eVAM1-1
eVAM1-1+

1RU Multi-Channel Audio Video Monitor

User Guide

Part Number 821844, Revision B

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Introduction

Overview

The eVAM1-1 and eVAM1-1+ are 1RU multichannel multi-source audio/video monitors with basic 3G-SDI and analog inputs. The main difference between the two products is that the eVAM1-1+ also contains an HDMI input and output, supporting 3G and HD resolutions. Refer to the Specifications section of this manual or contact Wohler Sales for more information.

The eVAM1-1 and eVAM1-1+ are compact with simple to operate straightforward controls. Both have a touch screen LCD display providing either video or high resolution audio level meters. Any channels (or channel pairs) from any audio/video source stream may be monitored. Either 8 or 16 channel meters can be displayed.

The eVAM1-1 and eVAM1-1+ include two 3G SDI inputs and it can monitor both video and audio from them. They contain APIs for remote management.

Setups are created and configured using local menus and a web browser over a network connection to the integral web server. This web server will also allow you to view the audio meters remotely.

Safety

Instructions

1. Read, keep, and follow all of these instructions; heed all warnings.
2. Do not use this equipment near water.
3. Use only a dry cloth to clean the equipment.
4. Do not block any ventilation openings.
5. Do not install near any heat source such as a radiator, heat register, amplifier, or stove.
6. Do not attempt to plug the unit into a two-blade outlet (with only two prongs of equal width).

Important:

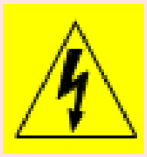
By design, the supplied AC mains power cord will only plug into a three-prong grounded outlet for your safety. If the plug does not fit into the outlet, contact an electrician to replace the obsolete outlet.

7. Protect the power cord from being walked on or pinched, particularly at plug connection on the equipment and at the socket.
8. Use only the attachments/accessories specified by the manufacturer.
9. Unplug the equipment during lightning storms or when unused for long periods of time.

10. Refer all servicing to qualified service personnel. Servicing will be required under all of the following conditions:
    a. The equipment has been damaged in any way, such as when the power-supply cord or plug is damaged.
    b. Liquid had been spilled or objects have fallen onto the equipment.
    c. The equipment has been exposed to rain or moisture.
    d. The equipment does not operate normally.
    e. The equipment has been dropped.

Safety Symbols

WARNING:



The symbol to the left warns of electric shock hazard inside the unit. Disconnect the power cord before removing access panels when installing upgrades. Only qualified service personnel are to operate the equipment with covers removed, and are to exercise caution to avoid personal injury.

Mounting

The unit is designed for a standard 19" rack. Install it at ear/eye level for best high frequency response and visual observation of the display screens. Please adhere to the following clearances:

Table 1-1: Clearance Recommendations

Clearance	Surface
24″	Front
3″	Rear
2″	Sides
1.75″	Top and Bottom (if either radiates heat)
0″	Top and Bottom (if no heat)

Heat Dissipation

The ambient temperature inside the mounting enclosure should not exceed 40° Celsius (104° Fahrenheit). Adjacent devices can be rack mounted (or stacked) in proximity to the unit if this temperature is not exceeded. Otherwise, allow a 1RU (1.75″/44.45mm) space above and below the unit for air circulation.

Important -

Heat generated by the class D power amplifiers, power supplies, and other components is vented by slots in the sides and back of the unit. Therefore, as a safety precaution, you must allow proper ventilation on these surfaces.

Sympathetic Vibration

Sympathetic vibration from other equipment (cables, etc.) in the rack may be serious enough to interfere with the unit's sound quality. If you experience sympathetic vibrations, use thin card stock, felt, foam, or weather-stripping between the vibrating surfaces. Tie loose cables securely with cable ties.

Mechanical Bracing

The 1RU chassis is securely attached to the front panel. In addition, the chassis has mounting tabs through which you attach it to the rack rail. This feature will reduce or eliminate rear bracing requirements in many mobile/portable applications. The weight of internal components is distributed fairly evenly around the unit.

Electrical Interference

Be careful to avoid mismatched cable types and other similar causes of undesired reflections in digital signal systems. If severe enough, such reflections can result in corruption of the digital data stream. As with any audio equipment, maximum immunity from electrical interference requires the use of shielded cable; however, satisfactory results can sometimes be obtained without it. The internal circuitry ground is connected to the chassis.

Power

The unit connects to an AC mains power source (100 to 240 VAC, 65W, 50/60Hz) using an IEC power cord.

When the mains plug or appliance coupler is used as the disconnect device, the disconnect device should remain operable.

Compliance

FCC

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at their own expense.

ICES-003

This Class A digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

CHAPTER 2: Local Operation

Operation

The eVAM1-1 and eVAM1-1+ can be operated easily and simply from controls on its front panel, as described in this chapter. It may be accessed remotely in two ways, via the Wohler Web GUI for administrative purposes or by third party equipment via Application Programming Interface (API) commands. The Wohler Web GUI is described in Chapter 4 of this manual. The API commands are described in Appendix E of this manual.

Startup

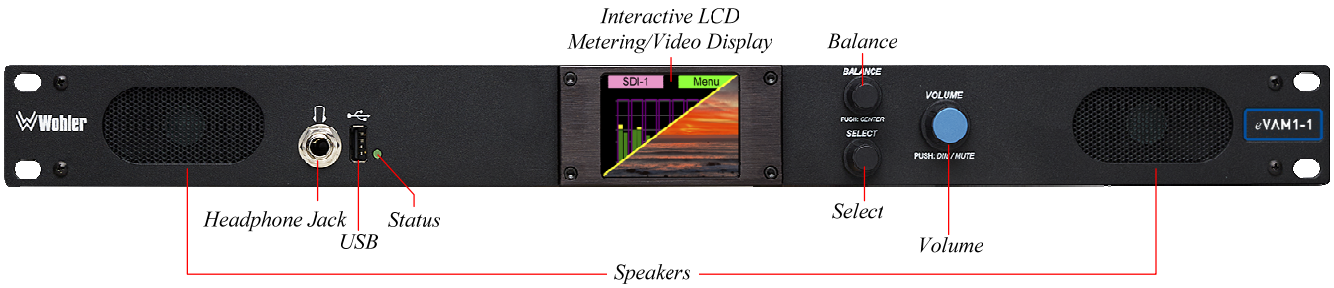
The eVAM1-1 / eVAM1-1+ begins the startup process when it is connected to power. There is no power switch. It is normal for the product to require about 45 seconds to start up and be ready to use.

When the eVAM1-1 / eVAM1-1+ completes the startup, the **Status** indicator will turn green. Depending upon optional settings, all channel pairs will either be in the muted condition or set in a predetermined way. You may then use the **Source** and **Channel** controls to enable only the program channels you want to hear.

Front Panel

The front panel is shown in Figure 2-1.

Figure 2–1: eVAM1-1 / eVAM1-1+ Front Panel

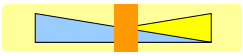


1. **Interactive LCD Metering/Video Display**: A 2.4" LCD screen allows monitoring of either video or high resolution bar graph meters of up to 16 channels. Press the **Select** control to switch between them.
2. **Speakers**: Local near field audio monitoring is achieved through the use of class D amplifiers. There are two (left/right) speakers. The speaker response may be adjusted with tone controls in the **Speaker Options** menu. Refer to the **Menu / Option Touchscreen** section of Chapter 2.
3. **Headphone Jack**: A 1/4" jack for an optional headphone is provided on the front

panel. Speaker audio can be optioned to either mute or not mute when headphones are plugged in. This is set in the **Speaker Options** menu. If the speaker audio is set to mute with headphone insertion, and a headphone is plugged into the Headphone Jack, the following icon will appear at the center top of the display: 

4. **Volume**: This controls the speakers, the headphone, the analog outputs, and the HDMI audio output (on the eVAM1-1+ only). As the **Volume** control is turned, a graphic appears on the upper left of the screen in place of the Source display, as follows: 

   Pressing the **Volume** control mutes the audio and a speaker muted icon appears at the center top the display:  This icon also displays whenever the **Volume** control is turned all the way counterclockwise.

5. **Balance**: This controls the relative left/right levels for the monitored stereo mix. Pressing the knob will bring the balance back to center. It controls the speakers, the headphone, the analog outputs, and the HDMI audio output. As the **Balance** control is turned, a graphic appears in place of the Source display as follows: 

6. **Source**: Turning this control right or left selects between the input sources. In 8 Channel Mode, the **Source** control also selects between the lower or upper 8 channels for 16-channel sources. Note that for 8-channel sources, the 8 channels are always displayed with 8 larger meters. The selected Source input is displayed in the upper left of the meter screen as follows: 

   Pressing the **Source** control selects between displaying the video from the selected SDI source or displaying audio meters from the selected source. Holding the **Source** control pressed for two seconds proceeds to the **Main Menu**.

   Alternatively, rotating the **Source** control can be set to No Operation, so that rotating it will have no effect at all. Refer to the **Source Knob Select** setting in the **Unit Config** menu.

7. **Channel**: Turning this control moves a white selection box from channel to channel on the metering screen. Press the control to solo the highlighted channel. The box will turn blue and any other boxes will disappear. To remove the solo and return to the previous monitoring configuration, press the **Channel** control once again.

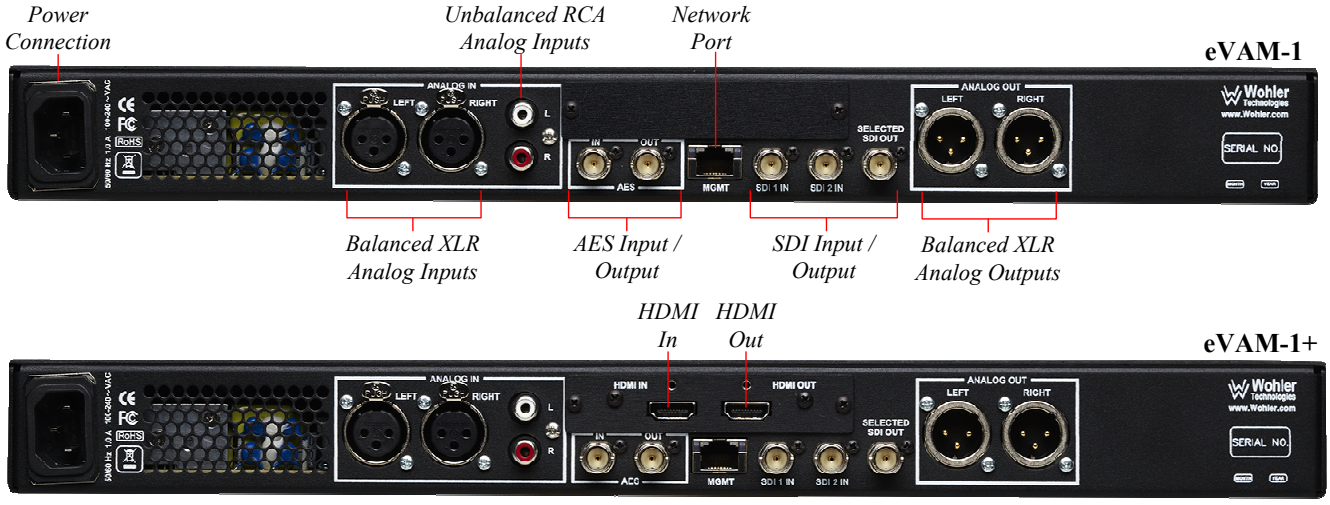
8. **USB**: This USB 2.0 Type A connector allows you to use a flash drive (not supplied) to perform software updates. Refer to Appendix A of this manual to learn about performing a software update.

9. **Status**: This indicator lights green when the system is powered and ready for use. A solid or blinking yellow color indicates that the product is starting up. A red color indicates that a system update is taking place. Refer to Appendix A.

Rear Panel

The rear panels for the two products are shown in Figure 2-2.

Figure 2-2: eVAM1-1 and eVAM1-1+ Rear Panels



Power Connection: The eVAM1-1 / eVAM1-1+ receives power from an AC inlet, which is a standard IEC receptacle for 100 to 240 VAC ±10%, 50/60 Hz power connection. Four regional AC power cords, supplied according to shipping region, are available.

Important:

By design, the supplied AC mains power cord will only plug into a three-prong grounded outlet for your safety. If the plug does not fit into the outlet, contact an electrician to replace the obsolete outlet.

1. **SDI Inputs**: These two BNC connectors accept the two 3G/HD/SD-SDI input signals containing audio and video to be monitored.

2. **SDI Output**: This BNC connector outputs the selected 3G/HD/SD-SDI or SFP module input signal.

3. **HDMI Input**: On the eVAM1-1+, an HDMI input signal may be monitored from this connection.

4. **HDMI Output**: On the eVAM1-1+, an HDMI output of the monitored 3G/HD/SD-SDI or HDMI video source is available from this connection.

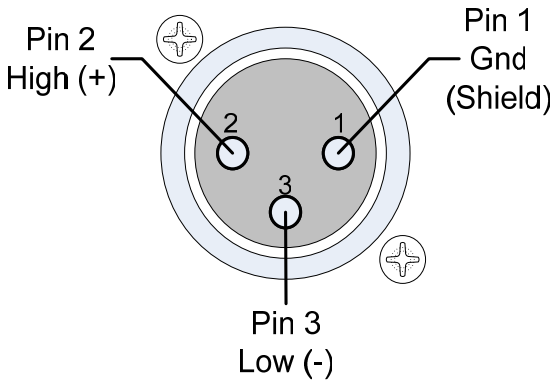
5. **Network Port**: This Ethernet port can connect to either a LAN or to a PC to let you perform administrative tasks remotely. The Wohler Web GUI is described in Chapter 4 of this manual. Third party equipment, connecting to the eVAM1-1 via a LAN plugged into this port and using an API commands, can view and change product options, as well. This API is described in Appendix E of this manual.

6. **AES Input**: An AES-3 pair can be monitored from this BNC connector.

7. **AES Output**: The monitored input source can be monitored from the AES-3 signal available on this BNC connector.

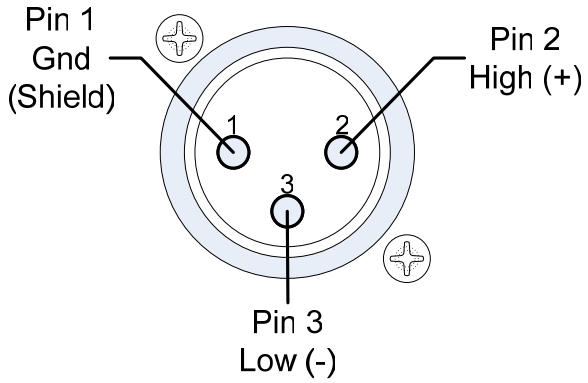
8. **Analog Inputs**: These female XLR connectors provide two balanced analog inputs: Left and Right. The **Analog Inputs** are standard on the eVAM1-1. Refer to Figure 2-3 for the pinout of this connector.

Figure 2-3: Analog XLR-F Output Connections



9. **Analog XLR Outputs:** These male XLR connectors provide two balanced analog outputs: Left and Right. The source of these signals is the mix of audio as monitored by the internal speakers and is adjusted by the **Volume** and **Balance** controls. The **Analog Outputs** are standard on the eVAM1-1. Refer to Figure 2-4 for the pinout of this connector.

Figure 2-4: Analog XLR-M Output Connections



10. **Unbalanced Stereo Analog Inputs**: These RCA jacks provide connections for left and right unbalanced stereo output channels.

Channel Meters and Touch Operations

The audio mixer terminology of "solo" is used in this manual when referring to muting all but a specific audio channel pair.

Audio meters are displayed on the touch screen LCD display in up to 8 channel pairs, as shown in Figure 2-5. Alternatively, 8-Channel Mode can be turned on to display only 4 channel pairs, as shown in Figure 2-6.

Figure 2-5: Audio Level Meter Screen

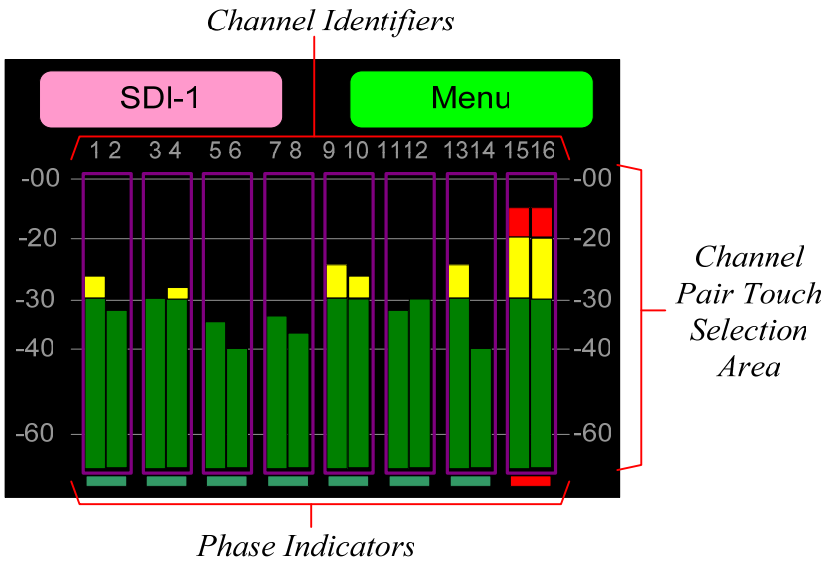
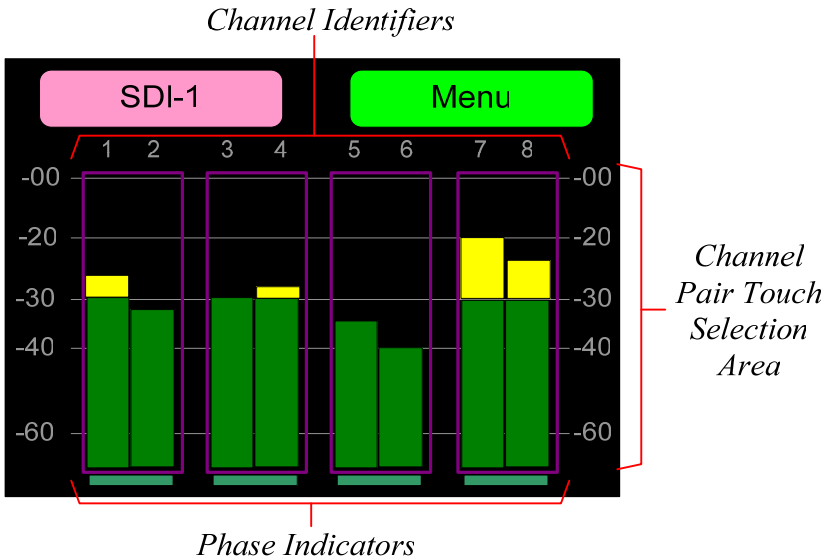


Figure 2-6: Audio Level Meter Screen, 8-Channel Mode On



1. **Channel Identifiers**: Above the level meters are the Channel Identifiers. They indicate the consecutive channel numbers in the selected source.

2. **Channel Pair Touch Selection Area**: Touching the meters of any channel pair will let you mute, un-mute, or solo the associated

channel(s). Colored boxes surrounding the channel pair or channel indicate what operation is being performed. Note that if it is not necessary to view all 16 channels at the same time, 8-Channel Mode can be turned on, resulting in 8 larger, easier-to-touch meters being displayed. The 8-Channel Mode setting is in the **Unit Config Menu**. The following describes each function:

a. **Mute / Un-Mute Selection**: A violet box surrounds any channel pair that is muted. Typically, when the eVAM1-1 / eVAM1-1+ is first powered, all of the channel pairs are muted. Touching a muted channel pair un-mutes it and removes the violet box. Muting and un-muting by touching is an alternate action function.

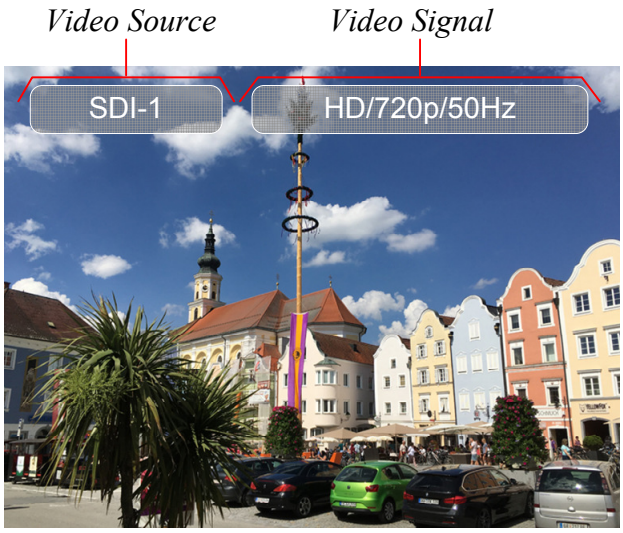
b. **Solo Selector**: Touch for two seconds any channel pair you would like to solo. A blue box will then surround the pair and that will be the only pair you hear. Any violet boxes will disappear. Touching another channel pair will then move the blue box to it, and it will be soloed. Touch again to return the combination of monitored channel pairs to the way they were before you soloed the pair.

3. **Phase Indicators**: At the bottom of each channel pair is a Phase Indicator. The indicators light a dull green if the channels in the pair are in phase or bright red if they are out of phase. You may set which Phase Indicators appear using the **Phase Config Menu** or with the **System Preferences: Phase Indicator Configuration** tab in the Wohler Web GUI.

