SC T HM41E 4×1 HDMI Seamless Switcher and Multiviewer User Manual

HDMI Matrix Switcher
User Manual
Model: HM41E
4 x 1 HDMI Seamless Switcher & Multiviewer

Smart Cabling & Transmission Corp. V1.0_2006191
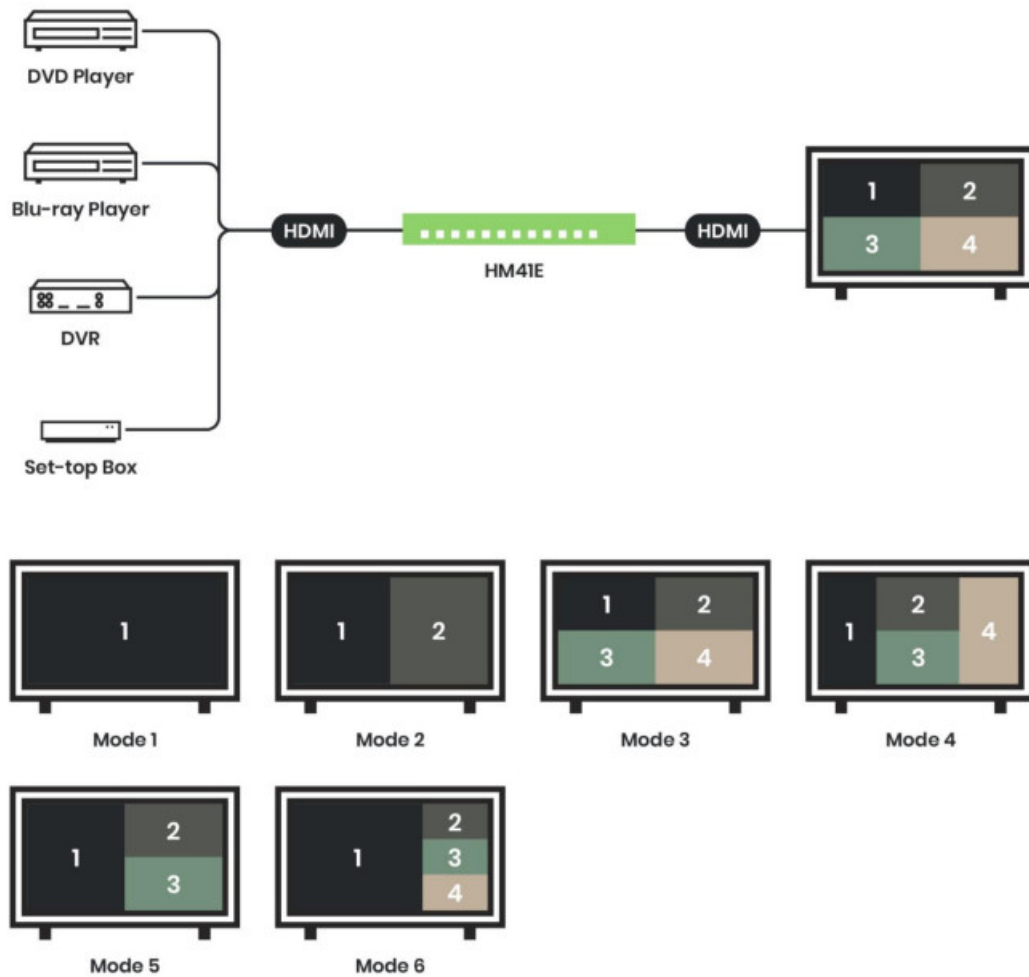
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Introduction

