# LogiCue Net to DMX Converter

**User Manual**

## About This Manual

This manual covers the installation, configuration, and operation of the NuDelta Digital LogiCue Net to DMX Converter.

Read Section 2 before applying power. Sections 3 and 4 cover the on-device configuration menu, which is where nearly all setup happens. Section 5 covers the optional web control panel.

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## 1. Overview

The LogiCue Net to DMX Converter receives cue light commands from a LogiCue Net controller over an Ethernet network and translates them into DMX-512 output. This allows standard DMX fixtures — LED lights, practicals, or any DMX-controlled device — to be driven directly by the LogiCue system.

The converter provides **12 independent cue light channels**. Each channel is configured with:

- a **DMX address** — the DMX slot the channel transmits on
- a **level** — the DMX value the channel sends when it is active
- a **color mode** — what kind of cue light the channel represents, which also determines how many DMX addresses the channel occupies

The unit is powered over the same Ethernet cable that carries its data (Power over Ethernet), so one cable is the only connection required on the network side.

Each converter also has a **Unit Number** (1 to 12), which gives it its own address on the network. Where several converters share a network, each must have a different unit number.

All configuration is done at the device using the display and the rotary knob. A web control panel is also available as an optional alternative and is used for firmware updates.

## 1.1 Controls and Connections

The unit has one control and one display. There are no other buttons, switches, or DIP settings.

| | Description |
|---|---|
| **OLED display** | A small monochrome screen showing status during normal operation and the menu during setup. It displays one item at a time on two lines. |
| **Rotary encoder** | A knob that turns and also presses in like a button. Turning moves through lists and changes values; pressing selects and confirms. |
| **Network connector** | etherCON, accepting either a standard RJ45 patch cable or a ruggedised etherCON cable. Carries both data and PoE power. |
| **DMX connector** | 5-pin XLR, output only. |

**[PHOTO 1: Front of the unit — OLED display and encoder knob]**

## 2. Installation

Connect the device in the order below. The unit has no power switch; it starts as soon as PoE power is present.

### 2.1 What You Need

| Item | Requirement |
|---|---|
| Network switch | Must supply 802.3af Power over Ethernet on the port used |
| Ethernet cable | Cat5e or better. Either a standard RJ45 patch cable or an etherCON cable. |
| DMX cable | DMX-rated 5-pin cable, male to female |
| DMX terminator | 5-pin, recommended on the last fixture in the chain |
| LogiCue controller | Configured to the same IP Range and IP Group as the converter |

### 2.2 Step 1 — Connect Network and Power

Plug an Ethernet cable from a **PoE-enabled port on your network switch** into the network connector on the converter.

The network connector is an etherCON. It accepts either a standard RJ45 patch cable or a ruggedised etherCON cable, which latches into place. Use an etherCON cable for touring or any installation where the cable may be knocked or pulled.

This single connection provides both power and data. The unit powers up immediately:

1. The display illuminates.
2. The display shows **Waiting for signal**.
3. Once the converter begins receiving data from the LogiCue controller, the display changes to a moving checkmark (see Section 2.5).

If the display stays blank, see Section 8.

> **Note:** Do not connect the converter to both a switch port and a separate PoE injector at the same time.

### 2.3 Step 2 — Connect DMX

Connect a 5-pin DMX cable from the converter's **DMX OUT** connector to the DMX input of the fixture you are controlling.

The converter's DMX connector is a female 5-pin XLR. The converter has a DMX output only. It does not pass DMX through from another source.

- Use DMX-rated cable. Microphone cable has the wrong impedance and causes intermittent faults that are difficult to trace.
- To chain multiple fixtures, run DMX OUT of the converter to DMX IN of the first fixture, then DMX OUT of that fixture to DMX IN of the next, and so on.
- Fit a DMX terminator to the DMX output of the last fixture in the chain.
- If your fixtures use 3-pin DMX connectors, use a 5-pin to 3-pin DMX adapter or adapter cable.

### 2.4 Step 3 — Configure

A new converter has **all 12 channels set to Off** and will not output anything on DMX until channels are assigned. Before the unit will do anything useful you must, at minimum:

1. Set the **IP Range** and **IP Group** to match your LogiCue controller (Sections 4.4 and 4.5).
2. Set the **Unit Number**, if this is not the only converter on the network (Section 4.6).
3. Set a **color mode** on each channel you intend to use (Section 4.7).
4. Set the **DMX address** and **level** for each of those channels (Section 4.7).

