

DMX STAGE-PROFI 1.1 RDM

User Manual



**ART
NET**
ETHERNET

Art-Net™ Designed by and
Copyright Alderamin Group Ltd.



DMX®
4ALL



For your own safety, please read this user manual and warnings carefully before installation.

Content

Description.....	3
Data sheet	5
Contents	6
Modell Overview	7
Connection	8
LED-Display.....	8
Device Settings via web interface.....	9
Set IP with IP-Configurator	9
Set IP of the PC.....	10
Device Configuration.....	11
DMX-Output	13
DMX-Monitor	15
DMX-Fader.....	16
Internal programs	17
Call programs within web interface.....	18
DMX-Input.....	19
DMX-Monitor	21
USB	22
DMX4ALL-Command Interface.....	23
Factory Reset	25
Firmware Update	26
DMX via WLAN.....	27
Accessories	29
CE-Conformity	30
Disposal.....	30
Warning	30
Risk-Notes	31

Description

The **DMX STAGE-PROFI 1.1 RDM** is a compact Ethernet Interface (DMX via Ethernet), which can be used for Art-Net™ /TPM2/sACN to DMX/RDM or DMX to Art-Net™. Via a standard RJ45 net-work connection the connection to ethernet network occurs.

Switchable DMX Direction

The DMX direction can be switched according to usage.

Settable DMX Frame Rate

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

RDM via Art-Net™

Supports RDM via Art-Net™ and thus enables connected RDM devices to be configured via Art-Net™ using corresponding software.

Muteable LED Display

The LED-Display at the DMX STAGE-PROFI 1.1 RDM is disengageable via Art-Net™-Command (AcLedMute) or time controlled. This is very helpful to avoid disturbing "light points" on stage.

DHCP

The DMX STAGE-PROFI 1.1 RDM has a DHCP-Function for automatically addressing within the net-work.

DMX-Monitor

With the DMX-Monitor all of the 512 DMX output and input channel values are shown clearly.

DMX-Fader

The DMX-Fader is a helpful and clearly tool which allows to set all 512 DMX channels via a slide control.

Internal Stand-Alone Programs

The internal programs make the DMX STAGE-PROFI 1.1 RDM a stand-alone device. Calling up the programs is possible via the web interface as well as by switching on the device or in case that Art-Net™ data is missing.

Easy Configuration

A user friendly configuration via 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 any 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 net-work settings can be leaved unchanged and the IP can be configured without any problems.

High quality and Compact Design

The DMX STAGE-PROFI 1.1 RDM is designed with a 3-pin Neutrik-XLR-Connection metal design and cased in an aluminium housing.

Art-Net™ Merge-Function

Two Art-Net™ sources are output by LTP (Latest) or HTP (Highest) combined to the DMX output.

Combinable with WiFi components

In combination with a WLAN bridge the DMX STAGE-PROFI 1.1 RDM can also be integrated into WLAN net-works.

Firmware Update Function

To use future functions, the DMX STAGE-PROFI 1.1 RDM offers a Firmware-Update-Function. This can be started with any web browser, so no direct access to the device is necessary!

DMX4ALL Communication-Interface

The DMX STAGE-PROFI 1.1 RDM has an additional communication interface using the DMX4ALL-Commands via TCP or UDP packages.

Data sheet

Power supply:	5V DC via attached external power supply
Connections:	Ethernet: RJ45 USB / Power: MiniUSB DMX: Neutrik XLR female 3 or 5 pin (depending on version)
Ethernet:	10 Mbit/s 100 Mbit/s DHCP
USB:	USB1.1 / USB2.0 CDC-Driver (Virtual COM Port)
DMX:	Settable: - 512 channels OUT - 512 channels IN For DMX-IN an additional DMX adapter XLR male / XLR male 3(5) Pin is needed
DMX-Framerate:	settable (5 - 44 fps)
RDM:	RDM via Art-Net™ on/off switchable
ArtDmx Fail (DMX-OUT):	HOLD last data CLEAR all to 0% SET all to 100% NO OUTPUT DEFAULT VALUES INTERNAL PROGRAM
DMX Fail (DMX-IN):	NO DATA HOLD last data CLEAR all to 0% SET all to 100%
Protocol:	Art-Net™ TPM2 sACN (Unicast) DMX4ALL Commands
Internal program:	User configurable Stand-Alone Programs Internal memory: 8kByte
LED-Displays:	Green: Ethernet connection Yellow: Data transfer
Dimension:	75mm x 26mm x 35 mm

Contents

- 1x DMX STAGE-PROFI 1.1 RDM
- 1x 1m RJ45 net-work cable 1:1
- 1x USB 5V power supply
- 1x Quick guide german and english

