



ARIA AUD-MON-H



ARIA AUD-MON-V



Audio Monitors

Product Manual

ARIA-AUD-MON-OM_v1.2

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Manual Identification

Manual Name: ARIA-Audio-Monitor-OM_v1.2, Release Date August 29, 2025

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Table 1: Record of Release, Manual Versions, and Changes

Document Version	Date	Description
V1.0	July 22, 2025	Initial Release, content applicable to Firmware Version 1.33.1 (or greater)
V1.1	July 31, 2025	Typographical corrections and improvements in technical descriptions, Content applicable to Firmware Version 1.35.0 (or greater)
V1.2	August 29, 2025	Edited Manual Identification, GPI connector is reserved for future use, Renumbered Figures and Tables, Installation / Usage Environment statement in Product Overview, Web interface content extended, Visible product licenses, System uptime display, API documentation, Content applicable to Firmware Version 1.37.4 (or greater)

Specifications subject to change. E&OE.

Contact

Thank you for choosing this Cobalt Digital, Inc. product. The Cobalt Digital line includes video decoders and encoders, audio embedders and de-embedders, distribution amplifiers, format converters, remote control systems, and much more.

Should you have questions pertaining to the installation or operation of your Cobalt device, please contact us at support@cobaltdigital.com. Feel free to contact us about product operation, pricing, your nearest dealer, or upcoming trade shows at info@cobaltdigital.com.

Visit our website at www.cobaltdigital.com for more information.

Cobalt Digital Inc. Limited Warranty

This product is warranted to be free from defects in material and workmanship for a period of five (5) years from the date of shipment to the original purchaser, except that 4000, 5000, 6000, 8000 series power supplies, and Dolby® modules (where applicable) are warranted to be free from defects in material and workmanship for a period of one (1) year. Spotcheck units and LMNTS units will be warranted for a period of 3 years from date of shipment to the original purchaser.

Cobalt Digital Inc.'s ("Cobalt") sole obligation under this warranty shall be limited to, at its option, (i) the repair or (ii) replacement of the product, and the determination of whether a defect is covered under this limited warranty shall be made at the sole discretion of Cobalt.

This limited warranty applies only to the original end-purchaser of the product, and is not assignable or transferrable therefrom. This warranty is limited to defects in material and workmanship, and shall not apply to acts of God, accidents, or negligence on behalf of the purchaser, and shall be voided upon the misuse, abuse, alteration, or modification of the product. Only Cobalt authorized factory representatives are authorized to make repairs to the product, and any unauthorized attempt to repair this product shall immediately void the warranty. Please contact Cobalt Technical Support for more information.

To facilitate the resolution of warranty related issues, Cobalt recommends registering the product by completing and returning a product registration form. In the event of a warrantable defect, the purchaser shall notify Cobalt with a description of the problem, and Cobalt shall provide the purchaser with a Return Material Authorization ("RMA"). For return, defective products should be double boxed, and sufficiently protected, in the original packaging, or equivalent, and shipped to the Cobalt Factory ServiceCenter, postage prepaid and insured for the purchase price. The purchaser should include the RMA number, description of the problem encountered, date purchased, name of dealer purchased from, and serial number with the shipment.

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Cobalt Digital Inc. 2015/Rev.1.9 Specifications subject to change. E&OE.

Manual Overview

This manual provides installation and operating instructions for the Cobalt ARIA audio monitor.

For more information, visit www.cobaltdigital.com. Click on Support>Reference Documents. Explore guides to network control of devices, firmware updates, and other topics.

Warnings, Cautions, and Notes

Certain items in this manual are highlighted by special messages.

Here is some important information about product use and disposal.



Electronic device or assembly is susceptible to damage from an ESD (electrostatic discharge) event. Handle only using appropriate ESD prevention practices.

If an ESD wrist strap is not available, handle device only by edges and avoid contact with any connectors or components.



Symbol (WEEE 2002/96/EC)

For product disposal, ensure the following:

Do not dispose of this product as unsorted municipal waste.

Collect this product separately.

Use collection and return systems available to you.

Warnings

Warning messages indicate a possible hazard which, if not avoided, could result in personal injury or death.

!WARNING! NO USER SERVICEABLE PARTS INSIDE.

REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

Cautions

Caution messages indicate a problem or incorrect practice which, if not avoided, could result in improper operation or damage to the product.

CAUTION! This device is intended for environmentally controlled use only in appropriate video terminal equipment operating environments.

CAUTION! Inadequate cooling can reduce equipment reliability.

