# ArtNet-DMX STAGE-PROFI 1.1

**User Manual** 









## Description

The ArtNet-DMX STAGE-PROFI 1.1 is a compact ArtNet (DMX over Ethernet) interface which can be used for ArtNet to DMX or DMX to ArtNet.

With a standard RJ45 network connector the connection to the ArtNet is made.

#### DMX direction selectable

The DMX direction can be switched depending on use (ArtNet - DMX; DMX - ArtNet).

#### Adjustable DMX-Framerate

In DMX OUTPUT mode, the DMX frame rate is adjustable so that this interface is compatible with "slow" DMX devices.

#### **ArtNet Merge-Function**

Two ArtNet sources are output with LTP (Latest) or HTP (Highest) merged on the DMX output.

#### **Muteable LED Dispaly**

The LED indicators on the ArtNet-DMX STAGE-PROFI 1.1 are muteable by ArtNet command (AcLedMute) or time-controlled.

This is helpful to disturbing "points of light" especially on stages.<br>

## **Easy Configuration**

A user-friendly configuration via a web browser allows a fast and uncomplicated setting of all parameters. No special software is required, a normal web browser is sufficient. Thus, the configuration is possible at any time from your PC, smart phone or tablet device. For easy setting of the IP-address, we provide the IP Configurator as a PC tool or Android app available for free. This allows you to leave the network settings unchanged and can easily configure the IP.

#### High quality and compact design

ArtNet DMX STAGE-PROFI 1.1 is designed with a 3-pin Neutrik metal XLR connector inside a compact aluminium body.

#### Use together with WiFi components

In conjunction with a WiFi-bridge the ArtNet-DMX STAGE-PROFI 1.1 can be integrated into standard WiFi networks. As WiFi-bridge we suggest: Netgear WNCE2001.

#### **Firmware-Update-Function**

In order to take advantage of future features, the ArtNet-DMX STAGE-PROFI 1.1 has a firmware update function.

This can be launched from the browser so that no access to the device is necessary!

#### Extension Mode with 1024 DMX channels

An additional Extension Mode allows an output of 1024 DMX-channels at the DMX-output.

The Extension-mode is optimized for controlling the MagiarLED-products.

## DMX4ALL-Command interface

ArtNet DMX STAGE-PROFI 1.1 has another TCP communication interface that is compatible with the LAN-DMX STAGE-PROFI.

This interface uses the DMX4ALL-commands via TCP packets to the port 10001.



# **Technical data**

Power supply:	5V DC from external power supply
Ethernet:	RJ45
DMX:	Neutrik XLR connector 3 pin female (depending on design) Selectable: - 512 channels OUT - 1024 channels OUT within the Extension Mode - 512 channels IN For DMX-INPUT operation a DMX adapter MALE/MALE is necessary
Protocol:	Art-Net™ or Virtual COM Port with DMX4ALL Commands (just like LAN-DMX STAGE-PROFI)
Dimensions (LxBxH):	75 x 26 x 35 mm

# Connection



5-pin

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## **LED-display**

## LED green

The green LED flashes, if no Ethernet connection exists and shines no-stop if an Ethernet connection is available.

## LED yellow

The yellow LED lights up as soon as data are received.

## Konfiguration

The configuration of the **ArtNet-DMX-STAGE-PROFI 1.1** occurs about an webinterface which can be called about any web browser.

# Setting IP with the IP-Configurator

The **IP-Configurator** allows set the IP-address and the net mask even if the networking setting of the PC is not within the IP-range of the ArtNet-DMX STAGE-PROFI 1.1

- Install the program IP-Configurator
- Connect the ArtNet-DMX STAGE-PROFI 1.1 with the net work and turn it on
- Start the IP-Configurator

ame	IP	MAC	
X4ALL ArtNet-DMX STAGE-PROFI	1 2.0.0.10	) 00-60-35-72-0	3-6e
Find devices	Device settings	2 . 0 . 0 .	10
	Netmask:		

- The ArtNet-DMX STAGE-PROFI 1.1 is shown in the list
- Select the entry (click to)
- Enter new IP and net mask
- Click SET



## Setting the IP via Web browser

The assigned IP-address 2.0.0.10 in the delivery status will be used for the webinterface as well as for the ArtNet.

Please set the net work card to this IP-range to call the IP-address via the web browser.



The network settings of the PC must be configured to the **IP-address 2.0.0.1** and the subnet mask to 255.0.0.0.

