



SEAMLESS SWITCHER



User Manual

1 Overview

1.1 Introduction

The VS6 is a TWT high-performance seamless switcher that integrates video processing, screen mosaic, transition effects and multi-screen display capabilities. The VS6 offers powerful video signal receiving and processing abilities, and supports up to 8 inputs with the resolutions up to 4K×2K@30Hz and 6 layers.

Besides, this product supports two system modes: Splicer and Switcher. When it is in Splicer mode, a maximum of 4 DVI output connectors can be used together for output, which can realize an up to 8K loading capacity of each VS6 unit. When it is in Switcher mode, a maximum of 2 DVI output connectors can be used together for output, which can realize an up to 4K loading capacity of each VS6 unit.

Based on powerful FPGA platform, the VS6 supports input and output EDID management and color adjustment, seamless transition of a variety of input sources, as well as fade and other transition effects, bringing you a more flexible and rich visual experience.

1.2 Features

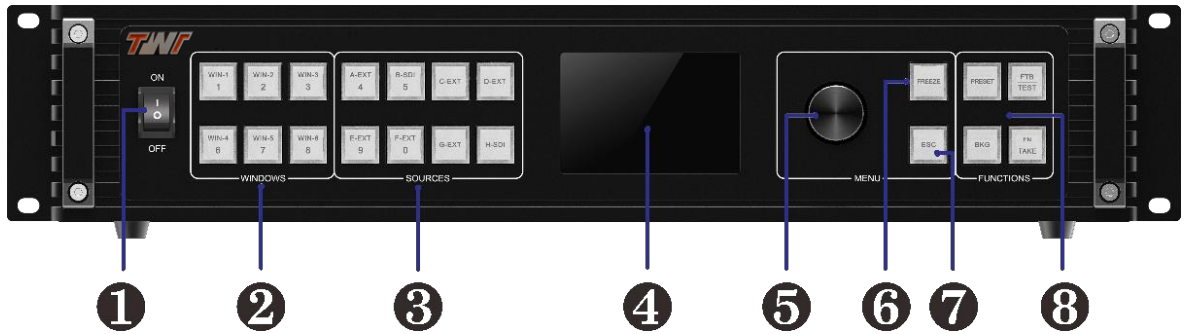
- Compatible with industry-standard video input connectors
 - DVI connector: 1920×1080@60Hz input
 - HDMI 1.3 connector: 1920×1080@60Hz input
 - 3G-SDI connector: 1920×1080@60Hz input
 - DP 1.1 connector: 4K×2K@30Hz input
 - HDMI 1.4 connector: 4K×2K@30Hz input
- 4 groups (2 connectors in each group) of DVI output connectors of a single VS6 unit for mosaic output Each group includes a main connector and a backup connector. A maximum of 4 connectors can be used for mosaic output. The mosaic layout can be 4×1, 1×4 or 2×2. The maximum loading capacity can reach 9,200,000 pixels and the maximum mosaic width can be up to 15360 pixels.
- Dual system modes
The VS6 supports both Splicer and Switcher modes, which can meet different application requirements.
- Multiple layer display:
The VS6 supports up to six 4K×2K layers with random layout. Each layer supports cross connector output.
- HDMI connector for output monitoring
 - Supports monitoring of a single input source, PVW or PGM.
 - Supports monitoring of all input sources, PVW and PGM.
 - Supports displaying of input resolution and refresh rate.
- Display control function:
Allows you to black out or freeze the screen by simply clicking one button.
- EDID management:
Supports input resolution management for DVI, HDMI and DP connectors.
- Transition effects:
In Splicer mode, the VS6 supports setting of transition effect for source switching. In Switcher mode, the VS6 supports setting of Take effect and effect duration.
- BKG capturing:
The VS6 supports capturing of input source and PGM, and the captured image can be used as BKG.
- BKG settings:

The VS6 supports both image BKG and pure color BKG. You can save at most 6 BKG images.

- Input color, layer color and output color adjustable
- Preset management:
You can create at most 10 custom presets and load the preset simply by clicking one button.
- Layer layout management:
The VS6 is built-in with 7 layers layouts. You can load one of the layer layouts to quickly lay out the layers.
- Multiple operation modes:
You can operate the VS6 via its front panel.
- Multiple VS6 units controlled:
You can perform operations, such as FTB, freeze or Take operation
- Visualized color LCD screen and distinct button indicators on front panel, simplifying system control operations

2 Appearance

2.1 Front Panel

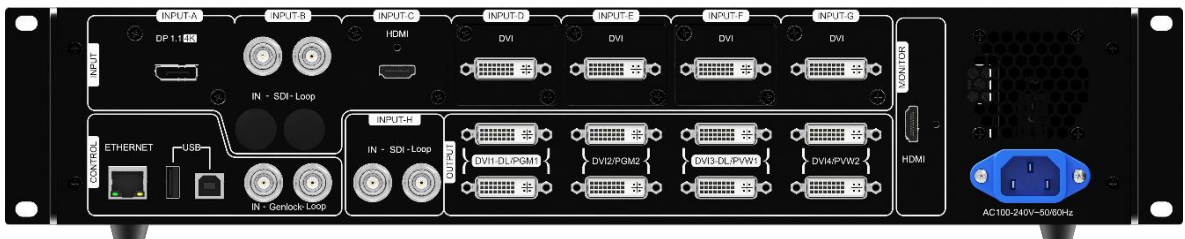


No.	Button	Description
1	ON/OFF button	Press ON to power on the device. Press OFF to power off the
2	Layer buttons	Press a layer button to open the corresponding layer and enter the layer settings menu, or press the layer button to input the corresponding number on the button. Button indicator descriptions: On: The layer is open, and the input source is accessed normally. Dim: The layer is open, but the input source is abnormal. Off: The layer is not opened.
3	Input source buttons	Press an input source button to quickly select an input source for the layer. Button indicator descriptions: On: The input source is accessed and in normal use. Dim: The input source is accessed but not in
4	LCD screen	Display current device status and settings menu.
5	Knob	On the home screen, press the knob to enter the operation menu screen. On the operation menu screen, rotate the knob to select a menu item, and press the knob to confirm the selection or enter the submenu. When a menu item with parameters is selected, rotate the knob to adjust the parameters. Please note that after adjustment, you need to press the knob again to confirm the adjustment.
6	Freeze button	Freeze or unfreeze the output image. Button indicator descriptions: On: The output image is frozen. Off: The output image is nfrozen.
7	ESC button	Press the button to exit the current menu or cancel the operation.

8	Function buttons	<p>PRESET: Enter the preset menu.</p> <p>BKG: Enable or disable the BKG function.</p> <p>FTB/TEST: Press the button to make the screen fade to black and press the button again to exit the FTB mode. Hold down the button for 2s or longer to enter</p>
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No.	Button	Description
		<p>the test pattern menu.</p> <p>FN/TAKE: The function of this button varies in different system modes (Splicer and Switcher).</p> <ul style="list-style-type: none"> - In Splicer mode, press the button to enter the menu of the function that has been customized for FN button, Hold down the button to enter the FN settings menu.