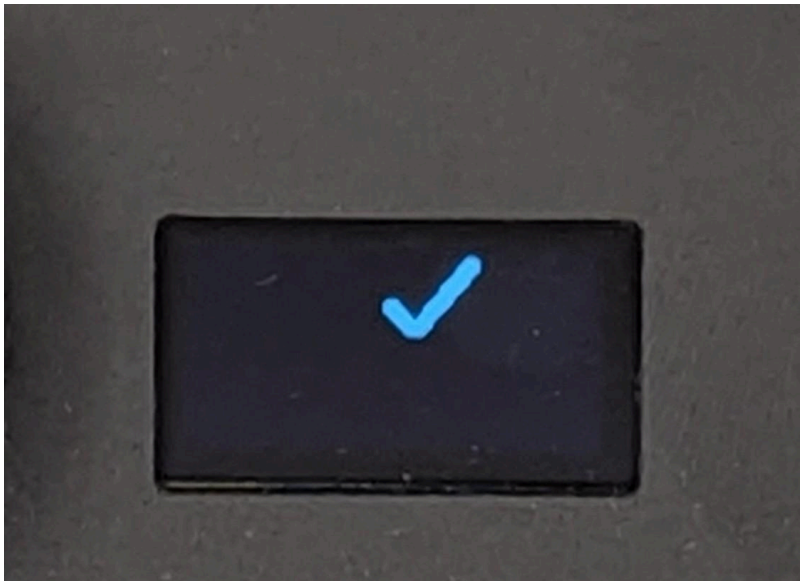
Section 3 explains how to enter the menu.

### 2.5 The Display During Normal Operation

| Display | Meaning |
|---|---|
| **Waiting for signal** | The unit has started and is not receiving data from a LogiCue controller. |
| **Moving checkmark** | The unit is receiving data. The checkmark redraws in a new position every 10 seconds to prevent display burn-in. |
| **Web Config**, then an IP address | The unit is in configuration mode and is not processing cues. The address shown is the one to type into a browser. See Section 5. |

**[PHOTO 2: Display showing “Waiting for signal”]**


**[PHOTO 3: Display showing the checkmark during normal operation]**



> **Automatic restart on loss of signal.** If the converter does not receive data from the controller for 5 seconds, it restarts itself and returns to **Waiting for signal**. This is normal, intentional behavior. A unit sitting on a network with no controller running will restart repeatedly; this is not a fault.

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# 3. Using the Menu

All device settings are reached through the boot menu, which is operated entirely with the rotary knob.

## 3.1 Entering the Menu

The menu is only available at startup.

1. **Press and hold the knob.**
2. **Apply power** to the unit, or restart it if it is already running.
3. The display shows **Menu**. Keep holding until it appears.
4. **Release the knob.** You are now in the menu.

## 3.2 How the Knob Works

| Action | Result |
|---|---|
| **Turn** | Move through the items in a list, or change the value being edited. Lists wrap around from the last item back to the first. |
| **Press** | Select the item shown, or confirm the value being edited. |

The display shows one item at a time on two lines: the name of the item on the top line, and its current value or second word on the bottom line.

**[PHOTO 4: Display showing a menu item, for example “IP Range 1”]**

### 3.3 Leaving the Menu

> **Important:** The best way out of the menu is to restart the unit from within it. Select **Exit & Reboot** (Section 4.10) when you are finished. Removing power instead will not lose your saved settings, but Exit & Reboot is the correct method.

### 3.4 Menu Map

```
Menu
├── IP Range            1-4
├── IP Group            1-4
├── Unit Number         1-12
├── Channel Settings
│   ├── Channel 1
│   │   ├── Ch1 Addr    1-512
│   │   ├── Ch1 Level   1-255
│   │   ├── Ch1 Color   Off / Red / Blue / Green / Amber /
│   │   │               Teal / Pink / RGB / Red-Green
│   │   └── Back
│   ├── Channel 2 ... Channel 12   (same three settings)
│   └── Back
├── Web Config          restarts into configuration mode
├── Factory Reset       restores defaults, then restarts
└── Exit & Reboot       returns to normal operation
```

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## 4. Menu Reference

### 4.1 Top Menu Items

Turning the knob at the top level cycles through seven items:

| Display | Section |
|---|---|
| **IP Range** *(current value)* | 4.4 |
| **IP Group** *(current value)* | 4.5 |
| **Unit Number** *(current value)* | 4.6 |
| **Channel Settings** | 4.7 |
| **Web Config** | 4.8 |
| **Factory Reset** | 4.9 |
| **Exit & Reboot** | 4.10 |

### 4.2 When Settings Take Effect

| Setting | Takes effect |
|---|---|
| Channel address, level, color | Saved immediately when recorded; used as soon as the unit returns to normal operation |
| IP Range, IP Group, Unit Number | Saved immediately when recorded; applied at the next restart |

All settings are stored in non-volatile memory and survive a power cycle.

### 4.3 Network Addressing Explained

The converter does not use DHCP. Its IP address, the multicast group it listens to, and the address of the controller it replies to are all derived from three settings.

| Setting | What it does |
|---|---|
| **IP Range** | Selects which block of addresses the whole system uses. Use this to keep the LogiCue system on a separate address range from other equipment on the network. |
| **IP Group** | Allows more than one independent LogiCue system to run on the same network without interfering with each other. |
| **Unit Number** | Distinguishes this converter from other converters in the same range and group. Only needs to be changed if you are using more than one converter in a network. |

**IP Range and IP Group must match the LogiCue controller.** The Unit Number does not — it is the converter's own identity and is not sent to the controller.