Modell Overview

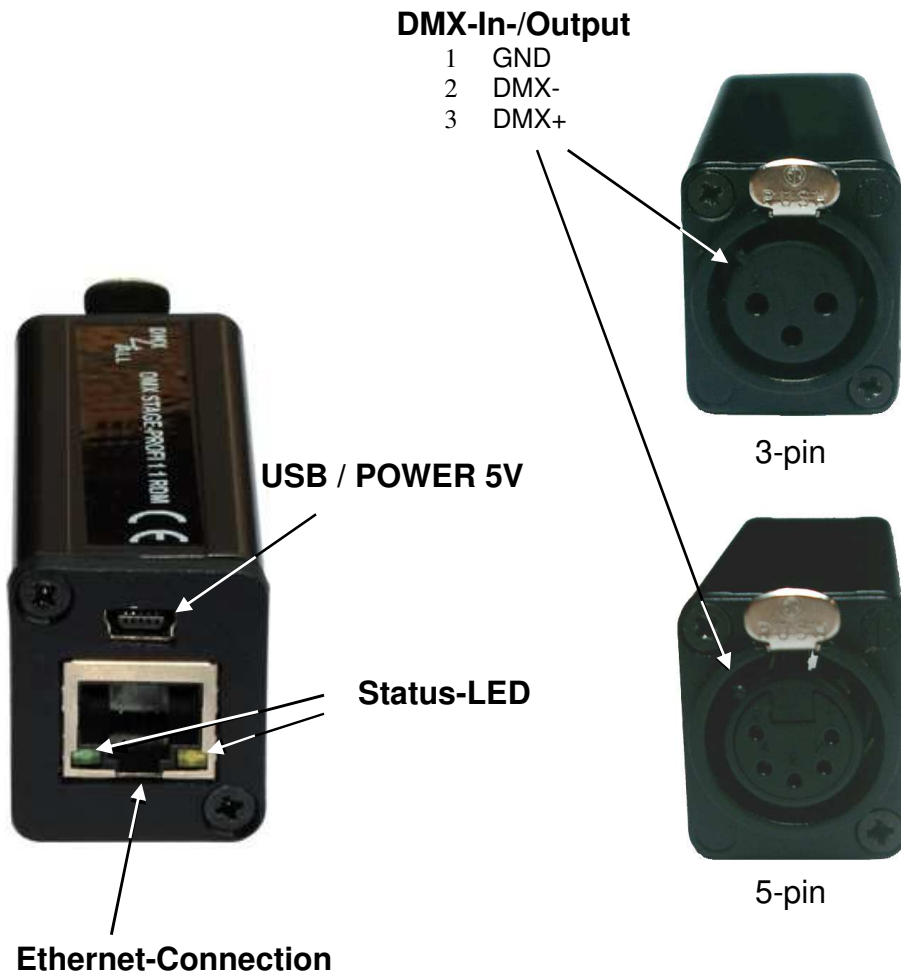
The several models of the **DMX-STAGE-PROFI** series offer different functions and are available in different versions.

Model	DMX UNIVERSE DR 1.1 RDM	DMX-STAGE-PROFI 1.1 RDM	DMX-STAGE-PROFI 1.1 PoE
Version	Board	Mounted Device	Mounted Device
Protocol	DMX512 / RDM	DMX512 / RDM	DMX512 / RDM
Supply Voltage	8-24V DC	5V DC	5V DC
Switchable DMX Direction	✓	✓	✓
Outputs	512 Channels	512 Channels	512 Channels
Inputs	512 Channels	512 Channels	512 Channels
Connection	Screw terminals	XLR-3 / 5	XLR-3 / 5
Net-Work Connection	RJ45	RJ45	RJ45
RDM	✓	✓	✓
RDM-Framerate	5 – 44 fps	5 – 44 fps	5 – 44 fps
Status LED Ethernet	✓	✓	✓
Status LED Data	✓	✓	✓
Muteable LED Display	✓	✓	✓
DMX-Fail (DMX-IN)	✓	✓	✓
DATA-Fail (DMX-OUT)	✓	✓	✓
DMX4ALL Commands	TCP / UDP	TCP / UDP	TCP / UDP
DHCP	✓	✓	✓
PoE	✘	✘	✓
DMX-Monitor	✓	✓	✓
DMX-Fader	✓	✓	✓
Internal Stand-Alone Programs	✓	✓	✓
Update Function	✓	✓	✓
Dimension (in mm)	29,2 x 82	75 x 26 x 35	75 x 26 x 35

✘ Not available in this version

✓ Available in this version

Connection



LED-Display

LED green

The green LED flashes, if no Ethernet-Connection is available and lights permanently, if an Ethernet connection is available.

LED yellow

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

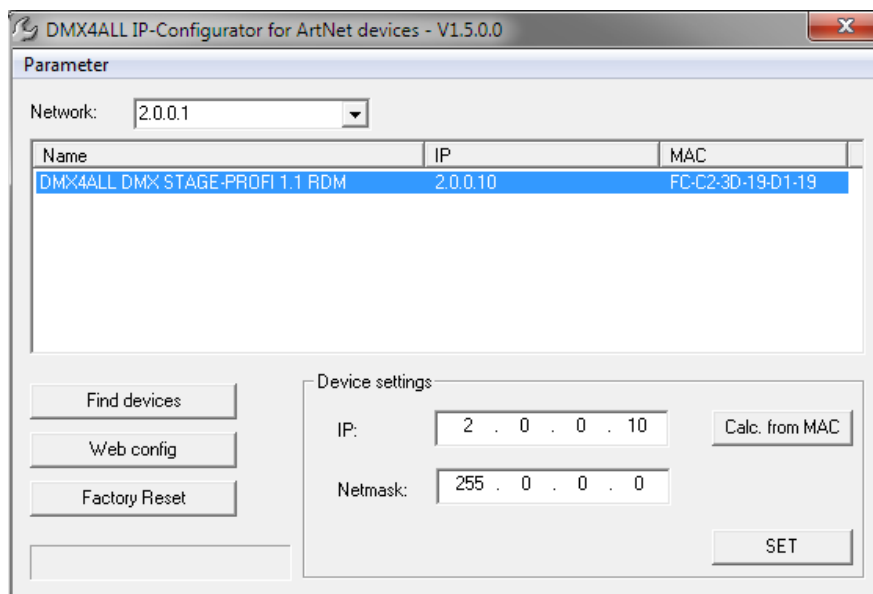
Device Settings via web interface

The configuration of the **DMX STAGE-PROFI 1.1 RDM** occurs about a web interface which can be called about any web browser.

Set IP with IP-Configurator

The **IP-Configurator** enables the IP-Address and the net mask setting even if the PCs network setting is not within the IP range of the DMX STAGE-PROFI 1.1 RDM.

- Install the program IP-Configurator
- Connect the DMX STAGE-PROFI 1.1 RDM with network and turn it on
- Start the program IP-Configurator



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

Set IP of the PC

During the delivery status the given **IP-Address** of the DMX STAGE-PROFI 1.1 RDM is **2.0.0.10**, which can be used via the web interface.

Set the network card of the PC to this IP range to call the IP-Address 2.0.0.10 via the web browser.



The net-work settings of the PC must be set to **IP address 2.0.0.1** and **sub net mask to 255.0.0.0**

Please take further details from Art-Net™-Specifications.



