



## HUB-NODE-4 User Manual



This manual contains important information.  
Please read before operating fixture.



## Description Of The Device

The HUB-NODE-4 is 4-universe Ethernet-DMX node which supports Art-Net, sACN, KlingNet and RDM compatible DMX control systems utilizing 2 RJ45 ethernet auto-switching inputs and 4 3pin or 5pin DMX ports which can be configured as inputs or outputs. Features include DMX bilateral conversion support, sACN auto-detection, variable MAC address assignable, DMX splitter function, broadcast and backup modes, built-in Ethernet repeater switch, an LCD control menu display with encoder knob, etc. To optimize the performance of this product, please read the user manual carefully before use.

## What Is Included

The following items are included in the box:

- 1pc HUB-NODE-4
- 1pc USB Type-C cable
- 1 Lan cable
- 1pc User Manual
- 1pc Carry bag

Carefully unpack the carton, check the contents to ensure that all parts are present, and have been received in good condition. Contact your supplier immediately and retain packing material for inspection if any part is missing or damaged.

## Safety Instruction



**WARNING!!! To reduce the risk of fire, electric shock, or injury to persons, follow these important safety instructions:**

- This product is intended for indoor use only!
- Always turn off, unplug power and allow fixture to cool before servicing.
- Ensure that fixture is properly grounded.
- Please keep this User Guide for future consultation.
- To prevent risk of fire or shock, do not expose fixture to rain or moisture.
- The unit must be installed in a location with adequate ventilation. Be sure no ventilation slots are blocked.
- Make sure power cord is never crimped or damaged.
- Do not remove the top cover under any conditions. There are no user serviceable parts inside.
- Disconnect the unit's main power when left unused for long periods of time.
- Never connect this unit to a dimmer pack.
- Never operate this unit when it's cover is removed.
- Any damage caused by manual modifications are not subject to warranty.

## Features

- Supports ArtNet, sACN, RDM, DMX-512
- 1 Gbps data speed
- 4 universes: DMX IN or OUT
- High speed network IN and OUT
- Input voltage: 100–240 V AC, 50/60 Hz
- Power consumption: 8 W
- Signal Connections: 4 x 3-pin XLR IN/OUT, 2 x RJ45 IN/OUT
- LCD display with encoder knob for easy setup
- IP rating: IP20 for indoor use only
- Operating temperature: From -5 °C to +40 °C

## Product Overview



01) Power LED indicator

This indicator will light up when you switch power on.

02) Link LED indicator

This indicator will light up when a network signal is received.

03) Activity LED indicator

This indicator will light up when a DMX signal is received.

04) RDM

This indicator will flash when a RDM signal is received.

05) M10 thread for clamp

06) 2 x Ethernet connectors with Activity and Speed LED indicators

07) USB-C 5V DC input

08) LCD display

09) Encoder knob

10) 4 x 3-pin or 5-pin XLR DMX OUT with LED indicators

11) M12 thread for clamp

## Installation

With M10 and M12 thread holes in side panel, the unit can be mounted on truss/pipe with clamp.

## DC Power

The unit is designed to work under 5V DC via USB-C connector or PoE. Before applying power to a unit, make sure that the unit's input voltage matches the power source voltage.

