M-One User Manual

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M- ONE

1. Product Features
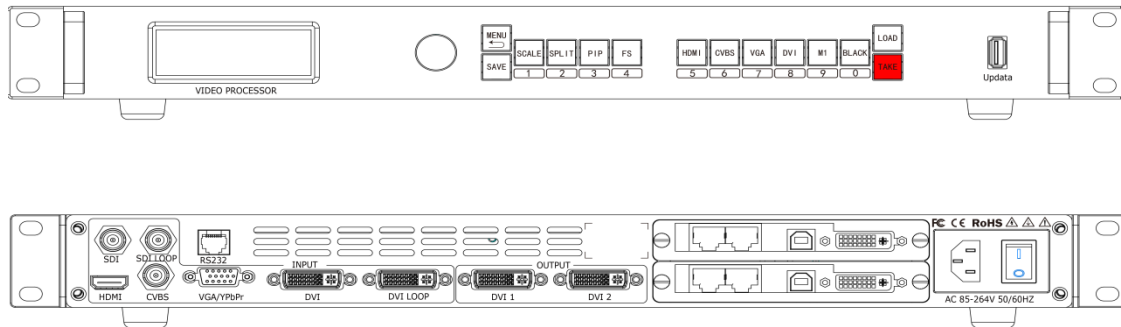
- **Supports seamless switching between all the signals**

- **Supports Customizable resolution within 2.5 million pixels**

- **PIP combination of any two signals**

- **Supports EDID management, to realize pixel to pixel**

- **Multiple units could be cascaded**

- **With built-in slot for 2 sending cards**

- **Support thirty party control system with open protocol**

2 Product Introduction

Thank you for using our M-One video processor, we hope you can enjoy the excellent performance of this product.

M-ONE is a smart and easy-to-use 2K video processor without any limit.

M-ONE supports inputs of HDMI\DVI\VGA\CVBS\SDI, with broadcast-quality Motion Adaptive Deinterlacing Technique, True Color Restoration and Dynamic Range Adjustment, Seamless switching, Anti-aliased function, Customizable output width and height, it provides you high quality images, easy-to-operate experience.

M-ONE System Connection Diagram
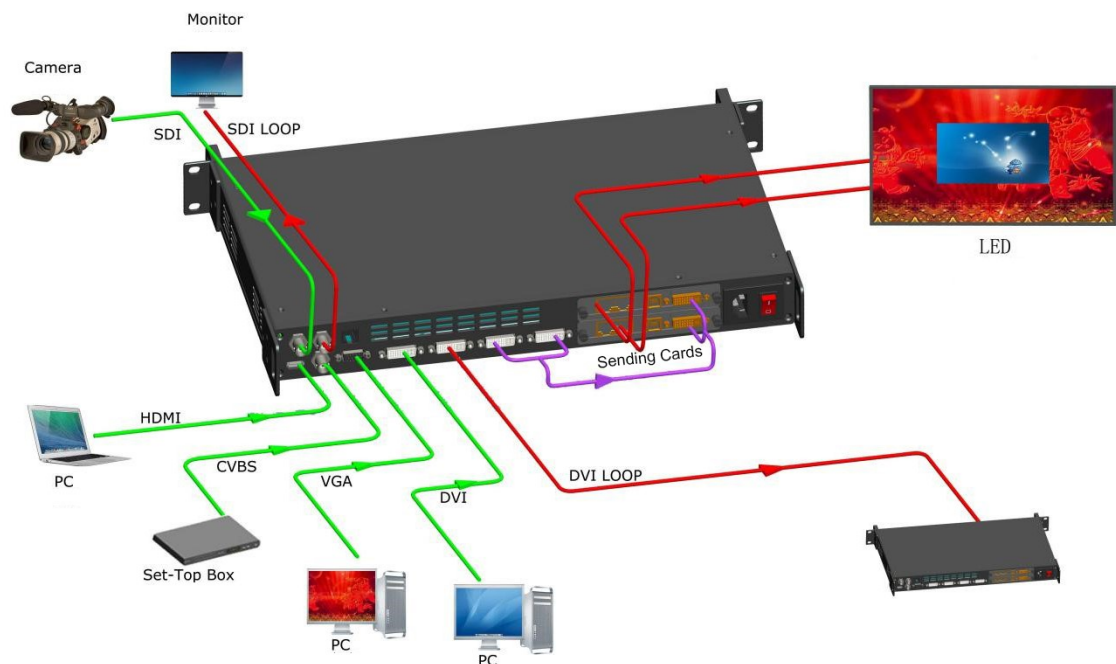
3 Hardware Overview