Device Configuration

Call the DMX STAGE-PROFI 1.1 RDM IP-Address in the web browser and address bar (delivery status: 2.0.0.10) to get the following configuration site:

DMX 4ALL **DMX STAGE-PROFI 1.1 RDM**

Main | DMX Output | Service

Network Settings

DHCP-Mode:

IP Address:

Netmask:

Gateway:

Short Name:

Long Name:

Device Settings

DMX Input

DMX Output

Art-Net™

TPM2

SACN (Unicast)

DMX4ALL Command Options

Protocol:

Port:

Enable USB

LED Indicator Settings

LED auto off

User Information

The DMX STAGE-PROFI 1.1 RDM is an Art-Net™ live interface with 1 DMX output or 1 DMX input.

The device provides one Art-Net™ Node with 1 port/universe.

You can give each node an own IP address, Shortname and Longname to differ the node in the network.

Please use in one Art-Net™ network the IP address 2.x.x.x or 10.x.x.x with the Netmask 255.0.0.0.

Other IP addresses like 192.168.1.x with Netmask 255.255.255.0 are also possible.

Art-Net™ Designed by and Copyright Artistic Licence Holdings Ltd
© Copyright DMX4ALL GmbH - All rights reserved

Network Settings

DHCP-Mode:

With the DHCP-Mode setting DHCP can be enabled (Enable) or disabled (Disable) for the DMX STAGE-PROFI 1.1 RDM. If DHCP is activated the IP-Address, net mask as well as the gate-way occurs via the DHCP server of the router



To ensure a permanent and problem-free operation of the DMX STAGE-PROFI 1.1 RDM we recommend the usage of a static IP address (DHCP mode: Disable).

IP Address, Netmask und Gateway

With the input fields IP Address, Netmask and Gateway the static network address of the DMX STAGE-PROFI 1.1 RDM is set.

If no network configuration is assigned by the DHCP server within 10 seconds, this configuration is used automatically.



Each device needs an own **IP-Address**, so the assignment in the network occurs clearly. According to the Art-Net™ specifications please use the IP-Addresses 2.x.x.x or 10.x.x.x with the **Netmask** 255.0.0.

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 !

Short-Name und Long-Name

With the input fields Short-Name and Long-Name the DMX STAGE-PROFI 1.1 RDM gets an individual name, with which it can be identified in the network. The Short-Name is limited to 18 marks and the Long-Name to 64 marks.

Device Settings

The **Device Settings** define the DMX direction (DMX input / DMX output) and the protocol used (Art-Net™ / TPM2 / sACN).

DMX4ALL Command Settings

The Protocol setting defines whether the DMX4ALL Commands are transferred via a UDP or TCP connection and the used port.

The DMX4ALL Command Options are described below under DMX4ALL-Command Interface.

Advanced Settings

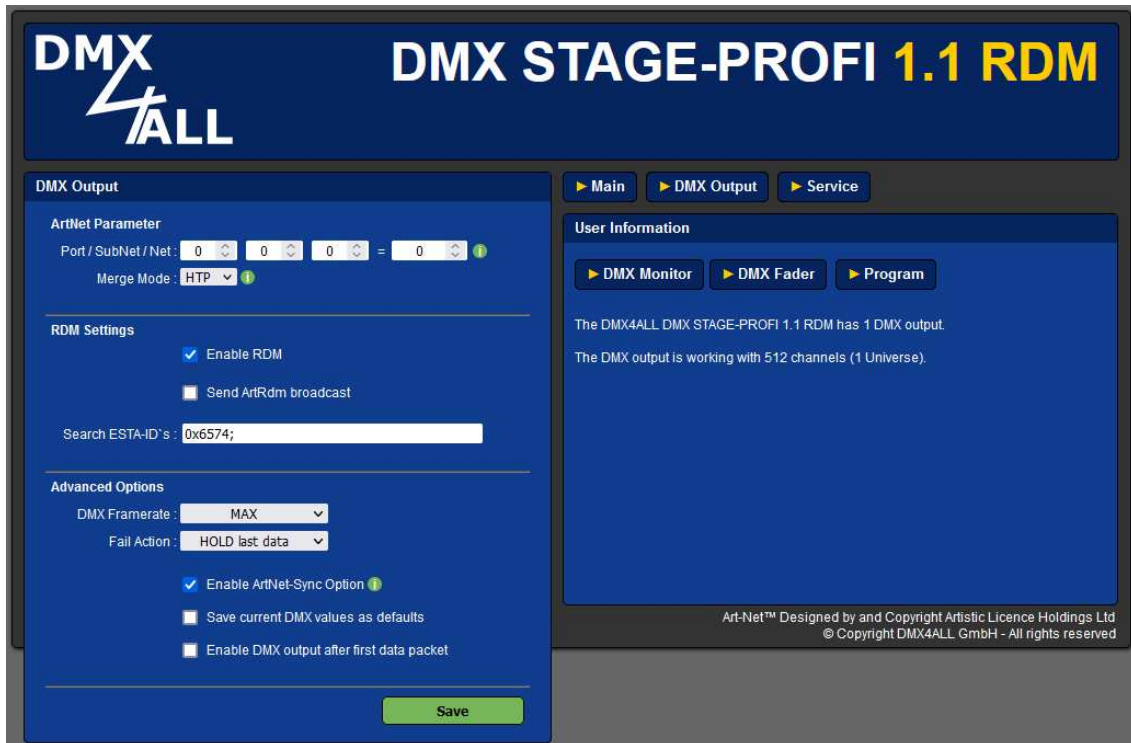
The option **LED auto off** switches off the LED displays at the DMX STAGE-PROFI 1.1 RDM automatically after 5 minutes, if the Ethernet connection runs consistently.

SAVE stores the configuration.

DMX-Output

For using the **DMX STAGE-PROFI 1.1 RDM** for DMX-Output please select the Interface Mode **DMX-Output** in the Main-Settings.

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



ArtNet Parameter

The Art-Net™ parameter **SubNet**, **Net** and **Universe** (Port) must be set in accordance of the Art-Net™ specifications and show the aim for the DMX data.

The Merge settings can be adjusted at **LTP** (Latest) or **HTP** (Highest).

RDM Settings

Enable RDM activates the RDM function of the DMX STAGE-PROFI 1.1 RDM.