See Appendix B for the full address tables.

### 4.4 IP Range

1. Turn the knob until the display shows **IP Range** and its current value.
2. Press the knob. The display shows **Set Range**.
3. Turn the knob to select **1**, **2**, **3**, or **4**.

4. Press the knob. The display confirms **Recorded** and returns to the top menu.

| Range | Address block |
|---|---|
| 1 | 10.201.x.x |
| 2 | 10.50.x.x |
| 3 | 172.30.x.x |
| 4 | 192.168.x.x |

The new range is applied the next time the unit restarts.

### 4.5 IP Group

1. Turn the knob until the display shows **IP Group** and its current value.
2. Press the knob. The display shows **Set Group**.
3. Turn the knob to select **1**, **2**, **3**, or **4**.
4. Press the knob. The display confirms **Recorded** and returns to the top menu.

The new group is applied the next time the unit restarts.

### 4.6 Unit Number

The Unit Number gives the converter its own address on the network.

**Every converter that shares an IP Range and IP Group must have a different Unit Number.** Two converters with the same range, group, and unit number will claim the same IP address, and neither will work reliably.

The Unit Number is not a DMX address and not a LogiCue channel number. It has no effect on cue lights, on the controller, or on DMX output.

1. Turn the knob until the display shows **Unit** on the top line and **Number** with the current value on the second line.
2. Press the knob. The display shows **Set Unit**.
3. Turn the knob to select a value from **1** to **12**.
4. Press the knob. The display confirms **Recorded** and returns to the top menu.

The new unit number is applied the next time the unit restarts.

> **If this is the only converter on the network,** leave the Unit Number at 1.

### 4.7 Channel Settings

Select **Channel Settings** and press the knob. Turn the knob to move through **Channel 1** to **Channel 12**, then **Back**. Press to open a channel.

Within a channel, turning the knob moves through four items:

- **Ch*n* Addr** — the DMX start address
- **Ch*n* Level** — the DMX output level
- **Ch*n* Color** — the color mode
- **Back** — return to the channel list

**Setting the DMX Address**

1. Select **Ch*n* Addr** and press the knob. The display shows **Set Addr**, the current address, and a step size of **x1**.
2. Turn the knob to change the address. Valid addresses are **1 to 512**.
3. Press the knob to change the step size to **x10** for faster movement. Press again to return to **x1**.
4. Press a third time to record the value.

The press sequence inside the editor is: **x1**, then **x10**, then **x1**, then **record**.

On success the display shows **Recorded**. If the value is rejected, the display shows an error (below), the editor stays open, and the step size returns to x1 so you can dial in a different value.

| Error display | Meaning |
|---|---|
| **Address error / Won't fit 512** | The channel's color mode needs more addresses than are left before 512. For example, an RGB channel needs three addresses, so its start address cannot be higher than 510. |
| **Overlap Ch*n* / Pick another** | The address range would collide with channel *n*. Every active channel must have its own addresses. |

**Setting the Level**

The level is the DMX value the channel sends when it is active. Valid levels are **1 to 255**, where 255 is full.

The editor works exactly like the address editor: **x1**, then **x10**, then **x1**, then **record**.

**Setting the Color**

1. Select **Ch*n* Color** and press the knob. The display shows **Set Color** and the current color name.
2. Turn the knob to cycle through the nine color modes.
3. Press the knob once to record.

The color editor has no step sizes — a single press records the value. The same address validation applies, because changing the color mode can change how many addresses the channel needs.

See Section 6 for what each color mode does.

### 4.8 Web Config

Selecting **Web Config** and pressing the knob puts the unit into configuration mode:

1. The display briefly shows **Web Config Mode**.
2. The unit restarts.
3. The display shows **Web Config** for about two seconds, then the unit's IP address.

The address is shown on two lines because it does not fit on one. The first two parts appear on the top line ending in a dot, and the rest on the line below. For example, an address of 10.201.3.21 appears as:

```
10.201.
 3.21
```

Type the whole address into a browser as one line. See Section 5.

In this mode the unit serves the web control panel, which is also where firmware updates are performed. It does **not** process cues or output DMX.

Configuration mode is not sticky. To return to normal operation, use **Exit & reboot** in the web control panel, or simply restart the unit.

**[PHOTO 11: Display showing the configuration mode address on two lines]**

### 4.9 Factory Reset

1. Turn the knob until the display shows **Factory Reset**.
2. Press the knob. The display shows **Reset?**
3. **Press again to confirm**, or **turn the knob to cancel**.
4. The display shows **Reset Done** and the unit restarts.

Factory reset restores these values:

| Setting | Default |
|---|---|
| IP Range | 1 |
| IP Group | 1 |
| Unit Number | 1 |
| Channel 1-12 DMX address | 1, 2, 3 … 12 respectively |

| Setting | Default |
|---|---|
| Channel 1-12 level | 255 |
| Channel 1-12 color | **Off** |

> **After a factory reset, every channel is set to Off and the unit will not output any DMX** until color modes are assigned. This is the expected state of a new unit.

