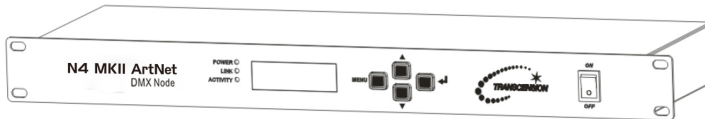




# N4 MKII Art-Net™ Node



**Order code: CONT25**

## User Guide

*Please read these instructions carefully before use*

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# 1. Features

Multi-purpose, four universe DMX processor featuring three main modes of operation: Art-Net™ to DMX node, four universe DMX to Art-Net™ processor or DMX splitter/buffer.

- Art-Net™ input/output via etherCON™ RJ45
- 2048 channels
- 4 push button menu with LCD display
- 6 user presets
- 10/100M LAN interface
- Supports TCP/IP protocol
- Manual IP address selection
- Four DMX512 outputs, four DMX inputs via 5-Pin XLR
- RDM Support
- Electronically isolated inputs and outputs
- IEC power input
- 19"/1U rack mountable
- Power supply:100~240V, 50/60Hz
- Dimensions: 45 x 484 x 152mm
- Weight: 1.98kg

**Please note:** Knowledge of DMX and Art-Net™ is required to fully utilise this unit. Please use this manual in addition to the manual for your lighting console. The N8 Art-Net™ Node requires the correct network and console settings to be implemented before operation. Please check the console being used is capable of outputting Art-Net™ data via the network and has the additional universes enabled, some lighting consoles require additional hardware or licenses to be able to do so. If you are in any doubt please contact your lighting console manufacturer.

## 2. General Instructions

Please read the user manual carefully, as it includes important information regarding details of operation, maintenance, and technical data. Keep this manual with the unit for future consultation.

### WARNINGS!

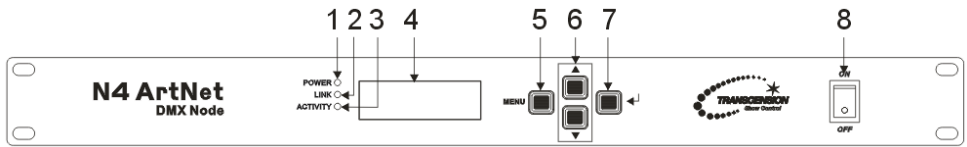
- DO NOT make any inflammable liquids, water or metal objects enter the unit.
- Should any liquid be spilled on the unit, DISCONNECT the power immediately.
- STOP using the unit immediately in the event of serious operation problems and contact with your local dealer for a check or contact us directly.
- DO NOT open the unit. There are no user serviceable parts inside.
- NEVER try to repair the unit by yourself. Repairs by unqualified people could cause damage or faulty operation.
- This fixture is for professional use only - it is not designed for or suitable for household use. The product must be installed by a qualified technician in accordance with local territory regulations. The safety of the installation is the responsibility of the installer. The fixture presents risks of severe injury or death due to fire hazards, electric shock and falls.
- WARRANTY: One year from date of purchase.

### CAUTIONS!

- After having removed the packaging, please check that the unit is NOT damaged in any way. If in doubt, DON'T use it and contact an authorised dealer.
- Packaging material (plastic bags, polystyrene foam, nails, etc.) MUST NOT be left within children's reach, as it can be dangerous.
- This unit must only be operated by adults. DO NOT allow children to tamper or play with this unit.
- DO NOT dismantle or modify the unit unless suitably qualified to do so.
- NEVER use the unit under the following conditions:
  - In places subject to excessive humidity.
  - In places subject to vibrations or bumps.
  - In places with a temperature of over 45°C/113°F or less than 2°C/35.6°F.Protect the unit from excessive dryness or humidity (ideal conditions are between 35% and 80%).

### 3. Overview

#### 3.1 Front View



- 1 POWER LED indicator**
- 2 LINK LED indicator**
- 3 ACTIVITY LED indicator**

To show the on/off status of the unit  
Network connect status indicate  
Network activity indicator, when there is any data present, it will flash.