In addition to the global search for RDM enabled devices, the IDs specified under **Search ESTA-IDs** are also queried during discovery.

In standard operation, this field can remain empty.

Advanced Options

DMX-Framerate set the maximum DMX frame rate in the output.
MAX is the maximum frame rate of ca. 44 fps (frames / second).

Fail Action sets the behavior in case of failure of the Art-Net™ data.
The following options are possible:

- HOLD last data
- CLEAR all to 0%
- SET all to 100%
- NO OUTPUT
- DEFAULT VALUES

Art-Net™ / Madrix Sync synchronized the DMX output of several Art-Net™ devices via ArtSync package or by using the software MADRIX®.

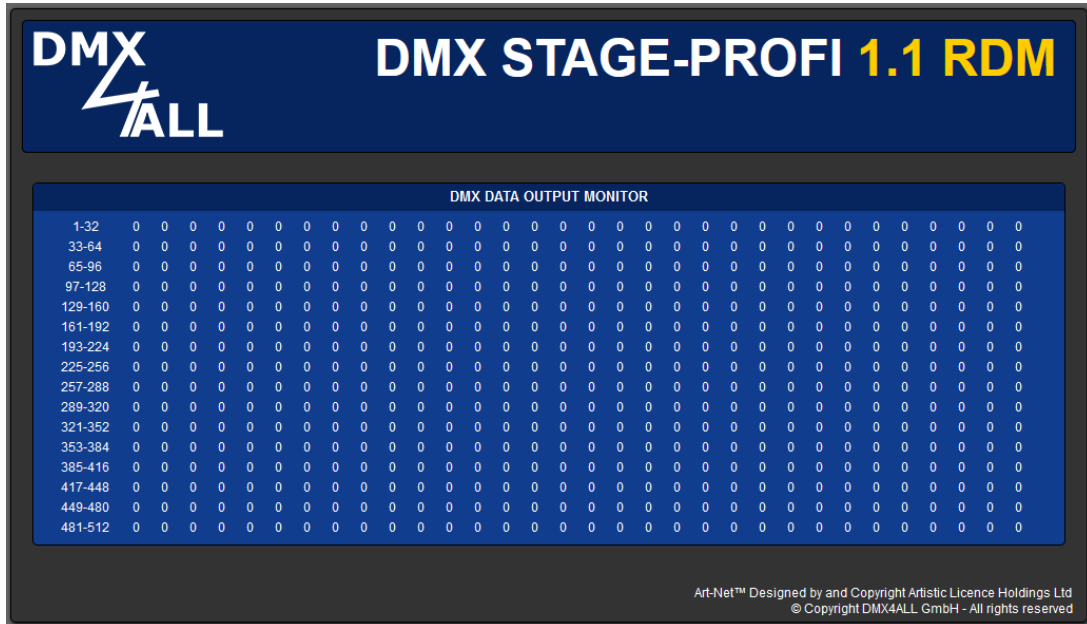
Save current DMX values as defaults stores the current DMX data and restores these after turning on.

The option **Enable DMX output after first ArtDMX packet** starts the DMX-Output not until the first Art-Net™ data package is received after turn on.

SAVE stores the configuration.

DMX-Monitor

The DMX-Monitor can be called on a separate web-site by clicking the DMX-Monitor button on the configuration site for DMX output.

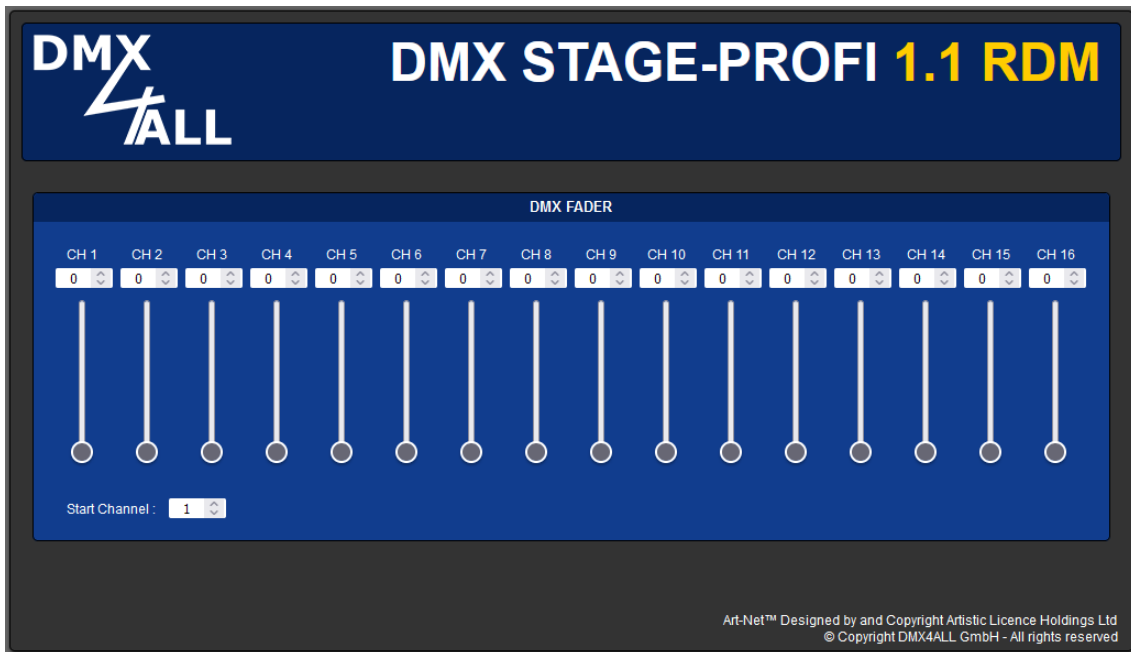


The display of the DMX data will be updated every second.

The current DMX values are displayed in decimal notation (value range 0 to 255).

DMX-Fader

The DMX-Fader can be called on a separate web-site by clicking the DMX-Fader button on the configuration site for DMX output.



From the set start address (Start Channel) 16 sliders and entry fields for setting the DMX values can be used.