Video Screen

Pressing the **Source** knob alternates between the Video Screen and the Meter Screen on an SDI or HDMI source. Information about the signal can be superimposed over the upper part of the video image. The **Video Info** selection in the **Unit Config Menu** determines whether this information is always displayed, never displayed, or is only displayed for the first 5 or 10 seconds after switching to the video screen. Figure 2-7 shows the Video Screen.

Figure 2-7: Video Screen



1. **Video Source**: This translucent box displays the input source of the video signal.

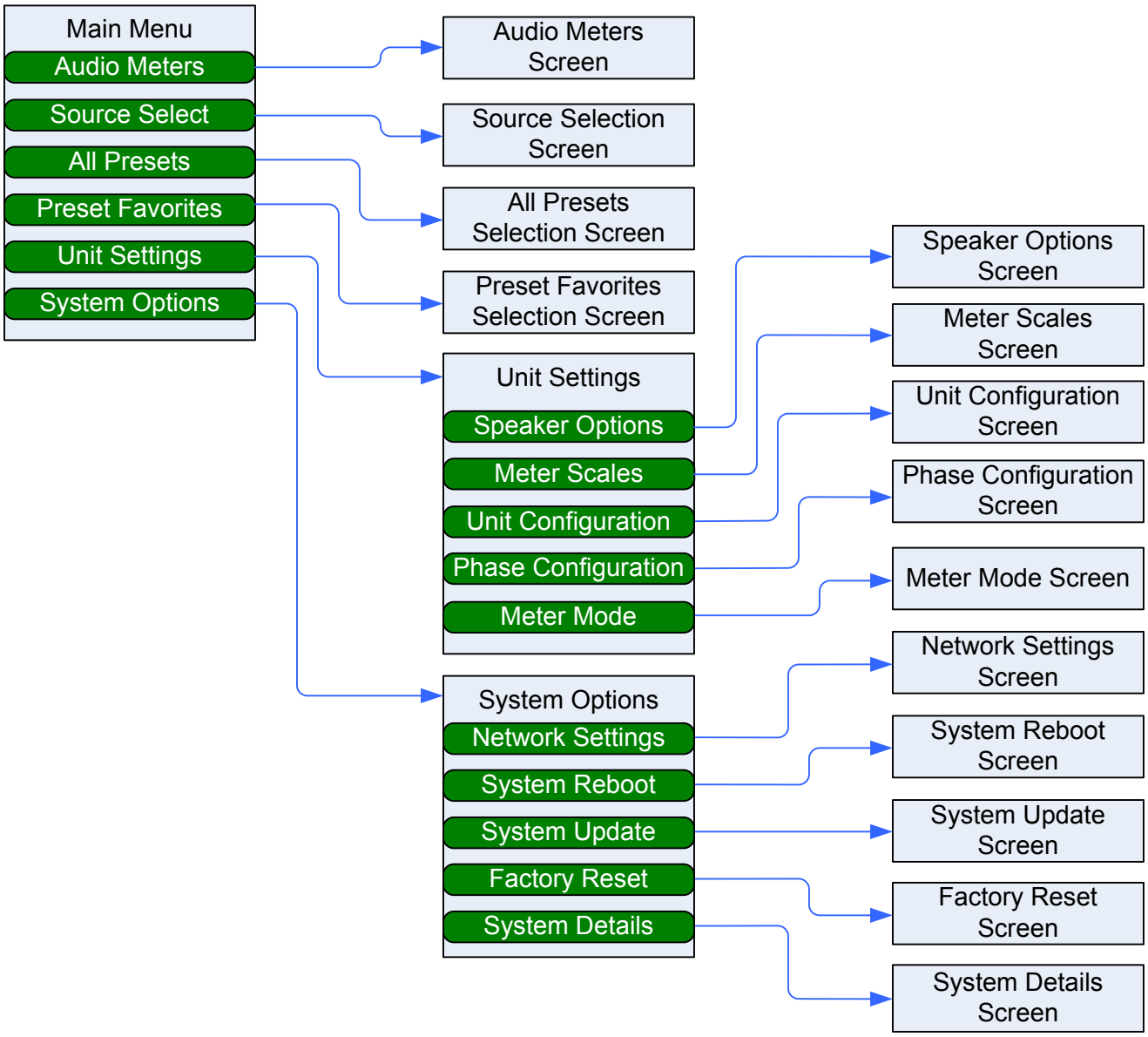
2. **Video Signal**: This translucent box displays the resolution and frame rate of the video signal.

Note: If the **Video Source** and **Video Signal** displays have been optioned to disappear after 5 or 10 seconds and you wish them to reappear, simply touch the video screen.

Menu / Option Touchscreen

You may set most options or view a variety of system information using the self-contained menus. To access this, touch the **Menu** button which appears on the right of the level meter screen. Figure 2-8 is a diagram of the menu arrangement, a tree showing how to reach any menu from the **Main Menu**. Figure 2-9 shows the **Main Menu**.

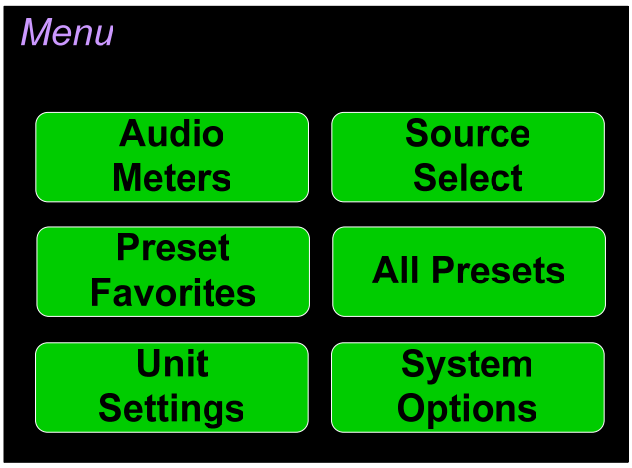
Figure 2-8: Menu Tree



Main Menu

Touching the **Menu** button on the **Audio Meters** screen will access the **Main Menu**. Alternatively, especially when monitoring the video program, you may access the **Main Menu** by holding the **Source** knob pressed for two seconds. The **Main Menu** is shown in Figure 2-9.

Figure 2-9: Main Menu



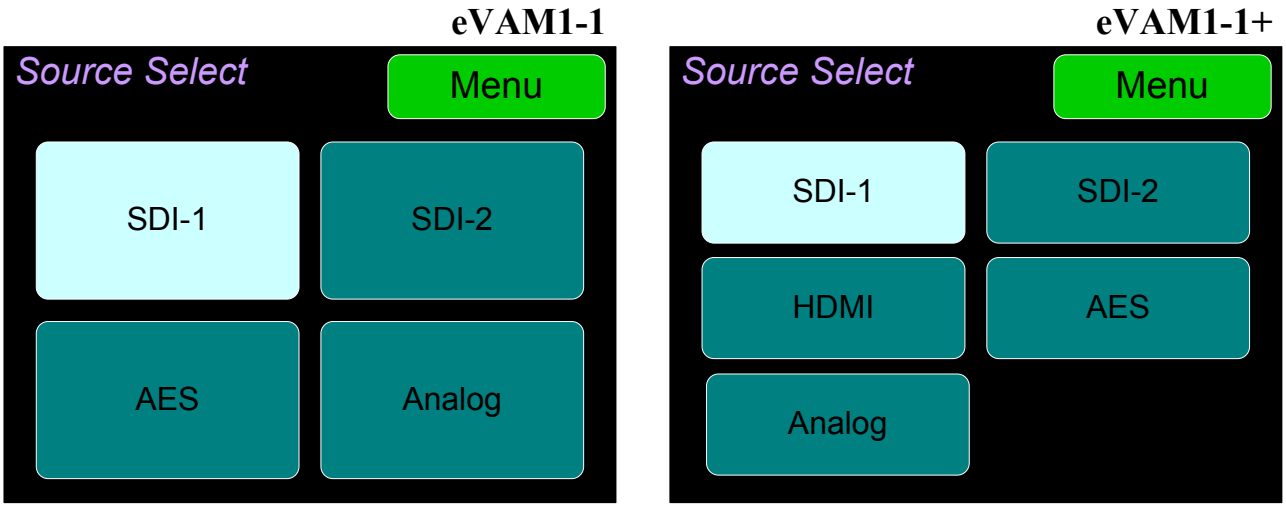
Audio Meters

Touching the **Audio Meters** selection on the **Main Menu** screen simply returns you to the Audio Level Meters screen.

Source Select

Touching the **Source Select** selection on the **Main Menu** proceeds to the **Source Select** menu. While the monitored source can simply be selected by rotating the **Source** knob on the front panel, this menu is provided to show all of the possible sources. The selected source is shown in a light color. You may simply touch another source in this menu to switch to it. Figure 2-10 shows the Source Select Menu for each product.

Figure 2-10: Source Select Menu



Touch **Menu** to exit this menu.

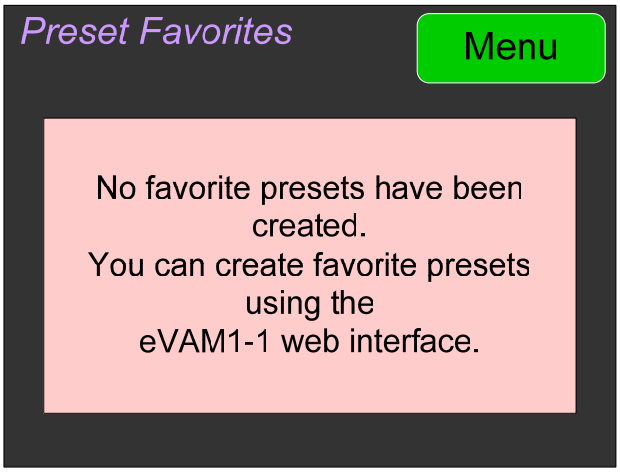
Preset Favorites

Touch the **Preset Favorites** button to display the Preset Favorites screen. The eVAM1-1 / eVAM1-1+ can contain up to 8 Presets. This screen shows which of the 8 Presets you have designated as Favorites. Refer to the Dashboard section of Chapter 4. Generally, these are frequently used Presets that you want to separate out from the possibly many other Presets in the system. The Preset Favorites screen is shown in Figure 2-11.

Figure 2-11: Preset Favorites Screen

In this screen, the currently selected Preset is shown in bright yellow. Touch any Preset to select it. To exit this screen without making a selection, touch **Menu**. If no Favorite Presets have been designated, this screen will appear as shown in Figure 2-12.

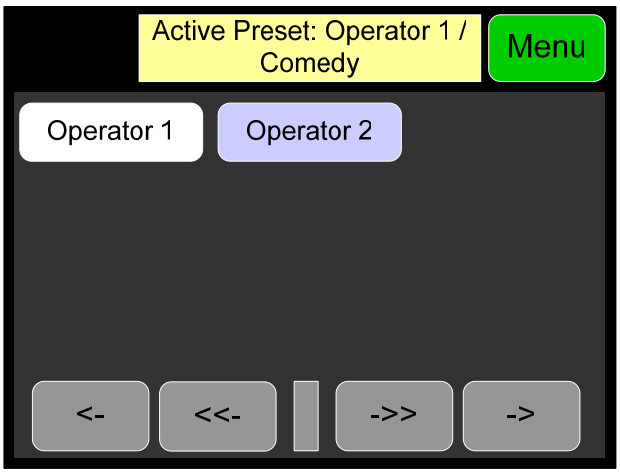
Figure 2-12: Preset Favorites Screen - No Favorites



All Presets

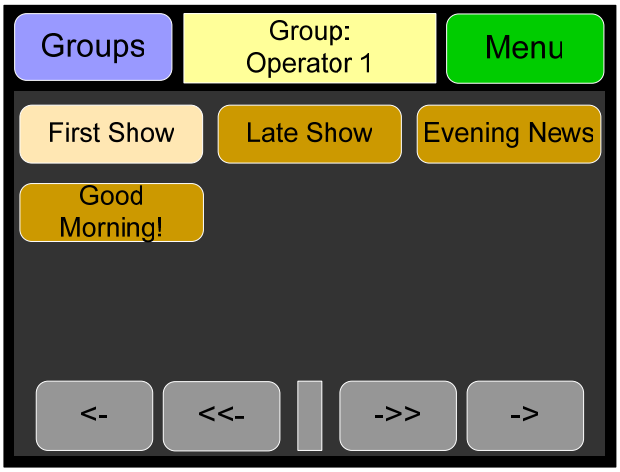
Touch the **All Presets** button to display the All Presets Group Selection screen as shown in Figure 2-13. The eVAM1-1 can contain up to 8 Presets. If no Presets have been created, the screen in Figure 2-15 appears instead.

Figure 2-13: All Presets Screen - Group Selection



The Presets are normally arranged into Groups. Use this screen to select which Preset-containing Group to examine. After selecting one of the Groups, the Preset Selection screen shown in Figure 2-14 is shown.

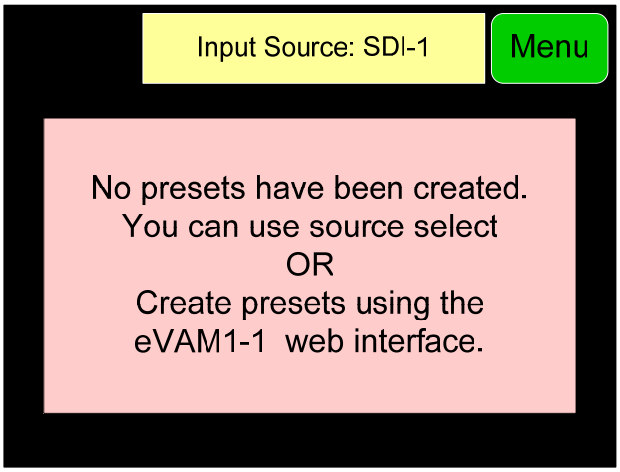
Figure 2-14: All Presets Screen - Preset Selection



To select a Preset, touch the associated button. After a quick 2-second delay, the metering screen will display the channels contained in that source.

To return to the All Presets Group Selection screen instead, touch the **Groups** button. To return to the Menu without making a selection, touch the **Menu** button.

Figure 2-15: All Presets Screen - No Presets

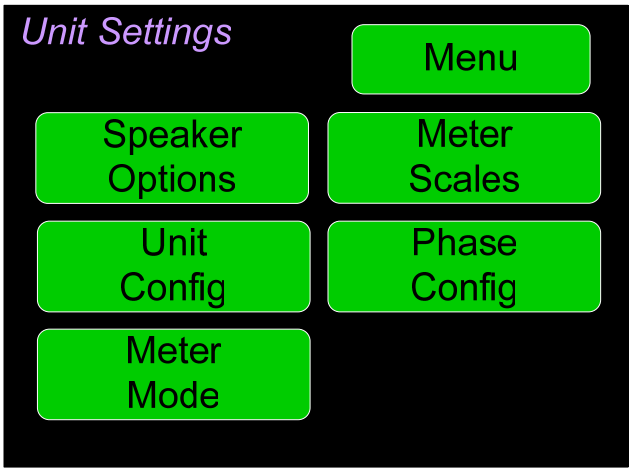


To return to the Menu from this screen, touch the **Menu** button.

Unit Settings

Touching the **Unit Settings** selection on the **Main Menu** screen proceeds to the **Unit Settings Menu**, which contains additional menu selections. The **Unit Settings Menu** is shown in Figure 2-16. This is an intermediary menu which leads to other menus and screens.

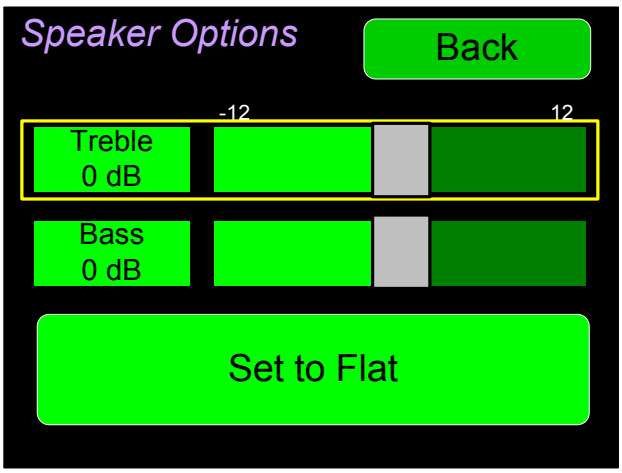
Figure 2-16: Unit Settings Menu



Speaker Options

Touching the **Speaker Options** selection on the **Unit Settings** Menu screen proceeds to the **Speaker Options** screen. The controls on this screen affect various characteristics of the monitored audio as heard on the internal speakers. This screen is shown in Figure 2-17.

Figure 2-17: Speaker Options Screen



The controls function as follows:

1. **Treble**: This tone control adjusts the high frequency speaker audio response from -12 dB to +12 dB. Lowering **Treble** compensates for high frequency pre-emphasis or removes sibilance effects. Increasing **Treble** will add "sizzle" to the sound and bring high-pitched sounds out of the mix. The control can be touched and moved left or right to adjust in 2 dB increments. After touching the **Treble** control, the **Channel** knob can also be turned to make the adjustment.
2. **Bass**: This tone control adjusts the low frequency speaker audio response from -12 dB to +12 dB. Lowering **Bass** will unmask midrange band sounds, while increasing **Bass** will make the sound "fatter". The control can be

touched and moved left or right to adjust in 2 dB increments. After touching the **Bass** control, the **Channel** knob can also be turned to make the adjustment.

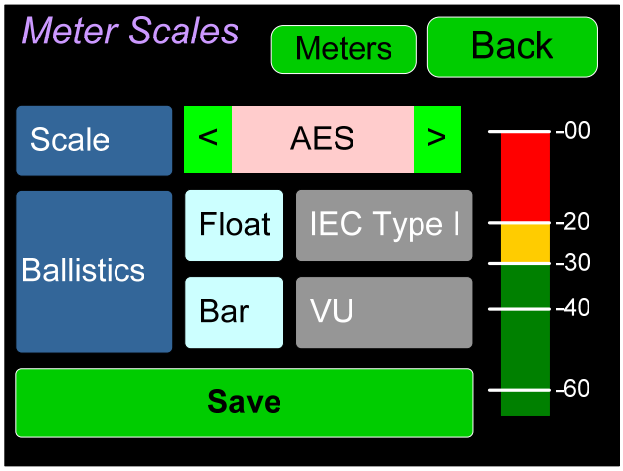
3. **Set to Flat**: This setting returns the **Treble** and **Bass** control settings to 0 dB, producing a flat frequency response.

Touch **Back** to exit this screen.

Meter Scales

Touching the **Meter Scales** button on the **Unit Settings** Menu displays the **Meter Scales** screen as shown in Figure 2-18. The controls on this screen select the scale standards as well as the ballistics that will be applied to the audio meters.

Figure 2-18: Meter Scales Screen



The controls function as follows:

1. **Scale**: This meter scales standard to be used when displaying audio levels. A choice of seven scales is available. Touch the left or right arrows to select the scale. A representation of the chosen scale will be shown at the right. The possible scales that can be selected are shown in Figure 2-19.

Figure 2-19: Meter Scale Selection

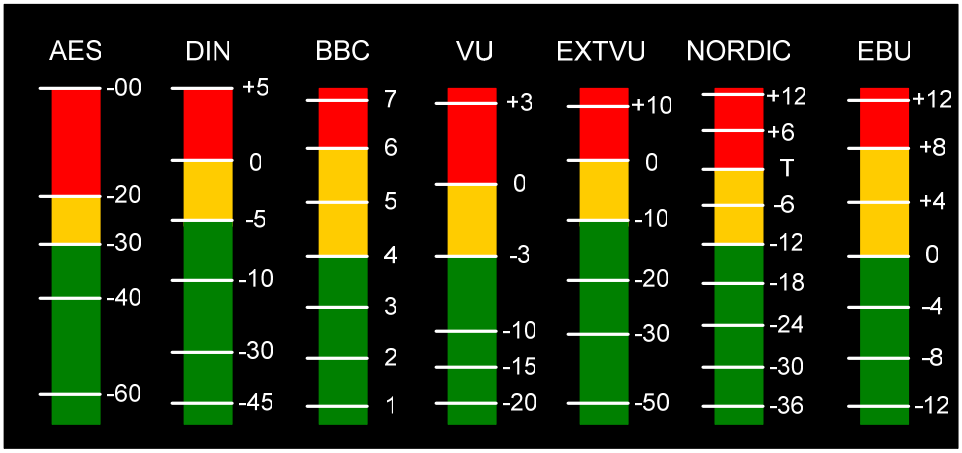


Table 2–4: Meter Limits and References

Scale	Bottom Limit	Top Limit	Default Reference	Default Color Bounds		Default Ballistics	
				Lower	Upper	Float	Bar
AES	-72 dBFS	0.0 dBFS	0 dBFS = 0 dBFS	-30 dBFS	-20 dBFS	IEC Type I	VU
DIN	-53 dBr	+5.5 dBr	-15 dBFS = 0 dBr	-5 dBr	0 dBr	—	IEC Type I
BBC	-13.25 dBr	+13.0 dBr	-18 dBFS = 0 dBr	0 dBr	8 dBr	—	IEC Type I
VU	-45 dBr	+3.5 dBr	-20 dBFS = 0 dBr	-3 dBr	0 dBr	—	VU
EXTVU	-56 dBr	+16.0 dBr	-20 dBFS = 0 dBr	-10 dBr	0 dBr	—	VU
NORDIC	-44 dBr	+12.5 dBr	-18 dBFS = 0 dBr	-10 dBr	0 dBr	—	IEC Type I
EBU	-13.25 dBr	+13.0 dBr	-18 dBFS = 0 dBr	0 dBr	8 dBr	—	IEC Type I

2. **Ballistics**: The Bar and Float ballistics associated with the selected meter scale are displayed. Refer to Table 2-5. Ballistic timings are valid only at 48 kHz.