2.2 Rear Panel



Input		
No.	Connector	Description
Input-A	DP 1.1	<p>Input resolution up to 3840×2160@30Hz and custom EDIDs Supports HDCP 1.3.</p> <p>Can be changed to HDMI 1.4 input card.</p> <p>Input resolution up to 3840×2160@30Hz and downward compatible Supports HDCP 1.4.</p>
Input-B	3G-SDI	<p>Input resolution up to 1920×1080@60Hz and downward compatible Supports 3G-SDI loop output.</p>
Input-C	HDMI 1.3	<p>Input resolution up to 1920×1080@60Hz and downward compatible Supports HDCP 1.4.</p> <p>Can be changed to DVI input card.</p>
Input-D	DVI	<p>Input resolution up to 1920×1080@60Hz, other VESA standard resolutions and custom EDIDs supported, downward compatible Supports HDCP 1.4.</p> <p>Can be changed to HDMI 1.3 input card.</p>
Input-E		
Input-F	-	The VS6 has two standard versions.

Input-G	DP 1.1 / DVI	Version I: Input-G is DP 1.1 input card, which supports up to 3840×2160@30Hz video source input and custom EDIDs. When it is changed to HDMI 1.4 input card, the Input-F is unavailable. Version II: Input-F and Input-G are DVI input cards, which support up to 1920×1080@60Hz and other VESA-standard compliant video source inputs and downward compatibility as well as custom EDIDs
Input-H	3G-SDI	Input resolution up to 1920×1080@60Hz and downward compatible Supports 3G-SDI loop output.

Output

No.	Connector	Description
DVI	8	4 groups (2 connectors in each group) of DVI output connectors can be used for mosaic output. Each group includes a main connector and a backup connector. The VS6 supports dual-link DVI output mode. When the output is set to

		link mode, DVI1 and DVI3 are used as output connectors, while DVI2 and DVI4 are unavailable.
Monitor	1	An HDMI connector is used as monitoring connector to monitor all input sources, single input source, PWV and PGM.

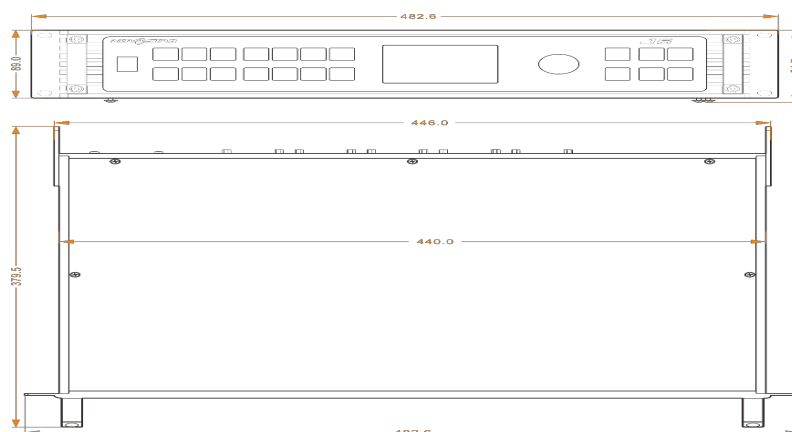
Control

No.	Connector	Description
ETHERNET	1	Communicate with PC or connect to the network.
USB (Type-B)	1	Connect to the PC for device control.
USB (Type-A)	1	A reserved connector

Overall Specifications

No.	Connector	Description
Power	1	AC100V-240V-50/60Hz

2.3 Dimensions

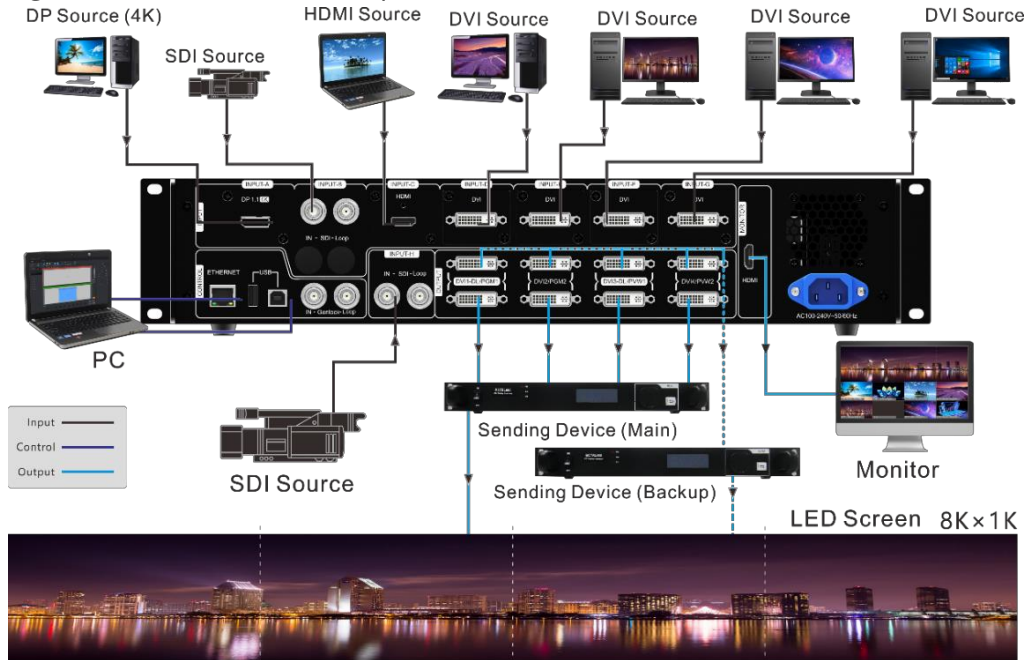


Unit: mm

3 Applications

The VS6 supports two system modes: Splicer and Switcher. The connections for two modes are shown in [Figure 3-1](#) and [Figure 3-2](#).

Figure 3-1 Connections for Splicer mode



4 Menu Operations

4.1 Operation Instructions

Knob

- On the home screen, pressing the knob enters the operation menu screen.
- On the operation menu screen, rotating the knob selects a menu item, and pressing the knob confirms the selection or enters the submenu.
- When a menu item with parameters is selected, you can rotate the knob to adjust the parameters. Please note that after adjustment, you need to press the knob again to confirm the adjustment.

ESC

Press the button to exit the current menu or cancel the operation.

Button Lock and Unlock

Hold down the knob and ESC button simultaneously to lock or unlock all the buttons.

4.2 Home Screen

After the device is powered on, the home screen of the LCD screen is shown in Figure 4-1 and the home screen descriptions are shown in Table 4-1.

Figure 4-1 Home screen

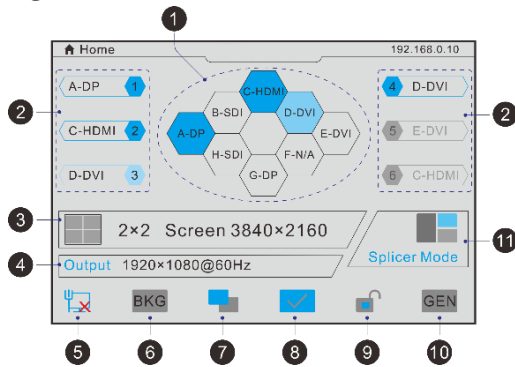





















Table 4-1 Home screen descriptions

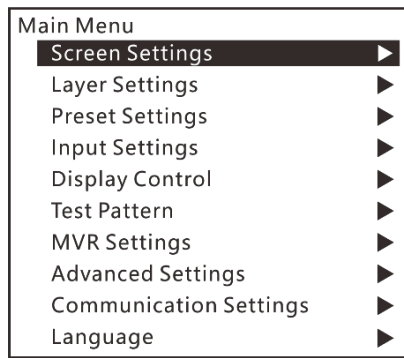
No.	Area	Description
TWT VS6 192.168.0.10		TWT VS6: Device name 192.168.0.10: Device IP
1	Input source	<p>Display the input source status.</p> <p>Transparent: The input source is not accessed.</p> <p>Semi-transparent: The input source is accessed, but not in use.</p> <p>Highlight: The input source is accessed and in use.</p>
2	Layer	<p>Display the layer status and its input source.</p> <p>Transparent: The layer is not opened.</p> <p>Semi-transparent: The layer is opened, but the input source is not accessed.</p> <p>Highlight: The layer is opened and the input source is accessed.</p>
3	Screen layout and screen resolution	<p>Display the current screen layout and resolution.</p> <p>In Spicer mode, the supported screen layouts are 1×1, 1×2, 2×1, 1×3, 3×1,</p>

