

## Quick Start Guide

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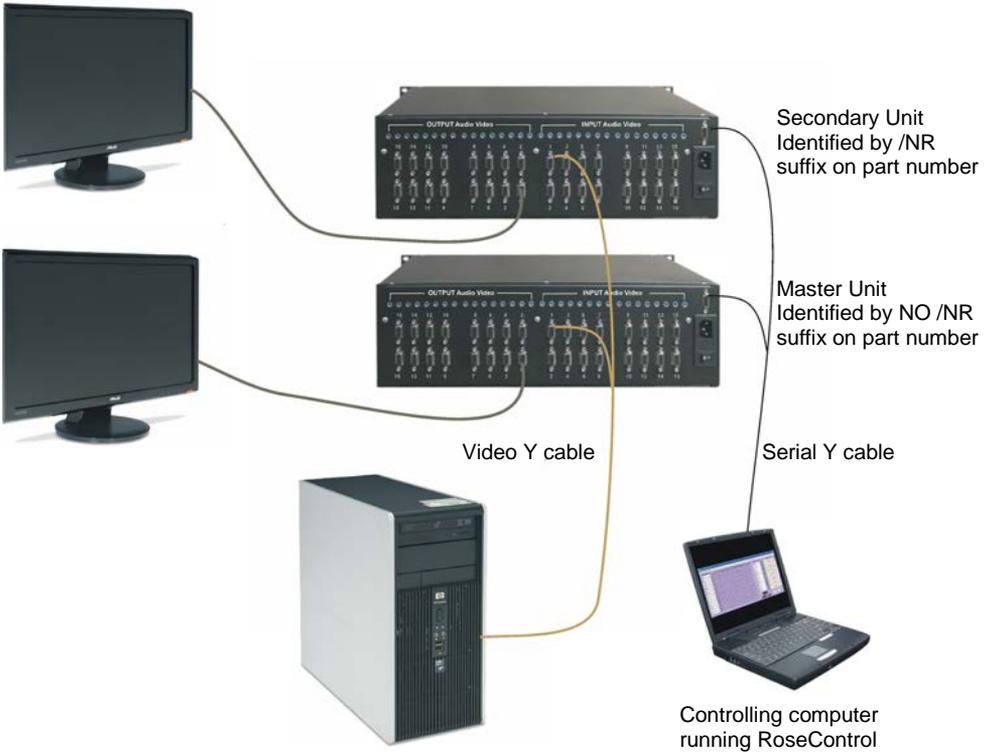


## Unit Installation

### Getting Started

(IT IS RECOMMENDED THAT ALL EQUIPMENT BE POWERED OFF UNTIL ALL CONNECTIONS HAVE BEEN MADE)

**Hardware Installation** (System must include one master and one secondary unit)



(Installation is performed for each computer (1-16) that is connected to the unit)

1. Connect a serial "Y" cable (DB9MF) from both UltraMatrix A/V RS232 ports (DB9F) to the serial port on the controlling computer.
2. Connect up to 16 computers that have your video content to the HD15F video input connectors labeled In 1-16 on both units using a HD15 MM "Y" cable. Keep video synchronized; connect to port #1 on the master and port #1 on the secondary, port #2 on the master and port #2 on the secondary, etc.
3. Connect up to 16 optional audio inputs (Usually from the 16 corresponding computers) to the 3.5mm audio inputs labeled In1-16) using an audio "Y" cable.
4. Connect up to 32 display monitors to the HD15F video output connectors labeled OUT1-16 on unit #1 and OUT1-16 on unit #2 using the existing monitor cable or an extension cable for greater distances.
5. Connect up to 32 optional stereo audio speakers to the 3.5mm audio inputs labeled Out1-16) on unit #1 and Out1-16 on unit #2.
6. Connect a power cord to the power port on each unit and to a 100/240 VAC power source
7. Apply power to all connected computers and remote monitors.

## Operating the UltraMatrix A/V 16x32

The UltraMatrix A/V can be operated via:

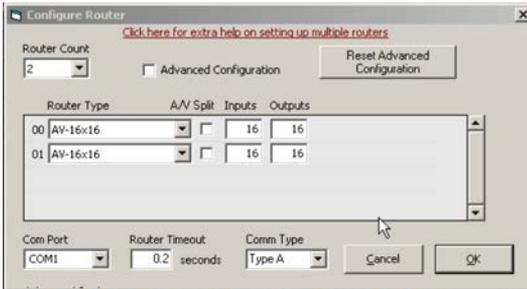
RS-232 serial command inputs or using the provided RoseControl Windows<sup>®</sup> based software

### Rose Control Windows-based software control

The UltraMatrix A/V can be easily switched using the included Rose Control software.