Install devices in a rack with adequate space for air circulation.

Notes

Notes provide supplemental information to the accompanying text. Notes typically precede the text to which they apply.



Important notes regarding product use are shown.

Failure to observe may result in unexpected or incorrect operation.

Product Overview

The ARIA AUD-MON-H or AUD-MON-V 1RU audio monitoring panel features best-in-class sound monitoring from a compact rack mount size device. Developed as a result of customer feedback, the sound is produced by an efficient Class-D amplifier with DSP and specially selected speaker components.

Every knob on the front panel operates volume control. Press to mute or to enable other functions. Knobs numbered one to eight enable mix volume control or other functions.

A touch screen provides control of inputs, settings, and output.

A quarter-inch stereo audio socket allows connection of a headphone for private channel monitoring. Headphone or monitor speaker volume is controlled by the large knob on the front of the audio monitor.

The monitor has a fan with ventilation holes on the upper center of the rear panel.

BNC, SFP, RJ45, and Phoenix connectors on the rear panel enable 16 to 64 channels of input.

Analog, AES, SDI, and MADI inputs can be mixed and monitored.

Features

The ARIA AUD-MON-H and AUD-MON-V audio monitors include the following features:

Supported signals include Analog, AES, MADI, or SDI 12G, 6G, 3G, 1.5G, and SD.

The device may be operated with Power over Ethernet (PoE) through a dedicated RJ45 Ethernet port.

Two ring and tip quarter-inch threaded connectors allow redundant 24 VDC power supply.

A touch screen enables meter display, video display, and control of monitor settings.

A primary knob controls volume and mute for headphone, internal speakers, and optional external speakers.

Eight LED-illuminated knobs enable discrete volume control of mixed pairs of 16 channels.

16 independent channels may be mixed for simultaneous monitoring.

A phase meter for right and left channels shows on the LCD screen for channel mixes.

Four BNC connectors are on the back panel: Two BNC connectors support SDI/MADI input, one supports AES input, and one supports adaptive output.

Five three-pin pluggable terminal blocks allow analog two input channels (CHA and CHB), two monitor outputs (MONITOR A and MONITOR B), and a general purpose input (GPI, reserved for future use).

The SFP1 and SFP2 ports support SDI-related (for example, SDI-over-fiber) modules using the MSA pinout.

Functional Description

This section shows information about the form, fit, and function of the device.

Technical Specifications

Table 2: Product Specifications

Item	Characteristic
Product	ARIA AUD-MON-H or ARIA AUD-MON-V
Installation / usage environment	Intended for installation and usage in a restricted access environmentally controlled installation using network control.
Dimensions	19 inches wide rack mount, 1.75 inches tall (1RU), 5.45 inches deep including front knobs and rear BNC connectors.
Weight	3 lb, unconnected
Power Requirements	24 V DC 72 watts maximum
Power Connectors	(2) DC In, (1) RJ45 Power over Ethernet (PoE) IEEE 802.3bt (60 watts max)
Power Supply	Recommended: 110-240 V AC 50/60 Hz, 24 V DC
Network Connect	(1) RJ45 port for 10/100/1000 Mbps Ethernet
Source Inputs	(2) Three-pin terminal blocks Analog, (2) SFP, (2) BNC, (1) BNC AES
Destination Outputs	(1) BNC, (2) Three-pin terminal blocks Analog, (1) Headphone quarter-inch jack
General Purpose Input (GPI)	(1) Three-pin terminal block (reserved for future use)
Controls	(1) LCD Touch Screen, (8) LED illuminated knobs, (1) large knob
Speakers	(4) speakers, 15 watts per side

Figure 1: Front Panel View (ARIA AUD-MON-H)



Figure 2: Front Panel View (ARIA AUD-MON-V)



Front Panel Components

The front panel of the device has left and right speaker grills, a quarter-inch stereo headphone jack, an LCD color touch screen, eight LED illuminated knobs, and one large primary mute and volume knob.

Figure 3: Rear Panel View



Rear Panel Components

The ARIA audio monitor rear panel provides analog and digital input and output options.

ANALOG INPUT: Two three-pin pluggable, terminal block, analog input connectors allow wiring connection, marked ANALOG IN, CHA (for the left), and CHB (for the right). These are for balanced analog audio input.

SFP CONNECTORS: Two SFP (small form factor pluggable) connections, marked SFP1 and SFP2, may be used for fiber connection. The SFP1 and SFP2 ports support SDI-related (for example, SDI-over-fiber) modules using the MSA pinout.