No.	Area	Description
		2×2, 1×4 and 4×1. In Switcher mode, the supported screen layouts are 1×1, 1×2 and 2×1.
4	Output resolution	The output resolution of a single output connector
5	Device connection status	Indicate the status of the connection between the control PC or C1 event controller and the device.  : The device is connected to the control PC via USB port.  : The device is connected to the control PC or C1 event controller via Ethernet port.  : The device is not connected to the control PC or C1 event controller.
6	BKG	Indicate the BKG status.  : The BKG function is turned on.  : The BKG function is turned off.
7	Transition effect	 : Fade effect  : Cut effect
8	Display control	 : The screen display is normal.  : The screen is faded to black.  : The screen is frozen.  : The test pattern. When the test pattern function is used via the control PC or C1 event controller, the test pattern icon will be displayed on the device LCD screen.
9	Button locking status	Hold down the knob and ESC button simultaneously for 5 seconds or longer to lock or unlock all the buttons. When the device is connected to the V-Can or C1 event controller, the front panel will be locked automatically and the lock icon will be shown.  : The front panel buttons are locked.  : The front panel buttons are unlocked.

10	Genlock status	<p>Indicate the Genlock status.</p> <p> : The Genlock function is turned on and locked.</p> <p> : The Genlock function is turned on and to be locked.</p> <p> : The Genlock function is abnormal or the Genlock source is lost.</p> <p> : The Genlock function is turned off.</p>
11	System mode	<p>The VS6 supports two system modes: Splicer and Switcher.</p> <p> : Switcher mode</p> <p> : Splicer mode</p>

On the home screen, press the knob to enter the device main menu screen which is shown in [Figure 4-2](#).

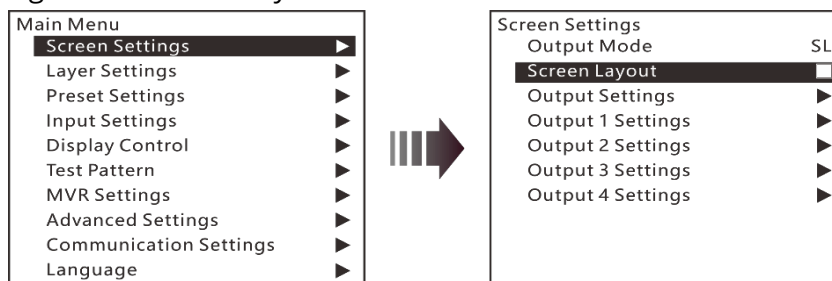
Figure 4-2 Main menu



4.3 Screen Settings

On the main menu screen, rotate the knob to select **Screen Settings** where you can set the output mode, screen layout, output resolution as well as the width and height of the screen area loaded by a certain output connector.

Figure 4-3 Screen layout

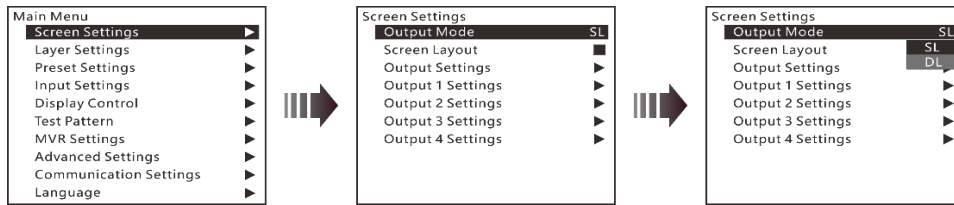


4.3.1 Output Mode

The four group of DVI connectors of the VS6 can be configured as single link DVI output or dual link DVI output. When the output mode is different, the connection of the device output connector is different.

- When the Output Mode is set to SL, the DVI connector is set to single link mode. The connector connection will vary according to the System Mode of the VS6.
 - When the **System Mode** is **Splicer**, DVI 1, DVI 2, DVI 3 and DVI 4 are all used as output connectors.
 - When the **System Mode** is **Switcher**, DVI 1 and DVI 2 are used as output connectors, while DVI 3 and DVI 4 are unavailable.
- When the Output Mode is set to DL, the DVI connector is set to dual link mode. The connector connection will vary according to the System Mode of the VS6.
 - When the **System Mode** is **Splicer**, DVI 1 and DVI 3 are used as output connectors, while DVI 2 and DVI 4 are unavailable.
 - When the **System Mode** is **Switcher**, DVI 1 is used as output connector, DVI 3 is used as PVW monitoring connector, while DVI 2 and DVI 4 are unavailable.

Figure 4-4 Output mode

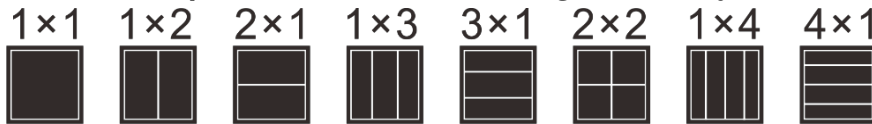


4.3.2 Screen Layout

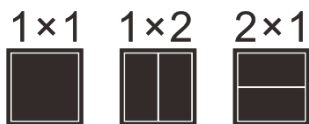
Screen layout is the screen mosaic mode. The screen layout will vary according to **Output Mode** and **System Mode**.

- System mode: Splicer

- When the **Output Mode** is **SL**, the following 8 screen layouts are supported.

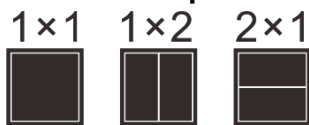


- When the **Output Mode** is **DL**, the following 3 screen layouts are supported.



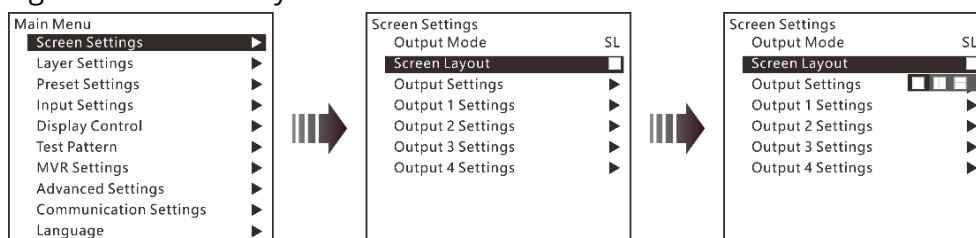
- System mode: Switcher

- When the **Output Mode** is **SL**, the following 3 screen layouts are supported.



- When the **Output Mode** is **DL**, only **1x1** screen layout is supported.

Figure 4-5 Screen layout



4.3.3 Output Settings

Output settings allow you to set the output resolution of the DVI output connector. Standard resolutions and custom resolutions are both supported.

