

ArtNet DMX-UNIVERSE 4.1

User manual



ART
NET
ETHERNET

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DMX[®]
4
ALL

Description

With a standard RJ45-Net work connection cable occurs the connection to ArtNet-Network.

Adjustable DMX-Frame rate

Within the DMX-OUTPUT-Mode the DMX-Framerate is adjustable, so this Interface is compatible with “slower“ DMX-Devices.

ArtNet Merge-Function

Two ArtNet-Sources are outputted together at the DMX-Output via LTP (Latest) or HTP (Highest).

Disengageable LED-Displays

The LED-Displays at the ArtNet-DMX-UNIVERSE 4.1 are disengageable time controlled or via ArtNet-Command (AcLedMute).

This is very helpful to avoid disturbing “light points” on stage.

Easy Configuration

An user friendly configuration via a web browser allows a fast and uncomplicated setting of all parameters. No special software is necessary; a standard web browser is enough. So, the configuration is possible every time from PC, Smartphone or tablet. For an easy setting of the IP we provide the IP-Configurator as PC-Tool or Android-App for free.

The network settings can be leaved unchanged and the IP can be configured without any problems.

Compact design

The ArtNet-DMX-UNIVERSE 4.1 comes in a high quality aluminium housing with Neutrik® connectors which is ideal for stage and live usage.

Combinable with WiFi-Components

In combination with a WLAN-Bridge the ArtNet-DMX-UNIVERSE 4.1 can be integrated in WLAN networks.

We recommend as WLAN-Bridge: TP-Link MiniRouter TL-WR702N or TP-Link Nano Router TL-WR802N

Firmware-Update-Function

To use future functions the ArtNet-DMX-UNIVERSE 4.1 offers a Firmware-Update-Function. This can be started with any web browser, so no direct access to the device is necessary!

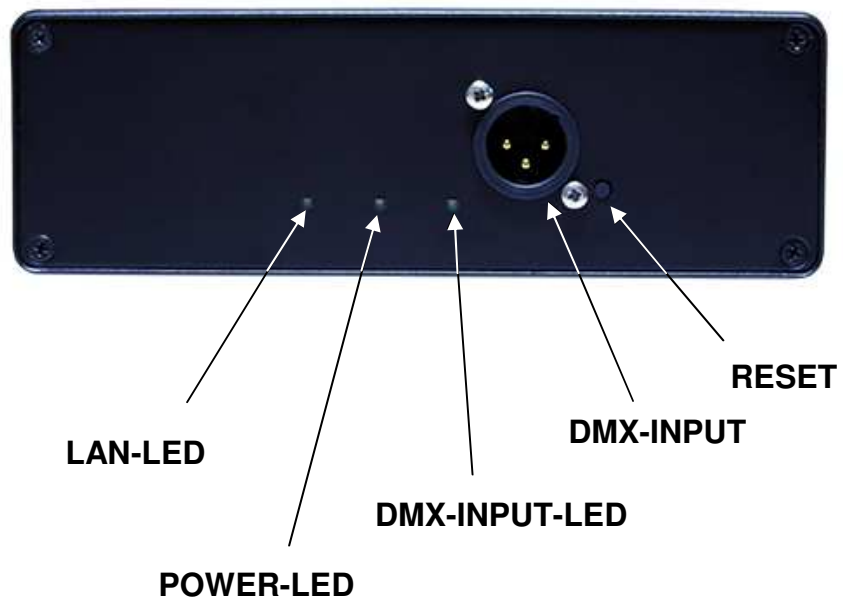
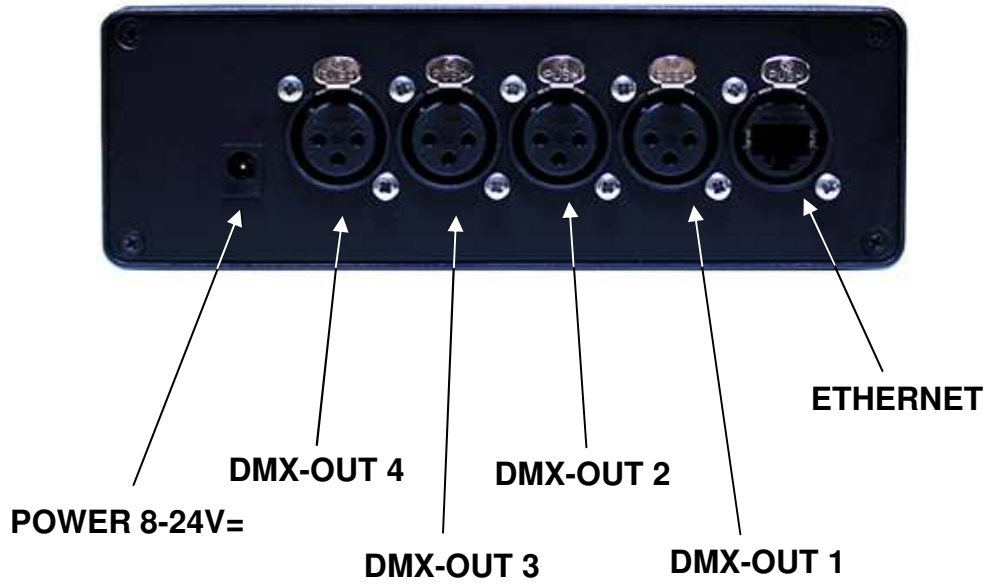
Data sheet

