



AV-452

Technical Documentation

PRODUCT OVERVIEW

The AV-452 is a combination mic mixer, A/V switcher, and power amplifier. The control surface is elegant and intuitive. Four microphone inputs (with phantom power) offer plenty possibilities for multiple presenters and/or speaking positions. Two audio and three audio/visual components can be connected to



the A/V channel, with simple switching control. A 3-band EQ is available on each channel to enhance the individual sounds as needed. The AV-452 main unit can learn IR commands for a projector or TV. Whenever an A/V source is selected on the AV-452, the IR code for that input can be sent to the TV or projector, thereby ensuring the proper video source is being shown. The AV-452 can integrate with building alarm systems and accept constant voltage speaker signals. Plus, there are two alternatives for creating external control functionality: buttons and LEDs can be attached to the AV-452's Relay Control port, or the AV-452's serial control port can link with an RS-232 control system.

MSRP \$899.00

Audio/Video Capabilities:

4-Microphone Channels w/ Phantom Power

A/V Channel Strip w/ Video Switching

Inputs for (2) Audio Sources and (3) Audio/Video Sources
Record Monitor Control for Dubbing Between Sources

Motorized Room Volume Control

Built-in Digital Power Amp

100W/side @ 8 Ohms, operates from 4-16 Ohms

Headphone Output w/ Level Control

Control Features:

Universal Learning Remote Included

Buttons for AV-452, Projector Power and A/V Components

Built-In Projector Switching Control Capability

AV-452 Unit Learns IR Codes to be Transmitted to Projector

Bi-Directional Control Integration Capability

Relay Control Port for Direct Connection of Buttons and LEDs
Serial Control Port for RS-232/422/485 Control Protocols

Additional Features:

Integrates w/ Building Communication Systems

12V/24V/70V Constant Voltage Input w/ Mute and Gate
EMG Input Mutes AV-452 When Emergency Alarm is Detected

Room for Growth & Enhanced Operation

Balanced Line Output for Using External Amplifiers
Balanced Cascade Input for Adding Sub-mixers or Linking Rooms
Mic Group Insert for Dynamic Processing or Splitting signals
Meeting Record Output for Documenting Meeting Minutes

CONSULTANT'S AND SYSTEM DESIGN SPECIFICATIONS

The TASCAM AV-452 is a 3U rack-mountable combination 4-channel mic mixer, A/V switcher, and dual-channel 100 watt power amplifier. Each mic channel is equipped with a 60mm fader, gain, mute, and 3-band EQ controls. The A/V channel includes simple video switching and provides inputs for (2) audio sources and (3) video sources. The A/V channel is equipped with a 3-band EQ, Dim key (20db attenuation), 60mm fader, record monitor control indicator, (5)source selector keys, and (2) video input selector keys (used to select the input source for external projector). The A/V-452 provides a single video out feed. The A/V-452 is standards independent and accepts NTSC, PAL, or SECAM with no configuration needed.

The main control section includes master room volume control, aux inputs (one-composite video input and/or left and right audio signal inputs), aux selector switch, cascade key, intercom key, amp A and B keys, headphone jack w/level control, and RGB 2 input jack (passed thru to the rear panel connector).

Rear panel video connectors include RGB2 thru, DVD in (s-video & composite), VCR In and Out(s-video & composite), and Monitor out (s-video & composite). A/V audio rear panel connectors include unbalanced DVD audio in, unbalanced VCR I/O, unbalanced CD-RW I/O, and unbalanced Cassette I/O. Microphone connections via XLR or barrier strip. The unit provides +48 Volt Phantom power switch for all four-mic channels and a (TRS) group mic insert jack.

The master audio connections include a cascade input (balanced XLR), line output (balanced XLR), meeting room out (unbalanced RCA), speaker output A and B (1/4 jack), EMG in and GND (barrier strip), Intercom in/CV in (barrier strip). Trimmer pots are provided on the rear panel for AV ducker ratio and Threshold controls and Level and Gate Threshold control. A line output mode switch on the rear panel allows the line out to act as two mono line sources.

The RC-452 universal learning remote (included) controls the AV-452 and can learn commands for projector power and transport commands for up to four-components. The AV-452 can also learn IR commands, to integrate projector/monitor switching with the AV-452 internal switching.

External Control Connectors include RS-232 (9 pin D-sub) and Relay Control (37-pin D-sub). A serial address selector and a set of 6 customize dip switches are also located on the rear panel.