- Output Mode: SL

(Default) Output resolution is 1920×1080. Refresh rate is 60 Hz. Custom width range is 600–3840. Custom height range is 600–3840. Refresh rate range is 24 Hz–120 Hz.

- Output Mod: DL

(Default) Output resolution is 1920×1080. Refresh rate is 60 Hz. Custom width range is 1200–7680. Custom height range is 600–3840. Refresh rate range is 24 Hz–120 Hz.

Figure 4-6 Standard resolution

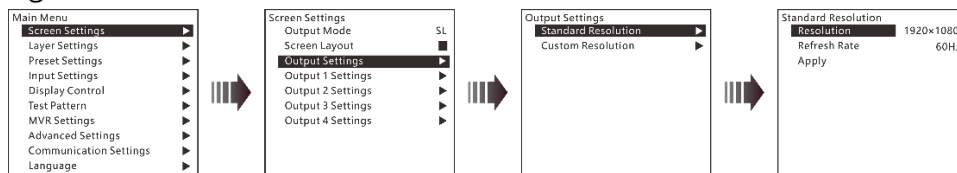
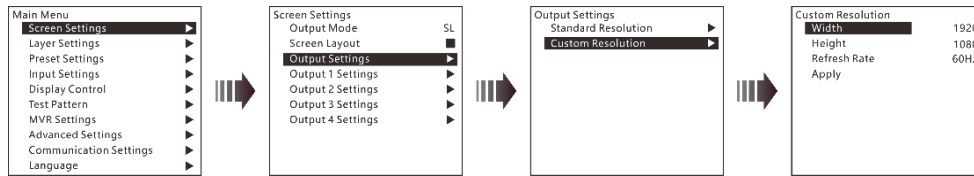


Figure 4-7 Custom resolution

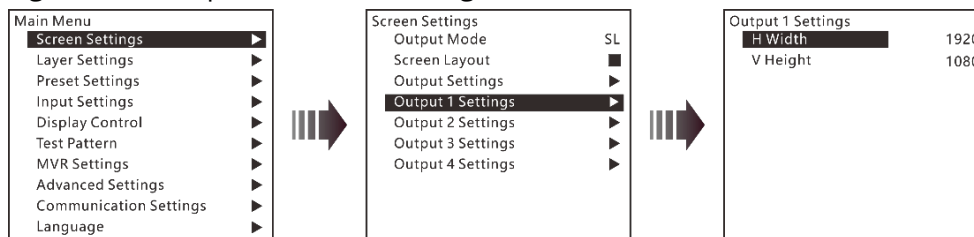


Rotate the knob to select **Standard Resolution** and rotate the knob again to select a standard resolution, then press the knob to confirm the selection. Rotate the knob to select **Custom Resolution** and rotate the knob again to adjust the value or use the number buttons on the front panel to enter a value. After the resolution is set, rotate the knob to select **Apply** to make the settings take effect.

4.3.4 Output Connector Settings

Output 1/2/3/4 settings allow you to set the width and height of the screen area loaded by an output connector. When two or more connectors are used together for horizontal mosaic output, the height change for one connector will apply to both or all connectors, but the width for a single connector can be changed. When two or more connectors are used together for vertical mosaic output, the width change for one connector will apply to both or all connectors, but the height for a single connector can be changed.

Figure 4-8 Output connector settings



4.4 Layer Settings

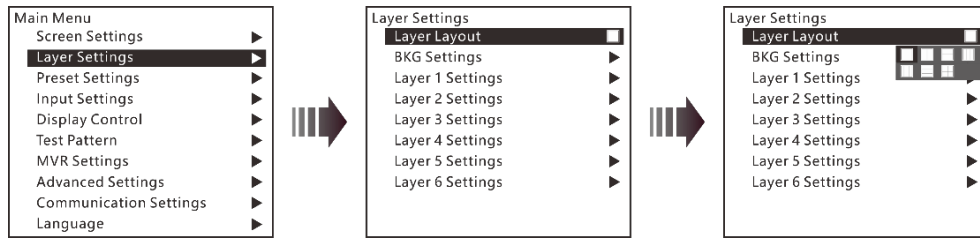
The VS6 supports one BKG and six layers. You can set the layer layout simply by selecting a layout from **Layer Layout** or set the parameters for each layer.

On the main menu screen, rotate the knob to choose **Layer Settings > Layer Layout** to enter the layer layout settings screen.

4.4.1 Layer Layout

The VS6 provides 7 layer layouts. You can select a desired layout in **Layer Layout**, and then all the layers will together fill the screen. The layer quantity, size and position will be set automatically according to the selected layout.

Figure 4-9 Layer layout

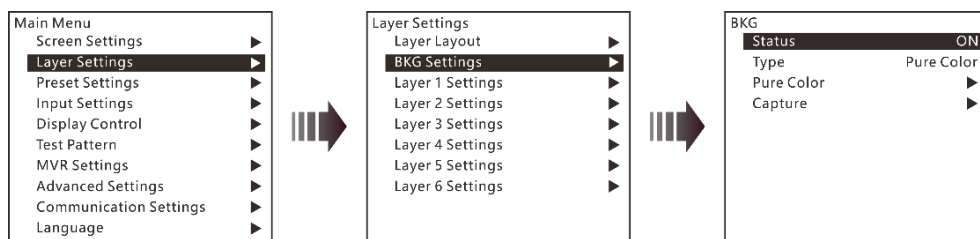


4.4.2 BKG Settings

The VS6 supports BKG settings. You can load an image file from the control PC, capture an input source image displayed on the screen or select a pure color as the BKG image. BKG has the lowest priority and fills the whole screen.

On the layer settings screen, rotate the knob to select **BKG Settings** and press the knob to enter the BKG settings screen. You can turn on or turn off the BKG function.

Figure 4-10 BKG



BKG Image

The VS6 supports up to 6 BKG images. You can load an image file from the control PC or C1 event controller, capture an input source image displayed on the screen or select a pure color as the BKG image.

1. On the BKG settings screen, rotate the knob to choose **Type > Image**.
2. Then rotate the knob to select **Image** and press the knob to enter the BKG image selection screen.
3. Rotate the knob to select a BKG image and press the knob to apply the selected BKG image to PVW.

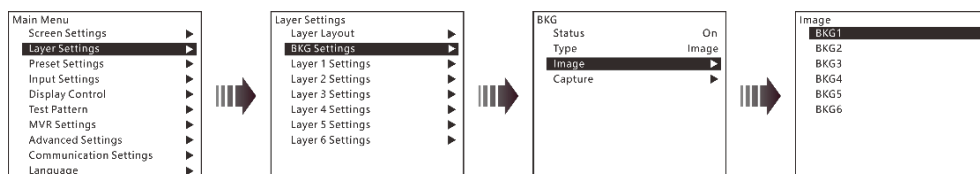


Figure 4-11 BKG image

Pure Color BKG

The VS6 supports pure color BKG. When the BKG type is **Pure Color**, you need to set the individual R, G and B value for the pure color BKG.