Table 2–5: Meter Timings

Ballistics	Rise	Fall	
		Level Change	Time
VU	Not Specified		
IEC Type I	5 ms to reach -2 dB of settled reading	-20 dB	1.7 sec.
IEC Type II	10 ms to reach -2 dB of settled reading	-24 dB	2.8 sec.
None	Bar or Floating Segment Not Displayed		

When you have made your choices, touch **Save** to retain them. Touch **Back** or **Meters** to exit this screen.

Unit Configuration

Touching the **Unit Config** selection on the **Unit Settings** Menu proceeds to the **Unit Config Menu**. This menu is shown in Figure 2-20.

Figure 2-20: Unit Configuration Menu

The controls function as follows:

1. **Brightness**: This setting adjusts the brightness of the display screen. Touch the left pointing arrow to dim the brightness or touch the right pointing arrow to increase the brightness.
2. **Video Info**: This setting determines if or how video information is displayed when the video screen is selected by pressing the **Source** knob. The possible selections are as follows:
    a. **Always On**: The video information is always displayed.
    b. **Off**: The video information is never displayed.
    c. **5 Secs**: The video information is displayed for 5 seconds after the video screen is selected and then it disappears.
    d. **10 Secs**: The video information is displayed for 10 seconds after the video screen is selected and then it disappears.
3. **AES termination**: AES signals should have one and only one termination. This termination should physically be at the last destination of an AES coax cable. If the eVAM1-1 is the last connection in a series of AES connections, then its terminations should be turned on. A symptom of too many terminations (or no termination) is that no signal appears to be present on the AES input. Touch the On - Off switch to change the termination setting.
4. **Source Knob Selection**: This setting determines the function of the **Source** knob on the front panel. It may be set as follows, depending upon your needs:
    a. **Source Select:** The **Source** knob will select the input source to be monitored.
    b. **No Operation:** Rotating the **Source** knob will do nothing. If the **Source** knob is set to **No Operation** and is turned, the Audio Meters

screen will display No Operation for 3 seconds at the top left, as a reminder.

c. **All Presets:** The **Source** knob will select from any of the 8 possible Presets.

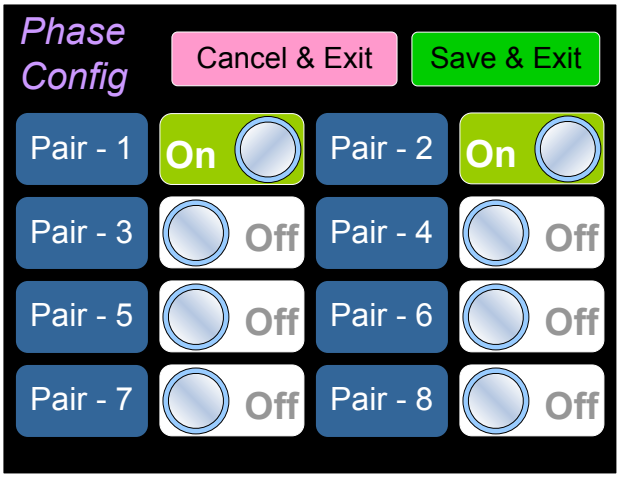
d. **Preset Favorites:** The **Source** knob will select between the Presets you have designated as favorites.

Touch **Back** to exit this menu.

Phase Configuration

Touching the **Phase Config** selection on the **Unit Settings** Menu proceeds to the **Phase Config Menu**. This menu is shown in Figure 2-21.

Figure 2-21: Phase Configuration Menu



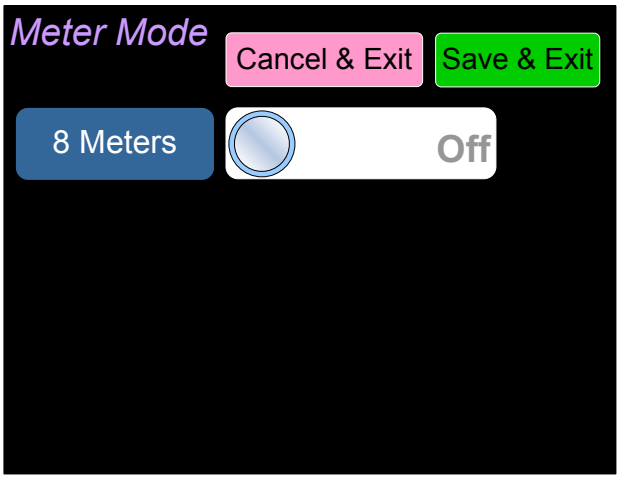
The controls function as follows:

1. **Pair 1 - 8**: These switches allow you to select which channel pairs will receive a phase meter on the **Metering Screen**. Generally, it is useful to monitor the relative phase of stereo pairs. However, sometimes each channel of a pair is unrelated to each other. This can be because the channels are used to convey two independent monophonic signals or that one channel may be a Center channel and the other may be a Low Frequency Effects channel. In these instances, the Phase Indicator would almost always indicate an out of phase condition. Because this would be a needless distraction to the operator, switches are provided on this screen to individually turn phase monitoring for each channel pair on or off.
2. **Cancel & Exit**: If you decide that you do not want to keep the settings you have made on this screen, touch the **Cancel & Exit** button to discard the changes and return to the **Unit Settings** menu.
3. **Save & Exit**: When you have finished making the changes you want on this screen, touch the **Save & Exit** button to save the changes and return to the **Unit Settings** menu.

Meter Mode

Touching the **Meter Mode** selection on the **Unit Settings** Menu proceeds to the **Meter Mode Menu**. This menu is shown in Figure 2-22.

Figure 2-22: Meter Mode Menu



The control functions as follows:

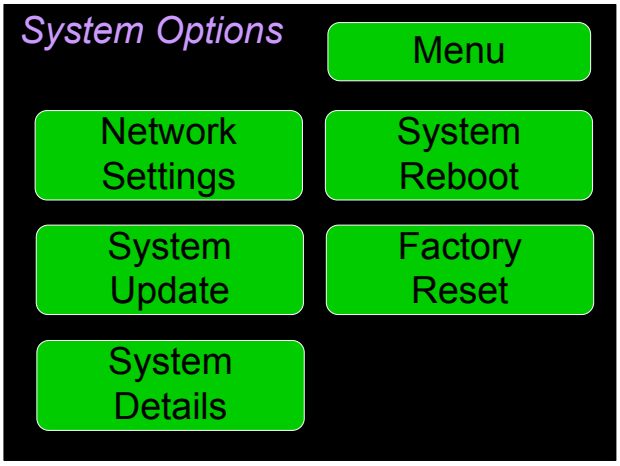
1. **8 Channel Mode**: This setting selects whether 16 meters are shown on the Metering Screen or whether 8 larger meters are displayed instead. If it is not necessary to view 16 meters at a time, 8 larger, easier-to-touch meters can be a better choice. Touch the On - Off switch to change the 8 Channel Mode setting.

To exit this menu and save your selection, touch **Save & Exit**. To exit this menu without saving your selection, touch **Cancel & Exit**.

System Options Menu

Touching System Options in the **Main Menu** proceeds to the **System Options** menu, which is an intermediate menu leading to other screens. This menu is shown in Figure 2-23.

Figure 2-23: System Options Menu

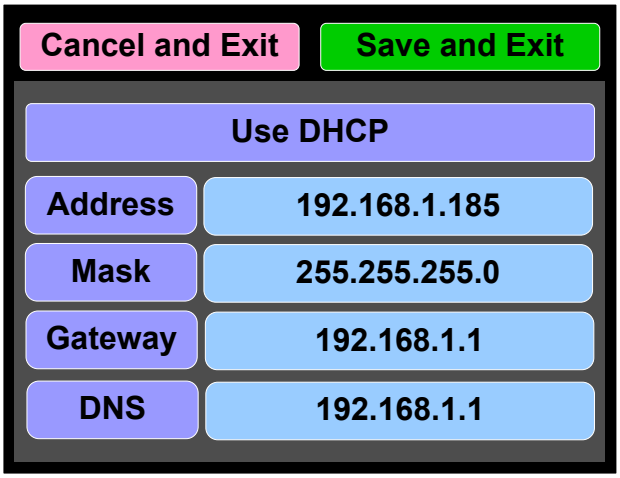


Touch **Menu** to exit this menu.

Network Settings

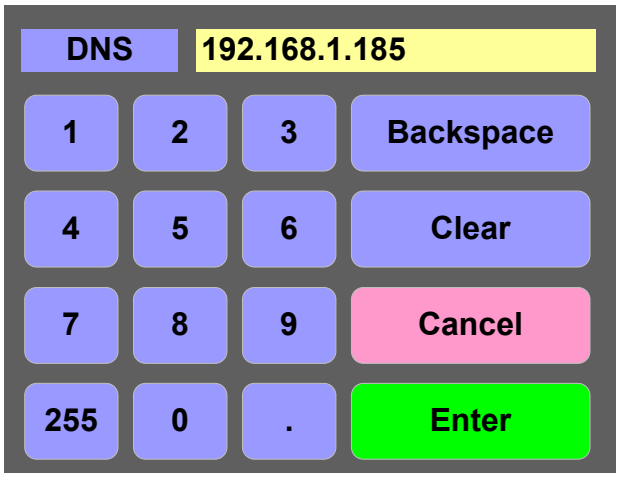
Touch the **Network Settings** selection on the **System Options** Menu displays the **Network Settings** menu as shown in Figure 2-24. This screen lets you view or change the product IP, the Net Mask, Gateway and DNS. It also lets you switch between a static (fixed) or a dynamic (DHCP) network address.

Figure 2-24: Network Settings Screen



1. To change the IP Address, Net Mask, Gateway, or DNS, tap the item you would like to change. A keypad will appear, as shown in Figure 2-25.

Figure 2-25: Network Configuration: Setting Change

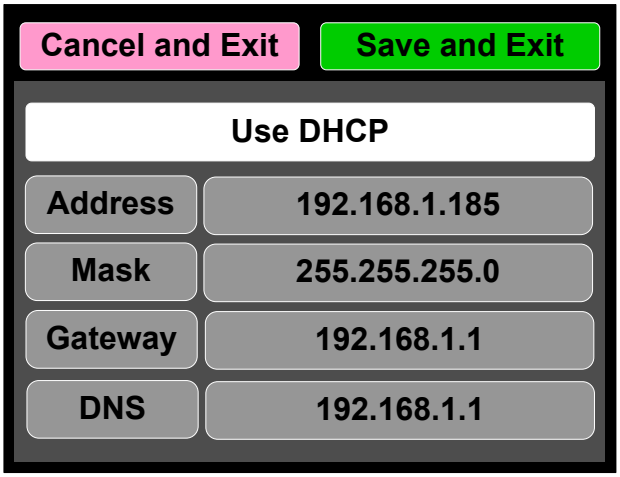


2. Touch the digits to be entered and then touch the **Enter** button. The **Clear** button may be touched to erase any mistyped digits.
3. Now repeat steps 1 and 2 until you have replaced all of the necessary digits.
4. To save the newly entered address, touch the **Enter** button. Touch the **Cancel** button to return to the previous screen without saving any changes.

Important: There is no confirmation for **Save**, so make sure you want to perform this action before taking it. The system does not need to reboot before it is once again ready for operation.

To change from a static (fixed) to a dynamic (DHCP) network address, touch the **DHCP** button. The screen will change, as shown in Figure 2-26. To change back to a static (fixed) network address, touch the **DHCP** button again. The colors of the buttons will return to the ones depicted in Figure 2-25.

Figure 2-26: Network Settings: DHCP



1. To complete the network addressing scheme change, touch the **Save** button. This will save the changes you selected.

2. Touch the **Cancel** button to return to the previous screen without saving any changes.

Important:

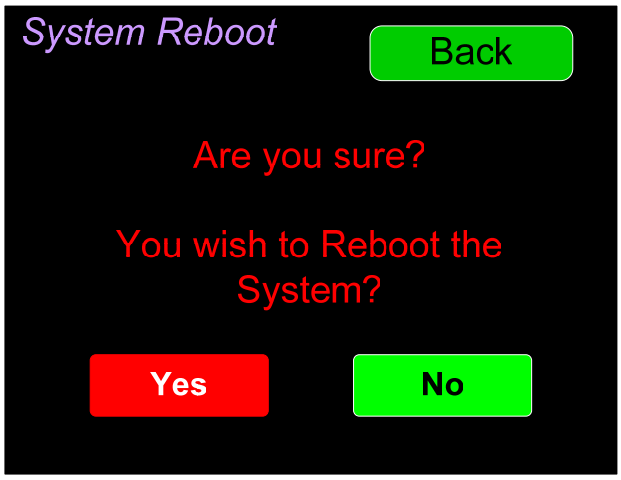
There is no confirmation for **Save and Exit**, so make sure you want to perform this action before taking it. The system will not need to reboot before it is once again ready for operation.

System Reboot

Touching the **System Reboot** selection on the **System Options** Menu displays the **System Reboot** screen as shown in Figure 2-27. This function is normally only used upon request from Wohler Technical Service to troubleshoot or correct an issue.

The **System Reboot** function should be used with a bit of forethought. It puts the system out of service for several minutes while it is rebooting.

Figure 2-27: System Reboot

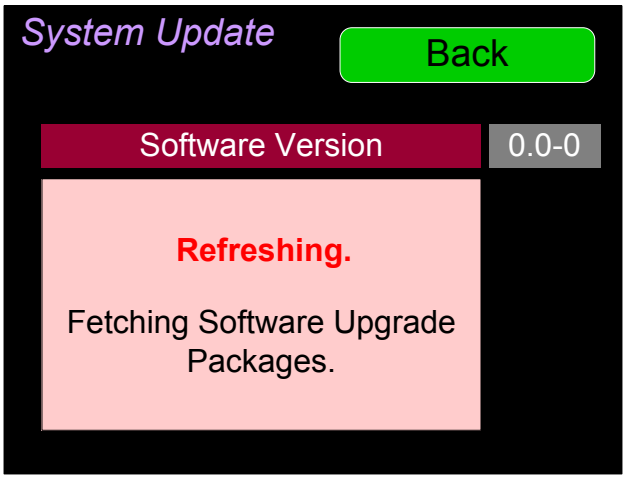


If you have any doubt as to whether you should press **Yes**, press **Back** or **No** instead, and contact Wohler Technical Service for advice. Pressing **Back** or **No** will return you to the **System Options** menu.

System Update

Touching the **System Update** selection in the **System Options** Menu displays **System Update** screen as shown in Figure 2-28, showing the current software version of the product. To update the system software locally from the eVAM1-1 front panel, follow the procedure in the **Local Update from the Front Panel** section of Appendix A.

Figure 2-28: System Update Screen



If you have just inserted a flash drive with a valid software upgrade package, press **Refresh** to see that package.

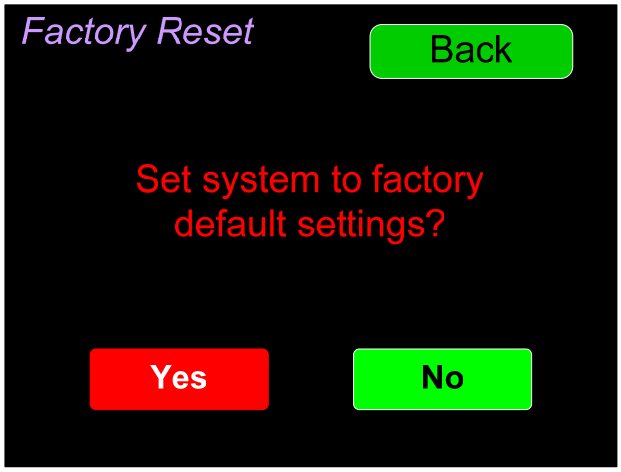
Touch the **Back** button return to the **System Options Menu**.

Factory Reset

Touching the **Factory Reset** selection in the **System Options** menu displays the **Factory Reset** screen as shown in Figure 2-29. Because of the large change this function is about to make to the product, it asks for you for verification that you really want to proceed.

The **Factory Reset** function should be used with caution. It deletes all of the settings you have programmed into the system. It returns the system to the way it was when received new from the factory. After using this function, you will need to use the Wohler Web GUI to reprogram everything from the start.

Figure 2-29: Factory Reset



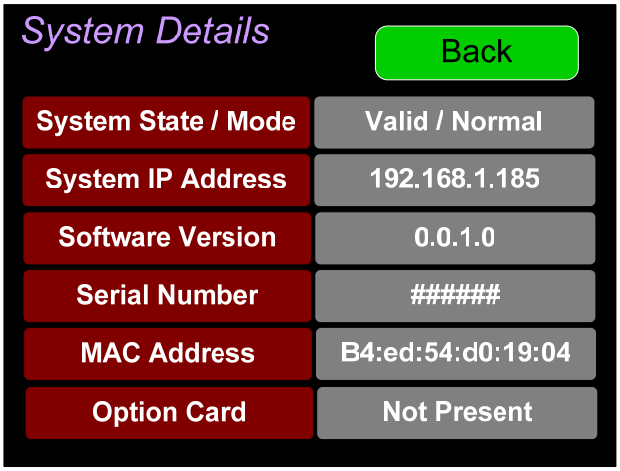
Note: **Factory Reset** will also reset your IP address to the default one. After a Factory Reset, the IP Settings will need to be updated. The default IP address for the unit is determined based upon the Mac address. It is 169.254.1.xx where xx is the last octet of the management Mac address. For example, if the Mac address is b4:ed:54:d0:04:28 then the IP address would be 169.254.1.40 (40 is the decimal equivalent for the last octet of Mac address 28.)

If you have any doubt as to whether you should press **Yes**, press **Back** or **No** instead, and contact Wohler Technical Service for advice. Pressing **Back** or **No** will return you to the **System Options** menu.

System Information

Touching the **System Details** selection in the **System Options** menu displays the **System Details** screen as shown in Figure 2-30. This screen lets you view the product Serial Number, Software Version, and various other information.

Figure 2-30: System Details Screen



The information shown on this screen is read only and cannot be changed.

Touch **Back** to return to the **System Options** Menu.

