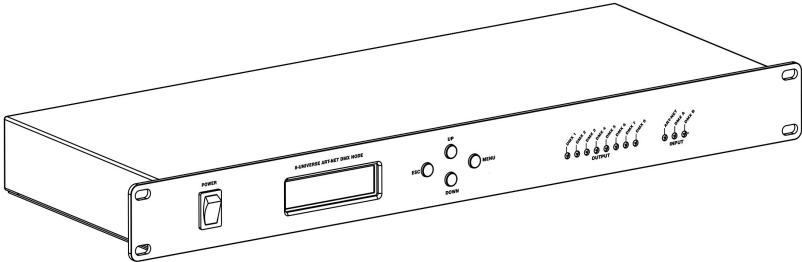


ARTNET CONTROLLER 8



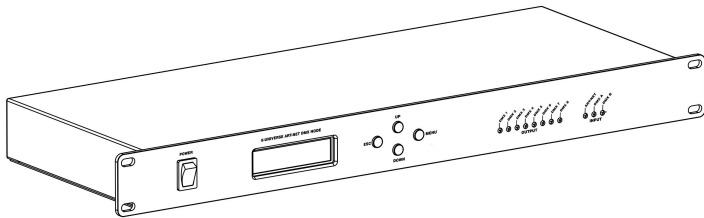
INTRODUCTION

Thank you for choosing one of our products. If you follow the instructions given in this manual, we are sure that you will enjoy this product for a long period of time. This user manual will show you how to install, set up and operate your new product.

Users of this product are recommended to carefully read all warnings in order to protect yourself and others from damage. Please keep this manual for future needs and pass it on to further owners.

Product features

- Distributes Art-Net data to 8 DMX512 universes (4096 channels) •Parallel DMX input possible (1024 channels)
- 8 optically isolated XLR plugs (3-pin) for DMX output
- 2 XLR jacks (3-pin) for DMX input
- Variable data routing capabilities for all DMX outputs
- 2 x Neutrik etherCON in/through port
- Serial connection possible
- User-friendly configuration directly at the front panel via 4 operating buttons and alphanumeric LCD screen (2 x 16 characters)
- LED indication for functions
- Splitter operation possible
- Rack installation 1 U



IMPORTANT SAFETY INSTRUCTIONS

CAUTION!



Operating conditions

This device has been designed for indoor use only. Keep this device away from rain and moisture.

DANGER!



Electric shock caused by short-circuit

Be careful with your operations. With a dangerous voltage you can suffer a dangerous electric shock when touching the wires!


- This device has left our premises in absolutely perfect condition. In order to maintain this condition and to ensure a safe operation, it is absolutely necessary for the user to follow the safety instructions and warning notes written in this user manual.
- Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any resulting defects or problems.
- Unpack and carefully check that there is no transportation damage before using the device. Should you notice any damages, do not take the device into operation and immediately consult your local dealer.
- Keep the packaging. To fully protect the device against vibration, dust and moisture during transportation or storage use the original packaging.