BNC CONNECTORS: Four full size BNC connectors allow for input and output.

Two BNC connectors (IN1 and IN2) support SDI/MADI input.

One BNC connector (AES IN) supports AES input.

One BNC connector (OUT) supports adaptive output. When an SDI or MADI input is selected, the signal transmitted on the OUT port is a buffered loop-through of the selected input. When the AES and analog inputs are selected, the signal transmitted on the OUT port is undefined. Regardless of input selection, the AES and analog inputs will never be looped-through to OUT. For example, if an SDI-over-fiber module is installed in the SFP2 port, and the SFP2 input is selected, the module's SDI input signal will be present on OUT.

DIP SWITCHES: A small panel of DIP switches is reserved for future use.

ETHERNET PORT: An RJ45 Ethernet 10/100/1000 Mbps LAN port allows connection of the audio monitor to an Ethernet LAN using Cat 5 or greater cable to access the audio monitor's built-in web server through a web browser. Multiple configurations are available, including standalone control, a local LAN, or a WAN control setup. This Ethernet connection also allows control over the network using the user interface or other control protocols. Power may be delivered through the Ethernet port, complying with IEEE 802.3bt (60 watts maximum) Power over Ethernet (PoE). The port has two LEDs showing link and activity.

Table 3: Ethernet Port LEDs

Graphic	Position and Color	State	Description
Left LED POET Right LED	Right LED, Green	OFF	No Link Established
Amber Green		ON	Link Established
	Left LED, Amber	OFF	No Network Activity
EINERNEI	Left LED, Affiber		Blinking LED shows network activity

DC POWER CONNECTORS: Dual DC power connectors allow connection of redundant power supplies at 24 V DC, 60 watts.

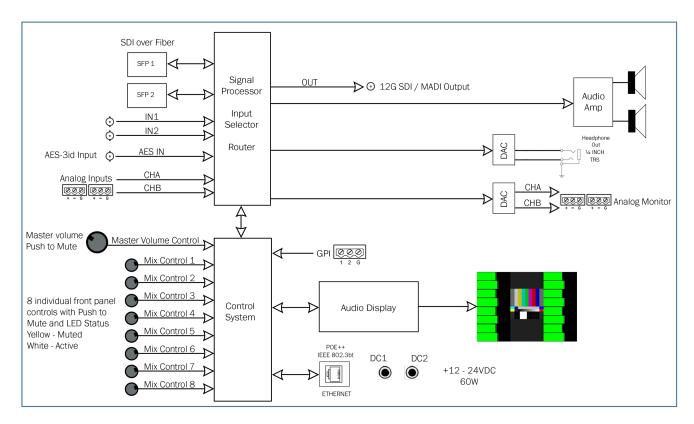
A-MONITOR-B CONNECTORS: Two three-pin pluggable terminal blocks, labeled A-MONITOR-B, allow connection to external monitoring equipment. These are balanced analog audio outputs (A for left and B for right). The nominal level is +4dBu and the maximum level is +24dBu.

GPI CONNECTOR: This general purpose input (labeled GPI) three-pin pluggable terminal block is reserved for future use.

Figure 4: Block Diagram



AUD-MON-V or AUD-MON-H 1RU Audio Monitor



User Control Interfaces

There are two options for control of the ARIA Audio Monitor, through the hand controls on the monitor or through a web-accessible interface. These control interfaces are cross-compatible and can operate together.

Where applicable, a controller setting change made using a particular user interface is reflected on any other connected interface.

Visit www.cobaltdigital.com for current Cobalt ARIA system options.

System Requirements

The ARIA Audio Monitor web interface requires a computer, a current browser, and a network connection to the ARIA Audio Monitor.

Installation and Setup

Installing an Audio Monitor in a Rack

Figure 5: Front Panel View (ARIA AUD-MON-H)



Figure 6: Front Panel View (ARIA AUD-MON-V)



Figure 7: Rear Panel View



- 1. Contact Cobalt support if parts are missing. Remove audio monitor from packaging.
- 2. On the monitor's rear panel (Figure 7), connect an Ethernet power source (PoE, Power over Ethernet) supplying 24 VDC to the RJ45 connector, or connect one or two 24 VDC 72 watt power supplies (Part Number PS-72W-24V-S760K) to the connectors marked DC1 or DC2.
- Connect wiring, SFP modules, and BNC cables to the connectors as needed.
- 4. Connect wiring for external monitor speakers to A-MONITOR-B connectors as needed. The GPI connector is reserved for future use.
- 5. To mount the monitor on a rack, there are ear brackets with two slotted holes on the left and right sides of the monitor (Figures 5 and 6). First install the right and left screws in the lower holes in the ear bracket to hold the monitor on the rack. This makes placement and alignment easier for upper screws.

