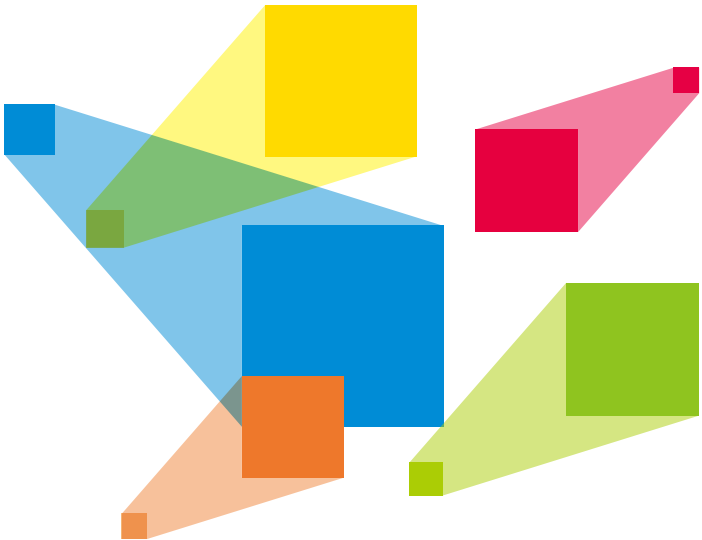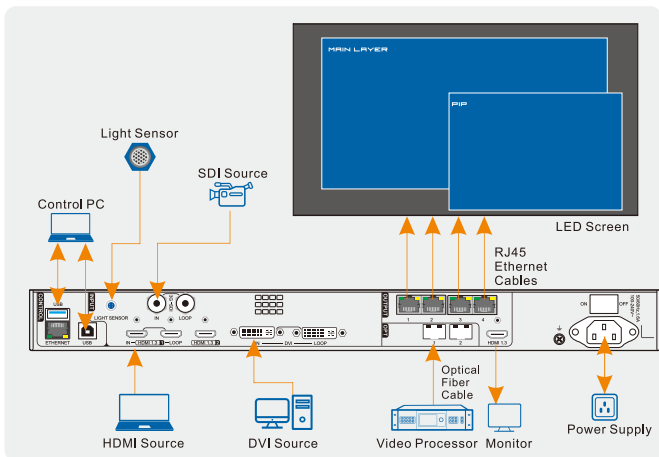# VX400

All-in-One Controller
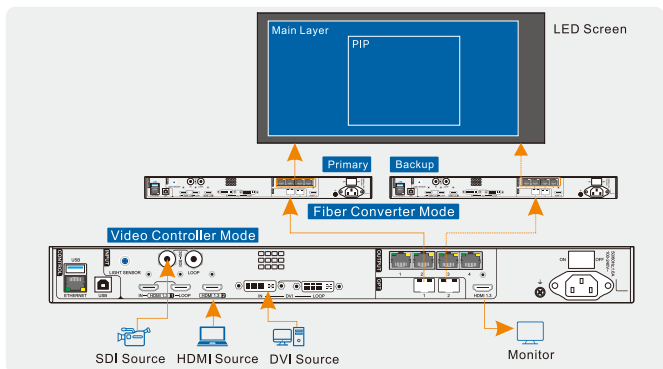
Quick Start Guide

1 Applications

The VX400 supports the following typical application scenarios.

- Work as a video controller

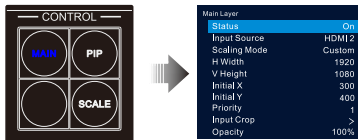- Work as a fiber converter for long-distance transmission

2

Quick Configuration

- LED screen must be a regular screen.
- Cabinets of the screen must be regular cabinets with the same resolution.
- The following data flow settings are supported. During data flow settings, ensure that the physical connection of each port is along the same direction and downward to next one.
- During data flow settings, ensure that Ethernet Port 1 is at the beginning position of the whole physical connection.

Procedure

Step 1   Power on the VX400 and LED screen.

Step 2   On the home screen, press the knob to enter the main menu screen.

Step 3   Go to **Screen Configuration** > **Quick Configuration** to enter the quick configuration screen.

Step 4   Set **Cabinet Row Qty** and **Cabinet Column Qty** according to the actual row and column quantities of the cabinets.

Step 5   Rotate the knob to select **Port 1 Cabinet Qty** to set the quantity of the cabinets loaded by Ethernet port 1.

