J6

Seamless Switcher

V2.2.0 NS160000531

User Manual

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1 Overview

1.1 Introduction

The J6 is a NovaStar high-performance seamless switcher that integrates video processing, screen mosaic, transition effects and multi-screen display capabilities. The J6 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 8KK loading capacity of each J6 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 4KK loading capacity of each J6 unit.

Based on powerful FPGA platform, the J6 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.

What's more, the J6 is equipped with NovaStar V-Can smart control software and C1 event controller, allowing for a rich screen mosaic effect via V-Can, C1 or front panel operations. With excellent image quality, ultra-large loading capacity and flexible operation modes, the J6 can be widely used in conference reports, exhibition centers, stage control and other application scenarios.

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 J6 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 J6 supports both Splicer and Switcher modes, which can meet different application requirements.
- Multiple layer display

  The J6 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 J6 supports setting of transition effect for source switching. In Switcher mode, the J6 supports setting of Take effect and effect duration.
- BKG capturing

  The J6 supports capturing of input source and PGM, and the captured image can be used as BKG.
- BKG settings

The J6 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

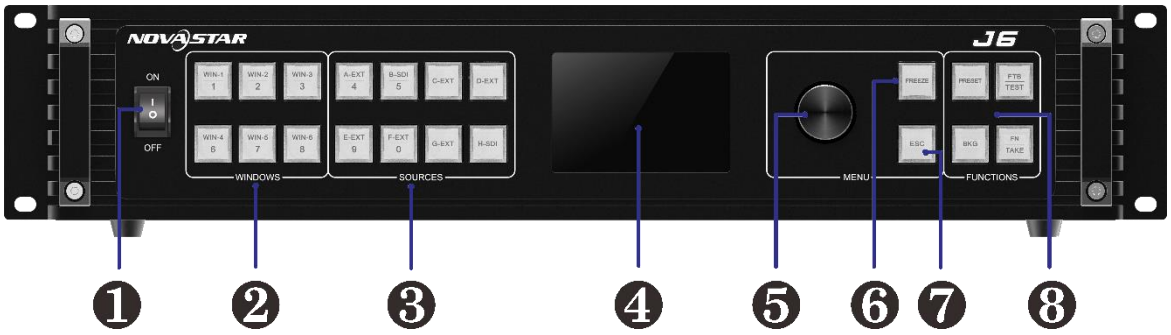
  The J6 is built-in with 7 layer layouts. You can load one of the layer layouts to quickly lay out the layers.
- Multiple operation modes

  You can operate the J6 via its front panel, the V-Can smart control software or C1 event controller.
- Multiple J6 units controlled by one C1 unit

  You can perform operations, such as FTB, freeze or Take operation, to multiple J6 units on the C1.
- Visualized color LCD screen and distinct button indicators on front panel, simplifying system control operations

2 Appearance

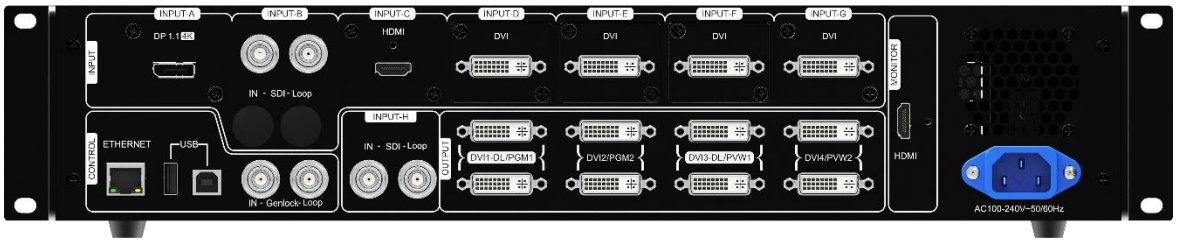
2.1 Front Panel



No.	Button	Description
1	ON/OFF button	Press ON to power on the device. Press OFF to power off the device.
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. Flashing: The layer is being edited. On the home screen, hold down the layer button for 2s or longer to close the opened layer.
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 use. Off: The input source is not accessed.
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 unfrozen.
7	ESC button	Press the button to exit the current menu or cancel the operation.
8	Function buttons	PRESET: Enter the preset menu. BKG: Enable or disable the BKG function. 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

No.	Button	Description
		the test pattern menu. FN/TAKE: The function of this button varies in different system modes (Splicer and Switcher). − 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. − In Switcher mode, press the button to send PVW to PGM.

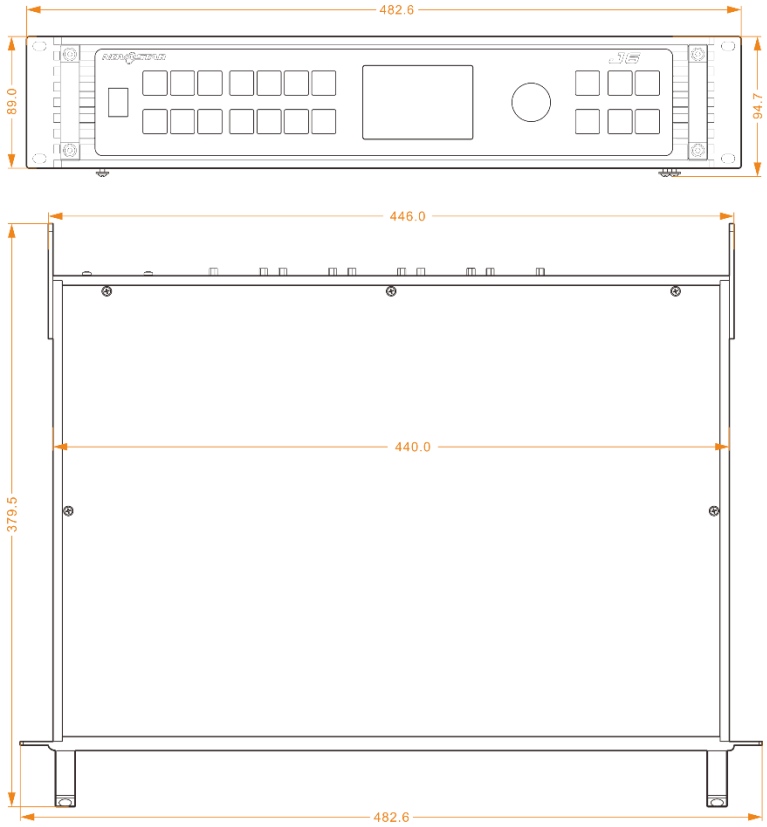
2.2 Rear Panel



Input		
No.	**Connector**	**Description**
Input-A	DP 1.1	Input resolution up to 3840×2160@30Hz and custom EDIDs Supports HDCP 1.3. Can be changed to HDMI 1.4 input card. Input resolution up to 3840×2160@30Hz and downward compatible Supports HDCP 1.4.
Input-B	3G-SDI	Input resolution up to 1920×1080@60Hz and downward compatible Supports 3G-SDI loop output.
Input-C	HDMI 1.3	Input resolution up to 1920×1080@60Hz and downward compatible Supports HDCP 1.4. Can be changed to DVI input card.
Input-D	DVI	Input resolution up to 1920×1080@60Hz, other VESA standard resolutions and custom EDIDs supported, downward compatible Supports HDCP 1.4. Can be changed to HDMI 1.3 input card.
Input-E		
Input-F	-	The J6 has two standard versions. 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. The two connectors both can be changed to HDMI 1.3 input cards.
Input-G	DP 1.1 / DVI	
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 J6 supports dual-link DVI output mode. When the output is set to dual-

