MultiVideo™

KVM SWITCH WITH MULTIPLE VIDEO

INSTALLATION AND OPERATIONS SUPPLEMENT

ROSE ELECTRONICS

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NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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OVERVIEW

This manual supplement explains the additional information needed to install and configure the MultiVideo products. Use this supplement in conjunction with the supplied manual. The supplied manual explains the additional features and the on-screen display capability of the MultiVideo.

System overview

The MultiVideo is designed to provide seamless, trouble-free switching from a single KVM station to any connected computer and display the multi-video output from the computer. You can switch to any of the connected computers by simple keyboard commands, the front panel – or + buttons, or from a computer terminal or standalone PC connected to the RS/232 serial port (not connected to a CPU port). With the OSD option, you can switch to a connected computer from an on-screen list of the connected computers.

Refer to the UltraView Pro manual for detailed switching instructions.

If your system demands are greater than a single unit can provide, the MultiVideo can be easily expanded to connect up to 64 computers by chaining units together with expansion cables. All MultiVideo models can easily be expanded by chaining the units together and configuring the system. Using the 2 port “M”-chassis, you can expand the system to 4 computers. The 4 port “B”-chassis can expand to 16 computers, and the 8 port “C”-chassis can expand to 64 computers.

Features

- Access up to 64 computers from one KVM station
- Optional On-Screen-Display
- Available in three different chassis sizes:
  M - Chassis - 2 CPUs to 1 Kbd, 1 mouse, and 2 monitors
  B - Chassis - 4 CPUs to 1 Kbd, 1 mouse, and 2 monitors
  C - Chassis - 2 CPUs to 1 Kbd, 1 mouse, and 4 monitors
  4 CPUs to 1 Kbd, 1 mouse, and 4 monitors
  8 CPUs to 1 Kbd, 1 mouse, and 2 monitors

VIDEO connection

Video inputs 2-4 are DB25F connectors. A DB25 to HD15 cable is needed for each video output from a CPU.

MODELS

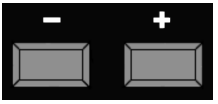
MultiVideo models

M – Chassis

B – Chassis

C - Chassis

Figure 1. MultiVideo models

Label		Description
Power		Power LED - Green when unit is on
LEDs		Indicator LEDs; Numbered pairs of LEDs shows status and power of connected computers
- and + Switches*		- Connects to the previous CPU + Connects to the next CPU

* The - and + switches are used when:

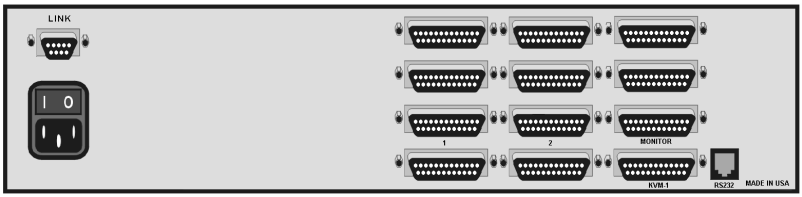
- upgrading the firmware
- resetting the unit to factory defaults
- running diagnostics.

Table 1. Front panel

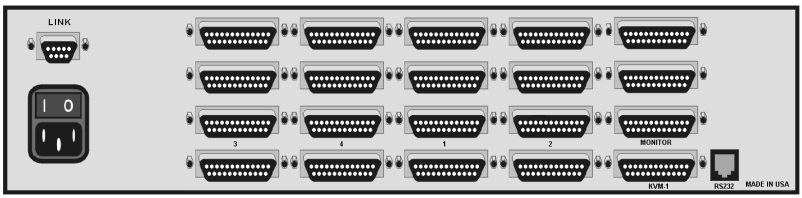
MultiVideo models (rear)

“M” Chassis (2U2V)

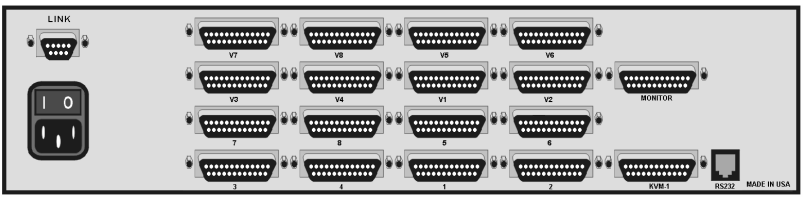
“B” Chassis (4U2V)



“C” Chassis (2U4V)



“C” Chassis (4U4V)



“C” Chassis (8U2V)

Figure 2. Rear panel

NOTE: DB9 (LINK) connector on Video expansion units only
Power connector not used on Video expansion unit.

