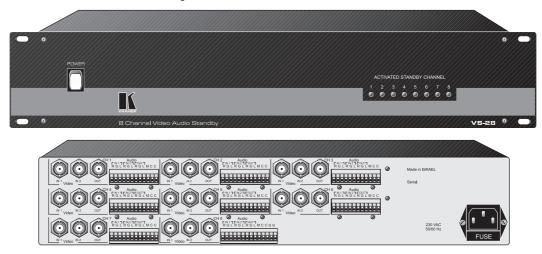


The Kramer **VS-28** is an eight channel standby switcher for composite video and stereo audio signals. Each of the eight channels is a discreet 2x1 standby switcher for composite video using BNC connectors, and stereo audio using detachable screw terminal connectors. The **VS-28** is much like having eight Kramer VS-24N's in a single two-space rack mountable enclosure.

Each 2x1 channel is designed to automatically switch to the second input any time the primary video signal is interrupted. At the same time, a front-panel LED illuminates, and an extra relay is activated which can be used to trigger an alarm. If the primary signal reappears, the individual channel will switch back to input one. Each channel can be forced to select input 2 by using a short to ground available on detachable screw terminal connectors. When the **VS-28's** power is removed or turned off, input one will be routed to the output.



Technical Specifications:

INPUTS: OUTPUTS:	8 x 2 composite video, $1Vpp/75 \Omega$ nom. on BNCs. 8 x 2 stereo audio (or balanced mono) on terminal blocks. 8 x 1 remote control pin (for short to ground). 8 x 1 Composite Video, 1 Vpp/75 Ω on a BNC connector. 8 x 1 Audio-Stereo (or Balanced Mono) on terminal blocks.
VIDEO BANDWIDTH: AUDIO BANDWIDTH: S/N RATIO: DETECTION SYSTEM: SWITCH DELAY: CONTROL: DIMENSIONS: POWER: WEIGHT: ACCESSORIES:	8 x relay contacts. Up to 500 MHz. Up to 100 kHz. 73 dB. ODD/EVEN fields. Up to 3 frames. Contact closure, automatic. 19 inch (W), 7 inch (D), 2U (H) rack mountable. 230 VAC, 50/60 Hz (115 VAC U.S.A.) 12.2 VA. 3.8 Kg. (8.4 Lbs.) Approx. Power cord.

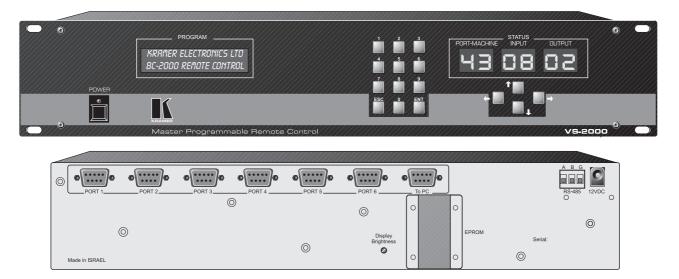
- **Solution** Broadcast applications to eliminate dead air time.
- Security applications for automatic switching of control cameras.
- Presentation systems for automatic detection of active wall plate inputs.
- Point-of-sale systems requiring uninterrupted demonstrations and advertising.



VS-2000

The Kramer **VS-2000** is a programmable master remote control unit, designed for broadcast and industrial studio applications. The **VS-2000** allows access and control of six Kramer switcher families, accessing the maximum number of switchers allowed in each group. The internal program can be easily changed or updated, as the machine provides easy access to the program ROM via the back panel.

The **VS-2000** can be controlled manually, using front panel key switches or via RS-232 commands from a PC, touch screen, or other system. It also has RS-485 (enhanced RS-422) control capability, allowing access to various studio machines - switchers, mixers, editors, VCRs etc. PC control software is also provided. The **VS-2000** can internally store and recall various setups for convenient studio control.



Technical Specifications:

INPUTS/OUTPUTS:	6x RS-232 DB-9 connectors, to switchers. 1x RS-232 DB-9 connector to PC. 1x RS-485.
SETTING MEMORY: CONTROL: DIMENSIONS: POWER SOURCE: WEIGHT: ACCESSORIES:	 4 different settings of all switchers connected to the controller. Front panel keys, RS-232, RS-485. 19 inch (W), 2 inch (D), 2U (H) rack mountable. 12 VDC, 130mA. 1.7 Kg. (3.8 Lbs.) Approx. 12 VDC power supply, Windows 95/98 control software.

- Video production and duplication studios.
- *Live broadcasting and editing.*

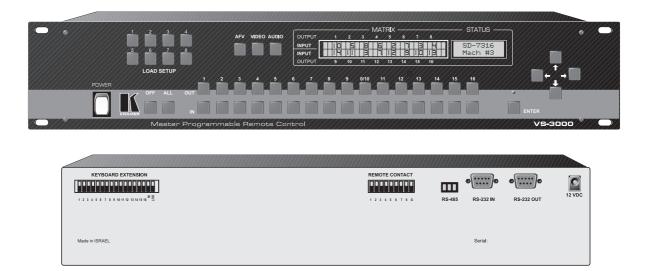


Master Programmable Remote Control VS-3000

The Kramer **VS-3000** is a Master Programmable Remote Control System, designed for broadcast and industrial studio applications. It can control the latest Kramer switchers and can be easily upgraded to be used with future Kramer switchers.

The **VS-3000** can create, using the built-in RS-232 and RS-485 interfaces, any configuration consisting of one PC, up to 15 remote controllers and up to 15 switchers. It can control a stand-alone switcher or can be a part of a system, controlling and reflecting the status of all connected devices. The **VS-3000** itself may be activated, or an internal pre-set recalled, using dry contact-closure control. It can control up to 128 inputs/outputs combinations.

The **VS-3000** can address the individual functions of the connected devices, such as crosspoint connections, audio follow video or breakaway, etc. It can internally store and recall various setups for convenient and instant studio control. The unit may be rack or desktop mounted due to its shallow-profile and 19 inch design. It is operated by a 12VDC power source, qualifying it for field operation.