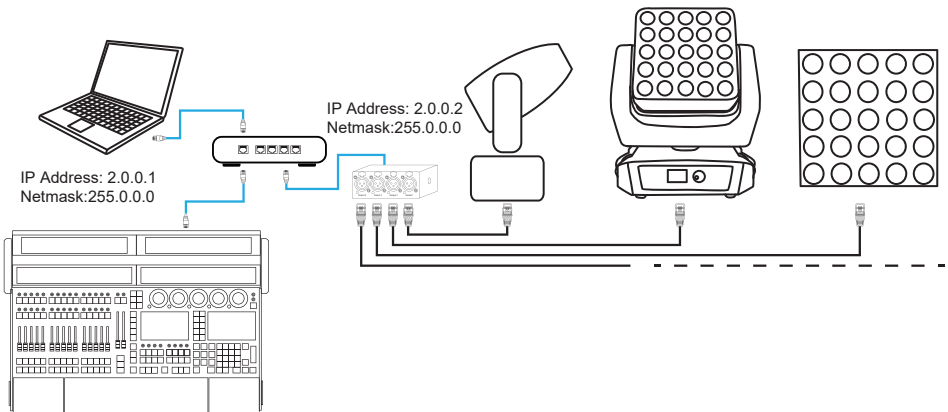
## Control modes

### Setup HUB-NODE-4 with Lighting console or Laptop/PC

- 1) Fasten the **HUB-NODE-4**.
- 2) Use a 3-pin XLR cable to connect the **HUB-NODE-4** DMX outputs to your fixtures.
- 3) Connect the network switch to the **HUB-NODE-4** (CAT5, CAT6 cable).
- 4) Connect the lighting console/laptop/PC to the network switch (CAT5, CAT6 cable).
- 5) Supply electric power: Plug the unit's mains power cord into a proper electric power supply socket.

Do not supply power before the whole system is set up and connected properly.

- 6) Set the IP address of your lighting console/laptop/PC and the E-Node. Please note that these devices are in the same IP range as 2.x.x.x but address can't be repetitive. For example, set IP of lighting console/laptop/PC to 2.0.0.1 and the Node's to 2.0.0.2

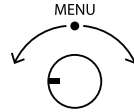


**Note: Link all cables before connecting electric power**

# Control Panel

-  Power
-  Link
-  Activity
-  RDM

HUB-NODE-4			
Dmx1	Dmx2	Dmx3	Dmx4
Rdm	Rdm	Rdm	Rdm
Art	Art	Art	Art
001	002	003	004
ETH1: --		ETH2: --	
IP:2:3:146:206			



Encoder knob: Scroll through the options or change value and press to make a selection

## Main Menu Options

Main Menu
1.Rename
2.Set DHCP
3.Set IP Address
4.Set Netmask
5.Set DMX Port
6.Set Device ID
7.Set LCD Backlight
8.Set Display
9.User Preset
10.Set Default
11.Version
12.Exit

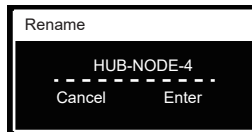
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2. Set DHCP
3. Set IP Address
4. Set Netmask
5. Set DMX Port
6. Set Device ID
7. Set LCD Backlight
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9. User Preset
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**Note:** If no button is pressed within 30 seconds, the display will return to the start-up screen (Status menu).

### 1. Rename

01) Press encoder knob and select RENAME, and press the knob again to open the submenu.

The display shows:



- 03) Rotate knob to scroll through the letters, CANCEL and ENTER.
- 04) Press knob to select a letter. The selected letter will be highlighted.
- 05) Rotate knob to change the selected letter.
- 06) Press knob to confirm.
- 07) Repeat steps 3–6 to edit the remaining letters.
- 08) Rotate knob to select CANCEL (to exit without saving) or ENTER (to save the new name).
- 09) Press knob button to confirm.

## 2. Set DHCP

- 01) Press encoder knob to enter the main menu.
- 02) Rotate the knob to select SET DHCP and press knob to open the submenu.

The display shows:

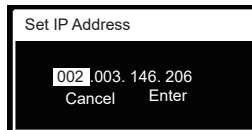


- 03) Rotate knob to choose ENABLE or DISABLE.
- 04) Press knob to confirm.
- 05) If you select ENABLE, the network switch will automatically provide an IP address to the device.
- 06) If you select DISABLE, you will have to set the IP address manually.

## 3. Set IP Address

- 01) Press encoder knob to enter the main menu.
- 02) Rotate the knob to select SET IP ADDRESS and press knob to open the submenu.