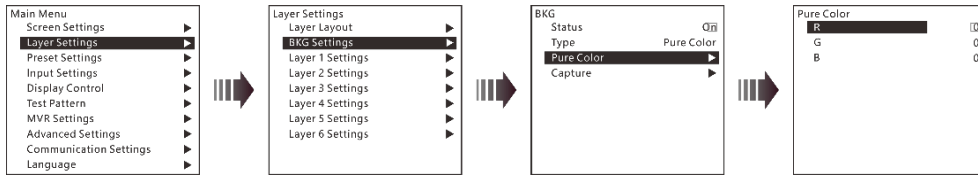
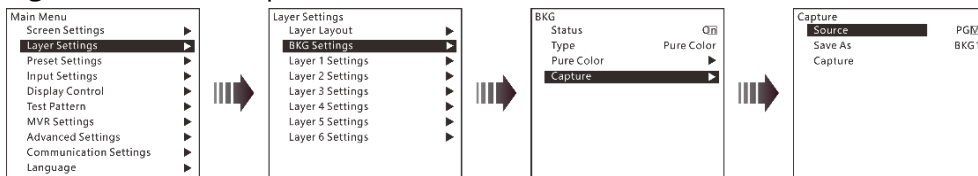


Figure 4-12 Pure color BKG

BKG Capture

You can capture the current display image on PGM or the current frame of the select input source, and save the captured image as the BKG image.

Figure 4-13 BKG capture



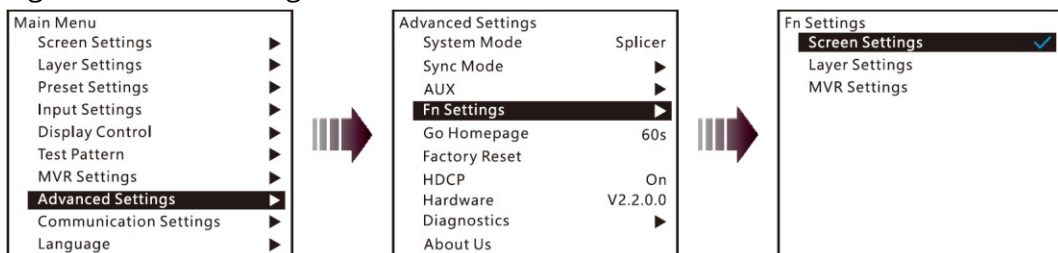
1. On the BKG settings screen, rotate the knob to choose **Capture > Source** to select an input source or PGM.
2. Rotate the knob to select **Save As** to save the captured BKG image to the specified location.
3. Rotate the knob to select **Capture** and press the knob, then the system will automatically

Note:

capture the current frame of the image and save the captured BKG image to the specified location.

If a BKG image already exists in the selected location, the captured BKG image will overwrite the existing one.

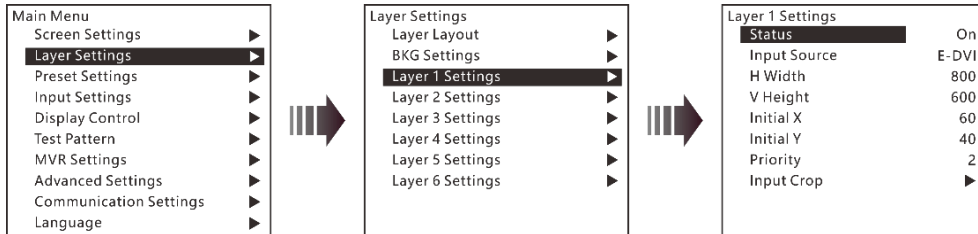
Figure 4-25 Fn settings



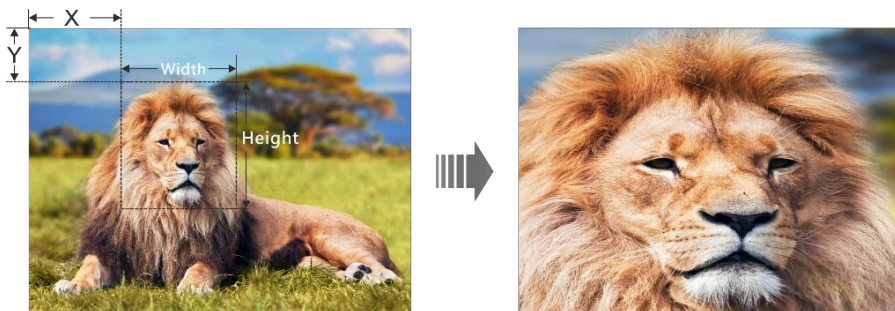
4.4.3 Layer Settings

The VS6 supports 6 layers. The input source, size, position, priority and input cropping of each layer can be set. Here take **Layer 1** as an example to illustrate.

Figure 4-14 Layer settings



- Status: Turn on or turn off the layer.
- Input Source: Set the input source for the layer.
- H Width: Adjust the layer width. The default value is 800.
- V Height: Adjust the layer height. The default value is 600.
- Initial X: Adjust the initial horizontal coordinate of the layer. The default value is 0.
- Initial Y: Adjust the initial vertical coordinate of the layer. The default value is 0.
- Priority: Set the displaying order of the layers. The range is 1–6, and 6 indicates the layer is at the top.
- Input Crop: Crop the input source image and make the cropped part display in whole layer area.



- Layer 1 Input Crop: Turn on or turn off the input crop function for Layer 1.
- H Width: Set the width of the desired part as shown in the above figure.
- V Height: Set the height of the desired part as shown in the above figure.
- Initial X: Set the horizontal initial coordinate of the cropped part upon the current input source with the top left corner as reference point, which is shown in the above figure.
- Initial Y: Set the vertical initial coordinate of the cropped part upon the current input source with the top left corner as reference point, which is shown in the above figure.

4.5 Preset Settings

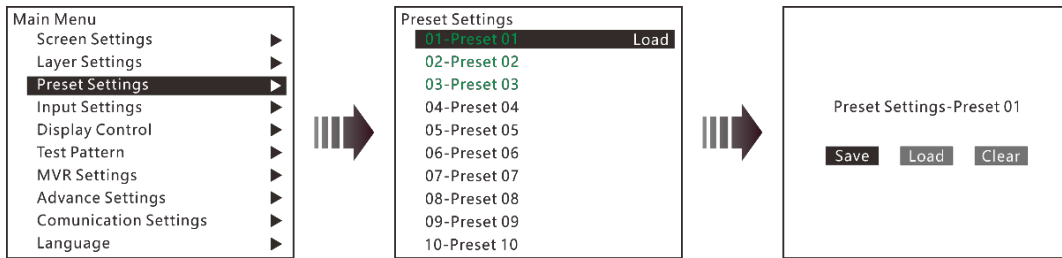
The VS6 supports up to 32 user presets. After the layer settings are complete, you can save the settings as a preset and load the preset. When the preset name is in green, the current preset has data and can be loaded or cleared.

Rotate the knob to select a preset and press the knob to enter the preset settings screen.

- Save: Save the current layer settings to the target preset.
- Load:
 - When the **System Mode** is **Splicer**, you can load the current preset to the screen.

- When the **System Mode** is **Switcher**, you can load the current preset to PVW.
- **Clear**: Clear all the data in the selected preset.

Figure 4-15 Preset settings



4.6 Input Settings

On the input settings screen, you can set the input resolution. The standard resolution and custom resolution are both supported.