A factory reset is also the quickest way to return a unit to a known network state. If you are not sure what a unit is set to, resetting it returns the Range, Group, and Unit Number all to 1, which puts the unit at **10.201.3.21**.

> **When resetting one of several converters,** remember to set its Unit Number again afterwards. A reset unit returns to Unit Number 1 and may collide with another converter.

### 4.10 Exit & Reboot

Select **Exit & Reboot** and press the knob. The display shows **Rebooting**, and the unit restarts into normal operation with all saved settings applied.

This is the correct way to leave the menu.

## 5. Web Control Panel *(optional)*

The web control panel provides the same channel and network settings as the on-device menu, in a browser. It is usually faster when configuring several channels at once, or when the unit is mounted somewhere awkward to reach. It is also where firmware updates are performed.

### 5.1 Entering Configuration Mode

The control panel is only served while the unit is in configuration mode. Enter it from the menu using **Web Config** (Section 4.8).

While in configuration mode the unit does not process cues or output DMX.

### 5.2 Connecting a Computer to the Converter

In configuration mode the converter uses **its own IP address** — the same one it uses in normal operation, determined by its IP Range, IP Group, and Unit Number. The address is shown on the display when the unit enters configuration mode, and that is the address to use.

The converter does not run a DHCP server and will not assign your computer an address. Your computer must be set to a static address on the same subnet before it can reach the control panel. This is a temporary change that you undo when you are finished (Section 5.2.5).

**Settings to Use**

Read the converter's address from its display first. Then set your computer to an address with **the same first two parts**, as below.

| If the display shows | Set the computer to | Subnet mask |
|---|---|---|
| 10.201.*x*.*x* | 10.201.3.200 | 255.255.0.0 |
| 10.50.*x*.*x* | 10.50.3.200 | 255.255.0.0 |
| 172.30.*x*.*x* | 172.30.3.200 | 255.255.0.0 |
| 192.168.*x*.*x* | 192.168.3.200 | 255.255.0.0 |

Leave the router, gateway, and DNS fields empty.

A converter at its default settings — IP Range 1, IP Group 1, Unit Number 1 — appears at **10.201.3.21**.

The computer address ending in 200 is suggested only because no converter will ever use it. Converters occupy the range .21 to .92 in the third part of the address, so any host address outside that range will do.

> **On a corporate or venue network,** check with your network administrator before using these settings. The 255.255.0.0 mask is wide, and IP Range 4 in particular (192.168.x.x) overlaps the range used by most office and home networks. While these settings are applied, your computer may be unable to reach other network resources.

**Connecting the Cable**

You must connect the computer through a PoE switch since the converter needs power.

Most current Mac laptops have no built-in Ethernet port and need a USB-C or Thunderbolt to Ethernet adapter. Many thin Windows laptops are the same.

**5.2.1 Windows**

These steps are for Windows 11 and Windows 10.

1. Open **Settings**, then **Network & Internet**.
2. Select **Ethernet**.
3. Next to **IP assignment**, click **Edit**.
4. Change the drop-down from **Automatic (DHCP)** to **Manual**.
5. Switch **IPv4** on.
6. Enter the address and subnet mask from the table above, leaving the gateway and DNS fields empty.
7. Click **Save**.

> Windows sometimes reports the connection as **Unidentified network** or shows a warning that there is no Internet access. This is expected. The converter is not a router and provides no Internet connection.

#### 5.2.2 macOS

These steps are for macOS Ventura and later. The window is called **System Preferences** on earlier versions, but the fields are the same.

1. Open **System Settings**, then **Network**.
2. Select your Ethernet connection in the list. If you are using an adapter, it may be named after the adapter rather than “Ethernet”.
3. Click **Details…**
4. Select the **TCP/IP** tab.
5. Set **Configure IPv4** to **Manually**.
6. Enter the address and subnet mask from the table above, leaving the router field empty.
7. Click **OK**.

> **Turn Wi-Fi off while you work.** macOS prefers Wi-Fi over a wired connection that has no Internet access, and may route the browser over Wi-Fi instead of Ethernet. Turning Wi-Fi off for the duration of the configuration session avoids this. Alternatively, in the Network settings, use the “…” menu and choose **Set Service Order** to place Ethernet above Wi-Fi.