		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, PVW 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 J6 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

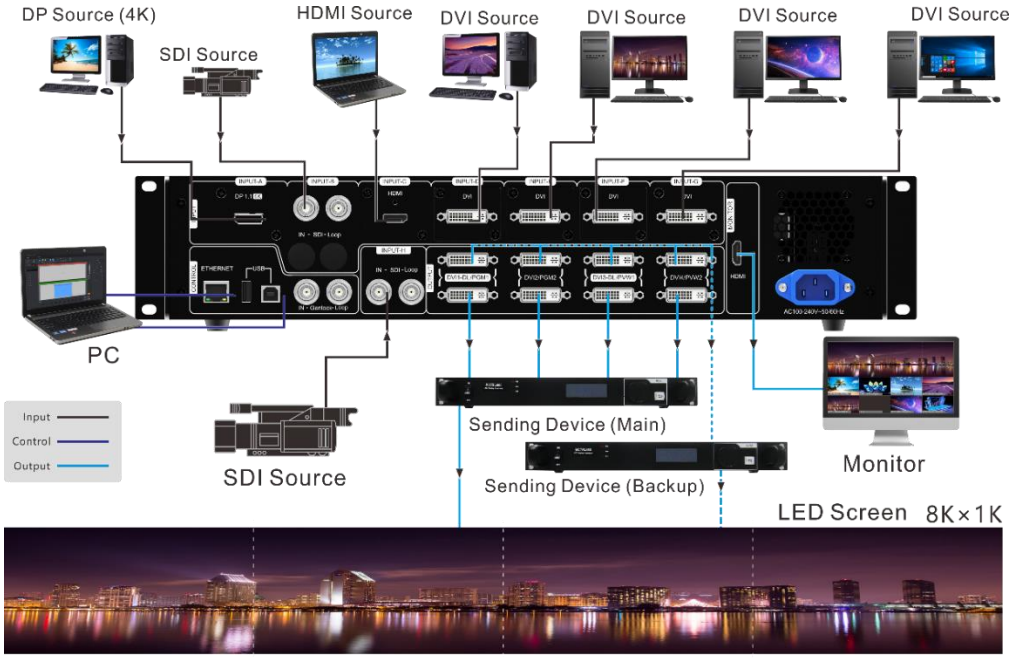
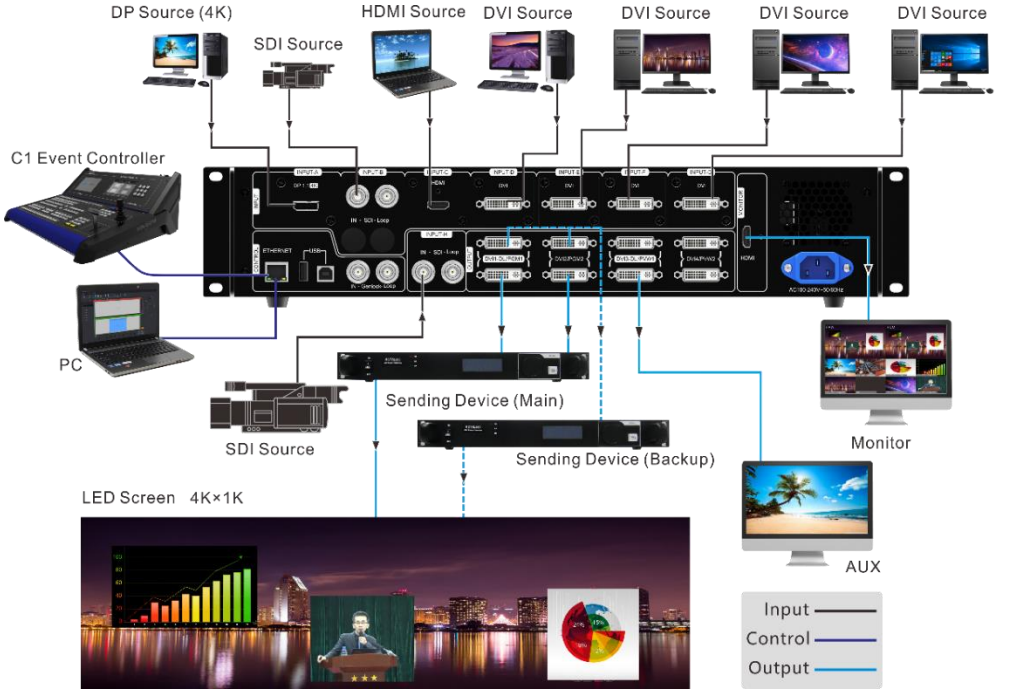


Figure 3-2 Connections for Switcher mode



Note:

This product can only be worked horizontally. Wall mounting is not permitted.

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

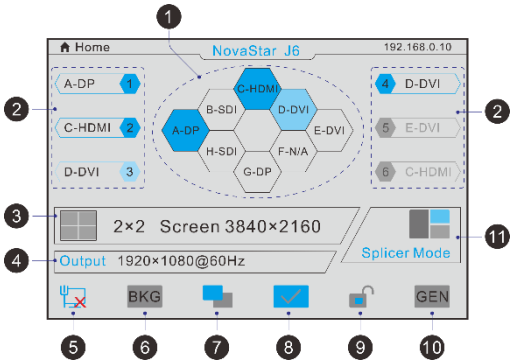


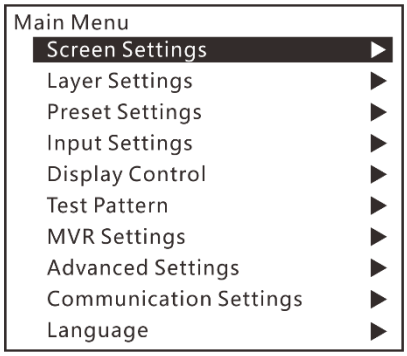
Table 4-1 Home screen descriptions

No.	Area	Description
NovaStar J6 192.168.0.10		Novastar J6: Device name 192.168.0.10: Device IP address
1	Input source	Display the input source status. Transparent: The input source is not accessed. Semi-transparent: The input source is accessed, but not in use. Highlight: The input source is accessed and in use.
2	Layer	Display the layer status and its input source. Transparent: The layer is not opened. Semi-transparent: The layer is opened, but the input source is not accessed. Highlight: The layer is opened and the input source is accessed.
3	Screen layout and screen resolution	Display the current screen layout and resolution. In Spicer mode, the supported screen layouts are 1×1, 1×2, 2×1, 1×3, 3×1,