Figure 4-16 Standard resolution

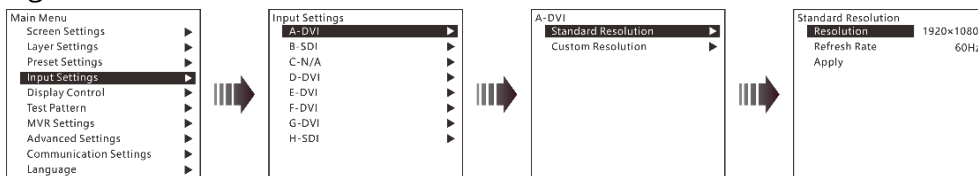
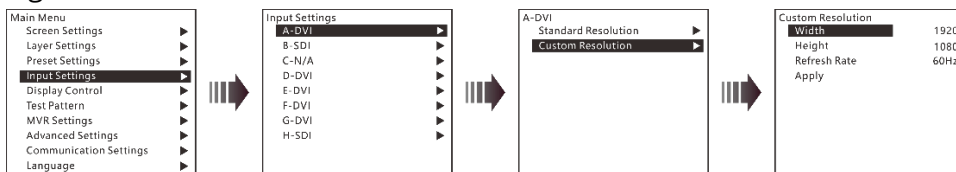


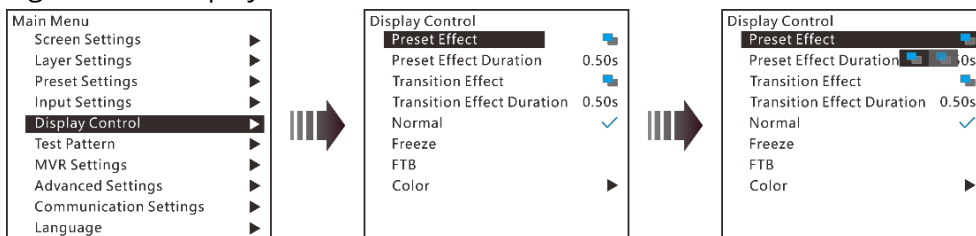
Figure 4-17 Custom resolution



4.7 Display Control

On the display control screen, you can set the transition effect and transition duration, freeze the screen or make the screen fade to black, as well as adjust the input, output and layer color.

Figure 4-18 Display control



- **Preset Effect**: Set the effect for switching preset in the **Splicer** mode. Fade and cut effects are supported.
- **Preset Effect Duration**: Set the duration for switching preset. The range is 0.50s - 2.00s and the default value is 0.50s.

- Transition Effect: Fade and cut effects are supported.
 - When the **System Mode** is **Splicer**, you set the effect when switching the input source for the layer.
 - When the **System Mode** is **Switcher**, you set the effect when sending the PVW to PGM.
- Transition Duration: Set the duration of the transition effect. The range is 0.50s–2.00s and the default value is 0.50s.
- Normal: Exit the frozen or FTB status and display the image normally.
- Freeze: Freeze the current frame of output image.
- FTB: Make the output image fade to black.
- Color: Adjust the brightness, contrast, saturation and hue of the input, layer and output image.

4.8 Test Pattern

You can test whether the screen can display the output image color normally by comparing the displayed image with the test pattern. On the main menu screen, rotate the knob to select **Test Pattern** and press the knob to enter the test pattern settings screen.

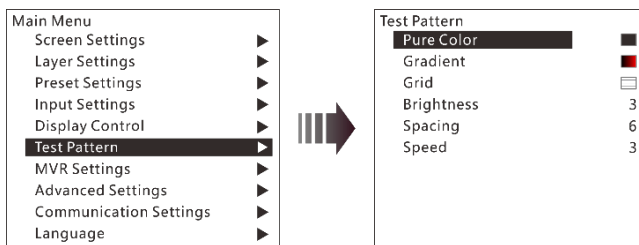


Figure 4-19 Test pattern

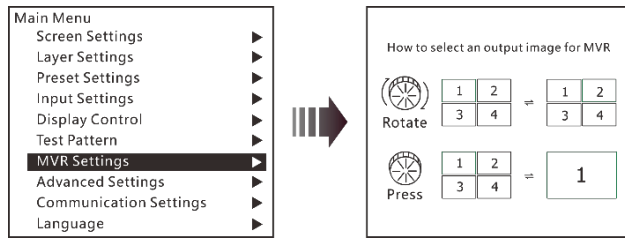
- Pure Color: Test whether the screen can display the color normally. The VS6 provides 8 pure colors.
- Gradient: Test whether the screen can display the image normally. The VS6 provides 8 gradients.
- Grid: Test whether there are uncontrollable pixels on the screen. The VS6 provides 6 grids.
- Brightness: Set the brightness of the test pattern. The range is 1–4 and the default value is 3.
- Spacing: When the test pattern is **Gradient** or **Grid**, you can set the spacing. The range is 1–8 and the default value is 5.
- Speed: When the test pattern is **Grid**, you can set the moving speed. The range is 1–4 and the default value is 3.

4.9 MVR Settings

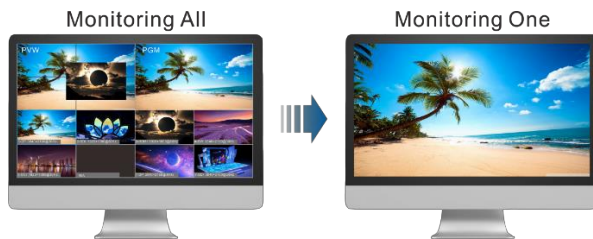
You can set to monitor a single input source, PVW or PGM. All the input sources, PVW and PGM are monitored by default.

- Step 1 On the main menu screen, rotate the knob to select **MVR Settings**.
- Step 2 Press the knob to enter the MVR settings screen where you can learn how to select an output image for MVR.

Figure 4-20 MVR settings



Step 3 Rotate the knob to select to a single input source, PVW or PGM and press the knob to display the selected one in full screen.

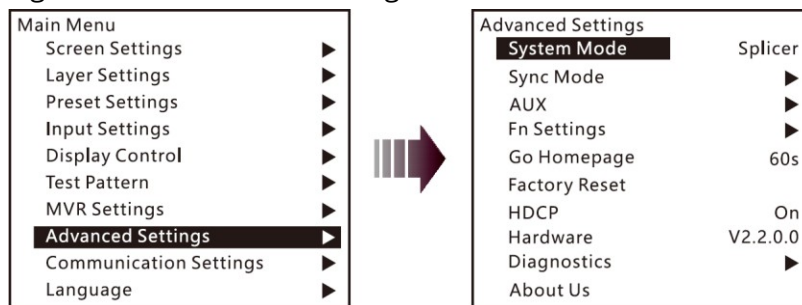


Step 4 Press the knob again to exit the full screen display and go back to monitor all the input sources, PVW and PGM.

4.10 Advanced Settings

On the main menu screen, rotate the knob to select **Advanced Settings** and press the knob to enter the advanced settings screen. You can set the system mode, sync mode, Fn button function, waiting time to go back to homepage, factory reset and HDCP function, as well as view the hardware version and company related information.

Figure 4-21 Advanced settings



4.10.1 System Mode

The VS6 supports two system modes: **Splicer** and **Switcher**. When different system mode is selected, the device loading capacity and operations are also different.

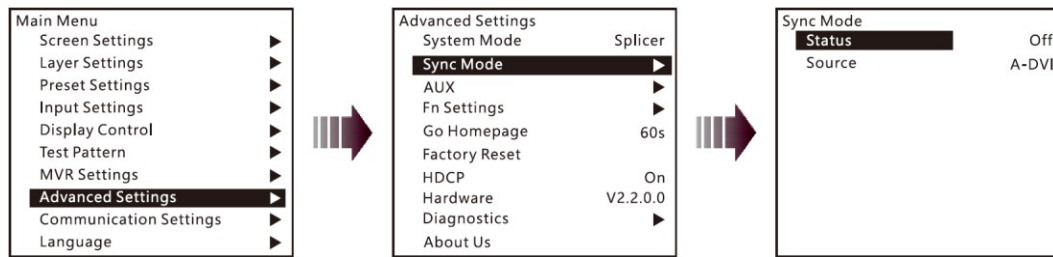
- Splicer: All the operations to the layers will be displayed on the LED screen simultaneously.
- Switcher: All the operations to the layers will be firstly displayed on the PVW, and then sent to the LED screen from the PVW by using the TAKE button after you have completed the editing.

