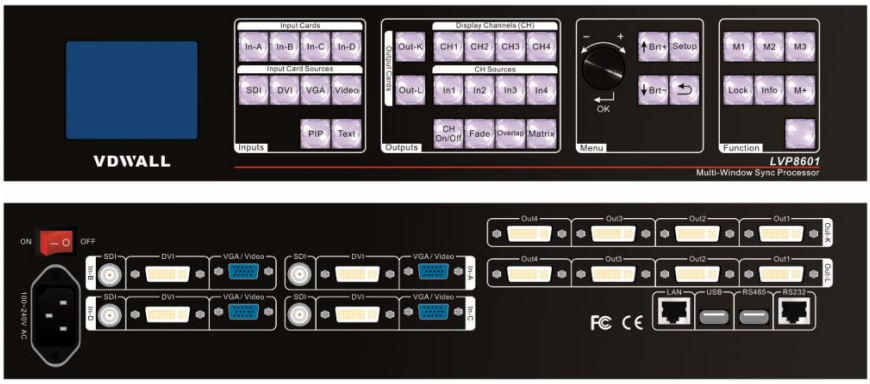
LVP8601

LED Multi-window Sync Processor

User Manual



Content

Chapter 1: Safety precautions

Danger!

There is high voltage in the processor, to prevent any unexpected hazard, unless you are a maintenance personnel, please do not open the cover of the device.

Warning!

a) This device shall not encounter water sprinkle or splash, please do not place anything containing water on this device.
b) To prevent fire, keep this device far from any fire source.
c) If this device gives out any strange noise, smoke or smell, please immediately unplug the power cord from receptacle, and contact local dealer.
d) Please do not plug or unplug DVI signal cable if the device is powered on.

Caution!

a) Please thoroughly read this manual before using this device, and keep it safe.
b) In the event of lighting or when you are not going to use the device for a long time, please pull the power plug out of receptacle.
c) Nobody other than professional technicians can operate the device, unless they have been appropriately trained or under guidance of technicians.
d) To prevent equipment damage or electric shock, please don't fill in anything in the vent of the device.
e) Do not place the device near any water source or anywhere damp.
f) Do not place the device near any radiator or anywhere under high temperature.
g) To prevent rupture or damage of power cords, please handle and keep them properly.
h) Please immediately unplug power cord and have the device repaired, when
   i. Liquid splashes to the device.
   ii. The device is dropped down or cabinet is damaged.
   iii. Obvious malpractice is found or performance degrades.

Chapter 2: Item list

Please unpack the product with care, and then check whether all the following items are included in the package. If anything is found missing, please contact the dealer.

Standard accessories

The accessories supplied with this product may differ from the following pictures, but they are applicable for the regions where you live.

		
1.5M Power cord X 1	1.5M DVI cable (Quantity depends on input cards)	0.5M DVI cable (Quantity depends on output cards)
		
VGA--VGA+RCA (Quantity depends on input cards)	1.5M RS232--RJ45 adapter X 1	1.5m USB cable X 1
		
HDMI/DVI-D adapter X 2	User manual x 1	CD of control software X 1

Chapter 3: Hardware connection

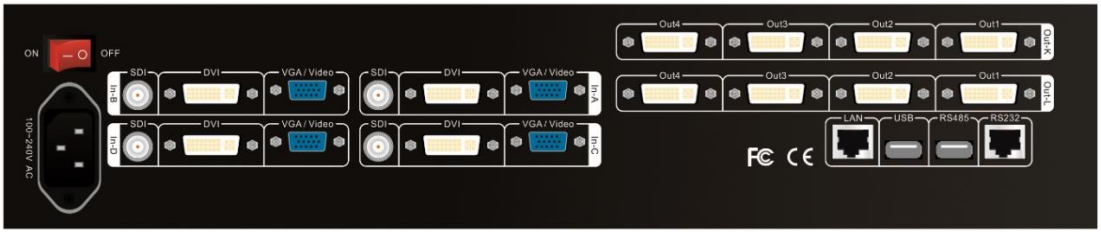
1. System framework introduction

Due to the plug-in design of input and output cards, their required numbers will depend on customer-specific requirement.

Types of cards	Number (optional)	Function
Input card	Maximum: 4 PCS	Integrate multiple video signals of different types and formats
Single DVI straight-through card	Maximum: 4 PCS	Pixel-to-pixel sync mosaic
Output card	Maximum: 2 PCS (8DVI ports)	Output processed signals to each display unit

Notice: Single DVI straight-through cards can only be installed in the slots for input cards (Maximum of input cards and DVI straight-through cards together are 4 PCS). Input resolution of straight-through cards must be same as output resolution, otherwise the display will be unstable.

2. Rear view



3. Port description

1) Input ports

LVP8601 maximally supports 4 PCS of input cards (In-A, In-B, In-C, In-D) and each card supports 4 input signals. The port description is as follows:

Port	Description
VGA/Video	**1 X VGA (PC analog signal)** **1 X Composite (PAL/NTSC, VGA—VGA-RCA adapter needed)**
DVI	**1 X DVI (HDMI1.3 compatible)**
SDI	**1 X SDI(SDI/HDSDI/3G-SDI)**

2) Output ports

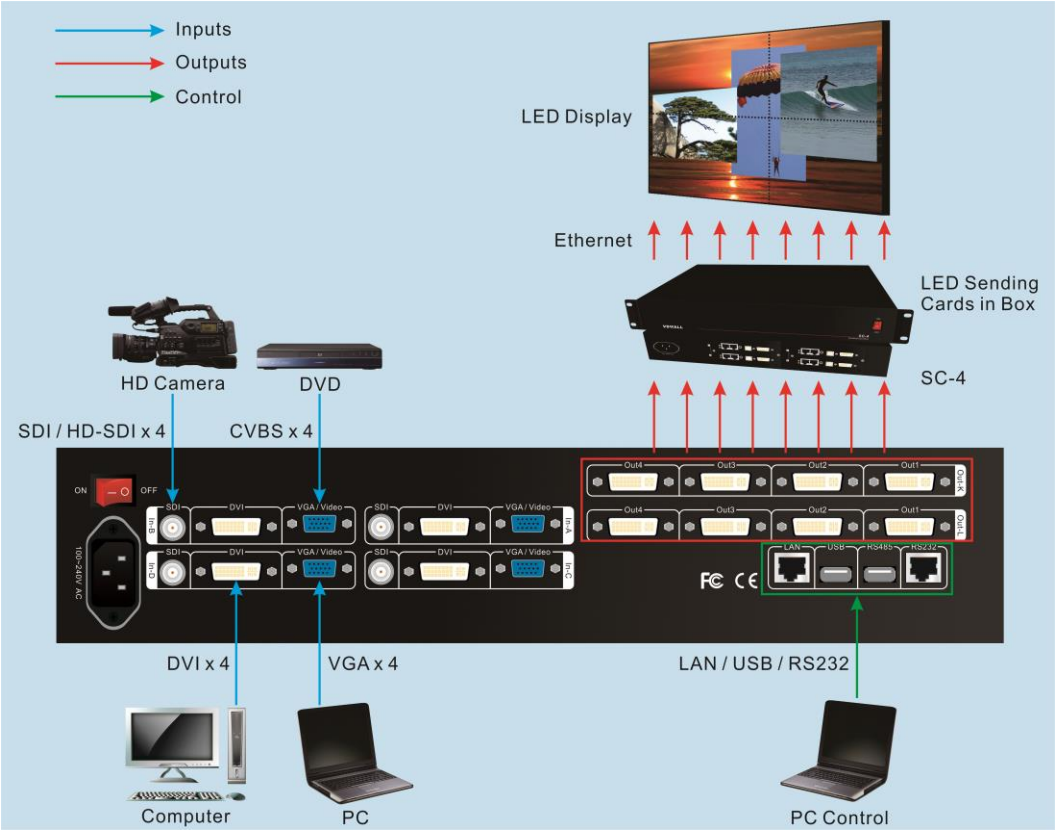
LVP8601 maximally supports 2 PCS of output cards (Out-K, Out-L) and each card supports 4 DVI outputs. The port description is as follows:

Port	Description
Out1-Out4	8X DVI output ports (for connecting to sending cards or monitors)

3) Communication ports

Port	Description
LAN	TCP/IP local area network control
USB	USB communication port
RS485	RS485 communication port
RS232	Serial communication port , RS232 electrical level

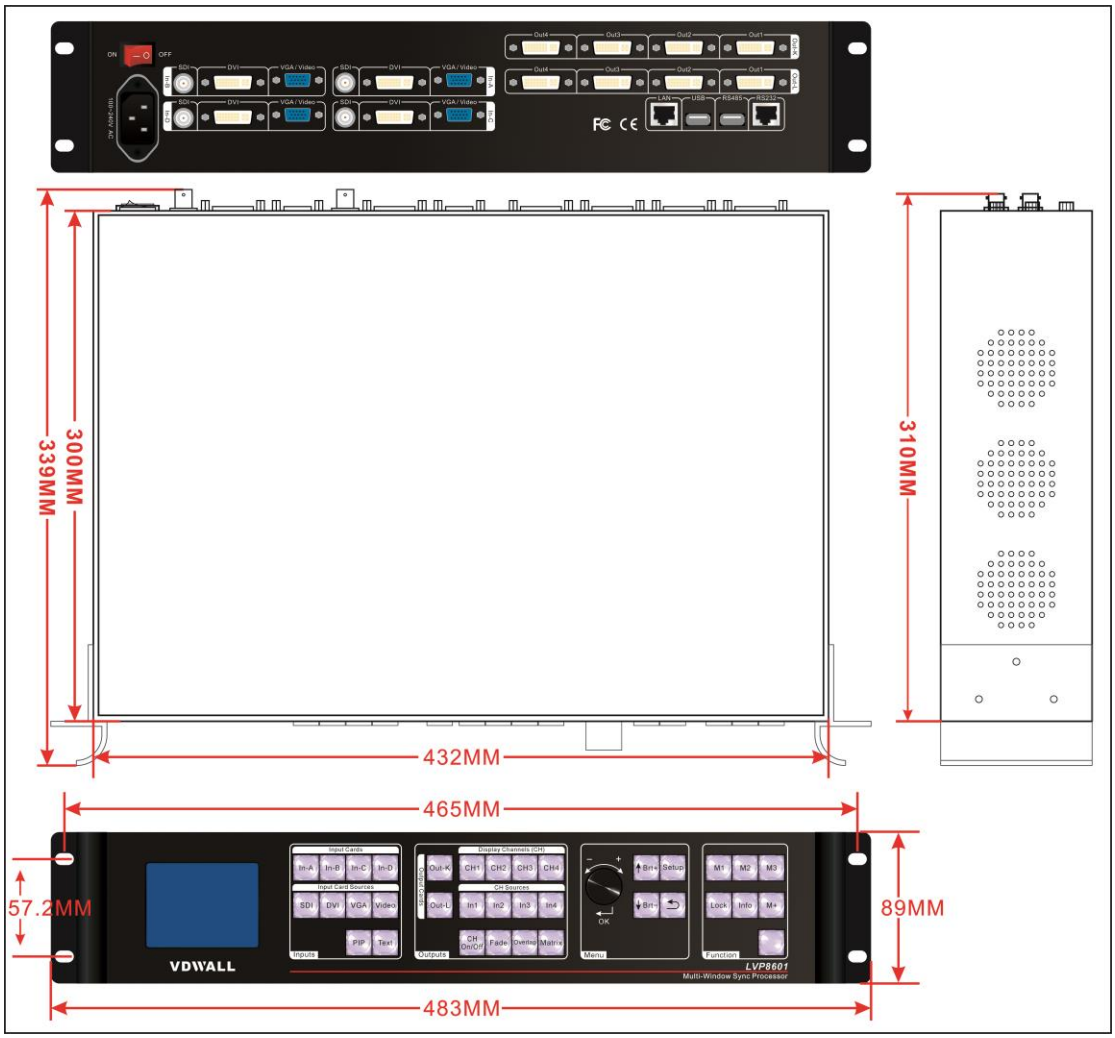
4. Connection diagram



5. Specifications

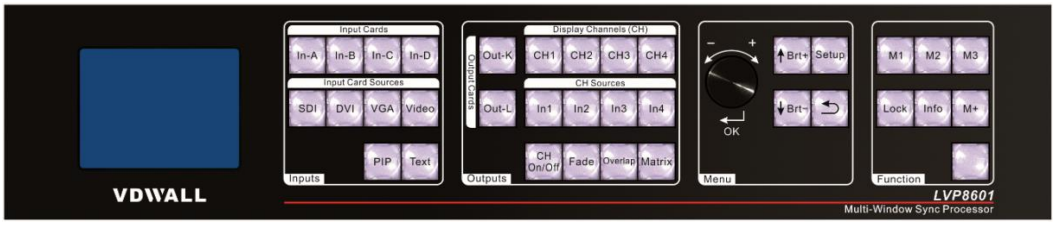
Inputs		
Type/Number	4×Video 4×VGA(RGBHV) 4×DVI(VESA/CEA-861) 4×SDI (SDI/HD-SDI/3G-SDI)	
Video Standard	PAL/NTSC	
Composite Video Amplitude / Impendence	1V (p_p)/ 75Ω	
VGA Format	PC (VESA)	≤1920×1200_60Hz
VGA Amplitude / Impendence	R、G、B = 0.7 V (p_p) / 75Ω	
DVI Format	PC (VESA)	≤1920×1200_60Hz
	HDMI-1.3 (CEA-861)	≤1080p_60Hz
SDI Format	SMPTE 259M SMPTE 292M	480i_60Hz 576i_50Hz 720p, 1080i, 1080p
Input Connectors	Video:4-pinVGA VGA:15-pinD_Sub(female) DVI:24+1DVI_D SDI: BNC/ 75Ω	
Outputs		
Type/Number	8×DVI	
Preview output	1×DVI (one DVI output in Out-K or Out-L)	
Output Resolution	1024×768_60Hz 1280×1024_60Hz 1920×1080p_60Hz 1920×1200_60Hz	
Output Connectors	DVI: 24+1 DVI_D	
Others		
Control	RS232/USB/LAN	
Input Voltage	100-240VAC50/60Hz	
Maximum Power Consumption	≤100W	
Environment Temperature	0-45 ℃	
Environment Humidity	15-85%	
Dimension	482.6(L) x 300(W) x 89(H)mm	
Weight	G.W.: 9Kg;N.W.: 5Kg	

6. Dimension



Chapter 4: Front Panel

1. Button instruction



1) **Input Cards (In-A, In-B, In-C, In-D)**: stand for 4 input cards accordingly, when pressing a button to select a card, if the red light of the indicator is on, it means the operation of the current input card is valid.