◀)) Notes

- Cabinets loaded by Ethernet port 1 ≥ cabinets loaded by Ethernet port 2 ≥ cabinets loaded by Ethernet port 3 ≥ cabinets loaded by Ethernet port 4.
- The quantity of cabinets loaded by each Ethernet port must be an integer multiple of **Cabinet Row Qty** or **Cabinet Column Qty** of the screen.

Step 6   Rotate the knob to select **Data Flow (Front View)** and press it, then select an appropriate physical connection for the cabinets.

During data flow settings, you can view the real-time effects of different data flow settings on LED display by rotating the knob. When you are satisfied with the LED display image, press the knob to save the settings.

3 Layer Operations

Add Layers

Step 1 On the device front panel, locate and press the desired layer button in the **CONTROL** area, and then the button becomes flashing and the device screen displays the layer settings screen.

Step 2 On the layer settings screen, rotate the knob to set the layer status to **On** to add a layer.

CONTROL	Main Layer	
	Status	On
MAIN PIP	Input Source	HDMI 2
	Scaling Mode	Custom
	H Width	1920
	V Height	1080
SCALE	Initial X	300
	Initial Y	400
	Priority	1
	Input Crop	>
	Opacity	100%

🔊 Tip

You can also add a layer via menu operations. On the main menu screen, go to **Layer Settings** > **Main Layer/PIP** > **Status,** and select **On** to add the layer.

Step 3 Rotate the knob to select **Input Source** and press the knob. Select the desired input source for the layer and press the knob to confirm.

The layer parameters are illustrated as follows.

The greater the priority number is, the higher priority the layer has. In the above example, the main layer priority is 1 and the PIP priority is 2.
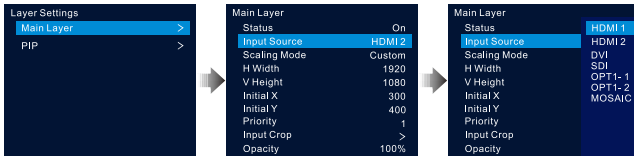
Switch Layer Input Sources

The VX400 offers two ways to switch the layer input source.

- Via menu operations
- Via front panel buttons

• Via menu operations

On the main menu screen, go to **Layer Settings** > **Main Layer**/**PIP** > **Input Source**, and then select the desired source and press the knob to confirm.

Layer Settings	
Main Layer	>
PIP	>

Main Layer	
Status	On
Input Source	HDMI 2
Scaling Mode	Custom
H Width	1920
V Height	1080
Initial X	300
Initial Y	400
Priority	1
Input Crop	>
Opacity	100%

Main Layer	
Status	HDMI 1
Input Source	HDMI 2
Scaling Mode	DVI
H Width	SDI
V Height	OPT1- 1
Initial X	OPT1- 2
Initial Y	MOSAIC
Priority	
Input Crop	
Opacity	

• Via front panel buttons

Step 1   On the device front panel, locate and press the desired layer button in the **CONTROL** area, and then the button becomes flashing and the device screen displays the layer settings screen.

Step 2   Press the desired input source button in the **INPUTS** area to switch the layer input source.
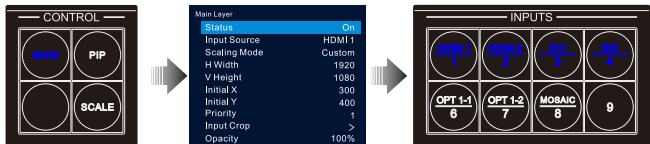
Notes

- If you do not select a specified layer, pressing the input source button switches the input source for the main layer.
- The PIP layers do not support the mosaic source.

4 Preset Operations

The VX400 supports up to 10 user-defined presets. You can save the layer layout, input source and more info as a preset for future use.

Save Presets

Prerequisites

You have completed the layer size, position and related settings.

Procedure

Step 1   On the main menu screen, go to **Preset Settings** > **Preset 1** to open the preset operations window.

Step 2   Rotate the knob to select **Save** and press the knob to confirm.

Main Menu	
Screen Brightness	60%
Layer Settings	>
Input Settings	>
Preset Settings	>
Image Mosaic	>
Display Control	>
Advanced Settings	>
System Settings	>
Factory Reset	>
Communication	>
Working Mode	>
语言/Language	>

Preset Settings	
Preset 1	Saved
Preset 2	Saved
Preset 3	Blank
Preset 4	Blank
Preset 5	Blank
Preset 6	Blank
Preset 7	Blank
Preset 8	Blank
Preset 9	Blank
Preset 10	Blank

Preset Settings
Preset 1
Save   Load   Clear   Copy To

- **Save**: Save the current layer settings to a specified preset. If the target preset is a saved one, it will be overwritten.
- **Load**: Load and apply the selected preset to the LED screen.
- **Clear**: Clear all the layer data in a saved preset.
- **Copy To**: Copy the preset to another preset.