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	Indicate the Genlock status. : The Genlock function is turned on and locked. : The Genlock function is turned on and to be locked. : The Genlock function is abnormal or the Genlock source is lost. : The Genlock function is turned off.
11	System mode	The J6 supports two system modes: Splicer and Switcher. : Switcher mode : Splicer mode

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

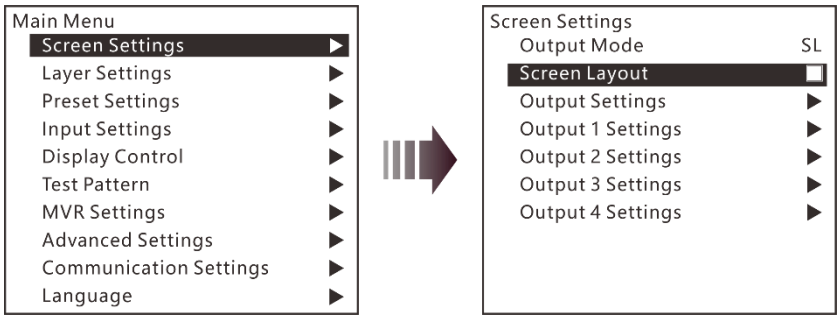
Figure 4-2 Main menu



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

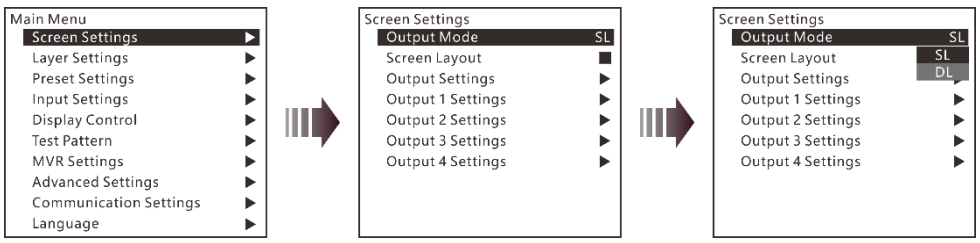


4.3.1 Output Mode

The four group of DVI connectors of the J6 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 J6.
  - 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 J6.
  - 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.

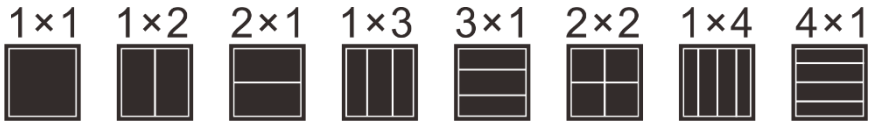
Figure 4-4 Output mode



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.

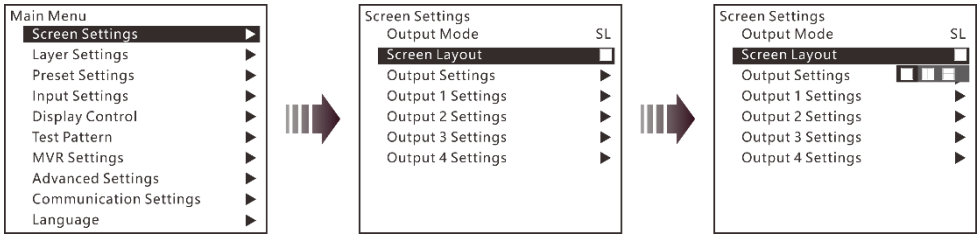


  - When the **Output Mode** is **DL**, the following 3 screen layouts are supported.

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

  - When the **Output Mode** is **DL**, only **1×1** 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

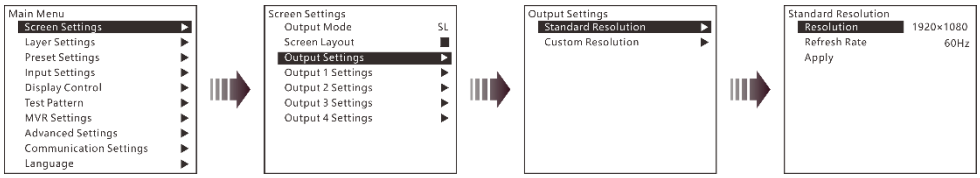
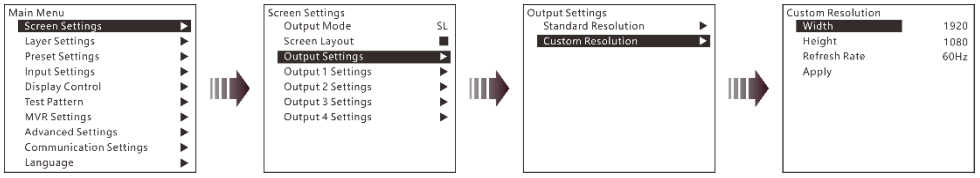


Figure 4-7 Custom resolution

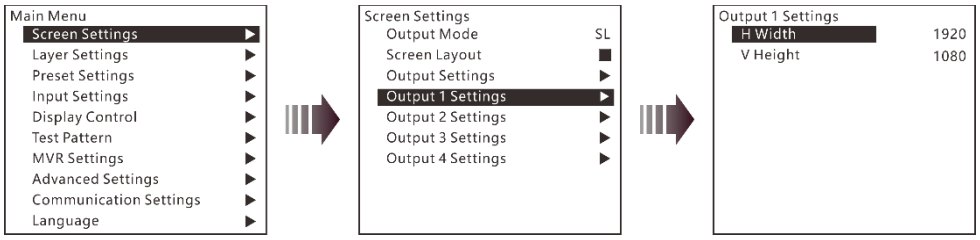


Rotate the knob to select **Standard Resolution** and rotate the knob again to select a standard resolution, then press the knob to confirm the selection. Rotate the knob to select **Custom Resolution** and rotate the knob again to adjust the value or use the number buttons on the front panel to enter 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

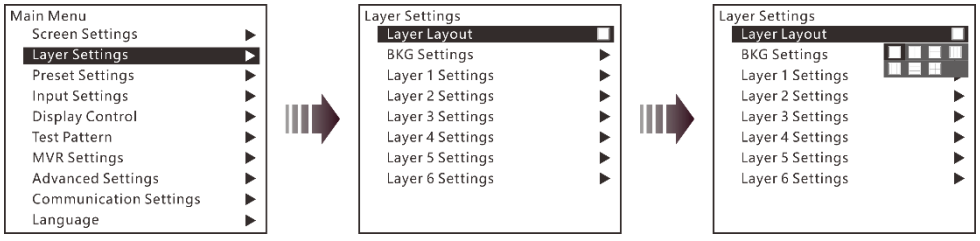
The J6 supports one BKG and six layers. You can set the layer layout simply by selecting a layout from **Layer Layout** or set the parameters for each layer.

