



instruction manual

AV2SM A/V Switcher



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Product Information

The AV2SM A/V Switcher is a media interface device you can set to automatically or manually switch between two A/V input sources, outputting to a display monitor connected to the front panel.

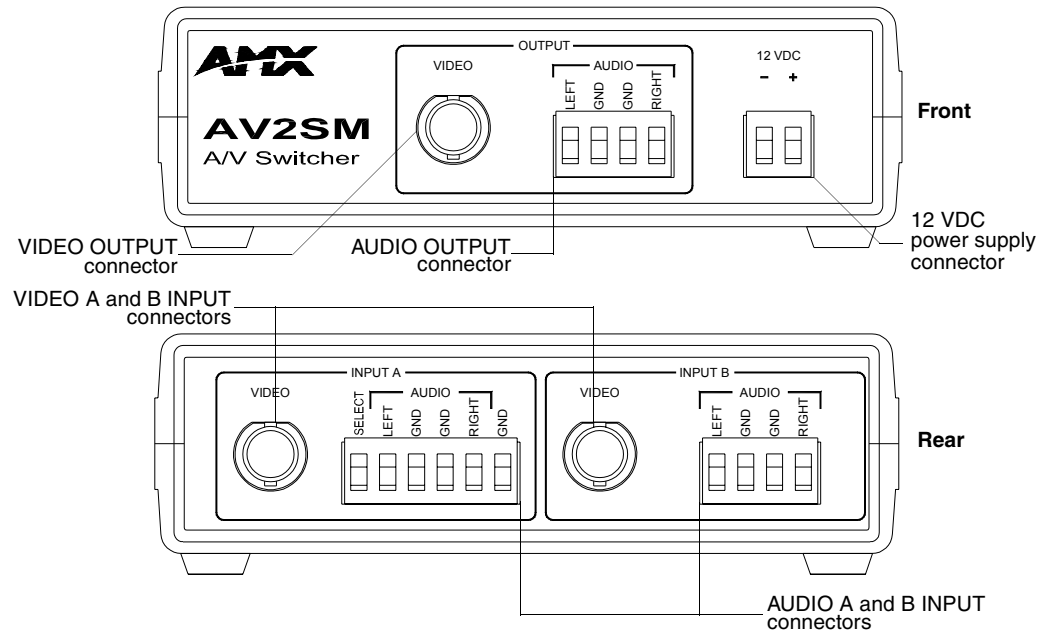


FIG. 1 Front and rear panel components of the AV2SM A/V Switcher

Specifications

Specifications	
Dimensions (HWD)	1.65" x 5.09" x 6.09" (4.19 cm x 12.93 cm x 15.47 cm)
Weight	10.09 oz (286.05 g)
Power Consumption	4.8 W maximum
Bandwidth	Video - 8 MHz Audio - 30 Hz to 20 kHz Video Sync Sense - 15.75 kHz Sensing - 1 kHz to 3 MHz (300 mVrms minimum and 3 MHz to 20 MHz) (700 mVrms minimum)
Front Panel:	
VIDEO OUTPUT	BNC female connector
AUDIO OUTPUT	4-pin cable jack
12 VDC	2-pin 12 VDC connector @ 40 mA maximum for external power supply. The AV2SM can also be powered from an Axxess Central Controller.

Specifications (Cont.)	
Rear Panel:	
INPUT A VIDEO	BNC female connector
INPUT A AUDIO	6-pin cable jack, audio and control input
INPUT B VIDEO	BNC female connector
INPUT B AUDIO	4-pin cable jack
Captive-wire screw terminals	Allows stereo (unbalanced) line-level audio
Switching Modes:	
Automatic	AV2SM switches to the A source; if no input is detected the AV2SM automatically switches to the B source. If both A and B sources are present, the default is the A source.
Manual	AV2SM determines which source to use based on the state of the SELECT pin on the rear panel.
Enclosure	Molded black matte plastic
Included Accessories	<ul style="list-style-type: none"> • Two 4-pin cable connectors • One 6-pin cable connector • One 2-pin power connector
Optional Accessories	AC-RK Accessory Rack Kit

Installation

You can install the AV2SM on any flat surface that has unobstructed access to both the front and rear panel connectors.

