User Manual

ROXX®

ROXX NEO fx

USER MANUAL

User Manual

CONTENT

1. Safety Informations

1.1. General Preventive Measures 4
1.2. Regulations for equipment that connects to power mains 5
1.3. Technical warnsigns and explanation 6

2. Introduction

2.1. About us 7
2.2. NEO fx 7

3. General Product Information

3.1. Scope of delivery 8
3.2. Control Functions 8
3.3. Features 8

4. Installation & Setup

4.1 Physical Installation and Rigging 9
4.2 Connections 10
4.2.1. AC Power 11
4.2.2. DMX Connection 11
4.2.2.1. Cable Connection 11
4.2.2.2. Wireless Connection 11
4.3 NFC (Near Field Communication) 14

5. Operation

5.1 Start up 15
5.2 Control Display 15
5.3 Display Short Cuts 15
5.4 Configuration 17
5.4.1 Set DMX Start Address (Direct Access) 17
5.4.2 Selecting DMX Mode 17
5.4.3 Stand Alone 18
5.4.4 Settings 24
5.4.4.1 Reset functions 28
5.4.6 System Info 29

6. Accessories

6.1 Accessories 30
6.2 Smart-Class Filters 30

7. Technical Data / Diagrams

7.1 Technical drawings and measurements 31
7.2 IP Rating 32
7.3 Technical Data 33
7.4 Section Chart / DMX-Charts / Color Macro Charts / Pixel Charts / CCT Chart 35
7.5 RDM Templates 73

8. Troubleshooting 75

9. Manufacturer´s Declaration 75

1. SAFETY INFORMATION

1.1. General Preventive Measures

1.1.1. Please read, understand and follow the instructions.

1.1.2. Store the instructions and information in a safe place.
Best solution is the ring binder provided by ROXX.

1.1.3. Follow all safety warnings. Under no circumstances remove safety warnings or other information from the equipment.

1.1.4. Don't use the equipment for any other intended purpose or manner.

1.1.5. Use only stable and compatible stands and/or brackets. Especially when fix installed.
Make sure the wall brackets are properly installed and safe. Make sure the device is securely installed and cannot fall.

1.1.6. Check the safety regulations applying for your country before and during installation.

1.1.7. Keep the device away from heat! Don't place/install near heaters, ovens or any source of heat.
Make sure that the device always is efficiently cooled and cannot overheat.

1.1.8. Always guarantee that ventilation and cooling slots are clean and not blocked.

1.1.9. Item must be away minimum 20cm from anything around and above it.

1.1.10. Do not use this device close to water.

1.1.11. Do not expose this equipment to flammable materials.

1.1.12. Make sure that no objects can fall into the device.

1.1.13. Only use this device with the accessories recommended by the manufacturer.

1.1.14. Always check the equipment for housing damages, so that no water can enter the device.
No containers containing liquids of any kind should be place on top of the unit.

1.1.15. Opening or modifying this device is only allowed by authorized and qualified persons.

1.1.16. All cables need to be checked after connecting the device in order to prevent damage or accidents.

1.1.17. Make sure that the device is transported safe and packed proper in order to prevent damage of any kind.

1.1.18. Once you notice improper function of your device due to damage, electric shock or anything similar, immediately unplug the unit from the mains outlet and contact our service department.

1.1.19. Clean the device with a dry cloth.

1.1.20. Observe all disposal laws applicable in your country. Especially for the packaging.

1.1.21. Plastic bags are not a toy! Keep away from children!

1.1.22. Please note that changes or modifications which are not approved by the party responsible for compliance will void the user's authority to operate the device.

1.2 Regulations for equipment that connects to power mains

1.2.1. If an earthing contact is available in the used power cord, it must used in combination with an power outlet, providing a protective ground. In no circustances should the protective ground be deactivated.

1.2.2. Do not switch on the device immediately after it has been in strong different temperatures, especially after transport. Let the device acclimatize to the temparature in the room of usage first to prevent moisture and condensation.

1.2.3. Verify that the correct voltage and frequency are available in the area of operation, before connecting the unit to the mains outlet.

1.2.4. If the plug doesn't fit in your mains outlet, contact your electrician.

1.2.5. Make sure your power cord/adapter/connector does not show signs of kinks/warps or is being stepped on.

1.2.6. Allwas disconnect the unit when not in use or being cleaned. Don't pull on the cord to disconnect. Only touch power connections with dry hands!

1.2.7. Don't switch the unit on/off rapidly. This may cause damage.

1.2.8. If a fuse needs to be replaced, ALWAYS make sure that exact the same fuse will be used (type and rating). Repeatedly blown fuses need to be checked by an authorised service technician.

1.2.9. In the risk of lighting strike all units need to be unpluged from the mains in order to prevent damage.

1.2.10. During installation there must be a voltage free condition.

1.2.11. The device needs to be cleaned and serviced regularly and will credit this with a longer life cycle. Dust, dirt, moist, water, smoke, nicotine or anything similar inside the unit will cause damage/malfunction.