- 4 LCD Display**

Display the present status and the available option

- 5 MENU Button**

Enter into main menu or back to last menu

- 6 UP/DOWN Button**

UP and DOWN

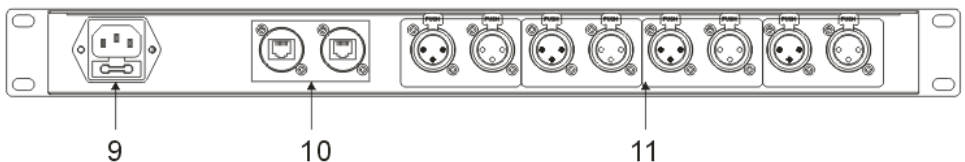
- 7 ENTER Button**

Enter and Confirm selection

- 8 Power Switch Button**

Power ON/OFF the unit

#### 3.2 Rear View



- 9. Power input**

Connect with the power cord

- 10. RJ45 Neutrik™ etherCON™ connector**

RJ45 10/100 Network

- 11 DMX port 1-8**

DMX input/output via 5-pin XLR socket

## 4. Operation Guide

Many of the modern lighting systems require thousands of DMX channels, often beyond the number provided on the direct DMX outputs located on the lighting console. And with the increased use of LED fixtures and video mapping, it is now necessary to have fast DMX response and proper network load management. N4 ArtNet can realise not only instant response but also lower network load. It allows users to increase the number of DMX universes and easily place DMX universes remotely on any TCP/IP Ethernet network. In addition, the N4 ArtNet can be used as a DMX merger, DMX splitter, backup device and so on.