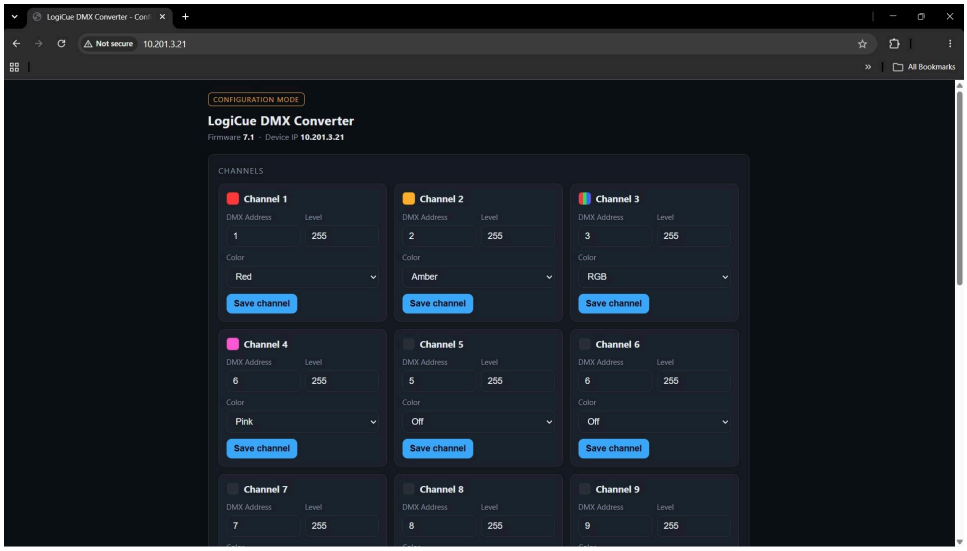
#### 5.2.3 Opening the Control Panel

1. Read the address from the converter’s display.
2. Open a web browser and type that address, preceded by `http://` — for example, **http://10.201.3.21**

Type the address exactly, including `http://`. Without it, some browsers treat the address as a search term. Some browsers do not require the http://.

The page opens with a **Configuration mode** badge, and shows the unit’s firmware version and IP address underneath the title.

**[PHOTO 4: Web control panel as it appears in a browser]**




### 5.2.4 If the Page Does Not Load

Work through these in order:

| Check | What to do |
|---|---|
| Is the converter in configuration mode? | The display must show **Web Config** and then an address. The panel is not served during normal operation. |
| Are you using the address on the display? | The address changes with IP Range, IP Group, and Unit Number. Do not assume it is the same as last time. |
| Do the first two parts of both addresses match? | The computer and the converter must share them. A computer at 10.201.3.200 cannot reach a converter at 192.168.3.21. |
| Is the cable connected and the link light on? | Confirm both ends. Try a different switch port and a known-good cable. |
| Did the address settings actually apply? | Reopen the network settings and confirm the values are still there. Some adapters need to be disabled and re-enabled. |

| Check | What to do |
|---|---|
| Is the computer using the right adapter? | On macOS, turn Wi-Fi off. On Windows, disconnect from Wi-Fi. |
| Is a VPN running? | Disconnect it. A VPN will capture traffic that should go to the local network. |
| Is a firewall blocking the connection? | Temporarily disable third-party firewall or endpoint security software. |
| Does the address respond at all? | Open a command prompt or terminal and run `ping` followed by the converter's address. Replies confirm the network path is good and the problem is in the browser. No replies point to cabling or address settings. |

#### 5.2.5 Restoring Your Computer's Normal Settings

When you are finished, set the computer back to automatic addressing. Leaving it on a static address will usually prevent it from working on ordinary networks.

**Windows:** Settings, then Network & Internet, then Ethernet. Click **Edit** next to IP assignment and change **Manual** back to **Automatic (DHCP)**. Click **Save**.

**macOS:** System Settings, then Network. Select the Ethernet connection, click **Details…**, open the **TCP/IP** tab, and set **Configure IPv4** back to **Using DHCP**. Click **OK**. Turn Wi-Fi back on if you turned it off.

### 5.3 Channels

The **Channels** section shows one card per channel, each with a color swatch matching its current color mode.

| Field | Range |
|---|---|
| DMX Address | 1–512 |
| Level | 1–255 |
| Color | Off, Red, Blue, Green, Amber, Teal, Pink, RGB, Red/Green |

To change a channel, edit the fields and click **Save channel** on that card. The status text beside the button reads *Saving…*, then *Saved*, and the color swatch updates immediately.

Each card saves independently — changing three channels means clicking **Save channel** three times.

| Status text | Meaning |
|---|---|
| **Saved** | The change was accepted and stored. |
| **Rejected** | The value was refused. The most likely causes are an address that runs past 512 or an overlap with another channel — the same rules described in Section 4.7. |
| **No response** | The unit did not reply. Check the network connection and reload the page. |

### 5.4 Network

The Network section has three drop-downs:

| Field | Values |
|---|---|
| **IP Range** | 1 to 4 |
| **IP Group** | 1 to 4 |
| **Unit Number** | 1 to 12 |

Choose the values you need and click **Save**. All three save together with one click. The status confirms *Saved - applies on reboot*.

| Status text | Meaning |
|---|---|
| **Saved - applies on reboot** | The values were stored. |
| **Range/Group must be 1-4** | A value was outside the accepted range. |
| **Unit Number must be 1-12** | The unit number was outside the accepted range. |

Network settings are applied at the next restart. Use **Exit & reboot** to apply them.