1.2.12. The unit needs to have at least 0,5m distance to anything flammable.

1.2.13. You have to make sure that any electrical installation applys to the laws of your country. Correct power cables and applying standards have to be used.

1.3. Technical warnsigns and explanation

In order to prevent the risk of an electric shock, under no circumstances remove the cover/back or open the unit in any way! No user serviceable parts are inside. Service, maintenance and repairs should only be done by qualified service personnel or the manufacturer.

Dangerous uninsulated voltage inside the device can cause an electrical shock when opened by unqualified personnel.

Important operating and maintenance instructions apply!

Do not operate this device in tropical climates.

CAUTION! Intense LED light source! Risk of eye damage. Do not look into the light source

The housing surface of the spotlight can heat up to temperatures as high as 70 °C in regular use. Ensure that it is not possible to come into contact with the housing unintentionally. Always allow sufficient time for the lamp to cool down before dismantling, carrying out maintenance work or charging etc..

IMPORTANT IMFORMATION!

- This is a product which has been developed for professional usage in event technology. It is not suitable as a houshold lighting.
- NEVER stare, not even temporarily, directly into the light source.
- Don‘t use magnifiers or any other optical instrument to look at the beam.
- The effects of this device, expecially the stroboscope effect, can cause problems for sensitive people or may even cause epileptical seizures.

2. INTRODUCTION

2.1. About us

The name ROXX® came easily.

Combined with the concentrated knowledge and many years of experience, our three founders, who have been leaving their mark in the event and lighting industry for many years already, came together in 2020 to start this outstanding venture.

Product development, sales and marketing as well as the exceptional know-how and the profound rooting in the field of the professional lighting technology belong to our core competences and therefore guarantee extremely innovative and reliable products, excellent support and professional service in every aspect.

Designed & developed in Germany

ROXX® products are developed and designed in Germany. Always in tight consultation with our customers and experts who will eventually be working with these tools. This ensures innovative, easy-to-use and performance-oriented solutions, which provide added value for our customers.

Made to last

Recommended for permanent outdoor use, most ROXX® products feature additional corrosion protection and enhanced IP66 equipment protection, thereby providing that crucial extra for a wider range of applications. In addition to architectural or theme park applications, even fixed installations in coastal or offshore areas with high salt exposure can be reliably implemented over long periods of time.

2.2. NEO fx

The NEO fx is a powerful and versatile LED wash and effect light, designed for the most demanding lighting applications. With its IP65-rated housing, 24x40W RGBL LEDs, and a massive zoom range of 4.5°–70° enabled by two independent zoom levels (patent pending), it sets a new standard for creative lighting versatility. Delivering a luminous flux of 12,000lm (5600K) and an illuminance of 60,000lx (RAW) / 57,000lx (5600K) @ 5m, the NEO fx ensures exceptional brightness and performance in both indoor and outdoor environments.

The fixture stands out with patented features, including a unique zoom effect created when paired with the removable, magnetic Smart Glass Filter. This filter, also patented, adds a dynamic strobe effect and allows seamless transitions between a narrow beam, a wide wash, and stunning graphic effects, opening unparalleled creative possibilities.

Enjoy precise lighting control with single pixel control. The fixture's quiet and fast motorized 188° tilt enhances dynamic lighting design, while numerous built-in effects offer foreground and background color control for easy animation and chase effects.

Its dual-input mode allows control to be split into basic and pixel functions for enhanced flexibility. Advanced wireless capabilities, including an integrated CRMX transceiver, Bluetooth module, and Near Field Communication (NFC), ensure effortless setup and configuration, even without power.

The NEO fx supports DMX, SACN, Art-Net, and RDM, giving you complete control over your lighting setup. Optional accessories include an elliptical holographic filter and touring cases for secure transportation.

With a CRI and TLCI of 85 across the white spectrum, the NEO fx delivers accurate and vibrant color reproduction for professional-grade results.

Whether used as a standalone unit or in combination with multiple fixtures, the NEO fx is the perfect choice for concerts, tours, festivals, live events, and broadcast productions, bringing state-of-the-art lighting effects to every stage.

3. GENERAL PRODUCT INFORMATION

3.1. Scope of delivery

- 1x NEO fx
- Power cord with plug (EU country specific, if not ordered differently)

We're offering a wide range of professional accessories (optional).
Please see under menu 6 or at our website www.roxxlight.com

