Release notes and update instructions
AV Bridge MatrixMIX Multipurpose AV Switcher

Current Release

AV Bridge MatrixMIX 2.0.1

December 20, 2023

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 2.0.X to work properly together.

New Features

- The web interface now provides six factory audio configurations, and can store up to 16 custom audio configurations.
- The command audio config {recall {factory <1 – 6> | custom <1 – 16>} | store custom <1 – 16>} recalls the specified factory or custom audio configuration, or stores a custom audio configuration. Up to 16 custom audio configurations may be stored.

Improvements

- Improved the performance of video takes.
- Improved touchscreen performance.
- In some situations, preset thumbnails did not display correctly. This has been fixed.
- Occasionally the device would stop being available to the connected computer. This has been fixed.
- In some situations, Telnet sessions could become unresponsive. This has been fixed.

Release History

AV Bridge MatrixMIX 2.0.0

December 6, 2022

New Features

- The multiviewer now shows preset thumbnails for connected cameras on the Video Inputs page.
- You can now send Command Line Interface SHell (CLISH) commands using SSH as a secure alternative to Telnet. SSH access is disabled by default, and can be enabled on the device's Security page.

AV Bridge MatrixMIX 1.5.1

September 30, 2022

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.5.X to work properly together.

New Features

- The device can now control RoboSHOT 12E NDI cameras over an RS-232 connection.
- The AV Bridge MatrixMIX can now control RoboFLIP cameras over an RS-232 connection to the connected OneLINK device.
- The Pairing page of the web interface now provides a Clear button to remove a paired camera as the video input source, so that a different camera can then be paired.
- The device can now process USB audio commands while it is in standby.
- The web interface now includes a setting for enabling or disabling HDCP content on inputs.
- A new Telnet command, `camera 1 comm host discover`, returns the IP addresses and room labels of cameras that are available to be paired with the device. This corresponds to the Discover Devices button in the web interface's Input Pairing dialog box.
- New Telnet commands `switch effect` and `switch duration` set or get information about video transitions. Syntax and available effects depend on whether A/B Mode or Dual-Bus Mode is in use. See Notes.
- We have placed a link to the company's standard privacy notice on this product's Help page and on the Initial Device Set-Up page. This product does not record or save audio or video files, and it does not store any identifying information other than what you may choose to enter on the Room Labels page of the web interface. However, the device's IP address is considered "personally identifiable information" for the purposes of the privacy notice. This information is stored for display to the user, but not otherwise shared or transmitted.

Improvements

- The setting to place connected cameras in standby mode when the device enters standby has been moved from the User Interface page and is now on the System page, General tab.
- Improved USB interoperability with macOS systems.
- Enhanced compatibility with the Vaddio Device Controller.
- Improved USB enumeration behavior.
- In some cases, the web interface could display the mute state of individual inputs or outputs inaccurately. This has been fixed.
- On some mobile devices, the "Exit Standby" button was not accessible. This has been fixed.
- On DHCP-enabled devices, it was possible to have more than one gateway address listed. This has been fixed.
- After updating firmware, the Telnet enabled/disabled status shown in the web interface could become out of sync with device behavior. This has been fixed.
- Corrected an issue that could potentially cause the Discover Devices button not to work.
- When a camera supporting preset chains was replaced on the same input with a camera lacking this feature, the web interface could still present the controls for preset chains. This has been fixed.
- In some cases, connecting the USB port to an Apple® macOS® device while the AV Bridge MatrixMIX was on resulted in audio distortion. This has been fixed.
- Importing a configuration did not restore audio settings correctly. This has been fixed.
- Various audio settings could revert to factory default values during a firmware update. This has been fixed.

- Some of the settings for connected cameras could be lost on power cycle, reboot, or return from standby. This has been fixed.
- Under certain circumstances, the web interface could enter an error state in which users were unable to access the admin pages and some non-administrative functions were unavailable. This has been fixed.
- The mailto: links on the web interface's Help page did not always open the computer's mail application. This has been fixed.

Notes

- A/B Mode syntax for the command switch effect is `switch effect { get | set <A/B effect> }`
- Dual Bus Mode syntax for the command switch effect is `switch { program | preview } effect { get | set <Dual Bus effect> }`
- Effects available in both A/B Mode and Dual Bus Mode are `cut`, `dissolve`, `dip` (dip to black).
- Effects available in A/B mode only: `wipe_right`, `wipe_left`, `wipe_down`, `wipe_up`, `wipe_ULC` (upper left corner), `wipe_URC` (upper right corner), `wipe_LLC` (lower left corner), `wipe_LRC` (lower right corner), `wipe_center`
- A/B Mode syntax for the command switch duration is `switch duration { get | set <value> }`, where <value> is in milliseconds.
- Dual Bus Mode syntax for the command switch duration is `switch { program | preview } duration { get | set <value> }`, where <value> is in milliseconds.