The HM41E is a 4 input HDMI switcher that supports resolution up to 1080p. Moreover, the seamless switching function makes the controllability outstanding, allowing the switcher to switch HDMI sources without any frame loss smoothly. Plus, the Multiview function enables the switcher to play multiple videos on one HDMI display.
It is a perfect solution for a scenario where watching or monitoring multiple videos on one screen simultaneously, such as security room, advertising, education, home theatres, and so on.
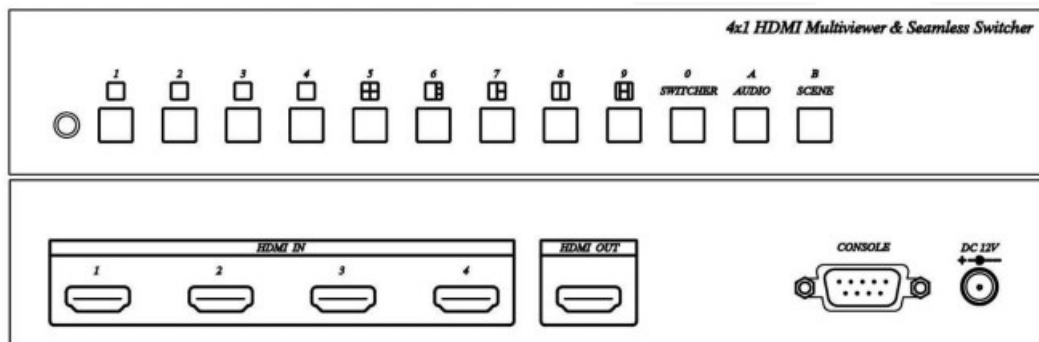
Features

- Resolution up to 1080p@60Hz.
- Supports video scaler function.
- Supports full-screen, dual, triple, quad view.
- Supports auto switching and seamless switching function
- Supports save/load preset function.
- Managed via front panel buttons, IR remote and RS232 signal

Installation View

DVD Player

Blu-ray Player

DVR

Set-top Box

HDMI

HM41E

HDMI

| 1 | 2 |
| 3 | 4 |

Mode 1

Mode 2

Mode 3

Mode 4

Mode 5

Mode 6

Panel View

4x1 HDMI Multiviewer & Seamless Switcher

1   2   3   4   5   6   7   8   9   0 SWITCHER   A AUDIO   B SCENE

HDMI IN   1   2   3   4   HDMI OUT   CONSOLE   DC 12V

Panel Button Function

Button	Function
1 ▢	Select Video 1
2 ▢	Select Video 2
3 ▢	Select Video 3
4 ▢	Select Video 4
	Quad Picture Display
5 ⊞	Quad Picture Display (one big window with three small windows), press this button
	Select 3 Video Display (Only select input video 1,2,3)
6 ◨	Select 2 Video Display, press this button again to select video input 1,2 or 3,4. again to change 4 video sequences.
7 ⊟	Select 4 Video Display
8 ◫	Auto-Switching
9 ⊞	Audio Selection
0 SWITCHER AUDIO SCENE	Scene Selection

Seamless Switch Function

Press button 1 – 4: the video output is a single full screen, and the button light on indicates the source of video input.

Multi-view Switch Function

Press button 5 – 9: the video output is a multi-view window, and the button light on indicates the Multiview mode.

SWITCHER Function

SWITCHER as video auto-switching function, you could select two or four videos for automatically displaying the switching time duration setting as below:

Press SWITCHER button: the button light on, then press button 1 – 4 to select the video for auto-switching.
Press buttons 5 – 9 to select the auto-switching timing :
5: 5 seconds

6: 10 seconds
7: 20 seconds
8: 30seoncds
9: 60seconds
Press the SWITCHER button again to leave switching mode.

AUDIO Function

Multiview mode display only could select one audio input, the setting as below:
Press the AUDIO button, the button light on, then press buttons 1 – 4 to select the audio source. To press the AUDIO button again to leave audio selection mode.

SCENE Function

SCENE button for the scene function, there are 9 sets of saved scene mode for easy save and load.
SCENE Saved method:
Press the SCENE button 3 seconds until the button light flashes, then press buttons 1- 9 to save. Press the SCENE button again to exit.
SCENE Load method:
Press the SCENE button, the button light on, press buttons 1 – 9 for load and exit.