Technical Specifications:

INPUTS/OUTPUTS:	2x RS-232 DB-9 in / out connectors. 1x RS-485 connector on detachable terminal blocks. 9 pole, remote dry-contact connector on detachable terminal blocks. 18 pole, keyboard extension connector on detachable terminal blocks.
SETTING MEMORY:	8 immediate setups for fast access and retrieval.
CONTROL:	Front panel keys, RS-232, RS-485, contact closure switches, external keyboard.
DIMENSIONS:	19 inch (W), 2 inch (D), 2U (H) rack mountable.
POWER SOURCE:	12 VDC, 800 mA.
WEIGHT:	1.7 Kg. (3.8 Lbs.) Approx.
ACCESSORIES:	Windows 95/98 control software.

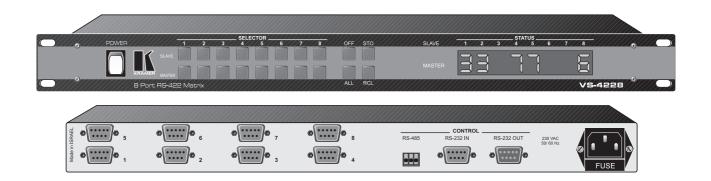
- Video production and duplication studios.
- Live broadcasting and editing.





The Kramer **VS-4228** is an 8 port matrix switcher for routing RS-422 control. It is designed to interconnect RS-422-controlled devices. The **VS-4228** operates bi-directionally and offers automatic master/slave configuration. It sends control data from a master device to all destinations, and routes the response of the highest priority slave back to the master.

There are a total of three ways to control **VS-4228** - front panel buttons, RS-232, and RS-485. A large, bright LED display on the front panel shows the current status of the matrix, and the built-in memory stores and retrieves pre-set configurations.



Technical Specifications:

INPUTS/OUTPUTS:	8 in/out ports on DB-9 female connectors, fully compliant to TIA/EIA-422-B standard. RS-232 control via DB-9 female connector (RS-232 out on DB-9 male connector, RS-485 on terminal block assembly.
CONTROLS:	Manual with pushbuttons on front panel, RS-485 and RS-232 serial interface.
POWER SOURCE:	230VAC, 50/60 Hz, (115V U.S.A.) 10 VA.
DIMENSIONS:	19-inch (W), 7-inch (D) 1U (H) rack mountable.
WEIGHT:	2.2Kg (4.88 Lbs. Approx.).
ACCESSORIES:	Power cord, Windows 95/98 control program.

- ***** *Remote control of video and audio production studios.*
- *Live broadcast remote control.*
- *CCTV and other remote control applications.*



The Kramer **VS-24N** is a 2x1 standby switcher for composite video and stereo audio signals. It is designed to automatically switch to the second input any time the primary video signal is interrupted. If the primary signal reappears, the **VS-24N** will automatically switch back to input one. When power is removed or turned off, input two will be routed to the output.

In addition to its automatic switching function, the **VS-24N** can operate as a simple remote controlled 2x1 switcher for video and audio. To accomplish this, two remote connectors are provided. When either connector is shorted (a connection to ground), input two will be selected.



Technical Specifications:

INPUTS:	2 composite video, $1Vpp/75 \Omega$ nom. on BNCs. 2 stereo audio 10 k Ω , $1Vpp$ nom., on RCAs.
OUTPUTS:	2 parallel remote control sockets (short to ground). 1 composite video, 1 Vpp/75 Ω on a BNC connector. 1 stereo audio 100 Ω , 1V nom. on RCAs.
VIDEO BANDWIDTH:	150 MHz.
AUDIO BANDWIDTH:	> 100 kHz.
DETECTION SYSTEM:	ODD/EVEN fields.
SWITCH DELAY:	From 3 frames to 2 seconds.
DIMENSIONS:	24.5 x 18 x 4.4cm (9.6" x 7" x 1.7", W, D, H.).
POWER:	230 VAC, 50/60 Hz (115VAC U.S.A.) 3 VA.
WEIGHT:	1.2 Kg. (2.7 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	Rack mount kit model RK-MED holds one unit in two vertical rack spaces.

- Presentation systems requiring automatic selection of active wall plate inputs.
- Security applications for automatic switching of control cameras.
- Streadcast applications to eliminate dead air time.
- Retail stores and other point-of-sale systems requiring uninterrupted demonstrations and advertising.



The Kramer **VS-33V** is a high quality 3x1 vertical interval switcher for composite video sources using BNC connectors. It is designed to route up to three composite video signals to a single monitor, projector or other receiving device. Since switching is performed during the vertical interval, transitions are glitch-free when sources share a common reference sync.

The **VS-33V** is housed in a very compact enclosure, but up to three units can be rack mounted using Kramer's model **RK-SM** rack adapter kit. An external 12VDC power supply is included for typical operation but can also be powered by the optional **VA-50P** which can power up to six Kramer products requiring 12VDC.



Technical Specifications:

INPUTS: OUTPUT: VIDEO BANDWIDTH: SWITCHING: DIFF. GAIN: DIFF. PHASE: K-FACTOR: MAX. VIDEO OUTPUT: VIDEO S/N RATIO: CROSSTALK: POWER SOURCE: DIMENSIONS: WEIGHT:	75 dB. -50dB. 12VDC 40mA. 11.7cm x 6cm x 3.2cm (4.6" x 2.4" x 1.3", W, D, H.). 0.3 Kg. (0.67 Lbs.) approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	Model 50P six-outlet power supply, model RK-SM rack adapter.

- Any professional system requiring high quality video switching.
- Video production and broadcast facilities.
- ***** *Retail stores and other point-of-sale systems.*
- Security and CCTV applications.





The Kramer **VS-421** is a high performance 4x1 switcher for composite video and stereo audio signals. Using BNC connectors for video and RCA connectors for audio, one of four sources can be routed to one monitor, projector, or other receiving device. Two switching modes can be selected by a switch on the rear panel. In the <u>vertical interval mode</u> glitch-free transitions are provided when sources share a common reference sync, and in the <u>immediate mode</u> switching takes place instantly.

The **VS-421** can be controlled by front panel buttons or by shorting the corresponding pin to ground using a detachable block screw terminal connector on the rear panel. Video bandwidth exceeding 330MHz ensures transparent performance even in critical broadcast and production applications. Exceptionally high performance also allows the **VS-421** to be used for SDI (serial digital) and high line rate video signals.