AV Bridge MatrixMIX 1.4.2

October 8, 2021

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.4.X to work properly together.

Improvement

- At low USB streaming resolutions and frame rate, video distortion could be present. This has been fixed.

Note

- Some distortion may still be present in the USB stream when the device is connected to a Mac.

AV Bridge MatrixMIX 1.4.1

July 23, 2021

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.4.X to work properly together.

New Feature

- Added ability to turn the multiviewer display's mouse pointer on and off.

Improvements

- Improved compatibility with TeleTouch 27 multiviewer.
- In some cases, firmware updates could fail. This has been fixed.

AV Bridge MatrixMIX 1.4.0
December 23, 2019

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.4.X to work properly together.

New Features

- If you restore factory defaults, the AV Bridge MatrixMIX now requires an initial setup step to make the administrative controls and other functionality available. In this initial step, you must set the admin password. This is also required for initial access to devices that ship with this version of firmware. See Initial Set-Up Procedure. After completing the initial setup, you have the option of enabling features that are now disabled by default. At this time, setting the admin password is the only task in the initial setup procedure.
- Added support for chained preset recall for Vaddio cameras which support the feature.
- Interface in the administrator web pages to discover and select Vaddio cameras that support DNS Service Discovery for IP control.
- Added support for long press right-clicking on iOS devices.
- When static IP addressing is selected, the administrator can specify a DNS server.
- HDMI inputs can now be selected using the console buttons even when no active HDMI signal is present, allowing the input to be active immediately when an HDMI source (such as a laptop) is connected.
- IP-connected cameras may now be removed from the device directory using the serial command `camera <n> comm host unset`.
- Improved serial control support for DocCAM 20 HDBT cameras.

Improvements

- Security improvements include changes to the default settings for:
  - HTTP access is disabled. To connect using HTTPS, type https:// followed by the IP address. Because Vaddio uses self-signed certificates, your browser will present warning messages indicating that you are trying to access an unsafe website; however, this is a secure connection to the device and traffic will be encrypted.
  - IP streaming is disabled.
  - Telnet access is disabled.
  - RS-232 access is disabled.
- Disabled TLS v1.1 protocol. More recent protocols continue to be supported.
- The Telnet command `network settings get` now includes the camera's hostname in the information it returns.
- Telnet commands to set hostnames and other user-definable strings now accept hyphens.
- Improved user experience when interacting with cameras that are in standby.
- Exporting data to an Android device now works properly.
- With certain combinations of serially-connected cameras, pairing a PCC MatrixMIX to the AV Bridge MatrixMIX resulted in the touch-panel interface of the PCC MatrixMIX restarting. This has been fixed.
- Improved serial control support for PrimeSHOT 20 HDMI cameras.
- Improved help text for some serial commands.
- When rebooting the AV Bridge MatrixMIX, some settings could be lost. This has been fixed.
- RoboSHOT 30E NDI cameras connected via RS-232 are now properly identified.
- When managing a connected Panasonic camera from the AV Bridge MatrixMIX, adjusting the camera's focus could cause the camera to send an error message. This has been fixed.

- In previous versions, when using CCU scenes with Panasonic cameras, inconsistent color reproduction could sometimes occur. This has been fixed.
- When specifying the audio controls that should be available on the operator's interface, changing a channel from an input to an output or vice-versa was sometimes unsuccessful. This has been fixed.
- In certain situations, after disconnecting from an IP-connected camera and then reconnecting to it, the camera's standby status could be incorrectly shown as active if the camera had been placed in standby mode before reconnecting. This has been fixed.