Front Panel

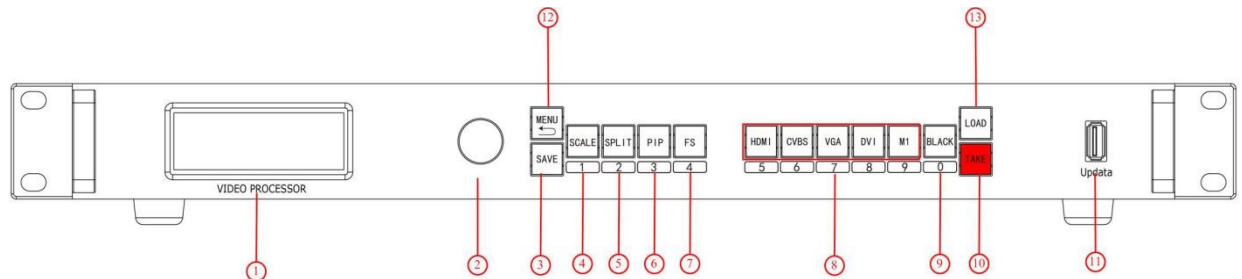**OSD display**

1	Display the current working status and menu for buttons control

Knob

2	Use for menu selection: rotating knob to find the option, and press the knob to confirm

Buttons

3	**SAVE button** To save the paratmeters after setting, by using "LOAD" to load the saved datas. Press SAVE, the buttons "SCALE…..BLACK" are representing saving modes of 1\2\3\4\5\6\7\8\9\0 separately, press any button to save the current parameters to the specified saving mode.
4	**SCALE** To adjust the size and position of the picture, input numbers by the "1-0" buttons under M1-DVI4, or using the knob.
5	**SPILT** To make multiple units cascaded, and setting split parameters.
6	**PIP** Turn on two dual-signal-display and adjust pictures' layout between layer A and i layer B
7	**FS** Press FS button to show in the full-screen display mode

8	**INPUT**
	To select source signal, the button lights up while used as input.
	When there are more than 2 buttons lighting up, the one flashing is the one just be selected, and the steady lighting one is the source signal displayed, M1 represents SDI input.
9	**BLACK**
	Press to show black screen
10	**TAKE**
	In the working mode of TAKE, choose the pre-set picture, and press TAKE to switch into the main output
	Press TAKE for 5 seconds to enter into TAKE working mode, press 5 seconds to turn off it.
11	**USB**
	To program or upgrade.
12	**MENU**
	Press to enter into the menu, by using knob to find the specified menu, press MENU again to return to the previous menu.
13	**LOAD**
	To load the pre-set saving modes.。
	Press LOAD, buttons of "SCALE---BLACK" are representing saving modes of 1\2\3\4\5\6\7\8\9\0, press any of the key to load the corresponding saving mode.

Rear Panel
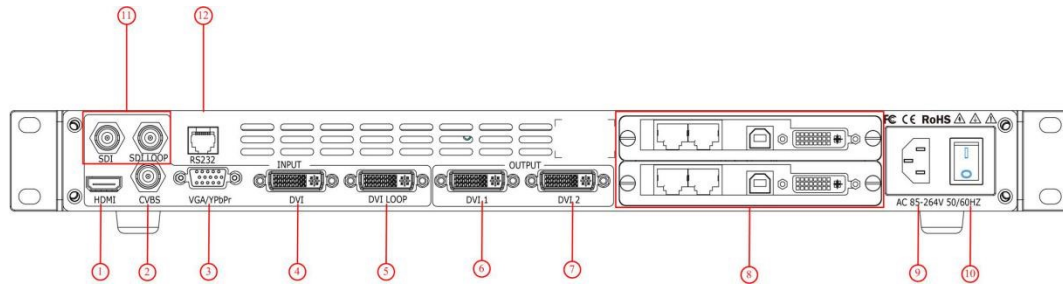
Input connectors

1	**HDMI1.3 input connector** Supports 2560*816*60 and 2k input
2	**CVBS input connector** Supports input of 576i and 480i
3	**VGA\Ypbpr input connector** Supports 2K input, this could be set as VGA or YPbPr input In the advanced menu.
4	**DVI input connector** Supports 2K input and user defined EDID
11	**SDI input connector and SDI LOOP output connector** **Optional module**, supports 3G SDI\HD SDI\SD SDI