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 J6 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

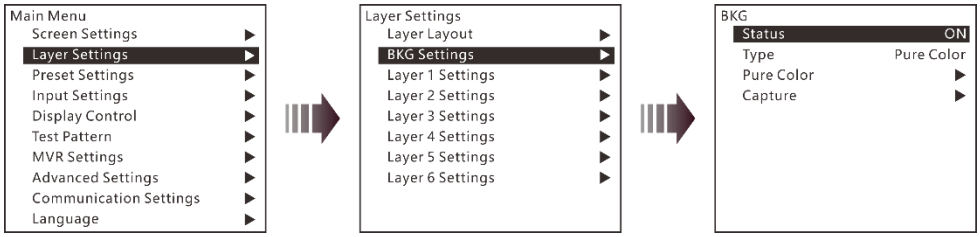


4.4.2 BKG Settings

The J6 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

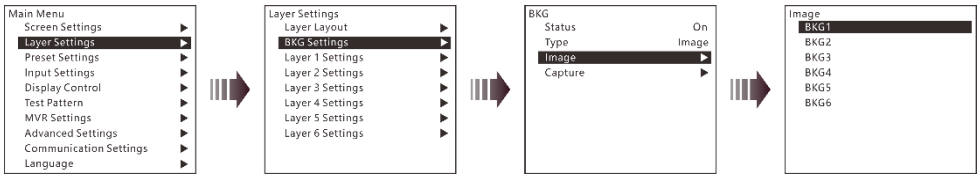


BKG Image

The J6 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.

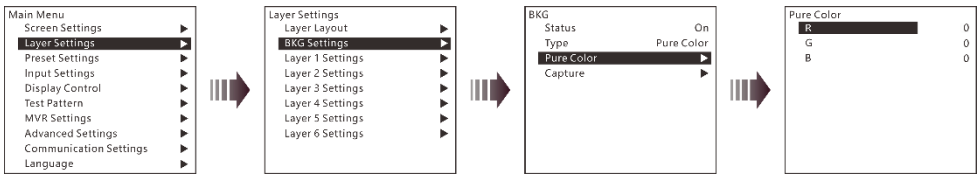
Figure 4-11 BKG image



Pure Color BKG

The J6 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.

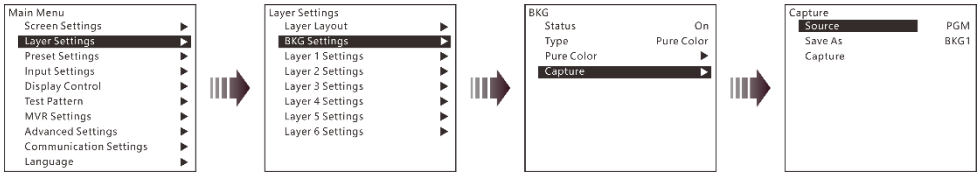
Figure 4-12 Pure color BKG



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

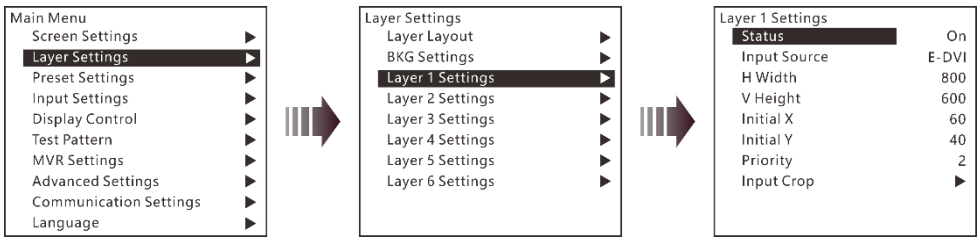
Note:

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

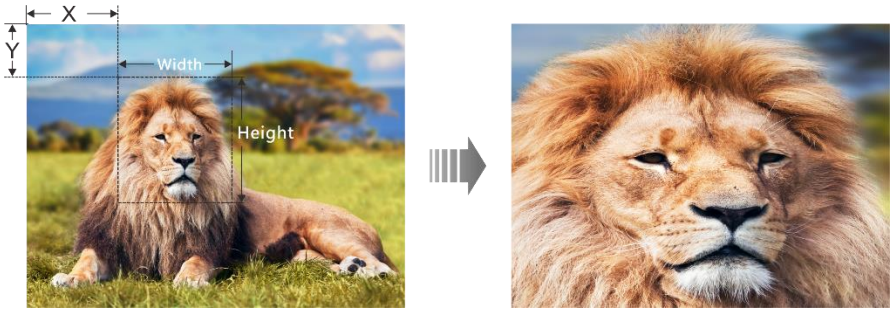
4.4.3 Layer Settings

The J6 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.

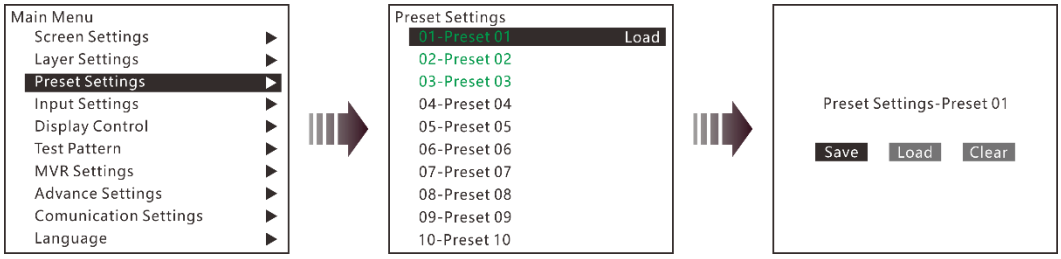
4.5 Preset Settings

The J6 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

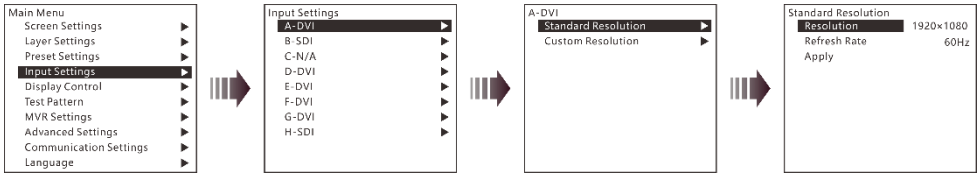
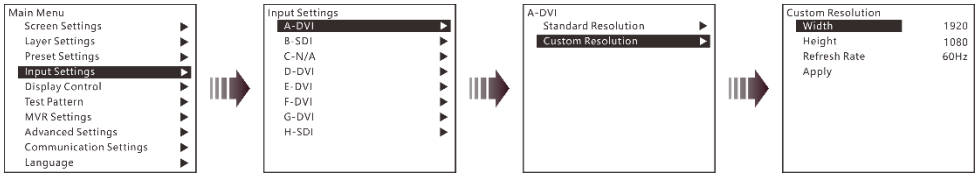