> **Changing the IP Range, IP Group, or Unit Number changes the address of the control panel itself.** After the unit reboots, the panel will be at the new address, and your computer may need its own address changed to match (Section 5.2). Note the new address before you reboot.

### 5.5 Firmware Update

The **Firmware Update** section of the panel flashes new firmware to the converter. The full procedure, including where to obtain firmware files, is in Section 7.

The section contains:

| Control | Purpose |
|---|---|
| **File picker** | Choose the `.bin` firmware file. Once a file is chosen, its size is shown alongside. |
| **Upload & flash** | Starts the update. Stays greyed out until a file is chosen. |
| **Progress bar** | Shows upload progress as a percentage, then turns green when the update completes. |

Clicking **Upload & flash** asks you to confirm, naming the file you selected. The confirmation warns that the wrong file will still flash and will require factory recovery — read the file name before confirming.

While the update runs, every control on the page is disabled. The status text reads *Uploading…* as the file transfers, then *Writing to flash…* once the transfer reaches 100 percent.

> **Do not remove power during the update.**

When the update finishes, the page is replaced by a message confirming the firmware was written. **The converter reboots into normal operation, not back into configuration mode.** To check the new version number, put the unit back into Web Config from the menu and reload the page.

**[PHOTO 16: Firmware Update section of the control panel, with a file selected]**

If the update fails, the progress bar turns red and the status text gives the reason:

| Status text | Meaning |
|---|---|
| **Choose a file first** | No file was selected. |

| Status text | Meaning |
|---|---|
| **Rejected by device** | The converter refused the upload. The number in brackets is the error code returned. |
| **Connection lost during upload** | The network connection dropped before the transfer completed. The converter's existing firmware is unaffected; try again. |
| **Upload cancelled** | The transfer was stopped before it finished. |

### 5.6 System

| Button | Action |
|---|---|
| **Exit & reboot** | Restarts the unit into normal operation, applying any saved network settings. Confirmation is required. |
| **Factory reset** | Restores the defaults listed in Section 4.9, including Unit Number 1, then restarts. Confirmation is required. |

After **Exit & reboot** or **Factory reset**, the browser page shows a message confirming the unit is restarting and can then be closed. The control panel will not be reachable again until the unit is put back into configuration mode.

## 6. Cue States, Color Modes, and DMX Addressing

### 6.1 Cue States

The LogiCue controller has two buttons for each channel: **Standby** and **Go**. Between them they produce three cue states.

| Cue state | How the operator reaches it |
|---|---|
| **Standby** | Press the channel's Standby button. |
| **Go** | Press the channel's Go button. |

| Cue state | How the operator reaches it |
|---|---|
| **Clear** | Press the channel's Go button a second time, or press Main Clear. |

A Main Go and a Main Clear button on the controller act on all channels at once.

What the converter outputs for each state depends on the channel's color mode.

### 6.2 Color Modes

A channel's color mode does two things: it tells the controller what kind of cue light the channel is, and it determines how many consecutive DMX addresses the channel occupies.

| Color mode | DMX addresses used | Has a Clear state |
|---|---|---|
| Off | none | — |
| Red | 1 | no |
| Blue | 1 | no |
| Green | 1 | no |
| Amber | 1 | no |
| Teal | 1 | no |
| Pink | 1 | no |
| RGB | 3 consecutive | yes |
| Red/Green | 2 consecutive | yes |

### 6.3 Single-Color Modes

A channel set to Red, Blue, Green, Amber, Teal, or Pink occupies **one** DMX address. The converter drives that single address on and off; it does not mix colors. The color name identifies the channel to the controller.

| Cue state | Output |
|---|---|
| Standby | Start address = the channel's **Level** |
| Go | Start address = 0 |

| Cue state | Output |
|---|---|
| Clear | Start address = 0 |

Example: a Red channel at DMX address 15 with a level of 200 sends 200 to address 15 while the channel is in Standby, and 0 at all other times.

> **Why the light goes out on Go.** Single-color modes follow the original cue light convention, from the days when cue lights were plain bulbs with only an on and an off state. The light coming on is the warning to stand by; the light going out is the cue to go. Use RGB or Red/Green mode for fixtures that should show a different color for each state.

### 6.4 RGB Mode

An RGB channel occupies **three** consecutive addresses starting at its DMX address. Each cue state drives one of the three, and only one is driven at a time:

| Cue state | Color | Address driven |
|---|---|---|
| Standby | Red | start address |
| Go | Green | start address + 1 |
| Clear | Blue | start address + 2 |

Wire the fixture so that the first address is its red element, the second green, and the third blue.

Example: an RGB channel with a DMX address of 20 and a level of 255 occupies addresses 20, 21, and 22. In Standby it sends 255 to address 20; in Go, 255 to address 21; in Clear, 255 to address 22. The other two addresses are at 0.

