



CZA-1300 AMPLIFIER MANUAL

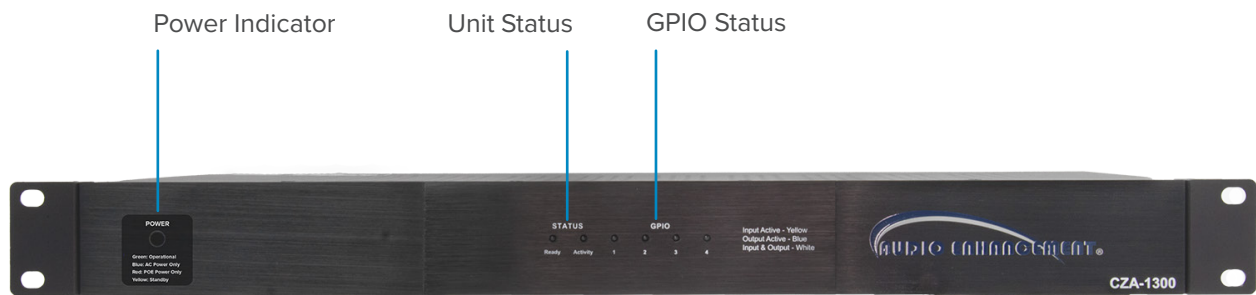
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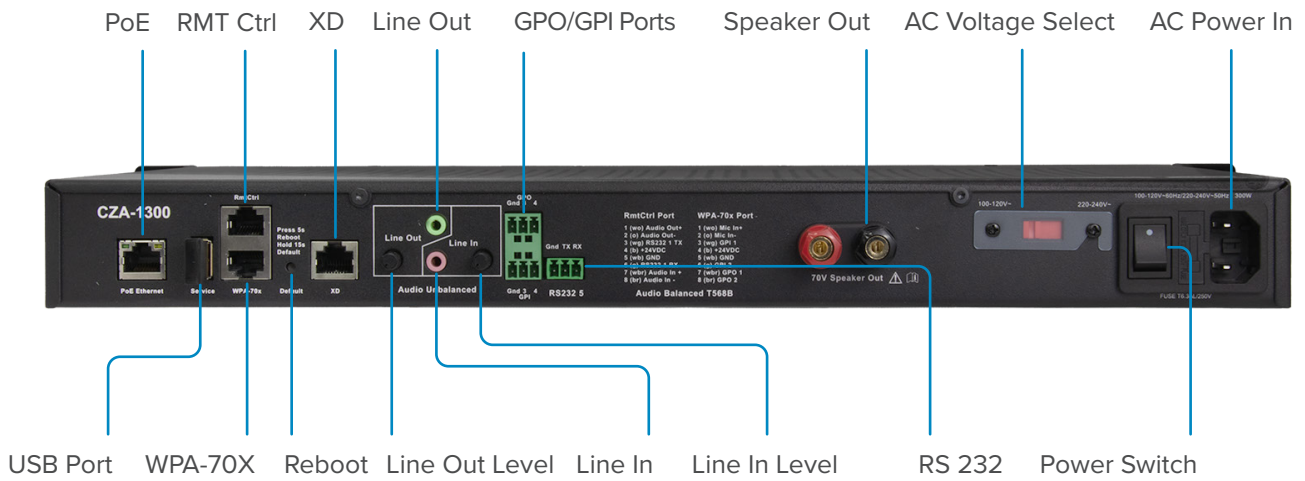
OVERVIEW

The **CZA-1300 Amplifier** is a fully integrated 70 Volt amplifier designed to integrate seamlessly with the EPIC (Education Paging & Intercom Communications) System® and provide audio in large areas like cafeterias, gymnasiums, and hallways. When used in conjunction with an Uninterrupted Power Supply (UPS) during emergencies, paging can still be heard. This unit can be installed as part of the SAFE (Signal Alert For Education) System®. It can also be connected to an XD Receiver and used as an intercom for full duplex audio.