- This device falls under protection class I. The power plug must only be plugged into a protection class I outlet. The voltage and frequency must exactly be the same as stated on the device. Wrong voltages or power outlets can lead to the destruction of the device and to mortal electrical shock.
- Always plug in the power plug least. The power plug must always be inserted without force. Make sure that the plug is tightly connected with the outlet.
- Never let the power cord come into contact with other cables! Handle the power cord and all connections with the mains with particular caution! Never touch them with wet hands, as this could lead to mortal electrical shock.
- Never modify, bend, strain mechanically, put pressure on, pull or heat up the power cord. Never operate next to sources of heat or cold. Disregard can lead to power cord damages, fire or mortal electrical shock.
- The cable insert or the female part in the device must never be strained. There must always be sufficient cable to the device. Otherwise, the cable may be damaged which may lead to mortal damage.
- Make sure that the power cord is never crimped or damaged by sharp edges. Check the device and the power cord from time to time.
- If extension cords are used, make sure that the core diameter is sufficient for the required power consumption of the device. All warnings concerning the power cords are also valid for possible extension cords.
- Always disconnect from the mains, when the device is not in use or before cleaning it. Only handle the power cord by the plug. Never pull out the plug by tugging the power cord. Otherwise, the cable or plug can be damaged leading to mortal electrical shock. If the power plug or the power switch is not accessible, the device must be disconnected via the mains.
- If the power plug or the device is dusty, the device must be taken out of operation, disconnected and then be cleaned with a dry cloth. Dust can reduce the insulation which may lead to mortal electrical shock. More severe dirt in and at the device should only be removed by a specialist.
- There must never enter any liquid into power outlets, extension cords or any holes in the housing of the device. If you suppose that also a minimal amount of liquid may have entered the device, it must immediately be disconnected. This is also valid, if the device was exposed to high humidity. Also if the device is still running, the device must be checked by a specialist if the liquid has reduced any insulation. Reduced insulation can cause mortal electrical shock.
- This device must never be operated or stockpiled in surroundings where splash water, rain, moisture or fog may harm the device. Moisture or very high humidity can reduce the insulation and lead to mortal electrical shocks.
- There must never be any objects entering into the device. This is especially valid for metal parts. If any metal parts like staples or coarse metal chips enter into the device, the device must be taken out of operation and disconnected immediately. Malfunction or short-circuits caused by metal parts may cause mortal injuries.
- There are no serviceable parts inside the device. Maintenance and service operations are only to be carried out by authorized dealers!
- Disconnect from mains before cleaning! Never use solvents or aggressive detergents in order to clean the device! Rather use a soft and damp cloth.

OPERATING DETERMINATIONS

The Node 8 uses the Art-Net protocol to receive and distribute DMX512 data over Ethernet. It connects various DMX devices (light effect units, lighting controllers) in lighting installations. The node is provided with 10/100BASE-T ports (RJ45) for Ethernet and serial connection and 8 XLR connectors for DMX output (4096 channels) and 2 for DMX input (1024 channels). The configuration can be done directly at the front panel via 4 operating buttons and an alphanumeric LCD. The node was designed for rack installation and requires 1 unit.

- This device is designed for professional use in the field of event technology, e.g. on stage.
- This product is only allowed to be operated with an alternating voltage of 100-240 V, 50/60 Hz and was designed for indoor use only. The occupation of the connection cables is as follows:

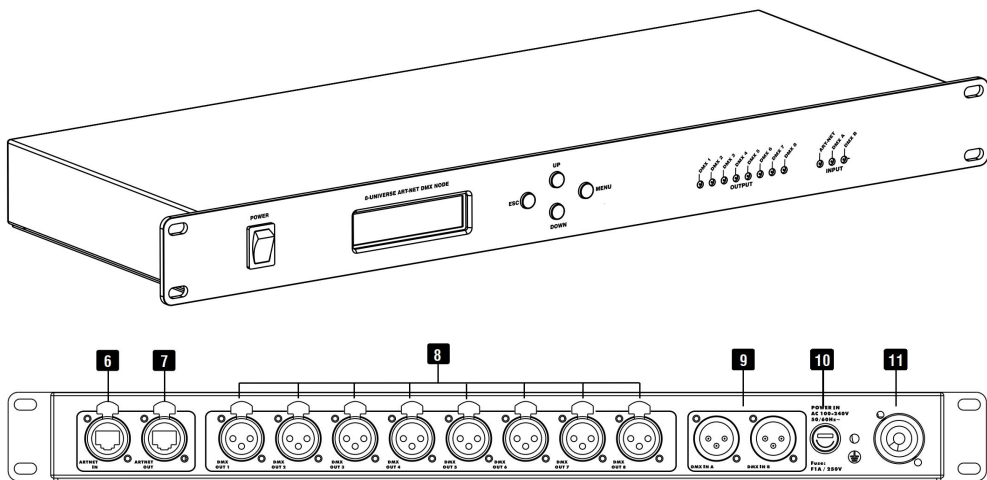
Cable	Pin	International
Brown	Live	L
Blue	Neutral	N
Yellow/Green	Earth	

The earth has to be connected! If the device will be directly connected with the local power supply network, a disconnection switch with a minimum opening of 3 mm at every pole has to be included in the permanent electrical installation. The

device must only be connected with an electric installation carried out in compliance with the IEC standards. The electric installation must be equipped with a Residual Current Device (RCD) with a maximum fault current of 30 mA.