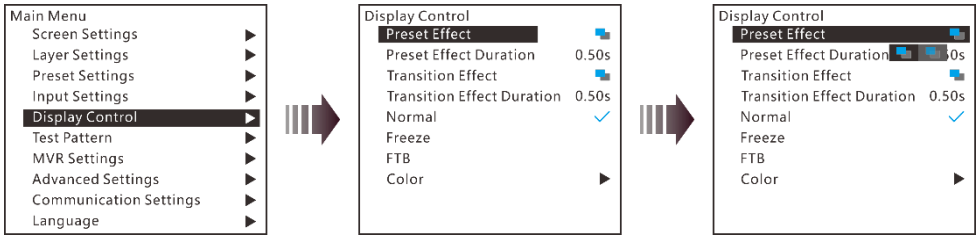
Figure 4-17 Custom resolution



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



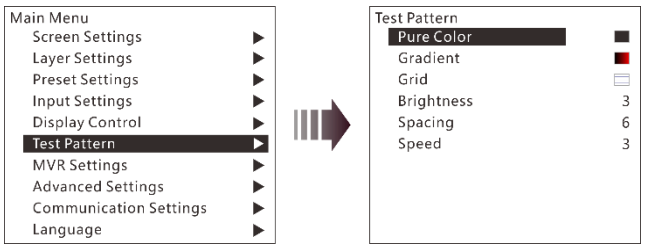
- **Preset Effect:** Set the effect for switching preset in the **Splicer** mode. Fade and cut effects are supported.
- **Preset Effect Duration**: Set the duration for switching preset. The range is 0.50s - 2.00s and the default value is 0.50s.
- Transition Effect: Fade and cut effects are supported.
  - 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 J6 provides 8 pure colors.
- Gradient

  Test whether the screen can display the image normally. The J6 provides 8 gradients.
- Grid

  Test whether there are uncontrollable pixels on the screen. The J6 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.

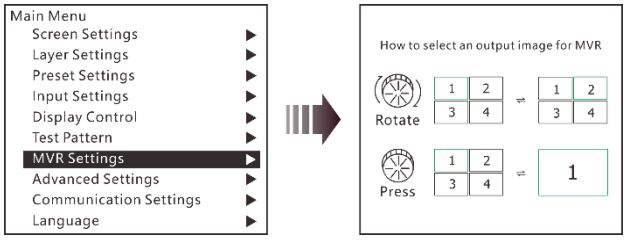
4.9 MVR Settings

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

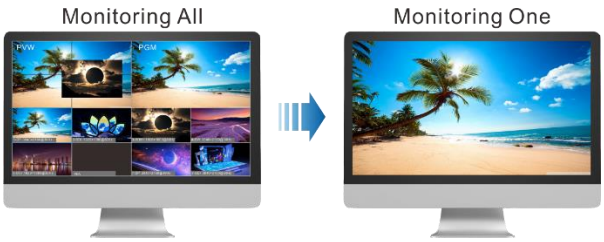
Step 1 On the main menu screen, rotate the knob to select **MVR Settings**.

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.

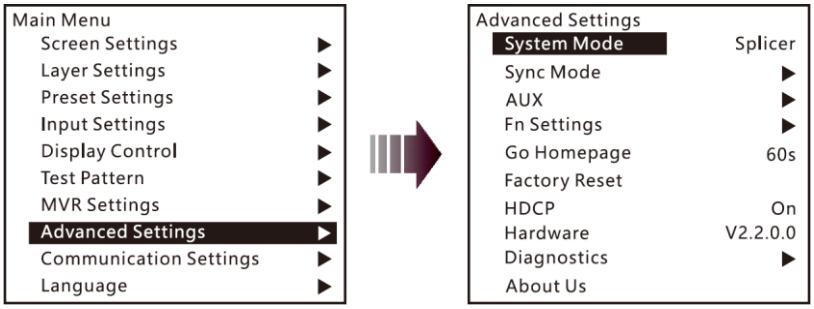


Step 4 Press the knob again to exit the full screen display and go back to monitor all the input sources, PVW and PGM.

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

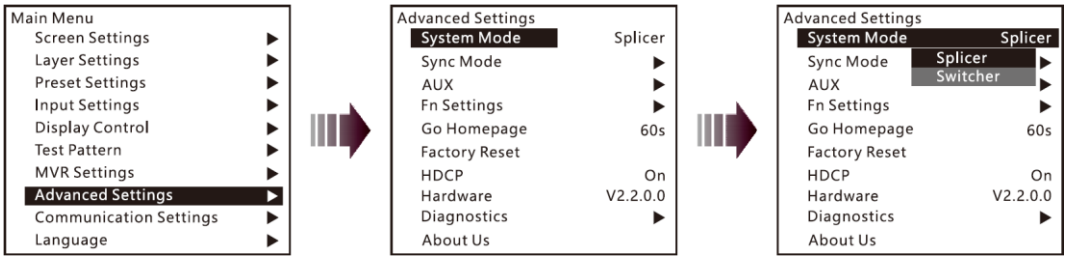


4.10.1 System Mode

The J6 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.

Figure 4-22 System mode

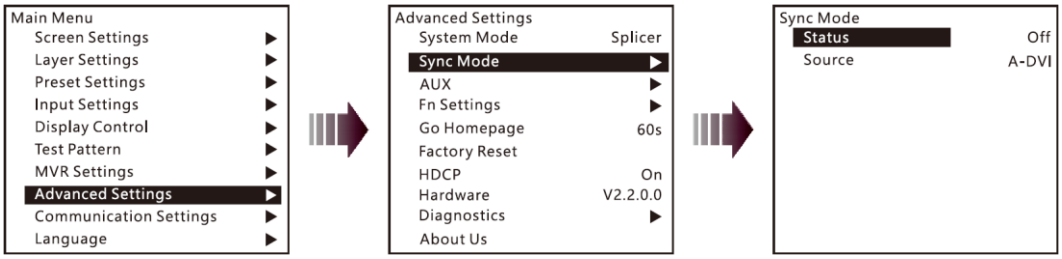


4.10.2 Sync Mode

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.

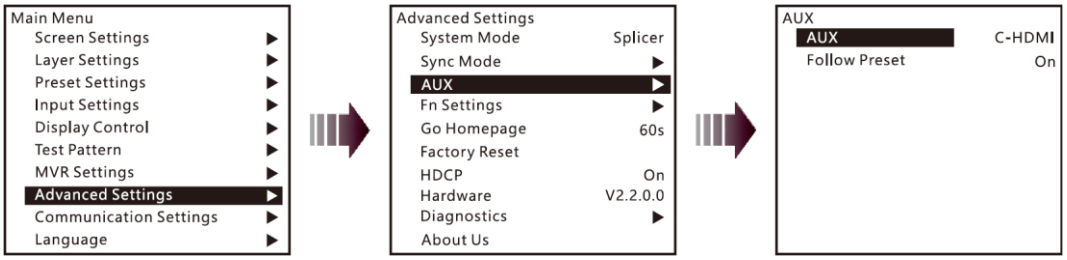
Figure 4-23 Sync mode



4.10.3 AUX

When the system mode is Switcher, the J6 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 preset switching.
  - **On**: If the preset has AUX data, the AUX input source will be switched automatically during preset switching.
  - **Off**: The AUX input source will not be switched during preset switching.

