Milestone™

AUDIO VIDEO **MATRIX** SWITCHER'S MANUAL

AUDIO VIDEO MATRIX SWITCHER by Milestone is a device that helps person/s to share CD's or DVD player with two/four projectors providing different displays or simultaneous displays.

Models Available :	
ML 404 MATRIX VVA	4 input > 2/4 Audio Video outputs
ML 804 MATRIX VVA	8 input > 2/4 Audio Video outputs
ML 808 MATRIX VVA	8 input > 8 Audio Video outputs

Features:	
Installation	Easy to Install 100% Plug and Play Unit
Sharing	4/8 Input with 2/4/8 outputs (programmable)
Selection	Channel Selectable from: 1. Individual Front Panel local key pad 2. Individual Remote Keypad through cable 15 meter * 3. RF remote contact closure * 4. RS232C Interface 5. RS422 / RS485 Interface *
Indications	LED indications for working set
Output Control	Separate gain controlled Video out Separate gain controlled Audio out

Technical Specifications:			
	ML404 MVVA	ML804 MVVA	ML808 MVVA
Input Connectors			
Video – (RCA)	4	8	8
Audio – (Captive Screw)	4	8	8
Output Connectors			
Video – (RCA)	4	4	8
Audio – (Captive Screw)	4	4	8
LED Indication			
For Each Output	1 to 4 x	1 to 8 x	1 to 8 x
Power	4	4	8
Transition	1	1	1
Keypad Selection	1 – 4	1 – 8	1 – 8
RF/ Remote Keypad port	D9 Male x 1	D9 Male x 1	D9 Male x 1
RS232 Interface	D9 Female x 1	D9 Female x 1	D9 Female x 1
Gain Controlled Output	Yes	Yes	Yes
Gain Controlled Audio	Yes	Yes	Yes
Mains Input (AC.)	230 V	230 V	230 V
Dimension (Table Top)	288x130x52	288x130x52	288x130x68
Dimension (Rack Mount)	19" 2U	19" 2U	19" 2U
Weight for (Table top)	1770g	1950g	2000g
Weight for (Rack Mount)	3800g	4200g	4950g

OPERATION

Local Keypad (1 to 8)

Select the required channel from the front panel keypad as per the procedure given below.

Input	Wanted O/P on Channel 1 / 2	Then press following keys
Input 1	Output 2	1 & 2
Input 2	Output 1	2 & 1
:	:	:
:	:	:
Input 8	Output 1	8 & 1
Input 1	Output 2	1 & 2
Input 2	Output 2	2 & 2
:	:	:
Input 8	Output 2	8 & 2
Input 1 / 2 /…8	Do not want o/p for selected input	1 / 2 / 8 & 3 for blank o/p 1
Input 1 / 2 /…8	Do not want o/p for selected input	1 / 2 / 8 & 4 for blank o/p 2

When the 1st key is pressed, TR LED (Transition LED) gets ON and after 2nd key is pressed the respective channel gets selected and TR LED goes OFF. If TR LED is ON it means it is waiting for 2nd key to be pressed. If 2nd key is not pressed for 5 Secs. TR gets OFF and waits for 1st key to be pressed again (Normal Condition).

Remote contact closure/ Remote keypad (Select).

Rear panel has a D9 male connector, operational at a distance of 50 meters. Milestone's remote keypad or any other remote contact closure can be connected at this connector.

The connector diagram for D9 male connector is as follows:

D-9 Male –1 (Back panel Select port of unit)	Channels (1 – 8)
1	Key 1
2	Key 2
:	:
8	Key8
9	GRD

Note: To select key 1, short 1and 9 through contact switch or use Milestone's remote keypad and use the same procedure as in 'Local Keypad' mode.

Remote RS232 interface (RS232)

D9 female connector from rear panel is used for selecting the switcher through RS232C Interface.

The pin configurations are

D-9 Male (RS-232 Port of Unit)	Channels
3	RX
5	GRD

The simple commands used for selecting the channels are:

Input Channel	Required output on	Decimal	ASCII
Channel 1	Output 1	1*1!	312A3121
Channel 2	Output 1	2*1!	322A3121
:	:	:	:
:	:	:	:
Channel 8	Output 1	8*1!	382A3121
Channel 1	Output 2	1*2!	312A3221
Channel 2	Output 2	2*2!	322A3221
:	:	:	:
:	:	:	:
Channel 8	Output 2	8*2!	382A3221
Channel 1	Output 3	1*3!	312A3321
:	:	:	:
Channel 8	Output 3	8*3!	382A3321
:	:	:	:
Channel 1	Output 4	1*4!	312A3421
:	:	:	:
Channel 8	Output 4	8*4!	382A3421
Channel 8	Output 8	8*8!	382A3821

Communication parameters are 9600 baud, 8-bit, 1 stop bit and no parity.