SPECIFICATIONS



Front



Back

CZA-1300 Amplifier

LED Information	<p>Power</p> <ul style="list-style-type: none"> Green - Powered On Blue - AC Power Only Red - PoE Power Only Yellow - Standby <p>GPIO (General Purpose I/O)</p> <ul style="list-style-type: none"> Yellow - Input Active Blue - Output Active White - Input & Output Active <p>Activity Status</p> <ul style="list-style-type: none"> Off - No Active Event Red - Active Event
Line Inputs	<p>For PC, DVD audio, MP3, auxiliary mic, or other multimedia sources</p> <ul style="list-style-type: none"> (1) Unbalanced inputs (3.5 mm) (1) Microphone Input (2) Balanced inputs RJ45 connectors Internal Network Audio
Input Sensitivity	780 mV
Output Power	(3) 24 V RJ45 connectors
Line Outputs	<ul style="list-style-type: none"> (1) Unbalanced (3.5 mm) output (1) Balanced line outputs (RJ45 connectors)
USB	Control and configuration via software. BLE Dongle for easy setup
Speaker Outputs	70 V Speakers
Amplifier Type	92% Efficient Class D
Continuous Power @ 1% THD	300 W
S/N	>89 dB @ 20 Hz - 20 kHz at maximum output
Minimum Impedance Load	16 Ω
Protection Circuits	Thermal and short circuit protected
Control Port	<ul style="list-style-type: none"> (1) RS-232 communication ports to facilitate SAFE System communications or used to control another device such as a projector (1) RMT CTRL Ports: for integration with LCD ITC wall plate control, RJ45 (1) WPA Port, RJ45 (1) GPO port, 3 pin Phoenix (1) GPI port, 3 pin Phoenix
Power Supply	<p>100 V – 120 V/220 V – 240 V @ 300 W powers amplifier</p> <p>PoE (PoE 802.11 af) Powers all electronics except for the 70 V Speaker out Amplifier</p> <p>Both AC power and PoE power must be connected for the unit to operate.</p>
Controls	Power On/Off Switch (Rear Panel)
Temperature/Humidity	<p>Storage: -40 - 158° F (-40 - +70° C)/10-90% non-condensing</p> <p>Operating: -32 - 122° F (0 - +50° C)/10-90%</p>
Enclosure Type	Steel
Ethernet I/F	10/100 Mbps
Protocols	<ul style="list-style-type: none"> SIP RFC 3261 compatible UDP Directed Broadcast Multi-cast and VoIP enabled
Output Signal Amplitudes	2.0 VPP maximum
Output Level	+2 dBm nominal
Total Harmonic Distortion	THD+N: 1.20%
Weight	8.5 lbs (136 oz)
Dimensions	1.75 (H) x 19 (W) x 10 (D) in (44 x 483 x 254 mm)

FUNCTIONS

GENERAL PURPOSE IO

- (4) Discrete Inputs
- (4) Discrete Outputs

SERIAL COMMUNICATION

- (2) RS232 Connections

AUDIO

- (1) Unbalanced Audio In with level adjustment
- (3) Balanced Audio In (Remote Port and WPA Port)
- (1) Unbalanced Audio Out with level adjustment
- (1) Balanced Audio Out (Remote Port)
- (1) Amplified 70 V Speaker Audio Out (Minimum Impedance load 16 Ω)

REMOTE POWER

- (3) 24 V Out (Remote port, WPA Port and XD Port)

POWER

- PoE Ethernet – Used to drive electronics other than the Amplifier (PoE 802.11 af)
- AC Power In – Used to power the Amplifier

INTERFACES

REMOTE PORTS (RMTCTRL)

- (1) port
- Audio Out (Balanced)
- Audio In (Balanced)
- RS232
- 24 V DC

WALL PLATE AUDIO (WPA) PORT

- Connects to the WPA
 - Input 1
 - Input 2
 - Output 1
 - Output 2

IO OUTPUT PORT

- Output 3
- Output 4

IO INPUT PORT

- Input 3
- Input 4

XD

- Connects to an XD Receiver

ETHERNET

- PoE Ethernet

POWER

- Reset Button
- AC Input Power Select
- AC Power Switch

VOLUME CONTROL

- Master over the SP and Streaming Volume
- EPIC Volume Port range 0-100%

USB PORT (FOR SERVICE ONLY)

3.5MM AUDIO

- Line In (Unbalanced)
- Line Out (Unbalanced)

SPEAKER CONNECTION

- 70 V Speaker Out

LEDS

Power LED:

- Green when operational
- Red PoE power only (power cord not connected, or physical power switch on rear panel is turned off)
- Blue Amp Power, without PoE+
- Off if no power and no PoE+

Status LED:

Ready

- Red while booting and getting an IP address
- Green when connected to an Ethernet port and operational

Activity

- Red while event is active

GPIO

- Blue when the output is closed
- Yellow when the input is closed
- White when both input and output are closed
- Off when everything is open

