

Blackbox AVS-HDMI2 Family



Video Switcher

The Blackbox AVS-HDMI2-4x4-R2 and AVS-HDMI2-8x8-R2 matrix video switchers can be controlled with Mira Connect™, Aveo Systems’ smart control appliance. This document includes the information required to integrate with Mira Connect.

Control Interface

The Blackbox AVS-HDMI2 matrix switchers are controlled over a network or using RS-232 with a Global Cache IP2SL interface.

Functionality Supported

Mira Connect supports video switching audio and video together (audio follows video) when changing video inputs to outputs.

Models Supported

Blackbox AVS-HDMI2-4x4-R2 and AVS-HDMI2-8x8-R2 products

Integration Steps

To integrate Blackbox AVS-HDMI2 matrix switcher with Mira Connect, follow these steps:

Step 1


Add a Blackbox Video Switcher to the room in Mira Portal (<https://mira.aveosystems.com>), select the model number and enter the IP address of the device or the Global Cache IP2SL device if controlling over RS-232.



If you are configuring the control system before you have the switcher, select ‘Simulate equipment’ to continue. For more information on creating rooms and adding equipment, see our [training videos](#).

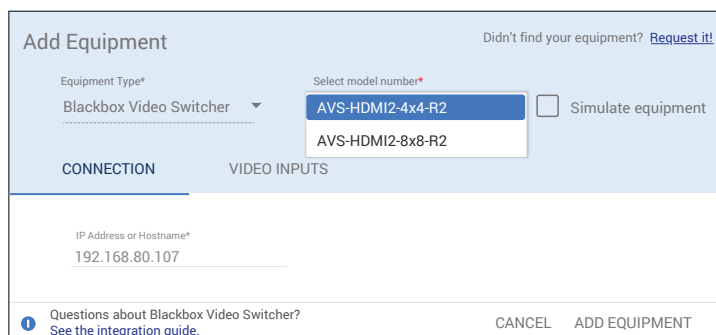
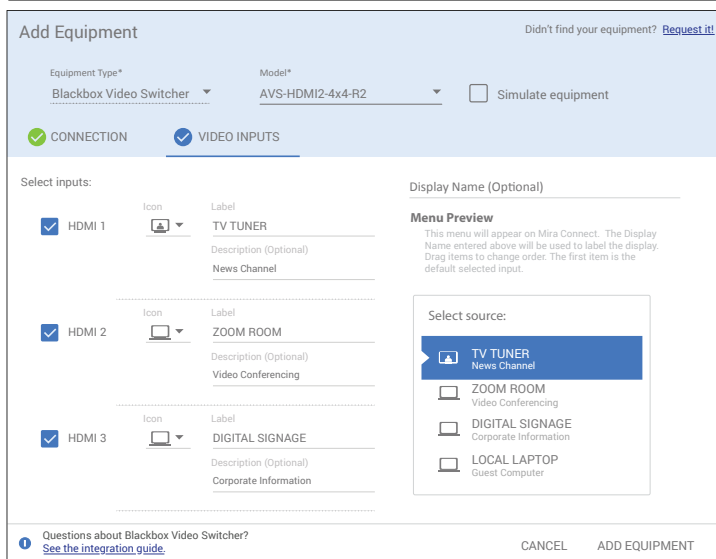
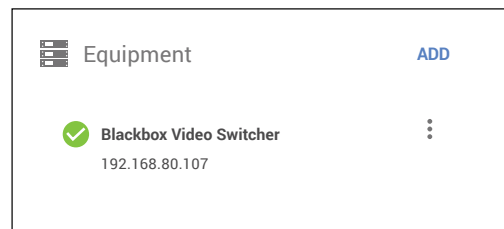
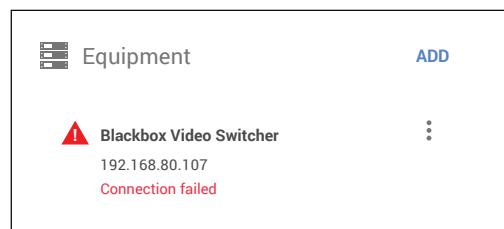
Step 2

Using the Video Inputs tab, enable the video inputs by clicking on their input. Then select an icon, and enter a label and a description. The labels and descriptions will appear on the display menu within Mira Connect. In this example, we’ve added TV Tuner, Zoom Room Computer, Digital Signage, and Local Laptop inputs. Scroll, as necessary to configure all the inputs.