- Do not shake the device. Avoid brute force when installing or operating the device. When choosing the installation spot, please make sure that the device is not exposed to extreme heat, moisture or dust. There should not be any cables lying around. You endanger your own and the safety of others!
- When using smoke machines, make sure that the device is never exposed to the direct smoke jet and is installed in a distance of 0.5 meters between smoke machine and device. The room must only be saturated with an amount of smoke that the visibility will always be more than 10 meters.
- This product was designed for indoor use only.
- The ambient temperature must always be between -5° C and +45° C. Keep away from direct insulation and heaters. The relative humidity must not exceed 50 % with an ambient temperature of 45° C.
- This device must only be operated in an altitude between -20 and 2000 m over NN.
- Never use the device during thunderstorms. Over voltage could destroy the device. Always disconnect the device during thunderstorms.
- Operate the device only after having become familiarized with its functions. Do not permit operation by persons not qualified for operating the device. Most damages are the result of unprofessional operation!
- Please consider that unauthorized modifications on the device are forbidden due to safety reasons!
- Never remove the serial barcode from the device as this would make the guarantee void.
- If this device will be operated in any way different to the one described in this manual, the product may suffer damages and the guarantee becomes void. Furthermore, any other operation may lead to dangers like short-circuit, burns, electric shock, crash etc.
- Never remove the serial barcode from the device as this would make the guarantee void.

OPERATING ELEMENTS AND CONNECTIONS



No.	Element	Function
1	Power switch	Switches the device on and off.
2	Display	Shows all menu items and setting options.
3	Operating buttons	These buttons allow direct access to all editing functions.
4	DMX output indicators	These LEDs rapidly flash to indicate output of DMX data at the DMX outputs.
5	Art-Net and DMX input indicators	The ART-NET LED rapidly flashes to indicate communication over Ethernet; data is sent or received.

		The A and B LEDs rapidly flash to indicate reception of DMX data at the DMX input.
6	Art-Net input	RJ45 Ethernet port for Art-Net input.
7	Art-Net through port	RJ45 Ethernet port for Art-Net output.
8	DMX512 outputs	XLR jacks 1-8 for DMX data output.
9	DMX512 inputs	XLR jacks A and B for DMX data input.
10	Fuse	Only replace the fuse when the device is disconnected from mains. Only use fuses of the same rating and power. The correct value is specified on the device.
11	Power input	Lockable P-Con input for mains connection.

SETUP

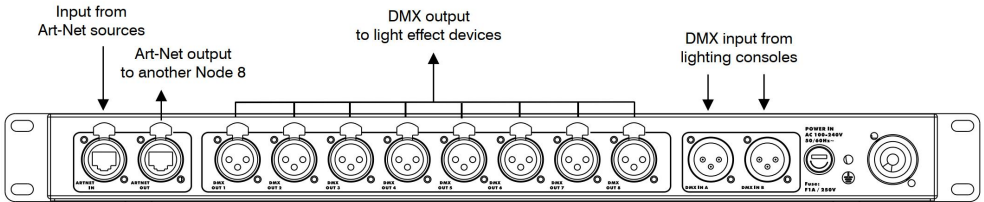
Installation

Install the unit on a plane surface or in your rack. When choosing the installation spot make sure that there is enough space around the unit for ventilation or that heated air from the rack can be passed on to improve heat radiation. Steady overheating will damage the unit.

Connection to the mains

The unit uses an auto-range power supply that accepts input voltages between 100 und 240 volts. Plug in the included mains cable and connect the mains plug to a grounded mains socket.