2) **Input Card Sources (Video, VGA, DVI, SDI)**: input signal select, when

selecting an input signal, if the green light of the indicator is on, it means the signal is available, otherwise the light will flicker.

3) **PIP**: turn on or off the picture-in-picture function. If the indicator is on, it means signals are selected, otherwise it will flicker. The signal for sub picture (**PIP**) can be selected by pressing a button in "**Input Card Sources**" and it can be same as or different from the signal for main picture.

4) **Text**: turn on or off text overlay. It is used to overlay the current image with text, logo or video. If the indicator is on, it means the signal is selected, otherwise it will flicker. The signal for "Text" can be selected by pressing a button in "Input Card Sources" and it can be same as or different from the signal for main picture.

5) **Output Cards (Out-K, Out-L)**: stand for 2 output cards accordingly, when pressing a button to select a card, if the red light of the indicator is on, it means the operation of the current input card is valid.

6) **Display Channels (CH) (CH1, CH2, CH3, CH4)**: image **output channel** select, the indicator green light is on when an **output channel** is selected.
Image **output channel (CH)**, in the system of this device, is also interpreted as "**image layer**". The device can maximally offer **4 image layers (CH1, CH2, CH3, CH4)** which can be overlapped.

7) **CH Sources (In1, In2, In3, In4)**: **input channel** select for **image layer**, the indicator green light is on when a channel is selected.
The **input channel** for an **image layer** can be interpreted as the "source".

8) **CH On/Off**: open or close **image layers**. The indicator red light indicates its status.

9) **Fade**: when multiple **image layers** are overlapped, there is an overlapping sequence existing among the layers. The device can adjust the sequence with fading effect, while the button "Fade" can be used to set the time needed for the effect. **It's only available in configuration mode 2, 3, 6 and 7.**

10) Overlap: turn on the overlap mode and the indicator red light is on. When it is on, we can directly select one in (CH1, CH2, CH3, CH4) to locate the corresponding image layer on the top. **It is only available in configuration mode 3, 6 and 7.**

11) **Matrix**: turn on the **matrix switching** mode of output cards and the indicator red light is on. Press "**CH1, CH2, CH3 or CH4"** to select an image layer and "**In1, In2, In3 or In4**" to select the **input channel** for the current **image layer**.

12) **Knob**: turn it to adjust the parameters on the menu.

13) **OK**: press it to confirm the operation.

14) ↑**Brt+,** ↓**Brt**-: versatile buttons, "↑" and "↓" are used to select an item in the menu, while Brt+ and Brt- are used to adjust the brightness.

15) ⮌ : return to the previous menu.

16) **Setup**: enter the setup menu.

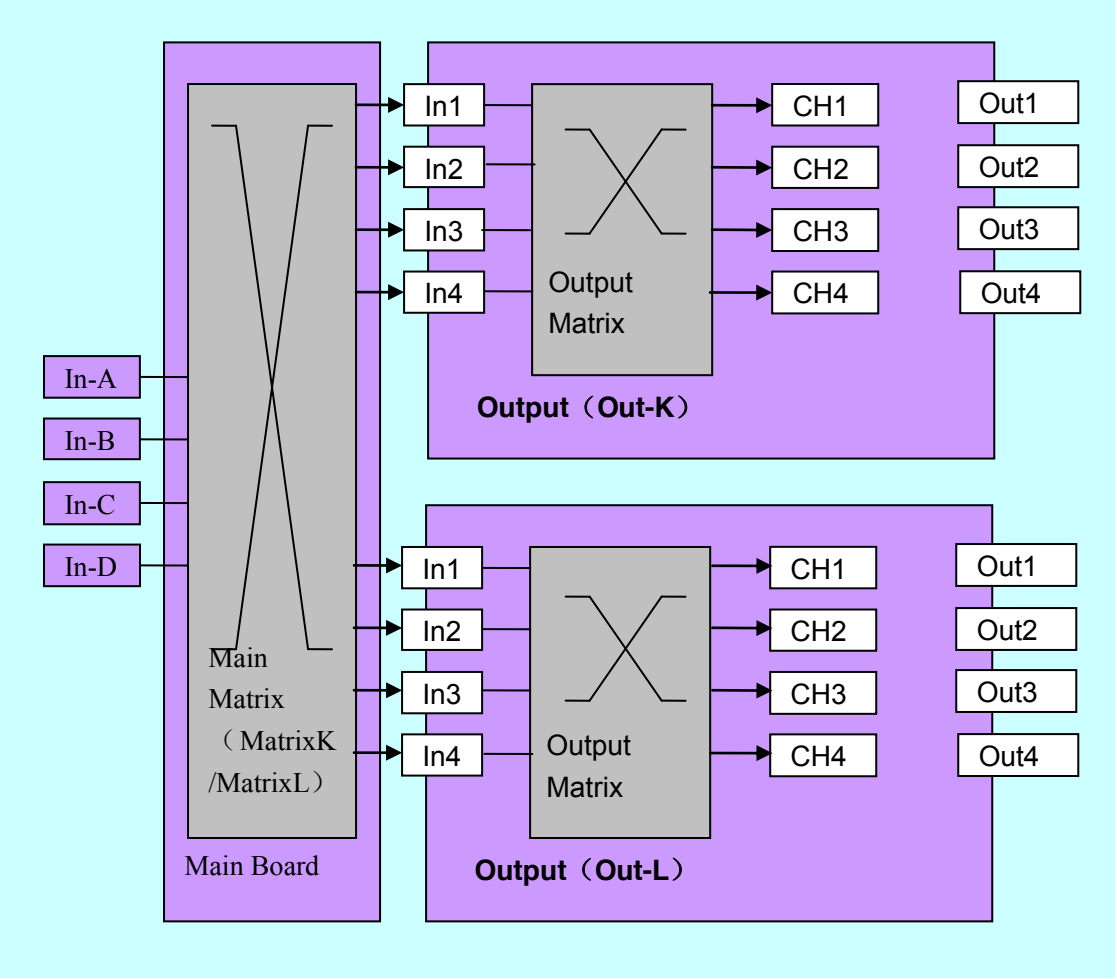
17) **M1, M2, M3, M+**: display mode select.
There are 16 display modes in total. Press M1, M2 or M3 to directly select display mode 1, 2 or 3 and the indicator light is on. Mode 4—16 can be selected by pressing M+ to enter mode invoking menu and rotating the knob.
Each display mode has 4 types of status and its related parameters:
A: Size and location of image layer (input image will be cropped, so the new size and location will be created and output).
B: Overlapping sequence of image layers
C: Time needed for fade effect of changing the overlapping sequence
D: Matrix configuration of channels for image layers

18) **Lock**: press the button and when the indicator light is on, all the other buttons are locked. Press the button again for 3 times, all the other buttons are unlocked and the light is off.

19) **Info**: display the system information. We can continue pressing this button to check different status and parameters of the device.

Chapter 5: Function introduction

LVP8601 can maximally support **4 pcs (In-A ,In-B, In-C, In-D)** of **video input cards** (**each card includes 1 X SDI, 1 X DVI, 1 X VGA and 1 X Video**) or **2 pcs** of **single DVI straight-through cards** and **2 pcs** of **output cards.**



As shown in the figure, CH1, CH2, CH3 and CH4 stand for 4 internal **image output channels** or **image layers** in the **output card**. In the control software interface and on the panel buttons or OSD display, those channels or layers will be all marked as CH1, CH2, CH3 and CH4;

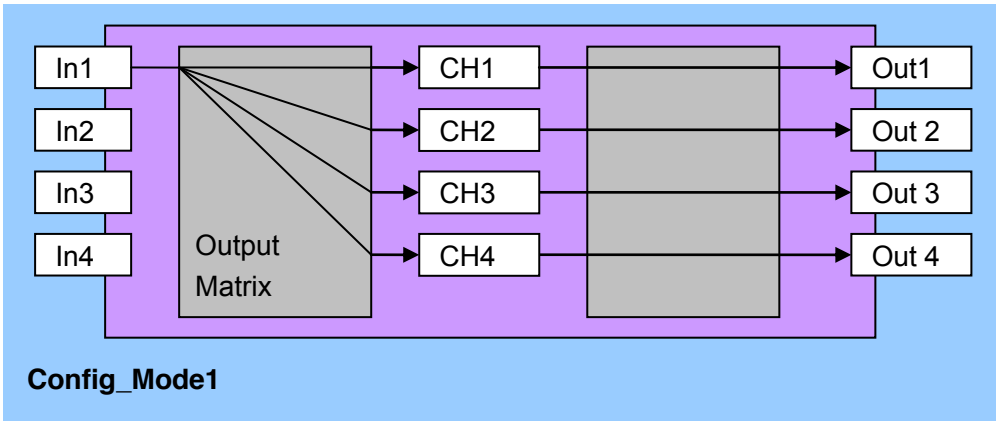
In1, In2, In3 and In4 stand for 4 **input ports** for the **output card** and they can only be connected to **video input cards** or **DVI straight-through cards** (In-A, In-B, In-C and In-D) through the **master matrix (matrix K/matrix L), which is generated by the master control board.**

Out1, Out2, Out3 and Out4 stand for 4 physical DVI output ports of the **output card;**

The output card is designed with 6 image display modes and they are named as **configuration modes** in this system. There are totally 6 configuration modes including mode 1, 2, 3, 4, 6 and 7. Customers can

select the mode according to their specific requirements.

1. **Configuration mode 1**



In this mode,

Out1=CH1 Out2= CH2 Out3 = CH3 Out4 = CH4

This means:

Output port 1 (Out1) outputs image from **image layer 1 (CH1)**

Output port 2 (Out2) outputs image from **image layer 2 (CH2)**

Output port 3 (Out3) outputs image from **image layer 3 (CH3)**

Output port 4 (Out4) outputs image from **image layer 4 (CH4)**

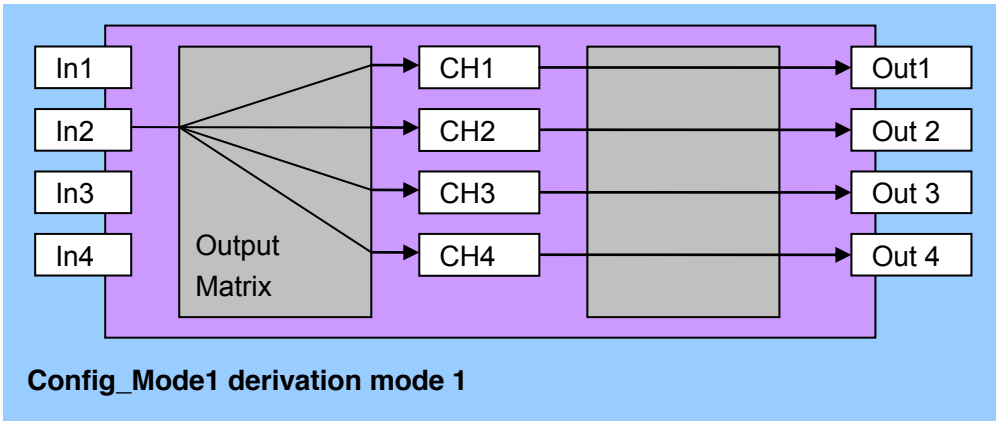
In this mode, any **image layer** (CH1, CH2, CH3, CH4) can select any **input channel** (In1, In2, In3, In4). Therefore, we need to press **"Matrix"** to start the **matrix switching** mode, press CH1, CH2, CH3 or CH4 to select the image layer and press In1, In2, In3 or In4 to select the **input channel** for the current **image layer**.

Especially when the same **input channel** is selected for CH1, CH2, CH3 and CH4 at the same time, each image layer can crop and scale the image from the input channel, for the purpose of application of 4-output **image mosaic**.

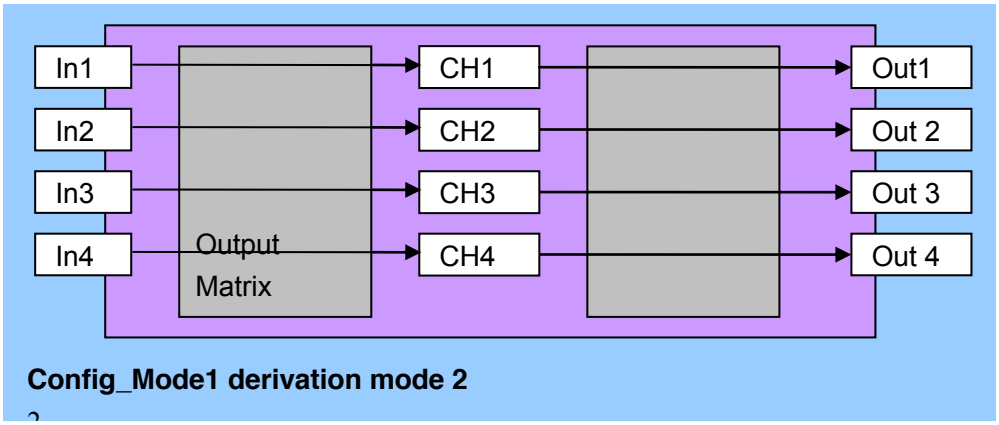
By using this mode, LVP8601will be mainly used for **seamless matrix (4X4) switching** or **scaled image mosaic (4 outputs)**.