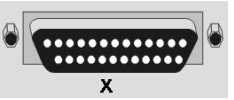
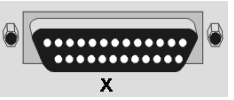
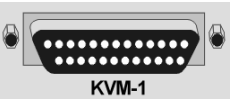
Label	Connector	Description
Power		“M” Chassis only DIN 5F Power adapter connector
None		“B” and “C” Chassis only IEC320 Power receptacle w/switch
Link		DB9F – Expansion connector (Video expansion models only)
X = CPU #		DB25F – CPU connectors
X = Video #		DB25F – CPU monitor only connectors
KVM-1		DB25F - KVM connector.
MONITOR		DB25F - KVM additional monitor(s)
RS232		RJ12 6-conductor jack

Table 2. Rear panel connectors

Cables

Master to Slave unit cables

In systems needing additional CPUs, the MultiVideo can be cascaded to other MultiVideos. To cascade a MultiVideo to other “Slave” units, you will need one DB25M to DB25M, switch-to-switch cable for each cascaded unit.

The MultiVideo can also be expanded to add additional Video ports. A DB9M to DB9M, switch-to-switch cable is used with the MultiVideo video expansion units.
(Rose Electronics switch-to-switch cable part number CAB-CXVSMMnnn.)
(See Appendix B for cable part numbers)