> Please take further details from the ArtNetspecifications.

enschaften von Internetprotokoll	(TCP/	IP)		i.			?
llgemein							
IP-Einstellungen können automatisch zu Netzwerk diese Funktion unterstützt. W den Netzwerkadministrator, um die geei beziehen.	ugewies enden 9 gneten 1	en v Sie s P-E	vera ich inst	len an ellu	, wi deri nge	enn das nfalls an en zu	
IP-Adresse automatisch beziehen							
Folgende IP-Adresse verwenden:							
IP-Adresse:	2.	0		0		1	
Subnetzmaske:	255 .	0		0		0	
Standardgateway:			20		-		
DNS-Serveradresse automatisch b	eziehen						
Folgende DNS-Serveradressen ve	rwender	n:					
Bevorzugter DNS-Server:			23		13		
Alternativer DNS-Server:					•		
				[	E	irweitert	
	2		_			102	
			OK			Abbre	cher

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# **Device configuration**

Please call the IP-address 2.0.0.10 (delivery status) in the address bar of the web browser for getting the following configuration page:



Each node needs an own **IP-address**, so the assignment in the network occurs clearly. According to the ArtNet-specifications please use the IP-addresses 2.x.x.x or 10.x.x.x.

Each other IP addresses are also possible, for example 192.168.1.10. Then the net mask must be changed to 255.255.255.0 !

For an easier identification you can assign each node with any names.

The **Short-name** is limited to 18 marks and the **Long-name** is limited to 64 marks.

The Netmask is to leave in accordance to the ArtNet-specification 255.0.0.0 .

The **Interface mode** can be configured as DMX input (DMX to ArtNet) or DMX output (ArtNet to DMX).

When the option "LED indicator auto off" is active the devices LEDs are switched off after 10 minutes operation with permanent network connection.

The Factory Settings will be rebuilt with the entry of the number 7319.



# **DMX-Output**

For using the **ArtNet-DMX STAGE-PROFI 1.1** as a DMX-OUTPUT interface please select the Interface Mode *DMX-Output* in the Global-Settings.

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



The ArtNet-parameters **SubNet**, **Net** and **Port** must be set in the sense of the ArtNet-specifications and show the aim for the DMX-data.

The Merge settings can be adjusted at LTP or HTP.

Via Sync the DMX-output can be synchronized for several devices by using the software  $\textbf{MADRIX}^{\texttt{B}}$ 

**Framerate** set the maximum DMX frame rate in the output. MAX is the maximum frame rate of ~44 fps (frames per second).

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



The **DMX-Routing** specifies for the DMX-output how the Ports data hang together in the Extension Mode.

The entered value specifies how many DMX-channels from the first Port should be outputted. After this the DMX-channels of the second Ports are attached.

Example: DMX-Routing = 512



Example: DMX-Routing = 450





## **DMX-Input**

For using the **ArtNet-DMX STAGE-PROFI 1.1** as a DMX-Input interface please select the Interface-Mode **DMX-Input** in the Global-settings.



Please use a 1:1 MALE-MALE adapter for the connection which is separately available.

By clicking *DMX-Input* reach the following configuration-site:

ArtNet-E	DMX STAGE-PROFI 1.1
The DMX4ALL ArtNet-DMX STAGE-PROFI 1.1 is an ArtNet interface with 1 DMX output or 1 DMX input.	Global DMX-Input Update
'he device provides one ArtNet Node for the input or output port.	DMX-INPUT
ou can give the node an own IP address, shortname and longname to differ the node in the etwork. Please use in one network the IP address 2.x.x.x or 10.x.x.x	ArtNet Parameter
he DMX input allows you to set a refresh rate and a DMX fail option.	SubNet: 0 (0) 🔻
ne DMX output is working with 512 channels (1 Universe) in the Standard mode.	Net: 0 (00) 💌 Only ArtNet3
the Extension mode the UMX output is working with 1024 channels (1+1 Universes), he UMX-Routing allows you to setup the combination of the 2 universes. Rei the given value from the 1st DMX Universes the 2nd DMX Universe is attached.	Port: 0 (0) 💌 Input
xample: 450 in the input box means the channels 1-450 from DMX Universe 1	DMX Input
d the following channels 451-953 are the channels 1-512 from UMX Universe 2.	Mode: O Use Broadcast O Use Unicast
KTENSION SETUP he extension setup allows you to set the ArtNet parameters for SubNet,Net and Port. lease set Net always to 0 if you don't use ArtNet3 !	Unicast IP: 2.0.0.1 only for Unicast
S Convrint 2011 DMXALL CrinitH All lights reserved	DMX-IN Fall:  O NO DATA O HOLD last DMX data O CLEAR all DMX channels to 0% O SET all DMX channels to 100%
R	Update Rate: DMX framerate 💌 DMX IN - Refresh Interv

The ArtNet-parameters **SubNet**, **Net** and **Port** must be set in the sense of the ArtNetspecifications and show the source 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 Unicast IP within the ArtNet.