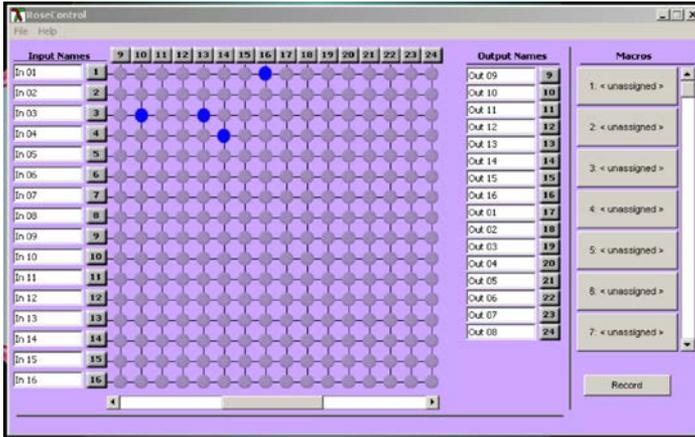
Install the software on a computer or laptop that will be used to switch the UltraMatrix A/V.

When the installation is complete, execute the program "RoseControl" from the "Start" menu and the below window will display.



- Router Count:** Set to the number of routers connected to the computer
- Advanced Configuration:** Used when two conditions are true: 1) There is more than one router being used, and 2) all the inputs are NOT looped from router to router. In other words, if there are more than 16 different inputs to control, you will need the advanced configuration.
- Reset Advanced Configuration:** Returns the advanced settings to their default numbers.
- Router Type:** Select the type of router that is connected at this Frame Address  
The Frame Address is the selectable number on the router's front panel  
The Frame Address is displayed to the left of the Router Type in the Configuration Window
- A/V Split:** This feature will be in future designs.
- Inputs:** Enter the number of physical inputs on the back of the router.
- Outputs:** Enter the number of physical outputs on the back of the router.
- Comm Port** The port number on the back of the computer that connects to the router(s).
- Timeout** Set how many seconds the program will wait for the router to respond to commands. Can be entered in hundredths of a second. Example: 2.5 will wait 2 and 1/2 seconds. If 0 is entered, the router will not wait for a response, and therefore will not display any errors that may happen.

When you click on the OK tab, the below selection matrix will display.



Input Names and Output Names can be modified to easily identify which video source is being presented on which output monitor. To change these names, select it and enter the name needed.

(Inputs are listed vertically, Outputs are listed horizontally)

Click on the cross-point button to connect an input to an output. Once assigned, that video and optional audio is instantly switched to the selected outputs.

In the above example: Input 1 is connected to output 16;

Input 3 is connected to output 10 and 13;

Input 4 is connected to output 14.

Unique assignments can be saved in a "Macro" and selected by choosing the Macro needed.

To record a macro, click on the "Record" button and then make your video assignments. When finished, click on the "Save Macro" button, select a macro # to save the configuration to, enter a macro name and click "OK". The macro can be used at any time. If the configuration is not saved, the macro set-up will be lost when the RoseControl software is terminated. Save the configuration by clicking on "File", "Save Configuration"

Please refer to the Help file for additional information.

### Serial switching instructions

Baud rate	9600
Start Bits	1
Data Bits	8
Parity	None
Stop Bits	1

Command to switch input 1 to output 1 for the default address of 00 is BE EF 00 00 00 00 00 51  
Convert each byte to it's binary equivalent.

BE	1011 1110	A B C D E F
EF	1110 1111	BE EF 00 00 00 00 51
00	0000 0000	A = Frame address (00 = master, 01 = secondary)
00	0000 0000	B = Reserved
00	0000 0000	C = Command (00 = switch command)
00	0000 0000	D = Input port number (00 = port #1, 01 = port #2, etc)
00	0000 0000	E = Output port number (00 = port #1, 01 = port #2, etc)
XOR result	0101 0001	F = Calculated Check Sum
Hex equivalent	5 1	
To arrive at the XOR result, look at each column and note the number of 1s. If there is an even number of 1s or all zeroes in a column, the result for that column is zero. The result is 1 if there is an odd number of 1s in the column.		Example : Command to switch input #3 to output #2 BE EF 00 00 00 02 01 52