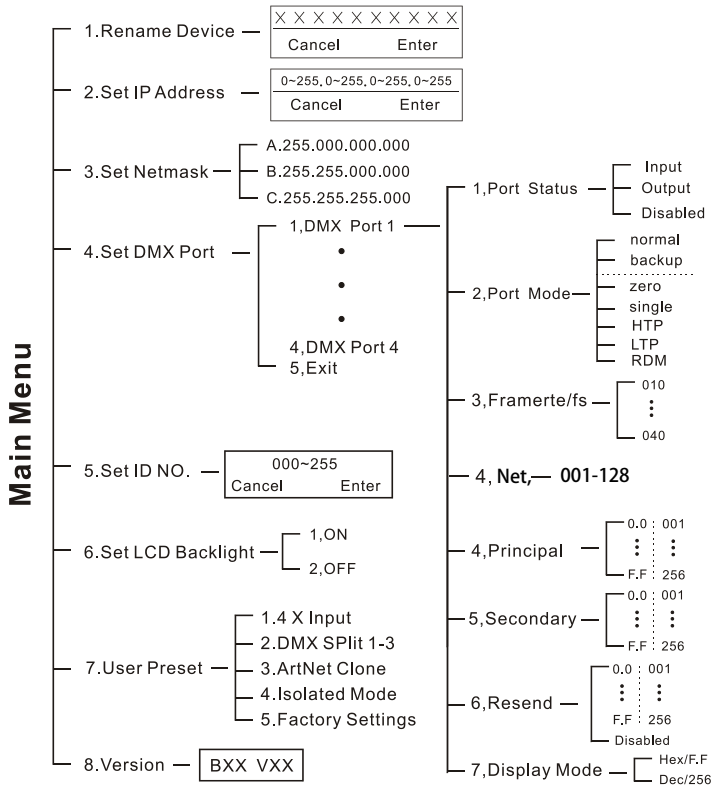
### 4.1 Startup View

<table border="1"><tr><td>Device Name</td></tr><tr><td>ArtNet To DMX</td></tr></table>	Device Name	ArtNet To DMX	<table border="1"><tr><td>IP Address</td></tr><tr><td>10.10.10.2</td></tr></table>	IP Address	10.10.10.2																						
Device Name																											
ArtNet To DMX																											
IP Address																											
10.10.10.2																											
<table border="1"><tr><td>..... Device ID .....</td></tr><tr><td>ID:001</td></tr></table>	..... Device ID .....	ID:001	<table border="1"><tr><td colspan="6">Port Status</td></tr><tr><td>A</td><td>B</td><td>1</td><td>2</td><td>3</td><td>4</td></tr><tr><td>x</td><td>x</td><td>I</td><td>x</td><td>o</td><td>x</td></tr><tr><td>x</td><td>x</td><td>x</td><td>o</td><td>x</td><td>o</td></tr></table>	Port Status						A	B	1	2	3	4	x	x	I	x	o	x	x	x	x	o	x	o
..... Device ID .....																											
ID:001																											
Port Status																											
A	B	1	2	3	4																						
x	x	I	x	o	x																						
x	x	x	o	x	o																						

There are 4 different statuses (as pictures show) you can check when you power on your unit. You can switchover them by pressing the UP/DOWN button. All of the options can be changed in the main menu.

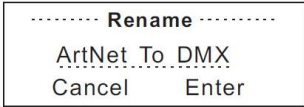
In the port status, A/B means the network port; “x” means there is no network connected. “√” means the network has been connected. 1-4 refers to the DMX port 1-4. In the status, “x” means the DMX port’s status is inactive. It will hold the current output. “√” stands the DMX port’s status is activity, it has connected to the network. “o” means the current port status is set to DMX output; “I” means the DMX ports is set to DMX input status.

## 4.2 Main menu



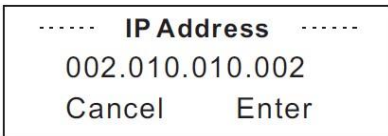
### 4.2.1 Rename Device

Enter into the main menu by press UP/DOWN button, then pressing the button to choose the **Rename Device** option and then press the ENTER button to confirm your selection. Now you can rename the device by pressing UP and DOWN now. Confirm you change and move to next option by press the ENTER.



### 4.2.2 Set IP Address

Enter into the main menu by press MENU button, then pressing UP / DOWN to choose the **Set IP Address** option and then press the ENTER to confirm your selection. Now you can set **IP address** by pressing UP and DOWN now. Confirm you change and move to next option by press the ENTER and UP/DOWN.

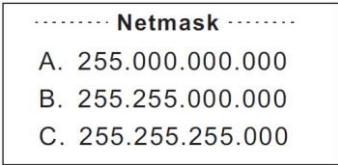


Please note: Each of the IP address should be unique. If used in **4xInput** mode IP range may need to be set to synchronise with IP range of the lighting console. Please check this information with the lighting console manufacturer or their instruction manual.



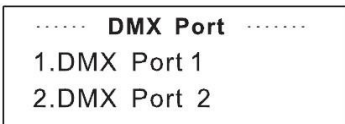
### 4.2.3 Set Netmask

Enter into the main menu by press MENU button, then pressing UP / DOWN to choose the **Netmask** option and then press the ENTER to confirm your selection. Now you can set **Netmask** by pressing UP and DOWN now. Confirm you change and move to next option by pressing the ENTER and UP/DOWN.

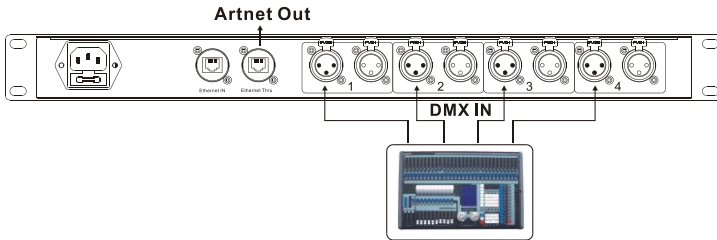


### 4.2.4 Set DMX port

Enter into the main menu by press MENU, then pressing the UP and DOWN to choose the **DMX port** option and then press the ENTER to confirm your selection. Then you can set the parameter of the each port by pressing UP /DOWN and ENTER now.



## 1) 1-4 DMX Input



You can set any of the DMX port 1-4 as Input status. Then only the principle universal is available. It can be set within the range 0.0 - F.F. As the DMX port has been set as Input status, then the Mode only can be set as normal or backup.