Automatic and Manual Switching Mode Settings

You can select the switching mode by setting two internal jumpers on the circuit card inside the enclosure. You will need a Phillips screwdriver to open the enclosure. To set the switching mode:

1. Discharge the static electricity from your body and screwdriver.
2. Unplug all connectors from the front and rear panel of the AV2SM.
3. Turn the enclosure upside down and remove the two Phillips-head screws.
4. Pull the enclosure apart and turn the bottom half, containing the circuit card, right-side up.
5. Choose the desired switching mode:
 - For automatic mode (FIG. 2), place the 2-pin jumper on the E1 connector pin's one and two. Repeat for the E2 connector.

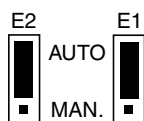


FIG. 2 Automatic mode settings

- For manual mode (FIG. 3), place the 2-pin jumper on the E1 connector pin's 2 and 3. Repeat for the E2 connector.

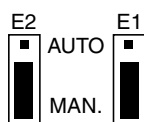


FIG. 3 Manual mode settings

Wiring Guidelines

The maximum wiring distance between the Central Controller and the AV2SM is determined by power consumption, supplied voltage, and the wire gauge used for the cable. The maximum wiring lengths for using AXlink power are based on a minimum of 13.5 volts available at the Central Controller's power supply. The maximum lengths allowable between the AV2SM and the Central Controller are as follows:

Wiring Guidelines	
Wiring size	Maximum wiring length
18	1805.7 ft (550.37 m)
20	1142.4 ft (382.20 m)
22	712.2 ft (217.07 m)
24	448.9 ft (136.82 m)

Preparing captive wires

1. Strip 0.25 inch of wire insulation off all wires.
2. Insert each wire into the appropriate opening on the connector according to the wiring diagrams and connector types described in this section.
3. Tighten the screws to secure the wire in the connector. Do not tighten the screws excessively; doing so may strip the threads and damage the connector.

Video output connector

Connect your output display monitor to the VIDEO connector on the front panel using FIG. 4.

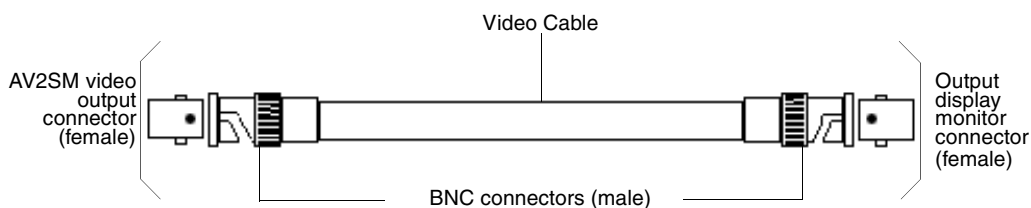


FIG. 4 VIDEO OUTPUT wiring diagram

Audio output connector

Connect your output display monitor to the Audio connector on the front panel using FIG. 5.

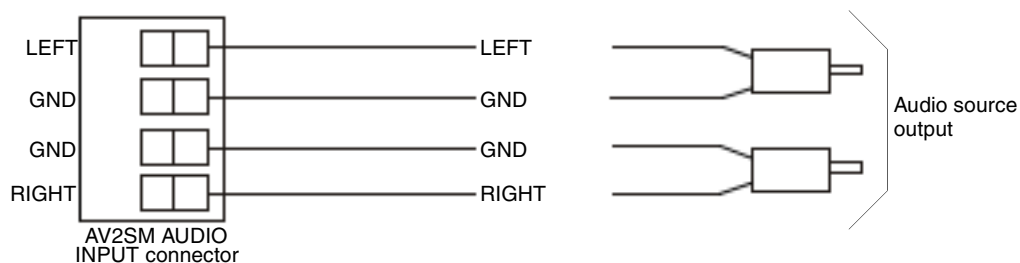


FIG. 5 AUDIO OUTPUT wiring diagram

Video A and B input connectors

Connect your Video Output source to the Input A and B Video connector on the rear panel using FIG. 6.