Notes

- Vaddio cameras with outdated firmware may become controllable only over an RS-232 connection. Updating camera firmware will restore the ability of the AV Bridge MatrixMIX to control them via IP.
- Pairing more than one PCC MatrixMIX controller at a time to the AV Bridge MatrixMIX can produce unexpected results. Vaddio recommends pairing only one PCC MatrixMIX controller to the AV Bridge MatrixMIX at any given time.
- Multiviewer output may appear slightly zoomed on some monitors at 50Hz.
- Video may appear choppy when 50Hz and 60Hz sources are mixed together.
- Some unnecessary information may be displayed on the web interface during the firmware update process.
- If the operator switches between dual-bus and A/B modes while a static graphic layer is active, video and graphic issues may result. If this happens, reboot the AV Bridge MatrixMIX.
- When keying layers are applied to an image from an HDCP source, the keying layers (but not the protected content) can sometimes be displayed on a non-HDCP display. Connecting an HDCP-capable display to one of the HDMI outputs corrects this.
- In certain situations, the AV Bridge MatrixMIX may fail to deliver HDCP content to an HDCP-capable monitor.
- In dual bus mode, manual takes interrupted by a bus switch can cause a jump in the transition when returning to the original bus.
- Hot-plugging video inputs (including cameras connected via OneLINK devices) can result in video issues and other undesirable results. Vaddio recommends removing power from input sources before connecting or disconnecting them from the AV Bridge MatrixMIX.
- Aggressive combinations of automatic takes and input changes can cause the video input selection indicators to get out of sync with the video being displayed on the outputs.
- 720p video inputs may show undesirable effects when scaled up to 1080p.
- Under certain conditions, a camera connected to the AVBMM through a OneLINK HDMI may lose serial control if the HDMI handshake fails.
- Audio meters for streaming outputs do not currently reflect any delay applied to those audio channels.
- Occasionally, there are issues with uploading graphics. To minimize such issues:
  - Keep graphics filenames relatively short and simple.
  - Upload the file again if it does not upload or validate properly.

AV Bridge MatrixMIX 1.3.1

May 3, 2019

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.3.X to work properly together.

Improvement

- Some customers have observed video drop-outs on the HDMI outputs from time to time. This has been addressed.

Notes

- When using CCU scenes or presets with Panasonic cameras, inconsistent color reproduction may occur.
- Global Mute does not currently mute HDMI audio inputs as indicated.
- Large numbers of operations performed rapidly may put the device into an undesirable state. Cycle the power to return the unit to normal operation.
- Video keying issues may occur when video from an HDCP source is sent to a non-HDCP-capable monitor.
- Video may temporarily freeze if the system is switched between dual bus and A/B mode while a static graphic layer is active. Turn off the layer and reboot the AV Bridge MatrixMIX to resolve the issue.
- Under certain conditions an uploaded static graphic image may not work properly. Delete the image from the Graphics Library and reload it to fix the issue.
- Hot-plugging of video inputs can occasionally cause temporary color distortion in the image. Vaddio recommends that you remove power from the device before connecting or disconnecting cables.

AV Bridge MatrixMIX 1.3.0

February 14, 2019

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.3.X to work properly together.

Improvements

- PIP (picture-in-picture) layout options now display icons rather than text description in both the web interface and MultiVIEW output.
- In some cases, the web interface did not load properly if the computer had recently accessed another Vaddio device at the same IP address. This has been fixed.
- Corrected subtle HDMI audio distortion that could be present in some configurations.
- Fix for interoperability issue with some Panasonic/Sony cameras connected over serial.

Notes

- When using CCU scenes or presets with Panasonic cameras, inconsistent color reproduction may occur.
- Global Mute does not currently mute HDMI audio inputs as indicated.
- Large numbers of operations performed rapidly may put the device into an undesirable state. Cycle the power to return the unit to normal operation.
- Video keying issues may occur when video from an HDCP source is sent to a non-HDCP-capable monitor.
- Video may temporarily freeze if the system is switched between dual bus and A/B mode while a static graphic layer is active. Turn off the layer and reboot the AV Bridge MatrixMIX to resolve the issue.
- Under certain conditions an uploaded static graphic image may not work properly. Delete the image from the Graphics Library and reload it to fix the issue.
- Hot-plugging of video inputs can occasionally cause temporary color distortion in the image. Vaddio recommends that you remove power from the device before connecting or disconnecting cables.

AV Bridge MatrixMIX 1.2.0

January 22, 2019

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.2.X to work properly together.