The DMX values are entered in decimal notation (value range 0 to 255).



Art-Net Data send to the DMX STAGE-PROFI 1.1 RDM are prior used and an input via the DMX fader dialog is not possible.

Internal programs

The **DMX STAGE-PROFI 1.1 RDM** has a user-definable Stand-Alone function which can replay programs.

These are stored into the internal memory which has up to 8kByte.

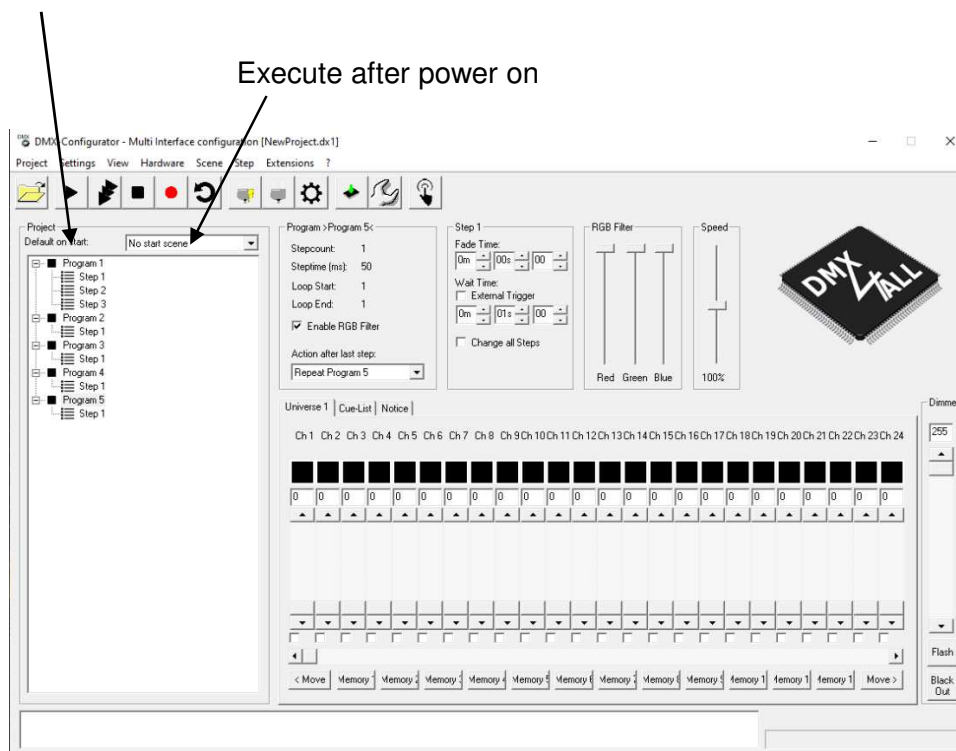
The internal programs are only available within the DMX-Output-Mode.

Program 1 can be started automatically when Art-Net™ data are missing (*DMX Output → Fail Action*).

A default program that is started when the device is switched on can be specified optionally.

The internal programs are created with the software DMX-Configurator.

Program 1 can be executed in case of ArtNet fail



The program created in the DMX Configurator software is transferred to the **DMX STAGE-PROFI 1.1 RDM** by *Hardware → Write Memory*.

After the transfer has finished, the connection to the PC can be disconnected and the DMX STAGE-PROFI 1.1 RDM can be operated via the USB power supply. The stored light program will be played until data are received.

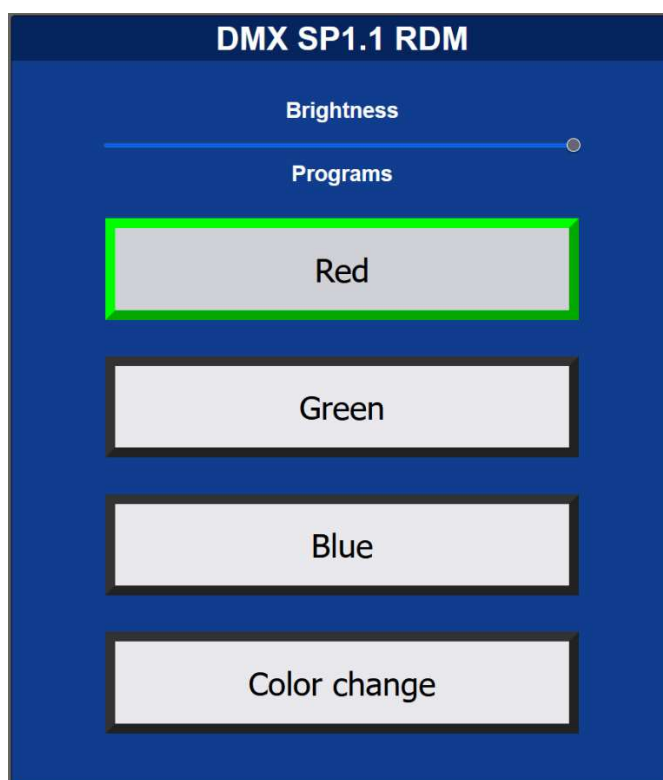


To transfer the created programs a connection via Art-Net™ or USB is necessary!

Call programs within web interface

The internal programs can be called via a separate web site.

This can be reached by click to the program button on the configuration site of the DMX output.



The title is generated using the short name in the main configuration.

The global brightness (Brightness) can be set via a master dimmer.

Clicking one of the individual program buttons start the corresponding program. A started program is framed in green. If you click on a started program again, it will be paused and framed in yellow.


The display of the program buttons is generated automatically according to the created internal programs. The buttons are named according to the assigned program names.



