



OPERATING MANUAL
FOR
HDMI SWITCHER
(ML 401104 HDMI) (NEW)

Milestone Electronics Pvt. Ltd.

HDMI SWITCHER

HDMI SWITCHER by Milestone is a device that helps person/s to share computers (laptops or DVD player) with single/Multiple projector or single/Multiple monitor or LCD or Plazma, providing simultaneous displays.

Models Available

ML 401104 HDMI	4 CPUs & 1 HDMI Output. Also with 1 HDMI input & 4 HDMI Output. (Used as 404 HDMI Switcher)
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Features

INSTALLATION	Easy to install - plug and play kind. <ul style="list-style-type: none">● HDTV Compatible● Can work with DVI inputs & outputs● Uses Equalization & re-clocking technology.
SHARING	1) 4 Inputs with single projector or single monitor or LCD or Plazma. 2) 1 HDMI Input with 4 HDMI Outputs. 3) 4 HDMI Inputs with 4 HDMI Outputs
COMPATIBILITY	Fully compatible to HDMI Inputs.
CONTROL OPTIONS	Channels Controlled by <ul style="list-style-type: none">· Individual Local keypad● Build in IR Remote with IR Extender connector● Individual remote keypad (optional). (IR, RP of Wired)● Remote contact closure.● RS232C interface.● RS422/RS485 interface (optional).● Ethernet (Option).● Active PCs selected or scanned in auto/scan mode.
INDICATION	LED indication for working set.

SPECIFICATIONS

MODEL	401104 HDMI
INPUT CONNECTORS	HDMI × 4 HDMI × 1
OUTPUT CONNECTORS	HDMI × 1 HDMI × 4
DIP SWITCH	4 BIT
LED INDICATION	1 to 4, Scan, PWR
KEYPAD SELECTION	1 to 4
BUILT IN IR REMOTE	Yes
IR EXTENDER CONNECTOR FOR REMOTE SENSOR	EP × 1
RS 232 INTERFACE	D9F × 1
MAINS INPUT (DC)	5V/2A
DIMENSION • TABLE TOP (mm)	182x101x51
WEIGHT	1400 g
MODE OF OPERATION 1) MANUAL 2) AUTO 3) SCAN 4) RS232	YES YES YES YES

OPERATION

◆ Local Keypad

Select the required channel from the front panel keypad.

◆ Remote contact closure/ remote keypad

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, such as IR remote, RF remote etc.

The connector diagram for D9 male connector is as follows:

D-9 MALE-1 Pin No.	CHANNELS
1	CH1
2	CH2
3	CH3
4	CH4
9	GRD

Note 1: To select any channel, short respective pin to ground i.e. pin no. 9 through contact switch or use Milestone's remote keypad.

- ◆ **Auto Mode:** Rear Panel has Auto ON Switch to enable or disable the feature of Auto mode. In Auto ON mode whichever cable is inserted in the input channel, that channel gets selected automatically.

- **Remote RS232 interface**

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

The pin configurations are

D-9 FEMALE	SIGNAL
2	Tx
3	Rx
5	GRD

The simple commands used for selecting the channels are

CHANNEL	ASCII	HEX
CHANNEL 1	1!	31, 21
CHANNEL 2	2!	32, 21
CHANNEL 3	3!	33, 21
CHANNEL 4	4!	34, 21

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

Note: Whenever any Channel is selected □ respective LED lights up & also the same above RS232C Command is send via Tx line of RS232.

◆ **IR Remote:** - All the new switcher has IR sensor on the front panel. IR-8 Remote is provided with the equipment to select the channels. On the rear side one EP Connector (IR.EXT,) is provided for connecting IR sensor cable which can be extended upto 30Mts.

◆ **SCANNING MODE**

For scanning mode, keep slide-switch at the rear panel in scan position. Scanning time for each channel is 20 seconds (default).

To stop the scanning press any channel key from the remote keypad. To start scanning again press scan Key (Mute) from the remote keypad. Front Panel has LED to indicate Scan mode status.

Note: The I/P channels will be scanned depending on the DIP Switch setting eg. for scanning 1, 3 & 4, Keep the DIP Switch 1,3 & 4 ON. Rest all OFF.

The Scan time can also be set using DIP Switch.

- 1) PWR OFF the unit.
- 2) Set the DIP Switch as per Table 1.
- 3) Press key No.1 from the front panel.
- 4) Keeping the key no.1 pressed PWR ON the unit
- 5) If the timer is set properly Scan LED will start blinking.
- 6) PWR OFF the unit.

- 7) Set the DIP Switch for the channels to be scanned.
- 8) PWR ON the unit (with scan mode ON).
- 9) The I/Ps will start scanning depending on the time set.

TABLE 1

DIP Switch (1□ON, 0□OFF)

1 2 3 4	TIME
0 0 0 0	20 Secs
1 0 0 0	10 Secs
0 1 0 0	20 Secs
1 1 0 0	30 Secs
0 0 1 0	40 Secs
1 0 1 0	50 Secs
0 1 1 0	60 Secs
1 1 1 0	70 Secs
0 0 0 1	80 Secs
1 0 0 1	90 Secs
:	
:	
:	
0 1 1 1	140 Secs
1 1 1 1	150 Secs

◆CONNECTION:-

I) For using as 4 HDMI Inputs & 1 HDMI Output.

- 1) Connect 4 different HDMI Source to 4 HDMI inputs at IN1, IN2, IN3, and IN4.
- 2) Connect 1 Screen at Output of 4*1 HDMI at “OUT”.

II) For using as 1 HDMI Input & 4 HDMI Outputs.

- 1) Connect 1 HDMI Source at (IN).
- 2) Connect 4 Screens at Output of 1*4 HDMI at OUT1, OUT2, and OUT3 & OUT4.

III) For using as 4 HDMI Inputs & 2/4HDMI Outputs use following connection.

- 1) Connect 4 different HDMI Source to 4 HDMI inputs at (IN1, IN2, IN3, and IN4).
- 2) Connect HDMI Cable from Output of 4*1 HDMI (OUT) to Input of 1*4 HDMI (IN).
- 3) Connect 2/4 Screens at the Outputs of 1*4 HDMI at OUT1, OUT2, OUT3 & OUT4.

---X---X---X---X---