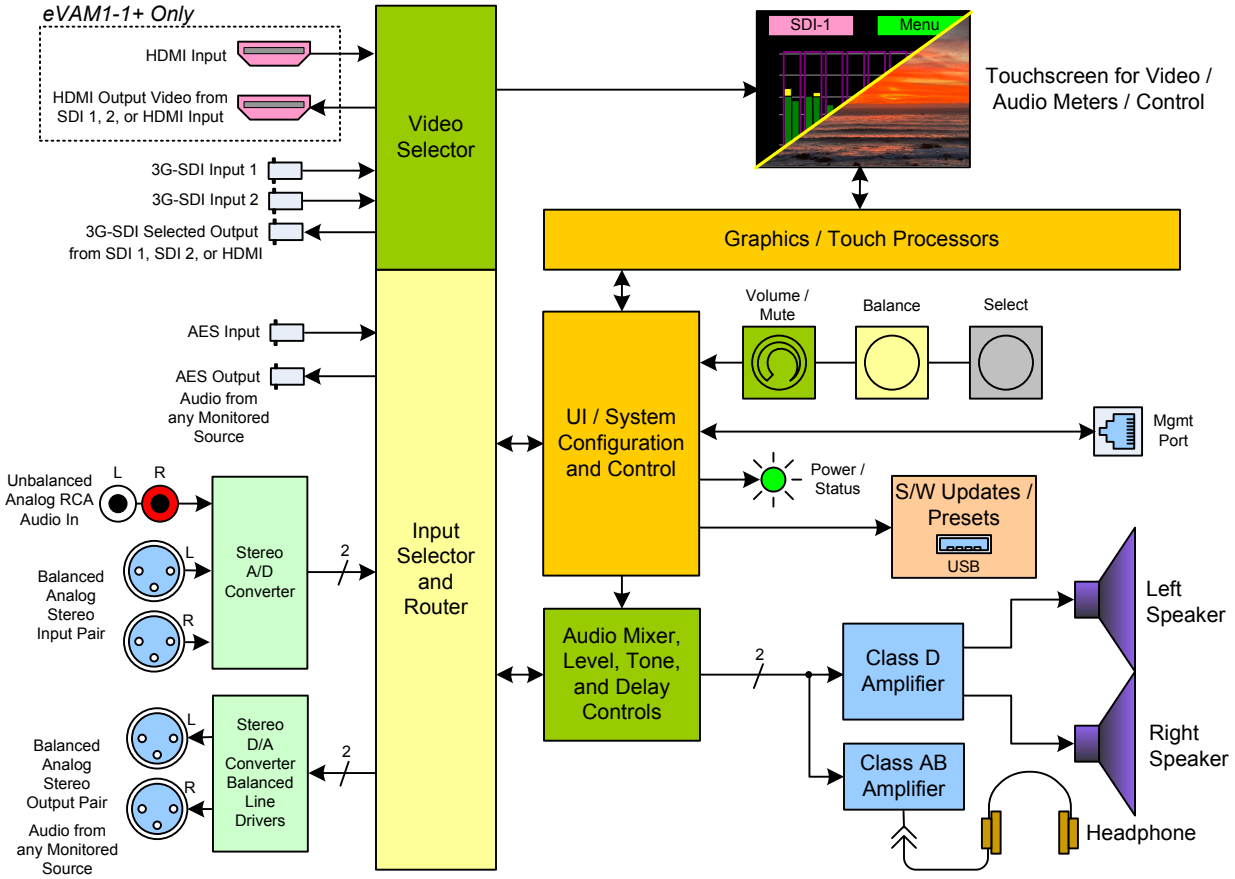
CHAPTER 3: Technical Info

Table 3–1: eVAM1-1 / eVAM1-1+ Specifications

Specification	Values/Domains
Power Requirements	100 VAC to 240 VAC ± 10%, 50/60Hz
Power Consumption	15 Watts
Dimensions (H x W x D)	19” x 1.75” x 4.8” (483 mm x 45 mm x 120 mm), standard 19” rack mounting
Shipping/Net Weight	8 lbs. (3.6 kg) / 5.5 lbs. (2.5 kg)
Supplied Accessories	AC Power Cord
Display Type	2.4" Capacitive Touchscreen LCD
Screen Resolution	320H x 240V
Viewing Angle	160 (H) x 160 (V)
Audio Channels	16 Max
Level Meters	Simultaneous Average & PPM
Level Meter Scale	Choice of AES, BBC, DIN, EBU, EXTVU, NORDIC, or VU
Sample Rate	48kHz
De-Multiplexing	• 16 channels from 16-channel SD/HD/3G-SDI
SDI Inputs / Outputs	• 2 SDI Inputs and 1 selected SDI Output
HDMI (eVAM-1+ only)	1 HDMI Input and 1 HDMI Output supporting 3G and HD resolutions: • 1920x1080p 60Hz • 1920x1080p 50Hz • 1920x1080p 48Hz • 1920x1080p 30Hz • 1920x1080p 25Hz • 1920x1080p 24Hz • 1920x1080i 60Hz • 1920x1080i 50Hz • 1280x720p 60Hz • 1280x720p 50Hz • 1280x720p 48Hz • 1280x720p 30Hz • 1280x720p 25Hz • 1280x720p 24Hz

Specification	Values/Domains
Cable Length (max)	COAX (such as Belden 1694A): > 150 m
AES Inputs	2 AES-3 channels on BNC
AES Outputs	2 AES-3 channels on BNC
Upgrades	Via USB interface
SDI Input Termination	75Ω unbalanced
AES/EBU Input Termination	75Ω unbalanced
AES/EBU Sampling Rate	48 kHz
Analog Inputs - Stereo	XLR-3 Female, balanced Left & Right RCA, unbalanced
Analog Input Impedance	40kΩ balanced
Analog Outputs - Stereo	XLR-3 Male, balanced +28 dBU max
Analog Output Frequency Response	40 Hz to 20 kHz (± 1dB)
Analog Output Distortion	<0.02% THD+N
Analog Output Dynamic Range	> 100 dB
Analog Output Reference Level	-20 dBFS = +4 ± 1.0 dBU
Internal Speakers - Stereo	70mm Full Range
Peak Acoustic Output	90 dB SPL (@ 2 feet)
Hum and Noise	Better than -68 dB below full output
Power Output	5 Watts RMS, 12 Watts peak (each side)
Acoustic Frequency Response	150 Hz to 16 kHz (± 5 dB)
Headphone Out - Stereo	40 Hz to 20 kHz (± 1 dB)
Headphone Load	8Ω to 150Ω

Figure 3–1: eVAM1-1 / eVAM1-1+ Block Diagram



CHAPTER 4: The Web GUI

The self-contained eVAM1-1 / eVAM1-1+ Web GUI allows you to customize the configuration of the Web GUI to suit your needs. If the default configuration of the eVAM1-1 / eVAM1-1+ suits your needs and you prefer to use it that way, then you do not need to use the Web GUI.

The Web GUI also allows you to have a remote view of the Meter Screen. Refer to the Audio Meters section in this chapter.

Web Browser / Control Device

Any web browser application running on any networked device such as desktop or laptop computer, tablet or smart phone can be used with the Web GUI.

Tablets with no network connector need to be linked to a copper LAN through a Wi-Fi adapter.

Although they can be used, smart phones are not recommended because their smaller screen size would require more scrolling, making operation challenging.

The Chrome® web browser is recommended for speed and compatibility.

First Time IP Assignments

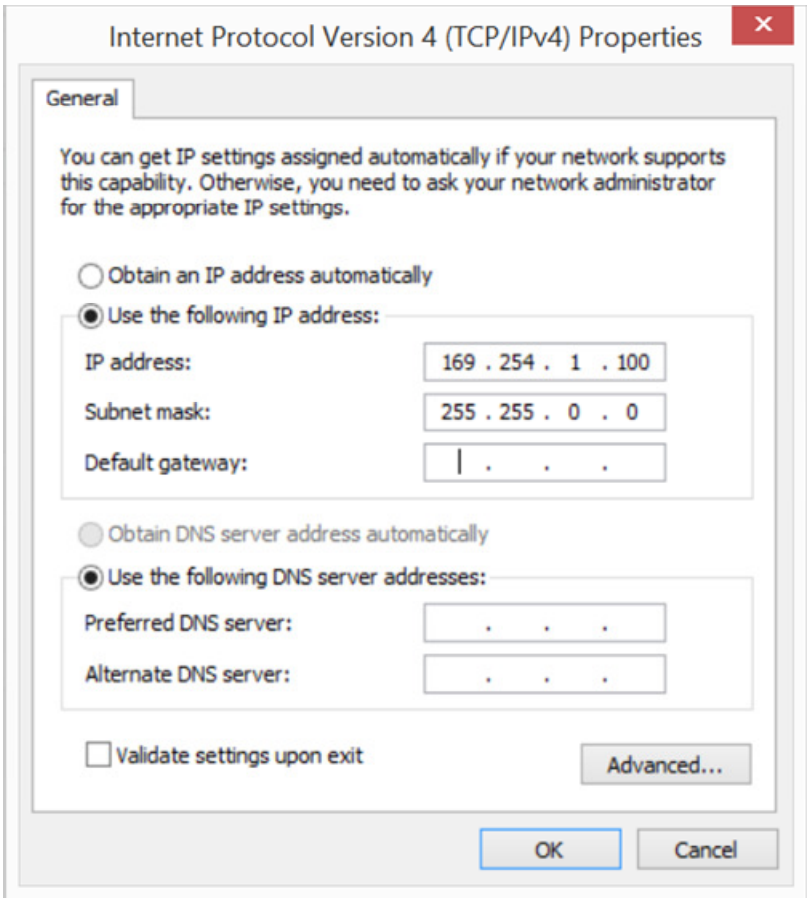
The eVAM1-1 / eVAM1-1+ can operate with a static (fixed) or dynamic (DHCP) IPv4 address. The default address will be **192.168.1.x** where x depends upon the MAC address of the unit, when received from the factory or when switched from DHCP to static addressing mode. There two basic types of connections that may be used to connect the eVAM1-1 / eVAM1-1+ to a web browser, a **Peer-to-Peer Connection** or a **Network Connection**.

Peer-to-Peer Connection

The most straightforward way to connect the eVAM1-1 / eVAM1-1+ to a web browser, free of possible network conflicts, is to establish a static peer-to-peer connection between the setup computer and the eVAM1-1 / eVAM1-1+. A 10/100/1000 MHz Ethernet switch may be used in between, but is not required.

Figure 4-1 shows an example of suitable address settings for the host computer in a Windows control panel. For Peer-to-Peer the ip address of windows should be in 192.168.1.x domain.

Figure 4–1: Host IP Settings



Close the control panel and reboot the host computer after making an IP address change to be sure the change takes effect. Either reconnect to the installed network or continue with this direct connection to access the Web GUI.

Network Connection

When connected to a network, the Web GUI address will need to be changed to another address in order to be compatible with the address assignments for that particular network. Immediately after the host setup is complete, change the Web GUI address. Make the corresponding address, mask and gateway changes in the Web GUI **Network Setup** page. Refer to the **Network Setup** section which follows.

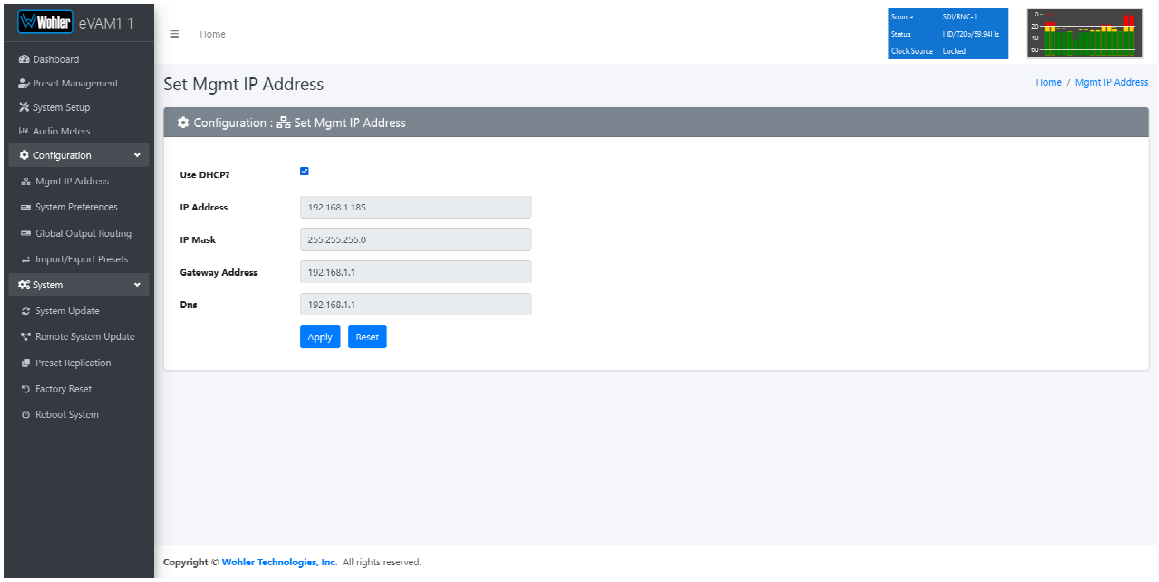
Otherwise set the Web GUI to DHCP address mode by checking the box for 'Use DHCP?' in Network Setup and have your IT administrator assign rights and settings for operation on the network. Allow enough time for your network's DHCP server to recognize a new network device and assign an address after booting.

The Web GUI uses link local addressing for its internal network, so no accommodation for this need be made in the network.

Network Setup

Make network **IP Address** changes for the local eVAM1-1 / eVAM1-1+ **Management (MGMT) Port** here.

Figure 4–2: Set IP Addresses



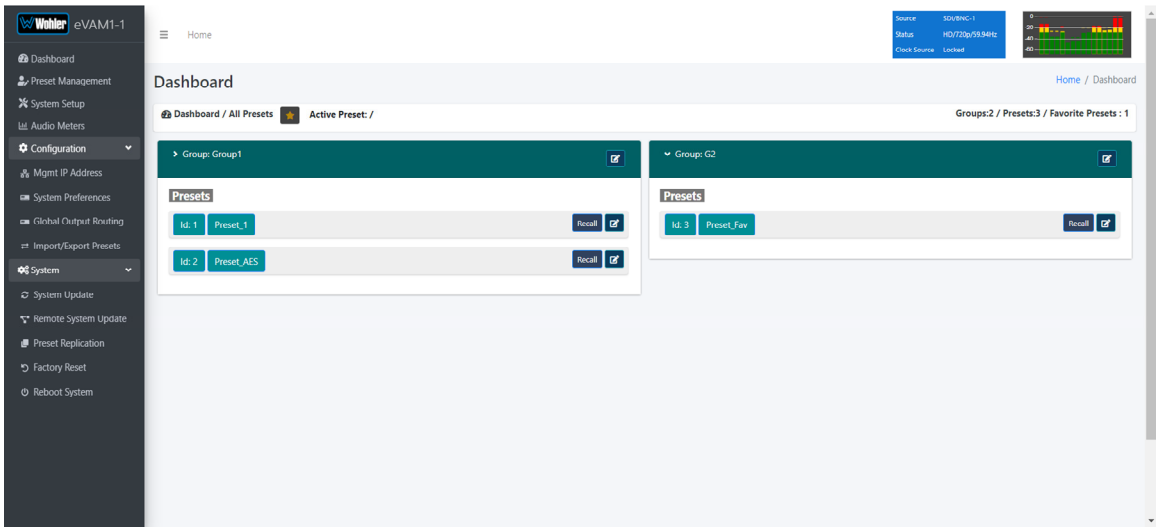
The procedure for changing the IP Address information is as follows:

1. **Use DHCP?** Check this box if your network has a DHCP server and you want to use dynamic addressing. Otherwise, you must enter static IP address entries in the four fields which follow.
2. **IP Address**: Enter the network address. Leading zeroes are not required.
3. **IP Mask**: This should usually be 255.255.255.0 unless your network can work across multiple subnets.
4. **Gateway Address**: This should usually be the same domain and subnet address numbers as the IP Address, but with the last octet being .1.
5. **DNS-nameserver**: A default value is shown for reference only. DNS is not normally required for basic static IP network configurations to work. Your IT administrator will specify a value to work with mixed static/dynamic network setups.
6. **Apply**: When you have made all of the necessary entries, press **Apply** to apply the changes.
7. **Reset**: If you should start to make changes and then change your mind about making them, press **Reset** to return the settings back to where they were.

Dashboard

Throughout the Web GUI, pages are a click or two away using the list of selections on the left side. The **Dashboard** page shows all of the available Preset configurations at a glance. The Web GUI allows you to assign Presets to particular groups. In Figure 4-3, one group is shown.

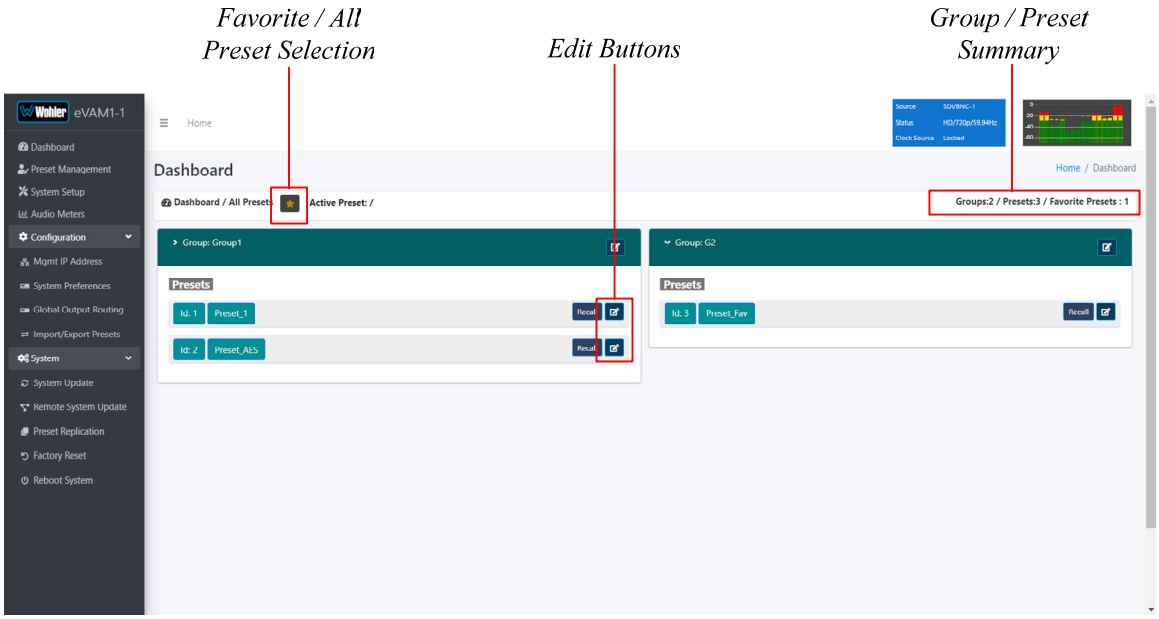
Figure 4–3: Dashboard Preset Overview



To view all of the Presets within any group, click on that group.

In Figure 4-4, it can be seen that there are three Presets in the G-1 group. The currently selected active Preset for local operation is shown in red. In Figure 4-4, there is no active Preset.

Figure 4–4: Dashboard Preset Recall / Edit



A Group / Preset Summary is shown in the upper right of the screen. This enables

you to see the total number of Groups, Presets and Favorite Presets in the eVAM1-1.

Use the  button, as shown in Figure 4-4, to toggle between Favorite Presets or All Presets.

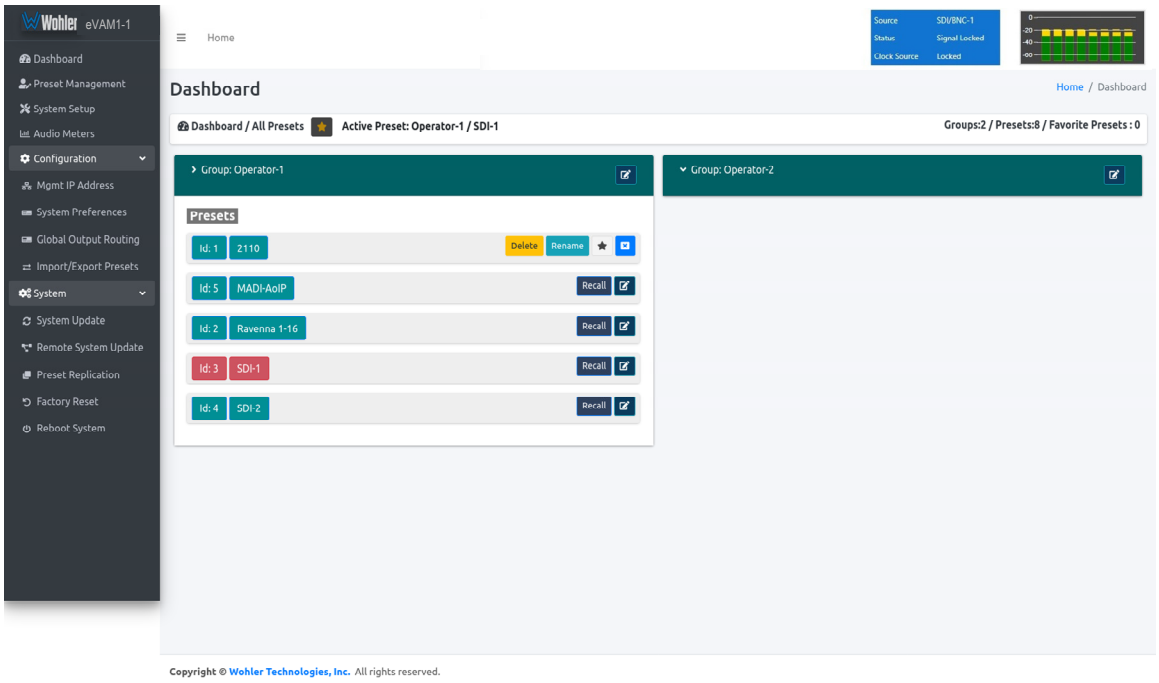
Click the **Recall** button to recall a Preset. To Edit a Preset, click the **Edit** icon, as shown in Figure 4-4, to the right of the associated **Recall** button.

The Edit options for a Preset are:

1. Delete: Remove the Preset from the system. Do Not delete the currently active Preset.
2. Rename: Rename the Preset, but keep all of its other characteristics.
3. Make Favorite: Make this Preset a favorite. This can be done for frequently used Presets.

Clicking a **Group Edit** button will cause the screen in Figure 4-5 to appear.

Figure 4–5: Dashboard Group Edit



The Edit options for a Group are as follows:

1. Delete: Delete the Group and all of the Presets it contains.
2. Rename: Rename the Group, but keep all of its other characteristics.

Audio Meters

Click on **Audio Meters** to remotely display the audio meters of the eVAM1-1 / eVAM1-1+. This display is shown in Figure 4-6. Also displayed is the name of the source that the meters are displaying. In Figure 4-6, this is SDI-1.