3.2. Control Functions

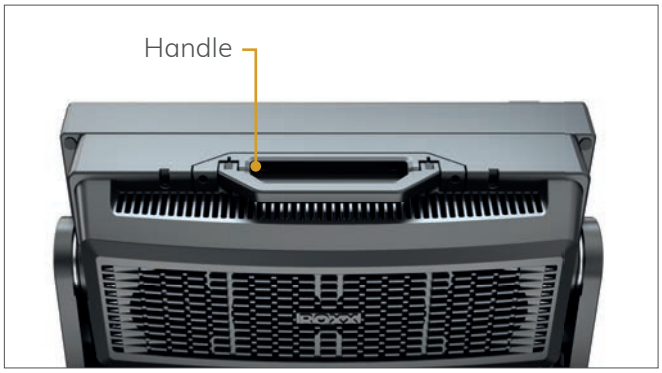
- 15CH RGB, 19CH RGB, 26CH RGB, 30CH RGB, 28CH DIRECT, 33CH DIRECT, 81CH PURE, 154CH PURE, 9CH Dual mode, 10CH Dual mode, 95CH FULL ACCESS, 168CH FULL ACCESS
- Stand Alone Functions including cinema effects, various auto programs, customisable scenes, CCT, LEE adjusted color macros and custom color templates
- 6 extra display controls for direct access of wireless settings, dimmer, CCT, color & Gels, Zoom, Tilt and Smart Glass Filter
- Master & Slave (by DMX and Wireless DMX)
- Wireless DMX (Lumenradio CRMX®)
- ROXX App - Bluetooth 5.0
- ROXX NFC App - Near Field Communication

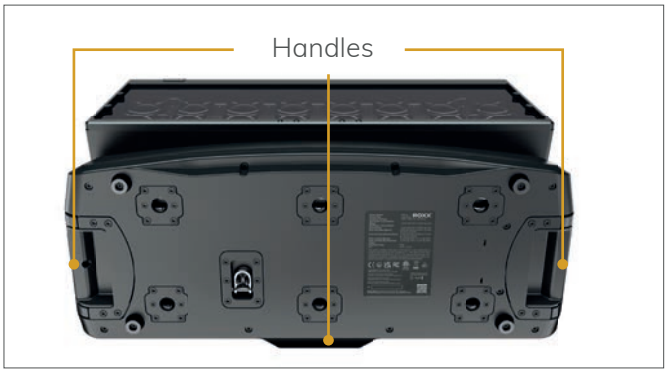
3.3. Features

4. INSTALLATION & SETUP

4.1 Physical Installation and Rigging

ROXX NEO fx may be installed in any orientation. For this purpose the product provides several options:





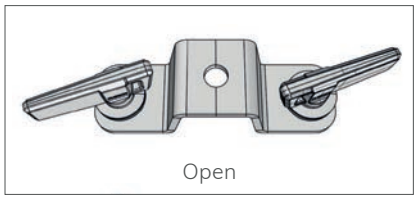
Standing:

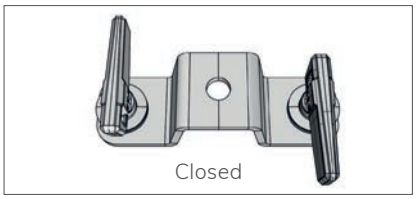
The fixtures is equipped with 4 rubber feet. It allows the luminaire to be used in floor application. With its integrated rubber feet it´s designed to ensure a secure stand on every plane surface with 188° tilt movement of the fixtures head.

Hanging:

On the bottom 3x Camlock 1/4 turn connnectors are installed. Here it´s possible to click in the ROXX Omega Bracket ST (optional accessory) equiped with any suitable clamp.


Omega Bracket ST

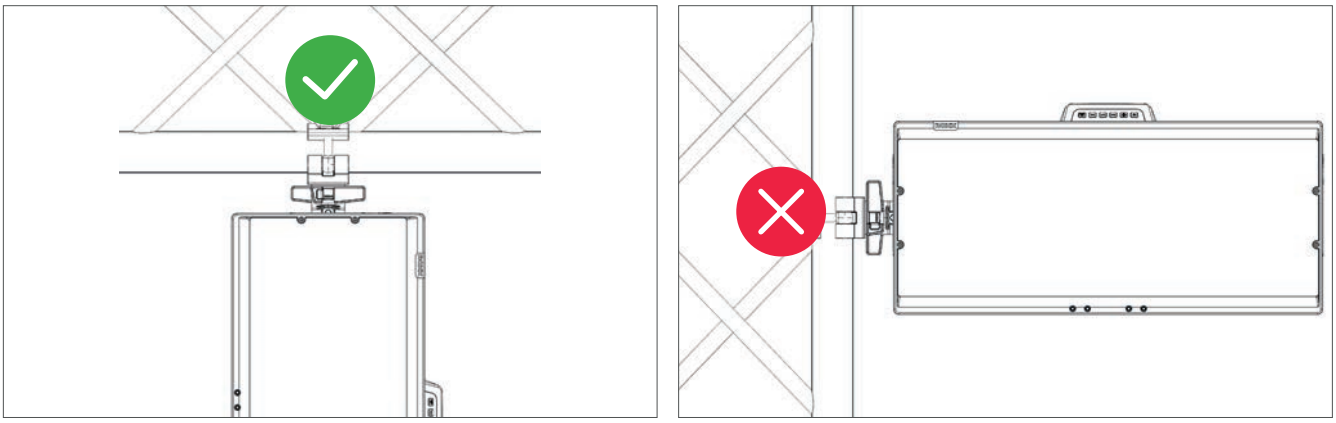

Open


Closed

Insert the two fasteners and turn each 90° clockwise to lock them. Please be sure that the fasterners are turned fully and snaped in.