Step 3

Click **Add Equipment** to add the device to the room. You can edit the device by clicking the  icon to the right on the device name.

If the Blackbox AVS-HDMI2 switcher cannot be properly identified on the network, a red triangle, , will appear as shown in the following figure. To resolve a connection issue, edit the device (by clicking the  icon to the right on the device name) and confirm the IP address and the video switcher model. Click **Update Equipment** when done and Mira Connect will attempt to connect

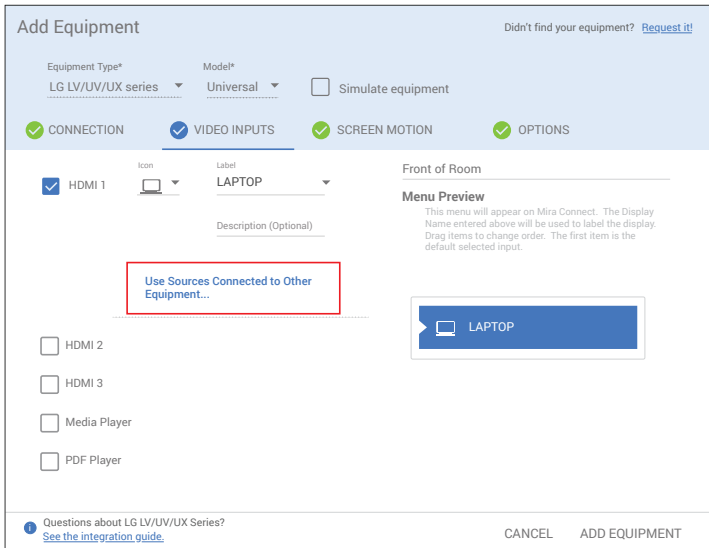
to the device.

Mira Portal will show the equipment status as a green circle with a check mark, , once the Blackbox AVS-HDMI2 video switcher has been confirmed at the specified IP address.

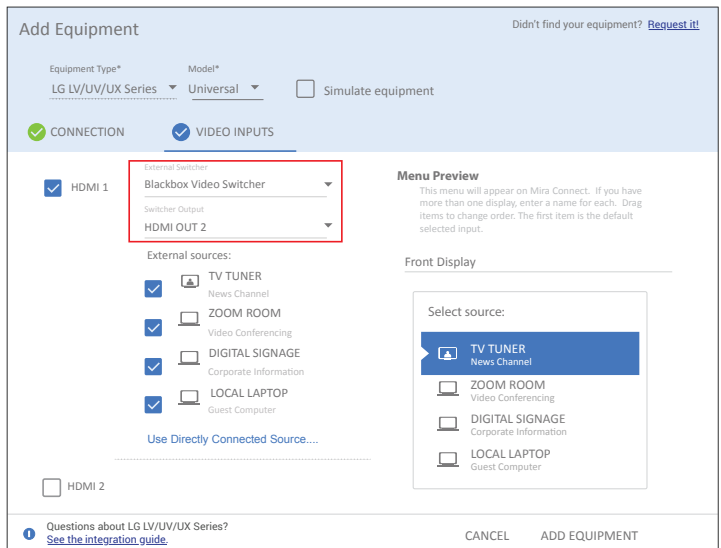
Step 4

When connecting an output from a video switcher to a display or other device, add the display to your room (in this case, an LG LV/UV/UX series display), and edit the display's video inputs.

For the desired input on the display, select 'Use Sources Connected to Other Equipment', as shown in the figure below and left. Then select the video switcher and the desired output from the video switcher that is connected to that input on the display as shown in the figure below and right. The display menu on Mira Connect will show the inputs from the video switcher automatically. The order of the menu items may be changed by clicking and dragging the menu items in the Menu Preview area on the right.