Data connections

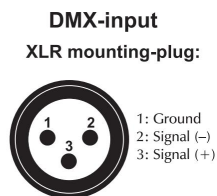
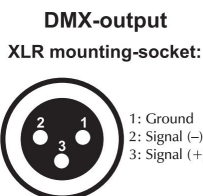


For use as an Art-Net hub, connect one of the node's Ethernet ports to a computer network. Either via an Ethernet switch or directly to a PC or notebook. Data can be set to the node over Ethernet and then internally distributed to the XLR connectors for DMX output. If more than eight universes are needed, the other Ethernet port can be used for serial connection of several nodes. The Ethernet ports are through ports which can be used either as an input or an output. The unit can be used as a DMX splitter in which case the DMX signal from the DMX inputs is distributed to the DMX outputs.

Notes

- Switch off the unit prior to connecting any DMX units or to changing any existing connections.
- The unit is equipped with 3-pin XLR connectors for DMX connection. If you wish to connect units with other connectors, you need to use adapter cables. Use special DMX cables for high data flow.
- Use a standard network cable for connection to a computer network.
- The device can be connected to and disconnected from the computer during operation and without a reboot (hot swapping and plug & play). Multiple units can be used at the same time.

Pin connection:

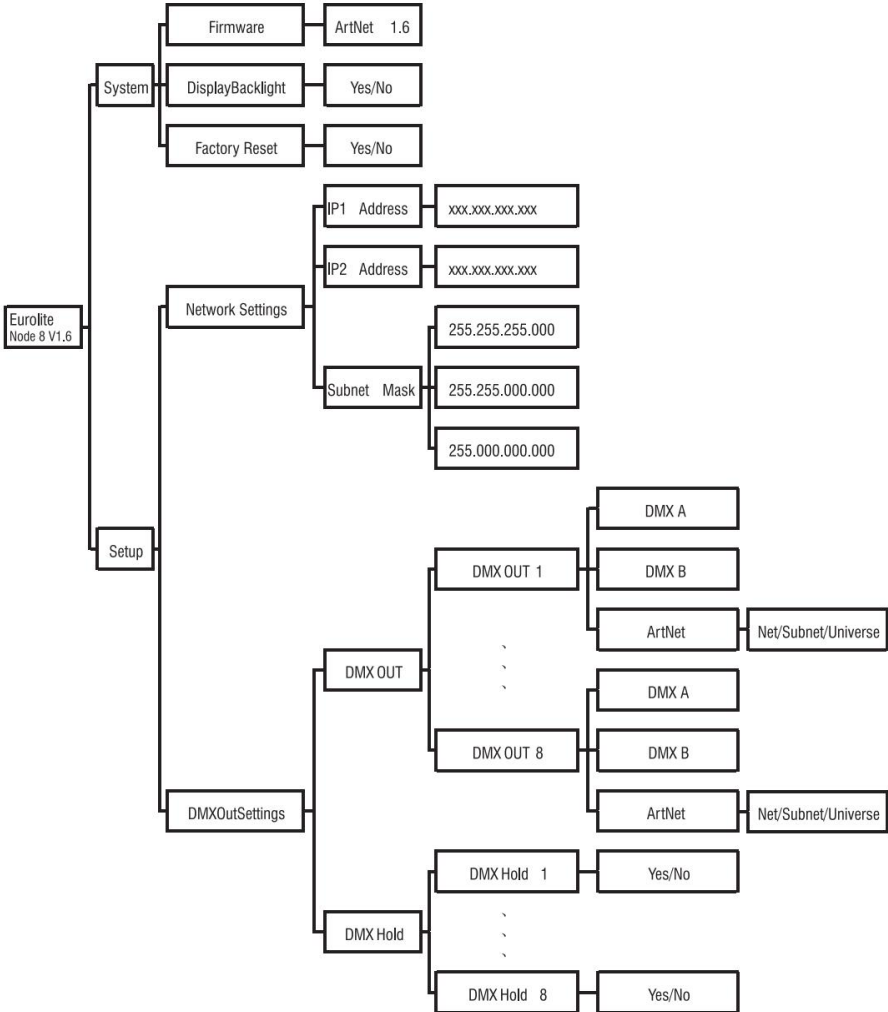


TION AND OPERATION

For use as an Art-Net hub, the eight universes must be assigned to the DMX outputs, and the Net, Subnet, and IP address settings must be configured. If the unit is used as a DMX splitter only, the DMX inputs must be assigned to the DMX output, but the Net, Subnet, and IP address settings do not need configuration. The unit can be used as both an Art-Net hub and a DMX splitter simultaneously, in which case both the network settings and the DMX assignments must be configured. The universes and DMX inputs can be assigned to the DMX outputs as desired.