### 6.5 Red/Green Mode

A Red/Green channel occupies **two** consecutive addresses:

| Cue state | Color | Address driven |
|---|---|---|
| Standby | Red | start address |
| Go | Green | start address + 1 |
| Clear | — | neither; the fixture is dark |

Example: a Red/Green channel at DMX address 30 occupies addresses 30 and 31. In Clear, both are at 0.

### 6.6 Off

A channel set to Off occupies no DMX addresses and outputs nothing. It is also excluded from the check-in exchange with the controller, so the controller will not see it as a connected cue light.

Set unused channels to Off. Because Off channels occupy no addresses, they can never cause an address overlap. In order for a cue light to be used on a controller channel, the converter needs to be off on that channel.

### 6.7 Address Planning

Every active channel must have its own DMX addresses; the converter rejects any setting that would overlap another channel. Plan the layout before entering it. For example:

| Channel | Color mode | Addresses used |
|---|---|---|
| 1 | Red/Green | 1, 2 |
| 2 | Red/Green | 3, 4 |
| 3 | RGB | 5, 6, 7 |
| 4 | Amber | 8 |
| 5-12 | Off | none |

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## 7. Firmware Update

Firmware is updated through the web control panel. The unit does not need to be opened and no programming hardware is required.

Firmware files are published on the product page for the LogiCue Net to DMX Converter on the NuDelta Digital website.

An update does not erase stored settings. Channel addresses, levels, colors, IP Range, IP Group, and Unit Number are all retained.

> **Load only LogiCue Net to DMX Converter firmware.** Firmware for another product will still flash, and recovering from it requires returning the unit for service.
>
> **Do not remove power during a firmware update.**

1. Download the firmware file from the product page. The file has a `.bin` extension.

2. Make a note of the unit's current settings. Settings are retained through an update, but a record is worth having before any firmware change.
3. Put the unit into configuration mode using **Web Config** in the menu (Section 4.8).
4. Connect a computer and open the control panel (Section 5.2).
5. In the **Firmware Update** section, click the file picker and select the `.bin` file. The file size appears beside it, and the **Upload & flash** button becomes available.
6. Click **Upload & flash**. Check the file name in the confirmation dialog, then confirm.
7. Wait. The progress bar fills as the file transfers, and the status reads *Writing to flash…* once it reaches 100 percent. Do not close the browser or disturb the network connection.
8. The page confirms the firmware was written, and the converter restarts **into normal operation**.
9. To confirm the new version, put the unit back into **Web Config** from the menu and reload the control panel. The version is shown at the top of the page.
10. Check that the channel and network settings are as you left them.

## 8. Troubleshooting

| Symptom | Likely cause | What to do |
|---|---|---|
| Display is blank | No PoE power | Confirm the switch port supplies PoE and is enabled. Try another port and a known-good cable. |
| Display shows **Waiting for signal** and the unit keeps restarting | No data from the controller | This is normal with no controller running. If a controller is running, confirm the IP Range and IP Group match on both, and that both are on the same network. |
| Display shows the checkmark but no fixture responds | All channels are Off | A new or factory-reset unit has every channel Off. Assign color modes (Section 4.7). |
| Display shows the checkmark but no fixture responds | Address mismatch | Confirm the channel's DMX address matches the fixture's address. |

| Symptom | Likely cause | What to do |
|---|---|---|
| Display shows the checkmark but no fixture responds | DMX cabling | Confirm DMX OUT goes to the fixture's DMX IN, that DMX-rated cable is used, and that the last fixture is terminated. |
| Fixture lights at the wrong intensity | Level setting | Adjust the channel's Level. |
| Wrong color lights on an RGB fixture | Address order | The three addresses are driven in the fixed order red, green, blue. Confirm the fixture's channel order matches (Section 6.4). |
| A Red/Green channel goes dark on Clear | Expected behavior | Red/Green mode has no Clear color. Use RGB mode if the fixture should show blue on Clear (Section 6.4). |
| **Overlap Ch*n*** when saving an address | Two channels share addresses | Choose a start address that does not fall inside another channel's range. Remember RGB uses three addresses and Red/Green uses two. |
| **Won't fit 512** when saving an address | Not enough room before 512 | Lower the start address. An RGB channel cannot start above 510; a Red/Green channel cannot start above 511. |
| Cannot reach the web control panel | Unit is not in configuration mode | The panel is only served in configuration mode (Section 4.8). |
| Cannot reach the web control panel | Computer on the wrong subnet | The converter's address depends on its IP Range, IP Group, and Unit Number. Read it from |

| Symptom | Likely cause | What to do |
|---|---|---|
| | | the display and set your computer to match (Section 5.2). |
| Cannot reach the panel after changing network settings | The panel address moved | Changing Range, Group, or Unit Number changes the panel's own address. Read the new address from the display after the restart. |
| Two converters behave erratically, drop out, or will not both respond | Duplicate Unit Number | Converters sharing an IP Range and IP Group must have different Unit Numbers (Section 4.6). Check each unit's display in configuration mode and give them separate numbers. |
| A converter stopped working after a factory reset | Unit Number returned to 1 | A reset sets the Unit Number back to 1, which may now collide with another converter. Set it again (Section 4.6). |
| Network changes appear not to save | Restart required | IP Range and IP Group apply at the next restart. |
| A channel does not appear on the controller | Channel is Off | Channels set to Off do not check in with the controller. |
| Stuck in the menu | — | The menu is exited only by selecting **Exit & Reboot**. |
| Firmware update reports **Connection lost during upload** | Network dropped mid-transfer | The existing firmware is unaffected. Check the cable and adapter, then try again. |