4.10.2 Sync Mode

Status: You can turn on or turn off the sync mode.

Source: You can rotate the knob to select an input source as the target sync source.

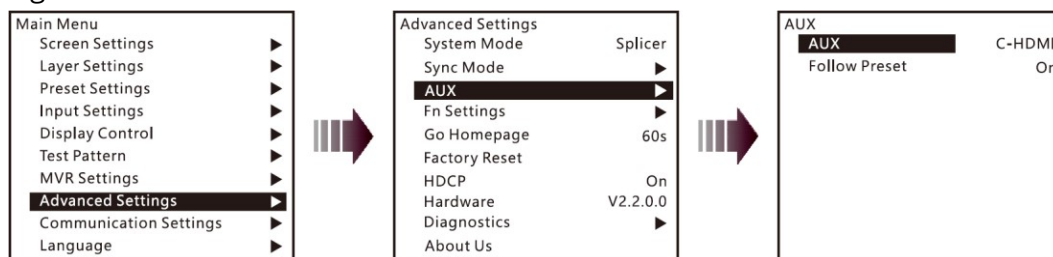
Figure 4-23 Sync mode



4.10.3 AUX

When the system mode is Switcher, the VS6 supports AUX settings, allowing you to set one input source as the AUX input source.

Figure 4-24 AUX



- **AUX:** Select the AUX input source.
- **Follow Preset:** Set whether to switch the AUX input source during presetswitching.
 - **On:** If the preset has AUX data, the AUX input source will be switched automatically during preset switching.
 - **Off:** TheAUX input source will not be switched during preset switching.

4.10.4 Fn Settings

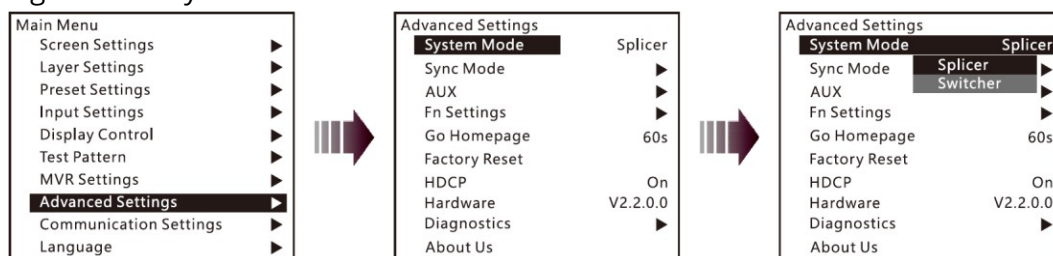
When different system mode is selected, the Fn button function may vary.

In **Splicer** mode, after you have completed the Fn settings, press the Fn button to enter the settings screen of the function that you have set for the button.

In **Switcher** mode, after you have completed the Fn settings, press the Fn button to send PWV to PGM.

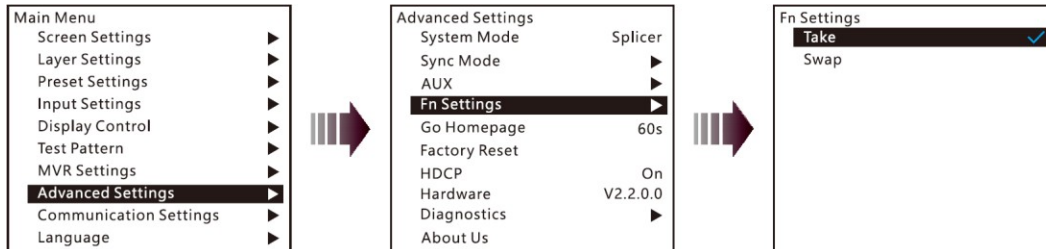
- In Splicer mode, the Fn button can be set as the shortcut button for Screen Settings, Layer Settings or MVR Settings.

Figure 4-22 System mode



- In Switcher mode, the Fn button can be set as the shortcut button for switching between PVW and PGM. Take and Swap modes are supported.
 - **Take:** Press the Fn button to send PVW to PGM. The images on PVW and PGM are the same.
 - **Swap:** Press the Fn button to swap the images displayed on PVW and PGM.

Figure 4-26 Fn settings



4.10.5 Go Homepage

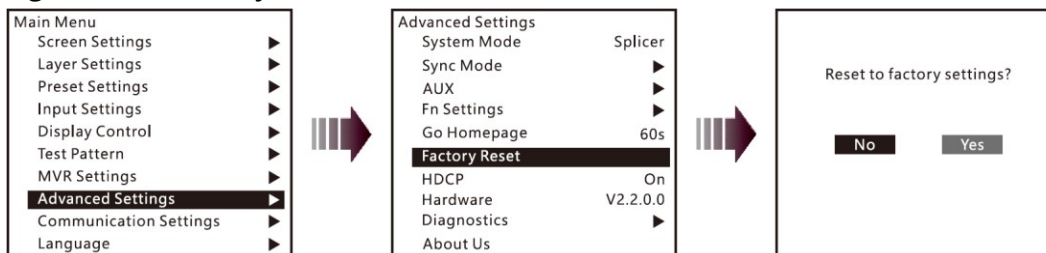
You can set the period of time during which the system stays at the current page before returning to the homepage automatically when there is no operation performed.

- Range: 30s–3600s
- Default value: 60s

4.10.6 Factory Reset

When you need to clear all the user data in the device, you can select **Factory Reset** to reset the device to its factory settings.

Figure 4-27 Factory reset



4.10.7 HDCP

The HDCP function is available for HDMI and DVI input connectors.

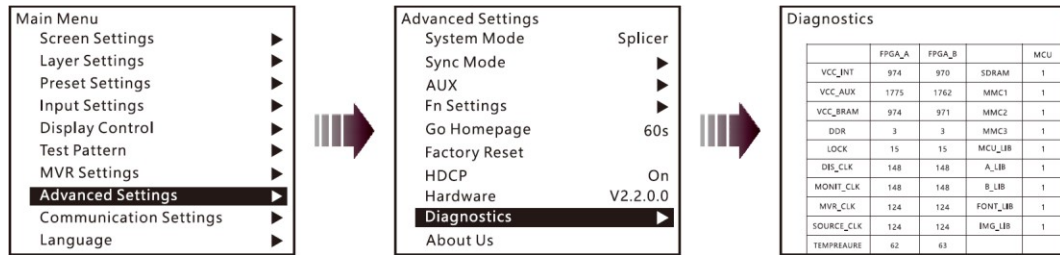
- On: Enable the HDCP function.
- Off: Disable the HDCP function.

4.10.8 Diagnostics

The VS6 supports device diagnostics. You can use this function to check the current device status.

When the VS6 becomes faulty, please send the diagnostics result to the technical staff of TWT to help resolve the problem quickly.

Figure 4-28 Diagnostics



4.10.9 Hardware Version

You can view the current device version.