Output connectors

5	**DVI LOOP output connector** Output the original DVI signal to another device, usually used in cascading to another device
6	**DVI1 output connector** Output to the monitor or sending card display screen.
7	**DVI2 output connector** Output to the monitor or sending card display screen, the same picture as DVI 1
8	**Card slot：** Built-in card slot for 2 sending cards(small)

Switch button and power supply

9	IEC-Power connector：AC 85-264V，50/60Hz，maximum power 45W
10	Power switch

4 Operations

➤ **Menu structure**

➤ **Output resolution**

➤ **Screen parameters**

➤ **PIP**

➤ **Cascading**

➤ **EDID management**

➤ **System settings**

➤ **Language**

Menu structure

Output Format	Screen Parameters	PIP	Split	EDID Management	Advance	LANG/语言
1024*768@60	H SIZE	PIP OFF/ON	Split OFF/ON	INPUT	INPUT	中文
1280*720@60	V SIZE	Layout	H Total	Source	OUTPUT	ENG
1536*1536@60	H POS	Select	V Total		Transition	
1600*1200@60	V POS	Alpha	H POS		Image Quality	
1920*1080@60	REST	Text Overlay	V POS		System	
1920*1200@60			H SIZE		Factory Reset	
2048*1152@60			V SIZE			
1080*1920@60						
2560*960@60						
3840*640@60						
3840*1080@30						
CUSTOM						

Output Resolution

M-ONE default output resolution is 1920*1080*60, use 【SCALE】 button to adjust the picture

when the screen is smaller than 1920*1080, set the output resolution as below

Press MENU to find the resolution option and press knob to confirm.

```
->OUTPUT FORMAT          >>
  SCREEN PARAMETERS      >>
  PIP                    >>
  SPLIT                  >>
```

Turning the knob to find the correct resolution, or choose "Custom Resolution", press knob to

confirm

```
- >1024x768@60
  1280x720@60
  1536x1536@60
  1600x1200@60
```

```
- >1920x1080@60
  1920x1200@60
  2048x1152@60
  1080x1920@60
```

```
  2560x960@60
- >3840x640@60
  3840x1080@30
  CUSTOMIZED
```
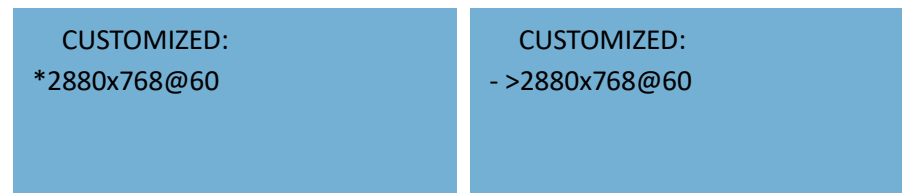
Enter into "Custom Resolution" press knob to confirm

```
  CUSTOMIZED:
- >1920x1080@60
```

Input resolution you want such as: 2880x768@60Hz

Input 2880 by the number buttons, press knob and then input 768, press knob than input 60,

press knob again, resolution changed after the icon * changed into ->

CUSTOMIZED:

 *2880x768@60

CUSTOMIZED:

 - >2880x768@60

Press MENU, return to the previous menu to check if it was changed successfully

IN HDMI: 1920x1080@60

🔓 🅵
OUTPUT : 2880x768@60

Screen Parameters Adjustment

After resolution set, scale to draw your image full screen, for example, how to make picture full-fill the screen size of 1536*1080

1、Press 【SCALE】, turning the knob to find the width, press knob to revise it, when the icon changes from -> into *, 10 buttons "SCALE----BLACK" light up, they are representing numbers of 1-2-3-4-5-6-7-8-9-0

SCALE	SPLIT	PIP	FS		HDMI	CVBS	VGA	DVI	M1	BLACK
1	2	3	4		5	6	7	8	9	0

input 1536，press knob to confirm

Find the height in the same way, revise it into 1080

- > H SIZE	1536
V SIZE	1080
H/V SIZE	1536
H POS	0

PIP Setting

Dual pictures display: how to make PIP-one picture in the center of the other one on a screen of 1920*736