Set the Audio Monitor's Network Address Using the Touch Screen

!WARNING!

NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

- 1. After a power source is connected to the audio monitor, the touch screen will show a software loading screen until a vertical-bar meter display for 16 channels shows.
- 2. On the bottom right corner of the screen touch the MENU button.
- 3. Touch the SETTINGS button.
- 4. Touch the NETWORK CONFIG button.
- 5. Rotate Knob 1 on the monitor to change Mode Settings between DHCP (Dynamic Host Configuration Protocol which automates address allocation on your network) or STATIC, as needed for your network.
- 6. If STATIC is selected, rotate Knob 5 to open windows to adjust numbers in IP SETTINGS and DNS SETTINGS for your network, conforming to the IPv4 standard.
- 7. When a window is highlighted in blue, rotate Knobs 1 to 4 to change numbers between dots and set an address for the monitor.
- 8. Change among the address windows by rotating Knob 5 until all needed address numbers are entered for your network (IPADDR, NETMASK, GATEWAY, DNS1, or DNS2).
- 9. When addresses and masks are fully entered, press the SET button and the screen returns to the initial meter display.
- 10. Enter the audio monitor's IP address in a web browser to view the ARIA Audio Monitor web interface.

Setting Up the Device

- 1. After a power source (PoE Ethernet or one or two PS-72W-24V-S760K power supplies) are connected to the audio monitor, the touch screen will show a software loading screen until a meter display for 16 channels shows.
- 2. If no meter activity shows on the display, make sure connections are secure on the rear panel. Secure connections should show Source Input Status on the screen with a signal type on the monitor's five source connectors (AES, BNC1, BNC2, SFP1, and SFP2).
- 3. If no meter activity shows on the display, touch the MENU button on the screen.
- 4. Touch a button for BNC1 or BNC2.
- 5. Touch either the SDI or MADI button as needed for the signal type from the source. The screen should then display vertical-bar meter activity.

Operating Instructions

Control and Display Descriptions

This section describes the user interface controls, indicators, and displays for using the ARIA Audio Monitor. Functions can be accessed and controlled using any of the user interfaces described here. User interfaces vary in presenting controls, displays, and indicators. Function menus among these interfaces are similar for control of the audio monitor.



NOTE: The audio monitor reports its values directly to the connected interface. The value displayed at any time is the actual value as set in the audio monitor.

ARIA Audio Monitor Hand Controls

The ARIA Audio Monitor knobs and LCD touch screen allow control of monitor settings and operation.

Figure 8: Front Panel View (ARIA AUD-MON-H)



Figure 9: Front Panel View (ARIA AUD-MON-V)



Operation is the same for the horizontal (AUD-MON-H) and v-shaped (AUD-MON-V) controls on ARIA audio monitors.

Knob Controls

Channel pairs

Channel pair volume is controlled using the numbered LED illuminated knobs, labeled 1 to 8.

If the volume is turned completely down for a mixed channel, the center LED on the knob is not illuminated.

A white LED illuminated on a knob shows the channel mix is active. The brightness corresponds to the volume level of the mix; a dimmer white indicates a lower volume level, and a brighter white indicates a higher volume level.

Rotating a knob displays a window on the LCD screen with volume (muted or -65dB to +10dB) and the channel numbers in the mix.

Pressing a mix volume knob toggles muting for the corresponding mix. The knob illuminates yellow when the mix is muted.

In some menus, one knob will illuminate blue and one or more other knobs will illuminate green. On the display, a parameter will be highlighted with a blue rectangle. In these menus, rotate the blue-illuminated knob

to change which parameter is highlighted, and rotate the green-illuminated knob(s) to change the value of the highlighted parameter.

Master Volume

Output volume for the monitor is controlled using the large knob on the right side of the LCD touch screen, labeled VOLUME.

Output volume is for the integrated left and right side speakers, the stereo headphone jack, and the two Phoenix output connectors labeled A-MONITOR-B on the rear panel of the monitor.

Pressing the knob mutes the output volume or enables volume control.

When output is not muted, rotating the knob changes the volume.