Base on Configuration mode 1 (Config_Mode1), we can switch **input matrix** so that each image layer **(CH1, CH2, CH3, CH4)** can select any

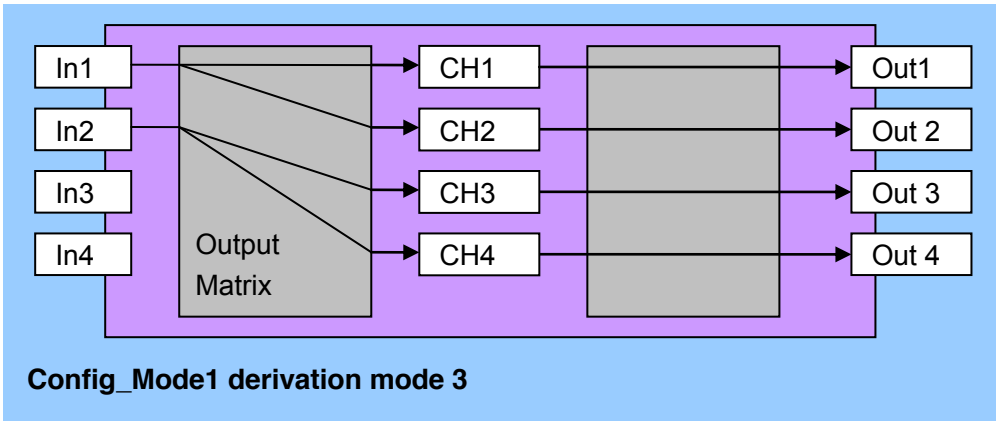
input **(In1, In2, In3, In4)** and in this way we can have many **derivation modes** to realize different processing and display effects. For example:



Config_Mode1 derivation mode 1

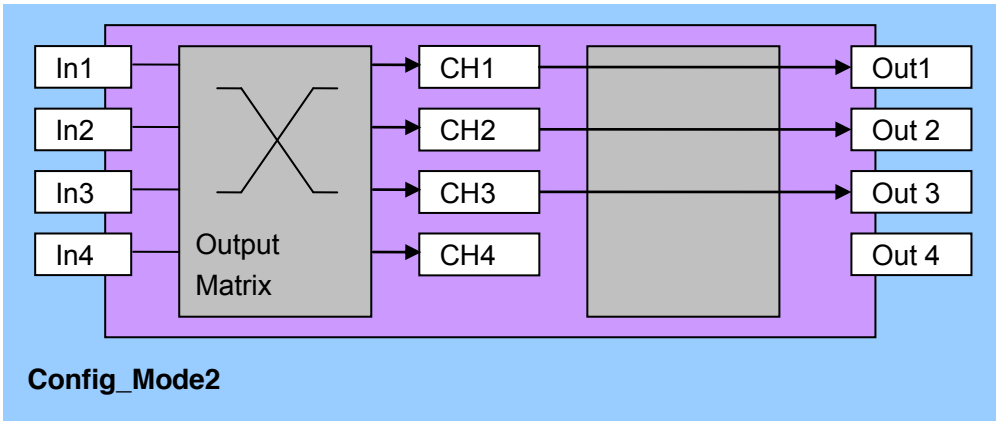


Config_Mode1 derivation mode 2



Config_Mode1 derivation mode 3

2. Configuration mode 2



Config_Mode2

In this mode:

Out1= CH1 Out2 = CH2 Out3 = CH3

This means:

Out1 outputs image from CH1

Out2 outputs image from CH2

Out3 outputs image from CH3

There is no output from Out4.

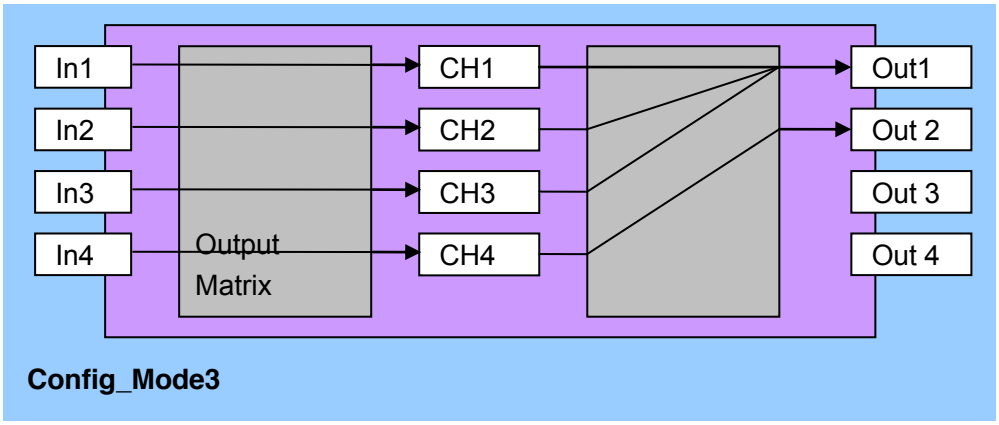
In this mode, any output port (Out1, Out2, Out3) can select any input channel (In1, In2, In3, In4). Therefore, we need to press “Matrix” to start the matrix switching mode, press CH1, CH2 or CH3 to select **output port** (Out1, Out2, Out3) and press In1, In2, In3 or In4 to select **input channel** for the current **output port.**

In this mode, the size and location of output images from **Out1, Out2 and Out4** can be set randomly.

In this mode, input images can be cropped as output images for Out1, Out2 and Out3.

By using this mode, the LVP8601 will be mainly used as **a switcher of 4 inputs and 3 outputs with seamless or fade effect.**

3. Configuration mode 3



Config_Mode3

In this mode:

Out1= CH1+ CH2+CH3 Out2= CH4

This means:

Out1 outputs the image generated by three image layers overlapped (CH1, CH2, CH3).

Out2 outputs the image from CH4.

There are no outputs from Out3 and Out4.

In this mode, any **image layer** (CH1, CH2, CH3, CH4) can select any **input channel** (In1, In2, In3, In4). Therefore, we need to press **"Matrix"** to start the **matrix switching** mode, press CH1, CH2, CH3 or CH4 to select the **image layer** and press In1, In2, In3 or In4 to select the **input channel** for the current **image layer**.

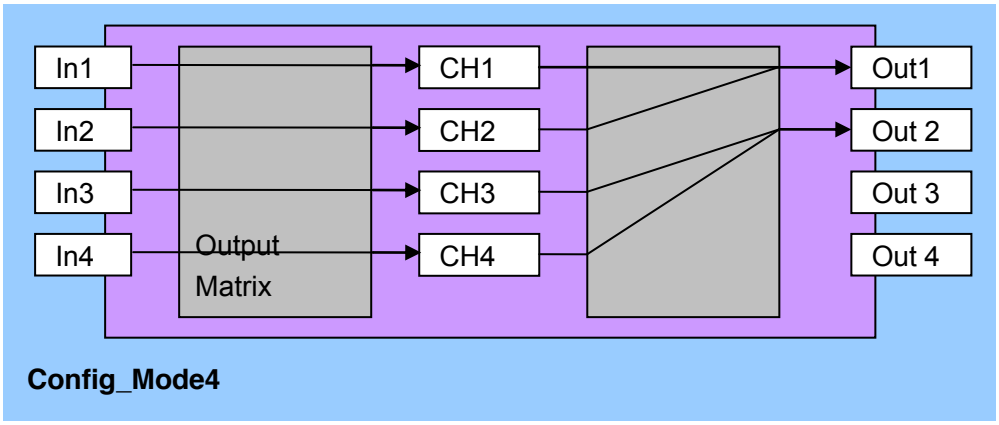
Moreover, in this mode, Out1 outputs the image which is generated by three image layers overlapped (CH1, CH2, CH3). So we can press "Overlap" to start the "image overlap" mode and press CH1, CH2 or CH3 to directly locate the corresponding **image layer** on the top.

In this mode, we can also press "Fade" to set the time for switching of image layers so as to realize seamless switching or fade effect.

By using this mode, LVP8601 will be used for **triple-image display from single output plus single-image preview** or as **a switcher of single output plus single-image preview**. The preview is normally

output from Out2.

4. Configuration mode 4



Config_Mode4

In this mode:

Out1= CH1 +CH2 Out2=CH3+ CH4

This means:

Out1 outputs the image generated by CH1 and CH2 overlapped;

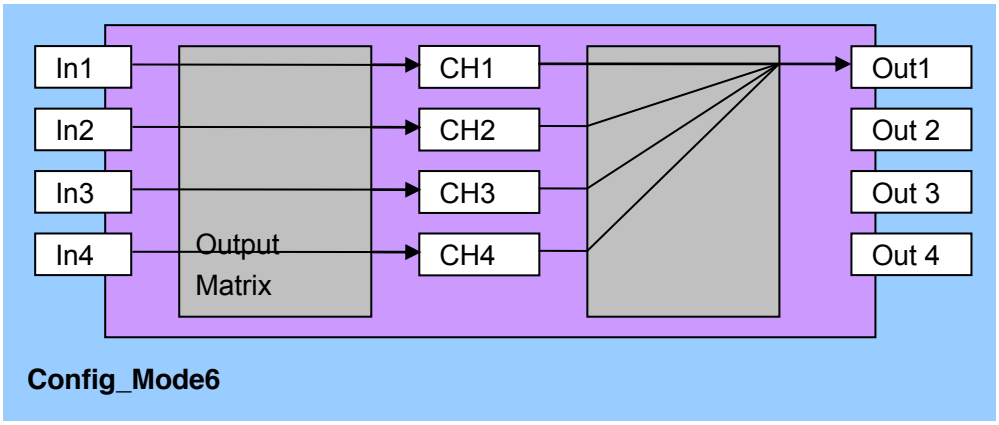
Out2 outputs the image generated by CH3 and CH4 overlapped;

There are not outputs from Out3 and Out4.

In this mode, CH1 and CH2 respectively crop a part or full of In1 and In2. The cropped images, in special **sizes and locations,** are **edge-blended and overlapped** into a complete one and output from Out1; CH3 and CH4 respectively crop a part or full of In3 and In4. The cropped images, in special **sizes and locations**, are edge-blended and overlapped into a complete one and output from Out2. The settings of **size, location, edge blending and overlap** can be found in the **setup menu of output card**. After processing, images output from Out1 and Out2 are blended into a complete one and the display is completely synchronous.

By using this mode, LVP8601 will be used for **pixel-to-pixel sync image mosaic** and the maximal resolution supported is **4K x 2K.**

5. Configuration mode 6



Config_Mode6

In this mode:

Out1= CH1 + CH2 + CH3 + CH4

This means:

Out1 outputs the image generated by four image layers overlapped (CH1, CH2, CH3, CH4);

There are no outputs from Out2, Out3, Out4;

In this mode, any **image layer** (CH1, CH2, CH3, CH4) can select any **input channel** (In1, In2, In3, In4). Therefore, we need to press **"Matrix"** to start the **matrix switching** mode, press CH1, CH2, CH3 or CH4 to select the **image layer** and press In1, In2, In3 or In4 to select the **input channel** for the current **image layer**.

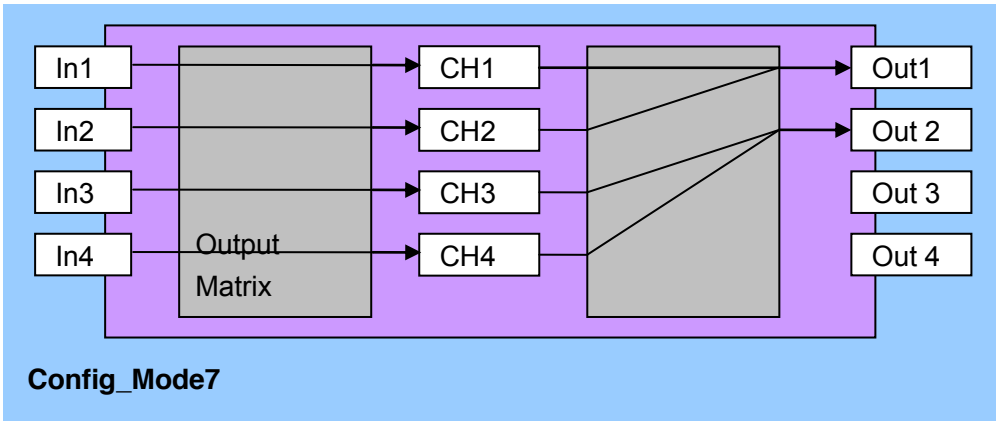
Moreover, in this mode, Out1 outputs the image which is generated by four image layers overlapped (CH1, CH2, CH3, CH4). So we can press "Overlap" to start the "image overlap" mode and press CH1, CH2, CH3, CH4 to directly locate the corresponding **image layer** on the top.

In this mode, we can also press **"Fade"** to set the time for switching of **image layers** so as to realize **seamless** switching or **fade** effect.

Also, an output card in this mode can be configured as one with quad-image preview. What we need to do is just to start **"preview**" in **advanced settings of output card**.

By using this mode, LVP8601 will be used as **a quad-display processor** or **a switcher of single output with fade effect**.

6. Configuration mode 7



Config_Mode7

In this mode:

Out1= CH1 + CH2 **Out2 = CH3 + CH4**

This means:

Out1 outputs the image generated by CH1 and CH2 overlapped;

Out2 outputs the image generated by CH3 and CH4 overlapped;

There are not outputs from Out3 and Out4.

In this mode, any **image layer** (CH1, CH2, CH3, CH4) can select any **input channel** (In1, In2, In3, In4). Therefore, we need to press **"Matrix"** to start the **matrix switching** mode, press CH1, CH2, CH3 or CH4 to select the **image layer** and press In1, In2, In3 or In4 to select the **input channel** for the current **image layer**.