Turn on PIP: PIP could be active by 【PIP 】button or PIP in MENU

OUTPUT FORMAT	>>
SCREEN PARAMETERS	>>
-> PIP	>>
SPLIT	>>

Choose the right layout-"centered": left and right, up and down, centered

-> PIP	ON
LAYOUTS	PIP L+T
SELECT	IMAGE B
ALPHA	0

Select AB layers to adjust, A represents the bottom bigger picture, and B represents the smaller

one (as long as PIP is available, SPILT button could also be used to select layer A or layer B)

PIP	ON
LAYOUTS	PIP L+T
-> SELECT	IMAGE A
ALPHA	0

Start with layer A, Firstly press DVI to switch source signal into DVI

Set picture size of layer A: press Scale to set the layer A size into 1920*736, layer A size was set

successfully

H SIZE	1920
-> V SIZE	736
H/V SIZE	1920
H POS	0

Press 【SPILT】 to layer B, use HDMI as the source for the smaller picture

Revise picture size of layer B: press Scale to revise size and position of layer B

Press 【SAVE】 to save all above parameters into a preset mode, it could be easily used by

pressing 【LOAD】 for the future applications.

# Cascading

For example, there is a screen 3328*960, 1792*960 on the left, 1536*960 on the right, adjust

the picture to full fill the screen, 2 sending cards and two units of M-ONE used here.

Setting as below

Connect DVI input to the first unit of M-ONE, the same signal were connected to the second

M- ONE by DVI LOOP out. The first M-ONE DVI1 output to the sending card for the left screen and

the second DVI1 output to the sending card for the right-side screen.

DVI

DVI LOOP

First M-One	Second M-One

960

1792   1536
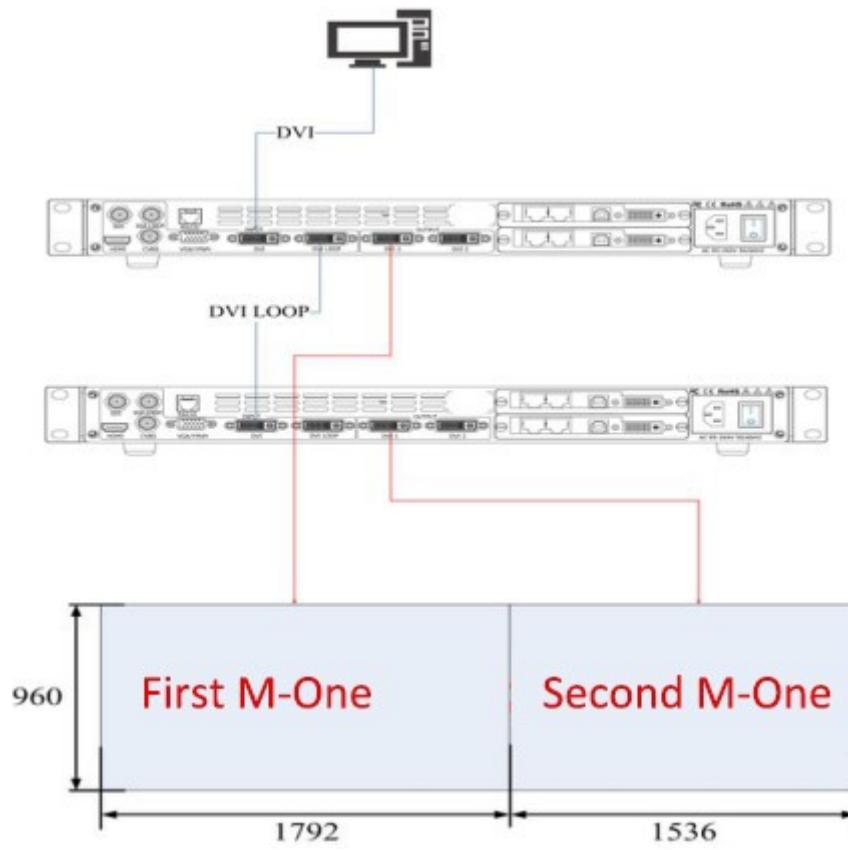
Parameters setting of the first M-ONE

Press SPILT to enable button control

```
   SPLIT              ON
-> H TOTAL          3328
   V TOTAL           960
   H POS               0
```

