

CITRONIC®

PLX-series Low Impedance Amplifiers

PLX2000 (172.214)

PLX2800 (172.216)

PLX3600 (172.218)

User Manual



Features:

- High power linear amplifiers
- 2U rack-mount case
- Stable down to 2Ω loads
- Independent clipping compressors
- 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

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Introduction:

Thank you for choosing this Citronic PLX 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.

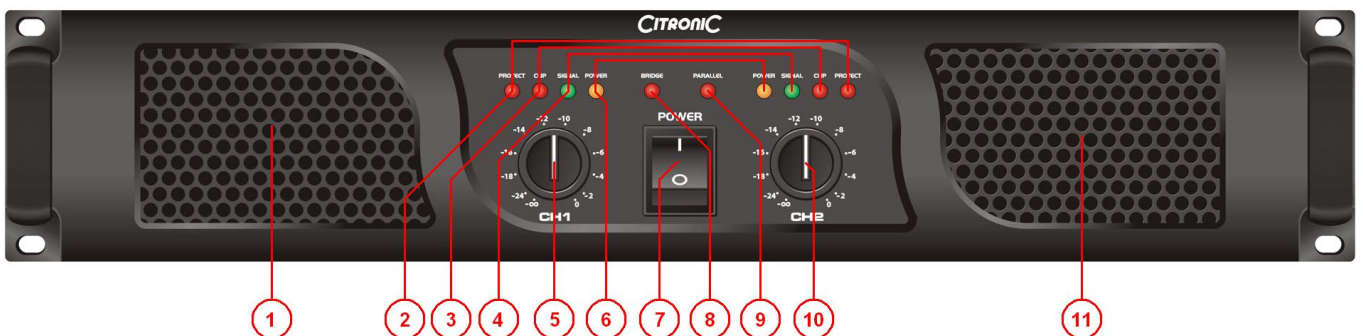
Placement

- 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.

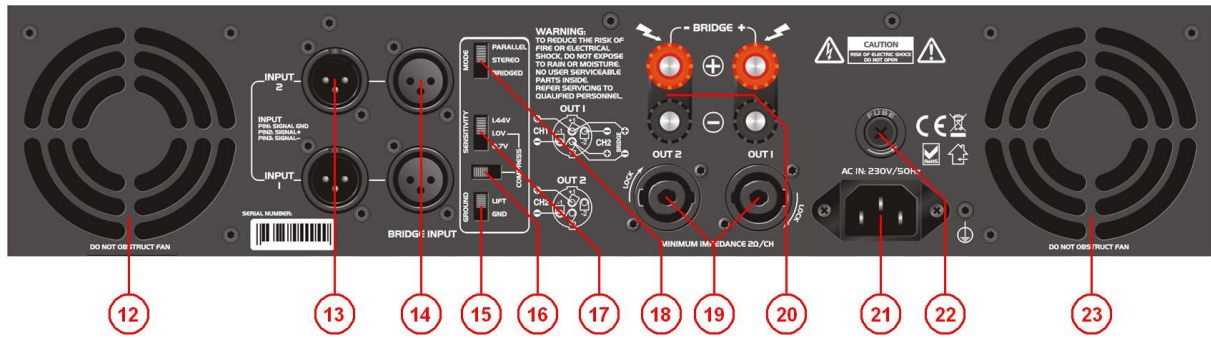
Front Panel



19. Cooling vent
20. PROTECT LEDs
21. CLIP LEDs
22. SIGNAL LEDs
23. CH1 Gain control
24. POWER LEDs

24. POWER switch
25. BRIDGE LED
26. PARALLEL LED
27. CH2 Gain control
28. Cooling vent

Rear Panel



12. Cooling vent

13. Parallel Signal Outs

14. Signal Inputs

15. GROUND LIFT switch

16. Clipping COMPRESS switch

17. Input SENSITIVITY switch

18. PARALLEL/STEREO/BRIDGE mode switch

19. Speaker outputs OUT 1 & OUT 2

20. 4mm binding post speaker outputs

21. IEC mains inlet

22. Mains fuse holder

23. Cooling vent

Operation

Connect speaker cabinets to channel outputs using good quality leads and ensuring that the combined load on each channel is no lower than 2Ω (for speaker loads connected from one to another, $4\Omega + 4\Omega = 2\Omega$... or even... $8\Omega + 8\Omega + 8\Omega + 8\Omega = 2\Omega$).

Connect the left and right signal input from mixer or other line level source via the XLR connectors on the rear panel using good quality XLR leads.

If the signal is to be cascaded onto other amplifiers, connect these via the XLR line parallel signal outputs. These are simply connected in parallel together with the relative inputs.

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 COMPRESS switch may be switched in to help prevent overload. In some extreme cases, the operation of this compressor/limiter can be obtrusive. In these cases, turn off the COMPRESS switch and use a dedicated compressor/limiter to control the high dynamics.

Select the SENSITIVITY of the amplifier inputs – 0.7V is standard line level, 1.0V is quieter and 1.4V is quieter still for higher level input signals, which may otherwise cause the amplifier to overdrive

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

- PARALLEL 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 (“PARALLEL”) 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 4Ω in this mode. An LED (“BRIDGE”) 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 gain 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 yellow to show that the channel is on, green if a signal is present and red if the output is reaching clip level. If the red CLIP LEDs illuminate more than very briefly, reduce the volume until they hardly light up at all.

If the internal protection circuitry detects a fault in the speakers or amp, the channel(s) will enter Protect Mode and a red "PROTECT" LED 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 gain controls fully down to avoid loud noises when switching off.

SPECIFICATIONS			
	PLX2000	PL2800	PL3600
Power supply	230Vac 50/60Hz (IEC, 15A max.)		
Output: RMS @ 2Ω	2 x 1000W	2 x 1400W	2 x 1800W
Output: RMS @ 4Ω	2 x 700W	2 x 1050W	2 x 1350W
Output: RMS @ 8Ω	2 x 400W	2 x 600W	2 x 800W
Bridge power: RMS @ 4Ω	1700W	2300W	2900W
Bridge power: RMS @ 8Ω	1250W	1750W	2300W
Input impedance	20kΩ		
Frequency response	5Hz – 50kHz		
S/N ratio	>105dB		
THD	0.05%		
Circuit protection	Short-circuit, DC, Overload, Boot-strap short test		
Dimensions	88 x 482 x 453mm		
Weight	22.5kg	25.0kg	26.0kg

Troubleshooting

No power light on front panel switch	Ensure IEC is connected to mains and mains lead is in good condition
	Ensure mains outlet is switched on
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
"PM" (Protect Mode) LED is lit and there is no output	Switch off and disconnect from mains
	Check speakers are in good working order and not shorted out (using a multi-tester)
	After checking all connected items, power up again
	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 SENSITIVITY at rear to a higher voltage
Output is working but at very low level	Turn down CH1 and CH2 level controls
	Ensure input source is at line level
	Increase input level from audio source
	Turn up CH1 and CH2 level controls
	Switch SENSITIVITY at rear to a lower voltage

Note: for further troubleshooting, refer equipment to qualified service personnel for testing