New Features

- Added support for the WideSHOT SE camera.
- Added support for the ZoomSHOT 30 camera.
- Added support for the PrimeSHOT 20 HDMI camera.
- Added support for the RoboSHOT 40 UHD camera.
- Added support for the RoboSHOT Elite series cameras.
- VISCA-over-IP control support for Sony X-1000 and BRC-800 cameras, as well as existing supported cameras that offer VISCA-over-IP control.
- Support for DNS Service Discovery.
- One Push White Balance can now be executed through the web interface camera controls on cameras that support the function.
- Quad Picture-In-Picture has been added as a layout option.
- Telnet command to change the Picture-In-Picture layout: `video {program | preview} pip layout {get | upper_right | lower_right | lower_left | upper_left | top_bottom | left_right | quad}`.
- Telnet command to allow streaming enabled status to be toggled: `streaming ip enable toggle`.

Improvements

- Added USB streaming active notifications to the web interface.
- Dual image layout for Picture-In-Picture has been repositioned for a more pleasing arrangement.
- Graphics Library no longer accepts files of unsupported types or sizes.
- Iris and iris gain value formats are now standardized across all cameras.
- On receiving a reboot instruction, the AV Bridge MatrixMIX now performs a check to ensure your most recent configuration changes were successfully saved.
- Preset buttons are no longer shown for cameras that do not support presets.
- Software trigger assignments initialize properly after a reboot.
- Control of ClearVIEW HD-19 cameras is more responsive.
- Settings on serially connected cameras remain in sync with the controller when the camera is put in standby mode from another device.
- Custom preset labels are no longer overwritten when storing a preset from the touch interface of a TeleTouch 27″ monitor or PCC MatrixMIX. Custom labels can still be cleared through the touch interface by clearing the preset and then storing a new preset.

Notes

- Some DocCAM 20 HDBT, RoboSHOT HDMI, and RoboSHOT HD-SDI cameras may require this firmware update to be recognized by the AV Bridge MatrixMIX.
- Video may temporarily freeze if the system is switched between dual bus and A/B mode while a static graphic layer is active. Turning the layer off and rebooting the AV Bridge MatrixMIX should resolve the issue.
- Under certain conditions an uploaded static graphic image may not work properly. Deleting the image from the graphics library and reloading it should fix the issue.
- Hot-plugging of video inputs can occasionally cause temporary color distortion in the image.

AV Bridge MatrixMIX 1.1.0

June 13, 2018

AV Bridge MatrixMIX and PCC MatrixMIX must both be running a firmware version of 1.1.X to work properly together.

New Features

- Added support for DocCAM 20 HDBT camera.
- Added support for the RoboSHOT IW camera.
- HTTPS access to the AV Bridge MatrixMIX is now supported and the HTTPS certificate can now be configured from the admin web interface.
- HTTP access to the AV Bridge MatrixMIX can now be disabled by an admin. When this is disabled, HTTPS must be used to connect to the web interface.
- Ability for the administrator to disable the AV Bridge MatrixMIX's Telnet server through the web interface.
- Configuration of IP streaming packet sizes from the admin web interface.
- Advanced chroma key threshold configuration options.
- Eyedropper tool for easier selection of a chroma key mask color from an image in the Graphics Library.
- Telnet commands to control input configuration: [video <input1-input8> type set {camera | video}].
- Telnet command to query IP streaming status: [streaming ip enable get].
- Telnet command to allow monitoring of front panel button presses: [monitor buttons].
- Camera Standby added to camera controls in admin web interface.
- Ability to import configuration settings exported from other versions of firmware.
- The browser tab title of the AV Bridge MatrixMIX can be renamed through the admin web interface.

Improvements

- An administrator's Graphics Library now has Preview/Program or Bus A/Bus B tabs where graphics can be positioned live and enabled or disabled without leaving the Graphics Library.
- Pan-Tilt-Reset function in web interface now available for applicable cameras connected for serial control (previously available only over IP camera control).
- Key sources now also display an image thumbnail in the web interface during selection.
- Increased number of available software triggers to 50.
- Discontinued support for DES and 3DES cyphers and TLS v1.0 protocol. More recent cyphers and protocols continue to be supported.
- Enhanced support for USB joystick control.

Notes

- Video may temporarily freeze if the system is switched between dual bus and A/B mode while a static graphic layer is active. Turning the layer off and rebooting the AV Bridge MatrixMIX should resolve the issue.
- Under certain conditions an uploaded static graphic image may not work properly. Deleting the image from the graphics library and reloading it should fix the issue.
- Hot-plugging of video inputs can occasionally cause temporary color distortion in the image.

AV Bridge MatrixMIX 1.0.1

Feb 13, 2018

New Feature

- Added support for HID-based 3M touchscreen monitors.

AV Bridge MatrixMIX 1.0.0

August 30, 2017

Note

- Initial release.