4.10.4 Fn Settings

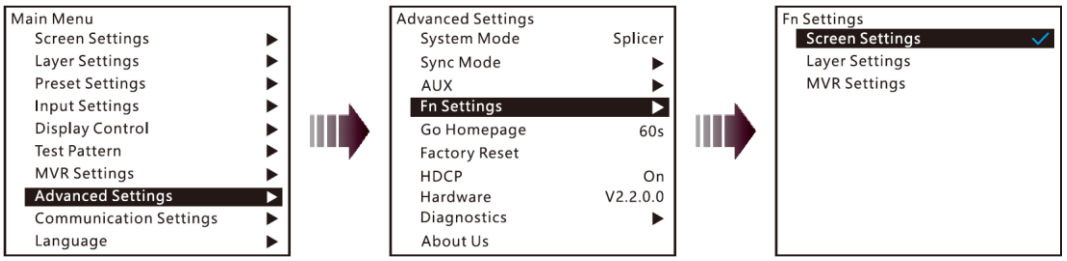
When different system mode is selected, the Fn button function may vary.

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 PVW to PGM.

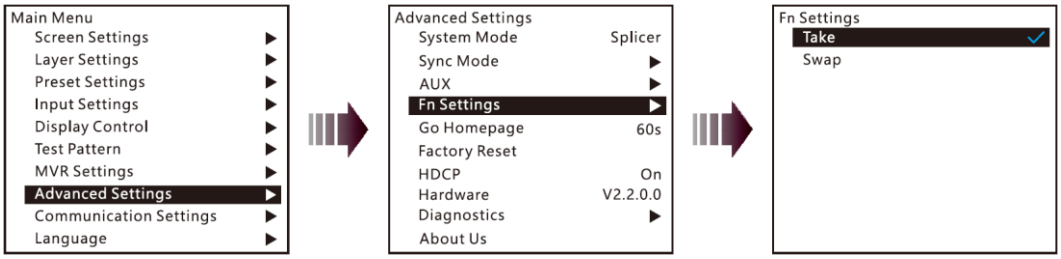
- In Splicer mode, the Fn button can be set as the shortcut button for Screen Settings, Layer Settings or MVR Settings.

Figure 4-25 Fn settings



- 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

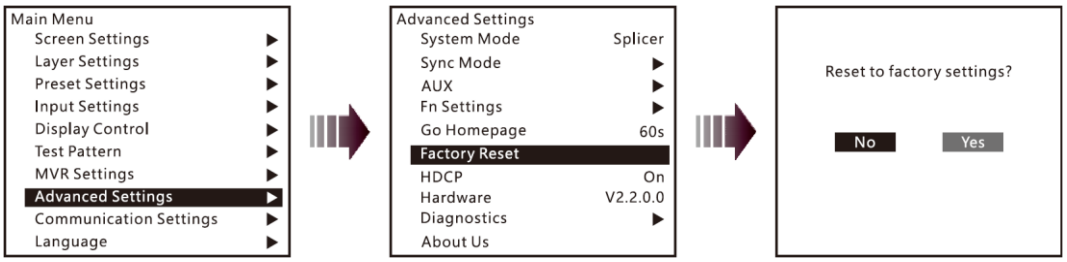
You can set the period of time during which the system stays at the current page before returning to the homepage automatically when there is no operation performed.

- 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.

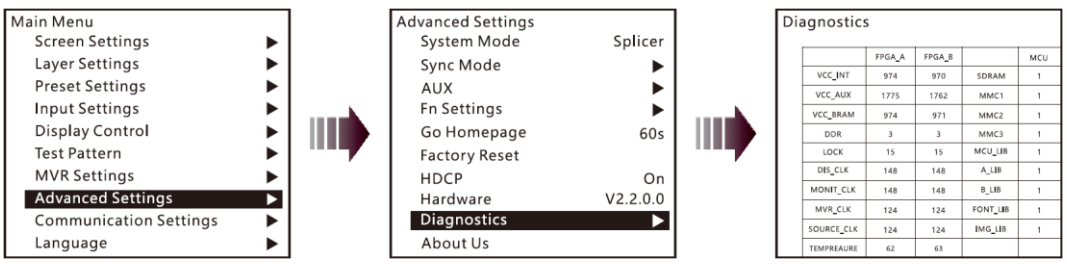
- On: Enable the HDCP function.
- Off: Disable the HDCP function.

4.10.8 Diagnostics

The J6 supports device diagnostics. You can use this function to check the current device status.

When the J6 becines faulty, please send the diagnostics result to the technical staff of NovaStar to help resolve the problem quickly.

Figure 4-28 Diagnostics



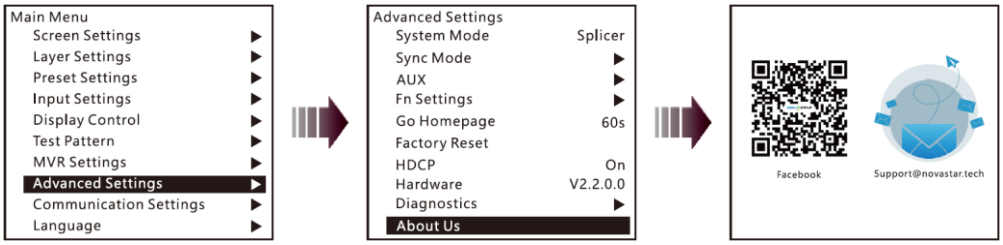
4.10.9 Hardware Version

You can view the current device version.

4.10.10 About Us

You can view the Facebook and email address of NovaStar.

Figure 4-29 About us



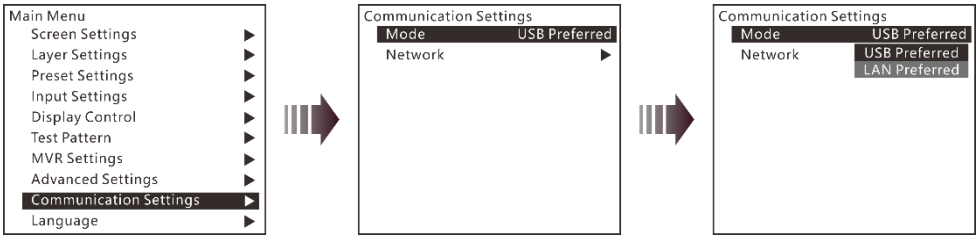
4.11 Communication Settings

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 J6 is controlled by the control PC via the LAN cable. When **USB Preferred** is selected, the J6 is controlled by the control PC via the USB cable.