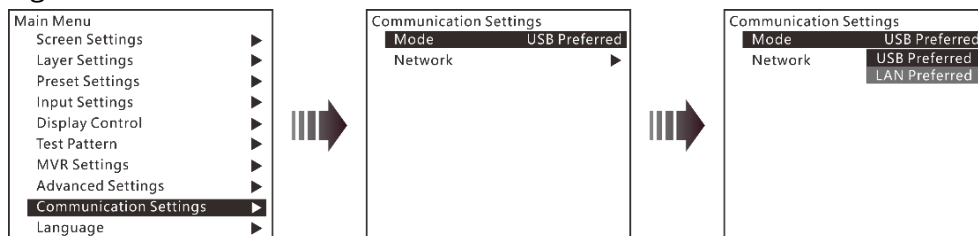
4.11 Communication Settings

On the main menu screen, rotate the knob to select **Communication Settings** and press the knob to enter the communication settings screen.

Communication Mode

When the device is connected to the control PC via both USB and LAN cables, you can select **LAN Preferred** (default) or **USB Preferred**. When **LAN Preferred** is selected, the VS6 is controlled by the control PC via the LAN cable. When **USB Preferred** is selected, the VS6 is controlled by the control PC via the USB cable.

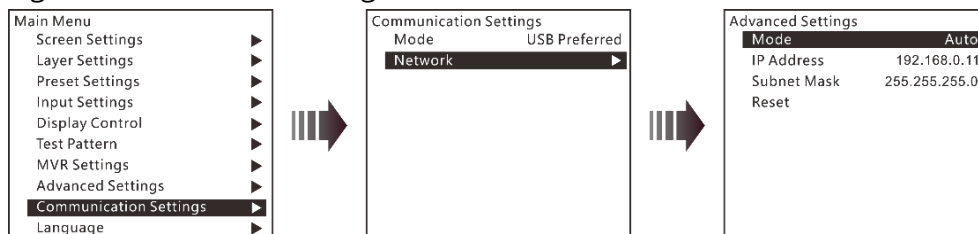
Figure 4-30 Communication mode



Network Settings

When the device is connected to the control PC via a router, you need to set the **IP Address** and **Subnet Mask** to enable the communication between the device and control PC.

Figure 4-31 Network settings



When **Mode** is set to **Auto**, the **IP Address** and **Subnet Mask** cannot be set, but will be assigned by the router. When **Mode** is set to **Manual**, you can set the **IP Address** and **Subnet Mask**. Please note that the device IP address cannot be the same as the IP addresses of other devices to avoid network conflict. You can select **Reset** to reset the **IP Address** and **Subnet Mask** to the defaults.

5 Troubleshooting

Problem	Solution
LED screen is not lit	Make sure the power is properly connected and switched on, and the LED screen is connected properly and works normally.
DVI has no output image	<p>Make sure the input channel has input image and the image is displayed correctly.</p> <p>Make sure the layer is opened and accessed with a signal source, and the image is displayed correctly.</p> <p>Check whether the layer is placed outside the LED screen.</p> <p>Make sure the output settings are correct and whether the layer is removed from the LED screen.</p> <p>Make sure the DVI output is properly connected.</p> <p>If a monitor is connected, make sure the monitor supports the output resolution of the video processor.</p> <p>Reset the video processor and try again to check whether there is image</p>
DVI output image is abnormal	<p>Check the output settings and make sure whether the parameters are properly set.</p> <p>Check the status bar of the home screen on the LCD panel and make sure other enabled functions do not affect output parameters.</p> <p>Check the connection between the DVI connector and DVI cable.</p> <p>Make sure whether the current connector supports the current input</p>
Images are not displayed normally	<p>Check the input channels of each screen to make sure these channels have input signals and the signals are displayed normally.</p> <p>Make sure the parameters of each screen are set correctly.</p>
Fade effect is abnormal	<p>Make sure the channel to be switched has input signal.</p> <p>Make sure the input source before switching and the source after switching belong to the same signal group.</p>
Display is abnormal	<p>Make sure the video processor is properly connected.</p> <p>Make sure the parameter settings of the video processor are correct.</p> <p>Make sure the input signal source is normal.</p>

6 Specifications

Input		
DVI	Input resolution up to 1920×1200@60Hz and downward compatible HDCP 1.4	
3G-SDI	Input resolution up to 1920×1080@60Hz and downward compatible 3G-SDI loop output	
HDMI1.3	Input resolution up to 1920×1080@60Hz and downward compatible HDCP 1.4	
DP1.1	Input resolution up to 4K×2K@30Hz and downward compatible HDCP 1.3	
HDMI1.4	Input resolution up to 4K×2K@30Hz and downward compatible HDCP 1.4	
Output		
DVI	4 groups (2 connectors in each group) of DVI output connectors can be used for mosaic output. Each group includes a main connector and a backup connector.	
HDMI	A monitoring connector	
Control		
ETHERNET	Communicate with PC or connect to the network.	
USB (Type-B)	Connect to the PC for device control.	
USB (Type-A)	A reserved connector	
Connector performance	Common input and output resolutions	
DVI	800×600@50/60/75/85Hz	1366×768@50/60Hz
HDMI1.3	1024×768@48/50/60/75/85Hz	1366×800@50/60Hz
	1152×864@75Hz	1400×1050@48/50/60/75Hz
	1280×720@48/50/60Hz	1440×900@60/75/85Hz
	1280×768@48/50/60/75Hz	1600×900@48/50/60Hz
	1280×800@50/60Hz	1600×1200@48/50/60Hz
	1280×960@50/60/85Hz	1680×1050@60Hz
	1280×1024@48/50/60/75/85Hz	1792×1280@60Hz
	1360×768@60Hz	1920×1080@30/48/50/60Hz

DP1.1 HDMI1.4	800×600@50/60/75/85Hz 1024×768@48/50/60/75/85Hz 1152×864@75Hz 1280×720@48/50/60Hz 1280×768@48/50/60/75Hz 1280×800@50/60Hz 1280×960@50/60/85Hz 1280×1024@48/50/60/75/85Hz 1360×768@60Hz 1364×1024@48/50/85Hz 1400×1050@48/50/60/75Hz 1440×900@60/75/85Hz 1600×900@48/50/60Hz	1680×1050@60Hz 1792×1280@60Hz 1920×1080@30/48/50/60Hz 1920×1200@50/60Hz 2048×1080@30/48/50/60Hz 2048×1152@30Hz 2304×1152@60Hz 2048×1152@60Hz 2560×1080@50/60Hz 2560×1400@50/60Hz 2560×1600@50/60Hz 3840×1080@30/50/60Hz 3840×2160@30Hz
3G-SDI	480i, 576i 1280×720p@24/25/30/50/60Hz 1920×1080p@24/25/30/50/60Hz	

Overall Specifications		
Electrical specifications	Power connector	AC100V~240V 50/60Hz
	Power consumption	50W
Operating environment	Operating temperature	-20°C to 70°C
	Operating humidity	20%RH to 90%RH
	Storage humidity	10%RH to 95%RH
Physical specifications	Dimensions	482.6mm×379.5mm×94.7mm
	Package dimensions	550mm × 561mm × 155mm
	Net weight	5.3 kg
	Total weight	15 kg
Packing information	Accessory	1 × power cord, 1 × Ethernet cable, 2 × DVI cable, 1 × USB cable, 1 × HDMI cable, 1 × HDMI to DVI cable, 1×mini DP to DP cable, and 1 × User manual
	Flight case	550mm × 561mm × 155mm
Certifications		CB, RoHS
Noise Level (typical at 25°C/77°F)		50dB(A)



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