Load Presets

Step 1   On the main menu screen, rotate the knob to select **Preset Settings** and press the knob to enter the preset settings screen.

Step 2   Rotate the knob to select a saved preset and press the knob to open the preset operations window.

Step 3   Select **Load** and press the knob to apply the preset to the screen.

> 🔊 **Note**
>
> When the device shows the **Preset Settings** screen, the number buttons on the device front panel are lit. You can press a number button to quickly load a corresponding preset.

5 Backup Operations

The VX400 supports three kinds of backup, including the device backup, Ethernet port backup and input source backup.

Device Backup

The connection diagram for device backup is shown in below.

After the hardware connections are completed, go to **Advanced Settings** > **Device Backup** on the main menu screen, and then set the devices as the primary and backup devices respectively.
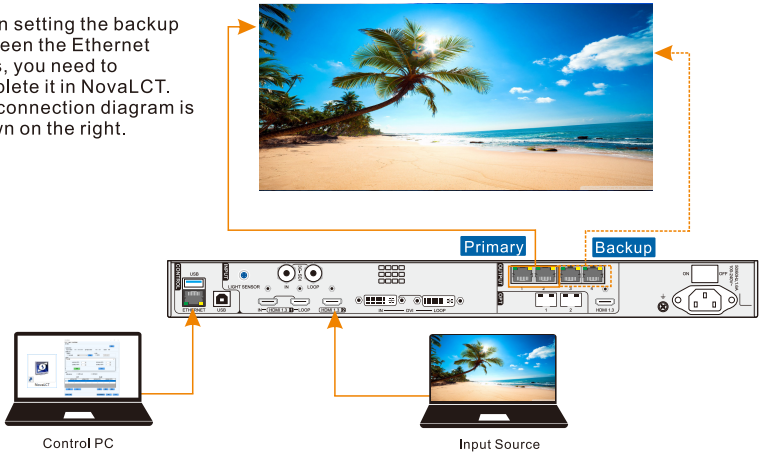

Backup

Primary

Input Source
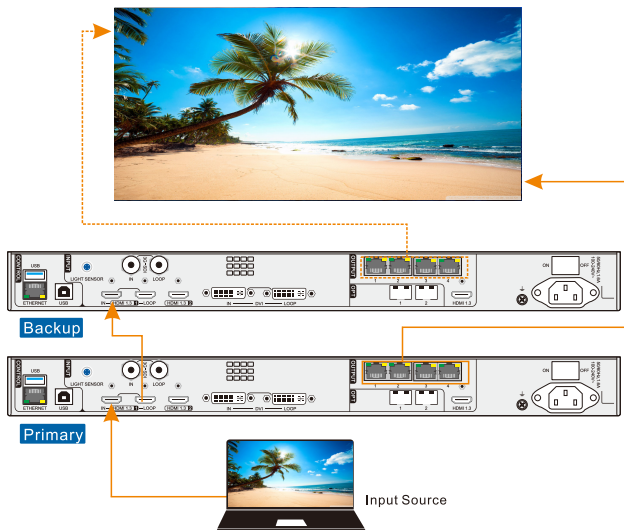
🔊) **Notes**

- In device backup mode, the quantity of the cabinets loaded by each Ethernet port on both the primary and backup devices must be the same, but their data flow must be in a reversed way.
- The layers and layer property settings on both the primary and backup devices must be the same.

Ethernet Port Backup

When setting the backup between the Ethernet ports, you need to complete it in NovaLCT. The connection diagram is shown on the right.
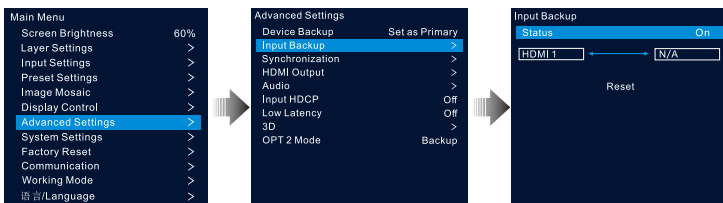

Primary   Backup

Control PC

Input Source

Log in to NovaLCT, and then go to **Screen Configuration** > **Sending Card**. Under the **Sending Card** tab, set the backup between Ethernet ports in the **Redundancy** area.

