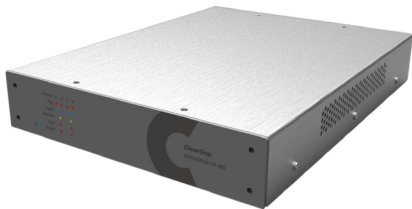


ClearOne®

CONVERGE® PA 460 Professional Power Audio Amplifier

Quick-Start Guide



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CONVERGE PA 460 amplifier is a 4 Channel x 60 Watts, high-efficiency Class-D power audio amplifier for reliable amplification with professional sound quality for conferencing, sound reinforcement, and distribution applications. The amplifier is optimized to work with ClearOne's DSP mixers, and it also works with any third-party mixers.

SAFETY INFORMATION

1. Read and follow all instructions.
2. Keep these instructions.
3. Install in accordance with the manufacturer's instructions.
4. Do not use this apparatus near water.
5. To reduce risks of fire or electric shock, do not expose this apparatus to rain or moisture.
6. Clean only with a dry cloth.
7. Do not block any ventilation openings.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other devices (including amplifiers) that produce heat.
9. This appliance has a polarized plug (one blade is wider than the other). To reduce the risk of electric shock, this plug is intended to fit into a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not attempt to modify the plug in any way.
10. Protect the power cord from being walked on or pinched, particularly at the plugs and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, including but not limited to when the power cord or plug is damaged, liquid has been spilled on or into the apparatus, objects have fallen into the apparatus, or when the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. Plug this apparatus to a proper AC outlet and make it easily accessible for unplugging.
15. If you need to unplug the power supply, be sure to disconnect it completely.
16. Be sure to connect the apparatus to a three-prong, grounded AC outlet.

WARNING!

TO PREVENT FIRE OR SHOCK HAZARD, DO NOT USE THE PLUG WITH AN EXTENSION CORD, RECEPTACLE, OR OTHER OUTLET UNLESS THE BLADES CAN BE FULLY INSERTED TO PREVENT BLADE EXPOSURE.

TO PREVENT ELECTRICAL SHOCK, MATCH WIDE BLADE PLUG TO WIDE SLOT AND FULLY INSERT.

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WARNING: TO PREVENT FIRE OR ELECTRICAL SHOCK HAZARD, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

CAUTION

RISK OF ELECTRIC SHOCK
DO NOT OPEN

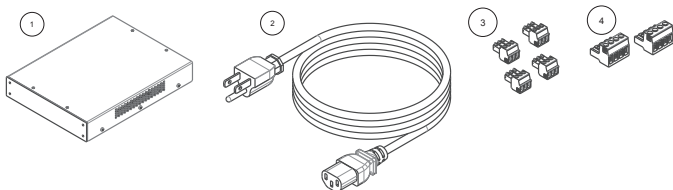
WARNING: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

UNPACKING

Use the illustrations below to verify that you have received the following components. Inspect your shipment carefully. If the shipment shows obvious signs of damage, retain original boxes and packing material for inspection by the carrier, and contact them immediately. ClearOne is not responsible for product damage incurred during shipment.



Item No.	Description	Quantity
1	CONVERGE PA 460	1
2	6' Power Cord (Black)	1
3	3.50mm Terminal Block Euroblock Connector, 3 pos. (Green)	4
4	5.08mm Terminal Block Connector, 4 pos.	2



Power LED Indicator

Clip LED Indicator
Signal LED Indicator
Standby LED Indicator
Limit LED Indicator
Protect LED Indicator

1. CLIP

A red light indicates when the input is at ~ 0 dBu and signal clip is on. There are Clip indicators for each of the four channels.

2. SIGNAL PRESENT

A blue light indicates when a signal has been detected. There are Signal Present indicators for each of the four channels.

3. STANDBY

A yellow light indicates when no signal is present for 10 minutes in a pair of channels, and enters Standby mode.

4. LIMIT

A red light indicates that gain reduction has been activated. There is a Limit indicator per pair of channels.

5. PROTECT/DISABLE

A red light indicates an inner working temperature of over 185°F (85°C), or 2 minutes of no present audio signal in a pair of channels. A channel pair is muted (no audio signal passes) when entering this mode. Ambient temperature is 14°F to 104°F* (-10°C to 40°C*). Drop the temperature $\sim 5^\circ\text{C}$ for a minimum of 10 seconds to re-enable channels.

* Operating this product at its maximum rated output power and its maximum rated ambient operating temperature for extended periods of time may cause reduced output power until the temperature or output power is reduced.

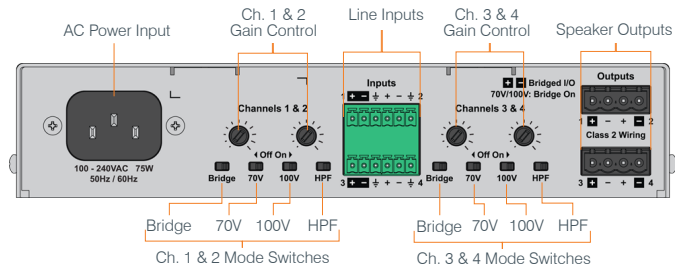
CONVERGE PA 460 AMPLIFIER

6. POWER

A blue power indicator light turns on when the unit is powered.