The display shows:



- 03) Rotate knob to scroll through the address sections, CANCEL and ENTER.
- 04) Press knob to select the desired address section.
- 05) Rotate knob to change the numbers (0–255). (Alternatively, press knob for quick search.)
- 06) Press knob to confirm.
- 07) Repeat steps 3–6 to edit the remaining address sections.
- 08) Press the knob to select CANCEL (to discard changes) or ENTER (to confirm the new IP address).

**Note:** It is possible to change the IP address ONLY if DHCP (see page 6) is disabled.

## 4. Set Netmask

- 01) Press the knob to enter the main menu.
- 02) Rotate knob to select SET NETMASK and press knob to open the submenu.

The display shows:

Netmask	
A	255.000.000.000
B	255.255.000.000
C	255.255.255.000
Exit	

- 03) Rotate knob to scroll through the 3 options: A, B or C.
- 04) The selected option will be highlighted.
- 05) Press the knob to confirm.

## 5. Set DMX Port

- 01) Press the knob to enter the main menu.
- 02) Rotate knob to select SET DMX PORT and press the knob to open the submenu.

The display shows:

DMX Port	
1	DMX Port 1
2	DMX Port 2
3	DMX Port 3
4	DMX Port 4

- 03) Rotate knob to scroll through the ports 1–4.
- 04) Press the knob to select a port.

The display shows:

DMX Port		
1	Disp Type	DEC
2	DMX Status	Output
3	DMX Mode	LTP
4	Protocol	Artnet
5	Framerte/fs	35
6	RDM	Enable
7	Network	000
8	Primary	001
9	Exit	

5) Rotate knob to scroll through the following options:

- DISP TYPE (Display type)
  - DEC: Decimal display (0–255)
  - HEX: Hexadecimal display (00H–FFH)
- DMX STATUS (DMX port status)
  - INPUT: The port will be used as an input.
  - OUTPUT: The port will be used as an output.
  - DISABLE: The port will be disabled.
- DMX MODE (Depends on whether the port is set as an input or output.)
  - If the port is set as input:
    - NORMAL: The DMX port receives the DMX signal and sends it to the first selected ArtNet universe.
    - BACKUP: In case of a failure, or when there are no DMX values on the first selected ArtNet universe for more than 3 seconds, the HUB-NODE-4 starts sending DMX values from the backup port.

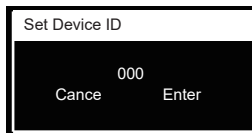
- If the port is set as output:
  - SINGLE: The DMX signal is sent to the DMX port from the first selected ArtNet universe.
  - HTP: The DMX signal is sent to the DMX port from the merging of the 1st and 2nd ArtNet selected universes. It will compare the values on the inputs and will send the highest value to the DMX port for each DMX channel in both universes.
  - LTP: The DMX signal is sent to the DMX port from the merging of the 1st and 2nd ArtNet selected universe. It will compare the values on the inputs and will send the last changed value to the DMX port for each DMX channel in both universes.
- PROTOCOL: Choose ArtNet or sACN.
- FRAMERTE/FS: Set the DMX frames per second which will be sent. Choose from: 10, 15, 20, 25, 30, 35 or 40 frames per second.
- RDM: To enable or disable RDM for the selected port.
- NETWORK: Set your network (0–127).
- PRIMARY: Set the 1st ArtNet universe dedicated to this port (0–255).

## 6. Set Device ID

01) Press the knob to enter the main menu.

02) Rotate knob to select SET DEVICE ID and press knob to open the submenu.

The display shows:



03) Rotate knob to highlight the number in the middle of the screen.

04) Press the knob to select the number.

05) Rotate knob to change the value. The adjustment range is among 0–255.

06) Press the knob to confirm.

07) Rotate knob to select CANCEL (to exit without saving) or ENTER (to save the new ID).

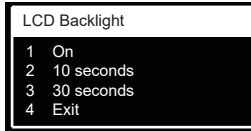
08) Press the knob to confirm.

## 7. Set LCD Backlight

01) Press the knob to enter the main menu.

02) Rotate knob to select SET LCD BACKLIGHT and press knob to open the submenu.