Figure 4–6: Audio Meters Display

System Preferences

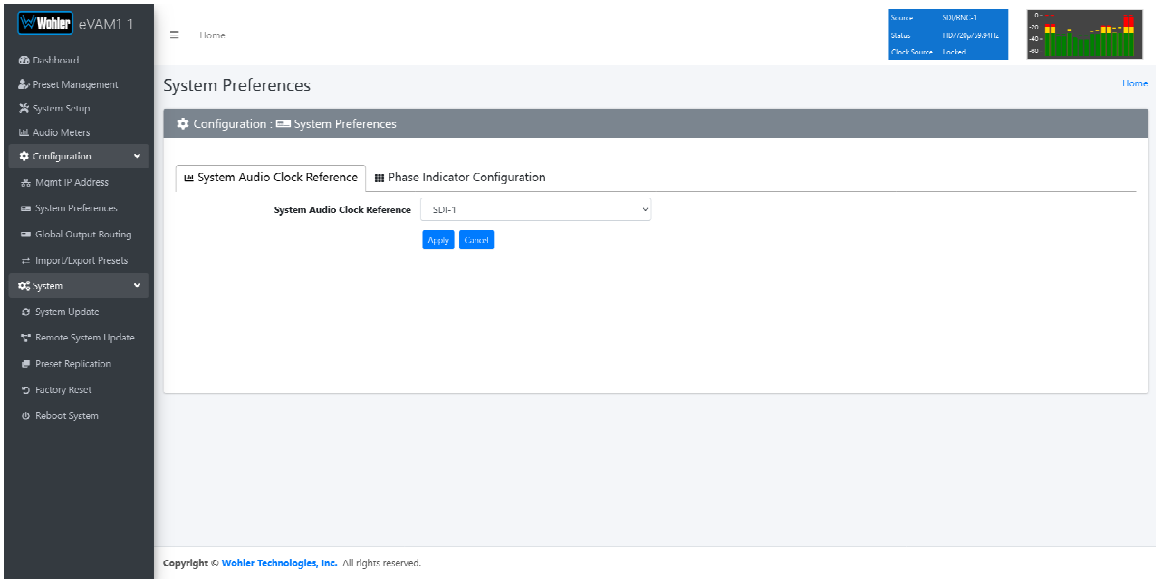
Click on **System Preferences** to find the System Audio Clock Reference and Phase Indicator Configuration tabs. These are as shown in Figures 4-7 and 4-8.

System Audio Clock Reference

The System Audio Clock Reference setting provides a way to set the global clock source for the unit. This setting will be used whenever a source is selected using the **Source Select** knob or the **Source Select Menu**. If the System Audio Clock Reference is set to **None**, then the currently selected source acts as the Clock Reference. This tab is shown in Figure 4-7.

This System Audio Clock Reference setting can be overridden by the optional System Clock Reference setting in the Preset Management menu when the Preset is chosen.

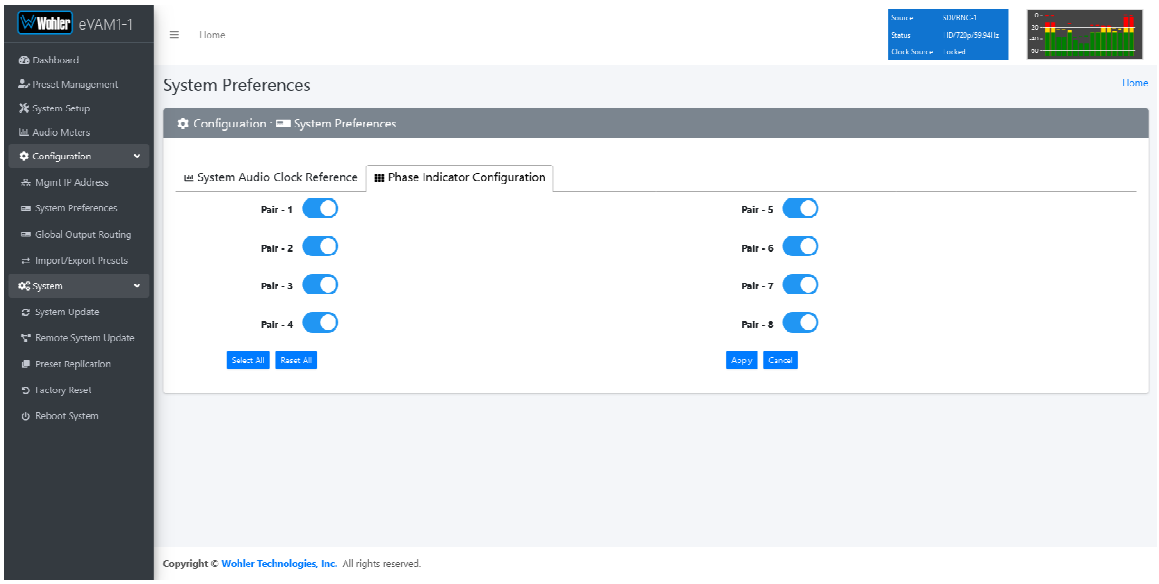
Figure 4–7: System Audio Clock Reference Tab



Phase Indicator Configuration Tab

The Phase Indicator Configuration tab is as shown in Figure 4-8. It allows you to select which channel pairs will receive a phase meter on the **Metering Screen**. Generally, it is useful to monitor the relative phase of stereo pairs. However, sometimes each channel of a pair is unrelated to each other. This can be because the channels are used to convey two independent monophonic signals or that one channel may be a Center channel and the other may be a Low Frequency Effects channel. In these instances, the Phase Indicator would almost always indicate an out of phase condition. Because this would be a needless distraction to the operator, switches are provided on this tab to individually turn phase monitoring for each channel pair on or off. **Select All** and **Reset All** buttons are also provided.

Figure 4–8: Phase Indicator Configuration Tab

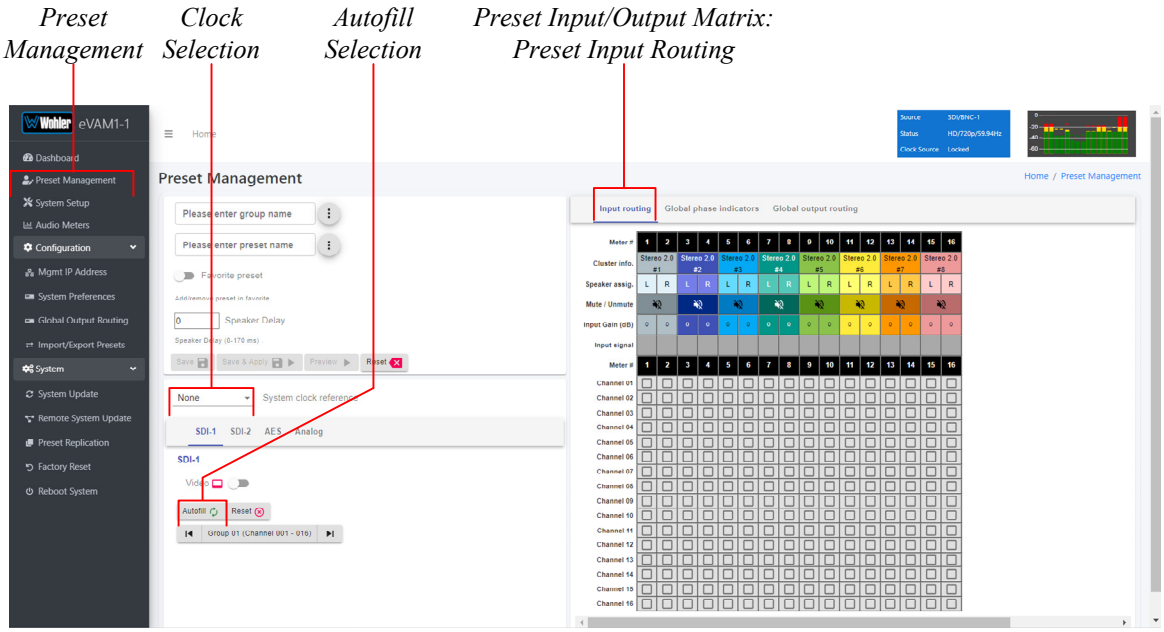


When you have finished making the settings click **Apply** to save them or click **Cancel** to discard them.

Preset Management

Presets are monitoring configurations that can be composed of channels from multiple sources and displayed on the meters in any order. Presets should be set up to allow operators to quickly shift between setups for monitoring. The **Preset Management** screen contains selections of all of the details for a Preset, and is largely arranged in a matrix format connecting input channels to monitoring channels. The screen is shown in Figure 4-9.

Figure 4–9: Configure Presets



1. **Preset Configuration**: You may create a new Preset, adjust an existing Preset, or create a new Preset from an existing Preset:
    - **To create a new Preset**, enter the name for the new Preset in the field to the left of the word **Preset**. Then make all of the settings needed and save it.
    - **To make changes to an existing Preset**, select it from the pull down list, make the needed changes and save it.
    - **To create a new Preset starting with an existing Preset**, first select the existing Preset from the pull down list. Next, enter the name for the new Preset and save it. Then make the needed changes and save it.
2. **System Clock Reference**: There must be a system clock reference for monitoring to take place. Select a reference from the pull down list. In the eVAM1-1+, this selection includes the HDMI reference. The best choice is a stable, always present clock source locked to house sync. Second to that, use the selected input as the clock. Generally speaking, **Internal** is not the best choice.
3. **Speaker Delay**: If desired, an audio delay may be inserted ahead of the monitor speakers. This delay may range from 0 to 170 mS. Typically, delay is used to align the monitored audio with a video monitored signal.

4. **Input Selection**: Audio from any of the input sources may be applied to the monitoring scheme in any way. For example, you may have 6 channels from an SDI stream, along with 2 AES channels, and along with 2 analog channels assigned your choice of meters. A **Preset Input/Output Matrix** is provided on the lower right side of the screen to allow you to assign each channel. Simply select each input source, one at a time, and then check the boxes in the **Matrix** to apply each input channel number to a metered channel number. They do not have to be applied in any specific order. The order of assignment should be chosen to make it easy for the operator to understand. If there are more than 16 channels in a source, the desired group of 16 can also be selected from the box in the lower left of the screen.
5. **Autofill Selection**: If you simply want to map all 16 input channels to all 16 meters in the same order, click the **Autofill** button. The **Preset Input/Output Matrix** will automatically fill out. To remove all mapping, click the **Reset** button that is adjacent to the **Autofill** button.
6. **Cluster Definition and Naming**: Channel Clusters are a series of channels that are all associated with monitoring the same signal. For example, a Stereo Cluster consists of two channels that together monitor a stereo signal. A Surround 5.1 Cluster consists of 6 channels that together monitor a 5.1 surround sound signal. Clicking a **Cluster Info** box opens a **Cluster** selection box.

   In the **Cluster** box, you can select the type of Cluster from a pull down selection. The available **Cluster Type** selections are:

   - Mono 1.0: The channel will appear within a single-channel cluster.
   - Stereo 2.0: The channels will appear within a two-channel cluster.
   - Surround 5.1: The channels will appear within a 6-channel cluster.
   - Surround 7.1: The channels will appear within an 8-channel cluster.
   - Custom: You may define a 0 to 8 channel cluster.

   Multichannel clusters will expand to the right and overwrite any clusters on overlapping meter positions.

   By default, all odd numbered channels will map to the left speakers and all even numbered channels will map to the right speakers. You may change this using the crosspoint selections in the Input/Output Matrix.

   A default name will be chosen and it will appear on the metering screen. You may name the Cluster anything you want by simply changing the words within the **Cluster Name** field.

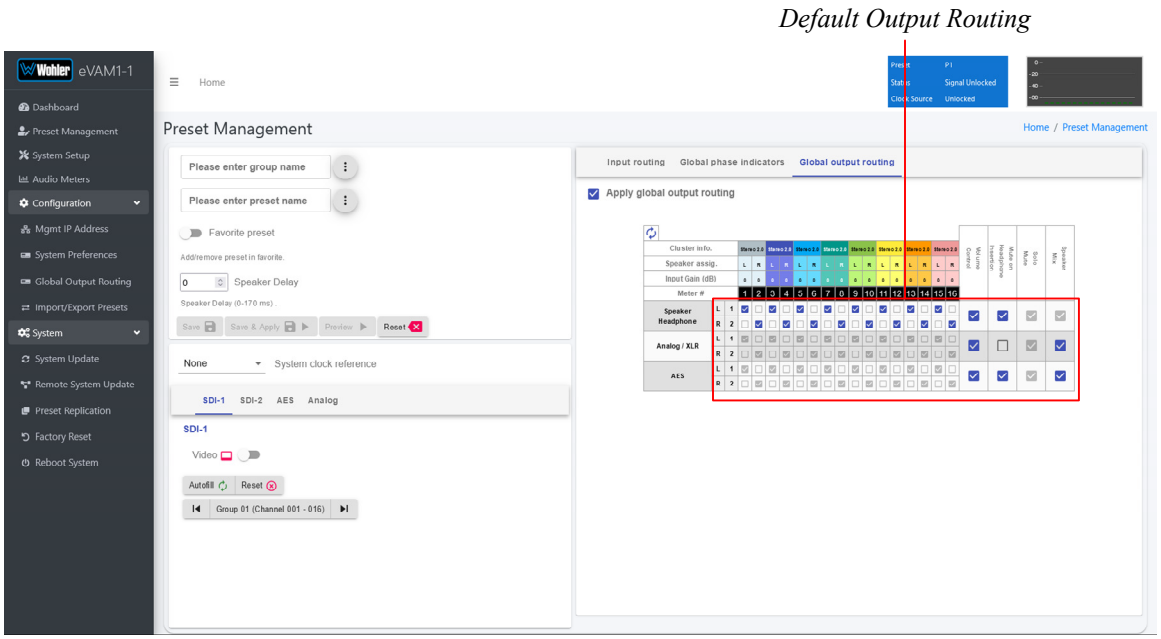
   When finished, click **Update**. To undo your change, click **Reset**. To undo all of the Cluster changes for the 16 channels, click **Reset All**.
7. **Speaker Assign**: Speaker assignments are made automatically when a cluster is set. However, it can be that in an actual signal, the channel assignments may be different than what the automatic assignment assumes. A speaker assignment adjustment is provided for each channel, should you need to override the automatic settings. Clicking a **Speaker Assign** button on a channel opens a box that lets you change the current setting.
8. **Mute/Unmute**: A **Mute/Unmute** control is provided for each channel, although the adjustment will affect all channels in the Cluster. This allows the

operator to just see the meters for certain channels and not hear the audio. This is an alternate action control.

9. Clicking the **Global Phase Indicators** tab allows you to select which channel pairs will receive a phase meter on the **Metering Screen** in this Preset. Generally, it is useful to monitor the relative phase of stereo pairs. However, sometimes each channel of a pair is unrelated to each other. This can be because the channels are used to convey two independent monophonic signals or that one channel may be a Center channel and the other may be a Low Frequency Effects channel. In these instances, the Phase Indicator would almost always indicate an out of phase condition. Because this would be a needless distraction to the operator, switches are provided on this tab to individually turn phase monitoring for each channel pair on or off. By default, the settings for a Preset are the same as the system-wide configuration set on the System Preference tab. However, to make unique settings for this Preset, uncheck **Apply Global Phase Indicator Settings** and then simply click each switch to the desired on or off position. **Select All** and **Reset All** buttons are also provided.

10. The **Output Routing** tab is shown in Figure 4-10. This tab allows you to determine exactly which input channels are routed to which outputs. This very flexible capability allows you to route signals according to Preset or as a default for the whole system. Refer to the **Global Output Routing** section in this chapter to learn the function of each of the checkboxes and of the matrix in this tab.

Figure 4-10: Default Output Routing



To set up a different input to output routing scheme for the Preset you are creating, click the **Global Output Routing** tab and uncheck the **Apply Global Output Routing** checkbox. You may then adjust the output routing as you desire on this tab and it will only apply to this Preset.

11. When you have finished creating a Preset or making changes to a Preset, either click the **Save** button to save the Preset, click the **Save & Apply** button to save the Preset and make it the current Preset, or click the **Reset** button to discard the changes just made.

Output Routing

The **Output Routing** feature (OPT-OUTPUT-ROUTING) allows channels to be routed or combined and routed in custom ways to various destination outputs. **Output Routing** is applied to:

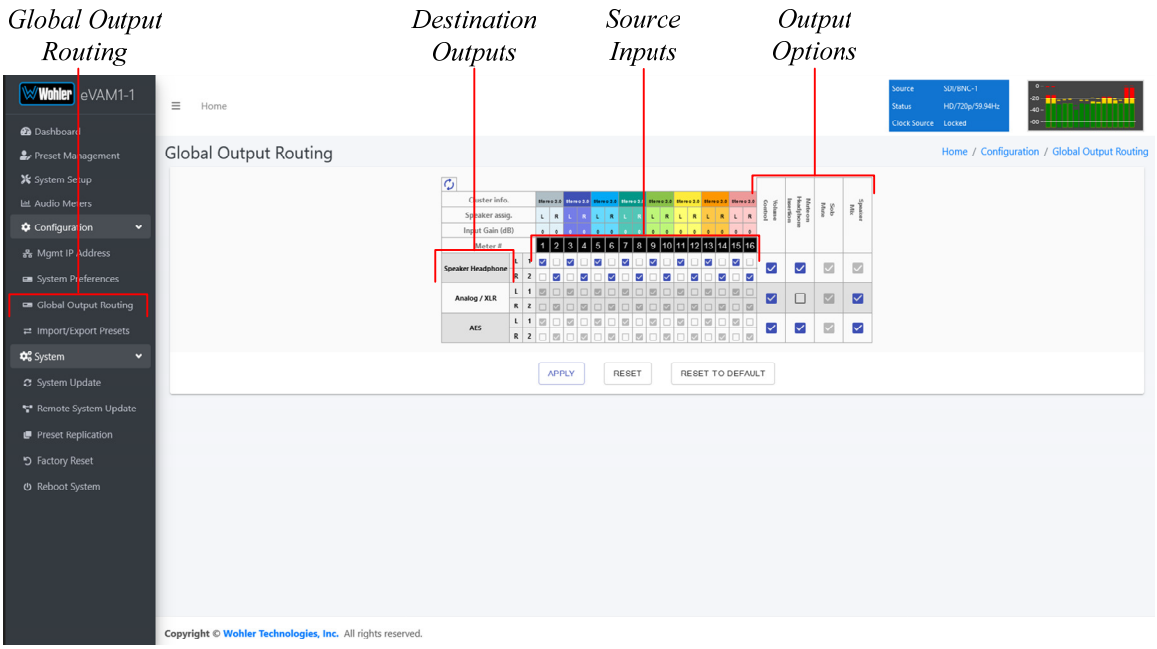
1. Signals monitored using "Input Source select" from the Front Panel,

2. Presets that have been created to apply the Output Routing.

Any change to the routing will affect the Presets that have "Apply Output Routing" selected.

Select **Global Output Routing** under **Configuration**. This will display the **Global Output Routing** screen. This screen contains a matrix of checkboxes which are an easy way for you to set up the wide variety of input to output routing and mixing capabilities. The **Global Output Routing** screen is shown in Figure 4-11.

Figure 4-11: Global Output Routing Option



Destination Outputs

On the left of the **Global Output Routing** screen are listed the Destination Outputs. These are the outputs to which any input can be routed. They are as follows:

1. **Speaker/Headphone**: Selected inputs will be sent to the left and right

speakers. The default routing is set as per the Speaker Assignment, left channels are sent to the left speaker and right channels are sent to Right speaker.

2. **Analog XLR**: Selected inputs will be mixed to the left and right channels and played through the two Analog XLR Outputs.
3. **AES**: Selected inputs will be mixed to the left and right channels and played through the AES Output.

Source Inputs

The source inputs which may be routed are described in this section.

1. **Cluster Information**: Cluster information show type of cluster and cluster name.
2. **Input/Output Matrix**: By checking the various boxes in this matrix, any input channels can be freely routed to any output channels. This flexible channel assignment is called a **Free Mix**. However, when the **Speaker Mix** box is checked in the **Output Options** section, the associated row within the matrix is automatically set to the speaker mix and the checkboxes are grayed out indicating that you may not change them with a **Free Mix** assignment.
3. **HDMI**: In the eVAM1-1+, the source inputs include the HDMI Input audio channels.

Output Options

The optional settings in this section allow for customization.

1. **Speaker Mix**: This option selects whether an output has the **Speaker Mix** or a **Free Mix** as set in the Routing Input section. The Speaker/Headphone output is always in the **Speaker Mix**.
2. **Solo/Mute**: This setting determines whether or not the outputs are affected by solos and mutes. The Speaker/Headphone output is always affected by solos and mutes. Note also, that all outputs in **Speaker Mix** mode also are affected by solos and mutes.
3. **Mute on Headphone Insertion**: This option controls whether the outputs should be muted upon a headphone insertion. This setting can be adjusted even for outputs whether they are in **Speaker Mix** or **Free Mix** modes.
4. **Volume Control**: This setting determines whether each output pair is adjusted by the **Volume Control** knob. Speaker/Headphone outputs are always affected by the volume control knob, as are any outputs that are in **Speaker Mix** mode.

Typical Questions Regarding Output Routing

The questions and thoughts in this section are commonly asked by people when setting up the licensed Output Routing capability.

What signal outputs can be controlled using the Output Routing feature?

All the outputs on the eVAM1-1 / eVAM1-1+ can be controlled using the Output Routing feature. This includes – Internal Speakers, Analog XLR outputs, and AES outputs.

What is the difference between Global Output Routing and Output Routing in Presets?

Both are used to configure the unit outputs. Global Output Routing is applied by default when you select a source or when creating presets and when you don't change the Output Routing unique to any Preset.