Use a safety wire matching the local official regulations. We recommend using the safety eye on the bottom of the fixture.

Please note that it´s not allowed to use the side camlocks to mount the unit horizontally to a vertical truss or similar.



4.2 Connections*

A: IP65 Power I/O connectors with rubber sealing cap.
Connect using the provided power cable (when not in use, always close with rubber sealing cap)
B: DMX IN
C: DMX OUT
D: Direct Acces to Dimmer, CCT, Gels, Wireless, Connectivity, Tilt/Zoom, Smart Glass
E: Firmware / USB: when not in use, always close with rubber sealing cap
F: Network In
G: Network Out
H: Gore-tex Valve

ⓘ ***Note:**
In order to provide protection from spraying water, in accordance with protection class IP65, special IP65-rated XLR connectors must be used correctly with the DMX input and output sockets, or they must be closed using the rubber sealing caps. When connected correctly, or when sealed correctly with the rubber sealing caps, the POWER IN and POWER OUT sockets are protected from spraying water, as in accordance with IP65.

4.2.1. AC Power

The NEO fx operates on any 100–260 V, 50/60 Hz AC mains power supply with a maximum power consumption of 1234W at Boost mode and 1000W at Illumination Mode. Connect the fixture to AC power using the supplied cable or a similar one with Neutrik powerCON TRUE1 NAC3FX-W or a compatible type, to ensure the correct ingress protection (IP).
For temporary installations, the mains cable must be fitted with a grounded connector intended for exterior use. The fixture must be grounded/earthed and be able to be isolated from AC power. The AC power supply must incorporate a fuse or circuit breaker for fault protection.

Wire Color (EU models)	Wire Color (US models)	Conductor	Symbol
Brown	Black	Live	L
Blue	White	Neutral	N
Yellow / Green	Green	Ground (earth)	⏚ or ⏚

Warning!
Read “Safety Informations” starting on page 3 before connecting the fixtures to AC mains power!
Do not connect the fixture to an electrical dimmer system, as doing so may cause damage that is not covered by the product warranty!

4.2.2 DMX Connection

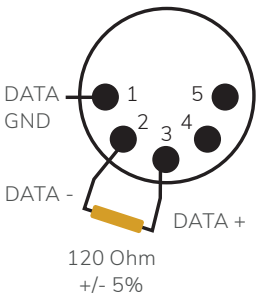
NEO fx is fully controllable by DMX (USITT DMX512-A standard, based on RS-485) Art-Net, sACN and RDM. It can be connected using either DMX cables or via the built-in LumenRadio CRMX wireless system.

4.2.2.1. Cable Connection

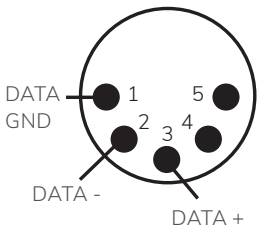
If using a cabled DMX system, connect the DMX IN cable to the input connector (male 5-pin XLR connector) and DMX OUT cable to the output (female 5-pin XLR connectors).

For outdoor installations, use only IP65-rated XLR connectors.
Use shielded twisted pair cable designed for RS-485 devices. The cables are daisy chained between the fixtures, and up to 32 fixtures can be connected to the same DMX link. Up to 300 meters (1000ft.) of cable is achievable with high quality DMX cables. All DMX links must be terminated in the last fixture by connecting a DMX termination plug to the last fixture’s 5 pin DMX out connector.
Standard microphone cable is not suitable for transmitting DMX.

DMX Termination on last fixture DMX out



XLR pin out



4.2.2.2. Wireless Connection*

NEO fx is equipped with a LumenRadio ™ Transceiver module. This enables the fixture to work with the following connectivity options:

- Working in Receiver Mode: receive wireless DMX- and RDM Signals via CRMX
- Working in Transmitter Mode: transmit DMX (1 universe) to other units via CRMX
- Full Control via Bluetooth 5.0 and ROXX App

The Fixture is able to send DMX-data received by CRMX or Bluetooth to its physical DMX-Output XLR Connector and hereafter, plugged in by cable, to any DMX-capable unit. For this please enable "Pass to DMX Out" inside Wireless DMX Settings.
NEO fx can act as a fully operative CRMX Receiver and be paired to an active wireless transmitter (CRMX) simultanously as being connected to a cabled DMX. The device will prioritize cabled DMX input over wireless DMX and over Bluetooth. A small indicator infront of "DMX", "CRMX" or "BLE" gives an easy overview which protocol is curently active. Please see the display graphics below.
If using a wireless DMX system, ensure that the DMX input and the DMX output are properly sealed. Connect both DMX IN and DMX OUT, or seal, in order to maintain the fixture's IP65 rating.