Technical Specifications:

INPUTS:	4 composite video / SDI, 1Vpp/		DCA
OUTPUTS:	4 stereo audio (or balanced mo 1 Composite Video, 1Vpp/75 Ω 1 Audio-stereo / Balanced mon	on BNCs.	
BANDWIDTH (VIDEO):	Exceeding 330 MHz -3dB.		
BANDWIDTH (AUDIO):	50 kHz, -1dB.		
NON LINEARITY:	0.1%.	DIFF. GAIN:	0.1%.
DIFF. PHASE:	0.03 Deg.	LUMA S/N:	>71 dB.
K-FACTOR:	<0.1%.		
VIDEO CROSSTALK:	-65dB (SYNC).		
SWITCHING:	Vertical Interval or immediate.		
CONTROL:	4 front-panel touch switches, co	ontact closure.	
DIMENSIONS:	24.5cm X 18cm X 4.5cm (9.6" x 7" x 1.8", W, D, H.).		
POWER SOURCE:	230 VAC, 50/60 Hz, (115 VAC L	J.S.A.) 4.6 VA.	
WEIGHT:	1.4 Kg. (3.1 Lbs.) Approx.		
ACCESSORIES:	Power cord.		
OPTIONS:	Rack mount kit model RK-MED	holds one VS-421 in	two vertical rack spaces.

- Any professional display system requiring video and audio switching.
- *Real time camera switching for broadcast and production systems.*
- CCTV and security, point-of-sale, medical imaging, and rental applications.



5x1 Dual Wideband Switcher

The Kramer **VS-55** is a high quality dual wideband switcher for use with any set of dual signals such as stereo audio, s-Video (Y/C), balanced audio, etc. It allows one of up to five dual sources to be routed to one dual output. Since the signal path is passive using high quality relays, the **VS-55** can also operate in the opposite direction, allowing one source to be routed to any one of five destinations.

The **VS-55** also provides an EXT connector, which allows multiple units to be combined to form larger switching systems. For example, two units will form a 10x1, three will form a 15x1, etc. A 12VDC power supply is included for typical operation, but the optional model **VA-50P** can power up to six Kramer devices requiring 12VDC. All Kramer **VM-50** and **VS-55** series products can be rack-mounted using the model **RK-50R** kit which holds two units in two vertical rack spaces.



Technical Specifications:

INPUTS: OUTPUT: BANDWIDTH:	5 dual signals / 1 dual signal on RCA type connectors. 1 dual signal / 5 dual signals on RCA type connectors. 270MHz3dB.
SWITCHING TIME:	3 ms Nom.
MAX. OUTPUT:	Up to 60 Volts.
CROSSTALK:	-50dB @ 5MHz.
CONTROL:	5 front-panel touch switches, contact closure.
POWER SOURCE:	12VDC 100mA.
DIMENSIONS:	16.5cm x 12cm x 4.5cm (6.5" x 4.7" x 1.8", W, D, H.).
WEIGHT:	0.62 Kg. (1.4 Lbs.) Approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	Model VA-50P six outlet power supply, model RK-50R rack kit.

- Any professional display system requiring high quality switching.
- Video and audio production studios.
- Specialized signal routing for SDI, high line rate medical imaging, etc.
- Any application in which a relay-based passive signal path is preferred.



5x1 Vertical Interval Video Switcher VS-55V

The Kramer **VS-55V** is a high performance 5x1 vertical interval switcher designed for composite video signals. One of up to five sources can be routed to one monitor, projector, or other receiving device. Since it switches during the vertical interval, transitions are glitch-free when sources share a common reference sync. The LINK connector is designed to allow the use of a **VS-55A** to form "audio-follow-video" systems. The **VS-55V** also provides an EXT connector, which allows multiple units to be combined to form larger switching systems. For example, two units will form a 10x1, three will form a 15x1, etc. A 12VDC power supply is included for typical operation but the optional model **VA-50P** can power up to six Kramer devices requiring 12VDC. All Kramer **VM-50** and **VS-55** series products can be rack-mounted using the model **RK-50R** kit which holds two units in two vertical rack spaces.



Technical specifications:

INPUTS:	5 Composite /single component Video 1Vpp/75 Ω on BNCs.
OUTPUT:	1 Composite /single component Video, 1 Vpp/75 Ω on a BNC connector.
	LINK connector (DB-9) for parallel operation, EXT connector (RCA) for switcher extension.
VIDEO BANDWIDTH:	150 MHz3dB.
SWITCHING:	During Vertical Interval of source No. 1.
DIFF. GAIN:	<0.88 %.
DIFF. PHASE:	<0.35 Deg.
K-FACTOR:	<0.05%.
NON-LINEARITY:	<0.3%.
VIDEO S/N RATIO:	Better than 73 dB.
CROSSTALK:	<-45dB @ 5 MHz.
MAX. VIDEO OUTPUT:	>1.6Vpp/75 Ω.
CONTROL:	5 front-panel touch switches, contact closure.
POWER SOURCE:	12VDC 100mA.
DIMENSIONS:	16.5cm x 12cm x 4.5cm (6.5" x 4.7" x 1.8", W, D, H.).
WEIGHT:	0.66 Kg (1.46 Lbs.) approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	VA-50P six outlet power supply, RK-50R rack kit and VS-55A audio switcher.

- Any professional display system requiring high quality video switching.
- Video and audio production studios.
- Security, CCTV, and home theater systems.



The Kramer **VS-55A** is a high performance 5x1 switcher for stereo audio signals. Using RCA connectors, one of up to five sources can be routed to an output. The **VS-55A** can be used as an independent audio switcher, but is also designed to easily link with other **VS-55** series Kramer switchers such as the **VS-55V** for composite video, or the **VS-55YC** for s-Video, to form "audio-follow-video" systems.

The VS-55A also provides an EXT connector, which allows multiple units to be combined to form larger switching systems. For example, two units will form a 10x1, three will form a 15x1, etc. A 12VDC-power supply is included for typical operation, but the optional model VA-50P can power up to six Kramer devices requiring 12VDC. All Kramer VM-50 and VS-55 series products can be rack-mounted using the model **RK-50R** rack kit which holds two units in two vertical rack spaces.