Initial set-up procedure

If you are updating from version 1.3.1 or earlier, you will need to set a password for the `admin` account immediately after completing the update. You may also need to change the security and other settings, as the default settings have changed.

Refer to the product's manual for specific instructions to discover its IP address and access its web interface.

To access the web interface, type `https://` followed by the IP address.

Before the product is configured, HTTP access is disabled. It can be re-enabled after you set the admin password.

Expect a security warning from your browser. The certificate (the product's website security credential) is self-signed rather than being issued by an external certificate authority.

Different browsers will respond with different messages and options. Your browser will probably present a message indicating one of these things:

- The connection is not private
- The site is not secure
- The site is not trusted
- The site poses a security threat

Despite the security warning, the HTTPS connection is secure and traffic is encrypted.

To proceed to the product's web interface, you will need to make the selections that your browser's security message discourages. The security warning page may present an option to learn more, view details, or go to the "Advanced" page. When you select the applicable option, your browser provides a button or link to continue to the IP address you entered, with a reminder that it may be unsafe. Select this option.

After you have accessed the product's web interface once, your browser may remember its IP address and not present the security message again.

Set the admin password. If there are other tasks on the page (such as reading and accepting policies and agreements), complete them also.

Note: This page includes a link to the company's standard privacy policy. This product does not record or save audio or video files, and it does not store any identifying information other than what you may choose to enter on the Room Labels page of the web interface. However, the device's IP address is considered "personally identifiable information" for the purposes of the privacy policy.
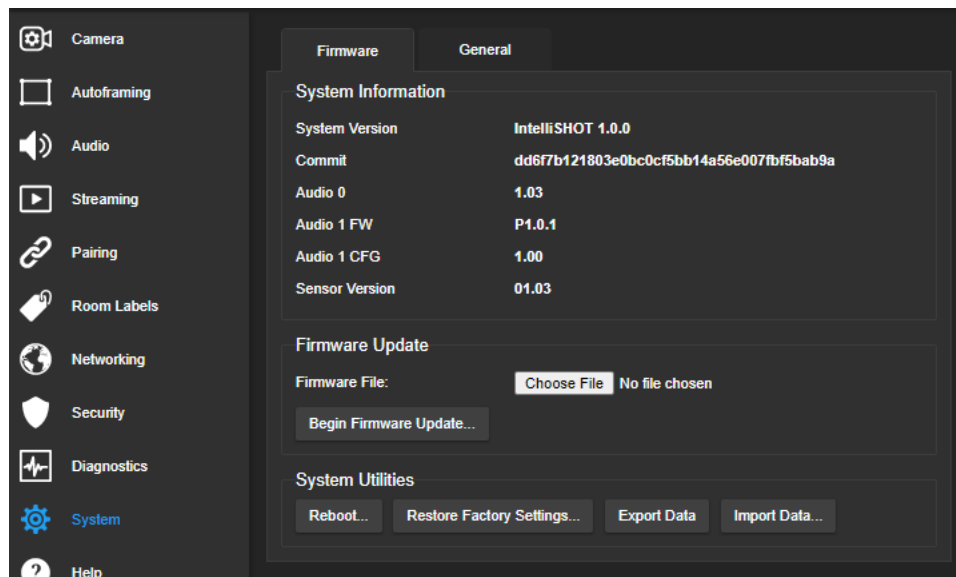
Firmware update instructions

The process for updating firmware is the same for virtually all Vaddio products. *Your device's web interface may display different information from the screen shot in this procedure.*

> **Caution**
> **The device must remain connected to power and to the network during the update. Interrupting the update could make the device unusable. If the update does not run, DO NOT DISCONNECT POWER. Call Vaddio Tech Support immediately: +1 763-971-4400 or 800-572-2011.**

1. Download the firmware file if you have not done so already.
2. Access the device's web interface and log in as `admin`.
3. On the System page, select Choose File and select the file you downloaded. Then select Begin Firmware Update.

4. Read the Confirm dialog box, then select OK. You will be prompted to log in again when the process is complete.

This update can take up to 5 minutes to complete. While you're waiting, you could try the following:

- Make a list of planets and other objects in the solar system, in the order in which you would like to visit them.
- Decide which animal would be the rudest if it could talk. Swans would be pretty high on that list...
- Think of three wishes, just in case a mythical being shows up and offers to grant you three wishes. Be prepared!

After the update is complete, the System page will display the new firmware version under System Information. Enjoy that new-firmware smell!