LCD Touch Screen Control

Meter Display

The audio monitor's LCD touch screen displays digital meters for audio input on the left side of the screen. On the right side of the screen is a video thumbnail (when connected), a MENU button, audio source, and other information.

On the initial screen, 16 channel mixes display on a vertical bar meter. Swiping up or down does not change the display content.

On the initial screen, swipe to the left for a time-domain vertical bar meter for eight channel mixes. Swipe up or down to display eight more channel mixes. The length of time in the window is controlled in the MENU>OPTIONS>METER SPAN (1 SECOND, 2 SECONDS, 3 SECONDS, 5 SECONDS, 10 SECONDS, 15 SECONDS, 30 SECONDS, 1 MINUTE, 2 MINUTES, 5 MINUTES, or 10 MINUTES).

On the initial screen, swipe to the right for a horizontal bar meter display for eight channel mixes. Swipe up or down to display eight more channel mixes.

Mix Volume Display

On the initial screen, a column shows master volume display for the MIX selected for the audio source.

Selected mix volume displays in two green columns for L (left) and and R (right).

Phase Correlation Display

On the initial screen, a simple meter shows phase correlation between the two mono channels in a stereo mix.

The meter shows a vertical color bar that can move between -1 and +1.

A red bar near -1 shows right and left channels are 180 degrees out of phase, with the possibility of interference between the two channels.

The meter may show red and negative occasionally, but the longer the meter shows negative, the worse the mono compatibility.

When audio that doesn't have phase issues, the bar will typically fluctuate between 0 (yellow) and +1 (green).



A yellow bar near 0 means the two channels are uncorrelated, for the preferred stereo output.

A green bar near +1 shows the left and right stereo channels approach being identical (mono audio).

Source Input Status

On the bottom of the initial screen in a window labeled SOURCE INPUT STATUS, the state of rear panel connector activity displays.

AES shows AES IN connector activity. When active both AES and ANALOG signals can show.

BNC1 shows BNC1 connector activity. SDI or MADI signals may be selected in the MENU.

BNC2 shows BNC2 connector activity. SDI or MADI signals may be selected in the MENU.

SFP1 shows SFP1 connector activity.

SFP2 shows SFP2 connector activity.

Audio Source

On the top right corner of the LCD screen, a window labeled AUDIO SOURCE shows the active audio channels and the state of the input. For example, BNC1: SDI may show "1080p@59.94 3Ga".

- 1. Touch MENU and Touch BNC1, BNC2, SFP1, SFP2, or AES ANALOG to make the audio source active for volume control.
- 2. The audio source text on the screen will change to show the active audio source.

Master Volume

On the LCD screen, a window labeled MASTER VOLUME shows a blue horizontal bar for the audio output level. When muted, the blue-outlined box is empty. If active channels volume is muted, no change in the master volume will change output volume. Red text flashes the message, "MASTER MUTED".

To avoid damage to speakers, control the initial output volume in the MENU>OPTIONS>BOOT LEVEL. Touch on the BOOT LEVEL button to cycle from low to high among the four options: -10dB, -20dB, -40dB, and MUTE.

Video Display

When a connection carries a video signal, the LCD screen shows a thumbnail image of the video when that connection is displayed as the audio source on the monitor.

- 1. Touch the thumbnail image on the screen to enlarge the image in the center of the screen.
- 2. Touch the image to shrink the video back to the thumbnail view.

MENU

Touch the MENU button on the LCD screen. Another screen shows buttons for control of audio sources, channel assignments in mixes, preset managing, options, settings, and loading two presets.

Selecting Among Five Audio Source Options

Touch the button on the screen for any of the five audio source options.

BNC1: SDI or MADI signals may be selected. Selecting SDI enables mixing of 16 channels. Selecting SDI enables mixing from among 64 channels.

BNC2: SDI or MADI signals may be selected. Selecting SDI enables mixing of 16 channels. Selecting SDI enables mixing from among 64 channels.

SFP1: Connected input may be selected.

SFP2: Connected input may be selected.

AES: When active, both AES and ANALOG signals can show.

Mixing Channels Using Channel Assigns



A complex configuration of channel assignments can be saved using the Preset Manager button.

To set channel assigns, which is allocating channels to a mix, use the LCD screen and knobs 4 and 5.

- 1. Touch the MENU button on the LCD screen.
- 2. Touch the CHANNEL ASSIGNS button.
- 3. Touch one of the buttons, such as SDI on BNC1.

Even though no signal may be using the connections shown, channels may still be assigned for SDI on BNC1, SDI on SFP1, MADI on BNC1, AES ANALOG, SDI on BNC2, SDI on SFP2, or MADI on BNC2.