Technical Specifications:

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INPUTS:	5 Stereo-Audio - 1Vpp/ 50 k Ω on RCAs.
OUTPUT:	1 Stereo-Audio $$ - 1Vpp/ 100 Ω on RCAs.
AUDIO BANDWIDTH:	100,000 Hz1dB.
T.H.D:	Less than 0.08%.
MAX. AUDIO OUTPUT:	3 Vpp/ 100Ω.
GAIN RANGE:	60 dB (via bottom accessible trimmers).
AUDIO S/N RATIO:	Better than 78 dB.
CONTROL:	5 front-panel touch switches, contact closure.
POWER SOURCE:	12VDC, 100mA.
DIMENSIONS:	16.5cm x 12cm x 4.5cm (6.5" x 4.7" x 1.8", W, D, H.).
WEIGHT:	0.62 Kg. (1.4 Lbs.) Approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	Model VA-50P six outlet power supply, model RK-50R rack kit.

- Any professional display system requiring high quality audio switching.
- Video and audio production studios.
- Retail stores, restaurants and sports bars.



5x1 Vertical Interval Y/C Switcher



The Kramer **VS-55YC** is a high performance 5x1 vertical interval switcher designed for s-Video (Y/C) signals. One of up to five sources can be routed to one monitor, projector, or other receiving device. Since it switches during the vertical interval, transitions are glitch-free when sources share a common reference sync. The LINK connector is designed to allow the use of a **VS-55A** to form "audio-follow-video" systems.

The **VS-55YC** also provides an EXT connector, which allows multiple units to be combined to form larger switching systems. For example, two units will form a 10x1, three will form a 15x1, etc. A 12VDC-power supply is included for typical operation but the optional model **VA-50P** can power up to six Kramer devices requiring 12VDC. All Kramer **VM-50** and **VS-55** series products can be rack-mounted using the model **RK-50R** kit which holds two units in two vertical rack spaces.



Technical Specifications:

INPUTS: OUTPUT: VIDEO BANDWIDTH (Y): SWITCHING:	5 Y/C - 1Vpp/75 Ω (Y), 0.3Vpp/75 Ω (C) on 4P type connectors. 1 Y/C - 1Vpp/75 Ω (Y), 0.3Vpp/75 Ω (C) on a 4P type connector. 120 MHz1dB. During vertical interval of source no. 1.
DIFF. GAIN:	0.03%.
DIFF. PHASE (C):	0.07 degrees.
K-FACTOR:	<0.05%.
MAX. VIDEO OUTPUT (Y):	1.4Vpp/75Ω (Y).
VIDEO S/N RATIO (Y):	Better than 78 dB.
CONTROL:	5 front-panel touch switches, contact closure.
POWER SOURCE:	12VDC, 125mA.
DIMENSIONS:	16.5cm x 12cm x 4.5cm (6.5" x 4.7" x 1.8", W, D, H.).
WEIGHT:	0.64 Kg. (1.4 Lbs.) Approx.
ACCESSORIES:	12VDC power supply.
OPTIONS:	VA-50P six outlet power supply, RK-50R rack kit, VS-55A audio switcher.

- Any professional display system requiring high quality s-Video switching.
- Video and audio production studios.
- Security, CCTV, and home theater systems.



The Kramer **VS-6EII** is a high quality 4x4 matrix switcher for composite video and stereo audio signals. It is a true matrix, allowing any input to be routed to any or all outputs simultaneously. The **VS-6EII** features a compact design intended to fit neatly on a desktop. For intuitive user control, the front panel offers a dedicated rotary input select knob for each of the four outputs. Audio is always switched together with the corresponding video signal.

Although the **VS-6EII** is designed primarily for desktop use, it can be rack mounted using the **RK-10** kit, which holds one unit in two vertical rack spaces.



Technical Specifications:

INPUTS:	4 video, 1Vpp/75 Ω composite on BNCs. 4 stereo audio 1Vpp/ 100kΩ on RCAs.
OUTPUTS:	4 video 1 Vpp/75 Ω on BNCs.
	4 stereo audio 1 Vpp/ 100Ω on RCAs.
VIDEO BANDWIDTH:	Exceeding 100 MHz.
AUDIO BANDWIDTH:	Exceeding 24 kHz.
DIFF. GAIN:	1.3%.
DIFF. PHASE:	0.9 Deg.
MAX. VIDEO OUTPUT:	2Vpp/75 Ω.
VIDEO S/N RATIO:	74 dB.
AUDIO S/N RATIO:	80 dB.
AUDIO THD:	0.02%.
VIDEO CROSSTALK:	-65dB (SYNC), -48dB (C).
DIMENSIONS:	24.5cm X 16cm X 5cm (9.6" x 6.3" x 1.9", W, D, H).
POWER SOURCE:	230 VAC, 50/60 Hz, (115VAC, U.S.A.) 10.6 VA.
WEIGHT:	1.7 Kg. (3.8 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	RK-10 rack mount kit.

- Video production studios, delivering undiminished quality video and audio outputs.
- Video showrooms, shops and points of sale for system demonstration and comparison.
- CCTV and other monitoring applications.

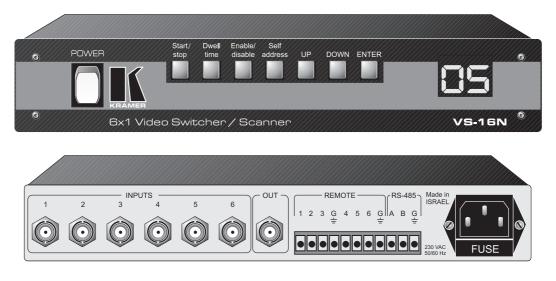


6x1 Video Switcher/Scanner

VS-16N

The Kramer **VS-16N** is a 6x1 scanning switcher designed for composite video signals using BNC connectors. Inputs can be selected using the front panel in addition to the typical scanning mode. Bandwidth of 40 MHz ensures transparent performance with common video sources such as cameras and VCRs.