Power supply:	7-24V DC via delivered plug power supply
Connection:	RJ45 Ethernet
DMX-Input:	512 DMX-Channels Neutrik® XLR3
DMX-Output:	4x 512 Channels or 4x 1024 Channels within Extension Mode Neutrik® XLR3 All in- and outputs are galvanically isolated
Dimension:	170 x 170 x 58mm
Protocol:	ArtNet 3™ (downwards compatible)

Delivery

- 1x ArtNet-DMX UNIVERSE 4.1
- 1x Plug power supply
- 1x RJ45 1m network cable 1:1
- 1x Quick guide (german and english)

Connection



LED-Display

STATUS-LED

The STATUS-LED shines, as soon as the device is working.

ETHERNET-LED

The ETHERNET-LED signals an existing connection via RJ45-Connection.

DMX-IN-LED

The DMX-IN-LED signals a DMX-Signal at the DMX-Entry.

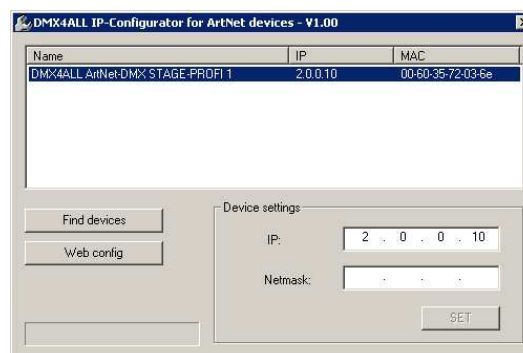
Configuration

The **ArtNet DMX-UNIVERSE 4.1** configuration can occur via a web interface which can be called via any web browser.

Set the IP with IP-Configurator

The **IP-Configurator** allows setting the IP-Address and net mask setting also, if the net work setting of the PC is not in the range of the IP range of the ArtNet-DMX UNIVERSE 4.1.