The SDI option enables 16 channels for mixing.

The MADI option enables 64 channels for mixing.

- 4. Knob 4 shows a green LED. Rotate the knob to change among MIX1 to MIX8 channel options.
- 5. Knob 5 shows a blue LED. Rotate the knob to change among available channels M (mute), 1 to 16 (for SDI), or 1 to 64 (for MADI).
- 6. When mixes have been assigned, Touch the SET button.
- On the initial screen, a box with text will show for the audio source with the message "Channel Assignments Set", unless the option for display labels is set to OFF.

Preset Manager



Load a preset by touching the MENU button on the LCD screen, then touching one of the two Load Preset buttons.

A preset can be applied on demand from the MENU. A preset saves mixes of audio channels, settings made in the OPTIONS menu, and visible meters.

Touch each button to access options. Rotate knob 5 to select a preset name in the list.

SAVE PRESET: Touch this button and a representation of a keyboard shows. Enter a name for the preset by touching character buttons. The existing mixes for all audio sources will be saved when the preset is saved. Touch the button in the top corner to change visible keys among capital letters (including an underscore to put a space between characters), lowercase letters, numbers, and symbols. Touching a character button makes the character show at the top of the screen.

Delete the whole entry by touching X. Backspace by touching the back arrow with an x button.

Save the entered characters by touching the check mark.

The saved preset will show on the top row of the presets list. More than 10 presets can be saved.

DELETE PRESET: Rotate knob 5 to highlight a saved preset.

Touch the Delete Preset button to delete the saved preset. The default preset cannot be deleted.

ASSIGN TO PRESET #1: Rotate knob 5 to select a preset name. Touch the Assign to Preset #1 button to apply 1 by the selected preset name.

ASSIGN TO PRESET #2: Rotate knob 5 to select a preset name. Touch the Assign to Preset #2 button to apply 2 by the selected preset name.

BACK: Touch the BACK button to return to the previous MENU screen.

EXIT: Touch the EXIT button to return to the meter display screen.

Options

On the Options screen, touch labeled buttons to change among available options.

BOOT LEVEL: This volume will be what the monitor master volume will be when the unit is rebooted, or when power is connected. Change among MUTE, -10dB, -20dB, and -40dB options.

DISPLAY LABELS: Labels show on the LCD screen when there is a setting change in the menu. Change between label display OFF or ON.

DISPLAY VIDEO: Select OFF if monitoring many signal streams with multiple videos to conserve system processing resources. Change between ON and OFF.

LCD DIMMER: Set the length of time for the LCD screen to dim. Touching the screen or rotating a knob while the screen is dim restores brightness and restarts the selected time count for dimming the LCD. Change among options, NEVER, 1 MINUTE, 5 MINUTES, 10 MINUTES, 15 MINUTES, 30 MINUTES, or 60 MINUTES.

METER SPAN: This is the length of time shown in the time-domain meter display. Change among options 1 SECOND, 2 SECONDS, 3 SECONDS, 5 SECONDS, 10 SECONDS, 15 SECONDS, 30 SECONDS, 1 MINUTE, 2 MINUTES, 5 MINUTES, and 10 MINUTES.

LOAD PRESET #1: Loading a preset triggers all the channel mixes set up for audio sources in the CHANNEL ASSIGNS screen. A preset is named, saved, or set as #1 in the PRESET MANAGER screen.

LOAD PRESET #2: Loading a preset triggers all the channel mixes set up for audio sources in the CHANNEL ASSIGNS screen. A preset is named, saved, or set as #2 in the PRESET MANAGER screen. .

BACK: Touch the BACK button to return to the previous MENU screen.

EXIT: Touch the EXIT button to return to the meter display screen.

Settings

On the Settings screen, labeled buttons provide control of the monitor's IP address, access to system information, factory default reset, or reboot of the audio monitor.

NETWORK CONFIG: This button allows setup of the audio monitor IP addresss.

- 1. Touch the NETWORK CONFIG button.
- Rotate Knob 1 on the monitor to change Mode Settings between DHCP (Dynamic Host Configuration Protocol which automates address allocation on your network) or STATIC, as needed for your network.
- 3. If STATIC is selected, rotate Knob 5 to open windows to adjust numbers in IP SETTINGS and DNS SETTINGS for your network, conforming to the IPv4 standard.
- 4. When a window is highlighted in blue, rotate Knobs 1 to 4 to change numbers between dots and set an address for the monitor.