The display shows:



- 03) Rotate knob to choose one of the 3 options: ON (the display remains on), 10 seconds or 30 seconds.
- 04) Press the knob to confirm.
- 05) If no button is pressed within the preset amount of time, the display will turn off.

## 8. Set Display

- 01) Press the knob to enter the main menu.
- 02) Rotate knob to select SET DISPLAY and press the knob to open the submenu.

The display shows:

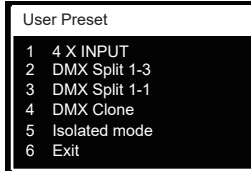


- 03) Rotate knob to choose NORMAL or INVERSION.
- 04) Press the knob to confirm.
- 05) If you select INVERSION, the display will be horizontally flipped.

## 9. User Preset

- 01) Press the knob to enter the main menu.
- 02) Rotate knob to select USER PRESET and press the knob to open the submenu.

The display shows:



- 03) Rotate knob to scroll through the 5 options:
  - 4 X INPUT: The node converts 4 x DMX inputs into 4 separate ArtNet universes.
  - DMX SPLIT 1–3: DMX splitter with 1 input and 3 isolated DMX outputs (DMX port 1 is an input and DMX port 2–4 are outputs.)
  - DMX SPLIT 1–1: DMX splitter with 2 x DMX inputs and 2 isolated DMX outputs (DMX port 1 is an input and DMX port 2 is output. DMX port 3 is an input and DMX port 4 is output.)
  - DMX CLONE: The node converts 2 x DMX inputs into 2 separate ArtNet universes and duplicates the 2 input signals to the DMX ports 3–4. A network configuration needs to be carried out according to your network and your ArtNet receiver specifications.

- ISOLATED MODE: The node receives 4 separate ArtNet universes and sends them to the 4 DMX output ports. A network configuration needs to be carried out according to your network and your ArtNet receiver specifications.

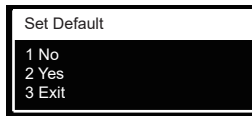
04) Press the knob to confirm.

## 10. Set Default

01) Press the knob to enter the main menu.

02) Rotate knob to select SET DEFAULT and press the knob to open the submenu.

The display shows:



03) Rotate knob to select NO or YES.

04) Press the knob to confirm.

05) If you choose YES, the device will be reset and the factory default settings will be restored.

## 11. Version

01) Press the knob to enter the main menu.

02) Rotate knob to select VERSION and press the knob to open the submenu.

The display shows:



## Configuration via Web Browser

The HUB-NODE-4 can be configured remotely via a web interface. To connect the device to a web browser follow the steps below:

- 1) Connect the HUB-NODE-4 to a laptop/computer.
- 2) Configure the network address of the laptop/computer in the correct range (IP 2.x.x.x or 10.x.x.x and Netmask 255.0.0.0).
- 3) Open a web browser and enter the IP address of the HUB-NODE-4 in the address bar. The IP address of the device is available on the status menu.
- 4) Press the Enter key on the laptop/computer keyboard.
- 5) Enter the log-in details when prompted:
  - Log-in account: Admin
  - Password: Admin (You can change the password after you log in)

### Note:

If you change a setting via the control panel, you need to refresh the web browser to see the new setting in the browser window.

The screenshot shows the configuration page for a SLAN HUB-NODE-4. It is divided into several sections:

- Device Settings:** A table with fields for Device Name (set to 'HubNode4'), Device ID (0), DHCP Mode (Manual IP), LCD Backlight (On), IP Address (2.2.2.200), Display Direction (Normal), Net Mask (255.255.0.0), User Privet (Isolated User), New Password (empty), Factory Reset (No), and Firmware Version (B1.0 V3.0). Port Display Type is set to 000.
- Port Settings:** A table with four columns for DMX Port 01, 02, 03, and 04. Each column has fields for Port Status (Output), Port Mode (Single), Protocol (Artnet), Frame Rate (200), RDM (Enable), Network (0), and Primary (1).
- Buttons:** 'Apply' and 'Cancel' buttons are located below the Port Settings table.
- Firmware Upgrade:** A section at the bottom with a 'Please select a firmware file.' prompt, a 'File Path' field containing 'B1.0 V3.0', an 'Upload File' button, and a red warning message: 'Note: If the version after the upgrade is higher, please do not upgrade. Or set upgrade to no upgrade prior to the upgrade.'