ⓘ ***Note: If you are using XLR for DMX and not Bluetooth we recommend to not connect to Bluetooth unless you need to since it can cause a few dropped DMX packets. BLE and CRMX RX are not available simoultaneously.**

- **If CRMX RX is enabled and BLE will enabled after, CRMX automatically changes to TX mode.**
- **If CRMX TX operating mode is changed to RX, BLE will be disabled automatically.**

CRMX	Disabled
Operation Mode	n.a.
Linked	No
Receive Reset	No
DMX	**Enabled**
BLE (Bluetooth)	Disabled

The indicator infront of "DMX" shows that DMX is active.

CRMX	**Enabled**
Operation Mode	**RX**
Linked	**No**
Receive Reset	Yes
DMX	Disconnect
BLE (Bluetooth)	Disabled

The indicator infront of "CRMX (RX)" shows that the fixture is now working in wireless DMX receive mode.

"(RX)"= CRMX operating mode is set to receive

CRMX	**Enabled**
Operation Mode	**TX**
Linked	**No**
Receive Reset	Yes
DMX	Disconnect
BLE (Bluetooth)	Disabled

The indicator infront of "CRMX (TX)" shows that the fixture is now working in wireless DMX transmit mode.

"(TX)"= CRMX operating mode is set to transmit

CRMX	**Enabled**
Operation Mode	**RX**
Linked	**Yes**
Receive Reset	Yes
DMX	Disconnect
BLE (Bluetooth)	Disabled

Once the fixture is linked to an external transmitter, the CRMX signal-symbole appears on upper left side.

1 dash= 1-30% signal strength
2 dashs= 31-70% signal strength
3 dashs= 71-100% signal strength

4.2.3.2. Wireless Connection

CRMX	**Enabled**
Operation Mode	**TX**
Linked	**Yes**
Receive Reset	Yes
DMX	Disconnect
BLE (Bluetooth)	Disabled

Once the fixture is linked to an external transmitter, the CRMX signal-symbole appears on upper left side.

1 dash= 1-30% signal strength
2 dashs= 31-70% signal strength
3 dashs= 71-100% signal strength

CRMX	**Enabled**
Operation Mode	**RX**
Linked	**Yes, out of range**
Receive Reset	Yes
DMX	Disconnect
BLE (Bluetooth)	Disabled

In case the external transmitter is switched off or out of signal range the signal-symbole starts to blink.

CRMX	**Enabled**
Operation Mode	**RX**
Linked	**Yes, but no DMX**
Receive Reset	Yes
DMX	Disconnect
BLE (Bluetooth)	Disabled

An exclamation appears and blinks although the external transmitter is switched on and is inside the signal range but no DMX is connected to the external transmitter.

CRMX	Disabled
Operation Mode	n.a.
Linked	No
Receive Reset	No
DMX	Disconnect
BLE (Bluetooth)	**Enabled + Paired**

The indicator infront of "BLE" shows that the fixture is now working in Bluetooth mode and is paired to ROXX App.

CRMX	**Enabled**
Operation Mode	**TX**
Linked	**Yes**
Receive Reset	No
DMX	Disconnect
BLE (Bluetooth)	**Enabled + Paired**

The indicator infront of "BLE" shows that the fixture is now working in Bluetooth mode and is paired to ROXX App.

As CRMX TX is enabeld and linked a full DMX universe is send out by CRMX (wireless DMX).

CRMX	**Enabled**
Operation Mode	**TX**
Linked	**Yes**
Receive Reset	No
DMX	Disconnect
BLE (Bluetooth)	**Enabled, not paired**

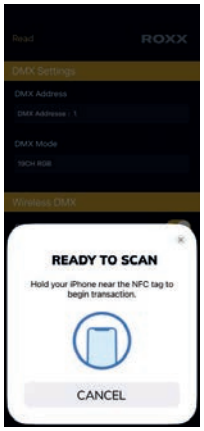
No indicator infront of "BLE", fixture is not paired to ROXX App.

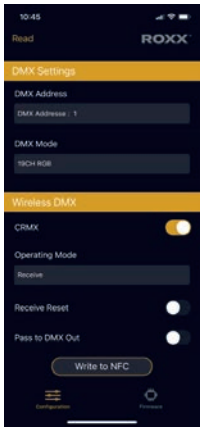
CRMX	**Enabled**
Operation Mode	**TX**
Linked	**Yes**
Receive Reset	No
DMX	**Connect**
BLE (Bluetooth)	Enabled

DMX is active.
As CRMX TX is enabled and linked a full DMX universe is send out by CRMX (wireless DMX).

4.3. NFC (Near Field Communication)

NEO fx integrates a NFC chip (Near Field Communication) and allows in conjunction with ROXX NFC App to address and configure the fixtures wirelessly even when the fixture power is not prevent. Additionally, the fixtures firmware can be read out and updated to latest version. For this please make sure NEO fx stays AC powered during update process.
The NFC chip is based on it´s lower housing part, close to the CRMX antenna. To get a proper connection between your mobile phone and NEO fx, please make sure that your phone is very close to the NFC.