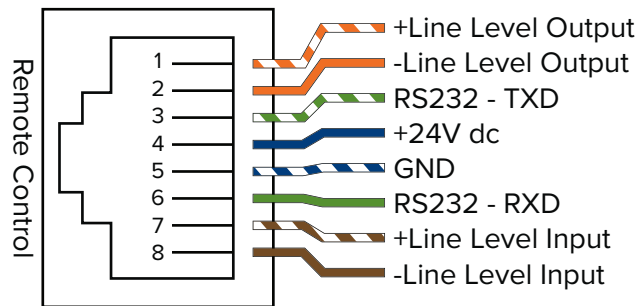
PROCESS

1. Physically install components in the room such as Speakers and/or AV Touch Wall Control.
2. Confirm dongle is connected to USB port.
3. Verify Input power is selected correctly. In the US, set to 100 V – 120 V.
4. Turn the Amplifier on by toggling the *Power Switch*. (This requires a PoE+)
5. Start EPIC System, update the firmware, and continue the setup up using the EPIC System software.

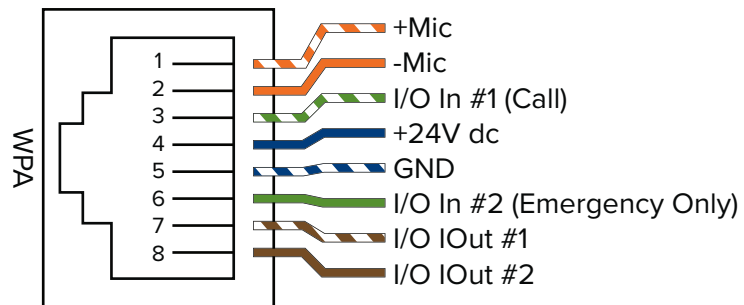
[EPIC-System-Quick-Start-Guides-Print-Combined-Version-1.5-Print.pdf \(audioenhancement.com\)](#)

CONNECTOR DETAILS

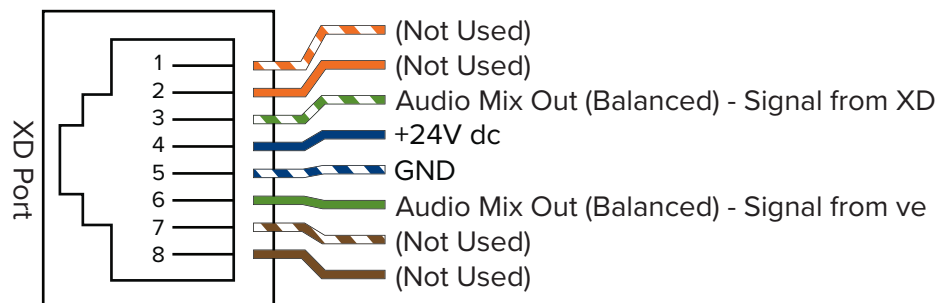
RMTCTRL PORT



WALL PLATE AUDIO



XD PORT



GPO – GENERAL PURPOSE OUTPUT

- Pin 1 – GND
- Pin 2 – GPO 3
- Pin 3 – GPO 4

GPI – GENERAL PURPOSE INPUT

- Pin 1 – GND
- Pin 2 – GPI 3
- Pin 3 – GPI 4

RS232

- Pin 1 – GND
- Pin 2 – TX
- Pin 3 – RX

CONFIGURATION

- 1.** Start EPIC System.
- 2.** Update the firmware.
- 3.** Continue setup using the EPIC System Software.

TROUBLESHOOTING

REBOOT

Press and hold the *Reboot* button for 5 seconds.

FACTORY RESET PROCEDURE

Press and hold until the *Activity Indicator* flashes green (10 seconds) and then release.

RESCUE MODE

Press and hold until the *Activity Indicator* illuminates red (15 seconds) and then release. Or disconnect PoE power, press and hold the *Reboot* button while applying PoE power.

SIP NOT CONNECTED

Verify that the SIP settings are correct on the device. Try pushing *Settings* from the *Configure* tab on EPIC System again. Pushing settings from the *Devices List* does not push SIP settings.

NO AUDIO

If there is no audio going through the speakers (bells, paging, intercom, teacher mic), check the audio output to see if there is any audio passing through there. This can be done by connecting a pair of wired headphones to the *Audio Out* of the CZA-1300 and playing audio through the CZA-1300. If you hear audio through the headphones, it is most likely not a problem with the CZA-1300 and related to the speakers or speaker wiring.

Please check to see that *AC Power* is applied and the *AC Power* Switch is activated. There is also a fuse accessible through the AC connector that should be checked.