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Ashly Amplifier User Guide

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Product Name: Ashly Power Amplifier

Ashly Amplifier User Guide

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ASTi

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Revision history

Date	Revision	Version	Comments
7/26/2019	B	0	Converted content to XML. Updated content for grammar, accuracy, and style.

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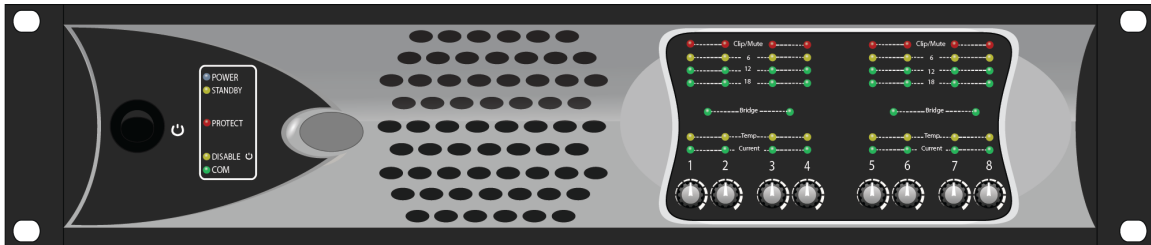
1.0 Introduction



Note: This document only pertains to Ashly Power Amplifiers and ASTi equipment. For general information about the Ashly Power Amplifier, go to Ashly.com.

The Ashly Power Amplifier drives four to eight passive audio loudspeakers. Each amplifier is a network device that integrates with ASTi's Audio Communications Environment Network (ACENet). ACENet provides a low-latency, network-based audio and I/O distribution architecture for ASTi's Telestra and Voisus platforms. The amplifier also offers a full range of indicators for accurate diagnostics. This document provides an overview of the ne8250c eight-channel amplifier.

Figure 1, "New/old Ashly Power Amplifier chassis" below shows the new versus the old Ashly Power Amplifier chassis:



Current Ashly Power Amplifier (April 2014 and later)



Old Ashly Power Amplifier (March 2014 and earlier)

Figure 1: New/old Ashly Power Amplifier chassis

1.1 Dimensions

Table 1, "Ashly Power Amplifier dimensions" below shows dimensions for ne8250c eight-channel Ashly Power Amplifiers:

Ashly Power Amplifier	Depth	Width	Height
ne8250c (black chassis)	15.5 in	19 in	3.5 in
ne8250c (black chassis)	39.4 cm	48.3 cm	8.9 cm
ne8250c (silver chassis)	16.84 in	19 in	3.5 in
ne8250c (silver chassis)	42.77 cm	48.26 cm	8.89 cm

Table 1: Ashly Power Amplifier dimensions

Figure 2, "Ashly Power Amplifier front and rear panels" below shows the Ashly Power Amplifier's front and rear panels:

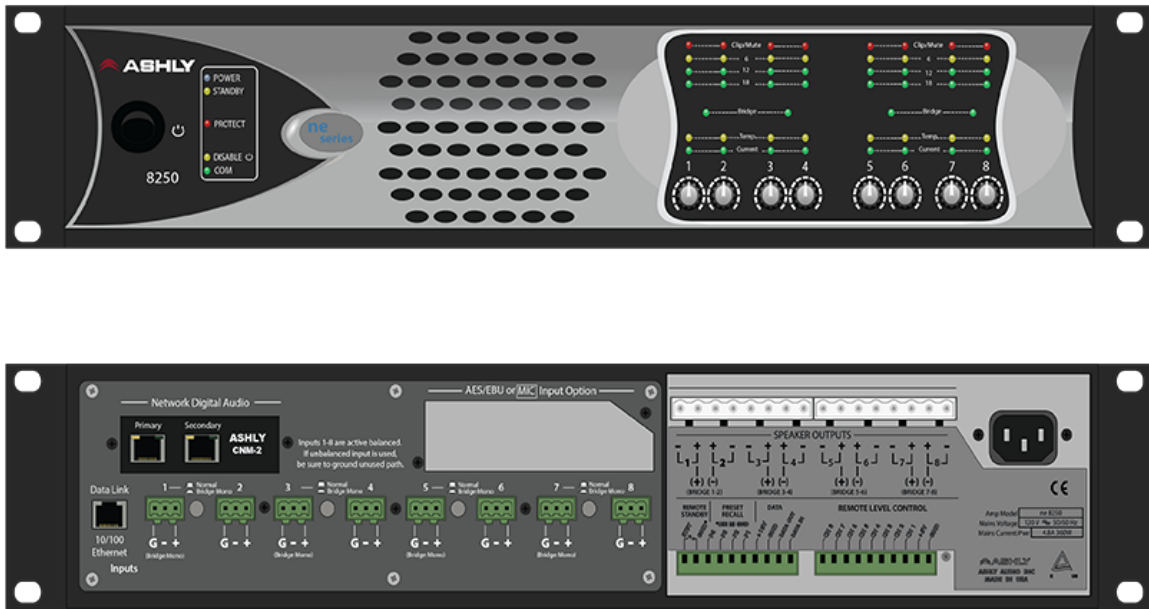


Figure 2: Ashly Power Amplifier front and rear panels

2.0 Getting started



Important: Before installation, unplug the amplifier, and turn down the channel attenuators on the front panel.

This chapter discusses the following topics:

- Cooling
- Set up an Ashly Power Amplifier

2.1 Cooling

Do not block any of the amplifier ventilation vents. When using an equipment rack, mount the units directly on top of each other. Do not block rear, front, or side air vents. The side walls of the rack should be a minimum of one inch (2.5cm) away from the amplifier sides, and the back of the rack should be open.

2.2 Set up an Ashly Power Amplifier

Figure 3, "Ashly Power Amplifier rear panel" below shows the Ashly Power Amplifier's rear panel:

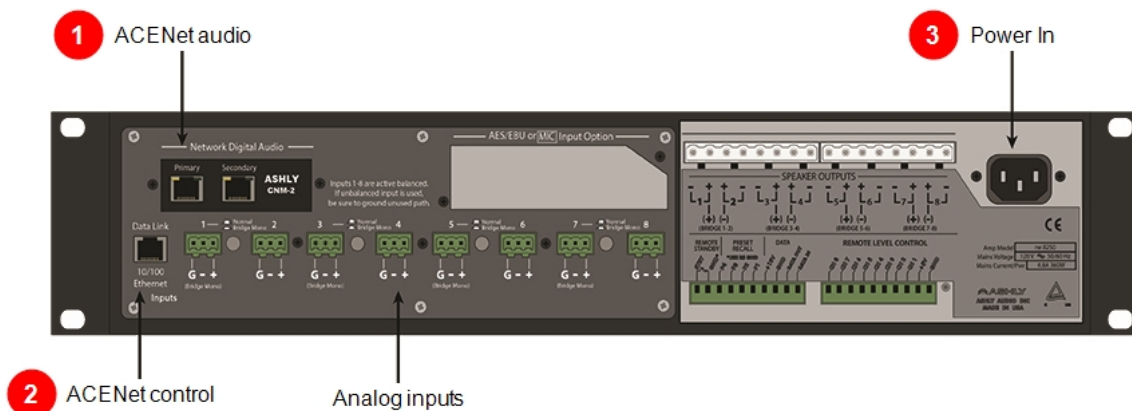


Figure 3: Ashly Power Amplifier rear panel

To set up an Ashly Power Amplifier, follow these steps:

1. Use the first or second port and a CAT5 cable to connect to the ACENet switch. Do not connect both.
2. Connect the 10/100 Ethernet port to the ACENet switch.
3. Connect the alternating current (AC) power cord.

4. On the front panel, turn the channel attenuators all the way down.
5. Turn on the Power switch. The power indicator illuminates after a short boot-up sequence.
6. After connecting the amplifier to the network, set up the amplifier on **ACENet** in the Telestra Remote Management System.



Important: *Disconnect the power cord before making any change to the installation or wiring.*

The analog input connectors are not used in the ASTi system setup.