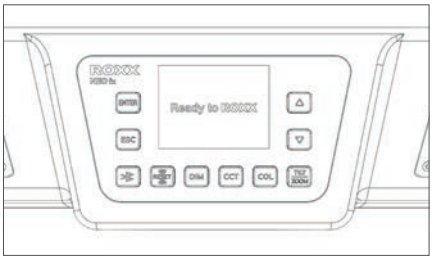




5. OPERATION

5.1 Start up*

Once the fixture is connected to AC power, the boot process starts and the following information will appear on the display:
“Ready to ROXX”, the product name and the current software version.



After this process, the fixture is ready for operation, and starts in the previously enabled mode.

ⓘ ***Note:**
During boot process the fan spins up quickly to blow out some possible dust from last use.

5.2 Control Display*

2.0" TFT Display with ten backlighted control buttons

ENTER **Press ENTER** to access the selection menu for system settings or confirm changes.

ESC **Press ESC** to take a step back in the menu.

△▽ **Press arrows to scroll up and down** inside the menu and change values, such as DMX address.

ⓘ ***Note:**
After approximately 1 minute of inactivity inside the menu settings, the display will automatically jump back to home screen.

5.3 Display Short Cuts*

Short Cuts
For some always recurring functions the fixture allows quick and user-friendly access at home screen over some display control short-cuts:

User Reset or Factory Reset*

Pressing ESC+ENTER simultaNEO fxusly a Factory Reset or User Reset can be started.
By using the up/down arrows the Factory- or User Reset can be selected.
For confirming press ENTER, to jump back please press ESC.

ⓘ ***Note:**
For detailed information about the different reset options please refer to chapter "5.4.6.1 Reset functions"

Pressing ESC+ENTER simultaNEO fxusly a Factory Reset or User Reset can be started.
By using the up/down arrows the Factory- or User Reset can be selected.
For confirming press ENTER, to jump back please press ESC.

ⓘ ***Note:**
For detailed information about the different reset options please refer to chapter "5.4.6.1 Reset functions"

Display Off

Pressing ESC + arrow down simultaNEO fxusly the display backlight function will set to off and the display will turn off immediately. Once a control is pressed the display backlight will turn on.

Manual display flip function*

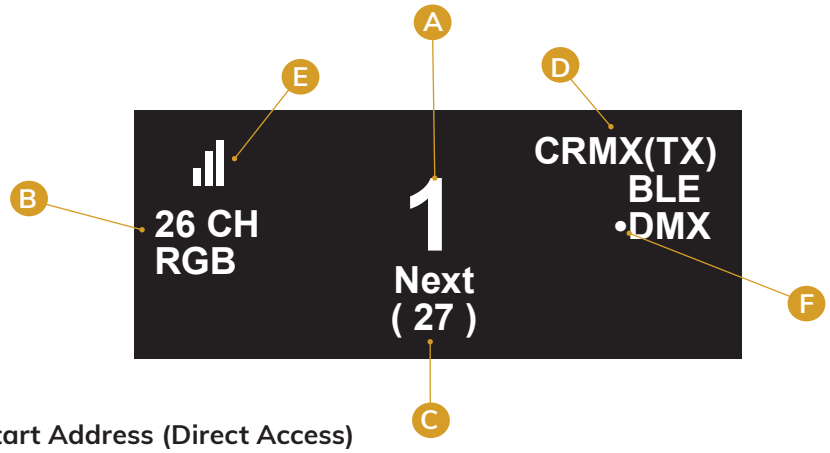
The fixture includes an auto display flip function by default.
To use the manual display flip function please disable the auto flip function under Settings / Display first. Once the auto display flip function is disabled you can use the manual display flip function by pressing arrow up + arrow down simultaneously. The display will rotate 180. By pressing both arrows simultaneously again the display will flip back.

ⓘ ***Note:**
Once the display is flipped both Up / Down controls will work according to the display rotation.

5.4 Configuration

Home Screen
After boot process the fixture is ready for operation and starts in the previously enabled mode. At home screen the following information will appear, depending on the current operating mode:

A DMX Adress
B Operating Mode (DMX Mode, Quick Light or Standalone Mode)
C Next available DMX address depending on the fixtures DMX footprint
D External Data protocol (CRMX, DMX, BLE).
E CRMX status and strength
F The dot indicates the active protocol
Note:
CRMX (RX) CRMX Receiving Mode
CRMX (TX) CRMX Transmit Mode
BLE Bluetooth enabled



5.4.1 Set DMX Start Address (Direct Access)

At Home Screen the DMX address can be changed directly by using the up and down arrows. During this process the DMX address starts blinking, once it´s confirmed by pressing ENTER it stops blinking.
If the DMX address will not be confirmed by ENTER within 10 seconds, the display will jump back and show the DMX address from before and stops blinking.

5.4.2 Selecting DMX Mode*

At home screen please press ENTER to access to the main menu (level 1).
While using UP / DOWN arrows, please select the menu item “DMX Mode” and confirm by pressing ENTER.
In the following sub-menu (level 2), you can now choose between 16 different DMX operating modes while using the UP/Down arrows and confirm by pressing ENTER or jump back by pressing ESC.
After confirmation the display will jump back to main menu (level 1). Press ESC for homescreen, here the selected DMX mode will be displayed.