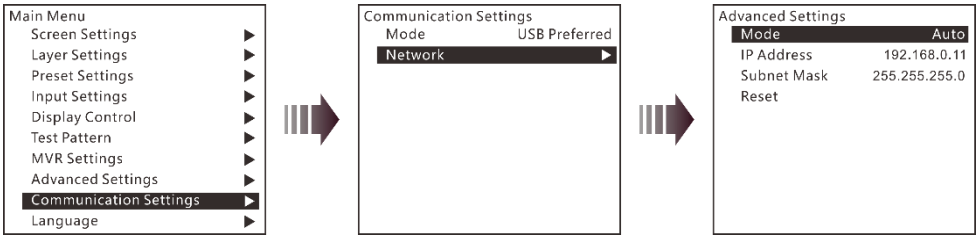
Figure 4-30 Communication mode



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



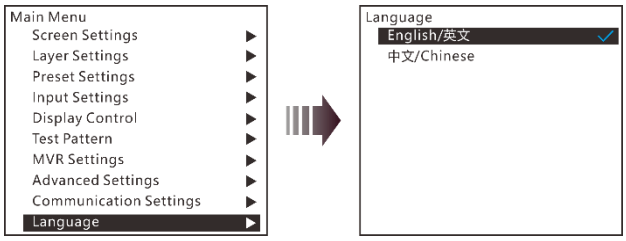
When **Mode** is set to **Auto**, the **IP Address** and **Subnet Mask** cannot be set, but will be assigned by the router. When **Mode** is set to **Manual**, you can set the **IP Address** and **Subnet Mask**. Please note that the device IP address cannot be the same as the IP addresses of other devices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

You can select **Reset** to reset the **IP Address** and **Subnet Mask** to the defaults.

4.12 Language

J6 currently supports **Chinese** and **English**. Users can switch languages as required.

Figure 4-32 Language



5 V-Can Control

V-Can is a smart control platform for video processors and all-in-one controllers. Thanks to its simplified UI design and easy operations, V-Can allows you to easily control and manage all the connected devices.

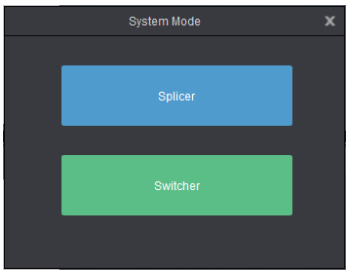
Step 1 Perform the device connections described in 3 Applications, then V-Can will automatically connect to the J6.

Note:

When multiple J6 units are connected to V-Can, the control PC where V-Can is installed must be on the same LAN with the J6 units. V-Can will automatically search all the J6 units on this LAN and connect all of them.

Step 2 Choose **Settings** > **System Mode** to pop up the **System Mode** dialog box, then select a desired system mode.

Figure 5-1 System mode



Step 3 Set the J6 output connector mosaic layout according to the actual screen.

4. Click **Settings** to enter the settings screen.
5. Click **Mosaic Layout** to select a desired layout.
6. Click **Output** to enter the output settings screen.
7. Under the **Output** tab, set the output connector resolution and screen size according to the screen resolution.

Step 4 Set the input resolution and color.

8. Click **Settings** to enter the settings screen.
9. Click **Input** to enter the input settings screen.
10. Under the **Input** tab, click the drop-down arrow next to **Source** to select an input source, and then select **Standard** or **Custom** to set the input resolution.
11. Under the **Color** tab, set the input color.

Step 5 Add layers.

- In Splicer mode, click and drag a signal source to the editing area and then release it to add an 800×600 layer. Drag the layer to change its position, and drag the layer edge or corner to change its size.
- In Switcher mode, click and drag a signal source to the PVW area and then release it to add an 800×600 layer. Drag the layer to change its position, and drag the layer edge or corner to change its size.

Step 6 In **Switcher** mode, click **TAKE** or **CUT**, or push T-Bar to send PVW to PGM.

Note:

V-Can allows you to set the layer layout, size, color and crop the layer. For details, please refer to *V-Can User Manual*.

6 C1 Control

The C1 event controller is a hardware console of NovaStar specifically designed for video processing products. The C1 offers two LCD screens. The left one performs the input and output monitoring for the J6. The right one, together with the front panel buttons, allow you to perform operations and control of the J6.

When you need to control the J6 via the C1 event controller, you must switch the system mode to **Switcher**.

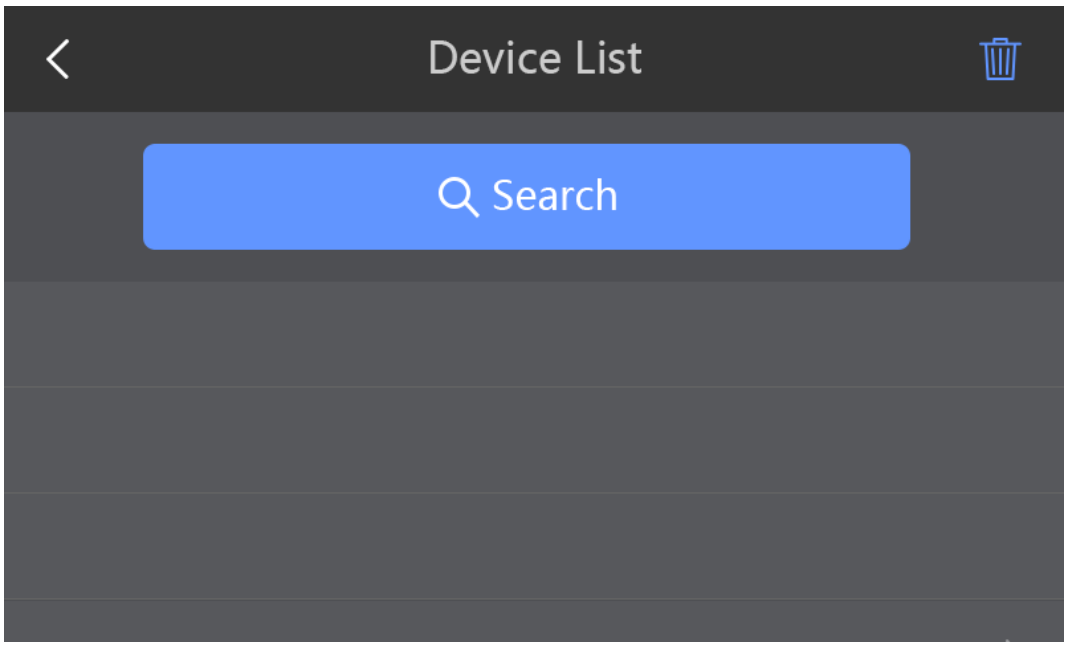
Step 1 Perform the device connections for Switcher mode described in 3 Applications.

Note:

When multiple J6 units are connected to the C1, the C1 must be on the same LAN with the J6 units.

Step 2 On the home screen, click **Configuration** to enter the configuration page. Then click **Search**.