- 5. Change among the address windows by rotating Knob 5 until all needed address numbers are entered for your network (IPADDR, NETMASK, GATEWAY, DNS1, or DNS2).
- When an address is fully entered, Touch the SET button and the screen returns to the initial meter display.
- 7. After the IP address is set up on the audio monitor, enter the monitor's IP address in a web browser to view the ARIA Audio Monitor web interface.

ABOUT ARIA-7062: Touch this button to view system information. Rotate knob 5 to highlight rows in the column. When each item is highlighted, current information shows at the right.

DSP Version

FPGA Version

Front Panel Version

OS Version

Hardware Revision

License Information

Serial Number

CPU Temperature

FPGA Temperature

FAN Speed

Power Information

System Uptime

BACK: Touch the BACK button to return to the previous MENU screen.

EXIT: Touch the EXIT button to return to the meter display screen.

FACTORY RESET: Touch this button to restore factory defaults.

BACK: Touch the BACK button to return to the previous MENU screen.

EXIT: Touch the EXIT button to return to the meter display screen.

REBOOT: Touch this button to shut down and restart the monitor. A screen will show progress before shut-down. A software loading screen will show progress in restarting.

BACK: Touch the BACK button to return to the previous MENU screen.

EXIT: Touch the EXIT button to return to the meter display screen.

BACK: Touch the BACK button to return to the previous MENU screen.

EXIT: Touch the EXIT button to return to the meter display screen.

ARIA Audio Monitor Integrated Web Server Interface

The ARIA Audio Monitor integrated web server interface shows audio monitor status information and allows configuration of settings.

A current web browser on a network connected computer may be used to access the web interface. Open a web browser and enter the IP address previously configured for the audio monitor.

Figure 10: Pages in the Cobalt ARIA Audio Monitor Web Interface



On the left side of the screen, a sidebar panel contains buttons for the available pages in the web interface: **Dashboard**, **Admin**, and **About**.

The switch icon near the top of the sidebar panel expands and collapses the panel.

Page labels show as either icons (collapsed) or icons with text (expanded).

When a page button is clicked on, it is highlighted gray to show the page has been selected.

Dashboard Page

When the **Dashboard** page is selected, signal sources connected to the audio monitor show in a vertical bar meter along with volume control.

When an SDI input is selected, 16 channels display on the meter.

When a MADI input is selected, 64 channels display on the meter.

When the AES and analog inputs are selected, four channels (two AES channels and two analog channels) display on the meter.

A bar graph corresponding to each channel of the active audio source is shown. Each bar graph shows the current and peak VU (volume unit) levels of that channel.

Under **Master Volume**, the Left (L) and Right (R) vertical bar graphs show the current and peak VU levels of the master mix. The master mix can be muted by ticking the Mute checkbox. When the master mix is not muted, the volume of the master mix can be adjusted by dragging the dot on the slider.

Admin Page

When the **Admin** page is selected, tabs show for Network Settings, File Upload, License, and System. Click a tab to see more information.

Network Settings

On the **Network Settings** tab, the IP address for the audio monitor can be assigned.

IP Settings

This section provides you the option to assigning an IP address for the audio monitor as either Static or automated by DHCP.

Static IP Address

- 1. Under IP Assignment, select Static to enable entry of a specific address for your network.
- 2. Under **Static IP Address**, enter appropriate information for your network in the labeled fields:

Address (decimal numbers and dots to the IPv4 standard, such as 10.99.20.40) Subnet mask (decimal numbers and dots to the IPv4 standard, such as 255.255.255.0) Gateway Address (decimal numbers and dots to the IPv4 standard, such as 10.99.20.1) Name Server - If more than one server, separate each with a comma (no spaces) (decimals and dots to the IPv4 standard, such as 10.99.20.1)

3. Click **Set IP Setting**. The system will save and apply these settings, overwriting settings previously set for the audio monitor.

DHCP Assignment

Dynamic Host Configuration Protocol (DHCP) may be preferred over Static Address setting. DHCP can avoid manual IP Address setting, which is helpful for maintaining a large network. A network must support this option with a DHCP server.