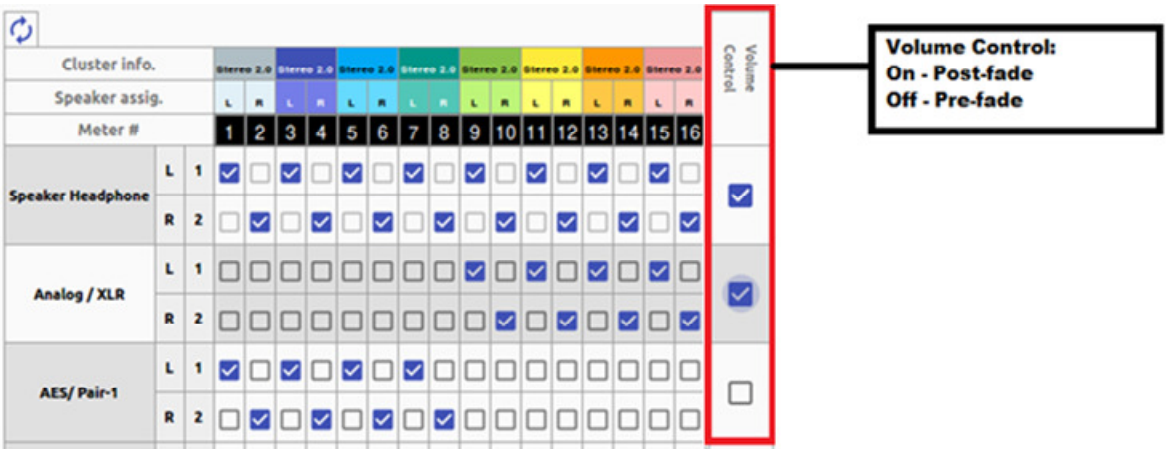
How do I route whatever is being monitored to the XLR and AES outputs?

Using **Global Output Routing** (optional licensing upgrade), you may route any signals to the XLR & AES outputs. You may route signals to the XLR outputs using the **Analog/XLR** checkboxes and route signals to the AES outputs by using the **AES/Pair 1** to **Pair 4** checkboxes.

As shown in the above example, signals appearing on Audio Meter channels 1 through 8 are routed to AES Pair 1 and signals from Audio Meter channels 9 to 16 are routed to the Analog XLR outputs.

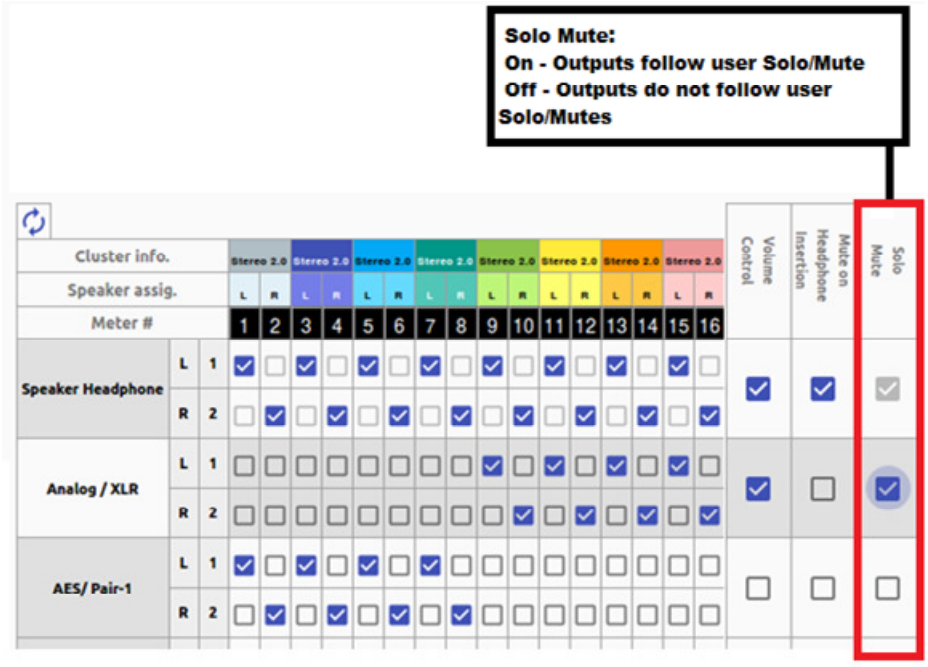
How do I have a downmixed pre-fade output on AES Pair-1 combined with a post-fade output on the Analog XLRs?

To downmix a pre-fade output on AES Pair-1, uncheck the **Volume Control** checkbox for that AES pair. For a Post-fade output on the Analog XLRs, check **Volume Control** checkbox.



How do I make the XLR outputs follow the Audio Meter screen solos & mutes while the AES Pair-1 does not?

Make the settings shown in the **Solo / Mute** column:



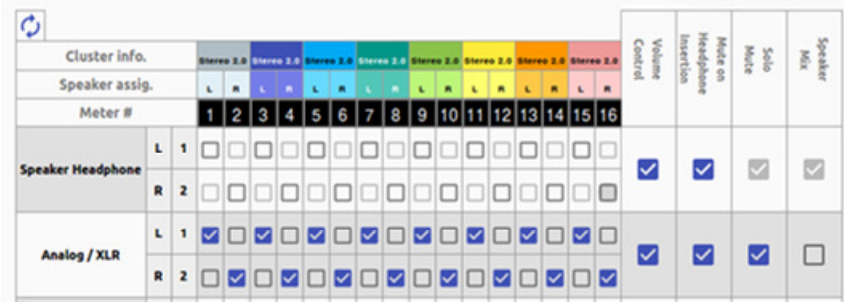
The setting shown above determines that outputs will follow the Audio Meter screen solos & mutes for the XLR outputs because the checkbox is checked. It is not checked for the AES outputs, so they will not be affected by the solo & mute choices.

How do I route only specific monitored channels to the Analog XLR outputs?

You may route specific channels as shown below. Here Audio Meter channels 9, 11, 13, and 15 are routed to the left analog XLR output and Audio Meter channels 10, 12, 14, and 16 are routed to the right analog XLR output. Unchecked channels are not routed. Make sure the **Speaker Mix** selection is turned off to enable this selection.

How do I keep the internal speakers muted and have audio only on the analog XLR outputs?

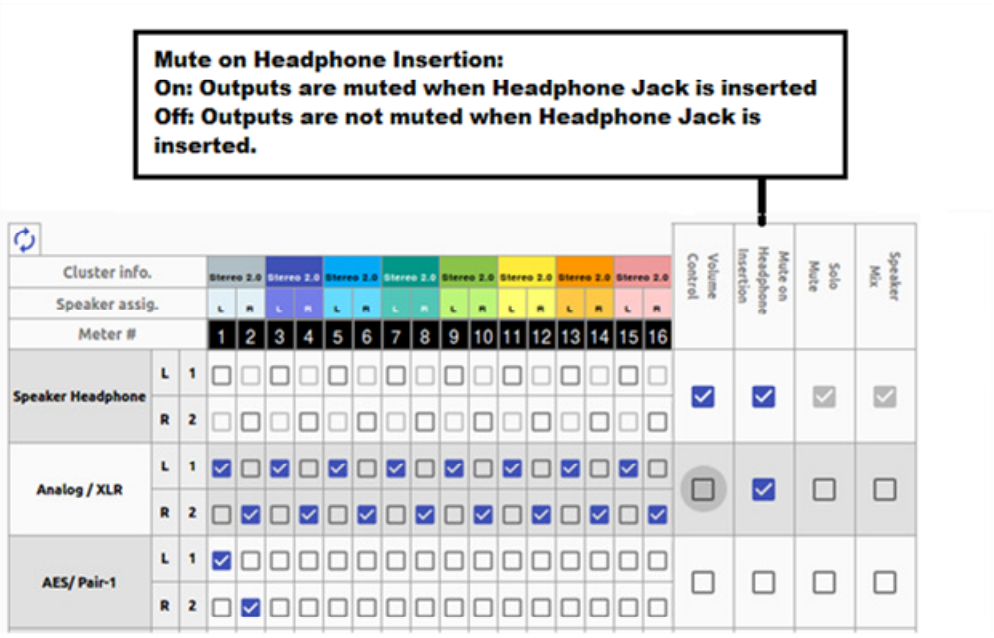
In the **Global Output Routing** configuration, do not select any **Speaker Headphone** checkboxes for any meter channels as shown below, and then select the desired meters for Analog XLR. In this way, the internal speakers will always be muted, but the audio will appear on the Analog XLR outputs (for amplified external speakers). Make sure that the **Speaker Mix** checkbox selection is unchecked for Analog/XLR.



How do I ensure that the outputs are automatically muted when the Headphone jack is inserted?

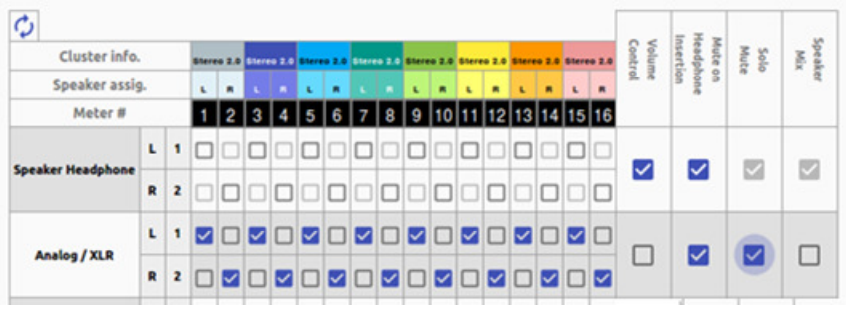
In the **Global Output Routing** configuration, if the **Mute on Headphone Insertion** checkbox is ON then the outputs get automatically muted when a headphone is inserted into the Headphone jack.

As shown below, if a headphone is inserted then the output on the Analog XLRs will be muted, while the audio on AES Pair 1 will remain on.



How do I ensure that my outputs are pre-faded but follow the solo-mutes on the web interface? This will allow us to monitor only the unmuted/solo Audio Meter channels on amplified stereo speakers connected to the Analog XLR's.

In the **Output Routing** setting, for the Analog XLR outputs, keep the **Volume Control** checkbox unchecked and the **Solo/Mute** checkbox checked. This ensures that the Volume Control is **not** applied to the outputs, while the Solos/Mutes **are**.

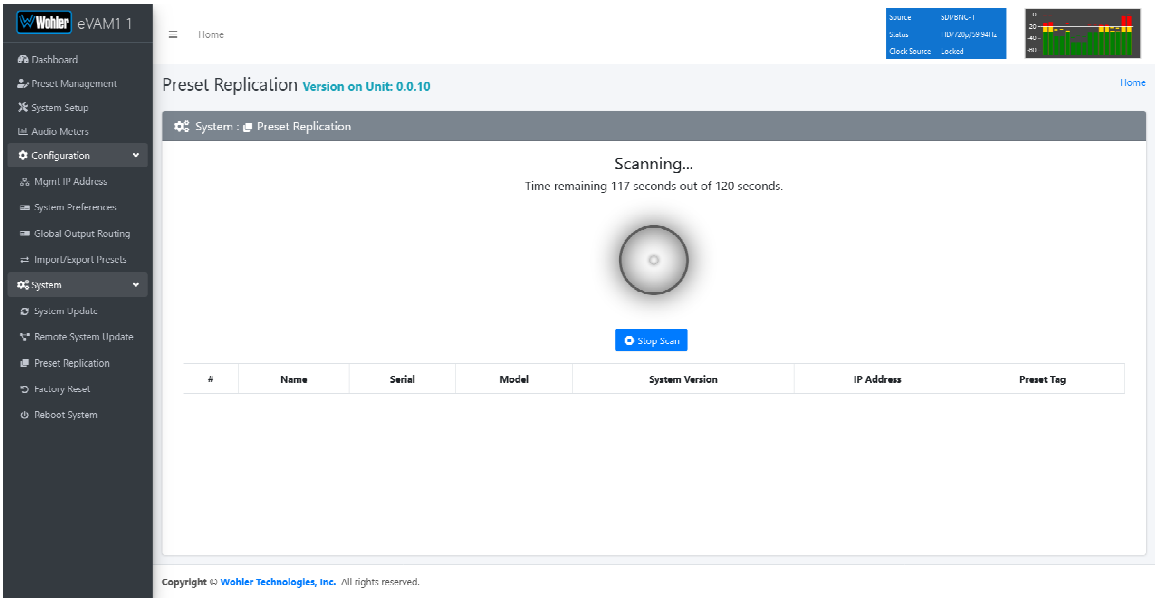


Preset Replication

Preset Replication allows you to copy presets from a master unit to multiple eVAM1-1 / eVAM1-1+ units. This can save a lot of setup time if multiple units all need basically the same setup.

To start Preset Replication, click on the **Preset Replication** tab on the master unit. This will start the unit discovery process and will list all the eVAM1-1 / eVAM1-1+ units that you currently have on your network. The discovery process will continue for a period of 2 minutes. However, you may stop the discovery process sooner if you believe all the units in the network have been discovered. Simply click the **Stop Scan** button.

Figure 4-12: Preset Replication Scanning Screen



Once all the units are discovered you may either copy the presets that are currently created on the Master unit or can use an external preset file that you want to copy to any or all of the Target units. **Note that any and all of the Presets that may already be contained in each Target unit will be erased by copying the new Presets.**

Click either **From Master Unit** or **Select Preset File**. This determines the source of the Presets to be copied. Preset Files would be files that you have previously stored in the computer running the Web GUI.

You may add a descriptive name or version to the Presets being copied. This may aid in remembering what tag or version of the presets are available on the unit. The Preset name or version may be up to 10 characters in length.

Next, select the Target units from the list of units shown by checking or unchecking each of the **Target** boxes at the left. Alternatively, you may click **Select All** to select all of the units. Then select the **Replicate Presets to Selected Devices** button. The progress of the Preset replication for each unit, as the Presets are being copied, will be displayed in the **Process** column. When all of the Presets have been copied to each of the selected units, you may leave this screen.

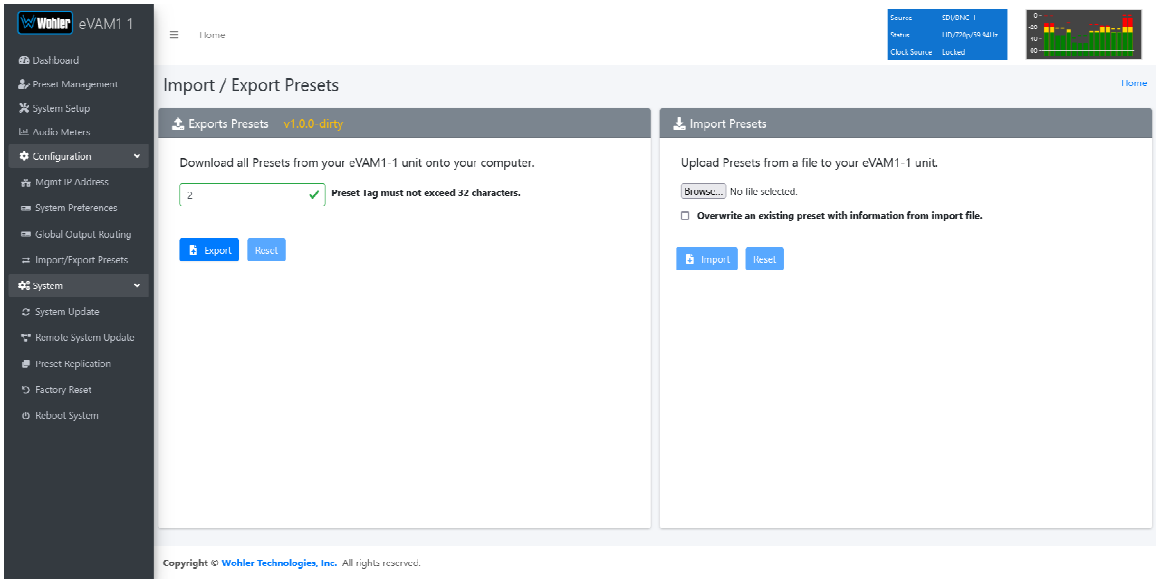
Import/Export Presets

Use the **Import / Export Presets** page to manage the Preset database in the eVAM1-1 / eVAM1-1+. You may export the Preset database onto the computer hard drive for security backup purposes or as a means to transfer it to another eVAM1-1 / eVAM1-1+. Likewise, it can be used to import a Preset database from the computer hard drive into the eVAM1-1 / eVAM1-1+. In this way, a Preset configuration may be only devised once and then duplicated into all of the eVAM1-1 / eVAM1-1+ units in a system, saving significant effort.

The eVAM1-1 / eVAM1-1+ will create Preset Tags for the each set of Presets. Refer to Figure 4-13. You may also change these Preset Tags, using the Preset Change Field. They allow you to quickly resolve questions about which Presets on various units are the most up to date. They will also allow you to determine whether Presets have been modified. If the Preset Tag displayed contains the suffix "-dirty" then at least one Preset has been changed in some way.

While exporting the file, the Preset Tag is appended to the filename, this allows you to store multiple Preset files with different file name. For example, if the Preset Tag is v1.0.0 then for eVAM1-1 / eVAM1-1+ the default filename would be "wohler_presets_eVAM1-1-v1.0.0.pdb" Do not change the file suffix and prefix (marked in red). However, you may change the Preset Tag to any number or text to suit your requirements.

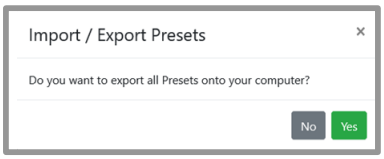
Figure 4–13: Database Export



Export Configuration

Use the following steps to save the Preset configuration in the eVAM1-1 / eVAM1-1+ to the computer hard drive:

1. If you need to, revise the Preset Tag name, observing the advice in the advice in the previous section.
2. Click the **Export** button on the **Import / Export Presets** page, as shown in Figure 4-13.
3. A small **Verify** window will appear:



4. Click **Yes** to proceed with writing the Preset data to the hard drive. The copying will proceed. After the Preset data has been written, a screen will appear explaining what has been exported in an Export Presets Summary. It will also note whether there were any errors in the process. If there were any errors, repeat these steps to try again.

Import Configuration

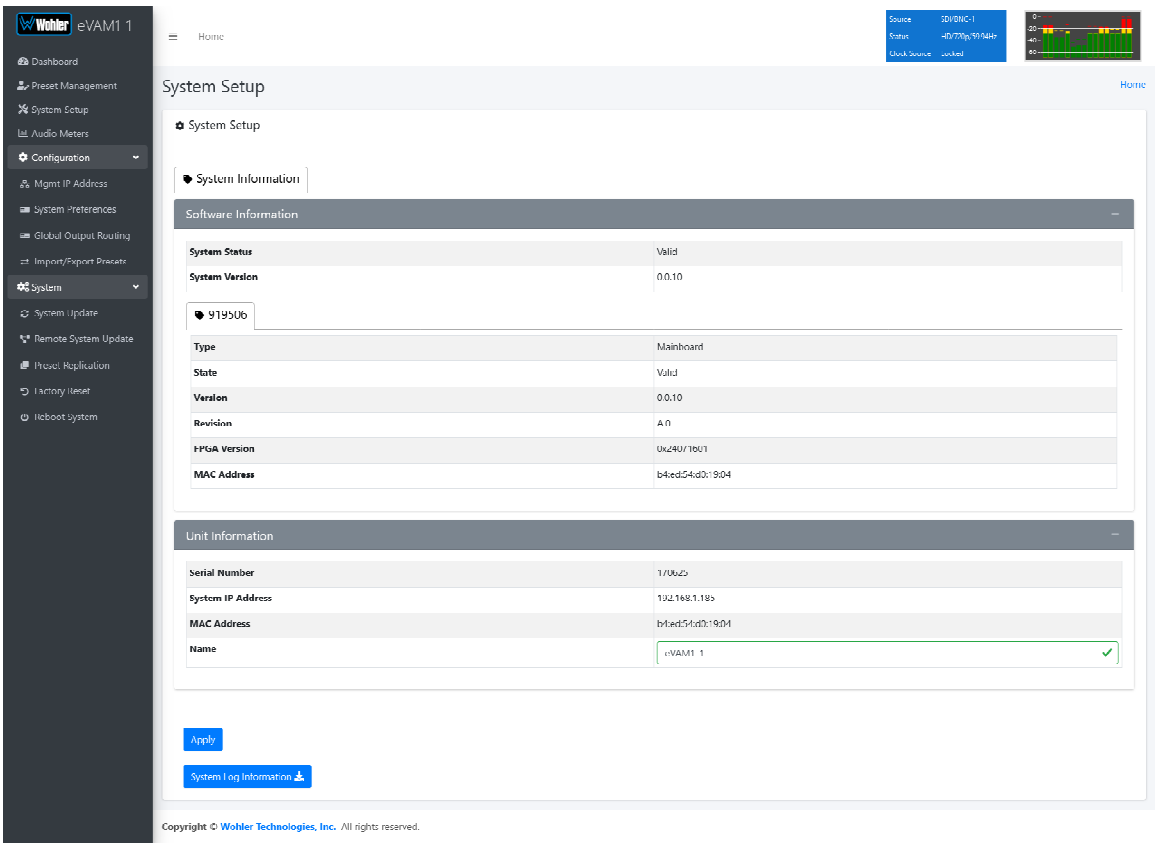
Use the following steps to copy the Preset configuration into the eVAM1-1 / eVAM1-1+:

1. Click the **Browse** button as shown in Figure 4-13 and select the Preset Tag you would like to import.
2. If you want to allow existing Presets to be overwritten with imported Presets of the same name, check the **Overwrite an existing Preset** box. It is a good idea to do this.
3. Click the **Import** button. The copying will proceed. When complete, a screen will appear, explaining what has been imported in an Import Presets Summary. It will also note whether there were any errors in the process. If there were any errors, repeat these steps to try again.