Step 1   Click **Add** to open the **Redundancy Settings** window.

Step 2   Set the serial number of the primary port on the left and the serial number of the corresponding backup port on the right.

Step 3   Click **Add** to complete the backup settings of an Ethernet port .

Step 4   If needed, repeat Step 2 to Step 3 to complete the backup settings for other Ethernet ports.
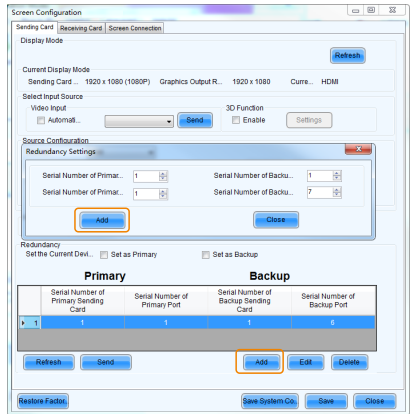
Input Source Backup

When the input source hot backup function is turned on, if an input source fails, its backup source will be used seamlessly to ensure the screen will not go black. On the main menu screen, go to **Advanced Settings** > **Input Backup** to enter the input source backup screen.

Main Menu	
Screen Brightness	60%
Layer Settings	>
Input Settings	>
Preset Settings	>
Image Mosaic	>
Display Control	>
Advanced Settings	>
System Settings	>
Factory Reset	>
Communication	>
Working Mode	>
语言/Language	>

Advanced Settings	
Device Backup	Set as Primary
Input Backup	>
Synchronization	>
HDMI Output	>
Audio	>
Input HDCP	Off
Low Latency	Off
3D	>
OPT 2 Mode	Backup

Input Backup	
Status	On
HDMI 1 ←→ N/A	
Reset	

Step 1 Rotate the knob to turn on the input source backup function.
On the left are the default input sources, and on the right you can set the backup sources.

Step 2 Rotate the knob to select a backup source on the right and press the knob to show the available source list, and then rotate the knob again to select the desired source and press the knob to confirm.
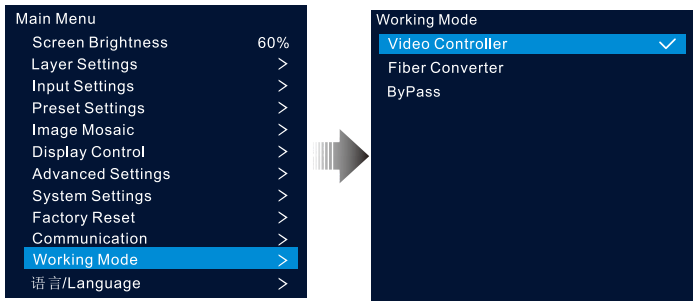The sources on the right serve as the backup for the sources on the left.

6 Working Mode

The VX400 supports three kinds of device working modes: Video Controller (default), Fiber Converter and ByPass.

- Video Controller: The device works as an all-in-one controller offering both the video processing and control capabilities.

  In this mode, OPT 1 is used for either the input or output, and OPT 2 backs up or copies the output on the Ethernet ports.

- Fiber Converter: The device is used for long-distance transmission.

  In this mode, OPT 1 and OPT 2 are both used for input, and the Ethernet ports are used for output.

- ByPass: The device is used as a sending card to realize pixel-to-pixel display and meanwhile reduce the latency.

On the main menu screen, select **Working Mode** and press the knob to enter the device working mode screen.

Main Menu	
Screen Brightness	60%
Layer Settings	>
Input Settings	>
Preset Settings	>
Image Mosaic	>
Display Control	>
Advanced Settings	>
System Settings	>
Factory Reset	>
Communication	>
Working Mode	>
语言/Language	>

Working Mode	
Video Controller	✓
Fiber Converter	
ByPass	

OPT Port Descriptions

OPT 1 is used for either input or output depending on the connected device.

- When the N9, VE7 or other device that uses OPT port to transmit videos is connected to OPT 1 of the VX400, OPT 1 is used for input.

- When a fiber converter is connected to OPT1 of the VX400 or the VX400 works as a fiber converter, OPT 1 is used for output and transmits data on the 10 Ethernet ports.

Device Connections in Different Working Modes

Video Controller

Ethernet Cable

LED Screen

Input Source

Monitor

Optical Fiber Cable

Ethernet Cable

LED Screen

Fiber Converter

LED Screen

ByPass

Input Source