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› Novastar VX600 Video Processor User Manual

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Model: VX600

1. PRODUCT OVERVIEW

The Novastar VX600 is an all-in-one video controller designed for LED display applications. It integrates video processing and video control functionalities into a single unit, making it suitable for a wide range of professional display setups. This device supports various input signals and offers advanced image processing capabilities to ensure high-quality visual output. Key features include support for up to 3.9 million pixels, with maximum output resolutions of 10,240 pixels in width and 8,192 pixels in height, accommodating ultra-wide and ultra-high LED screens. It also provides stepless output scaling, low latency, pixel-level brightness and chroma calibration, and flexible layer management.

2. PACKAGE CONTENTS



Figure 2.1: Contents of the Novastar VX600 package. This includes the VX600 unit, various cables (power, HDMI, USB), and printed documentation such as a quick start guide and safety manual.

Upon unpacking your Novastar VX600, please verify that all components are present:

- Novastar VX600 Video Processor Unit
- Power Cable
- HDMI Cable
- USB Cable
- Quick Start Guide
- Safety Manual
- Certificate of Approval

If any items are missing or damaged, please contact your vendor or Novastar customer support immediately.

3. SETUP

3.1 Front Panel Overview



Figure 3.1: Front panel of the Novastar VX600. This view highlights the integrated display screen, the central control knob and ESC button for menu navigation, and dedicated buttons for input selection (HDMI, DVI, SDI, OPT1) and function controls (MAIN, PIP/PBP, SCALE, PRESET, TEST, FREEZE, FN).

The front panel provides access to the main control interface, including the display screen, navigation knob, and input selection buttons. Use these controls for initial setup and real-time adjustments.

3.2 Rear Panel Connections

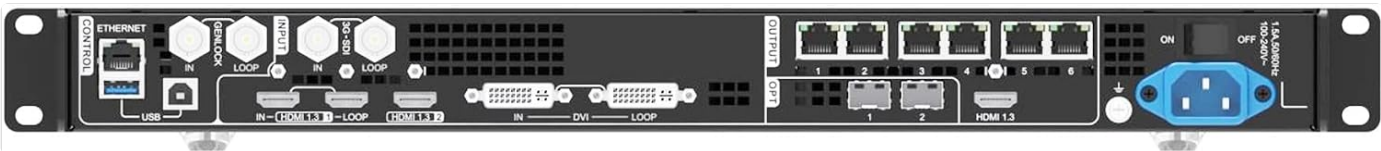


Figure 3.2: Rear panel of the Novastar VX600. This view displays the comprehensive array of input and output ports, including multiple HDMI, DVI, 3G-SDI, and optical fiber inputs, along with six Gigabit Ethernet output ports for LED display connection, a USB port for control, and the power input.

Before powering on the device, connect all necessary input and output cables to the rear panel. Ensure all connections are secure.

- **Input Connectors:**
 - 1x HDMI 1.3 (IN & LOOP)
 - 1x HDMI 1.3
 - 1x DVI (IN & LOOP)
 - 1x 3G-SDI (IN & LOOP)
 - 1x 10G optical fiber port (OPT1) - *Self-adaptive for input or output*
- **Output Connectors:**
 - 6x Gigabit Ethernet ports

- 1x 10G optical fiber port (OPT1) - *Self-adaptive for input or output*
- **Control Port:** USB Type-B for PC control.
- **Power Input:** Connect the provided power cable to a suitable power outlet.

3.3 Initial Power-On

1. Ensure all video input sources (e.g., computers, media players) are connected to the VX600.
2. Connect the VX600's Gigabit Ethernet output ports to your LED display receiving cards.
3. Connect the power cable to the VX600 and then to a power source.
4. Press the power button on the rear panel to turn on the device.
5. The front panel display will illuminate, indicating the device is booting up.

4. OPERATING INSTRUCTIONS

4.1 Menu Navigation

Use the central control knob and the **MENU** and **ESC** buttons on the front panel to navigate the on-screen menu. Rotate the knob to scroll through options and press it to confirm a selection. Press **ESC** to go back to the previous menu or exit.

4.2 Input Source Selection

Directly press the corresponding input button (e.g., **HDMI 1**, **DVI**, **SDI**, **OPT1**) on the front panel to switch between video input sources. The active input will be displayed on the front screen.