- Install the program IP-Configurator
- Connect the ArtNet-DMX UNIVERSE 4.1 to the net work and turn it on
- Start the program IP-Configurator



- The ArtNet-DMX UNIVERSE 4.1 is shown in the list
- Select the entry (click)
- Enter the new IP and net mask
- Click SET

Set the IP with web browser

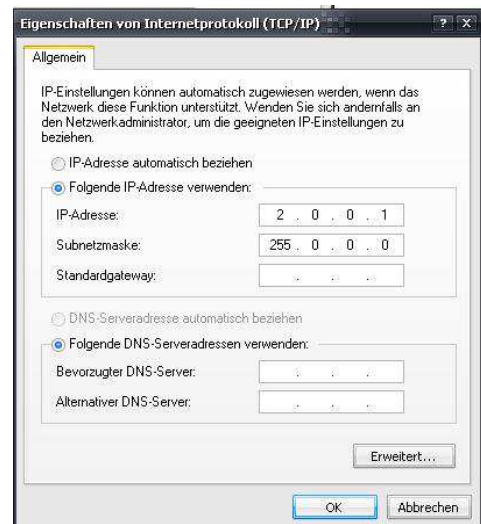
The assigned **IP-Address** within the delivery status is **2.0.0.10** which will be used for the web-interface.

Please set the net work card of your computer to this IP range to call the IP-Address 2.0.0.10 via the web browser.



The network settings of the computer must be set to the **IP-Address 2.0.0.1** and the **subnet mask must be 255.0.0.0**.

Please take further details from the ArtNet-Specifications.



Device Configuration

Call the IP of the ArtNet-DMX-UNIVERSE 4.1 in the web browser and within the address bar (delivery status: 2.0.0.10) to get the following configuration page:

Each node needs an own **IP-Address** so the assignment can occur clearly within the network. Use in accordance to the ArtNet-Specifications the IP-Address 2.x.x.x or 10.x.x.x



The **Netmask** is according to the ArtNet-Specifications 255.0.0.0 .

TIP:

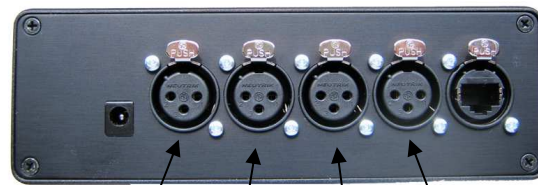
Any other IP-Address can also be used e.g. 192.168.1.10 .
In this case the netmask has to be fitted to 255.255.255.0 !

The **Factory Settings** are rebuilt by entering the number 7319.

SAVE stores the configuration respectively rebuilt the Factory Settings.

DMX-Outputs

The DMX-Outputs are galvanically isolated and are controlled via the ArtNet-Protocol. Each DMX-Output is assigned with an own Port from Node 2:



Node 2: Port 4 Port 3 Port 2 Port1

By clicking **DMX-Output** you get the following configuration site:



Each node needs an own **IP-Address** so the assignment can occur clearly within the network. Use in accordance to the ArtNet-Specifications the IP-Address 2.x.x.x or 10.x.x.x

TIP:

Any other IP-Address can also be used e.g. 192.168.1.10 .
In this case the netmask has to be fitted to 255.255.255.0 !

For a better distinction you can give every ArtNet-Node any name.
The **Short-name** is limited to 18 marks and the **Long-name** is limited to 64 marks.

The ArtNet-Parameter **SubNet**, **Net** and **Port** must be set according to the ArtNet-Specifications and specify the aim of the DMX-Data.

Via **Sync** the DMX-Output of several Devices can be synchronized by usage the software Software MADRIX[®].

Framerate specifies the maximum DMX-Frame rate.

MAX corresponds to the maximum frame rate of ca. 44 fps (frames/second).

The option **Save current DMX values as defaults** stores the current DMX-Data and rebuilt these after turning on.

Extension Mode

The **ArtNet-DMX-UNIVERSE 4.1** has an Extension Mode. In this Mode at each DMX-Output 1024 DMX-Channels can be outputted. At each DMX-Output 2 Ports (each 512 DMX-Channels) are outputted. So, 4096 Channels are available.