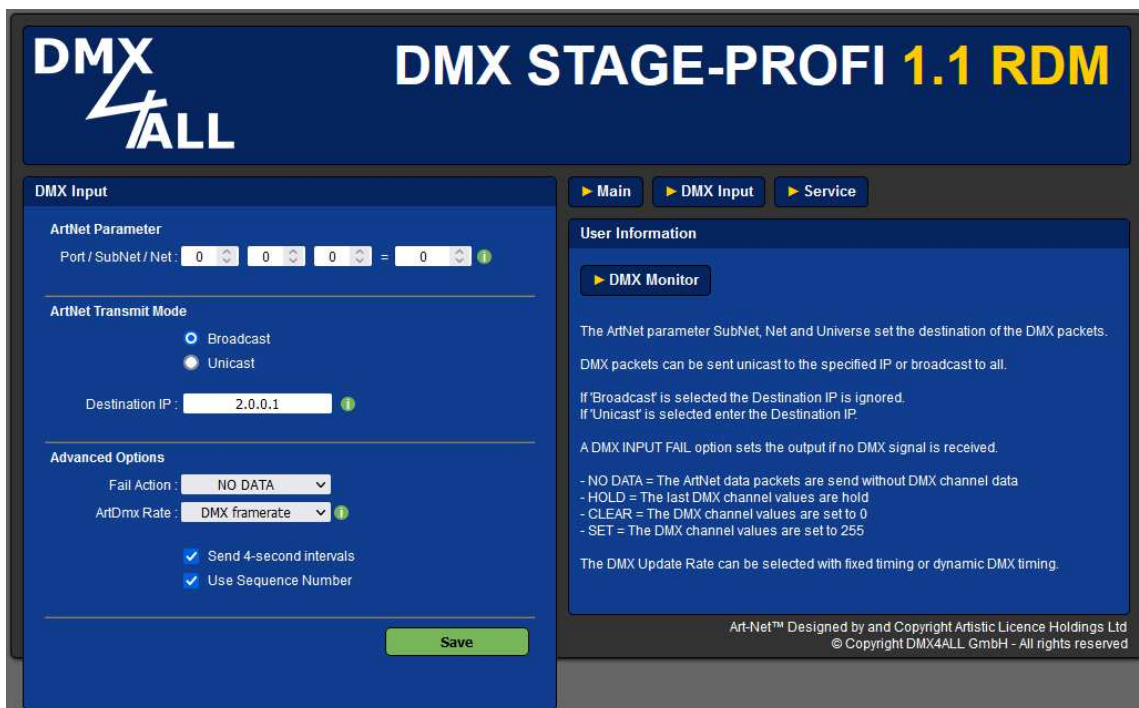
Art-Net Data send to the DMX STAGE-PROFI 1.1 RDM are prior and an input via the program dialog is not possible.

DMX-Input

For using the **DMX STAGE-PROFI 1.1 RDM** as DMX-Input-Interface please select the interface mode **DMX-Input** in the main settings

 Use a 1:1 male-male-adapter, available as accessory, for the DMX connection.

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



ArtNet Parameter

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

ArtNet Transmit Mode

Use Broadcast: The DMX data will be sent to all devices within the Art-Net™

Use Unicast: The DMX data will be sent to a specified device with the **Unicast IP** within the net-work.

Advanced Options

Several actions are available for the DMX input in the case of a lost DMX signal (**FAIL Action**).

NO DATA	- via Art-Net™™ 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 **DMX-Update-Rate** with which the DMX input data are outputted, can be switched in several times.

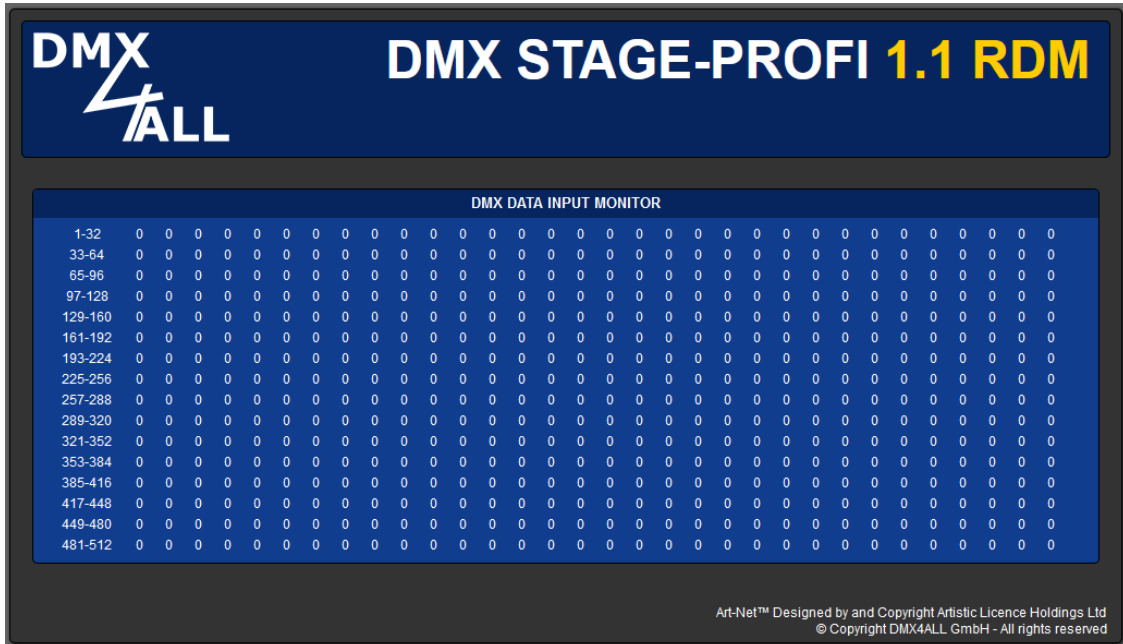
On change data transferred only the DMX input data if these changes, however max. every 0.1 seconds.

DMX Framerate transfers the received DMX data as soon as the frame has finished. So, the frame rate of the received DMX signal is used.

SAVE stores the configuration.

DMX-Monitor

The DMX-Monitor can be called on a separate web-site by clicking the DMX-Monitor button on the configuration site for DMX input.



The display of the DMX data is updated automatically every second.

The current DMX values are displayed in decimal versions (value range 0 to 255).

USB

The **DMX STAGE-PROFI 1.1 RDM** has a Mini-USB connector which can be used for power supply and DMX4ALL-Command data transfer via USB.

Install USB driver

The installation of the driver for the DMX STAGE PROFI 1.1 RDM is based on the Windows® internal CDC driver. This is a RS232 emulation via USB from Windows2000 on.