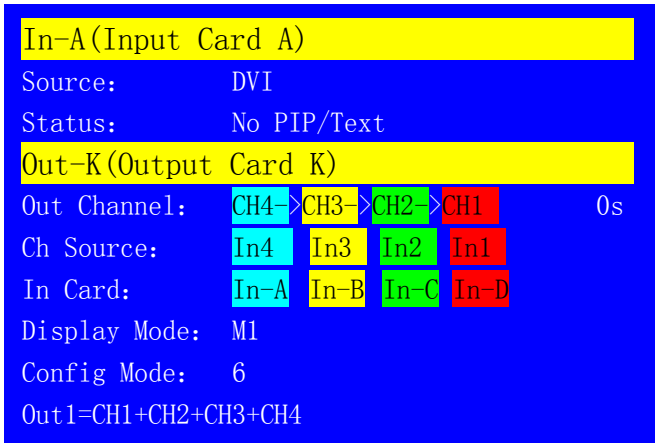
Moreover, in this mode, Out1 outputs the image which is generated by CH1 and CH2 overlapped, so we can press "Overlap" to start the "image overlap" mode and press CH1 or CH2 to directly locate the corresponding **image layer** on the top. While Out2 outputs the image which is generated by CH3 and CH4 overlapped, so we can press "Overlap" to start the "image overlap" mode and press CH3 or CH4 to directly locate the corresponding **image layer** on the top.

In this mode, we can also press **"Fade"** to set the time for switching of **image layers** so as to realize **seamless** switching or **fade** effect.

By using this mode, LVP8601 will be used as **a dual-display processor of dual outputs or a dual-output switcher. It can be also used for matrix (4X2) switching with fade effect or pixel-to-pixel HD background image plus cross-screen PIP display**.

Chapter 6: Basic operation introduction

When system starts, it will automatically detect and identify the number and location of input cards and output cards. The LCD panel will display the information accordingly. The introduction of basic operations is based on full configuration (4 PCS of input cards and 2 PCS of output cards) and the default menu will be as follows when system starts:



1. **Select input signals for input cards**
   Press "**SDI, DVI, VGA or Video"** to select a signal and press "**In-A, In-B, In-C or In-D**" to select an input card for operation.

2. **PIP setup of input cards**
   Press "**PIP**" and then select "**SDI, DVI, VGA or Video**" as the signal for **PIP**. Press "**In-A, In-B, In-C or In-D**" to select an input card for operation.

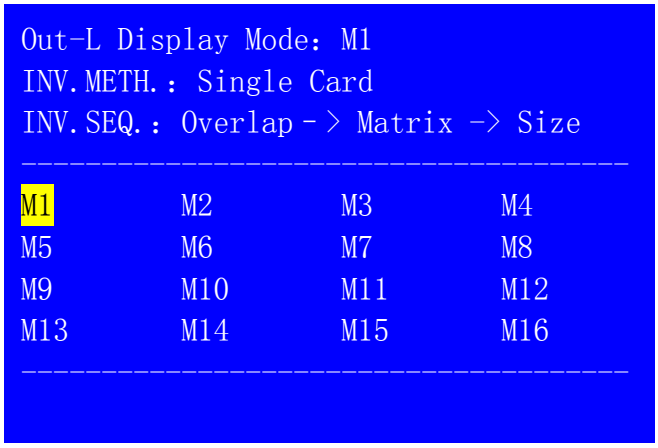
3. **Text overlay setup of input cards**
   Press "**Text**" and select "**SDI, DVI, VGA or Video**" as the signal for Text overlay. Press "**In-A, In-B, In-C or In-D**" to select an input card for operation.

4. **Setup of the correspondence between output channels and input channels for output cards**
   When the indicator for "**Matrix**" is on and that for "**Overlap**" is off, press "**CH1, CH2, CH3 or CH4**" to select the **output channel** and press"**In1, In2, In3 or In4**" to select the **input channel**. Press "**Out-K**" or "**Out-L**" to select an output card for operation.

5. **Overlap mode setup**
   When the indicator for "**Overlap**" is on and that for "**Matrix**" is off, press "**CH1, CH2, CH3 or CH4**" to select one as the top layer, this will change the overlapping relationships. The setup is **only available in configuration mode 3, 6 and 7**. Press "**Out-K**" or "**Out-L**" to select an output card for operation.

6. **Time setup for overlap mode switching**
   Press "**Fade**" to set the time needed for **fade effect** when switching the overlapping sequences among the **image layers**. The time can be set as 1s, 2s, 3s, 4s or 5s. 0s means the switching is seamless. The setup is **only available in configuration mode 2, 3, 6 and 7**. Press "**Out-K**" or "**Out-L**" to select an output card for operation.

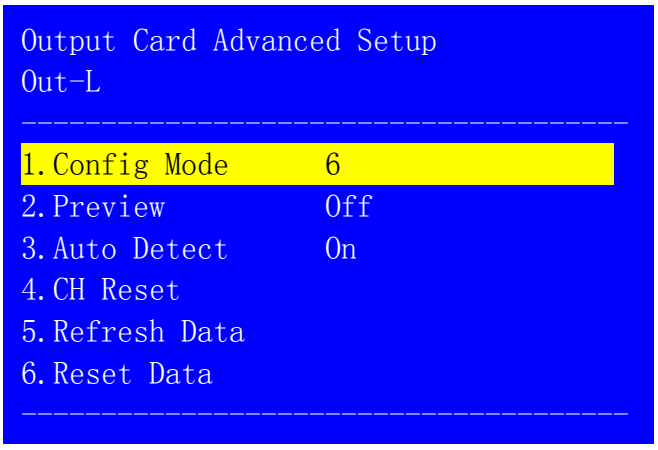
7. **Display mode setup of output cards**
   There are 16 display modes in total. Press "**M1, M2 or M3**" to directly select display mode 1, 2 or 3 and the indicator light is on. Mode 4—16 can be selected by pressing "**M+**" to enter mode invoking menu and rotating the knob. The selected mode is highlighted and the indicator for "**M+**" is on, press "**OK**" to confirm and "↩" to quit. The menu of "**Display Mode Setup**" is as follows:
   Each display mode has 4 types of status and its related parameters:
   A: Size and location of image layer (input image will be cropped, so the new size and location will be created and output).
   B: Overlapping sequence of image layers
   C: Time needed for fade effect of changing the overlapping sequence
   D: Matrix configuration of channels for image layers



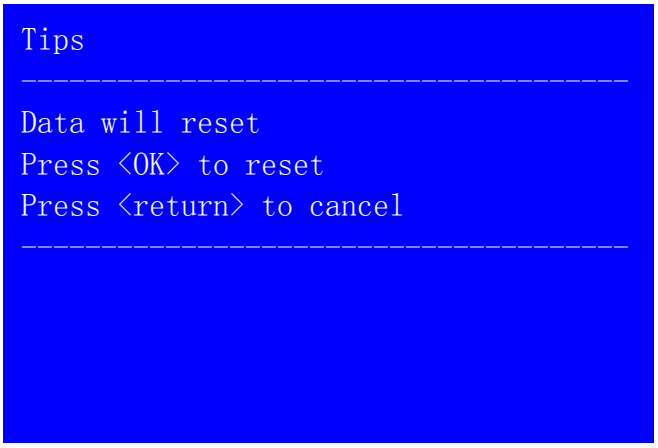
Press "**M+**" to enter the menu of "**Display Mode Setup**","↑" to select the invocation mode of display mode and "↓" to select the invocation sequence, "⮌" to quit the menu. The invocation mode of display modes is "Single Card/Single Card+Input Card/Double Card/Double Card+Input Card" and it is displayed in the second line on the menu. The invocation sequence is "**Overlap→Matrix→Size/Matrix→Size→Overlap**" and it is displayed in the third line on the menu.

8. Configuration mode setup

Press "**Setup**" to enter **User Settings**, "↑, ↓" to select "**Output Card**" and "**OK**" to enter its sub menu. Press "↑, ↓" to select "**Output Card Advanced Setup**" and "**OK**" to enter its sub menu. Press "↑, ↓" to select "**Config Mode**", turn the knob to select "**OK**" to enter the confirmation sub menu. Select "**Out-L**" or "**Out-K**" to configure the output card accordingly.



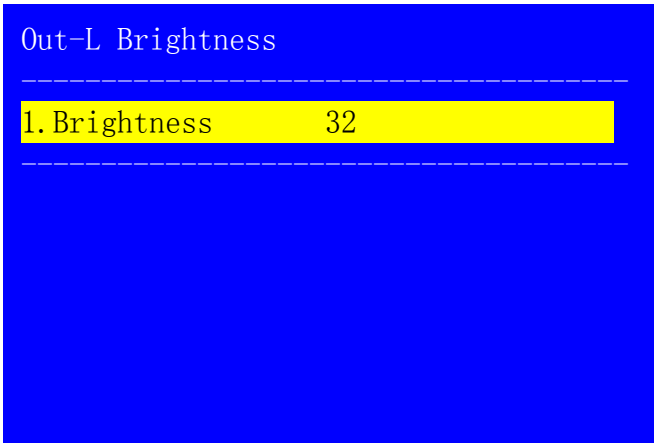
On the confirmation sub menu, press "**OK**" to change the configuration mode.



Notice: to change the configuration mode will lead to reset of the data of output cards, please be careful.

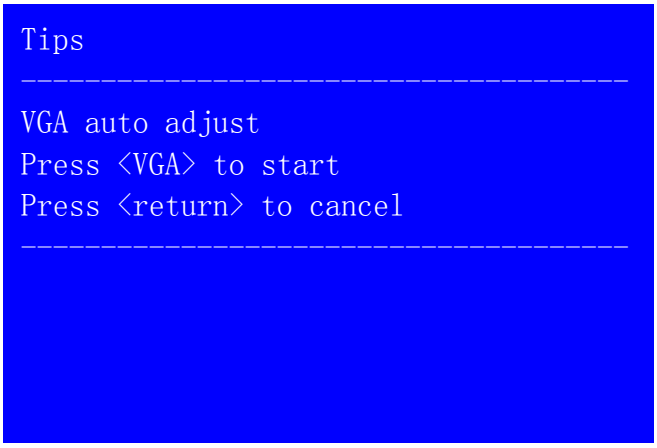
9. Brightness setup

The adjusting range of brightness is 0-32，“**0**” stands for the lowest brightness, press “**Brt+**” to increase the brightness or “**Brt-**” to lower it. To make sure of the complete grey level of the output images, the default is set as “**32**” and we can turn the knob to select one or two output cards for brightness adjusting.



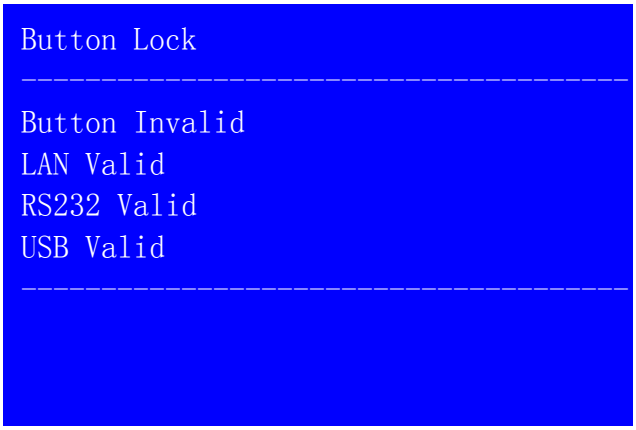
10. VGA automatic calibration

When the current input signal is VGA and it is valid, press “**VGA**” to enter the confirmation menu of VGA automatic calibration, press “**VGA**” one more time to confirm calibration and then “⮌”to quit the menu. The menu is as follows:



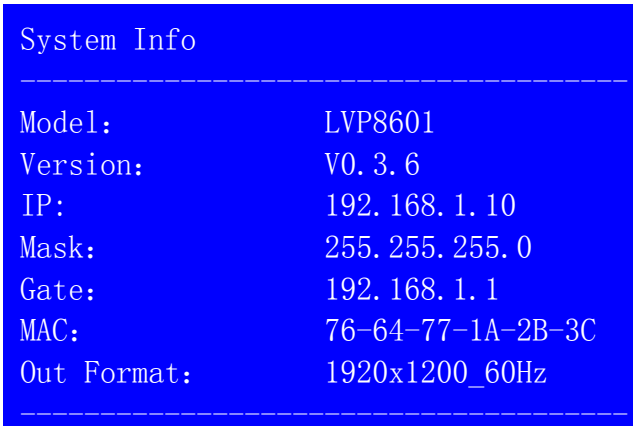
11. Button lock

Press “**Lock**”, other buttons will be locked in case of wrong operation. On the menu of button lock, press “**Lock**” 3 times to quit the lock state. When buttons are locked, only LAN, RS232 and USB communication are available in case of the conflict between remote control and panel control. When commands are sent from remote, buttons will be automatically locked. The menu is as follows:



12. Check system information

Press “**Info**” to enter the menu of system information, and press then “↑↓”to turn the page and “ ⮌ ” to quit. The menu is as follows:

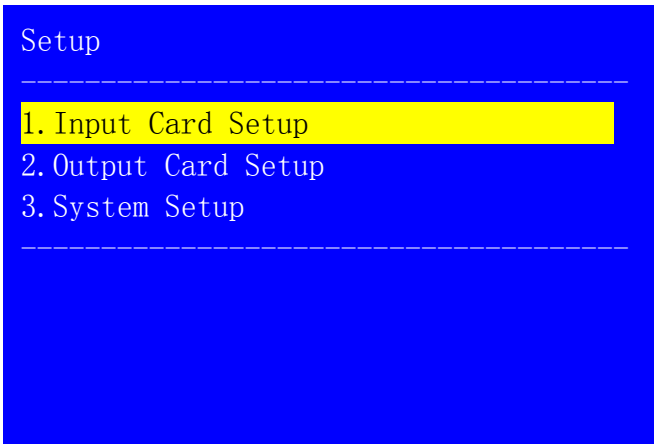


Chapter 7: User settings

User settings, which are used to setup the overall system, consist of 3 parts: input card, output card and the system. On the default menu, when system starts, press "**Setup**" to enter the menu of "**User Settings**" and "↑,↓" to select settings, press "**OK**" to confirm and "⮌"to quit the menu. The following is the detailed introduction of each setting:

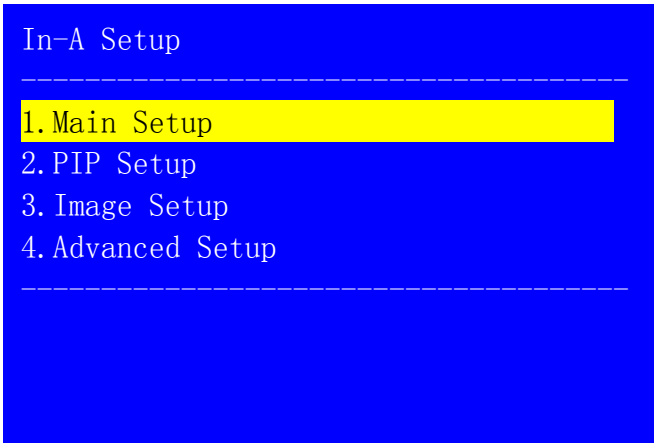
1. **Input card setup**

   Press "**Setup**" to enter the menu of "**User Settings**", "↑, ↓" to select "**Input Card Setup**" and "**OK**" to enter the sub menu. Press "**In-A, In-B, In-C or In-D**" to select an input card to change its settings.