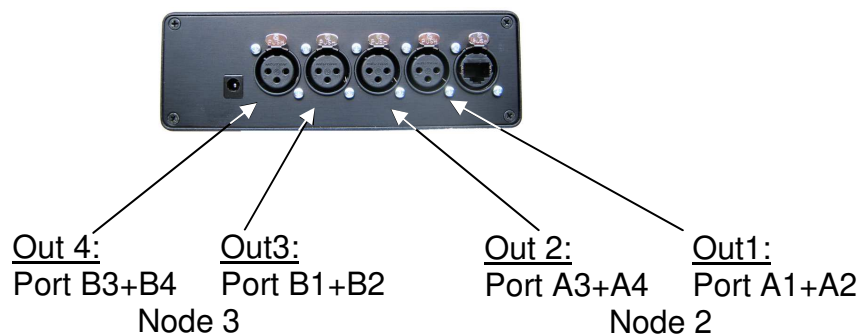
To activate the Extension Mode switch switch 1 on ON.

Within the Extension Mode another ArtNet Node is activated, which also has 4 Ports. In the Web-Configuration this is specified as Node 3:



By activating the Extension Mode another Node is available. Each Node needs an own **IP-Address**, so the assignment within the network is clear. Use in according to the ArtNet-Specification the IP-Address 2.x.x.x or 10.x.x.x

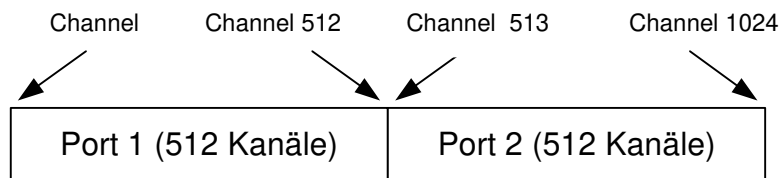
The ports assignment to the outputs is as follows:



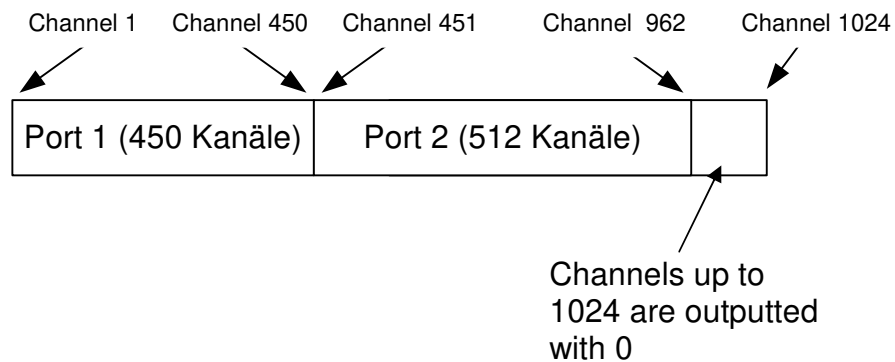
The **DMX Routing** specifies for each DMX-Output how the ports are connected together.

The entered value specifies how many DMX-Channels are outputted from the first Port. After this the DMX-Channels from the second port are outputted.

Example: DMX-Routing = 512



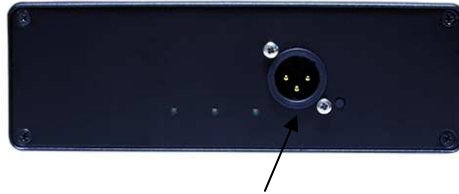
Example: DMX-Routing = 450



If the value 0 is specified for the outputs 2, 3 or 4, so only Port 1 with 512 DMX-Channels is outputted at this output. That is helpful for the compatibility within the Extension Mode to the other DMX512-Devices.

DMX-Input

The DMX-Input is galvanically isolated and assigned to Port 1 Node 1.



Node 1: Port 1

By clicking **DMX-Input** you get the following configuration site:



Each Node needs an own **IP-Address**, so the assignment within the network is clear. Use in according to the ArtNet-Specification the IP-Address 2.x.x.x or 10.x.x.x

TIP:

Any other IP-Address can also be used e.g. 192.168.1.10 .
In this case the netmask has to be fitted to 255.255.255.0 !