4.3 Output Configuration and Scaling

The VX600 supports stepless output scaling. To adjust the output resolution and position:

1. Press the **SCALE** button or navigate to the "Screen Configuration" menu.
2. Adjust the output resolution to match your LED display's physical pixel dimensions.
3. Utilize the "One-click full screen display" function for quick setup or manually crop the input as needed.

4.4 Layer Management (PIP/PBP)

The VX600 supports up to 3 layers, allowing for Picture-in-Picture (PIP) or Picture-by-Picture (PBP) display modes.

- Press the **PIP/PBP** button to activate and configure layers.
- Adjust layer size and position through the menu.
- Set layer priority to control which layer appears on top.

4.5 Preset Saving and Loading

The device supports saving up to 10 user-defined presets for quick recall of configurations.

- To save a preset: Configure your desired settings, then navigate to "Preset Management" and select "Save Preset". Choose an empty slot.
- To load a preset: Press the **PRESET** button on the front panel and select the desired preset number.

4.6 Low Latency Mode

For applications requiring minimal delay, enable the low latency function. When combined with Bypass mode, this can reduce the delay from input to receiving card to as low as 20 lines.

- Access the "Advanced Settings" menu to enable "Low Latency" and "Bypass Mode".

5. MAINTENANCE

5.1 Cleaning

- Ensure the device is powered off and disconnected from the power source before cleaning.
- Use a soft, dry cloth to wipe the exterior of the unit.
- For stubborn marks, a slightly damp cloth with a mild, non-abrasive cleaner can be used, but ensure no liquid enters the device.
- Do not use harsh chemicals, solvents, or abrasive materials.
- Regularly check and clean ventilation openings to prevent dust buildup, which can affect performance and lifespan.

5.2 Environmental Considerations

- Operate the VX600 within its specified temperature and humidity ranges to ensure optimal performance and longevity.
- Avoid placing the device in direct sunlight, near heat sources, or in areas with excessive dust or moisture.
- Ensure adequate ventilation around the unit to prevent overheating.

6. TROUBLESHOOTING

Problem	Possible Cause	Solution
No display on LED screen	Power cable not connected or loose. Input source not selected or no signal. Output resolution mismatch. LED screen not properly connected or configured.	Check power connection and ensure unit is on. Verify input source is active and selected on VX600. Ensure input signal is valid. Adjust output resolution to match LED screen. Verify Ethernet cable connections to LED receiving cards.
Image flickering or unstable	Loose video cables. Interference from other devices. Incorrect refresh rate.	Securely connect all video cables. Ensure proper grounding and distance from strong electromagnetic fields. Adjust refresh rate settings in the VX600 or source device.
Cannot control via PC	USB cable not connected. Driver not installed. Software not running or incorrect settings.	Connect USB cable between PC and VX600. Install the latest Novastar control software and drivers. Ensure the software is configured to connect to the VX600.

7. SPECIFICATIONS

Feature	Detail
Model Number	VX600
Input Connectors	1x HDMI 1.3 (IN & LOOP), 1x HDMI 1.3, 1x DVI (IN & LOOP), 1x 3G-SDI (IN & LOOP), 1x 10G optical fiber port (OPT1)
Output Connectors	6x Gigabit Ethernet ports, 1x 10G optical fiber port (OPT1)
Maximum Loading Capacity	3.9 million pixels
Maximum Output Width	10,240 pixels

Feature	Detail
Maximum Output Height	8,192 pixels
Layers Supported	3 (Adjustable size, position, priority)
Latency	As low as 20 lines (with low latency and Bypass mode enabled)
Preset Storage	Up to 10 user-defined presets
Package Dimensions	22 x 18 x 6.8 inches
Item Weight	15.21 pounds
Manufacturer	Novastar

8. WARRANTY AND SUPPORT

For detailed warranty information, please refer to the warranty card included with your product or visit the official Novastar website. Warranty terms and conditions may vary by region and retailer.

For technical support, troubleshooting assistance beyond this manual, or service inquiries, please contact your authorized Novastar dealer or visit the Novastar support portal. Keep your product model number (VX600) and serial number ready when contacting support.

You can find more information and support resources on the official Novastar website: www.novastar.tech

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ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question