- 1. Under **IP Assignment** select DHCP to allow automatic allocation of an available IP Address, where the network supports DHCP.
- 2. Under **Current IP Address**, these fields may be automatically populated by the DHCP server in your network:

Address (decimal numbers and dots to the IPv4 standard, such as 10.99.20.40)
Subnet mask (decimal numbers and dots to the IPv4 standard, such as 255.255.255.0)
Gateway Address (decimal numbers and dots to the IPv4 standard, such as 10.99.20.1)
Name Server - If more than one server, separate each with a comma (no spaces) (decimals and dots to the IPv4 standard, such as 10.99.20.1)

- 3. Click **Set IP Setting**. The system will save and apply these settings, overwriting settings previously set for the audio monitor.
- 4. To avoid changing settings, click Cancel IP Setting.

File Upload

The File Upload tab contains two sections: Firmware Upload and License File Upload.

Firmware Upload allows uploading a firmware file to update the firmware on the unit.

Refer to the **About** page in the web interface to see the firmware version currently running on the audio monitor.

Visit www.cobaltdigital.com/support/firmware for the latest firmware update.

If a newer version is available, download the file to your computer then perform the following steps:

- 1. Return to the audio monitor web interface. Click Choose File.
- 2. Choose the downloaded firmware file. The name of the file will show next to the **Choose File** button.
- 3. Click **Upload** to send the chosen file to the audio monitor.

The progress of the firmware update will be displayed under the **Upload** button.

The audio monitor will reboot after the update is complete.

License Upload is reserved for future use.

License

On the **License** tab, a list summarizes the licenses applied to the audio monitor, with one row corresponding to each license. Each row describes the license's feature, type, validity, and name.

System

On the **System** tab, real-time system activity shows in various graphical displays.

RAM (random access memory), Storage, NVM (non-volatile memory) and tmp (temporary) memory allocation and consumption show with numbers and ring graphs.

CPU (central processing unit) temperature (in °C), FPGA (field progammable gate array) temperature (in °C), and Fan 1 speed in RPM (revolutions per minute) show with numbers and ring graphs.

The system uptime (how long the audio monitor has currently been powered up) is displayed in units of days (d), hours (h), minutes (m), and seconds (s).

Overal CPU Usage is shown with a horizontal bar graph, responding to current processes.

KEY shows colors assigned to CPU cores. An activity chart shows CPU core activity as a continuous line chart.

Click on **Show All CPU Cores** to show or hide a display of four horizontal bar graphs (numbered 0 to 3), corresponding to the current usage of each CPU core.

About Page

When the **About** page is selected, information shows about system variables, for example:

- Product
- Company
- Software Revision
- Front Panel
- · Digital Signal Processor
- Hardware Revision
- FPGA Revision
- Serial Number

API

The Cobalt Audio Monitor API (Application Programming Interface) is a protocol that allows software applications to communicate with the audio monitor.

This resource provides comprehensive guidance for remotely controlling the audio monitor via JSON-based commands, using both RESTful and WebSocket interfaces.

Click on **API Documentation** to open a file describing the API.

This documentation for the API is also available at: http://[audio_monitor's_IP_address_or_hostname]/doc/

Troubleshooting

The ARIA Audio Monitor requires no periodic maintenance in normal operation in a dust free, controlled-temperature environment. Otherwise, remove debris and dust accumulation to allow cooling air to circulate through the audio monitor.

Table 4: Signal Path Issues

Problem	Cause	Solution
Input signal is not delivered as expected	Connection Fault	Make sure the input cable is connected to the correct connector
There is interference in input or output signals	Connection Fault	Make sure cables and connectors are clean and unmarred. Replace damaged cables. Disconnect and reconnect cables to the audio monitor.

If these or other issues arise in the installation, setup, or operation of this device:

 Send an email to support@cobaltdigital.com, call 217-344-1243, or call Toll Free in the USA 800-669-1691.

Available Parts

ARIA AUD-MON-H

This 1RU audio monitoring panel features best-in-class sound monitoring from a compact rack mount size device. Developed as a result of customer feedback, the sound is produced by an efficient Class-D amplifier with DSP and specially selected speaker components. Control knobs are arranged in a horizontal pattern familiar to operators.

ARIA AUD-MON-V

This 1RU audio monitoring panel features best-in-class sound monitoring from a compact rack mount size device. Developed as a result of customer feedback, the sound is produced by an efficient Class-D amplifier with DSP and specially selected speaker components. Control knobs are arranged in a v-shape on the front panel. Four knobs on each side of the LCD touch screen.

PS-72W-24V-S760K Power Supply

This 72 watt power supply has a power cord suitable for the installation region. Two power supplies may be connected for redundant power supply.

	Cobalt ARIA Audio Monitor Troubleshooting
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ARIA-AUD-MON-OM_v1.2

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