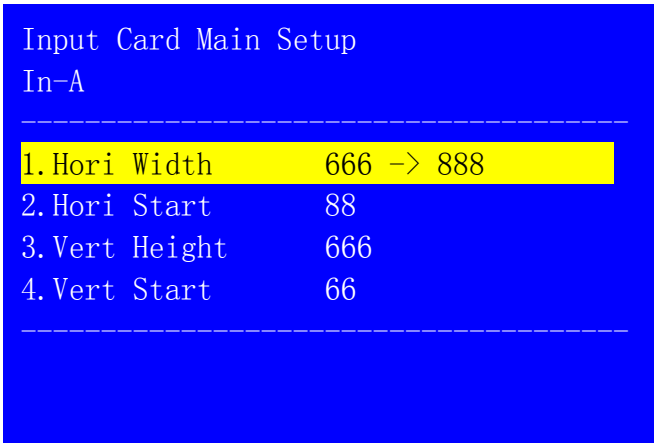


1) Set the size and location of main picture

On the menu of "**Input Card Setup**", press "↑,↓" to select "**Main Setup**" and "**OK**" to enter the sub menu.

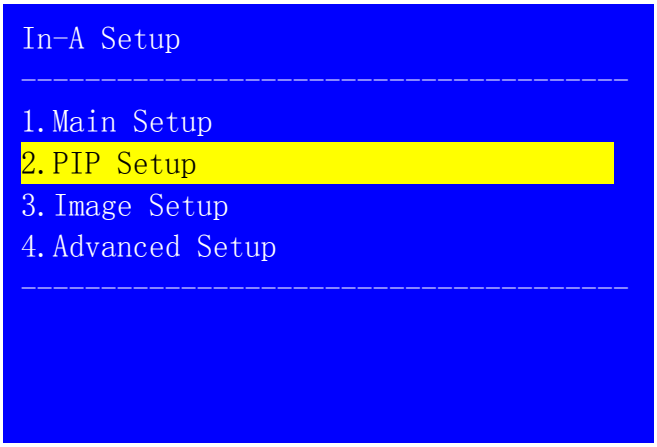


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

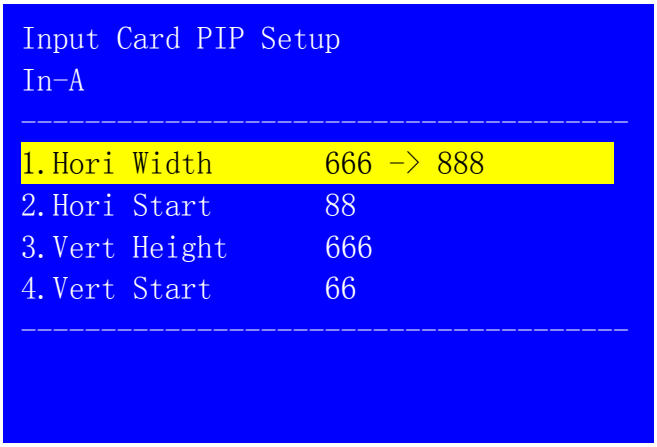


2) Set the size and location of PIP

On the menu of "**Input Card Setup**", press "↑,↓" to select "**PIP Setup**" and "**OK**" to enter the sub menu.



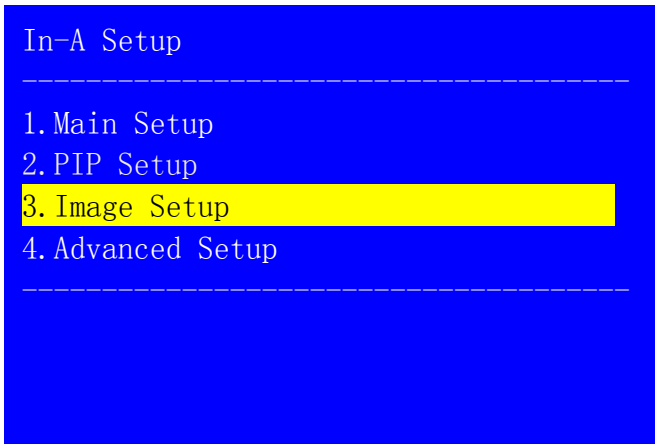
Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.



3) Set brightness, contrast and color

On the menu of "**Input Card Setup**", press "↑, ↓" to select "**Image**

Setup" and "**OK**" to enter the sub menu.



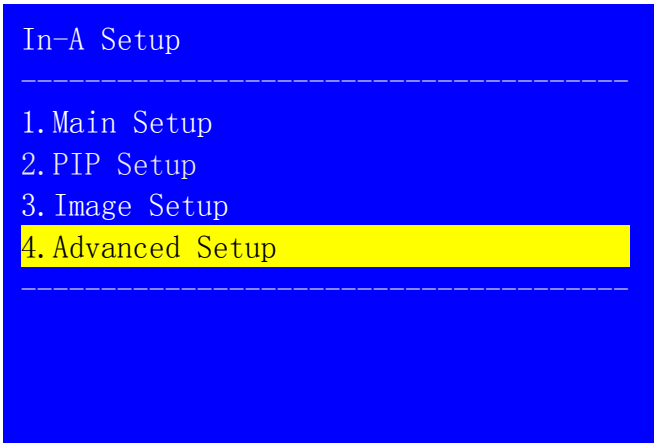
Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

The adjusting range of brightness, contrast and color is 0-100. Brightness adjusting is only valid for the selected input card, if the adjusting is wrong, press "**Reset**" to return to the default.

Notice: to change the settings is not recommended unless brightness adjusting through the panel buttons can't meet customers' requirements.

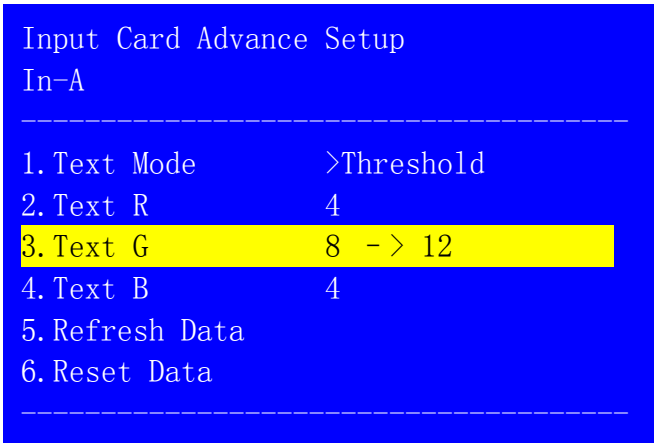
4) Advanced setup

On the menu of "**Input Card Setup**", press "↑, ↓" to select "**Advanced Setup**" and "**OK**" to enter the sub menu.



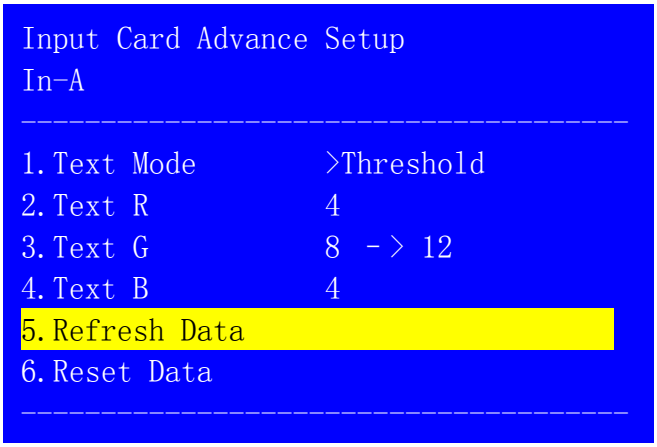
- **Text settings**

  On the menu of "**Input Card Advanced Setup**", press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.



- **Refresh data**

  On the menu of "**Input Card Advanced Setup**", press "↑,↓" to select "**Refresh data**" and "**OK**" to confirm.

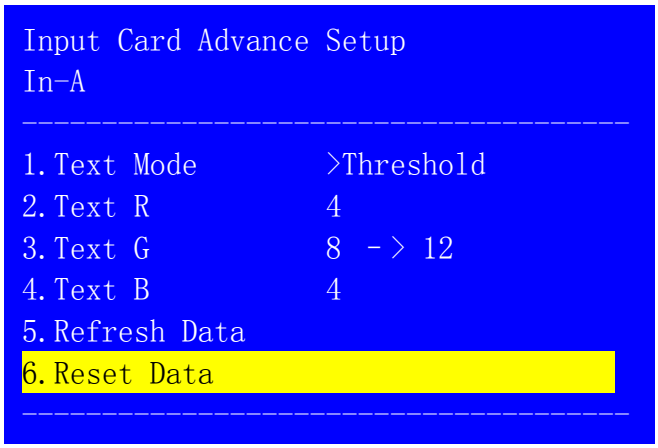


Notice: sometimes when users change input cards by themselves, the data of new input cards might be inconsistent with that of the system. "Refresh Data" will then update the

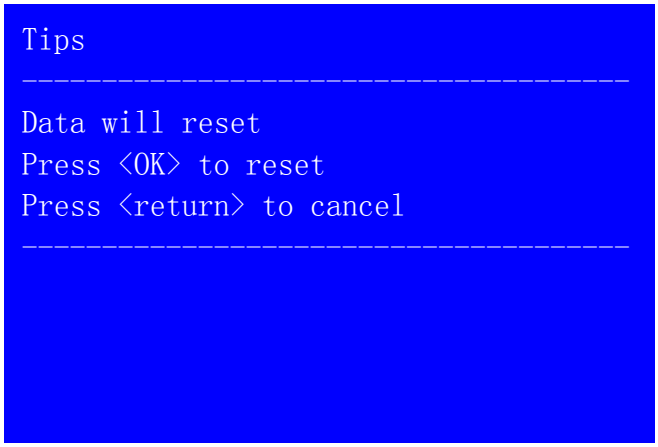
system data to be consistent with that of the new input cards. To change input cards by users themselves is not recommended.

- **Reset input card**

  On the menu of "**Input Card Advanced Setup**", press "↑, ↓" to select "**Reset Data**" and "**OK**" to confirm.



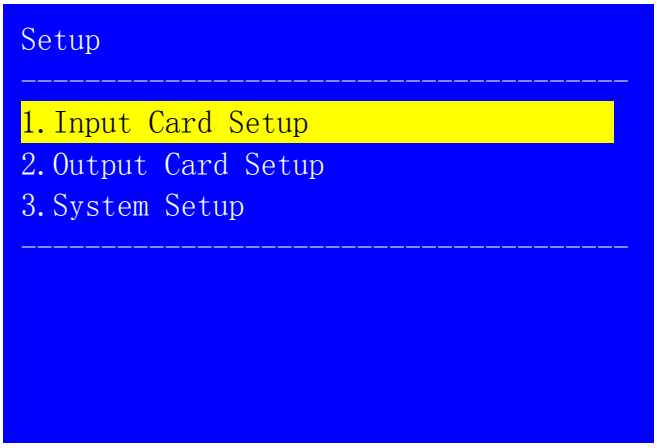
When entering the sub menu of "**Reset Data**", press "**OK**" to start to reset.



Notice: sometimes when users change input cards by themselves, the data of new input cards might be inconsistent with that of the system. "Reset Data" will restore the data of new input cards to the factory default. The operation is only valid for a single input card, so it won't affect the data of other input cards.

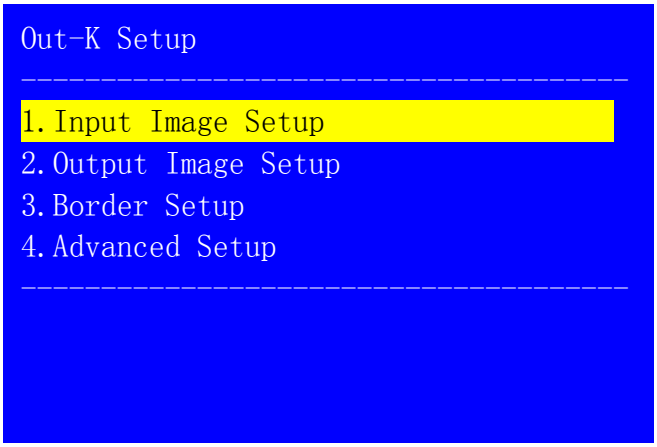
2. **Output card setup**

   Press "**Setup**" to enter the menu of "**User Settings**", "↑, ↓" to select "**Output Card Setup**" and then "**OK**" to enter the sub menu.