Input height and width of the whole screen 3328*960

```
   SPLIT              ON
   H TOTAL          3328
-> V TOTAL           960
   H POS               0
```

Input the position of the current device covers, the default position is 0,0 (0 in horizontal and 0 vertical)

```
   SPLIT              ON
   H TOTAL           736
   V TOTAL           960
-> H POS               0
```

```
-> V POS               0
   H SIZE           1792
   V SIZE            960
   SAVE TO            >>
```

Input the width and height covered by this device 1792*960

```
   V POS               0
-> H SIZE           1792
   V SIZE            960
   SAVE TO            >>
```

Save all above settings into preset mode 1

Parameters setting of the second M-ONE

The second M-ONE is for the screen on the right, so the position is behind the first screen, the total width and height is the same as the first M-ONE

SPLIT	ON
H TOTAL	3328
V TOTAL	960
-> H POS	1792

Set the current screen width and height 1536*960。

-> V POS	0
H SIZE	1536
V SIZE	960
SAVE TO	>>

Save all above settings into preset mode 1 as well

All the settings were finished, fine adjustments could be done if there is any other problem.

-> ADVANCE	>>

EDID management

PC output resolution is 1920*1080, how to make a screen 1536*1536 pixel to pixel, EDID management of M-ONE could make it!

Steps:

1. Press MENU, turning knob to EDID Management

```
-> EDID MANAGEMENT        >>
   ADVANCE                >>
   LANG/语言             ENG
```

2. Press knob to enter EDID editing, choose DVI

```
   INPUT                 DVI
  *SOURCE             YDSDVI
```
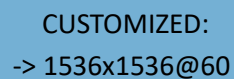
3. Find EDID source, choose user-defined

```
   INPUT                 DVI
-> SOURCE            CUSTOM
```

4. Press the knob to confirm, set the resolution as abovementioned, input X through number buttons, press knob to confirm

```
   CUSTOMIZED:
-> 1536x1536@60
```

5. EDID modification finished, some PC need to be plugged in and out to enable it.

Advanced settings

Input

Enlarge: crop the picture, cut off unnecessary part of the picture, enlarge picture in the following methods.

```
    RESET
    V  UP                    0
    V  DOWN                  0
 -> V UP/DOWN                0
```

```
    H LEFT                   0
    H  RIGHT                 0
    H  LEFT/RIGHT            0
 -> CENTER                   0
```

VGA adjustment：adjust VGA input offset

```
 -> AUTO ADJUST
    H  POS                1792
    V  POS                1792
    CLOCK                    0
```

ADC adjustment: adjust offset of signals like CVBS etc.

```
 -> ADC AUTO ADJUST         >>
    ADC RESET ALL           >>
```

Output

Output signal selection: change output signal in DVI or HDMI format

Bit depth: adjust output bit depth

Color range: adjust into image or video, when" black screen function "is not working, you should firstly check the color range here.

DE adjustment: Used to adjust the output offset

```
 -> DVI MODE              DVI
    BIT DEPTH           8 BIT
    DATA  RANGE         IMAGE
    DE ADJUST              >>
```

Special-effect transitions (double-press MENU)

Deinterlacing: all interlace lines would be removed after deinterlacing enabled

Image enhancement: this function is valid for main source signal default, screen would be black for a few seconds when switching into the other signal

Switching mode: Multiple switching modes like pull - curtain switching and fade in fade out, straight cut, etc. ： Multiple curtain switch and fade in and fade out, straight cut and so on

Switching Time: switching time could be set between 0~3 seconds

-> DEINTERLACE	ON
IMAGE ENHANCE	OFF
MODE	DISSOLVE
FADE TIME	0.5s

Image quality adjustment： Brightness, contrast, saturation, sharpness etc could be adjusted according to your request.

-> BRIGHTNESS	51
CONTRAST	55
SATURATION	50
SHARPNESS	50

Advanced setting

Serial No.： Check serial No.

Version No.: Device program version No.

Hot backup: hot backup for input,

After enable hot backup, set the first group as backup signal

Input would be automatically switched to the second group when first signals disappeared.

Input would be automatically switched to the third group when losing the second signals.

HOT BACKUP	ON
BACKUP_1	DVI
BACKUP_2	HDMI
-> BACKUP_3	VGA

Customizable buttons: Black button could be customized.

Factory reset: Settings and options will be restored to factory state.

Language: To choose language in English or in Chinese