System Information

This screen displays a variety of information about the eVAM1-1 / eVAM1-1+. It is shown in Figure 4-14. This information could be useful to view if you are contacting Wohler Technical Service.

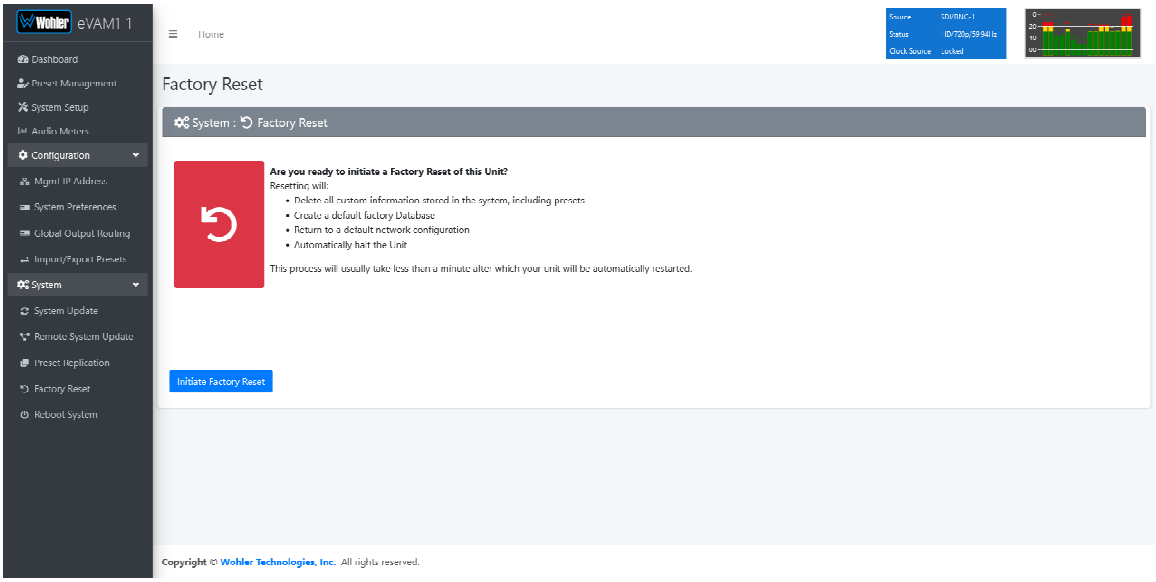
Figure 4–14: System Information Screen



Factory Reset

The **Factory Reset** function should be used with caution. It deletes all of the settings you have programmed into the system. It returns the system to the way it was when received new from the factory. After using this function, you will need to reprogram everything from the start.

Figure 4–15: Factory Reset



If you have any doubt as to whether you should perform a Factory Reset, do not click the **Initiate Factory Reset** button. Contact Wohler Technical Service for advice.

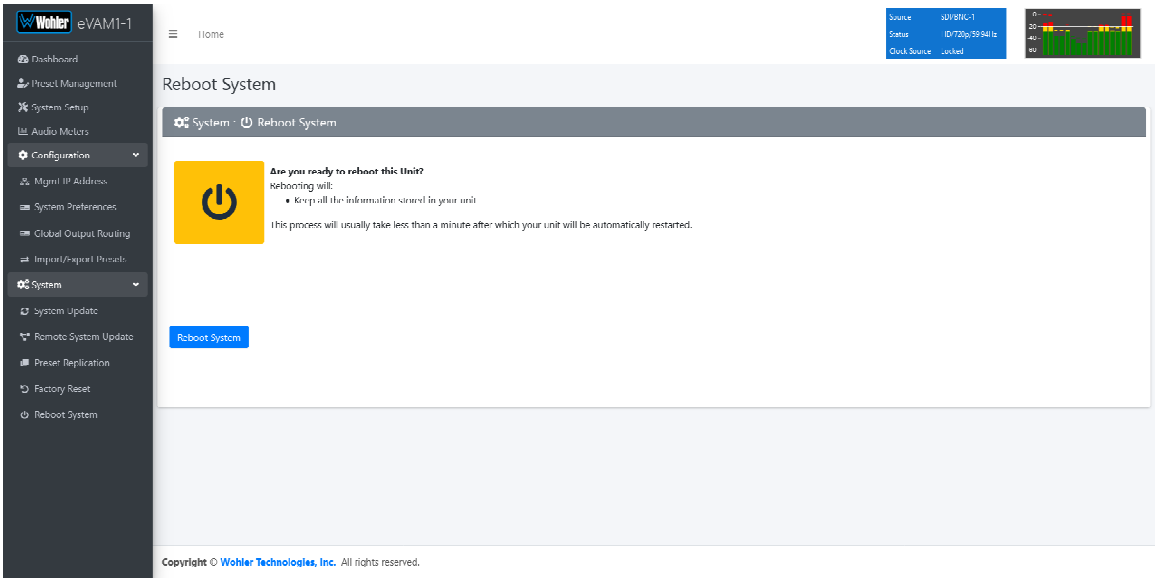
Note: Factory Reset will also reset your IP address to the default one. After a Factory Reset, the IP Settings will need to be updated. The default IP address for the unit is determined based upon the Mac address. It is 169.254.1.xx where xx is the last octet of the management Mac address. For example, if the Mac address is b4:ed:54:d0:04:28 then the IP address would be 169.254.1.40 (40 is the decimal equivalent for the last octet of Mac address 28.)

Reboot System

The **Reboot System** page allows you to reboot an eVAM1-1 / eVAM1-1+ remotely. The **Reboot System** page is shown in Figure 4-16. This function is normally only used upon request from Wohler Technical Service to troubleshoot or correct an issue.

The **Reboot System** function should be used with a bit of caution. It puts the eVAM1-1 out of service for several minutes while it is rebooting, and this may unexpectedly interfere with the use of the product by the remote operator.

Figure 4–16: Reboot System



If you have any doubt as to whether you should reboot the remote eVAM1-1, do not click the **Reboot System** button. Contact Wohler Technical Service for advice.

APPENDIX A: Software Upgrades

Introduction

This chapter describes how to download a software update file to your computer, transfer it to a USB flash drive and install the update into an eVAM1-1 / eVAM1-1+.

Download the Software

The eVAM1-1 / eVAM1-1+ software update can be found at http://www.wohler.com, under Product Downloads on the Products > eVAM1-1 / eVAM1-1+ page, in Support > Downloads > Drivers & Software, or contact Wohler Customer Support for more information.

Unzip the downloaded update files to reveal two files. One will have a suffix of **.wx** and the other will have a suffix of **.md5sum**. Both files are needed for the upgrade.

Update Methods

There are several software update methods. Select one of them, depending upon your needs:

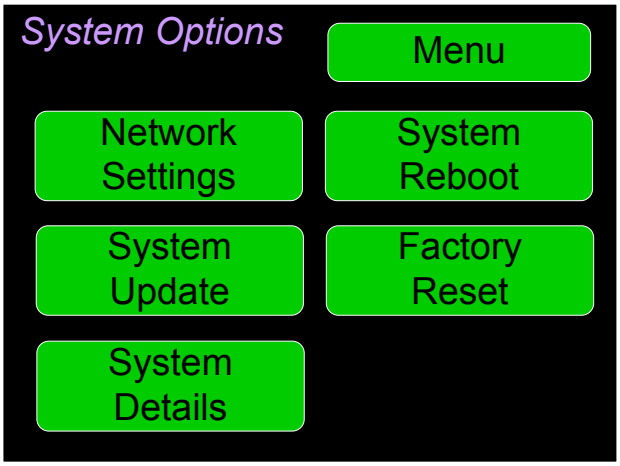
1. Local update from the front panel of the eVAM1-1 / eVAM1-1+: This straightforward method does not require the use of the Web GUI. A flash drive containing the update is plugged into the front panel USB socket and the update is then accomplished using the self-contained menu system. If this method seems most suitable, then refer to the Local Update from the Front Panel section of this chapter.
2. Remote update using the Web GUI with a flash drive connected to the eVAM1-1 / eVAM1-1+: It may be more convenient to update the product using a flash drive plugged into its front panel USB socket, but controlled remotely via the Web GUI. To update the product this way, refer to the Updating via the Web GUI section of this chapter.
3. Remote update without a flash drive: This method allows you to update a networked eVAM1-1 / eVAM1-1+ remotely without plugging a flash drive into its front panel USB socket. To update the product this way, refer to the Updating an eVAM1-1 Remotely section of this chapter.
4. Update multiple units remotely at once: This method allows you to update multiple networked eVAM1-1 / eVAM1-1+ units at once, without plugging flash drives into their front panel USB sockets. To update products this way, refer to the Updating Multiple eVAM1-1 Units Remotely section of this chapter.

Local Update from the Front Panel

Use the following steps to update the eVAM1-1 / eVAM1-1+ software:

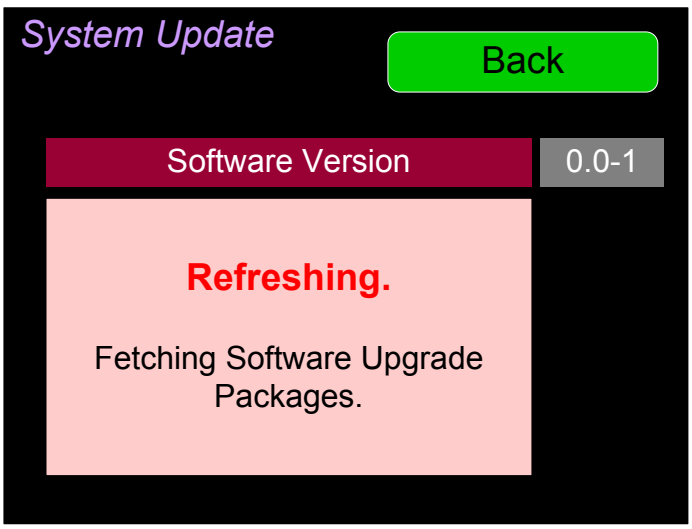
1. Copy the unzipped Wohler Update Package file(s) from your computer to the root directory (not inside of a folder) of a USB flash drive. It must be FAT32 file type, and does not need to be empty. Refer to the Download the Software section of this chapter for the specifics of download and file transfer to the USB flash drive.
2. Insert the USB flash drive with eVAM1-1 update package(s) into the front panel USB jack.
3. From the **Menu** screen, touch **System Options**. The screen shown in Figure A-1 will appear.

Figure A-1 - System Options Screen



4. In the **System Options** menu, touch **System Update**. The **Software Upgrade** screen will appear, as shown in Figure A-2.

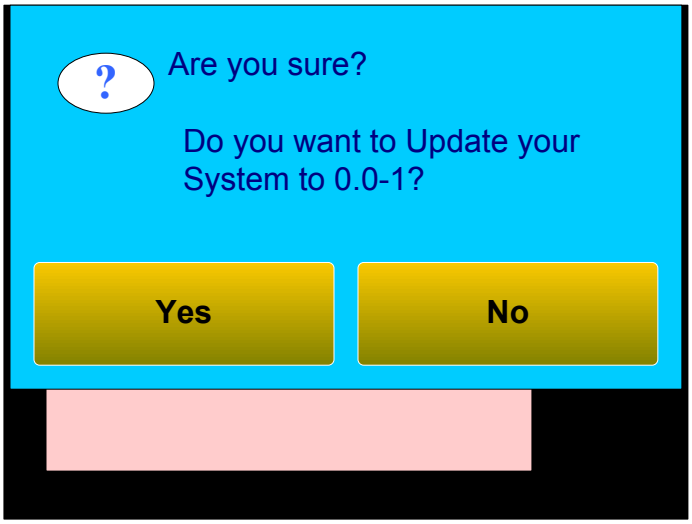
Figure A-2 - Software Upgrade Screen



5. The new software version that is in the flash drive will be shown in the

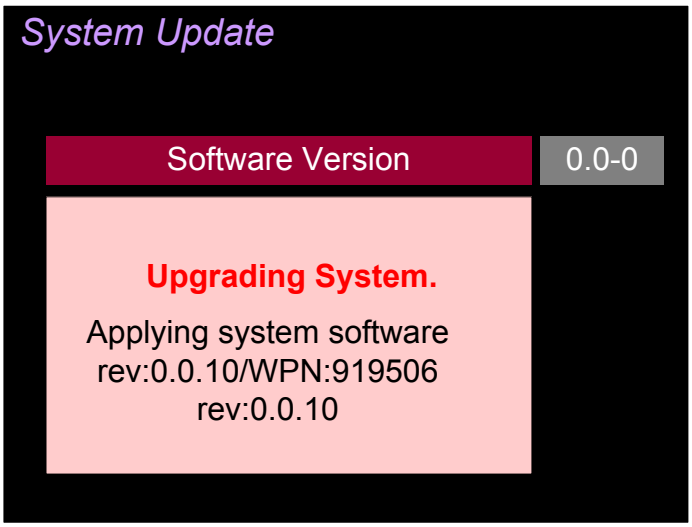
Software Version screen. To cancel the upgrade at this point for any reason, touch **Back**. To proceed, touch the software version entry in the **Software Version** screen. A screen will appear, as shown in Figure A-3.

Figure A-3 - Upgrade Verify



6. To proceed, touch **Yes**. To back out, touch **No**. After you touch **Yes**, the screens will change, as shown in Figure A-4. The left screen will display "Software Upgrade in Progress" until the upgrade is complete.

Figure A-4 - Upgrading System



After the software update starts, the text on the left screen will change periodically to indicate the progression of the upgrade. The upgrade will take 5 minutes or more, after which the eVAM1-1 / eVAM1-1+ will restart. After the system has completed its restart cycle and is once again operational, you may then remove the flash drive.

Important:

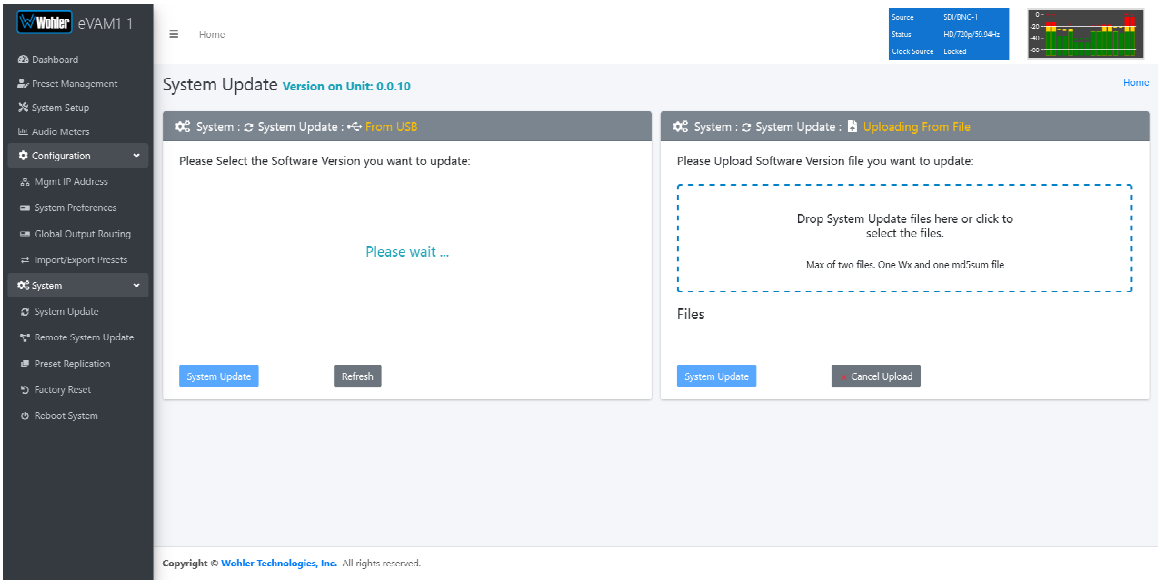
Do not interrupt or remove power to the eVAM1-1 / eVAM1-1+, or remove the USB drive during the installation process. Doing so could crash the eVAM1-1 / eVAM1-1+ software.

Updating via the Web GUI using a Flash Drive

Use the following steps to update the eVAM1-1 / eVAM1-1+ software:

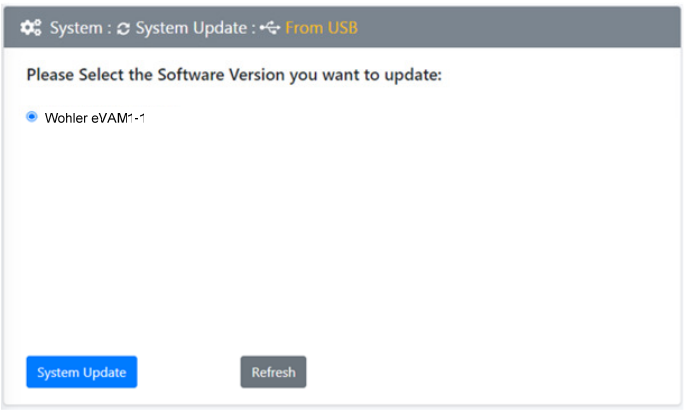
1. Copy the unzipped Wohler Update Package file(s) from your computer to the root directory (not inside of a folder) of a USB flash drive. It must be FAT32 file type, and does not need to be empty. Refer to the Download the Software section of this chapter for the specifics of download and file transfer to the USB flash drive.
2. Connect to the eVAM1-1 with the Wohler Web GUI. Navigate to the **System | System Update** menu, as shown in Figure A-5. If the eVAM1-1 / eVAM1-1+ has recently been powered and it contains the Dolby Decoder option, then a message may appear asking you to wait for a number of seconds so that the decoder will be operational.

Figure A-5 – System Update Menu



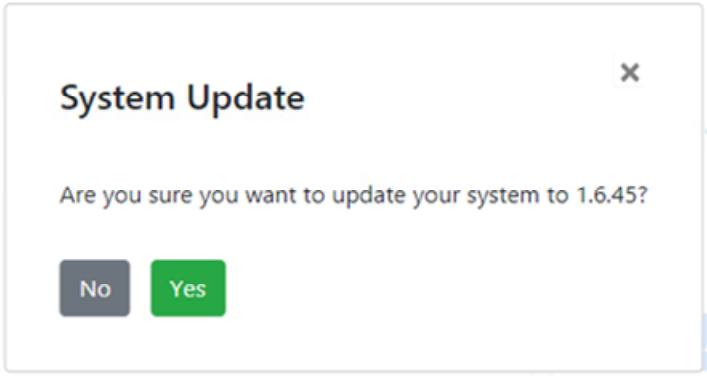
3. Click on the **Refresh** button.
4. The available software update(s) are shown as in Figure A-6. Click the one you want, followed by clicking the **System Update** button.

Figure A-6 – Available Software Updates



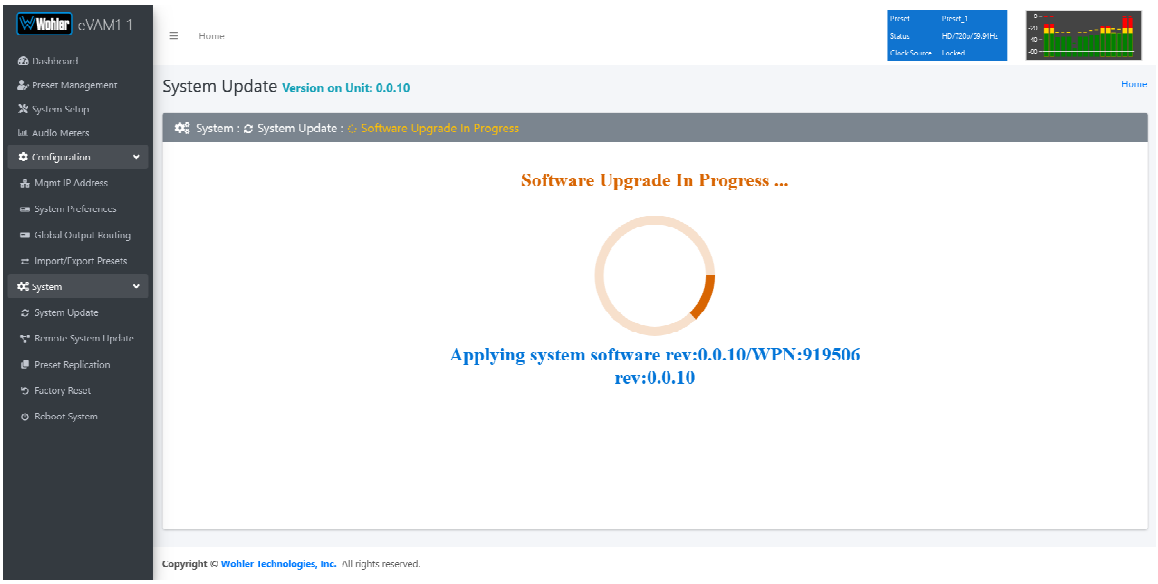
5. After clicking the System Update button, a verification screen displays as shown in Figure A-7. If you agree that the correct update version has been selected, click the **Yes** button.

Figure A-7 – System Update Verification



6. Next, the update begins, showing the screen in Figure A-8. The circle in the center of the screen, along with status messages below it, will indicate the progress of the update.