ⓘ ***Note:**
For detailed information about the several DMX modes including channel assignment please see our DMX Control chart.

.

Level 1

Menu
➨ DMX Mode
Stand Alone
Settings
System Info

Level 2

DMX Mode
➨ 15CH RGB mode
19CH RGB mode
26CH RGB mode
30CH RGB mode
28CH DIRECT mode
33CH DIRECT mode
81CH PURE mode (Dual)
154CH PURE mode (Dual)
9CH Dual mode
10CH Dual mode
95CH FULL ACCESS mode (Dual)
168CH FULL ACCESS mode (Dual)

5.4.3 Stand Alone*

Press ENTER to access to main menu (level 1).
While using the UP / DOWN arrows, please select the menu item “Stand Alone” and confirm by pressing ENTER.
In the following sub-menu (level 2), you can now choose between 6 different Stand Alone operating modes (Auto, Editor, Color Macro, Quick Color, Tunable White, User Color) ,Stop Stand Alone, Timer and Color Settings functions while using the UP/Down arrows and confirm by pressing ENTER or jump back by pressing ESC.
To finally use Stand Alone programs please make sure either DMX, CRMX RX or BLE is connected to the fixture, as these protocols have priority.

Stop Stand Alone
To stop a running Stand Alone mode immediately, please select “Stop Stand Alone” and confirm by pressing ENTER. The display will automatically jump back to level 1.

Level 1

Menu
DMX Mode
➨ Stand Alone
Settings
System Info

Level 2

Stand Alone Mode
➨ Stop Stand Alone
Auto FX
Editor
Color Macro
Quick Color
Tunable White
User Color
Timer
Color Settings

Auto*

Select “Auto” by using the up/down arrows and press ENTER.

Here at sub-menu (level 3), you can choose between Dimmer, Speed, Tilt, Zoom, Smart Glass Filter and Effect. Using the Up/Down arrows at "Effect" (level 4) you can select one of the 30 auto programs and confirm by pressing ENTER or step back by ESC.

For all Pattern effects you can select the Colors for Pattern and Backlight on level 5, Dimmer and Pattern X-fade on level 6

Once it´s confirmed or denied the display will automatically jump back to level 3. To stop running a selected auto program please chose “Stop Program” at level 3 or "Stop Stand Alone" at level 2. For returning back to homescreen please press ESC three times. At homescreen the selected Stand Alone mode “Auto” and the selected program will be displayed.

ⓘ ***Note: Using arrows UP /DOWN at homescreen Auto programs can be directly changed according to the list.**

Level 1

Menu

- DMX Mode
- ➨ Stand Alone
- Slave
- Settings
- System Info

Level 2

Stand Alone Mode

- Stop Stand Alone
- ➨ Auto FX
- Editor
- Color Macro
- Quick Color
- Tunable White
- User Color
- Timer
- Color Settings

Level 3

Auto

- ➨ Dimmer <0-**100**>
- Speed <0-100> **(default 85)**
- Tilt <0-100>
- Zoom <**0**-100>
- Smart Filter <**0**-100>
- Effect
- Stop Program

Level 4

Effect

- ➨ 7-Color Fade
- 7-Color Jump
- 15-Color Fade
- 15-Color Jump
- Police RB
- Police B
- Candle Light
- Fireworks
- Red Carpet
- Welding
- Pulse A1
- Pulse A2
- Pulse A3
- Bounce A1
- Bounce A2
- Bounce A3
- 2 Blocks Chase
- Random
- Fill In
- Fill Out
- Rotor A2/2
- Rotor B1/2
- Snake A2
- Snake A4H
- Pulse A1V
- Circus 03
- Chase XDS1
- Rotor A1/4 MIR
- Bounce A1 / INV
- Bounce A1/2

Level 5

Effect Color

- ➨ Pattern - Color Macro (LED Blue as default)
- Backlight - Color Macro (Orange LEE 105 as default)

Level 6

Effect Settings

- ➨ Dimmer Pattern. <0-**100**>
- Dimmer Backlight. <0-**100**>
- Pattern X-Fade <**0**-100>

Editor*

At Editor you have up to three customizable programs which can be defined and run from the menus.
Each of the three values contains twenty four user-definable scenes with its own values for RGBL (RAW) or RGB (Calibrated) and shutter, playing continuously in a loop.Each scene has a definable fade-in time for the transition from one color to the other and wait-time. To define a program please press ENTER to access to main menu (level 1).