Figure 6-1 Searching for devices

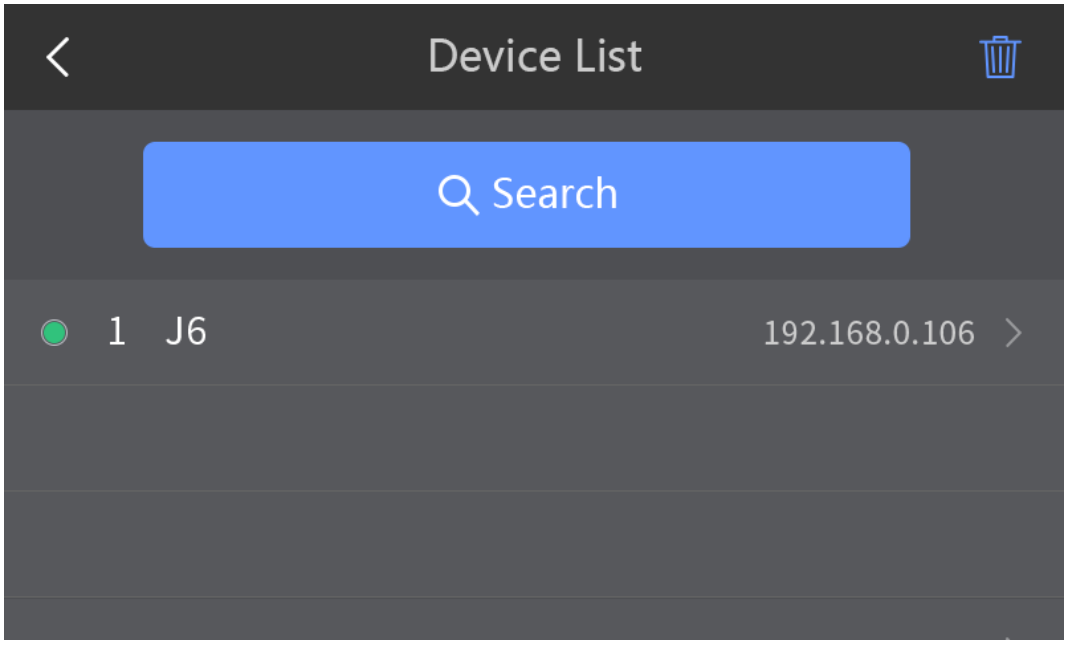


Step 3 On the right touch screen, select the devices to be added and then click **Add**.

Figure 6-2 Adding devices

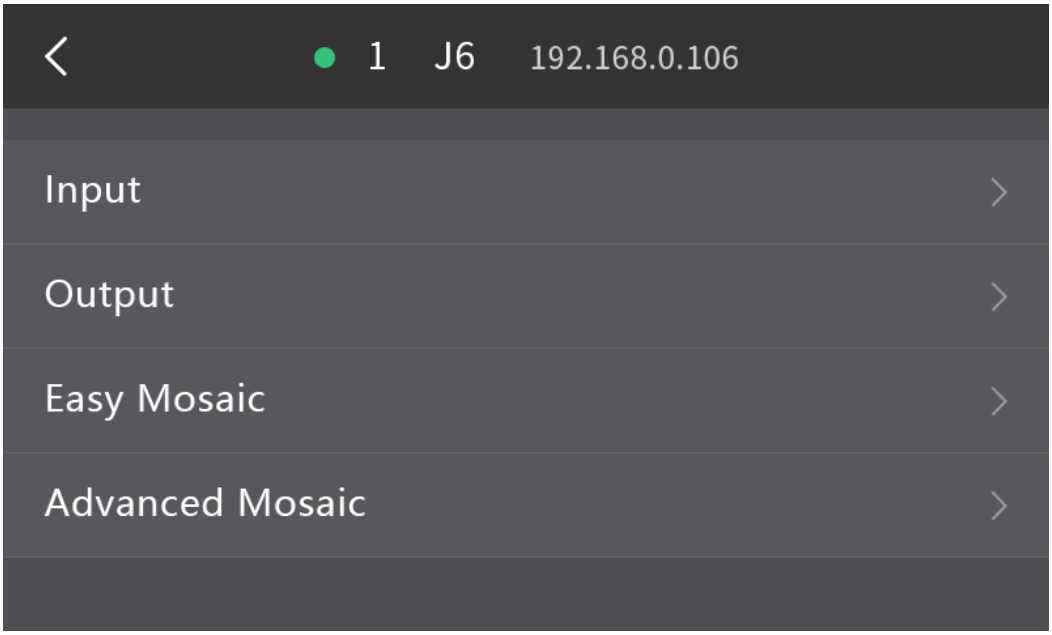
After the devices are added, you can view the information of those added devices on the **Device List** page, as shown in the figure below.

Figure 6-3 Device list



Step 4 Tap next to the device IP address to enter the device properties screen.

Figure 6-4 Device properties



- Input: Set the input resolution and input color.
- Output: Set the output resolution and output color.
- Easy Mosaic: By entering the screen width and height, the system will come up with a mosaic plan automatically. You can also press the EASY MOSAIC button in the FUNCTION area on the front panel to enter this screen.
- Advanced Mosaic: This mosaic mode allows you to select a proper mosaic mode and set the mosaic screen size according to the current screen size. You can also press the MOSAIC button in the FUNCTION area on the front panel to enter this screen.

Step 5 Add layers.

12. Tap **Programming** to enter the programming screen.
13. Press the **ADD LAYER** button in the **LAYER** area on the front panel to add an 800×600 layer to the PVW.
14. Press an input source button in the **SOURCE** area on the front panel to add the input source for the added layer.

Step 6 Select a layer by pressing a layer button in the **LAYER** area on the front panel. You can adjust the layer position, size and priority by using the joystick.

Step 7 Press the **TAKE** or **CUT** button, or push T-Bar to send PVW to PGM.

Note:

For details, please refer to *C1 User Manual*.

7 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	Make sure the input channel has input image and the image is displayed correctly. Make sure the layer is opened and accessed with a signal source, and the image is displayed correctly. Check whether the layer is placed outside the LED screen. Make sure the output settings are correct and whether the layer is removed from the LED screen. Make sure the DVI output is properly connected. If a monitor is connected, make sure the monitor supports the output resolution of the video processor. Reset the video processor and try again to check whether there is image output.
DVI output image is abnormal	Check the output settings and make sure whether the parameters are properly set. Check the status bar of the home screen on the LCD panel and make sure other enabled functions do not affect output parameters. Check the connection between the DVI connector and DVI cable. Make sure whether the current connector supports the current input resolution.
Images are not displayed normally	Check the input channels of each screen to make sure these channels have input signals and the signals are displayed normally. Make sure the parameters of each screen are set correctly.
Fade effect is abnormal	Make sure the channel to be switched has input signal. Make sure the input source before switching and the source after switching belong to the same signal group.
Display is abnormal	Make sure the video processor is properly connected. Make sure the parameter settings of the video processor are correct. Make sure the input signal source is normal.

8 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 HDMI1.3	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	1366×768@50/60Hz 1366×800@50/60Hz 1400×1050@48/50/60/75Hz 1440×900@60/75/85Hz 1600×900@48/50/60Hz 1600×1200@48/50/60Hz 1680×1050@60Hz 1792×1280@60Hz 1920×1080@30/48/50/60Hz 1920×1200@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 1600×1200@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℃ to 70℃
	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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