..... <b>DMX Port</b> .....
1.Port Status IN
2.Port Mode Normal

**Normal mode** means it will send the data received from DMX IN port to the universe of network regardless if there is any data in the universe of the network.

**Backup mode:** In backup mode the N4 will detect data on the Network, if there is data present the N4 will not transmit data to the Network. If the data on the network fails and is not present the N4 will receive data from the DMX IN port and transmit the DMX data onto the Network.

## 2) 1-4 DMX output

.....	<b>DMX Port</b>	.....
1.Port Status		OUT
2.Port Mode		HTP

.....	<b>DMX Port</b>	.....
1,Port Status		OUT
2,Port Mode		LTP

.....	<b>DMX Port</b>	.....
1.Port Status		OUT
2.Port Mode		Zero

.....	<b>DMX Port</b>	.....
1.Port Status		OUT
2.Port Mode		Single

.....	<b>DMX Port</b>	.....
1.Port Status		OUT
2.Port Mode		RDM

Any of the port 1-4 also can be set as Output status. Upon the port has been set as Output status, there are **LTP**, **HTP**, **zero**, **single** and **RDM** these 5 modes can be selected.

**Zero** means the port output should be “0”;

**Single** means this port will only output one universal.

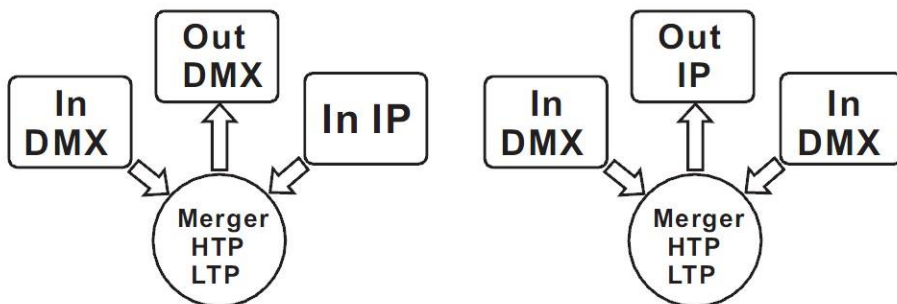
**LTP** means this port will output the latter one between the universal of principle and secondly. The unit will compare the two universal and resend the later one to the network.

***Please note that in the LTP mode, you should ensure the Resend option is not at the status of Disabled. Or it won't resend the data to the network.***

**HTP** means the port will output the one with higher value between the universal of principle and secondly. The unit will compare the two universal and resend the higher data to the network. They can be set within the range of 0.0-F.F./001-255. (These two formats can be change through Display Mode)

**Please note that in the HTP mode, you should ensure the Resend option is not at the status of Disabled. Or it won't resend the data to the network.**

**RDM** means the port output can support Remote Device Manager.



### 3) 1-4 DMX port disabled

.....	<b>DMX Port</b>	.....
1.Port Status		DIS
2.Port Mode		Backup

Any of the port 1-4 can be set as Disabled status. Upon the port has been set as Disabled status, the DMX port will be disabled, it cannot send or receive any data from now on.

**Please note that the Frame rate/fs only available for Output status; The Secondly and Resend option only available for the HTP/LTP mode under the status of Output.**

#### 4.2.5 Set ID NO.

Enter into the main menu by press MENU button, then pressing UP / DOWN to choose the **Set ID NO.** option, then press the ENTER to confirm your selection. Press the ID No. (for example: 001) and press the ENTER to enter and press UP and DOWN to choose the ID No. for the unit from 000 to 255. The ID is only used to recognize each of the unit easily.

..... <b>Device ID</b> .....
001
Cancel                  Enter

#### 4.2.6 Set LCD Backlight

Enter into the main menu by press MENU button, then pressing UP / DOWN to choose the **Set LCD Backlight** option and then press the ENTER to confirm your selection. You can choose its status as ON/OFF. “ON” means the LCD backlight will turn on all the time. “OFF” means the LCD backlight will turn off automatically after idle 30 seconds.