The node is configured through the control panel, using the control panel buttons and the display. Once it is properly configured it operates without user intervention. After switching on, the display indicates the firmware version. Then press the MENU button to enter the menu and make your settings.

Menu structure



Operating buttons

Button	Function
MENU	Calls the menu and the next menu item and Activates a value to be modified.
UP	Selects the next menu item and increases values when modifying.
DOWN	Selects the previous menu item and decreases values when modifying.
ESC	Exits the current level and returns to the start display.

Network settings in the <NetworkSettings> menu

Indication	Parameter	Function
<IP1 Address>	xxx.xxx.xxx.xxx	Input of the IP address of node 1. The device is separated in 2 nodes according to the Art-Net specification. Each node uses its own IP address for unique identification in the network. DMX outputs 1-4 are assigned to node 1 and DMX outputs 5-8 to node 2. Use the IP address ranges 2.x.x.x or 10.x.x.x according to the Art-Net specification.
<IP2 Address>	xxx.xxx.xxx.xxx	Input of the IP address of node 2.
<Subnet Mask>	255.0.0.0	Input of the subnet mask. Leave the subnet mask at 255.0.0.0 according to the Art-Net specification.

Configuration of the ports in the <DMXOutSettings> menu

Indication	Parameter	Function
<DMX OUT>	DMX OUT 1-8	Signal routing for DMX outputs 1-8. Select <DMX A> or <DMX B> for signal input via one of the DMX inputs or <ArtNet> for Art-Net operation. For Art-Net, set the <Net>, <SubNet> and <Univ> parameters according to the Art-Net specification in the submenu.
<DMX Hold>	DMX Hold 1-8	Output behavior for DMX outputs 1-8 on loss of the DMX signal. <Yes>: The last correct DMX data is sent. <No>: There is no DMX data output.

Device settings in the <System> menu

Indication	Function
<Firmware>	Indication to the firmware version.
<DisplayBacklight>	Display illumination. <Yes>: Display backlight is always on. <No>: Display backlight off after 30 sec.
<FactoryReset>	Rest to default settings.

CLEANING AND MAINTENANCE

- We recommend a frequent cleaning of the device. Please use a soft lint-free and moistened cloth. Never use alcohol or solvents!
- There are no serviceable parts inside the device except for the fuse. Maintenance and service operations are only to be carried out by authorized dealers.
- If the fine-wire fuse of the device fuses, only replace the fuse by a fuse of same type and rating. Before replacing the fuse, unplug mains lead.
- Should you need any spare parts, please use genuine parts.
- Should you have further questions, please contact your dealer.

TECHNICAL SPECIFICATIONS

Power supply:	100-240 V AC, 50/60 Hz
Power consumption:	5 W
Fuse:	F1A
DMX512 inputs:	2 x 3-pin XLR male
DMX512 outputs:	8 x 3-pin XLR female
Ethernet:	2 x RJ45 10/100 Mbps (Neutrik etherCON)
Protocol:	Art-Net 3
Dimensions (LxWxH):	483 x 175 x 44 mm
Weight:	2.4 kg

Specifications are subject to change without notice due to product improvements.

PROTECTING THE ENVIRONMENT



Disposal of old equipment

When to be definitively put out of operation, take the product to a local recycling plant for a disposal which is not harmful to the environment. Devices marked with this symbol must not be disposed of as household waste. Contact your retailer or local authorities for more information. Remove any inserted batteries and dispose of them separately from the product.



You as the end user are required by law (Battery Ordinance) to return all used batteries/rechargeable batteries. Disposing of them in the household waste is prohibited. You may return your used batteries free of charge to collection points in your municipality and anywhere where batteries/rechargeable batteries are sold. By disposing of used devices and batteries correctly, you contribute to the protection of the environment.