For a better distinction you can give every ArtNet-Node any name.
The **Short-name** is limited to 18 marks and the **Long-name** is limited to 64 marks.

The ArtNet-Parameters **SubNet**, **Net** and **Port** must be set in the sense of the ArtNet-Specifications and specify the aim for the DMX-Data.

Use Broadcast: The DMX-Data are send to all devices within the ArtNet.
Use Unicast: The DMX-Data will are send to a specified device with the within the ArtNet **Unicast IP**

Several actions are available for the DMX-Input in the case of a breakdown of the DMX-Signal (**DMX FAIL**).

NO DATA	- via ArtNet will be no DMX-input received	HOLD last DMX data	- the last data will be retained
CLEAR all DMX channels to 0%	- all DMX-channels will be set to 0		
SET all DMX channels to 100%	- all DMX-channels will be set to 255		

The **Update-Rate** with which the DMX-Input data are outputted can be switched in several times.

On change data transferred only the DMX-Input data if these changes, max. every 0,1 seconds.

DMX Framerate transferred the received DMX-Values as soon as a frame has finished. So, the frame rate of the incoming DMX-Signal will be used for the Update-Rate.

Factory Reset

The **ArtNet-DMX-UNIVERSE 4.1** can be reset into the delivery status with the Reset-Button.

Please proceed as follows:

- Turn off the device
- Push button and hold
- Turn on the device
- LAN-LED flashes
- Release button
- Push button again and hold
- POWER-LED flashes ca. 10 seconds alternately
- Release the button during this time
- The Reset is executed and the POWER-LED flashes 3x as confirmation

Restore the delivery status via **web browser**:

- Open the Main Settings in web browser
- Enter the service code „7319“ in Factory Defaults and click *Save*
- Following please wait minimum 10 seconds

Execute Firmware-Update

The **ArtNet-DMX-UNIVERSE 4.1** has an update-function which enables transferring prospective firmware-versions.

Proceed as follows:

- Turn off the device
- Push button and hold
- Turn on the device
- LAN-LED flashes
- Release button
- Generate network connection to PC
- Start Update-Software **DMX4ALL LAN-Updater**
- Select ArtNet-DMX-UNIVERSE 4.1 from list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the update has finished



If an error occurs you can begin from the start anytime.

Alternatively, you can activate the firmware update through the web browser:

- Open within the webbrowser *Firmware Update*
- Enter the code „1379“ in the input field and click *Send*
- Start Update-Software **DMX4ALL LAN-Updater**
- Select **ArtNet-DMX UNIVERSE 4.1** from list
- Click *Firmware-Update*
- Select and confirm Firmware-File (.bin)
- Please wait until the update has finished
- Click *Back* within the web browser

Accessory

XLR-Cable 3pin
Several Lengths:
1m, 5m, 10m, 15m



Network cable



CE-Conformity



This assembly is controlled by a microprocessor and uses high frequency. In order to maintain the properties of the module with regard to CE conformity, installation into a closed metal housing in accordance with the EMC directive 2014/30/EU is necessary.

Risk-Notes

You purchased a technical product. Conformable to the best available technology the following risks should not be excluded:

Failure risk: The device can drop out partially or completely at any time without warning. To reduce the probability of a failure a redundant system structure is necessary.

Initiation risk: For the installation of the board, the board must be connected and adjusted to foreign components according to the device paperwork. This work can only be done by qualified personnel, which read the full device paperwork and understand it.

Operating risk: The Change or the operation under special conditions of the installed systems/components could as well as hidden defects cause to breakdown within the running time.

Misusage risk: Any nonstandard use could cause incalculable risks and is not allowed.

Warning: It is not allowed to use the device in an operation, where the safety of persons depend on this device.

Disposal



Electronical and electronic products must not be disposed in domestic waste. Dispose the product at the end of its service life in accordance with applicable legal regulations.

Information on this can be obtained from your local waste disposal company.



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