As soon as the DMX STAGE-PROFI 1.1 RDM is connected, a virtual COM port is generated on the PC, which can be accessed by any Windows program just like a real RS232 interface.

After plug in the DMX STAGE-PROFI 1.1 RDM please follow the hardware assistant or execute the installation steps via the device manager.

**Current driver is available as download on our homepage
www.dmx4all.de**



The installation may differ depending on the operating system and driver version used.

The energy-saving function must be deactivated in the computer's operating system.

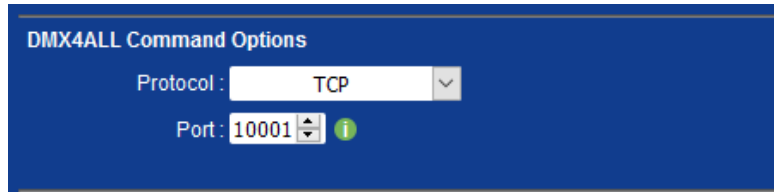


The RDM functions cannot be used via USB.
They are only available via Art-Net™.

DMX4ALL-Command Interface

The **DMX STAGE-PROFI 1.1 RDM** has a further communication interface, using DMX4ALL-Commands.

The following settings are available in the main settings for this communications interface:



The screenshot shows a blue dialog box titled "DMX4ALL Command Options". It contains two settings: "Protocol" is set to "TCP" in a dropdown menu, and "Port" is set to "10001" in a numeric input field with a green information icon to its right.

The control with the DMX4ALL commands can be made by sending RAW data packets via TCP or UDP to the set port.

Alternatively, a USB connection can be used for data transmission. In this case a USB driver must be installed, which provides a virtual COM port.

For the possible DMX4ALL commands please see the separate DMX4ALL command description.

VCP- Control

For controlling via a COM-Port a TCP-VCP-program must be installed, which provides a virtual Com Port (VCP).

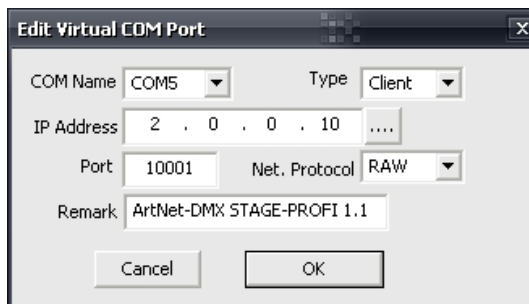
We recommended the tool *Serial to Ethernet Connection* which we tested. You find this tool as download in our support area.

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

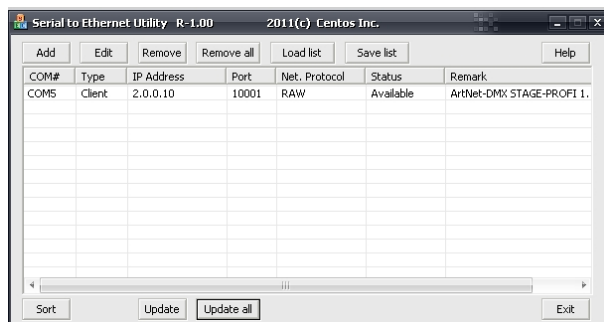


After the installation please start the tool „Centos SEC“, you find on your desktop. Now, add a VCP with *Add* and enter the parameters for this VCP-Port as shown opposite.

Make sure, that the IP is used which is adjusted via the web browser.



Finally, click into the main window to **Update all** to activate the VCP. Now, the status *Available* and the COM-Port will be shown into the device manager.



Factory Reset

The **DMX STAGE-PROFI 1.1 RDM** can be reset into the delivery status.

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

- Open web browser and call the **Service** site
- Enter the Service-Code „7319“ into the input field
- Click Send
- Now, please wait minimum 10 seconds



If the Factory-Reset is done via the website the IP-Address and the Subnet Mask is reset. It is not always possible to return. Set the IP-Address again if necessary
(see *Set IP with IP-Configurator* or *Set IP via web browser*).

Restore the delivery status via **DMX4ALL LAN-Updater**:

- Turn off the device
- Start the software **DMX4ALL LAN-Updater**
- Generate net-work connection to PC
- Turn on device
- The yellow LED lights for ca. 3 seconds
- Click **FIND** while yellow LED lights
- Select **DMX STAGE-PROFI 1.1 RDM** from list
- Click **FACTORY RESET**
- Now, the Reset will be executed

Restore the delivery status via **DMX4ALL IP-Configurator**:

- Turn on device
- Start the software **DMX4ALL IP-Configurator**
- Click **FIND**
- Select **DMX STAGE-PROFI 1.1 RDM** from list
- Click **FACTORY RESET**
- Now, the Reset will be executed

Firmware Update

The **DMX STAGE-PROFI 1.1 RDM** has an Update-Function, which allows transferring future firmware versions.

Please proceed as follows:

- Turn off the device
- Start the update software **DMX4ALL LAN-Updater**
- Generate network connection to PC
- Turn on the device
- The yellow LED lights for around 3 seconds
- During the yellow LED is on press **FIND**
- Select **DMX STAGE-PROFI 1.1 RDM** from list
- Click Firmware-Update
- Select firmware file (.bin) and confirm
- Wait until the update has finished



If an error occurs during the update you can start again at any time.