Function	LED ON Color	Indicator Details	Per Channel Indicator	Per Pair of Channels Indicator
Clip	Red	Signal clip, peak detected	YES	-
Signal	Blue	Audio signal present	YES	-
Standby	Yellow	Audio signal not present for 10 minutes	-	YES
Limit	Red	Gain reduction activated	-	YES
Protect	Red	Mute – Audio signal not present for 2 minutes ~85°C High temperature	-	YES
Power	Blue	Powered on	-	-

BACK PANEL



1. AC POWER INPUT

Input for the 110V to 240V AC Power Adapter.

2. LINE INPUTS

Four Phoenix Euroblock line input channels support balanced input.

3. SPEAKER OUTPUTS

Four Phoenix Euroblock speaker output channels can be connected to either high-voltage speakers (70V/100V) or 4/8Ω line speakers, depending on which wires you connect.

WARNING: Never connect the negative terminal to the positive terminal. Doing so can trigger the short circuit protection.

WARNING: Do not mix 4/8Ω with 70V/100V speakers on the same output channel. Doing so could damage your speakers.

WARNING: Never connect 4/8Ω speakers to 70V/100V connectors. Doing so will produce heavy distortion and may damage speakers.

- **70V/100V modes should only be used in bridged mode for 2 channels maximum**, connecting the positive speaker wire to the positive output connector and the negative speaker wire to the negative output connector. Slide the appropriate (70V or 100V) mode switch.
- **4/8Ω modes can be used for 2-or 4-channel configurations**, connecting the positive speaker wire to the positive output connector and the negative speaker wire to the COM output connector.

4. BRIDGE MODE SWITCH

Bridge Mode combines a pair of channels into one with twice the voltage, and can be enabled or disabled with a switch for each pair of channels.

5. 70V MODE SWITCH

Set the output voltage for a pair of channels when connecting speakers to high-voltage, positive and negative 70V connectors.

6. 100V MODE SWITCH

Set the output voltage for a pair of channels when connecting speakers to high-voltage, positive and negative 100V connectors.

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CH 1 In	CH 2 In	Bridge 1&2	70V	100V	CH 1 Out (W)	CH 2 Out (W)
✓	✓	Off	Off	Off	4- 8 Ω / 60W	4- 8 Ω / 60W
N/A	N/A	Off	On	Off	N/A	N/A
N/A	N/A	Off	Off	On	N/A	N/A
✓	N/A	On	Off	Off	4- 8 Ω / 120W	
✓	N/A	On	On	Off	70V / 120W	
✓	N/A	On	Off	On	100V / 120W	
N/A	N/A	On	On	On	N/A	
CH 3 In	CH 4 In	Bridge 3&4	70V	100V	CH 3 Out (W)	CH 4 Out (W)
✓	✓	Off	Off	Off	4- 8 Ω / 60W	4- 8 Ω / 60W
N/A	N/A	Off	On	Off	N/A	N/A
N/A	N/A	Off	Off	On	N/A	N/A
✓	N/A	On	Off	Off	4- 8 Ω / 120W	
✓	N/A	On	On	Off	70V / 120W	
✓	N/A	On	Off	On	100V / 120W	
N/A	N/A	On	On	On	N/A	

7. HIGH PASS FILTER (HPF) MODE SWITCH

The 80Hz high pass filter function can be enabled or disabled with a switch for each pair of channels.

8. GAIN CONTROL

Four separate Gain Control switches can be used to adjust input gain for each channel, from -30dB to 0dB.

QUICK-START GUIDE

Potentiometer Position	Max Input	Output power with 0 dBu input (60W output mode)	Output power with 0 dBu input (120W output mode)
10	0 dBu	60W	120W
9	+1 dBu	49W	98W
8	+5 dBu	22W	44W
7	+8 dBu	10W	20W
6	+12 dBu	4W	8W
5	+16 dBu	2W	4W
4	+18 dBu	1W	2W
3	+21 dBu	550mW	1.1W
2	+26 dBu	218mW	436mW
1	+35 dBu	27mW	54mW
0	mute	mute	mute



MOUNTING

Mount up to two units in a 1 RU rack mounting kit. See below configurations in Rack Mounting Kit (910-3200-402):

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SKUs

Part Number	Product Name
910-3200-401	CONVERGE PA 460
910-3200-402	Mounting Kit for CONVERGE PA 460
930-3200-401-1	Bundle: Qty 1 CONVERGE PA 460 Amplifier unit with Qty 1 Rack Mounting Kit
930-3200-401-2	Bundle: Qty 2 CONVERGE PA 460 Amplifier units with Qty 1 Rack Mounting Kit

COMPLIANCE

Details on compliance can be found on the ClearOne website under "Resource Library".

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