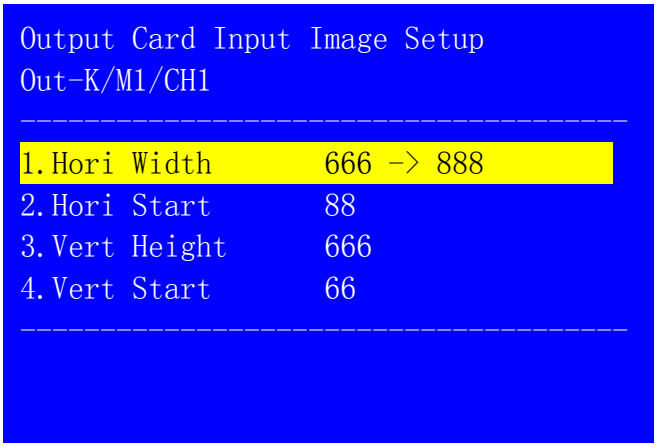


1) Set the size and location of input image for output card

On the menu of "**Output Card Setup**", press "↑,↓" to select "**Input Image Setup**" and "**OK**" to enter the sub menu.

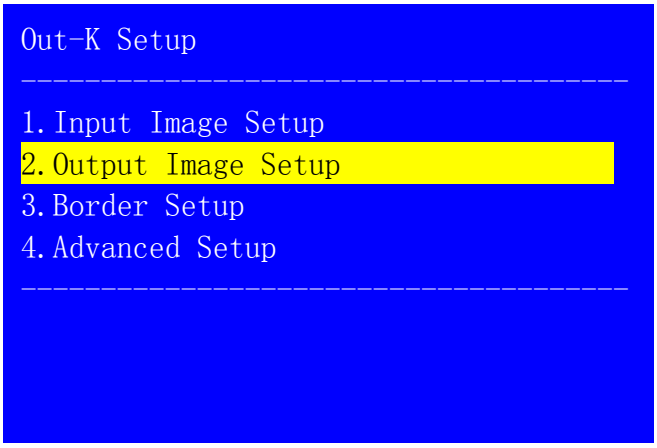


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

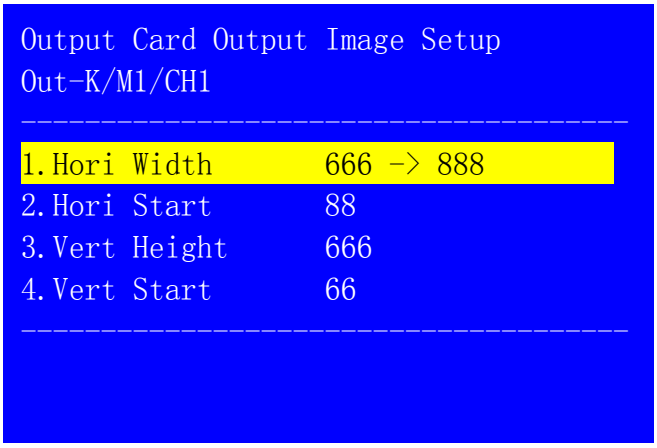


2) Set the size and location of output image for output card

On the menu of "**Output Card Setup**", press "↑,↓" to select "**Output Image Setup**" and then "**OK**" to enter the sub menu.

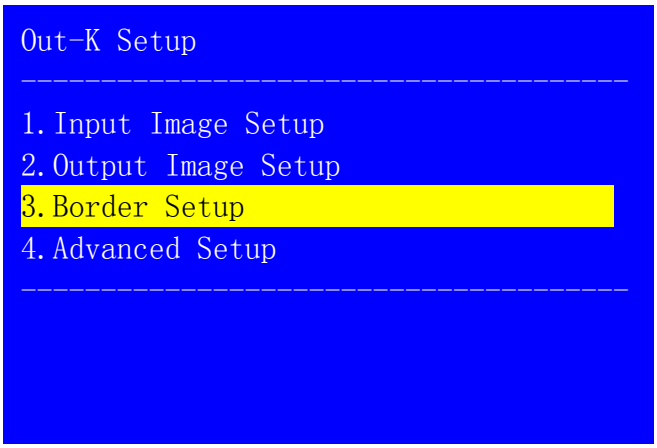


Press "↑,↓" to select the setting, turn the knob to adjust the value and then "**OK**" to confirm.

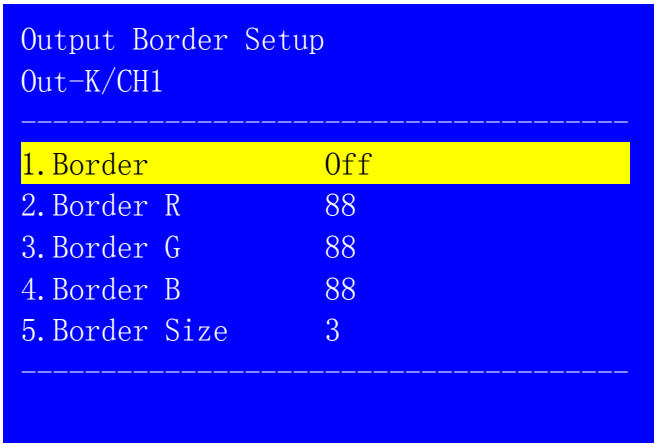


3) Border settings (only in configuration 3, 6 and 7)

On the menu of "**Output Card Setup**", press "↑, ↓" to select "**Border Setup**" and "**OK**" to enter the sub menu.

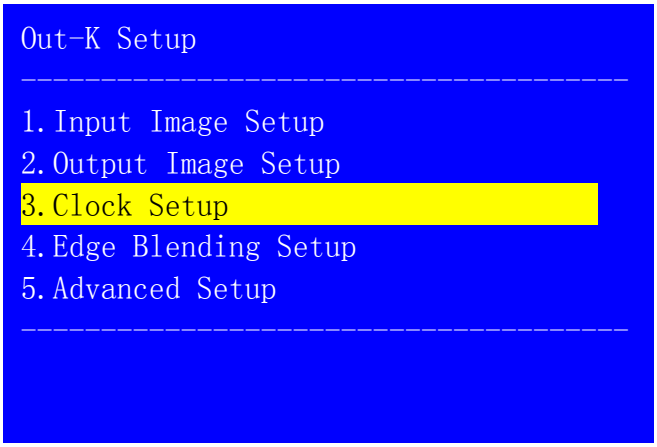


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

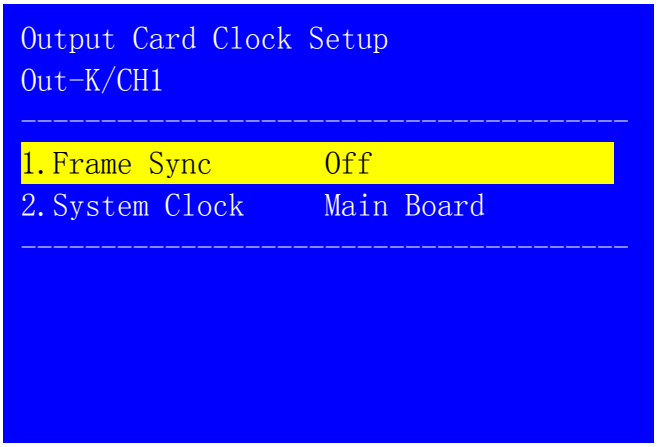


4) Clock Setup (only in configuration mode 4)

On the menu of "**Output Card Setup**", press "↑, ↓" to select "**Clock Setup**" and "**OK**" to enter the sub menu.



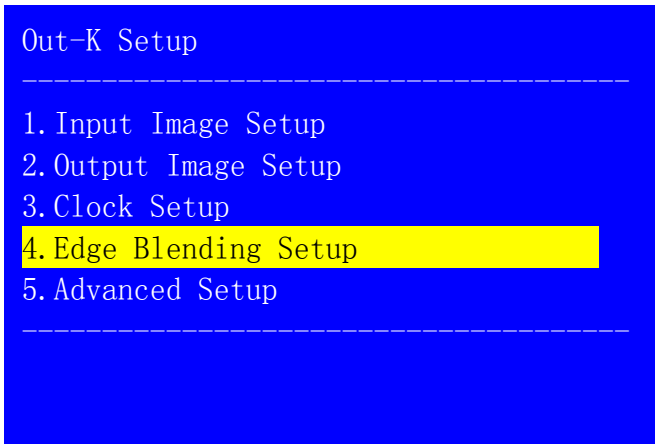
Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.



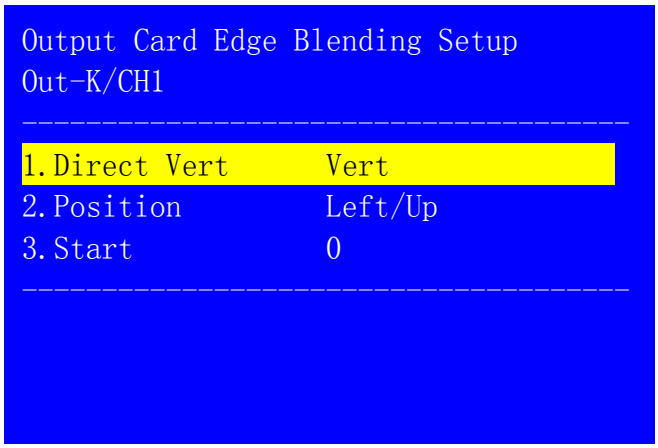
Notice: "Clock Setup" is only used in pixel-to-pixel image mosaic (configuration mode 4), when the properties of edge blending are set, if the display is out of sync, please set "Frame Sync" as CH1 and also select "System Clock" as CH1.

5) Edge blending setup (only in configuration mode 4)

On the menu of "**Output Card Setup**", press "↑, ↓" to select "**Edge Blending Setup**" and then press "**OK**" to enter the sub menu.

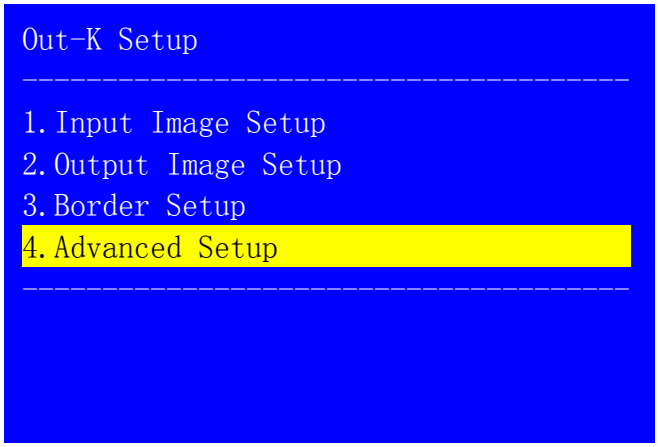


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.



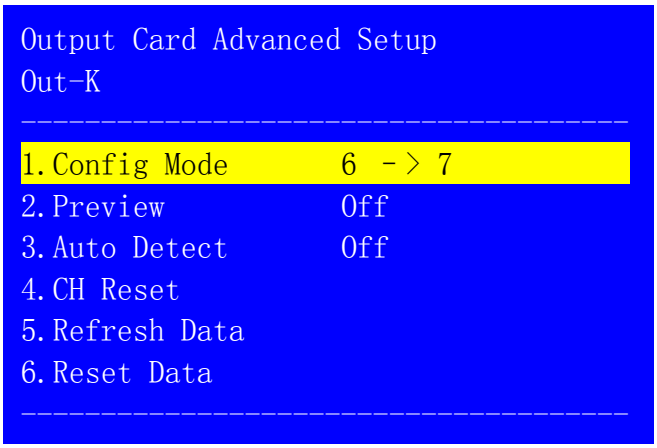
6) Advanced setup

On the menu of "**Output Card Setup**", press "↑, ↓" to select "**Advanced Setup**" and "OK" to enter the sub menu. Press "**Out-K**" or "**Out-L**" to select the output card and press "**CH1, CH2, CH3 or CH4**" to select the channel to set up.

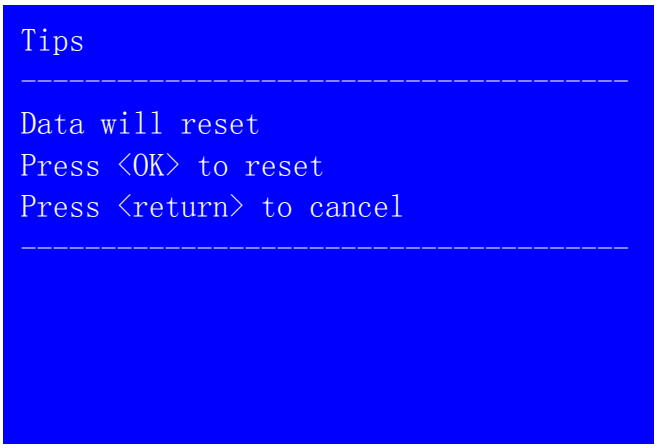


●Set the configuration mode of output card

On the menu of “**Output Card Advanced Setup**”, press “↑, ↓” to select “**Config Mode**” and “**OK**” to enter the sub menu.



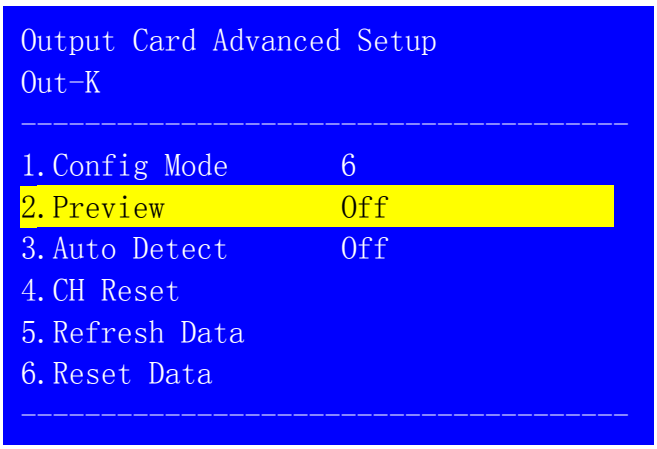
On the sub menu of “**Config Mode**”, press “**OK**” to confirm.