| Symptom | Likely cause | What to do |
|---|---|---|
| Cannot check the version after an update | Unit returned to normal operation | The converter reboots into normal operation after flashing. Put it back into Web Config to see the version (Section 4.8). |
| Unit will not start after an update | Wrong firmware was flashed | Firmware for another product will flash but will not run. Contact NuDelta Digital. |

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## 9. Specifications

| | |
|---|---|
| Power | Power over Ethernet, IEEE 802.3af |
| Network connector | etherCON, accepting standard RJ45 or etherCON cable, 10/100 |
| Network addressing | Static, derived from IP Range, IP Group, and Unit Number |
| Converters per range and group | 12 |
| Protocol | UDP multicast, port 5591 (receive), port 5592 (check-in reply) |
| DMX connector | 5-pin XLR female, output only |
| DMX output | DMX-512, 1 universe, refresh interval 30 ms |
| Cue light channels | 12 |
| Display | 128 x 64 monochrome OLED |
| Control | Single rotary encoder with push switch |
| Dimensions | 145 x 89 x 72 mm (5.7 x 3.5 x 2.8 in) |
| Weight | 227 g (8 oz) |

| | |
|---|---|
| Operating temperature | -26 to 45 °C (-15 to 113 °F) |

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## Appendix B: Network Addressing

All addresses are derived from the IP Range, IP Group, and Unit Number settings. Nothing is configured directly.

### Converter Address

The converter's address is built as follows:

- The **first two parts** come from the IP Range.
- The **third part** is always **3**.
- The **fourth part** is the Unit Number plus an offset set by the IP Group: **+20** for Group 1, **+40** for Group 2, **+60** for Group 3, **+80** for Group 4.

Subnet mask is 255.255.0.0 for all combinations. The gateway is the first two parts of the range followed by **1.1** — for example, 10.201.1.1 on Range 1.

**Fourth part of the address, by group and unit number:**

| Unit Number | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| 1 | .21 | .41 | .61 | .81 |
| 2 | .22 | .42 | .62 | .82 |
| 3 | .23 | .43 | .63 | .83 |
| 4 | .24 | .44 | .64 | .84 |
| 5 | .25 | .45 | .65 | .85 |
| 6 | .26 | .46 | .66 | .86 |
| 7 | .27 | .47 | .67 | .87 |
| 8 | .28 | .48 | .68 | .88 |
| 9 | .29 | .49 | .69 | .89 |
| 10 | .30 | .50 | .70 | .90 |

| Unit Number | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| 11 | .31 | .51 | .71 | .91 |
| 12 | .32 | .52 | .72 | .92 |

**Combined with the IP Range:**

| IP Range | Converter address | Gateway |
|---|---|---|
| 1 | 10.201.3.*n* | 10.201.1.1 |
| 2 | 10.50.3.*n* | 10.50.1.1 |
| 3 | 172.30.3.*n* | 172.30.1.1 |
| 4 | 192.168.3.*n* | 192.168.1.1 |

Example: IP Range 1, IP Group 2, Unit Number 3 gives **10.201.3.43**.

Default settings — Range 1, Group 1, Unit 1 — give **10.201.3.21**.

### Controller Address

The converter sends its check-in replies to:

| IP Range | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| 1 | 10.201.1.21 | 10.201.1.22 | 10.201.1.23 | 10.201.1.24 |
| 2 | 10.50.1.21 | 10.50.1.22 | 10.50.1.23 | 10.50.1.24 |
| 3 | 172.30.1.21 | 172.30.1.22 | 172.30.1.23 | 172.30.1.24 |
| 4 | 192.168.1.21 | 192.168.1.22 | 192.168.1.23 | 192.168.1.24 |

### Multicast Group

The converter listens for cue data on UDP port 5591 at:

| IP Range | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| 1 | 224.4.40.1 | 224.4.40.2 | 224.4.40.3 | 224.4.40.4 |
| 2 | 226.5.40.1 | 226.5.40.2 | 226.5.40.3 | 226.5.40.4 |

| IP Range | Group 1 | Group 2 | Group 3 | Group 4 |
|---|---|---|---|---|
| 3 | 228.6.40.1 | 228.6.40.2 | 228.6.40.3 | 228.6.40.4 |
| 4 | 230.7.40.1 | 230.7.40.2 | 230.7.40.3 | 230.7.40.4 |

## Configuration Mode

In configuration mode the converter uses the same address it uses in normal operation, and serves the control panel on port 80. The address is shown on the display.