The **VS-16N** can be programmed to scan automatically, skipping unused inputs if desired. It can be controlled by front panel buttons, RS-485, or by simply shorting the relevant pin to ground on the back panel screw terminal connector. It is ideal for many applications in retail stores, studios, showrooms, and in many CCTV and security applications. Up to 15 machines can be cascaded to form larger systems including 12x1, 18x1, etc. The **VS-16N** connects to other units via RS-485 and output looping.



Technical Specifications:

INPUTS:	6 composite video 1Vpp/75 Ω on BNCs.
	6 binding posts for external control.
OUTPUT:	1 composite video, looping, 1 Vpp/75 Ω on a BNC.
VIDEO BANDWIDTH:	40 MHz3dB.
DIFF. GAIN:	0.9%.
DIFF. PHASE:	0.37 Deg.
K-FACTOR:	<0.05%.
VIDEO S/N RATIO:	72 dB.
VIDEO CROSSTALK:	less than 50dB.
CONTROL:	Automatic, manual, RS-485, and contact closure.
SWITCHING:	During Vertical Interval (derived from source no. 1).
DIMENSIONS:	24.5cm x 18cm x 4.5cm (9.6" x 7" x 1.8", W, D, H.).
POWER SOURCE:	230 VAC, 50/60 Hz, (115VAC, U.S.A.) 3 VA.
WEIGHT:	1.5 Kg. (3.3 Lbs.) Approx.
ACCESSORIES:	Power cord.
OPTIONS:	Model RK-MED rack mount kit holds one unit in two vertical rack spaces.

- Video control and production studios.
- *Retail stores and quality assurance systems.*
- CCTV and security applications.



6x1 Dual Wideband Switcher/Scanner VS-16A

The Kramer **VS-16A** is a high performance two channel 6x1 scanning switcher compatible with a wide variety of signals including audio, video, and component video using dual RCA connectors. Inputs can be selected manually in addition to the typical scanning mode. Exceptionally high bandwidth of 540MHz ensures transparent performance. Input impedance depends on the source, and output impedance is established by the display or recording device.

The **VS-16A** can be programmed to scan automatically, skipping unused inputs if desired. It can be controlled by front panel buttons, RS-485, or by simply shorting the relevant pin to ground on the back panel screw terminal connector. It is ideal for many applications in retail stores, studios, showrooms, and in many CCTV and security applications. Up to 15 machines can be cascaded to form larger systems including 12x1, 18x1, etc. The **VS-16A** connects to other units via RS-485 and output looping.



Technical Specifications:

INPUTS:	6 dual signal sources- audio, video or component, level and impedance are source dependent, on RCA connectors.
	6 terminal blocks for external remote control.
OUTPUT:	1 dual signal - audio, video or component, level and impedance are acceptor dependent, on RCA connectors.
VIDEO BANDWIDTH:	540 MHz3dB.
DIFF. GAIN:	0.02%.
DIFF. PHASE:	0.02 Deg.
K-FACTOR:	<0.05%.
VIDEO S/N RATIO:	72 dB.
VIDEO CROSSTALK:	Less than 50dB at 5 MHz.
CONTROL:	Automatic, manual, RS-485 and remote contact closure.
DIMENSIONS:	24.5cm x 18cm x 4.5cm (9.6" x 7" x 1.8", W, D, H.).
POWER SOURCE:	230 VAC, 50/60 Hz, (115VAC, U.S.A.) 5 VA.
WEIGHT:	1.3 Kg. (2.9 Lbs.) approx.
ACCESSORIES:	Power cord.
OPTIONS:	Model RK-MED rack mount kit holds one unit in two vertical rack spaces.

Typical Applications:

Video and audio process control systems.

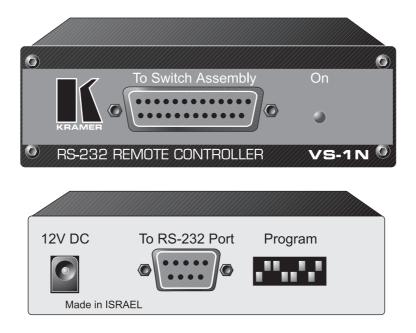
Retail stores, CCTV and security applications.



VS-1N/VS-1P

The Kramer **VS-1N** is a remote control interface which converts an array of up to 24 momentary switches into RS-232 commands compatible with Kramer "**01**" or "**02**" series switchers. By activating a momentary switch at the input of the **VS-1N**, a corresponding RS-232 command is forwarded to the switcher via a simple 9 pin cable. This allows the user complete flexibility to build custom remote control panels into podiums, tabletops, wall panels, etc., while the actual switcher remains hidden in a remote equipment rack. Front panel control of the **01** or **02** switcher is not interrupted.

For non-custom applications Kramer offers two rack mountable momentary button assemblies. The **VS-1P** is a simple array of 24 buttons arranged in two rows of 12, and the **VS-1P2** is a larger unit consisting of two **VS-1P's** placed side-by-side in a single space rack-mount enclosure.



Technical Specifications:

INPUTS:	Up to 24 remote momentary switches on a DB-25 female connector.
OUTPUT:	DB-9 connector for RS-232 link to a Kramer 01 or 02 series switcher.
CONTROLS:	Up to 24 remote key switches.
DIMENSIONS: POWER SOURCE: WEIGHT: ACCESSORIES: OPTIONS:	 8 Dip Switches for programming. 11.4 cm x 17.5 cm x 3.7 cm (4.5" x 6.9" x 1.5", W, D, H). 12 VDC, 100mA. 0.58 Kg. (1.3 Lbs.) Approx. 12 VDC power supply. Rack mountable button assemblies as described above.

- ✤ Video production studios.
- Live broadcasting remote control.
- *CCTV and remote security applications.*

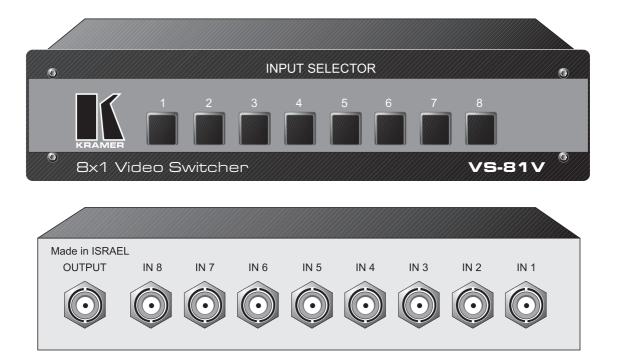


8x1 Video Switcher



The Kramer **VS-81V** is a high quality mechanical 8x1 switcher for composite video using BNC connectors. It is designed for applications requiring a compact desktop unit for routing of composite video signals. High quality switching components provide excellent isolation between inputs, and unselected inputs are terminated via 75-ohm resistors.