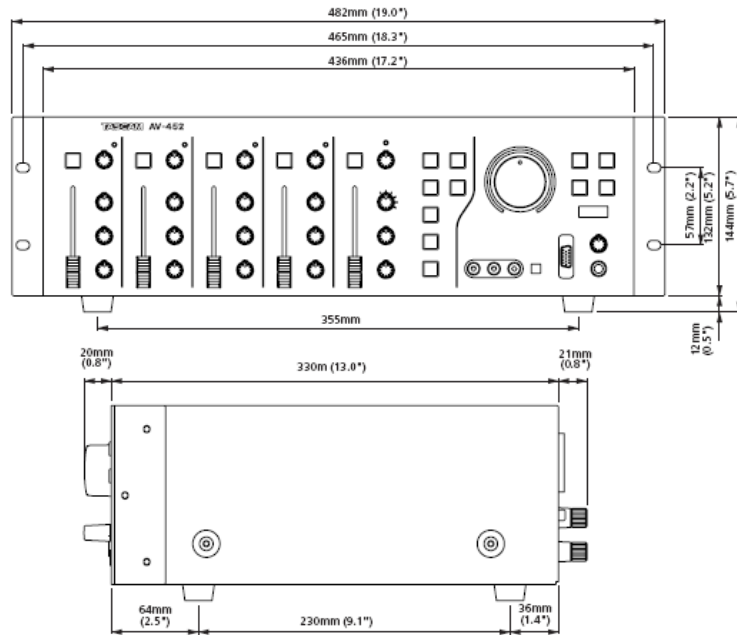
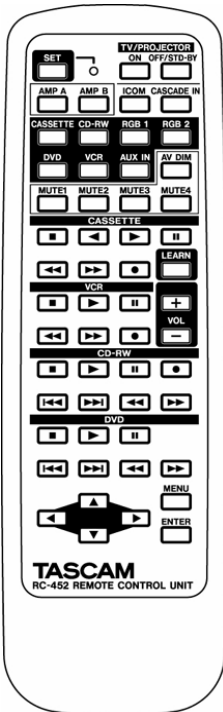
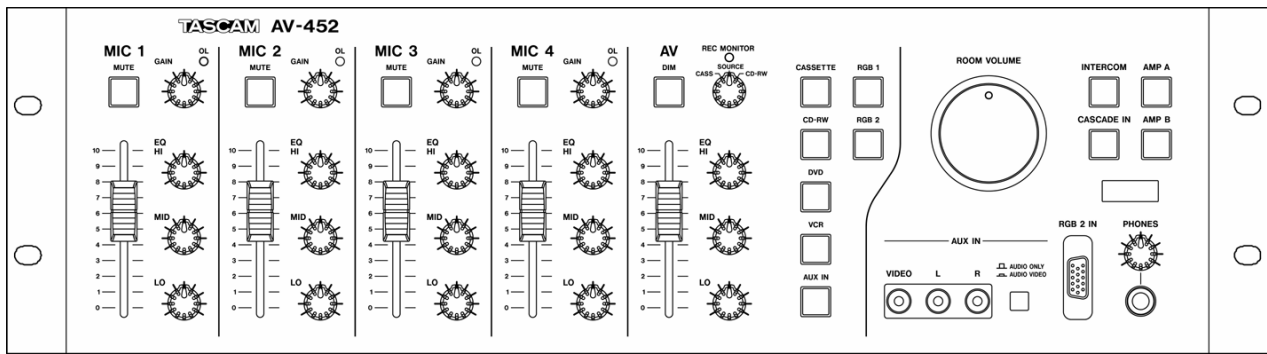
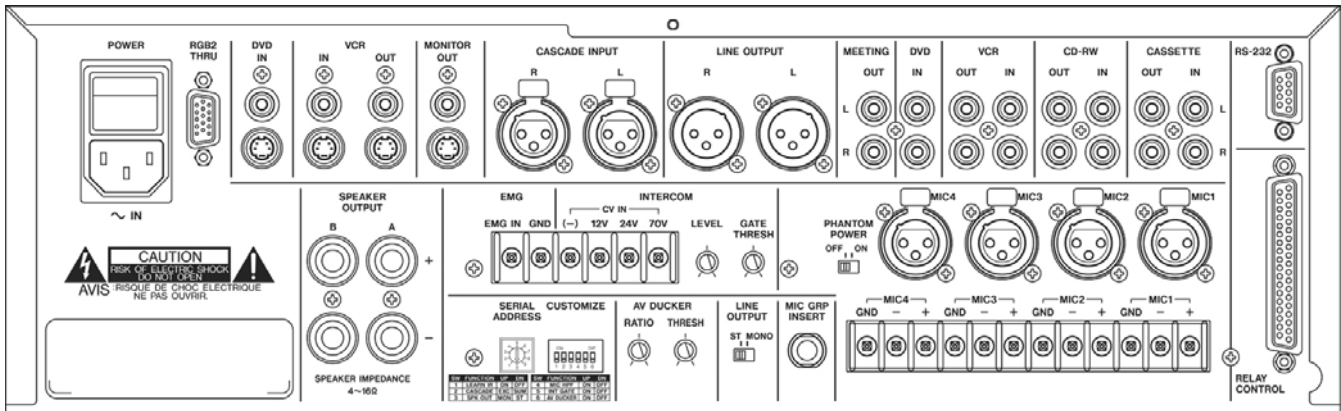
CUSTOMIZATION AND SETTINGS (DIP SWITCHES)

Switch	Function	Up position	Down position
1	Learn IR codes(LEARN IR)	ON	OFF
2	Cascade mode (CASCADE)	Exclusive (EXC)	Summed (SUM)
3	Speaker outputs (SPK OUT)	Mono (MON)	Stereo (ST)
4	Microphone high-pass filter(MIC HPF)	ON	OFF
5	Intercom gate function (INT GATE)	ON	OFF
6	AV ducking facility (AV DUCKER)	ON	OFF

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All features and specifications are subject to change without notice. Contact your local TASCAM representative for the latest information.