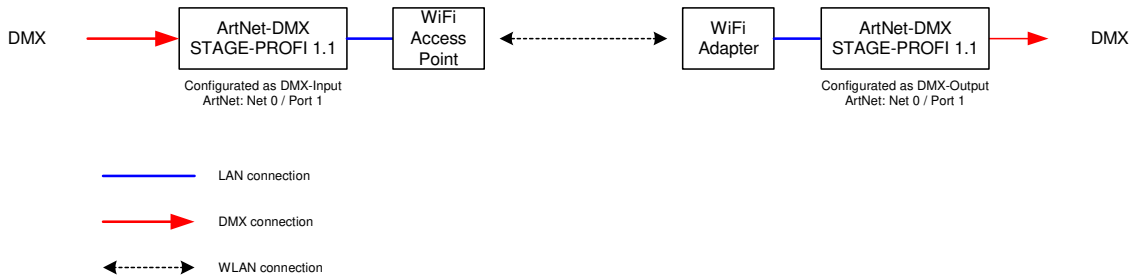
Alternatively the firmware update can be activated via web browser:

- Open web browser and call up the site Service
- Enter the service code „1379“ into the text box
- Click Send
- Start the update software **DMX4ALL LAN-Updater**
- Select the **DMX STAGE-PROFI 1.1 RDM** from list
- Click Firmware-Update
- Select and confirm firmware file (.bin)
- Wait until the update has finished
- Click Back within the web browser

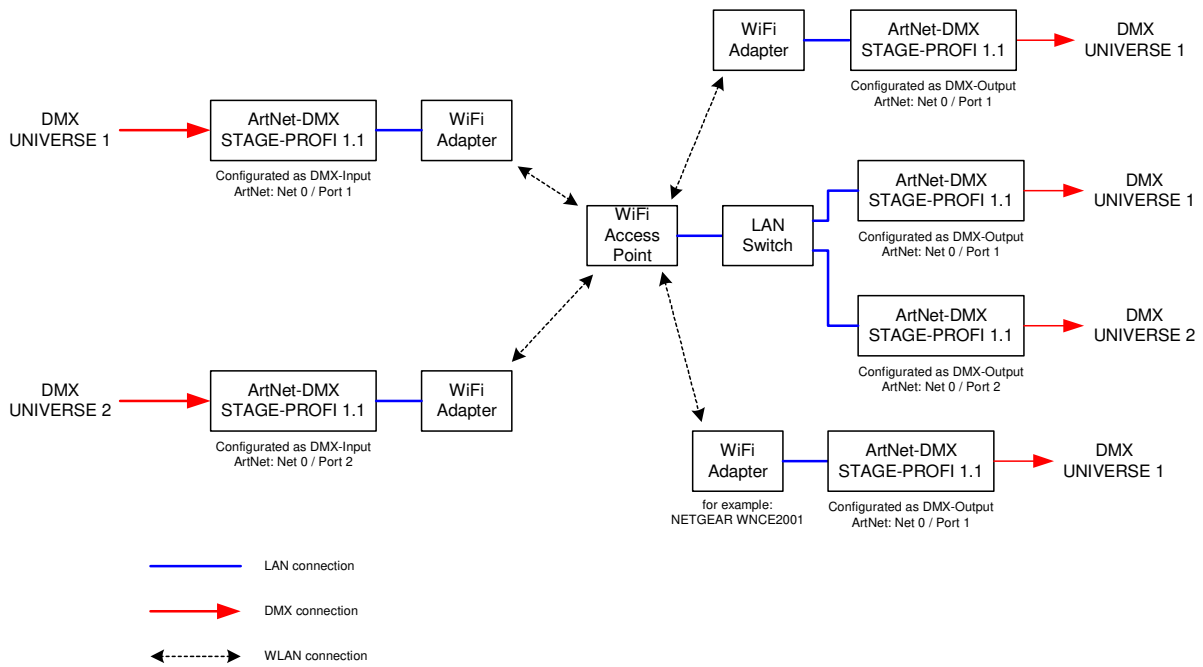
DMX via WLAN

The **DMX STAGE-PROFI 1.1 RDM** Interface can be used in connection with WLAN components (WiFi) for wireless transfer of DMX universes.

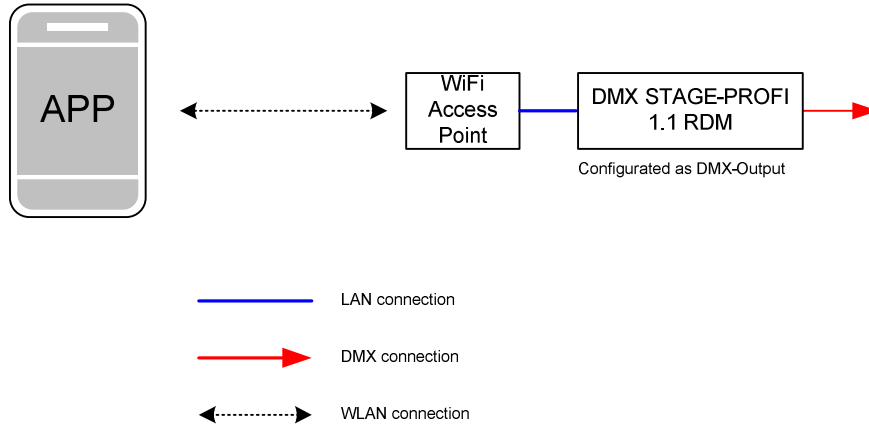
In the following drawing the use for a DMX universe is shown:



In the same way several DMX universes can be used:



Alternatively, an APP outputting Art-Net™ on a Smartphone or PC can be used as data source:



Accessories

XLR-Cable 3pin
with several lengths



XLR-Adapter
with several versions
XLR 3 male – XLR 3 male
XLR 3 male – XLR 5 female
XLR 3 female – XLR 5 male



Ethernet net work cable
with several lengths



USB-Cable A → Mini B 5 pin.



CE-Conformity



This assembly (board) 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.

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.

Warning



This device is no toy. Keep out of the reach of children. Parents are liable for consequential damages caused by nonobservance for their children.

Risk-Notes



You purchased a technical product. Conformance 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.



DMX4ALL GmbH
Reiterweg 2A
D-44869 Bochum
Germany

Last changes: 25.08.2023

© Copyright DMX4ALL GmbH

All rights reserved. No part of this manual may be reproduced in any form (photocopy, pressure, microfilm or in another procedure) without written permission or processed, multiplied or spread using electronic systems.

All information contained in this manual was arranged with the greatest care and after the best knowledge. Nevertheless, errors are to be excluded not completely. It is pointed out that neither a guarantee nor the legal responsibility or any liability for consequences which are due to incorrect information is assumed. This document does not contain assured characteristics. The guidance and the features may be changed at any time and without previous announcement.