Demo Function

Demo mode: 5 – 9 as the multi-view window will be auto-switching by sequence.
Setting as below:
Press the SCENE button, the button light, press the SWITCHER button to turn on the DEMO mode. To press the SCENE button again to leave DEMO mode.

Output Resolution

Press button 1 and power on, output resolution as 720p@60Hz.
Press button 2 and power on, output resolution as 1080p@60Hz.

IR Remote Control Function

This device could use IR remote control for function setting and control, the ID number must be set up before using IR remote control or changing new batteries. Setup IR remote ID number: Press and hold the "Power" button and press number 0.

| Button	Function
1 ~ 9	same as panel button 1 ~ 9
0	same as panel SWITCHER
A	same as panel AUDIO
B	same as panel SCENE
	SCENE save setting: B → → 1 ~ 9

⏻ ▲ ▼ ◄► MENU ENTER: Reserved

RS232 CONSOLE

1. Firmware updated.

2. RS232 Serial Remote Control function as below:

Connect the RS232 CONSOLE port to the COM port of the host by an RS232 straight cable (pin 2 to pin 2; pin 3 to pin 3, pin 5 to pin 5)
Communication format is 115200, 8, N, 1 (115200 bps, 8 data bits, none parity check, 1 stop bit)
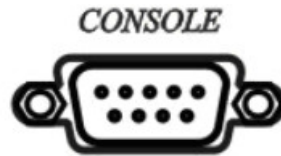
Operation Instruction format:
Command + △(Space) + Parameter + Enter(CRLF or \r\n)
Command Mode Instruction:

[COMMAND]	[DESCRIPTION]
MODE m	Select Mode.
SWITCHER	Enable/Disable Switcher Mode.
SWITCHER c TIME t	Add/Delete "Video Source" for Switcher Mode
AUDIO	Switcher Time.
AUDIO a	Enable/Disable Audio Mode.
IR i	Select Audio.
SAVE n	IR Remote ID setting
LOAD n	Save Scene.
DEFAULT	Load Scene setting.
DEMO	Reset to Default.
SIGNAL	Demo Mode.
STATUS	Display input signal status.
VERSION	Display setting.
?	Display firmware version.
	Show all commands.
[SYMBOL]	[PARAMETER]

a	1 | 2 | 3 | 4
c	1 | 2 | 3 | 4
n	1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9
m	1 | 2 | 3 | 4 | 5 | 6 | 61 | 62 | 63 | 64 | 7 | 8 | 9
i	1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 0
t	5 | 6 | 7 | 8 | 9 (5s | 10s | 20s | 30s | 60s)

Reset Factory Default

Press and hold the SCENE button then power on, SCENE button LED flash will clear all the saved data and set up the output resolution at 1080p@60Hz.

Package Include

HM41E x 1 piece
IR Remote Control x 1 piece
Power adapter x 1 piece
Rubber Pad x 4 pieces
Mounting screws x 1 bag

Specification

ITEM NO.	HM41E
Support	
Compliance	HDM 1.3a, HDCP 1.2 ,DVI 1.0
Max. HDMI Resolution	1080p@60Hz
Audio Format	LPCM 2.0 CH
RS232 Baud Rate	115200 bps
IR Support	38Khz , ±45°, 5M
Ports & Interfaces	
Video Input	4 x HDMI Type A
Video Output	1 x HDMI Type A
RS232 Interface (Console)	1 x DB9 Female
Power	
Power Supply	DC 12V 1A
Power Consumption	660mA
Ambient Temperature	
Operation	-10 to 70°C
Storage	-20 to 85°C
Humidity	up to 95%
Physical Characteristics	
Dimensions	253 x 144 x 40mm
Weight	840g

RoHS CE

Documents / Resources

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