

Overview

The Alero (FG1140-08) is an 8 channel microphone mixer with built in acoustic echo canceler. The product acts as a USB audio device and there is also a possibility to connect 3 analog input and 3 analog output channels. Alero supports 2 channel mono line level speaker signal outputs.

DESCRIPTION	USAGE
Front Panel LED Indicators 	
Power	A continuously lit LED Indicates that the unit is powered on.
Microphones	SIGNAL - A continuously lit LED indicates an active signal on the corresponding microphone channel. CLIP - Indicates risk of amplitude clipping on corresponding microphone channel due to a strong signal. LED is only active for a short time after a strong signal is detected. Reduce gain on the channel if LED is active.
Rear Panel Connectors 	
VC	Video Conference, audio channel input and output. Line level
LINE IN	2 analog line level inputs
LINE OUT	2 analog line level outputs
PA	2 mono speaker channel outputs. Line level
Microphones	8 microphone inputs. Line level/phantom power configurable.
Mute	Muting of certain microphone groups.
Reset	<ul style="list-style-type: none"> Press more than 1 second to set the IP settings to DHCP. See <i>Detect IP Address</i> section on page 1. Press less than 1 second to return the IP settings to a Static address of 192.168.1.2. Press while powering unit "ON" to Return to factory settings. See <i>Factory Reset</i> section on page 2.
USB	Audio input/output.
LAN 10/100	Configuration of unit via network. The port has L/A (Link Activity) and SPD (Speed) LEDs. The L/A flashes indicating traffic, otherwise is off. The SPD LED is on by default when a network link is established.
12 V	Power supply input, 12 V with securing screw terminals.

Installation

Follow these steps which represent a typical installation procedure:

Physical Connections

- Connect audio input and output channels to rear panel, including microphones, using the included screw terminal Phoenix type connectors (FIG. 1). Refer to the wire guide on the back panel.



FIG. 1 PHOENIX STYLE CONNECTOR

- Connect standard network cable for device configuration to the LAN 10/100 port.
- Connect the power supply to PWR connector. Device will power on automatically.

Detect IP Address

- Ensure Alero is powered on and connected to a network with an Ethernet cable.
- In factory settings, the IP address is static (192.168.1.2). If DHCP is preferred press the reset button for more than 1 second to enable it. Pressing Reset for less than one second will return the unit back to its static IP address.
- Locate all devices on network using *zero configuration networking* (zeroconf). If there are more than one devices in the list, determine the IP of the current unit by powering it off and observing which device disappears from the zeroconf utility.

Note: You may also locate a new Alero on a network using the default hostname by entering the URL <http://alero-aec-8.local>

Configuration

Access the Configuration Page

- Open a web browser
- Enter the IP address for the device. Default login credentials are:
 Username: **admin**
 Password: **admin**

The configuration page is designed with a dashboard where the most relevant settings can be adjusted. There are also five configuration pages:

PAGE	TASKS
Basic Configuration	Perform maintenance tasks like firmware upgrades, store and load settings and change login credentials.
Network Configuration	Configure network settings and enable DHCP
Levels	Current audio signal levels for all input and output channels.
Signal Mixing	Set or disabled AMM (Auto Mic Mixer) individually for each output channel, configure input to output channel routing.
Microphone Settings	Configure signal processing modules on the microphone signals and set 48 VDC phantom power to microphones is needed.

Network Configuration

DHCP can be disabled and network settings entered manually here. See Figure 2.

Note: If the manual settings are bad, the device will not be accessible via a configuration page since the network connection will not work. If this happens, perform a factory reset.

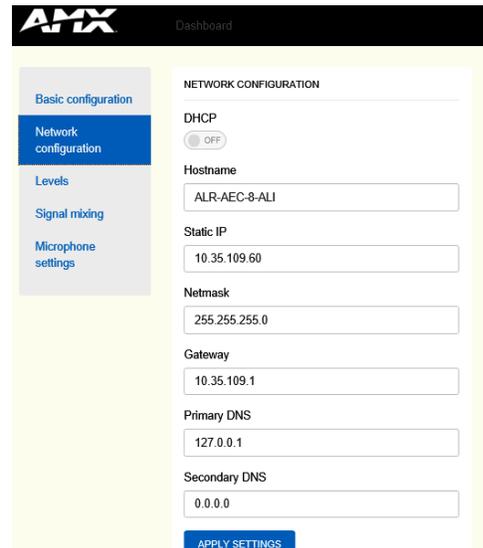


FIG. 2 NETWORK CONFIGURATION PAGE

Levels

This page (FIG. 3) provides an overview of current audio signal levels for all input and output channels. All input and output signal levels can be adjusted with configurable digital gain levels. It is also possible to adjust an analog gain for the analog input signals.

