuum cleaner to clear ventilation grilles of any dust or debris build-ups
- Do not use strong solvents for cleaning the unit.

Front Panel



- | | |
|-----------------------------------|-------------------------------|
| 10. PM Parallel Mode indicator | 5. SIGNAL indicators |
| 11. BM Bridge Mono mode indicator | 6. CH1 and CH2 level controls |
| 12. CLIP indicators | 7. Cooling vent |
| 13. OUTPUT indicators | 8. POWER switch |

Rear Panel



- | | |
|---------------------------------------|--|
| 9. Mains inlet - IEC | 15. CLIP LIMITER switch |
| 10. CH2 output | 16. GAIN input level selector |
| 11. Bridge mono output | 17. MODE switch (Parallel/Stereo/Bridge) |
| 12. CH1 output | 18. CH1 and CH2 High Pass Filters (HPF) |
| 13. Cooling vent | 19. GROUND LIFT switch |
| 14. Combo signal inputs (XLR or jack) | 20. Signal line outputs (XLR) |

Operation

Connect speaker cabinets to channel outputs using good quality leads and ensuring that the combined load on each channel is no lower than 4Ω (for speaker loads connected from one to another, $8\Omega + 8\Omega = 4\Omega$).

Connect the left and right signal input from mixer or other line level source via the combo connectors on the rear panel using good quality 6.3mm jack or XLR leads. If the signal is to be cascaded onto other amplifiers, connect these via the XLR line level outputs.

Connect the amplifier to the mains outlet, making sure that the IEC lead is in good condition and connected securely. For extra protection of speakers and amplifier, the CLIP LIMITER may be switched in to help prevent overload.

In some extreme cases, the operation of the clip limiter can be obtrusive. In these cases, disable the clip limiter and use a dedicated compressor/limiter to control the high dynamics.

If the amplifier is not driving sub cabinets or is driving cabinets which cannot produce very low frequencies, the High Pass Filters (HPF) may be switched in to avoid excessively low frequencies, which will not be able to be reproduced and thus dissipate as heat, reducing efficiency. Settings for 30Hz and 50Hz are available.

Select the GAIN level of the input signals (standard is 26dB – may also be used to curtail the input level)

Select the mode in which the amplifier is to be used...

- PARALLEL MODE sums both left and right input signals together and feeds the mono signal to both amplifier outputs. This is useful when driving sub cabinets (which, in arrays, benefit from working together in mono) and when each channel is powering speakers in different areas (avoiding one area hearing only left output and the other only right). An LED ("PM") shows when this mode is engaged

- STEREO is the normal mode of operation where each input is delivered to each output independently
- BRIDGE mode couples both amplifier sections together to deliver the full rated power to a single output. The minimum impedance is 8Ω in this mode. An LED ("BM") shows when this mode is engaged

The GROUND LIFT switch disconnects signal ground (or "earth") from mains ground. In certain cases, it may help to alleviate mains hum – otherwise, leave ground connected to mains ground.

With CH1 and CH2 level controls turned fully down, switch on the power to the amplifier. This product has a "soft-start" function which makes some checks before engaging power to the amplifiers, which may take a few seconds.

With mixer (or other signal source) levels turned down, gradually increase the amplifier's CH1 and CH2 level controls to the required level (normally full) and then gradually increase the signal level from the mixer until sound can be heard through the speakers and then up to the required level.

During use, the LED indicators will show if a signal is present, if half output is being produced and if the output is reaching clip level. If the red CLIP LEDs illuminate more than very briefly, reduce the volume until they hardly light at all.

If the internal protection circuitry detects a fault in the speakers or amp, the amplifier will enter Protect Mode and the OUTPUT LED(s) will illuminate on the front panel to show this. Switch the amplifier off and check the entire system (including leads) before powering up again. If still in Protect Mode, seek advice from qualified service personnel.

Before powering down, turn CH1 and CH2 level controls fully down to avoid loud noises when switching off.

Specifications

	PL3200	PL3800
Power supply	230Vac 50/60Hz (IEC, 15A max.)	
Output: RMS @ 4Ω	2 x 1600W	2 x 1900W
Output: RMS @ 8Ω	2 x 915W	2 x 1100W
Bridge power: RMS @ 8Ω	3200W	3800W
Input impedance	20kΩ	
Output circuit architecture	Class H, 2-step	
Frequency response	5Hz – 50kHz	
S/N ratio	>111dB	>112dB
THD	0.05%	
Circuit protection	Short-circuit, DC, overload, soft-start	
Dimensions	88 x 483 x 389mm	
Weight	10.5kg	

Troubleshooting

No power light on front panel switch	Ensure IEC is connected to mains and mains is on and lead is in good condition
Power light is on but no other LEDs and not output	Check input signal and connection leads
	Ensure CH1 and CH2 level controls are not turned fully down
Power light and Signal LEDs are lit but no output	Check speaker cabinets are not blown and are in good working order
	Check speaker leads are in good condition and connected properly
OUTPUT LED is continuously lit and there is no output	Switch off and disconnect from mains
	Check speakers are in good working order and not shorted (using a multi-tester)
	If still in Protect Mode, switch off again and refer to qualified service personnel
Output is very distorted and "CLIP" LEDs are lighting	Check speaker impedance is not below rated Ohms
	Turn down Input level from audio source
	Switch GAIN at rear to a lower level
	Turn down CH1 and CH2 level controls
Output is working but at very low level	Ensure input source is at line level
	Increase input level from audio source
	Turn up CH1 and CH2 level controls
	Switch GAIN at rear to a higher level



Disposal: The "Crossed Wheelie Bin" symbol on the product means that the product is classed as Electrical or Electronic equipment and should not be disposed with other household or commercial waste at the end of its useful life. The goods must be disposed of according to your local council guidelines.

*Errors and omissions excepted.
Copyright© 2013. AVSL Group Ltd.*