The **VS-81V** is extremely rugged and dependable. Its unpowered, passive design can be an advantage in applications where various regulatory compliance would otherwise be required. The passive "hard-wire" signal path offers very high bandwidth and can also switch other signal formats.



Technical Specifications:

INPUTS: OUTPUT: SWITCHING SYSTEM: CROSSPOINTS: SOURCE ISOLATION: FREQUENCY RESPONSE: DIMENSIONS: WEIGHT:	 8 video, 1Vpp/75 Ω nom. on BNCs. 1 video, 1 Vpp/75 Ω nom. on a BNC connector. Mechanical, break-before-make. 1 of 8. -47 dB @ 5 MHz. 400 MHz +/- 2dB. 18.8 cm x 10.2 cm x 4.4 cm (7.4" x 4" x 1.7", W, D, H). 0.72 Kg. (1.6 Lbs.) Approx.
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- Security, CCTV, and home theater systems.
- Any professional system requiring simple 8x1 video switching.
- Any application where a passive "hard-wire" signal path is preferred.



VS-81YC

The Kramer **VS-81YC** is a high quality mechanical 8x1 switcher for s-Video (Y/C) using 4-pin connectors. It is designed for applications requiring a compact desktop unit for routing one of up to eight s-Video sources to one monitor, projector, or other receiving device. High quality switching components provide excellent isolation between inputs, and unselected inputs are terminated via 75-ohm resistors.

The **VS-81YC** is extremely rugged and dependable. Its unpowered, passive design can be an advantage in applications where various regulatory compliance would otherwise be required. The "hard-wire" signal path offers very high bandwidth and can also switch other signal formats.

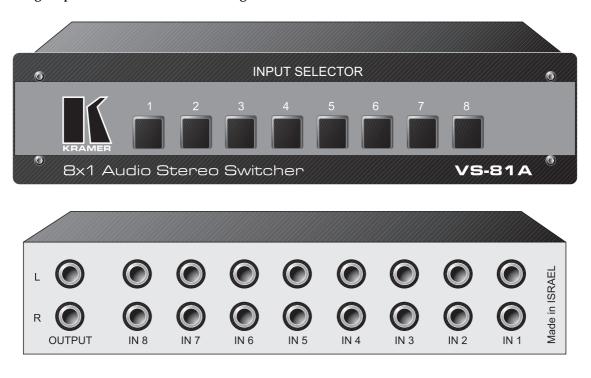


Technical Specifications:

- Small production and editing studios.
- Any professional system requiring simple 8x1 s-Video switching.
- Applications where a passive, "hard-wire" signal path is preferred.



The Kramer **VS-81A** is a high quality mechanical 8x1 switcher for stereo audio using RCA connectors. It is designed for applications requiring a compact desktop unit for routing of stereo audio signals. High quality switching components provide excellent isolation between inputs. The **VS-81A** is extremely rugged and dependable. Its unpowered, passive design can be an advantage in applications where various regulatory compliance would otherwise be required. The "hard-wire" passive signal path can also switch other signal formats.



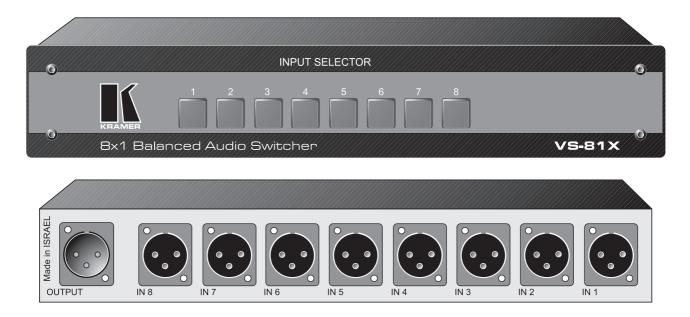
Technical Specifications:

- Small audio editing systems.
- Security, CCTV, and home theater systems.
- Any application where a passive "hard-wire" signal path is preferred.





The Kramer **VS-81X** is a high quality mechanical 8x1 switcher for mono balanced audio using XLR connectors. It is designed for applications requiring a compact desktop unit for routing of audio signals. High quality switching components provide excellent isolation between inputs. The **VS-81X** is extremely rugged and dependable. Its unpowered, passive design can be an advantage in applications where various regulatory compliance would otherwise be required. The "hard-wire" signal path can also switch other signal formats.



Technical Specifications:

INPUTS: OUTPUT: SWITCHING SYSTEM: CROSSPOINTS: SIGNAL LEVELS: FREQUENCY RESPONSE: DIMENSIONS: WEIGHT:	 8 balanced audio, line or mic level, on XLR connectors. 1 balanced audio, line or mic level, on an XLR connector. Mechanical, break-before-make. 1 of 8. Up to +30 dBm. 25 kHz +/- 0.2dB. 25.5 cm x 10.2 cm x 4.5 cm (10" x 4" x 1.8", W, D, H). 0.82 Kg. (1.8 Lbs.) Approx.
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- Mic switching in field or studio applications.
- Remote monitoring of multiple audio signals.





The Kramer **VS-81AV** is a high quality mechanical 8x1 switcher for composite video and stereo audio signals. It is designed for applications requiring an unpowered rack mountable unit for routing of video and stereo audio signals. Audio is always switched together with the corresponding video signal, and unselected video inputs are terminated via 75-ohm resistors. High quality switching components provide excellent isolation between inputs.

The **VS-81AV** is extremely rugged and dependable. Its unpowered, passive design can be an advantage in applications where various regulatory compliance would otherwise be required. The "hard-wire" signal path offers excellent bandwidth, and can also switch other signal formats.



