

## Novastar MCTRL700

# NovaStar MCTRL700 LED Control Box User Manual

Model: MCTRL700 | Brand: Novastar

## 1. INTRODUCTION

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This user manual provides comprehensive instructions for the installation, operation, and maintenance of the NovaStar MCTRL700 LED Control Box. The MCTRL700 is a professional LED display controller designed for various applications, offering robust video processing and control capabilities for LED screens.

## 2. PRODUCT OVERVIEW

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The NovaStar MCTRL700 is a large on-board controller from Nova. It is engineered to provide reliable and high-performance control for LED displays. Its design incorporates multiple input and output interfaces to ensure versatile connectivity and seamless operation.

### Key Features:

- Support 1 channel of DVI video source input.
- Support 1 HDMI video source input.
- Support 1 channel of audio input.
- Support 6-channel Gigabit Ethernet port output, each network port supports up to 650,000 pixels.
- Support 1 channel DVI video source output for cascading or monitoring.
- Support 1 HDMI video source output for cascading or monitoring.
- Support 1 way port USB control interface.
- Supports RS232 IN and RS232 OUT control interfaces for device cascading.
- Support 2 channels of 100M network port, with square port USB interface, device cascading.
- Maximum load resolution 2048×1152@60Hz or 1920×1200@60Hz.

### Product Views:



Figure 2.1: Front panel of the MCTRL700, displaying the model name "MCTRL700 LED Display Controller" on the left and power indicator lights (green and red) and the power switch on the right.



Figure 2.2: Rear panel of the MCTRL700, featuring the AC power input, six Gigabit Ethernet output ports (1-6), DVI IN/OUT, HDMI IN/OUT, USB control port, audio input, and RS232 IN/OUT ports for control and cascading.

## 3. SETUP

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### 3.1 Unboxing and Inspection:

Carefully remove the MCTRL700 from its packaging. Inspect the device for any signs of damage during transit. Ensure all accessories listed in the packing list are present.

### 3.2 Power Connection:

Connect the provided AC power cable to the power input port on the rear panel of the MCTRL700. Plug the other end into a suitable power outlet (AC 100-240V, 50/60Hz). Ensure the power switch on the front panel is in the OFF position before connecting power.

### 3.3 Input Source Connection:

- **DVI Input:** Connect your DVI video source to the "DVI IN" port on the rear panel.
- **HDMI Input:** Connect your HDMI video source to the "HDMI IN" port on the rear panel.
- **Audio Input:** Connect your audio source to the dedicated audio input port.

### 3.4 Output Connection to LED Display:

Connect the Gigabit Ethernet cables from the "OUT PUT" ports (1-6) on the MCTRL700 to the receiving cards of your LED display modules. Ensure proper cabling order as per your LED display configuration.

### 3.5 Control Connection:

- **USB Control:** Connect a USB cable from your control computer to the "USB" port on the MCTRL700 for configuration and control via NovaLCT software.
- **RS232 Control:** For cascading or external control, use the "RS232 IN" and "RS232 OUT" ports.

## 4. OPERATING INSTRUCTIONS

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### 4.1 Powering On/Off:

To power on the device, flip the power switch on the front panel to the 'ON' position. The green indicator light should illuminate. To power off, flip the switch to the 'OFF' position.

## 4.2 Basic Configuration (via NovaLCT):

The MCTRL700 is primarily configured using NovaStar's NovaLCT software on a connected computer. Refer to the NovaLCT software manual for detailed instructions on screen configuration, sending card settings, and display parameters.

- **Input Source Selection:** Within NovaLCT, select the desired video input source (DVI or HDMI) for your LED display.
- **Resolution Adjustment:** Configure the output resolution to match your LED display's requirements, up to 2048×1152@60Hz or 1920×1200@60Hz.
- **Screen Configuration:** Set up the screen connection, including the number of receiving cards and their layout, to ensure proper display of content.

## 4.3 Cascading Multiple Devices:

The MCTRL700 supports cascading for larger display setups. Use the DVI OUT or HDMI OUT ports to connect to the DVI IN or HDMI IN of another MCTRL700 unit. RS232 ports can also be used for control signal cascading.

# 5. MAINTENANCE

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## 5.1 Cleaning:

Regularly clean the exterior of the MCTRL700 with a soft, dry cloth. Do not use liquid cleaners or aerosols directly on the device. Ensure ventilation openings are free from dust and debris to prevent overheating.

## 5.2 Storage:

When not in use for extended periods, store the MCTRL700 in a cool, dry place, away from direct sunlight and extreme temperatures. It is recommended to keep the original packaging for safe storage and transport.

## 5.3 Firmware Updates:

Periodically check the official NovaStar website for firmware updates. Keeping the firmware updated ensures optimal performance, compatibility, and access to new features. Follow the instructions provided with the firmware update package carefully.

# 6. TROUBLESHOOTING

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## 6.1 No Signal on LED Display:

- **Check Power:** Ensure the MCTRL700 is powered on and the green indicator light is active.
- **Verify Input Cables:** Confirm that DVI or HDMI input cables are securely connected to both the source and the MCTRL700.
- **Check Output Cables:** Ensure all Gigabit Ethernet cables from the MCTRL700 to the LED display receiving cards are properly connected.
- **Software Configuration:** Open NovaLCT software and verify that the correct input source is selected and the screen configuration matches your LED display setup.
- **Resolution Compatibility:** Ensure the input resolution is within the supported range of the MCTRL700 and the LED display.

## 6.2 Display Appears Distorted or Incomplete:

- **Screen Configuration:** Re-check the screen configuration in NovaLCT. Incorrect receiving card mapping or resolution settings can cause distortion.
- **Cable Integrity:** Inspect Ethernet cables for damage or loose connections.
- **Firmware:** Ensure the MCTRL700 and receiving cards have the latest compatible firmware.

### 6.3 Device Not Responding to USB Control:

- **USB Cable:** Try a different USB cable and ensure it's connected to the correct USB control port.
- **Driver Installation:** Verify that the necessary USB drivers for the MCTRL700 are correctly installed on your computer.
- **Software Running:** Ensure NovaLCT software is running and properly detecting the device.

## 7. SPECIFICATIONS

Attribute	Value
Package Dimensions	22.25 x 12.75 x 3.5 inches
Item Weight	7.93 pounds
ASIN	B09KMGG73F
Manufacturer	NovaStar
Connector Type	HDMI
Brand	Novastar
Compatible Devices	Monitor
Cable Type	USB
Number of Ports	6
Max Load Resolution	2048x1152@60Hz or 1920x1200@60Hz
Video Inputs	1x DVI, 1x HDMI
Audio Input	1 channel
Control Interface	USB, RS232 IN/OUT, 2x 100M Network Ports

## 8. WARRANTY INFORMATION

NovaStar products typically come with a standard manufacturer's warranty. For specific warranty terms, duration, and conditions applicable to your MCTRL700 unit, please refer to the warranty card included with your purchase or visit the official NovaStar website. Retain your proof of purchase for warranty claims.

## 9. SUPPORT

For technical support, troubleshooting assistance beyond this manual, or inquiries regarding your NovaStar MCTRL700, please contact NovaStar customer service or visit their official support portal. You can find more information and resources on the [Novastar Store on Amazon](#) or the official NovaStar website.



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