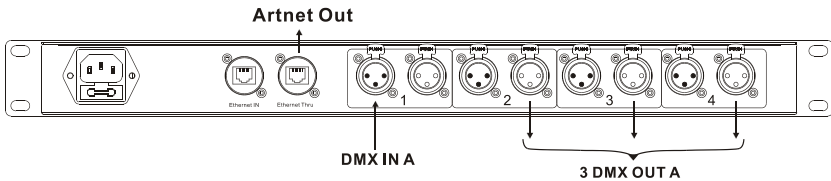
..... <b>LCD BackLight</b> .....
1.ON
2.OFF

#### 4.2.7 User Preset

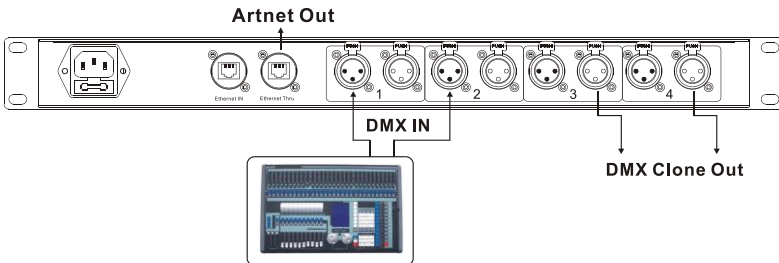
Enter into the main menu by press MENU button, then pressing UP / DOWN to choose the **User Preset** option and then press the ENTER to confirm your selection. This setting help you easily use the application avoid complicated setup procedure. You can simply choose you desired mode by pressing UP and DOWN.

..... <b>User Preset</b> .....
1.4 X Input
2.DMX Split 1-3
3.ArtNet Clone
4.Isolated mode
5.Factory Settings

- 1) **4 x Input: Art-Net™ to DMX Processor (4 x Input):** In the “4 x Input” mode the N4 will function as an Art-Net™ processor, converting the inputted DMX signals into Art-Net™ output across 4 universes. Advanced user options include primary and secondary Art-Net™ universe input with LTP or HTP modes.
- 2) **DMX Split 1-3:** This setting allows the user to input one DMX signal and replicate across 3 isolated DMX outputs. Please note that the LED indicator of the DMX Output port will light up in green. The default setting for this mode will accept DMX input via port 1 and DMX outputs via ports 2 thru 4.



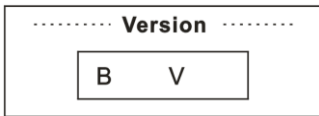
- 3) **ArtNet Clone:** The N4 can replicate two DMX inputs (1 & 2) to two DMX outputs (3 & 4) and simultaneously output the two DMX signals to the Art-Net™ output (thru) port.



- 4) **Isolated Mode:** In the “Isolated” mode the N4 will function as an Art-Net™ processor, converting the inputted Art-Net™ signal into DMX output across 4 universes. The port range of DMX outputs is 1-4 (0.0~0.7). Each will receive the signal from the network individually.
  
- 5) **Factory Reset:** All of the setting including the device name and device ID as well as device IP will be restored to the original factory status.

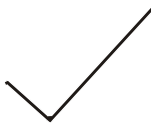
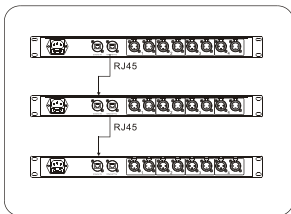
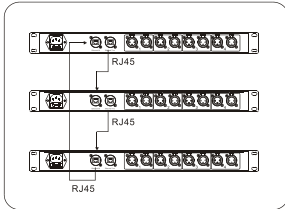
#### 4.2.8 Version

You can check the version number from this option.



## 5. Application Diagram

**Please Note that: The unit cannot be circular connected, or it will cause cyber storm to affect the performance of system.**



## Technical Specification

Power Supply .....AC100-240V, 50/60Hz  
Dimensions.....44x484x152mm  
Weight.....1.98kgs