PANELS



SPECIFICATIONS

AV audio and microphone specifications

AV audio inputs All inputs are made through RCA pin jacks (unbalanced).

CASSETTE	Input impedance, 47k Ω , Nominal input level -10dBV (-7.8dBu)
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CD-RW	Input impedance, 47k Ω , Nominal input level -10dBV (-7.8dBu)
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VCR	Input impedance, 47k Ω , Nominal input level -10dBV (-7.8dBu)
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DVD	Input impedance, 47k Ω , Nominal input level -10dBV (-7.8dBu)
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AUX IN	Input impedance, 47k Ω , Nominal input level -10dBV (-7.8dBu)
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AV audio outputs All outputs are made through RCA pin jacks (unbalanced).

CASSETTE	Output impedance, 100 Ω , Output level -10dBV (-7.8dBu) (nominal), +10.8dBV (+13dBu) (maximum)
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CD-RW	Output impedance, 100 Ω , Output level -10dBV (-7.8dBu) (nominal), +10.8dBV (+13dBu) (maximum)
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Microphone group insert Made through TRS 1/4" jack:

Send (tip)	Output impedance 100 Ω , nominal level -10dBV (-7.8dBu), maximum level +15dBV (+17.2dBu)
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Return (sleeve)	Input impedance 10k Ω , nominal level -10dBV (-7.8dBu), 21dB headroom
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Microphone inputs The following figures apply to connections made via the XLR connectors and the barrier strips.

Input impedance	2.2k Ω
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Input level	-60dBu (GAIN ④ at maximum) to -27dBu (GAIN at minimum)
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Phantom power	+48V (global for 4 channels)
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OL indicator ③	Lights at 10dB above nominal level
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HPF	Global for 4 channels, switchable @ 80Hz
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Video specifications

Composite inputs All composite inputs are through RCA jacks.

AUX IN	75 Ω , 1Vp-p
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VCR IN	75 Ω , 1Vp-p
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DVD IN	75 Ω , 1Vp-p
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S-Video inputs All S-Video inputs are through 4-pin mini-DIN connectors.

VCR IN	75 Ω , 1Vp-p
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DVD IN	75 Ω , 1Vp-p
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Composite outputs All composite outputs are through RCA jacks.

VCR OUT	75 Ω , 1Vp-p
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MONITOR OUT	75 Ω , 1Vp-p
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S-Video outputs All S-Video outputs are through 4-pin mini-DIN connectors.

VCR OUT	75 Ω , 1Vp-p
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MONITOR OUT	75 Ω , 1Vp-p
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RGB 2 connections

RGB 2 IN	15-pin D-sub female
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RGB 2 THRU	15-pin D-sub female
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SPECIFICATIONS

Master section specifications

CASCADE INPUTS	Balanced (XLR -type connectors Input impedance 10k Ω , input level +4dBu
LINE OUTPUT	Balanced XLR-type connectors Output impedance 100 Ω , nominal output level +4dBu, maximum output level +23 dBu
MEETING OUT	Unbalanced RCA connectors Output impedance 100 Ω , nominal output level -10dBV (-7.8dBu), maximum output level +15dBV (+17.2dBu)
INTERCOM	Barrier strip 70V, 40k Ω , 24V, 12k Ω or 12V, 4.7k Ω
EMG IN	5V r.m.s.

Phones

Connector	1/4" stereo jack
Maximum output	100mW + 100mW (68 Ω) control at maximum power

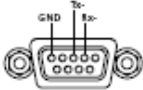
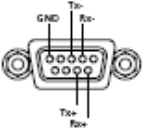
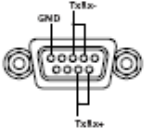
Speaker outputs

Connector	Binding posts
Load impedance	8 Ω
Rated output power	80W + 80W (1kHz, 1%, 8 Ω)
Maximum output power	100W + 100W (EIA, JAITA)

Power and physical specifications

Power requirement	100V AC, 50-60Hz 120V AC, 60Hz 230V AC, 50Hz 240V AC, 50Hz
Power consumption	125W
Peak inrush current	16A
Applicable electromagnetic environment	E4
Dimensions (W xHxD)	482 x 144 x 371(mm) 19.0 x 5.7 x 14.6 (in)
Weight	11.3kg (24.9 lbs)

Serial port pinouts

RS-232	RS-422	RS-485
		
Pin 2: Rx- Data Pin 3: TX- Data Pin 5: Ground	Pin 2: Rx- Data Pin 3: Tx- Data Pin 5: Ground Pin 6: Rx+ Data Pin 7: Tx+ Data	Pin 2: TxRx- Data Pin 3: TxRx- Data Pin 5: Ground Pin 6: TxRx+ Data Pin 7: TxRx+ Data