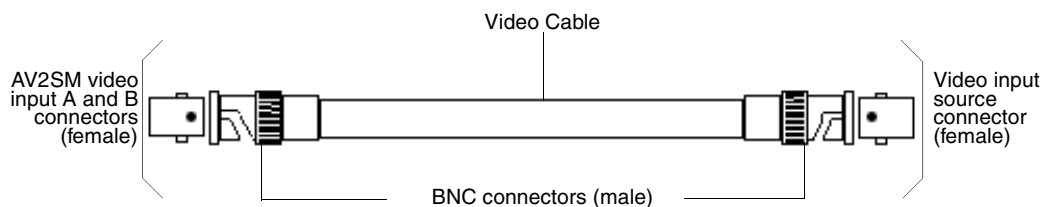


FIG. 6 VIDEO INPUT A and B wiring diagram

Audio A and B Input connectors

Connect the two Audio Output sources to the Input A and B Audio connectors, FIG. 7 illustrates the automatic switching mode; FIG. 8 shows the wiring for manual switching mode. When you use manual switching mode, the Select pin (rear panel) is taken *low* to select the B source and *high* to select the A source. A *low* can be an external relay closure or a voltage level from 0 VDC to 0.8 VDC. A *high* can be an open set of contacts or a voltage level from 3.3 VDC to 12.0 VDC.

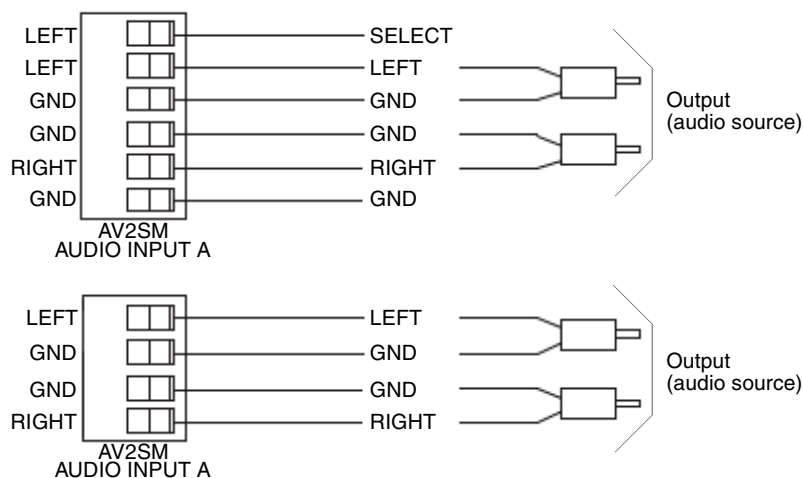


FIG. 7 AUDIO INPUT A and B wiring diagram for automatic switching mode

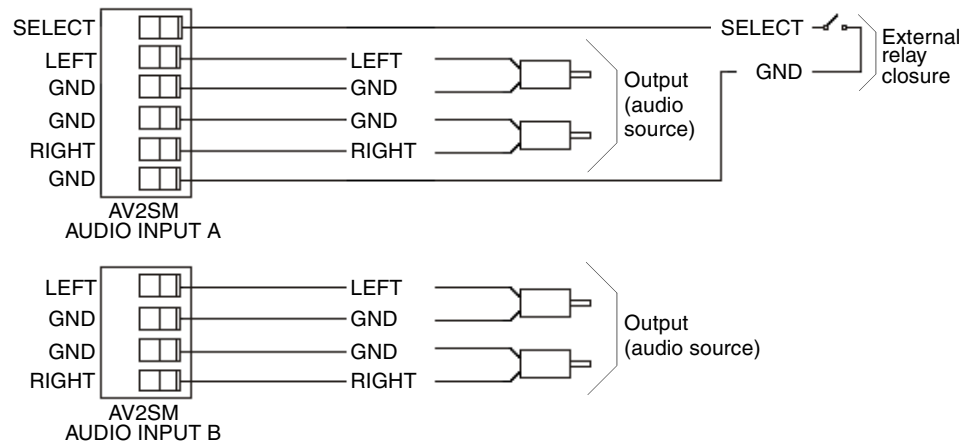


FIG. 8 AUDIO INPUT A and B wiring diagram for manual switching mode



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3000 research drive, richardson, TX 75082 USA • 469.624.8000 • 800.222.0193 • fax 469.624.7153 • technical support 800.932.6993

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