Caution: *Do not connect or disconnect speakers or ACENet while the amplifier is on.*

3.0 General information

This chapter discusses the following topics:

- Front indicator lights
- Rear panel connections
- Front panel controls

3.1 Front indicator lights

Figure 4, "Ashly Power Amplifier front indicator lights" below shows the Ashly Power Amplifier's front indicator lights:

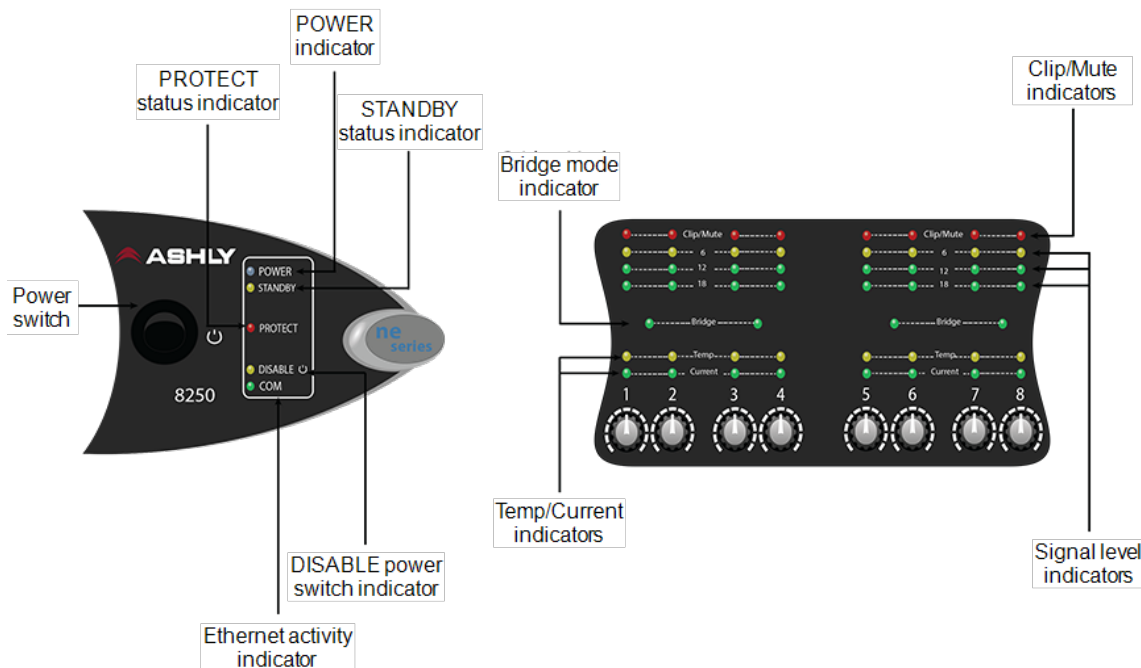


Figure 4: Ashly Power Amplifier front indicator lights

3.2 Rear panel connections

The Ashly Power Amplifier includes the following rear panel connections:

- *AC power cord connector*: standard International Electrotechnical Commission (IEC) Type 320 inlet; 120 V models are 15-amp, while 220–240 models are 10-amp. Voltage is indicated above the IEC inlet.
- *Output connector*: Two output channels per connector; Shore Technologies Inc. (P/N: OSTTJ040150).

- *Primary and secondary Ethernet connection:* connects to ASTi's ACENet, which provides low-latency, network-based audio architecture for ASTi communication and sound modeling equipment and software. For more information about this architecture and scalable distribution network, go to the [ACENet Technical User Guide](#).
- *Mode switch:* for every two channels, this switch chooses the amplifier's mode: bridge or normal. In most cases, set the mode to normal.



Important: Turn off the amplifier before changing the mode setting.

- *Input connectors:* removable Euroblock connectors for balanced analog audio signal input. ASTi system setup does not use the input connectors.