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%	<ul> <li>all DMX-channels will be set to 0</li> </ul>
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.



## **DMX4ALL-Command support**

The **ArtNet-DMX STAGE-PROFI 1.1** interface has an additional communication-port which can receive the data from TCP-bundle at the port 10001. This port uses the DMX4ALL-Commands in this way, that the **ArtNet-DMX STAGE-PROFI 1.1** interface is compatible to the LAN-DMX STAGE-PROFI.

## **TCP-Control**

For control the interface directly with the TCP-connection please use the preset IPaddress and use the port 10001. The sent and received data are RAW-data bundle.

Please take the DMX4ALL-Commands which are possible from the separate DMX4ALL-Command description.

## **VCP-Control**

For the control with a COM-port a TCP-VCP-program must be installed which provides a virtual Com port (VCP).

We recommend the tool *Serial to Ethernet Connection* which has been tested by us. You find this tool on the enclosed CD and as download in our support-area.

During the installation you have to enter a password (see illustration).



After the installation start the tool " Sentos SEC" which is on the desktop. Now add a VCP with *Add* and specify the parameter for the VCP-port.

Make sure, that you use the IP which is adjusted about the web browser.



Finally, click **Update all** in the main menu window for activating the VCP. Now, the status became *Available* and the COM-port will be displayed in the device manager.

Serial to	o Etherne	t Utility R-1.00	2	:011(c) Centos	Inc.		
Add	Edit	Remove Rem	ove all	Load list	Save list	Help	
COM#	Туре	IP Address	Port	Net. Protocol	Status	Remark	
COM5	Client	2.0.0.10	10001	RAW	Available	ArtNet-DMX STAGE-PROFI 1.	
4						•	
- C- 1		Linear Land					
Sort		Update Upd	ate all			Exit	

# **Factory Reset**

The ArtNet-DMX STAGE-PROFI 1.1 can be reset in the delivery status.

Proceed as follows:

- Open the Main Settings within the web browser
- Enter the shown Code "7319" within the entry field Factory Defaults
- Click Save
- Wait minimum 10 seconds

Alternatively you can reset the delivery status via the DMX4ALL LAN-Updater:

- Turn off the device
- Start Update-Software DMX4ALL LAN-Updater
- Generate a network connection to PC
- Turn on the device
- The yellow LED lights up for approx. 3 seconds
- While the yellow LED is ON, click *FIND*
- Select the ArtNet-DMX STAGE-PROFI 1.1
- Click FACTORY RESET
- Now, the reset will be executed and the LEDs lights up 3 times simultaneously for confirmation



## **Execute Firmware-Update**

The **ArtNet-DMX STAGE-PROFI 1.1** has an update-function which enables transferring prospective firmware-versions.

Proceed as follows:

- Turn off the device
- Start Update-Software DMX4ALL LAN-Updater
- Generate a network connection to PC
- Turn on the device
- The yellow LED lights up for approx. 3 seconds
- While the yellow LED is ON, click *FIND*
- Select the ArtNet-DMX STAGE-PROFI 1.1 from the list
- Click Firmware-Update
- Select Firmware-file(.bin) and confirm
- Please wait until the update has finished



If an error occurs you can begin from the start anytime

Alternativ können Sie das Firmwareupdate auch über den Webbrowser aktivieren:

- Open the Firmware Update page inside the web browser
- Enter the code "1379" inside the input field and click Send
- Start the update-software DMX4ALL LAN-Updater
- Select from the list the ArtNet-DMX STAGE-PROFI 1.1
- Click Firmware-Update
- Select and confirm Firmware-data (.bin)
- Please wait until the update has finished
- Click *Back* within the web browser



## DMX über WLAN

The **ArtNet-DMX STAGE-PROFI 1.1** can be used together with WiiFi components to transfer the DMX data wireless. It is possible to transfer one or more DMX universes.

The following picture shows the operation with one DMX-Universe:



In the same way several DMX-Universes can be used:





Alternatively an APP, which redisplays ArtNet on a smart phone or PC, can be used as data source:





# Equipment

XLR-cable 3pin Lenghts: 1m, 5m, 10m, 15m



XLR-adapter Available in various designs XLR 3 male – XLR 3 male XLR 3 male – XLR 5 female XLR 3 female – XLR 5 male



Ethernet-Cable In different length





## **Risk-Notes**

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

CE



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