Installation – Single unit

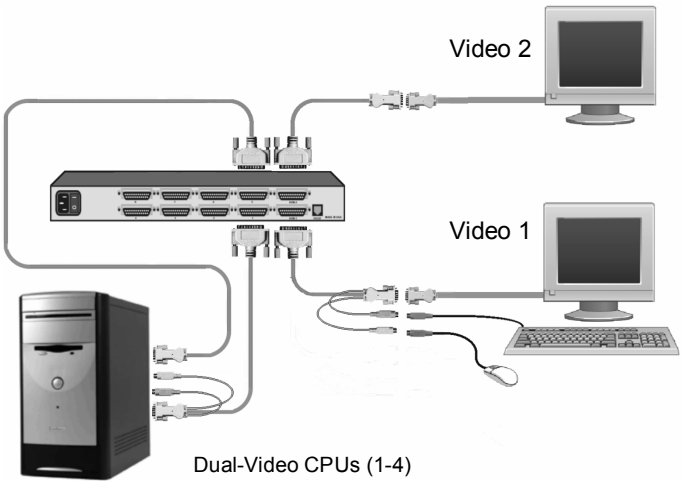


Figure 3. 4U2V Unit installation

Installation – Cascading units

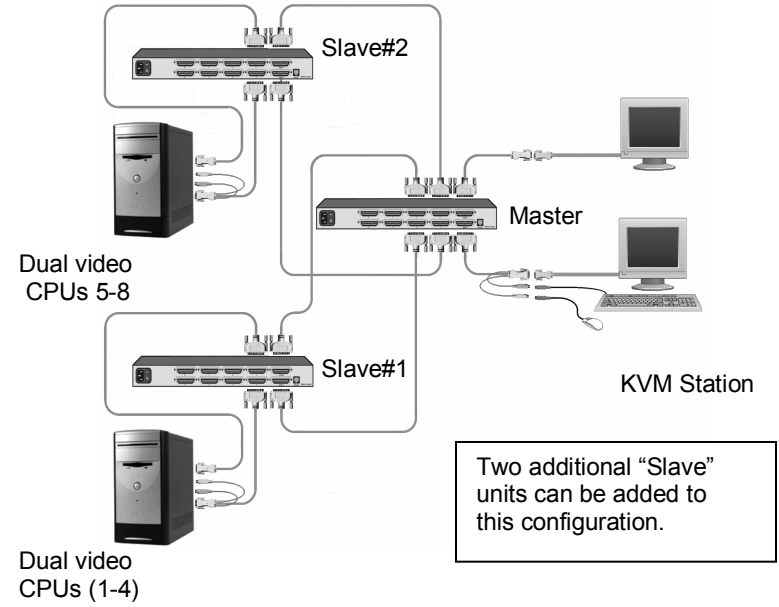
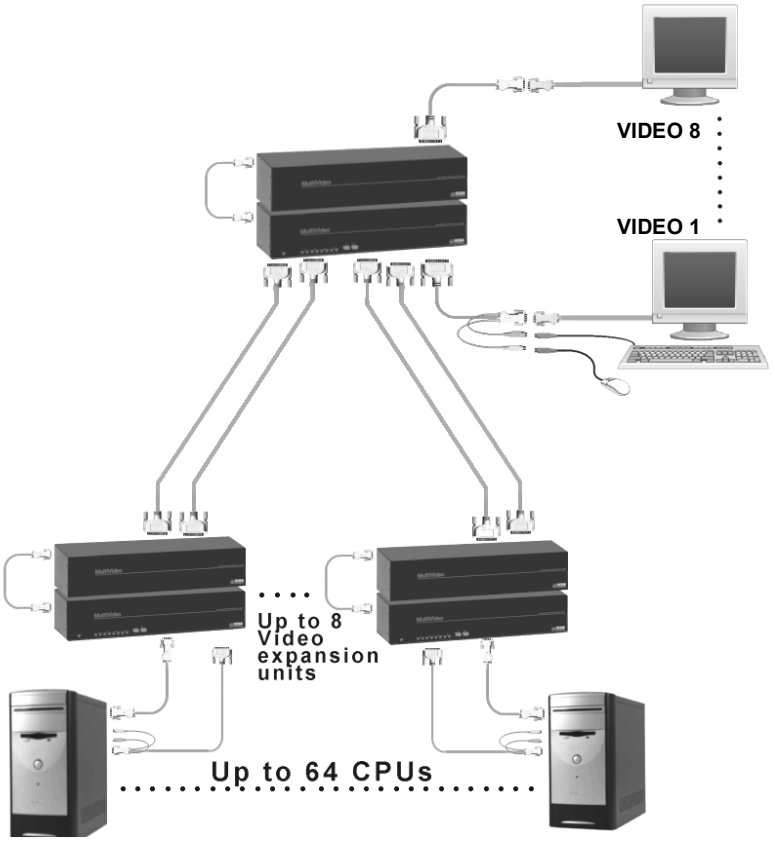


Figure 4. Cascading units

Applications



Installation – Video Expansion system

The MultiVideo can be custom configured to expand the number of video ports. The example below can have up to 16 separate video sources and up to 8 video outputs. The KVM station can switch the video by simple keyboard commands, the push-button switches on the front panel, or from the on-screen display. Refer to the UltraView Pro manual for detailed switching instructions.