Figure 5, "Ashly Power Amplifier rear panel" below shows rear panel connections on the Ashly Power Amplifier:

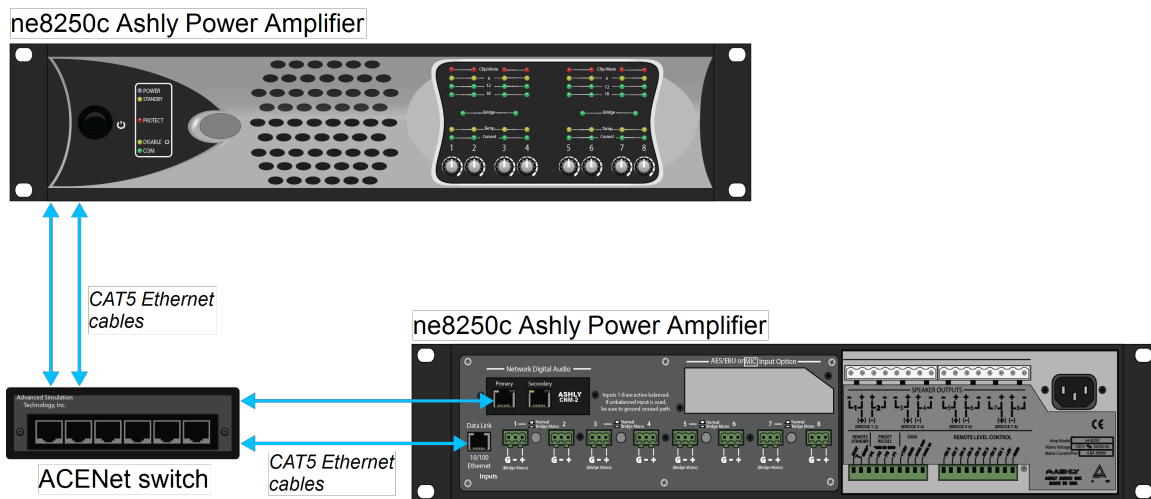


Figure 5: Ashly Power Amplifier rear panel

The CAT5 Ethernet cables connect to the DATA LINK 10/100 Mbps port and either the Primary or Secondary Network Digital Audio ports on the rear panel.

3.3 Front panel controls

Channel Level Controls act as the overall master gain control for each channel. An installation's exact setting depends on a number of factors:

- Speaker placement
- Speaker sensitivity
- The driven space's size
- The system's sound level

Conventional audio setup procedures apply. Set the signal source and Channel Level Controls to the maximum level you can achieve without overloading (i.e., clipping) the system.

4.0 Technical specifications

This chapter discusses the following topics:

- Wiring
- Minimum guaranteed power
- Memory devices
- Reliability

4.1 Wiring

Choose the appropriate size of the wire based on the distance from the amplifier to the speaker:

Distance	Wire Size
Up to 25 ft (7.6 m)	16 AWG
26–40 ft (7.9–12.2 m)	14 AWG
41–60 ft (12.5–18.3 m)	12 AWG
Over 60 ft (18.3 m)	10 AWG

Table 2: Wiring distance and size



Caution: Do not connect the speaker return to the amplifier's chassis, or damage to the amplifier may result. Do not use shielded cable for output wiring.

4.2 Minimum guaranteed power

The Ashly Power Amplifier guarantees the following minimum power:

- 150 W per channel at 8 ohms
- 250 W per channel at 4 ohms

4.3 Reliability

The Ashly Power Amplifier's (P/N: ne8250c low-Z) typical mean time between failure (MTBF) is 478,000 hours.

Appendix A: References

For more information and Ashly-specific documentation, go to Ashly.com. Training videos are also available on Ashly's YouTube page.

A-1 Ashly Power Amplifier part numbers

This document refers to a specific Ashly Power Amplifier. If purchasing an Ashly Power Amplifier from another source, follow the part numbers in Table 3, "Ashly Power Amplifier part number" below to ensure compatibility.

Ashly Power Amplifier	ASTi Part Number
ne8250c with CNM-2 expansion card	A-PAMP-ASH-8

Table 3: Ashly Power Amplifier part number

Similar part numbers that may appear to be the same will not work consistently with ASTi's ACENet architecture. For international voltage requirements, contact ASTi at support@asti-usa.com.