Technical Specifications:

INPUTS: 8 video, $1Vpp/75 \Omega$ nom. on BNCs. 8 stereo audio, on RCAs. **OUTPUTS**: 1 video, 1 Vpp/75 Ω nom. on a BNC connector. 1 stereo audio, on RCAs. SWITCHING SYSTEM: Mechanical, break-before-make. **CROSSPOINTS:** 1 of 8. SIGNAL LEVLES: Up to 3Vpp video, +30dBm audio. FREQUENCY RESPONSE: Video: 400 MHz +/- 2dB; Audio: DC-100 kHz, -1dB. DIMENSIONS: 19 inch (W), 4 inch (D), 1U (H) rack mountable. WEIGHT: 1.5 Kg. (3.3 Lbs.) Approx.

- Small editing systems.
- Security, CCTV, and home theater systems.
- Any application where a passive "hard-wire" signal path is preferred.



The Kramer **VS-81AYC** is a high quality mechanical 8x1 switcher for s-Video (Y/C) and stereo audio signals. It is designed for applications requiring an unpowered rack mountable unit for routing of s-Video and stereo audio signals. Audio is always switched together with the corresponding s-Video signal, and unselected video inputs are terminated via 75-ohm resistors. High quality switching components provide excellent isolation between inputs.

The **VS-81AYC** is extremely rugged and dependable. Its unpowered, passive design can be an advantage in applications where various regulatory compliance would otherwise be required. The "hard-wire" signal path offers excellent bandwidth, and can also switch other signal formats.



Technical Specifications:

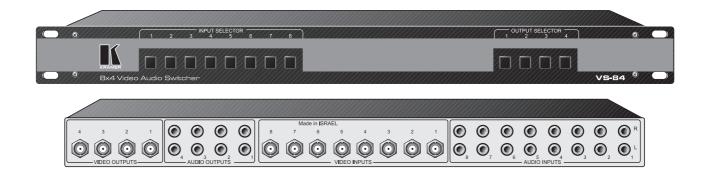
INPUTS:	8 s-Video, 1Vpp/75 Ω (Y), 0.3Vpp/75 Ω (C) nom. on "4P" connectors.
OUTPUTS:	8 stereo audio, on RCAs. 1 s-Video, 1Vpp/75 Ω (Y), 0.3Vpp/75 Ω (C) nom. on a "4P" connector. 1 stereo audio, on RCAs.
SWITCHING SYSTEM: CROSSPOINTS: SIGNAL LEVLES: FREQUENCY RESPONSE: DIMENSIONS: WEIGHT:	Mechanical, break-before-make. 1 of 8. Up to 3Vpp video (Y), +30dBm audio. Video: 350 MHz +/- 2dB (Y); Audio: DC-100 kHz, -1dB. 19 inch (W), 4 inch (D), 1U (H) rack mountable. 1.4 Kg (3.1 Lbs.) Approx.

- *Editing systems.*
- Security, CCTV, and home theater systems.
- Any application where a passive "hard-wire" signal path is preferred.



The Kramer **VS-84** is a high quality mechanical 8x4 switcher for composite video using BNC connectors, and stereo audio using RCA connectors. It is designed to route any one of up to eight sources to any one of four outputs. Audio is always switched together with the corresponding video signal. Note that the **VS-84** can only provide one video and audio signal path at any given time. It cannot distribute a signal to multiple outputs simultaneously.

High quality switching components and carefully designed PCB's provide excellent isolation between inputs, and the passive design of the **VS-84** makes it suitable for other signal formats. Also, its unpowered design can be an advantage in applications where various regulatory compliance would otherwise be required. Unselected video inputs are terminated via 75-ohm resistors.



Technical Specifications:

INPUTS:	8 video, 1Vpp/75 Ω nom. on BNCs.
OUTPUTS:	8 stereo audio, up to 36Vpp on RCAs. 4 video, 1 Vpp/75 Ω nom. on BNCs.
SWITCHING SYSTEM: CROSSPOINTS: SOURCE ISOLATION: FREQUENCY RESPONSE: DIMENSIONS: WEIGHT:	4 stereo audio, up to 36Vpp on RCAs. Mechanical, break-before-make. 32 for video, 32x2 for audio, 1 active at a time. -42 dB Chroma, -60 dB Sync. Video: 120 MHz -0.5dB, 200 MHz +/- 2dB; Audio: 100 kHz, -1dB. 19 inch (W), 4 inch (D), 1U (H) rack mountable. 1.6 Kg. (3.5 Lbs.) Approx.

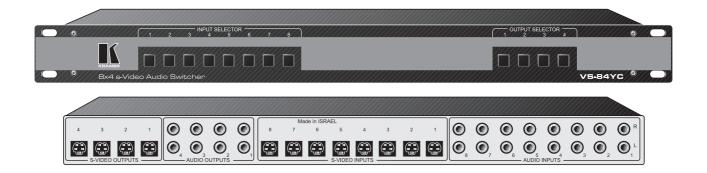
- Small production and editing studios.
- Any system where a passive, "hard-wire" signal path is preferred.





The Kramer **VS-84YC** is a high quality, rack mountable, mechanical 8x4 switcher for s-Video (Y/C) and stereo audio signals. It is designed to route any one of up to eight sources to any one of four outputs using 4-pin connectors for s-Video, and RCA connectors for audio. Audio is always switched together with the corresponding video signal. Note that the **VS-84YC** can only provide one s-Video and audio signal path at any given time. It cannot distribute signal to multiple outputs simultaneously.

High quality switching components and carefully designed PCB's provide excellent isolation between inputs, and the passive design of the **VS-84YC** makes it suitable for other signal formats. Also, its unpowered design can be an advantage in applications where various regulatory compliance would otherwise be required. Unselected inputs are terminated via 75-ohm resistors.