From the web browser you can configure the IP mode, the IP address, and the Netmask of the device, and set a new password for the web interface.

- Use the drop-down menus or enter the respective values to configure the settings of the device.
- Click Apply to save the changes.
- Click Cancel to discard the changes.

The web browser provides also information about which ports are connected.

The numbering of the ports is as follows:

Uplink port = Port 01

Output 1 = Port 02

Output 2 = Port 03

Output 3 = Port 04

Output 4 = Port 05

## 1. Changing the Password

To change the password, proceed as follows:

- 01) Log in with your current password.
- 02) Enter the new password in the New Password field.
- 03) Click Apply to save the changes.

## 2. Updating the Firmware

The firmware of the E-Node 4Pro can be updated via the web interface. If an update is available for this device, you can download it from your local distributor's web site.

- 01) Click Choose File and browse to the location where the firmware update file is saved.
- 02) Select the file.
- 03) Click Open on the dialog box to confirm the selection.
- 04) Click Upload File to start the firmware update process.
- 05) Follow the instructions on the browser to complete the update.

### Note:

It can take up to 20 seconds to update the firmware. Do not click any buttons before the update is complete.

After completion of the firmware update, reset the **HUB-NODE-4** to factory defaults. See Set Default on page 11 for more information.

When you update the firmware, all previously configured settings will be lost.

## Maintenance

The operator has to make sure that safety-related and machine-technical installations are to be inspected by an expert after every year in the course of an acceptance test. The operator has to make sure that safety-related and machine-technical installations are to be inspected by a skilled person once a year.

## Troubleshooting

### No Light

This troubleshooting guide is meant to help solve simple problems.

If a problem occurs, carry out the steps below in sequence until a solution is found. Once the unit operates properly, do not carry out following steps.

If the light effect does not operate properly, refer servicing to a technician. Suspect three potential problem areas as: the power supply, the distributor or the fuse.

- 1) Power supply. Check if the unit is plugged into an appropriate power supply.
- 2) The distributor. Return the **HUB-NODE-4** to your dealer.
- 3) The fuse. Replace the fuse. See page 14 for replacing the fuse.
- 4) If all appears to be O.K., plug the unit in again.
- 5) If you are unable to determine the cause of the problem, do not open the **HUB-NODE-4**, as this may damage the unit and warranty will become void.
- 6) Return the device to your dealer.

## No Response to DMX

Suspect the DMX cable or connectors, a controller malfunction, a light effect DMX card malfunction.

01) Check the DMX setting. Make sure that DMX addresses are correct.

02) Check the DMX cable: Unplug the unit; change the DMX cable; then reconnect to electrical power.

Try your DMX control again.

03) Determine whether the DMX recorder, light controller or light effect is at fault. Does the controller operate properly with other DMX products? If not, take the controller in for repair. If so, take the DMX cable and/or the light effect to a qualified technician.

## SPECIFICATIONS

Default IP: 2.0.0.168

Power Input: DC 5V or PoE

Power consumption: 8W max.

Signal connection: 2 x RJ45 IN/OUT, 4 x 3pin XLR In(or 5pin)

Power connection: USB-C

Supports protocols: ArtNet, sACAN, RDM, DMX-512

Data speed: 1 Gbps

IP rating: IP20 for indoor use only

Dimension: 130 x 102 x 40 mm

Weight: 0.5 kg

### IMPORTANT INFORMATION!

In order to optimize the recovery and recycling of the materials that old appliances contain and reduce the impact on human health and the environment, ensure that this product is recycled at the end of its life.