Figure A-8 – Software Upgrade in Progress



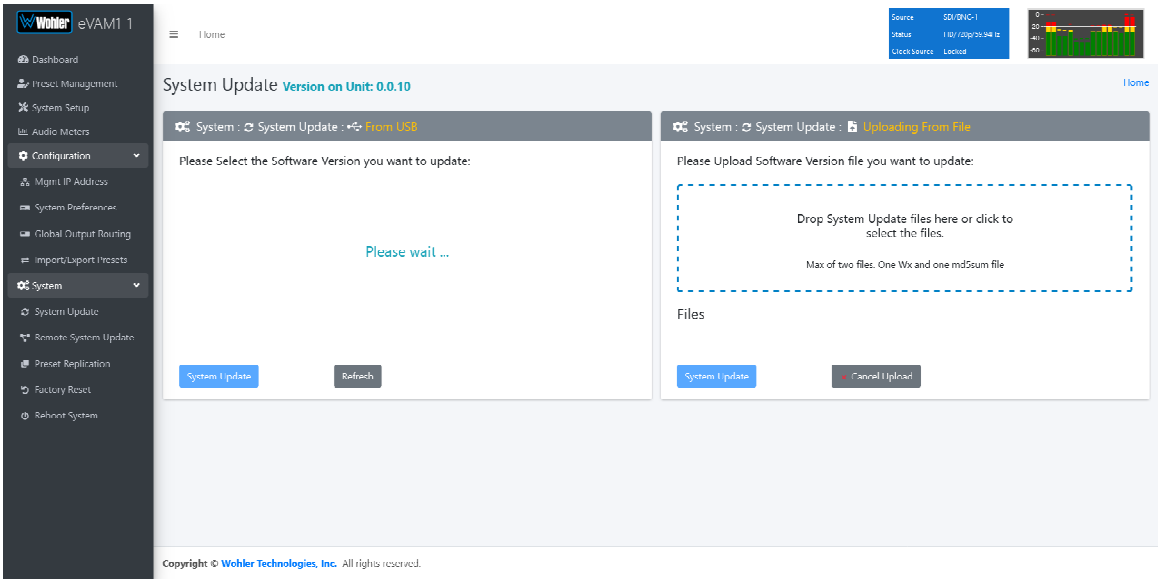
7. At this point, wait for the update to complete. It may take several minutes, but **it is critical not to disturb the eVAM1-1 / eVAM1-1+ or the Web GUI** until the update process is complete. When it is complete, the eVAM1-1 / eVAM1-1+ will restart.

Updating an eVAM1-1 / eVAM1-1+ Remotely

Use the following steps to update the eVAM1-1 / eVAM1-1+ software:

1. The Software Update files you downloaded earlier must be in the same computer that is running the Web GUI. Connect to the eVAM1-1 / eVAM1-1+ with the Wohler Web GUI. Navigate to the **System | System Update** menu. Click within the large blue dotted line rectangle at the right of the screen. A file selection window will open, as shown in Figure A-9.

Figure A-9 – System Update Menu



2. Click the two update files. One will have a suffix of **.wx** and the other will have a suffix of **.md5sum**. If you make a mistake and click the wrong file(s), click the **Cancel Upload** button and try again. When the files have uploaded, the **System Update** button will be enabled. Click it. If there is a problem with the files as this point, one of the screens shown in Figures A-10 or A-11 will appear. In that case follow the directions on the screen to retry. If there are no problems, the update will proceed and the screen shown in Figure A-8 will appear.

Figure A-10 – Invalid System File Version

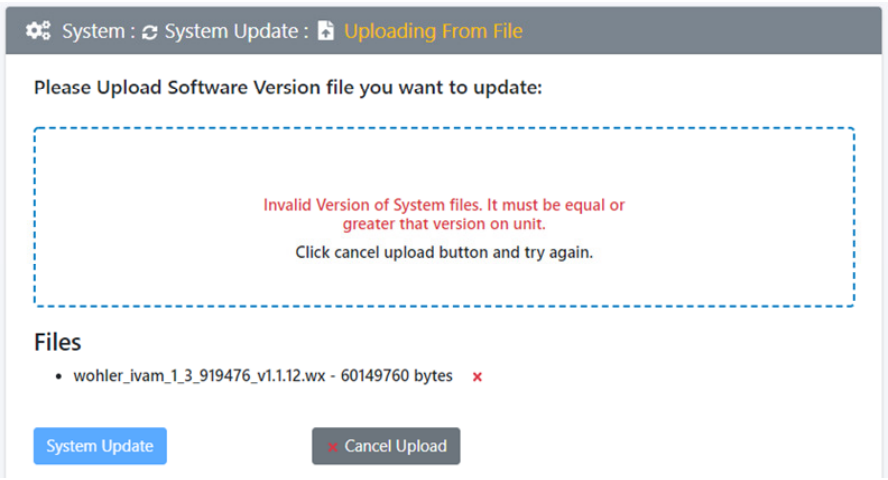
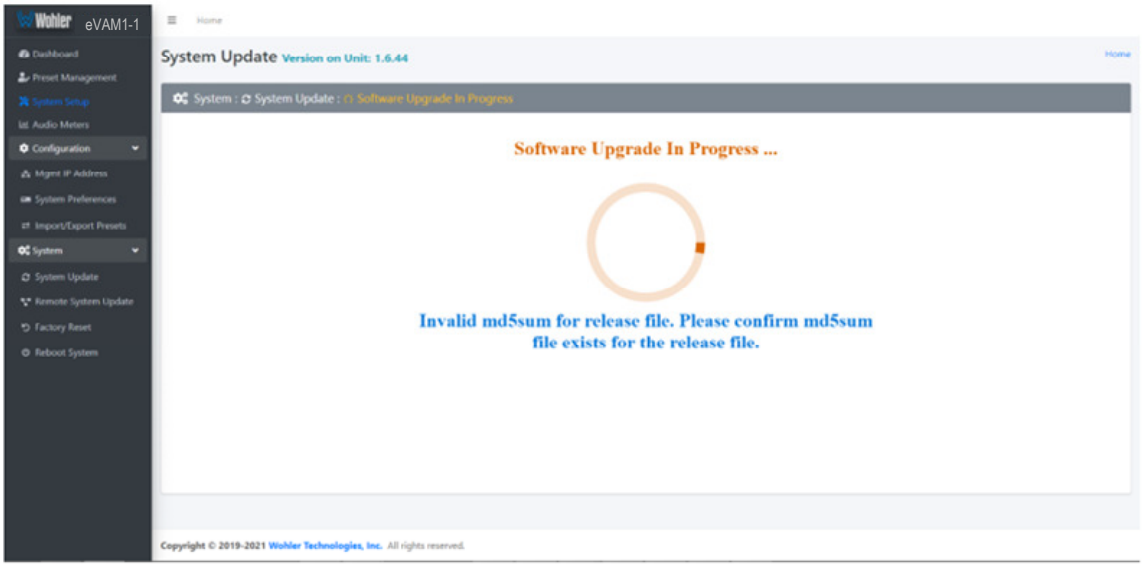


Figure A-11 – Invalid Checksum



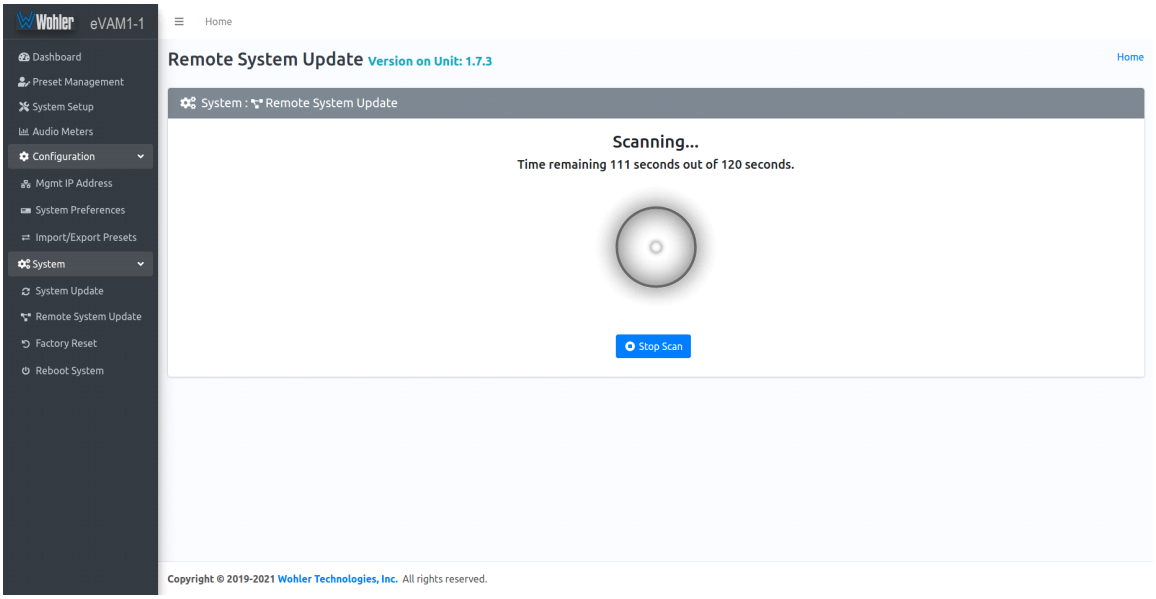
3. At this point, wait for the update to complete. It may take several minutes, but **it is critical not to disturb the eVAM1-1 / eVAM1-1+ or the Web GUI** until the update process is complete. When it is complete, the eVAM1-1 / eVAM1-1+ will restart.

Updating Multiple Units Remotely

Use the following steps to update one or more eVAM1-1 / eVAM1-1+ units remotely by transferring the software from a previously updated eVAM1-1 / eVAM1-1+:

1. If any of the eVAM1-1 / eVAM1-1+ units that you intend to update remotely may be in use, contact the people using them and let them know what you will be doing. The eVAM1-1 / eVAM1-1+ units being updated will be temporarily out of service.
2. Use the Wohler Web GUI to connect to an eVAM1-1 / eVAM1-1+ already containing the latest update. This will be referred to as the **Master Unit**. Navigate to the **System | System Update | Remote System Update** menu. The screen shown in Figure A-9 will appear and the Web GUI will scan the network for any active eVAM1-1 / eVAM1-1+ units.

Figure A-12 – Scanning for eVAM1-1 / eVAM1-1+ Units

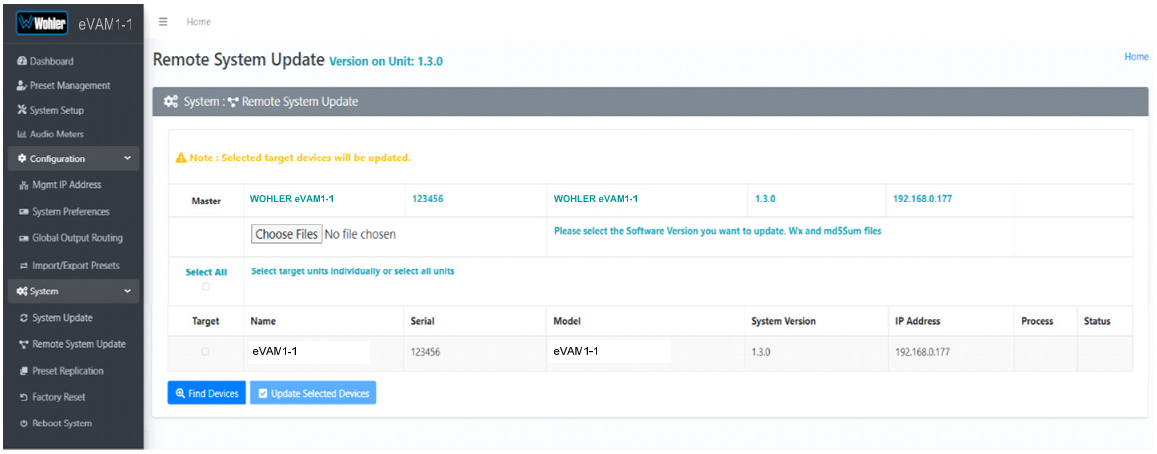


Note: The scanning process will take 2 minutes. Progress is shown on the screen. If for some reason you would like to stop the scan prematurely, click the **Stop Scan** button.

Important: Do not run the scanning or updating process from **more than one Master Unit** at a time, to avoid problems. Although you may be updating multiple units at the same time, never attempt this process from more than one **Master Unit**.

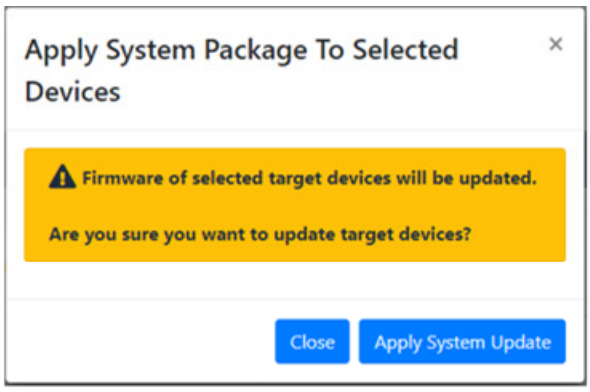
3. When the scanning is complete, a list of found eVAM1-1 / eVAM1-1+ units will be shown as in Figure A-13. Click either **Select All** or click only the **Target** units that you want to update.

Figure A-13 – List of Found eVAM1-1 / eVAM1-1+ Units



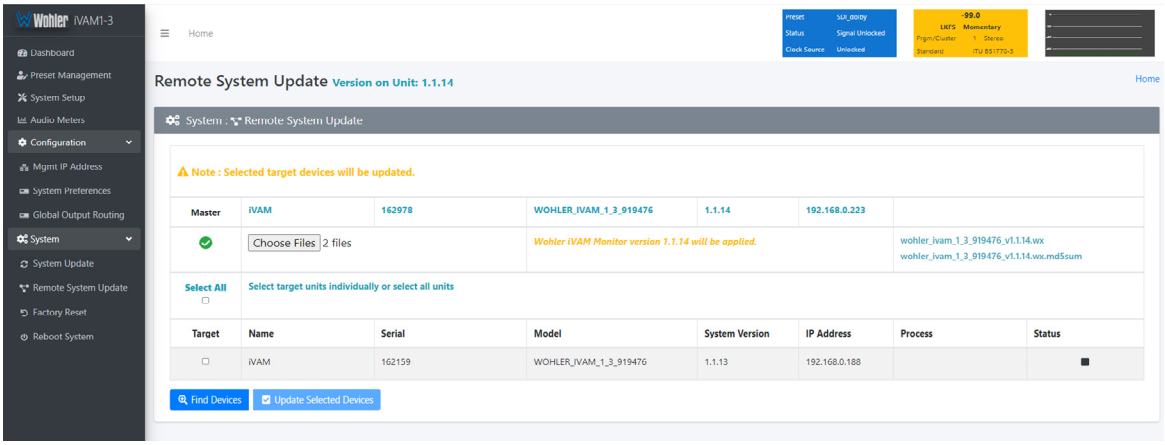
4. Then click **Update Selected Devices**. The window shown in Figure A-14 will appear.

Figure A-14 – Apply System Package



5. Click **Apply System Update**. The screen shown in Figure A-15 will appear. This screen contains a table showing the update progress of each of the eVAM1-1 / eVAM1-1+ units being updated.

Figure A-15 – System Update Progress



6. At this point, wait for each update to complete. It may take several minutes, but **it is critical not to disturb any of the eVAM1-1 / eVAM1-1+ units or the Web GUI** until the update process is complete. When it is complete, each eVAM1-1 / eVAM1-1+ will restart.

APPENDIX E: API Documentation

Introduction

This appendix discusses ways to use the Application Program Interface (API) to allow third party equipment to remotely access options and settings of the eVAM1-1 / eVAM1-1+. It includes specific code examples for commonly used requests. The API uses JavaScript Object Notation (JSON) as its communication language.

Follow the instructions in the **First Time IP Assignments** section of Chapter 4 to achieve the required network connection.

API: Presets

1. **GET Active Preset**

   Method: GET

   /api/cf/presets/current

   Example Response:


```
{
"serial_number": "",
"model": "eVAM1-1",
"version": 1.3,
"name": "eVAM1-1",
"result": {
"group": {
"Id": 1,
"Name": ""
},
"preset": {
"Data": null,
"Favorite": 0,
"Id": 1,
"Name": ""
}
}
}
```

2. GET Preset Configuration

Method: GET

/api/cf/presets/<int:preset ID>

Example Response:


```
{
"error": null,
"params": {
"PresetId": 1
},
"result": {
"GroupId": 1,
"PresetName": "SDI",
"Data": {
"Name": {
"Program": "",
"Group": "G1",
"Preset": "SDI"
},
"VideoSource": {
"InputNo": 1,
"ConnectorType": "BNC",
"Slot": 1,
"Type": "SDI",
"Cage": 1
},
"DolbyDetection": {
"NonAudio": "Enabled",
"PaHeader": "Enabled"
},
"Clusters": [
{
"NumberOfMeters": 2,
"FirstMeter": 1,
"Name": "Stereo 2.0 #1",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
"FirstMeter": 3,
"Name": "Stereo 2.0 #2",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
"FirstMeter": 5,
"Name": "Stereo 2.0 #3",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
"FirstMeter": 7,
"Name": "Stereo 2.0 #4",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
```

```
"FirstMeter": 9,
"Name": "Stereo 2.0 #5",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
"FirstMeter": 11,
"Name": "Stereo 2.0 #6",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
"FirstMeter": 13,
"Name": "Stereo 2.0 #7",
"Type": "Stereo",
"MuteOnPresetRecall": true
},
{
"NumberOfMeters": 2,
"FirstMeter": 15,
"Name": "Stereo 2.0 #8",
"Type": "Stereo",
"MuteOnPresetRecall": true
}
],
"MeterSet": {
"13": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 13,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"8": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 8,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"2": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 2,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
```

```
"DelayMs": 0,
"Speaker": "Right"
},
"3": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 3,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"4": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 4,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"16": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 16,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"11": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 11,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"15": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 15,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
```

```
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"5": {
"Slot": 0,
"Cage": 0,
"ConnectorType": "None",
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 5,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"9": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 9,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"14": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 14,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"6": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 6,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"7": {
"Source": {
```

```
"Slot": 1,
"Cage": 1,
"Channel": 7,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
},
"10": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 10,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"12": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 12,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Right"
},
"1": {
"Source": {
"Slot": 1,
"Cage": 1,
"Channel": 1,
"ConnectorType": "BNC",
"InputNo": 1,
"InputIndex": 0,
"Type": "SDI"
},
"VolumeDb": 0,
"DelayMs": 0,
"Speaker": "Left"
}
},
"SystemClockSource": {
"Slot": 0,
"Cage": 0,
"ConnectorType": "None",
"InputNo": 0,
"Type": "None",
"Pair": 0
}
},
"Favorite": 0,
"PresetId": 1,
"GroupName": "G1"
```

```
}
}
```


3. GET list of groups/presets

Method: GET

/api/cf/groups

Example Response:


```
{
"error": null,
"params": null,
"result": [
{
"Name": "G1",
"Presets": [
{
"Favorite": 1,
"Name": "AES",
"Id": 3
},
{
"Favorite": 0,
"Name": "SDI",
"Id": 1
}
],
"Id": 1
},
{
"Name": "AES",
"Presets": [
{
"Favorite": 0,
"Name": "dfsdf",
"Id": 2
}
],
"Id": 2
}
]
}
```


4. GET to recall the preset

Method: GET

api/op/presets/<int:presetID>/activate

Example Response:


```
{
"error": null,
"params": {
"PresetId": 1
},
"result": {
"PresetId": 1,
"GroupId": 1,
"PresetName": "SDI",
```

```
"GroupName": "G1"
}
}
```


5. POST to delete the group

Method: POST

api/op/group/<int:groupID>/delete

Example Response:


```
{
"error": null,
"params": {
"GroupId": 2
},
"result": {
"GroupId": 2
}
}
```


6. POST to delete the preset

Method: POST

api/op/preset/<int:presetID>/delete

Example Response:


```
{
"error": null,
"params": {
"PresetId": 4
},
"result": {
"PresetId": 4
}
}
```


7. POST to rename group

Method: POST

/api/op/group/<int:groupID>/*newGrpNameSdi*/rename

Example Response:


```
{
"error": null,
"params": {
"GroupId": 1,
"GroupName": "newGrpNameSdi"
},
"result": {
"GroupId": 1,
"GroupName": "newGrpNameSdi"
}
}
```

8. POST to rename preset

Method: POST

/api/op/preset/<int:presetID>/*newPresetNameTest*/rename

Example Response:


```
{
"error": null,
"params": {
"PresetId": 1,
"PresetName": "newPresetNameTest"
},
"result": {
"PresetId": 1,
"PresetName": "newPresetNameTest"
}
}
```


9. POST to set preset as Favorite

Method: POST

/api/op/preset/<int:presetID>/<favoriteVal>/favorite

Example Response:


```
{
"error": null,
"params": {
"PresetId": 4,
"Favorite": 1
},
"result": {
"PresetId": 4,
"Favorite": 1
}
}
```


10. Source Select

Method: POST

/api/op/sourceselect

1. Body content for SDI

{
"SourceType": “<String: SDI Input Source>”
}

Note: Allowed SDI input sources are:
"Bnc-1.Sdi",
"Bnc-2.Sdi",

2. **Body content for Analog**

```
{
    "SourceType": "Analog.XLR"
}
```

```
{
    "SourceType": "Analog.DB25"
        }
```

3. **Body content for Aes**

```
{
    "SourceType": "Aes"
}
```

4. **Body content for HDMI**

```
{
    "SourceType": "HDMI"
}
```