Notice: changing the configuration mode will lead to data reset of the output card, please be careful.

- **Preview mode setup (only in configuration mode 6)**

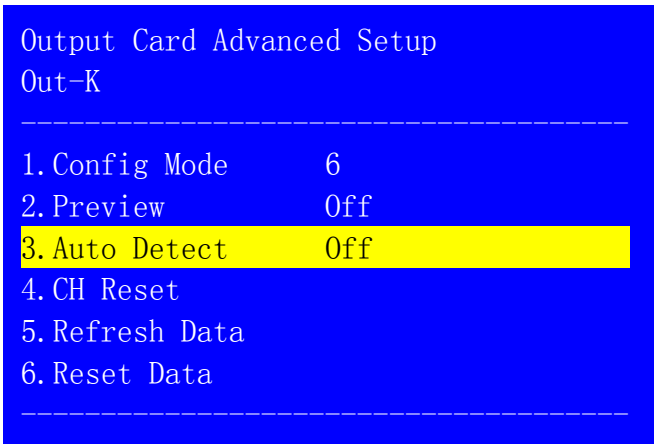
On the menu of “**Output Card Advanced Setup**”, press “↑, ↓” to select “**Preview**”, turn the knob to adjust and then press “**OK**” to confirm.



Notice: when "Preview" is on, only Out1 will output a quad-image preview and there will be no outputs from Out2, Out3 or Out4.

- **Auto detect of signals for output cards**

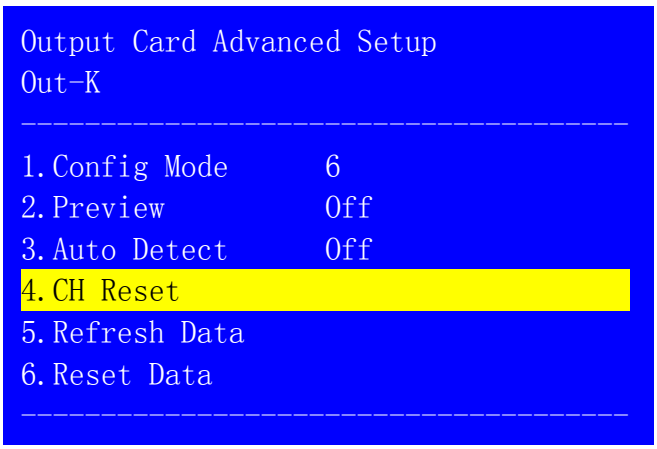
On the menu of "**Output Card Advanced Setup**", press "↑, ↓" to select "**Auto Detect**", turn the knob to adjust and then press "**OK**" to confirm.



Notice: "Auto Detect" normally starts when using DVI straight-through cards, the screen will be blank when there are no signals output from DVI straight-through cards.

- **Channel reset**

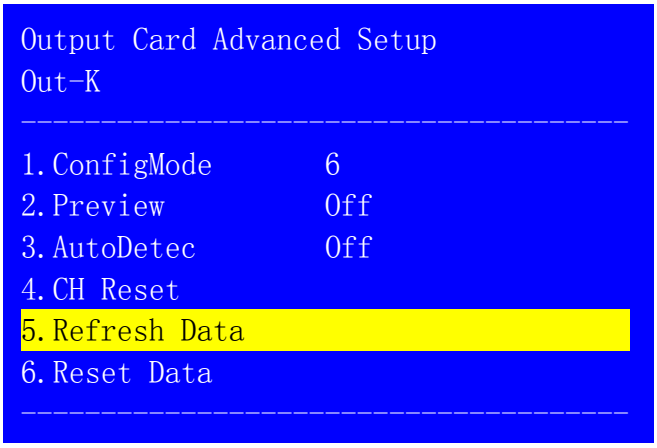
On the menu of "**Output Card Advanced Setup**", press "↑, ↓" to select "**CH Reset**", turn the knob to adjust and then press "**OK**" to confirm.



Notice: input signals for output cards will be briefly unstable when using DVI straight-through cards or making changes in "MatrixK Setup" or "MatrixL Setup" and it will lead to blurred or blank screen. "CH Reset" will restore the system. Normally this operation is not necessary.

- **Refresh data**

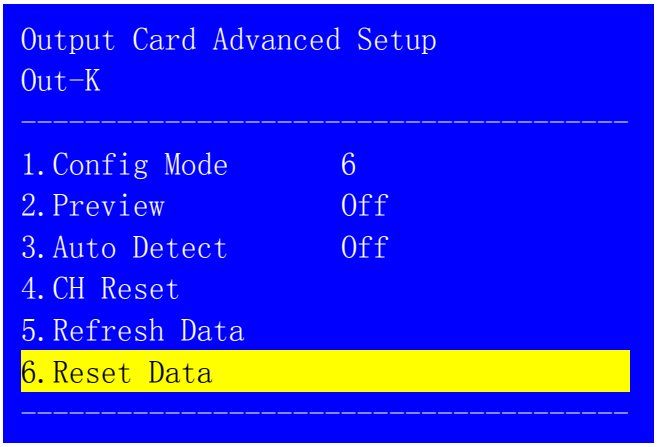
On the menu of "**Output Card Advanced Setup**", press "↑, ↓" to select "**Refresh Data**", turn the knob to adjust and then press "**OK**" to confirm.



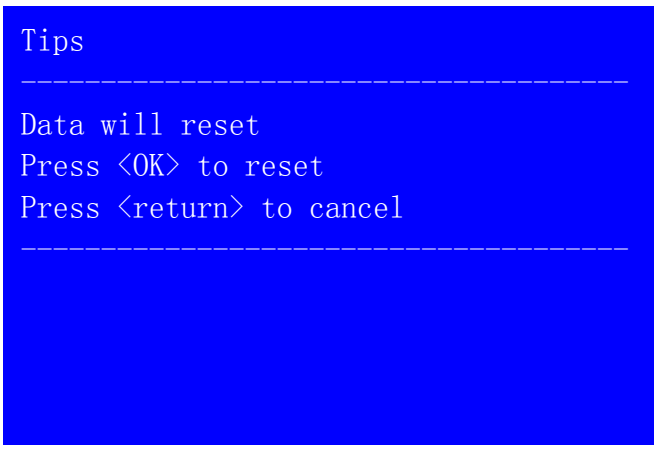
Notice: sometimes when users change output cards by themselves, the data of new output cards might be inconsistent with that of the system. "Refresh Data" will then update the system data to be consistent with that of the new output cards.

●Reset data

On the menu of "**Output Card Advanced Setup**", press "↑, ↓" to select "**Reset Data**" and then press "**OK**" to enter the sub menu.



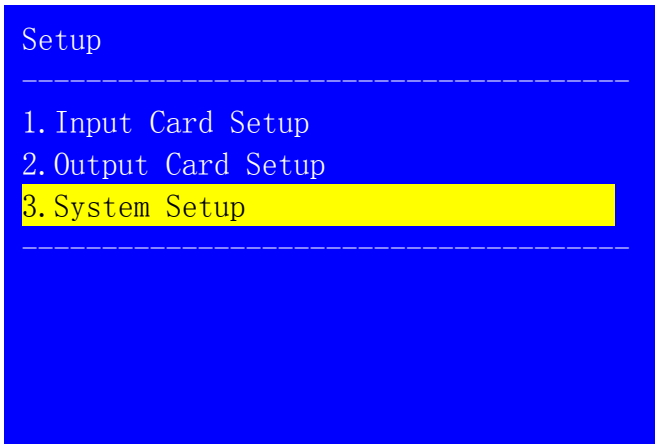
On the sub menu of "**Reset Data**", press "**OK**" to start to reset.



Notice: sometimes when users change output cards by themselves, the data of new output cards might be inconsistent with that saved by the system. "Reset data" will restore the data of new input cards to the factory default. The operation is only valid for a single output card, so it won't affect the data of other output cards.

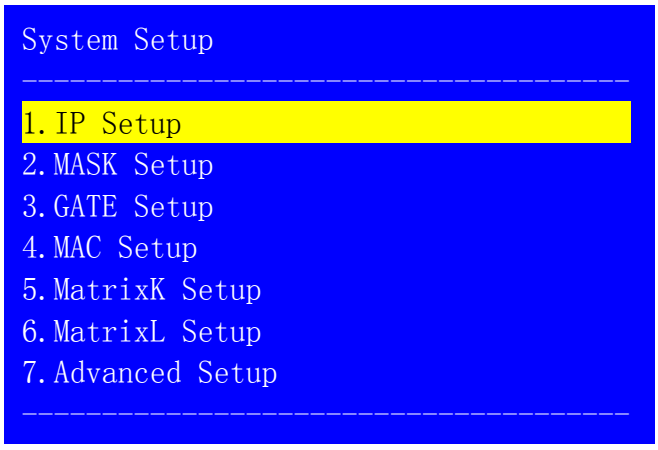
3. System setup

Press "**Setup**" to enter "**User Settings**". Press "↑,↓" to select "**System Setup**" and "**OK**" to enter the sub menu.

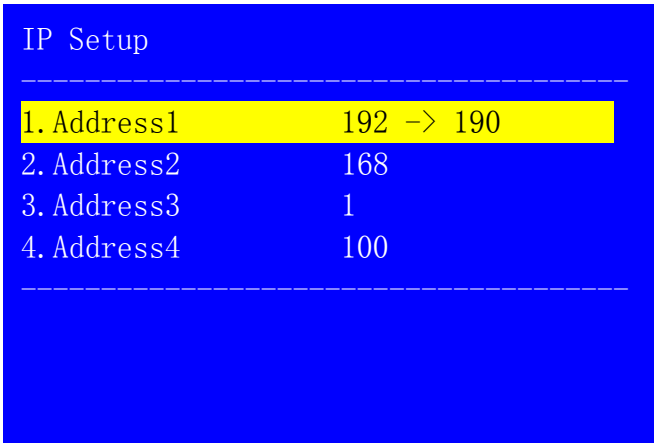


1) IP address

On the menu of "**System Setup**", press "↑,↓" to select "**IP Setup**" and "OK" to enter the sub menu.

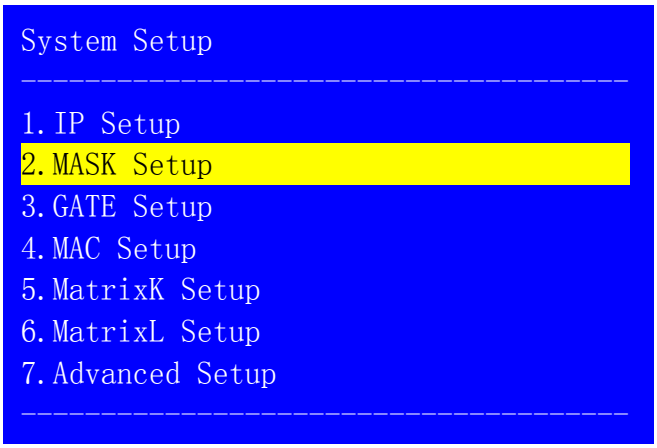


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

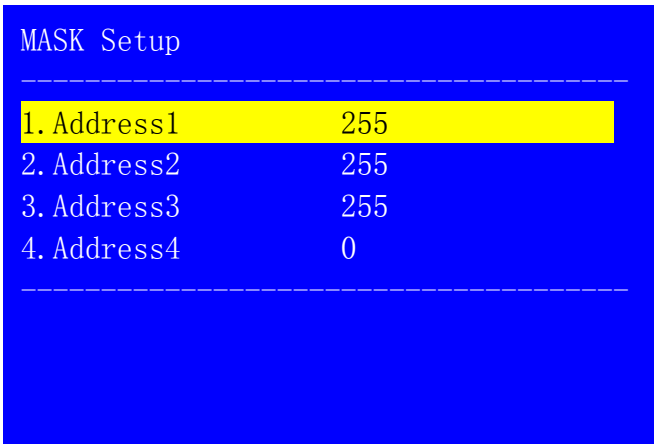


2) Subnet mask address

On the menu of "**System Setup**", press "↑,↓" to select "**MASK Setup**" and "**OK**" to enter the sub menu.

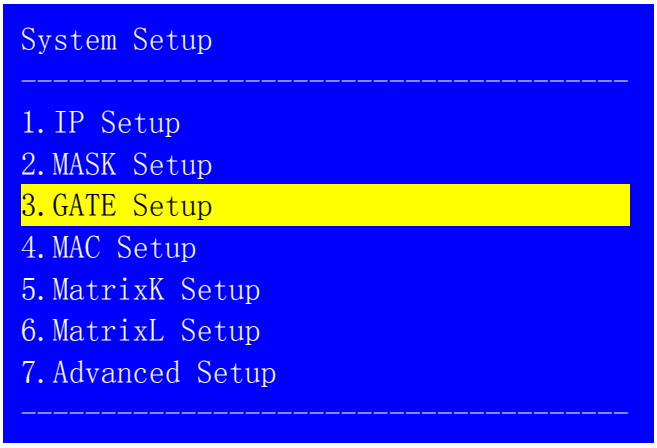


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

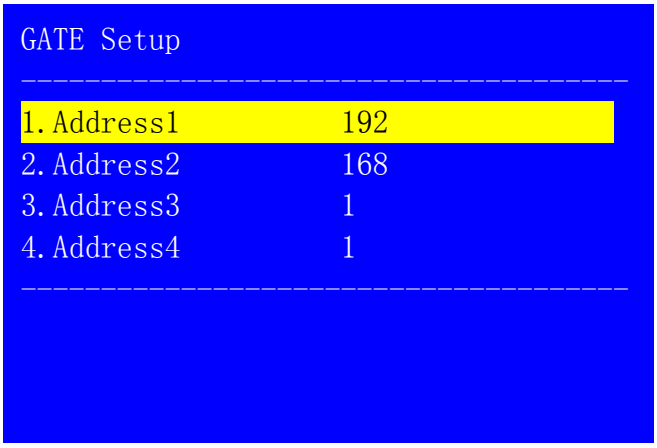


3) Gateway address

On the menu of "**System Setup**", press "↑,↓" to select "**GATE Setup**" and "OK" to enter the sub menu.