- Monitor signal amplitude on input channels and adjust gain if necessary.
- Monitor signal amplitude on output channels and adjust gain if necessary.

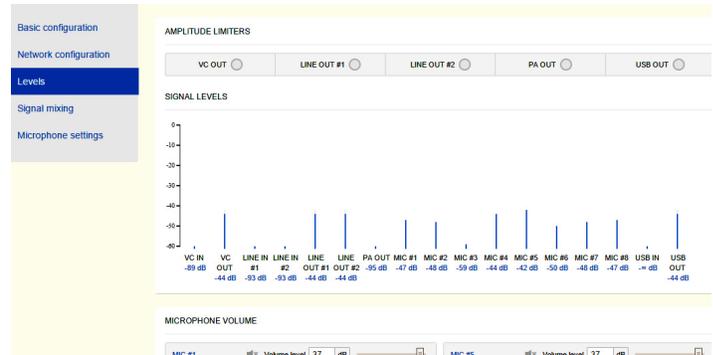


FIG. 3 LEVELS CONFIGURATION PAGE

Signal Mixing

This page is provided to configure input to output channel routing and AMM settings.

- Route analog/digital input channels to each desired output in the signal mixer. By default almost all input channels are sent to all output channels with these exceptions; USBin is not routed to USBout, and VCin is not routed to VCout. Mixing can be set individually for each output channel.

The AMM module will select microphones to open based on activity detected on each them. Remove any microphones from the selection if they should never be used.

Note: The AMM detects if a microphone is not connected so there is no need to remove unconnected microphones.

An active microphone(s) is displayed by an "ACTIVE" indicator for that channel as shown.

C I M	MIC #1	MIC #2	MIC #3	MIC #4	MIC #5	MIC #6	MIC #7	MIC #8
LINE OUT #1 AMM	ACTIVE			ACTIVE	ACTIVE			ACTIVE
LINE OUT #2 AMM	ACTIVE			ACTIVE	ACTIVE			ACTIVE
USB OUT								

FIG. 4 AMM SETTINGS AND INPUT TO OUTPUT SIGNAL ROUTING

- Disable AMM by pressing the red **AMM** symbol. This causes all microphone signals to be added.

Microphone Settings

Use the *Microphone Settings* page (FIG. 5) to configure the signal processing modules that operate on the microphone signals.

- Select 48 VDC phantom power on/off for each microphone.

FIG. 5 CONFIGURATION OF SIGNAL PROCESSING APPLIED TO MICROPHONE SIGNALS

- Configure signal processing on each microphone channel as shown in below.

SIGNAL PROCESSING	OPTIONS	DEFAULT SETTING
Acoustic echo cancellation	On/off	On
Comfort noise generation	On/off	On
Residual echo suppression	On/off	On
Residual echo suppression	Light/medium/strong	Medium
Noise reduction	On/off	On
Noise reduction	0 dB to TBA dB	12 dB

Basic Configuration

Most maintenance tasks like firmware upgrades, store and load settings and change login credentials are performed in the *Basic Configuration* page.

Firmware Upgrade

- Go to the AMX website and download the latest firmware package to the local drive.

<http://www.amx.com/products>

- From the Alero web interface, select the **Basic Configuration** page.
- Click **Choose File** to select the new firmware file from the local computer. The naming convention of new firmware releases is

firmware-package_yyymmddhhmm.bin

- When the new firmware is selected, press **Upload** to start the firmware upgrade. Alero will update the firmware and restart. Settings will be stored and used in the new firmware.

Note: The device will keep its current settings (including network) when upgraded.

FIG. 6 BASIC CONFIGURATION PAGE

Factory Reset

If somehow Alero has ended up in a bad state, there is an option to reset the device to factory settings. Follow these steps for performing a factory reset.

- Turn the Alero power OFF.
- Press the Reset button on the rear panel for approximately 5 seconds while powering Alero back ON.
- Wait for Alero to start.

Note: All settings and firmware upgrades will be lost when performing a factory reset