Technical Specifications:

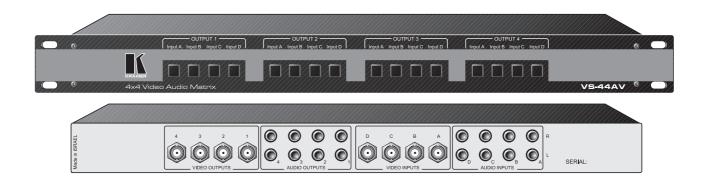
INPUTS:	8 s-Video(Y/C), 1Vpp/75 Ω for Y, 0.3Vpp/75 Ω for C on 4P connectors.
OUTPUTS:	8 stereo audio, up to 36Vpp on RCAs. 4 s-Video(Y/C), 1Vpp/75 Ω for Y, 0.3Vpp/75 Ω for C on 4P connectors. 4 stereo audio, up to 36Vpp on RCAs.
SWITCHING SYSTEM: CROSSPOINTS: SOURCE ISOLATION: FREQUENCY RESPONSE: DIMENSIONS: WEIGHT:	Mechanical, break-before-make. 32 for video, 32x2 for audio, 1 active at a time. -42 dB Chroma, -60 dB Sync. Video: 120 MHz -0.5dB, 200 MHz +/- 2dB; audio: 100 kHz, -1dB. 19 inch (W), 4 inch (D), 1U (H) rack mountable. 1.6 Kg. (3.5 Lbs.) Approx.

- Small production and editing studios.
- Any system where a passive, "hard-wire" signal path is preferred.



The Kramer **VS-44AV** is a high quality mechanical 4x4 matrix switcher for composite video and stereo audio signals. It is designed to route up to four sources to any one of four available outputs simultaneously. The **VS-44AV** is extremely unique in allowing four different cross points of video and stereo audio to operate at the same time. However, it is important to note that it cannot distribute an input signal to multiple outputs simultaneously.

Input select buttons are high quality and color-coded for easy identification. Unselected inputs are terminated with 75-ohm resistors. Kramer's unpowered, mechanical switchers are easy to use, cost effective, and extremely durable. The **VS-44AV** is housed in a compact, single space rack mountable enclosure.



Technical Specifications:

INPUTS:	4 video, 1Vpp/75 Ω on BNCs.
	4 stereo audio, up to 36Vpp (typ.) on RCAs.
OUTPUTS:	4 composite video (or RGBS), 1 Vpp/75 Ω on BNCs.
	4 stereo audio, up to 36Vpp (typ.) on RCAs.
SWITCHING SYSTEM:	Mechanical, break-before-make.
CROSSPOINTS:	16 for video, 16x2 for audio, 4 active at any given time.
SOURCE ISOLATION:	-46 dB @ 5MHz.
FREQUENCY RESPONSE:	Video: 220 MHz +/- 2dB; Audio: DC-100,000 Hz, -1dB.
DIMENSIONS:	19 inch (W), 4 inch (D), 1U (H) rack mountable.
WEIGHT:	1.6 Kg. (3.5 Lbs.) Approx.

- Any display system requiring simple 4x4 routing.
- Security and CCTV systems.
- Unpowered design eliminates regulatory compliance issues in medical and other applications.
- Rental and staging.
- Any application where a passive, "hard-wire" signal path is preferred.



The Kramer **VS-4E** is a high quality mechanical 4x4 switcher for composite video using BNC connectors, and stereo audio using RCA connectors. It is designed for applications requiring a compact desktop unit for routing of video and audio independent from one another. Note that the **VS-4E** can only provide one video signal path, and one audio signal path at any given time. It cannot distribute a signal to multiple outputs simultaneously.

High quality switching components and carefully designed circuits provide excellent isolation between inputs, and make the **VS-4E** ideal for high frequency signals such as SDI (serial digital) and high resolution video signals. Also, its unpowered design can be an advantage in applications where various regulatory compliance would otherwise be required. Unselected video inputs are terminated via 75-ohm resistors.



Technical Specifications:

INPUTS:	4 video, 1Vpp/75 Ω on BNCs.
OUTPUTS:	4 stereo audio, up to 36Vpp on RCAs. 4 composite video (or RGBS), 1 Vpp/75 Ω on BNCs.
SWITCHING SYSTEM:	4 stereo audio, up to 36Vpp on RCAs. Mechanical, break-before-make.
SOURCE ISOLATION:	-42 dB Chroma, -60 dB sync.
FREQUENCY RESPONSE:	475 MHz minimum, video.
DIMENSIONS:	18.8 cm X 7 cm X 7 cm (7.4" x 2.7" x 2.7", W, D, H.).
WEIGHT: OPTIONS:	0.65 Kg. (1.4 Lbs.) Approx. Kramer model RK-4E/S holds two units in two vertical rack spaces.

- Small video and audio editing systems.
- Security, CCTV, and home theater systems.
- Medical imaging, SDI-based studios.
- Any application where a passive, "hard-wire" signal path is preferred.



The Kramer **VS-4YC** is a high quality mechanical 4x4 switcher for s-Video (Y/C) and stereo audio using 4 pin and RCA connectors. It is designed for applications requiring a compact desktop unit for routing s-Video and audio independently from one another. Note that the **VS-4YC** can only provide one video signal path, and one audio signal path at any given time. It cannot distribute an input signal to multiple outputs simultaneously.

High quality switching components and carefully designed circuits provide excellent isolation between inputs. Also, the **VS-4YC's** unpowered design can be an advantage in applications where various regulatory compliance would otherwise be required. Unselected video inputs are terminated via 75-ohm resistors.



Technical Specifications:

INPUTS:	4 s-Video, 1Vpp/75 Ω (Y), 0.3 Vpp/75 Ω (C) on 4P type connectors.
OUTPUTS:	4 stereo audio, up to 36Vpp on RCAs. 4 s-Video, 1Vpp/75 Ω (Y), 0.3 Vpp/75 Ω (C) on 4P type connectors. 4 stereo audio, up to 36Vpp on RCAs.
SWITCHING SYSTEM: SOURCE ISOLATION:	Mechanical, break-before-make. -42 dB Chrominance, -60 dB Sync.
FREQUENCY RESPONSE: DIMENSIONS: WEIGHT:	280 MHz minimum, Luminance. 18.8 cm X 7 cm X 7 cm (7.4" x 2.7" x 2.7", W, D, H.).
OPTIONS:	0.6 Kg. (1.3 Lbs.) Approx. Kramer model RK-4E/S holds two units in two vertical rack spaces.

- Small s-Video and audio editing systems.
- Security, CCTV, and home theater systems.
- Any application in which a passive, "hard-wire" signal path is preferred.