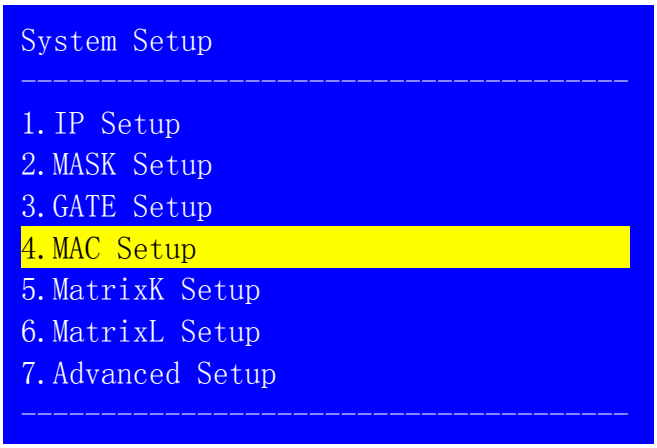


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

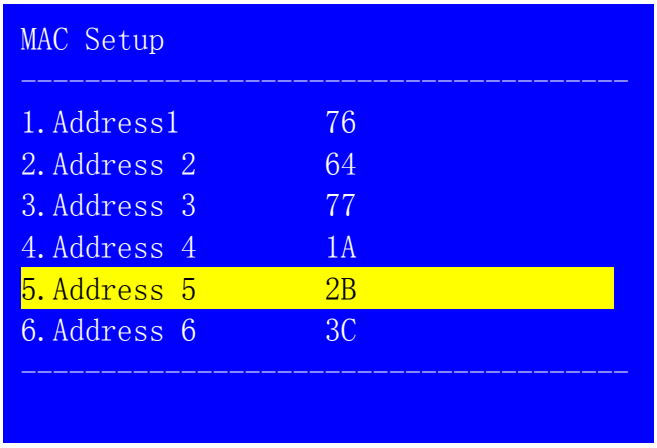


4) MAC

On the menu of "**System Setup**", press "↑,↓" to select "**MAC Setup**" and "**OK**" to enter the sub menu.

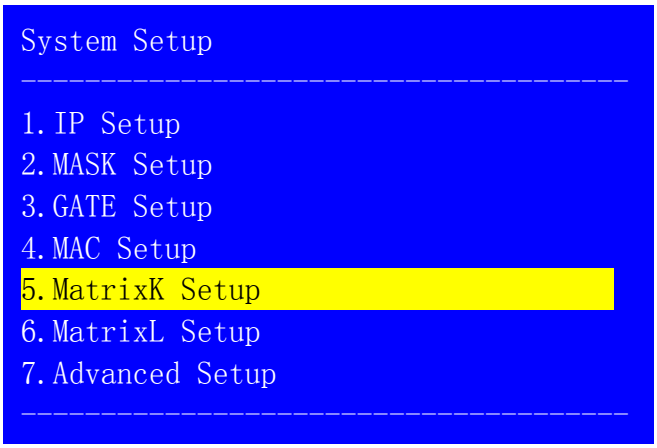


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

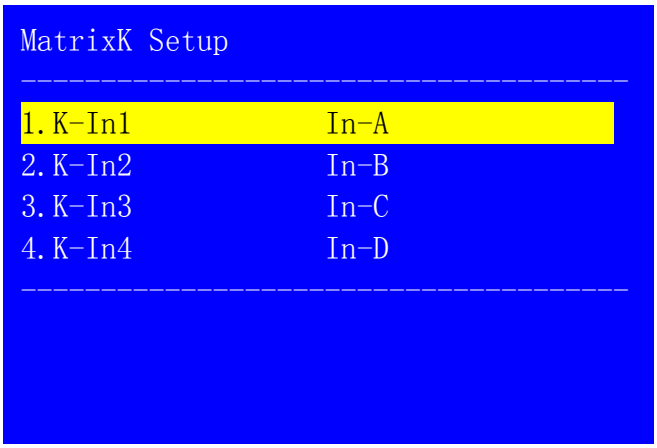


5) Matrix setup for Out-K (MatrixK)

On the menu of "**System Setup**", press "↑,↓" to select "**MatrixK Setup**" and "**OK**" to enter the sub menu.

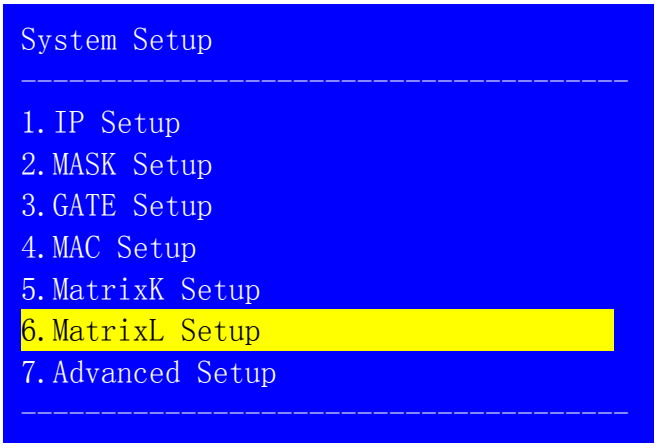


Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.

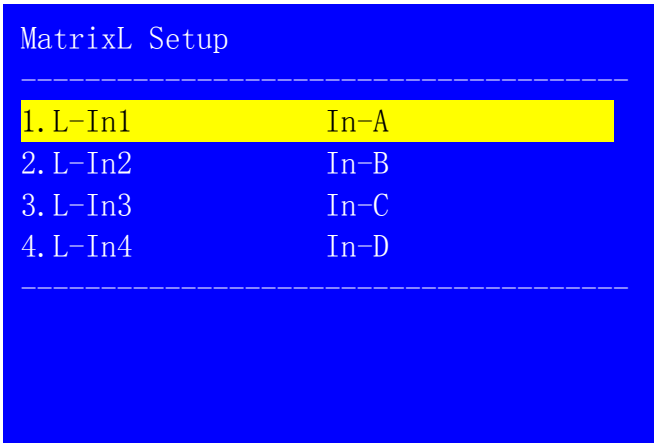


6) Matrix setup for Out-L (MatrixL)

On the menu of "**System Setup**", press "↑,↓" to select "**MatrixL Setup**" and "**OK**" to enter the sub menu.



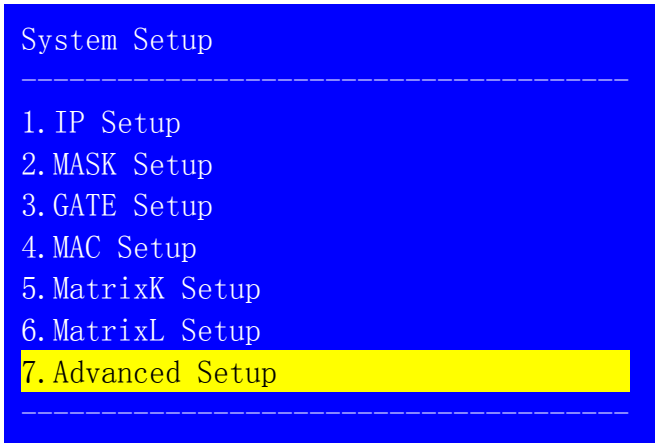
Press "↑,↓" to select the setting, turn the knob to adjust and then press "**OK**" to confirm.



Notice: the signal from Out1 of Out-K can be selected as the input for L-IN1, L-IN2, L-IN3 or L-IN4 of Out-L for a 7-picture preview.

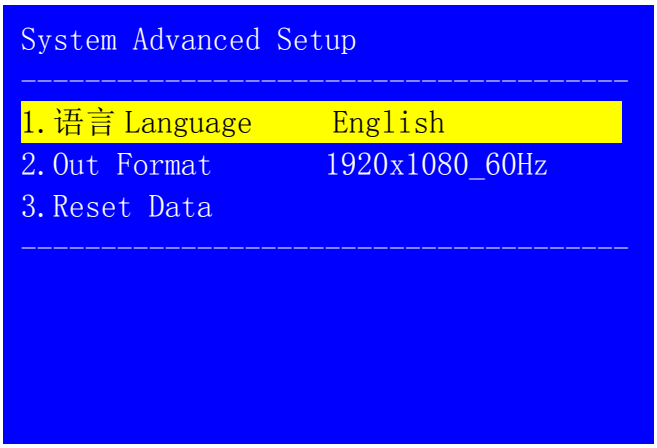
7) Advanced setup

On the menu of "**System Setup**", press "↑,↓" to select "**Advanced Setup**" and "OK" to enter the sub menu.



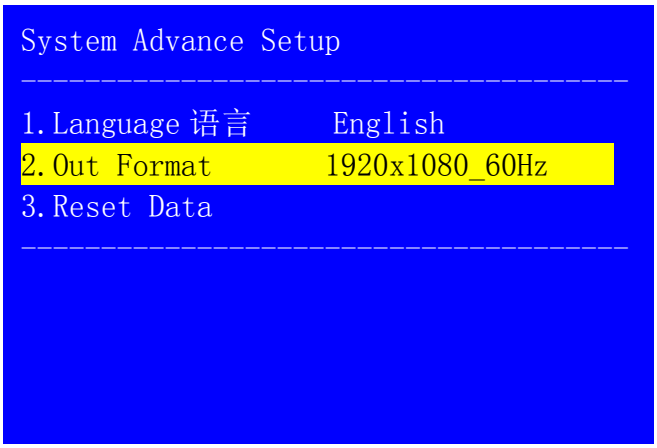
- **System language**

On the menu of “**Advanced Setup**”, press “↑,↓” to select “**Language**”, turn the knob to adjust and then press “**OK**” to confirm.

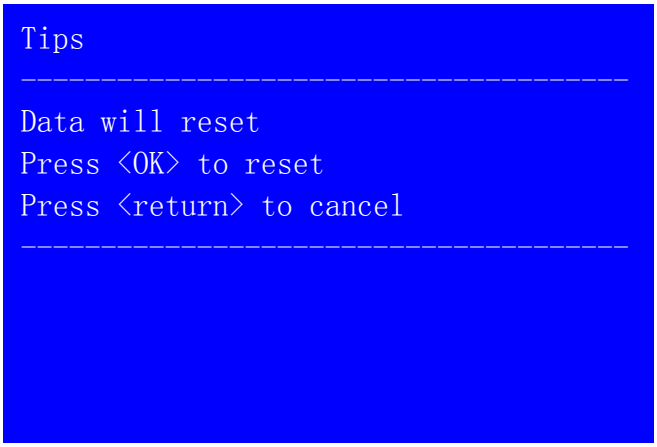


- **Output resolution**

On the menu of “**Advanced Setup**”, press “↑,↓” to select “**Out Format**” and then turn the knob to adjust.



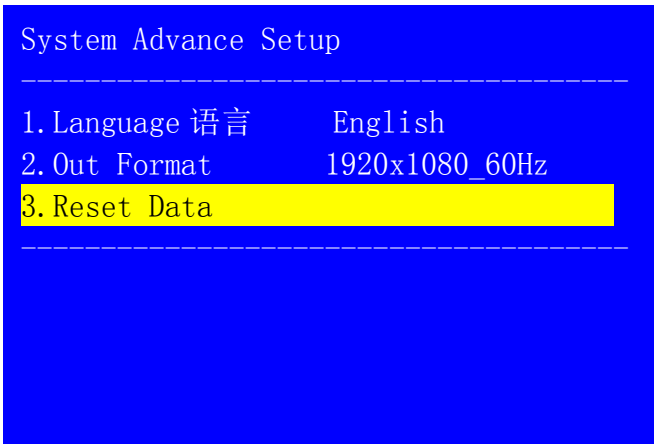
On the sub menu of “Out Format”, press “OK” to confirm.



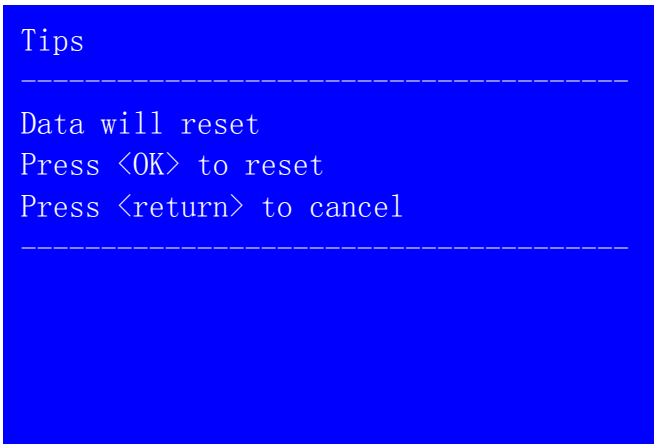
Notice: changing resolution will restore all the data of input cards and output cards to the factory default.

- **Reset data**

On the menu of “**Advanced Setup**”, press “↑,↓” to select “**Reset Data**” and then press “**OK**” to confirm.



On the sub menu of “**Reset Data**”, press “**OK**” to start to reset.



Notice: “Reset Data” will restore all the system data to the factory default. Normally it is not suggested to use.

Chapter 8: Copyright information

This manual is provided for reference only, VDWALL reserves right to change the product appearance, dimensions and specifications from time to time without notice to users.