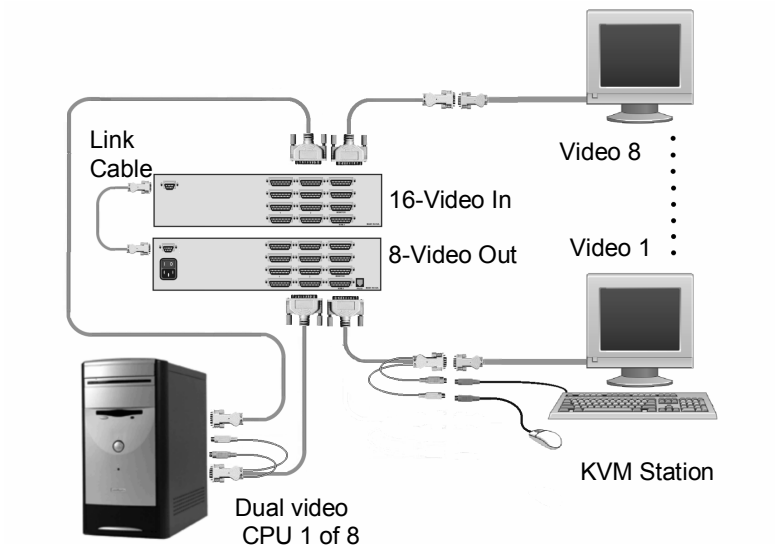


Figure 5. Custom 2x8 configuration

APPENDICES

Appendix A. Parts and cables

Part number	Description
CAB-D9MM005	DB9M to DB9M Link cable
CAB-CXVSMMnnn	DB25M to DB25M Cascading cable
CAB-C1Y0000Cnnn	HD15M to DB25F Video only cable (CPU)
CAB-C1V0000Mnnn	HD15F to DB25F Video only cable (Monitor)
CAB-S13W3000Cnnn	CPU (SGI) 13W3 to DB25M video only cable
CAB-SC0000Cnnn	CPU (SUN) 13W3 to DB25M video only cable
CAB-SB0000Mnnn	SUN video 13W3 to DB25M video only cable
CAB-S13W30000Mnnn	SGI video 13W3 to DB25M video only cable

Appendix B. General Specifications

The MultiVideo part number is Mwx-yUzV
Where w = platform, E = (Multi-platform) PC, SUN, Apple, Unix
P = (PC) PC and Unix computers
Where x = chassis size, M (mini), B (low), C (high)
Where y = number of CPUs (2, 4, or 8)
Where z = number of monitors (2 or 4)

The MultiVideo Video expansion model part numbers are:
MPC – 2U4V/MV (Master unit)
MPC – 2U4V/SL (Slave unit)

Connectors	Power – IEC 320 standard receptacle (MPC-2U4V/MV model only) CPU/KVM connector – DB25F Video ports – DB25F RS232 connector – RJ12, 6 conductor Interconnect – DB9 (Custom configuration)
Indicators	1 Power LED 2-8 Select LEDs 2-8 Computer power LEDs

Appendix C. Rack mount

Rack Mount Instructions

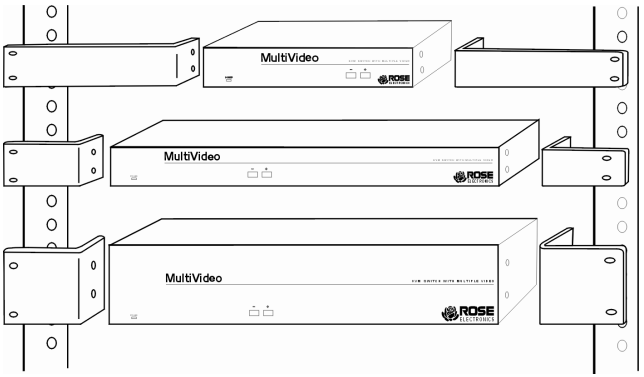
The optional rack mount kit includes the following items:

- Two black anodized mounting brackets.
- Four 6 x 32 x 3/8" flat head mounting screws.
- Mounting instructions insert.

To rack mount your MultiVideo, attach the two rack mounting brackets to your unit with the short flange against the unit using the four screws provided. Secure the mounting brackets to the rack using the appropriate size bolts, nuts and lock washers. Using hardware other than that provided could cause damage to the electronics and/or result in loss of mounting integrity. Do not over tighten the screws used to mount the unit to the mounting brackets.

The following general guidelines should be observed when installing your unit into a rack.

a). The MultiVideo is designed to work in an ambient temperature of 0° C to 45° C (32° F – 113° F).
b). Do not block power supply vents or otherwise restrict airflow when rack-mounting this unit.
c). Mechanical loading of the rack should be considered to prevent instability and possible tipping over.
d). Tighten all connectors securely and provide adequate strain relief for all cables.
e). Provide a grounded power source to all units. Pay special attention to overall branch circuit load ratings before connecting equipment to this source. Overloaded circuits are potential fire hazards and can cause equipment failures or poor performance.



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