The screenshot shows the 'Add Equipment' interface with the 'VIDEO INPUTS' tab selected. Under 'HDMI 1', the 'Use Sources Connected to Other Equipment...' option is highlighted with a red box. The 'Menu Preview' section shows a 'LAPTOP' icon. The interface includes fields for 'Equipment Type*' (LG LV/UV/UX series), 'Model*' (Universal), and a 'Simulate equipment' checkbox. There are also tabs for 'CONNECTION', 'VIDEO INPUTS', 'SCREEN MOTION', and 'OPTIONS'. At the bottom, there are links for 'Questions about LG LV/UV/UX Series?' and 'See the integration guide.', along with 'CANCEL' and 'ADD EQUIPMENT' buttons.



The screenshot shows the 'Add Equipment' interface with the 'VIDEO INPUTS' tab selected. Under 'HDMI 1', the 'Blackbox Video Switcher' and 'HDMI OUT 2' options are highlighted with a red box. The 'Menu Preview' section shows a list of sources including 'TV TUNER', 'ZOOM ROOM', 'DIGITAL SIGNAGE', and 'LOCAL LAPTOP'. The interface includes fields for 'Equipment Type*' (LG LV/UV/UX Series), 'Model*' (Universal), and a 'Simulate equipment' checkbox. There are also tabs for 'CONNECTION', 'VIDEO INPUTS', 'SCREEN MOTION', and 'OPTIONS'. At the bottom, there are links for 'Questions about LG LV/UV/UX Series?' and 'See the integration guide.', along with 'CANCEL' and 'ADD EQUIPMENT' buttons.

The display menu for the LG display will appear on Mira Connect once at least one video source is enabled.

When using Mira Connect, selecting an input will automatically cause the Blackbox AVS-HDMI2 to change inputs and also ensure the display is set to HDMI 1.

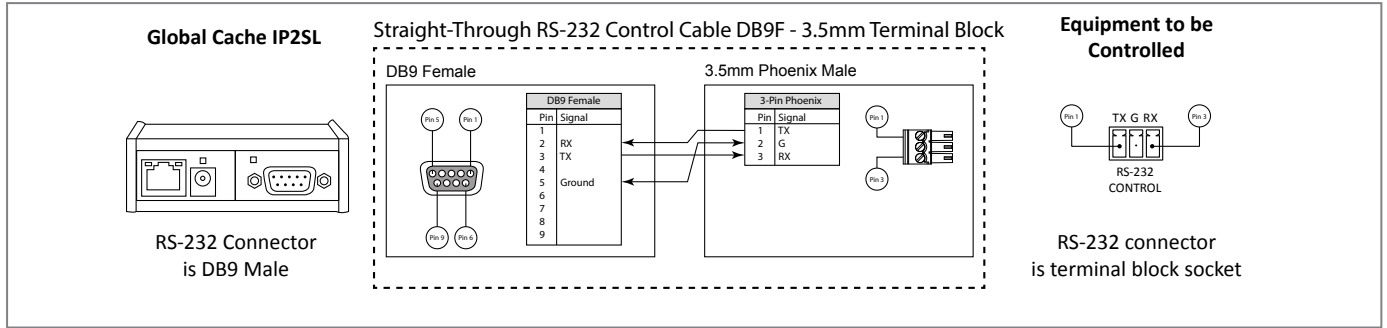
Network Connection

Network connecting using TCP, port 4001

Network connection using TCP, port 4999 using the Global Cache IP2SL

See our Global Cache [integration guide](#) for set up information. Default RS-232 settings for Blackbox AVS-HDMI2 video switchers are 9,600 baud, 8 data bits, no parity, 1 stop bit, no flow control. Set a static IP address, or use a 'reserved' lease on a DHCP server to ensure the IP address of the Global Cache IP2SL does not change over time.

RS-232 control requires a straight-through RS-232 9-pin Female to 3-pin terminal block cable between the Global Cache IP2SL and the switcher that you provide as shown in the following figure.



Troubleshooting

If Mira Connect can't connect to the Blackbox AVS-HDMI2, ensure LAN is enabled, and there is a valid network route to

the Blackbox AVS-HDMI2, using port 4001, and that the IP address is correct for the device.

If controlling over RS-232, ensure the baud rate is set to 9600. If you can still not connect, try reversing TX and RX on the mini terminal block connector.

For more information please contact our Sales Department at sales@aveosystems.com.

About Aveo Systems

Aveo Systems is a leading provider of intuitive and easy-to-use solutions for audio, video, and collaboration, improving how systems are used and managed by customers world-wide.