Level 1

Menu
DMX Mode
➨ Stand Alone
Slave
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto
➨ Editor
Color Macro
Quick Color
Tunable White
User Color
Timer
Color Settings

While using the UP / DOWN arrows, please select the menu item “Stand Alone” and confirm by pressing ENTER.
Select “Editor” by using the up down arrows and press ENTER.
Here at sub-menu (level 3) you can choose between Program 1-3, Dimmer and Stop Program. Using the Up/Down arrows you can select program 1, 2 or 3 and confirm by pressing ENTER or step back by ESC. After confirming your preferred program, you can now choose between Scene 1-24. Select one of the scenes and press ENTER or step back by ESC. At level 5 you can now set your dimmer, shutter, color, Tilt, Zoom, Smart Filter and fade / wait time in minutes and seconds. For creating a color jump please set value for "Fade Time" to 0, and "Wait Time" to at least 1 second.
Once it´s set your first scene is programmed.
You can now jump back to level 3 by using ESC. Here your program will starts automatically. For creating more scenes please use the same procedure. To stop an active program please press ESC and select “Stop Program” at level 3 or "Stop Stand Alone" at level 2. To start again, please re-select your preferred program, it will starts automatically again.
To adjust the master brightness for program 1-3, you can use the item “Dimmer” at level 3 and select between 000-100 and confirm by ENTER or jump back by ESC.

ⓘ ***Note: Once "Factory Calibration" is selected under "Color Settings" inside Stand Alone, only values for RGB are available here. Using UP / DOWN arrows at homescreen Editor program can be directly changed according to the list. For choosing the right strobe effect please follow the Strobe Channel from our DMX chart at the end of this manual.**

ⓘ ***Note: Tilt and Zoom speed will be set according to your selected fade and wait time.**

Level 3

Editor
Program 1
➨ Program 2
Program 3
Stop Program

Level 4

Program
➨ Scene 1
Scene 2
Scene 3
...max. 24 Scenes

Level 5

Scene	
Dimmer	<0-**100**>
Shutter	<0-**255**>
Red	<**0**-255>
Green	<**0**-255>
Blue	<**0**-255>
Lime	<**0**-255>
Tilt	<**0**-100>
Zoom	<**0**-100>
Smart Filter	<**0**-100>
Fade Time (min.)	<**0**-480>
Fade Time (sec.)	<**0**-59>
Wait Time (min.)	<**0**-720>
Wait Time (sec.)	<**0**-59>

Color Macro*

46 different color macros (34x matched LEE color filters, 6 LED colors and 6 different Whites) are available as presets. For each the brightness can be adjusted separately.

Level 1

Menu
DMX Mode
➡ Stand Alone
Slave
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto
Editor
➡ Color Macro
Quick Color
Tunable White
User Color
Timer
Color Settings

Level 3

Color Macro	
Color Off	
➡ Dimmer	<0-**100**>
Tilt.	<**0**-100>
Zoom	<**0**-100>
Smart Filter	<**0**-100>
Color macros	**1**-47
(Reference Gels - Color Macros)	

To select a color macro please press ENTER to access to main menu (level 1). While using the UP / DOWN arrows select the menu item “Stand Alone” and confirm by pressing ENTER. After please select the item “Color Macro” by using the up/down arrows and press ENTER again.
Using UP and DOWN controls, select your desired color preset and confirm with ENTER.
At level 3 you can adjust the brightness for the color preset between 000-100. Confirm by ENTER. For color blackout choose the item “Color Off”.

ⓘ **Note: Using UP / DOWN arrows at homescreen Color Macros can be changed according to the list.**

Level 4

Gels - Color Macros for Standalone Mode

Pos.	Gel Name	Color Number
1	Red	100% Red LED
2	Fire	LEE 019
3	Medium Red	LEE 027
4	Primary Red	LEE 106
5	Med Amber	LEE 020
6	Dark Amber	LEE 022
7	Deep Amber	LEE 104
8	Orange	LEE 105
9	Deep Golden Amber	LEE 135
10	Yellow	LEE 101
11	Green	100% Green LED
12	Lime Green	LEE 088
13	Moss Green	LEE 089
14	LEE Green	LEE 121
15	Primary Green	LEE 139
16	Jas Green	LEE 738

Gels - Color Macros for Standalone Mode

Pos.	Gel Name	Color Number
17	jade	LEE 323
18	Blue	100% Blue LED
19	Sky Blue	LEE 068
20	Tokyo Blue	LEE 071
21	Light Blue	LEE 118
22	Marine Blue	LEE 131
23	Med Blue	LEE 132
24	Congo Blue	LEE 181
25	Mikkel Blue	LEE 716
26	Rose Pink	LEE 002
27	Med Pink	LEE 036
28	Light Lavender	LEE 052
29	Lavender	LEE 058
30	Magenta	LEE 113
31	Mauve	LEE 126
32	Smokey Pink	LEE 127

Gels - Color Macros for Standalone Mode

Pos.	Gel Name	Color Number
33	Special Med Lavender	LEE 343
34	Ultimate Violet	LEE 707
35	Magical Magenta	LEE 795
36	Chrysalis Pink	LEE 798
37	Specia KH Lavender	LEE 799
38	Bulb White	2700K / High CRI
39	Halogen White	3200K / High CRI
40	Neutral White	4200K / High CRI
41	Daylight White	5600K / High CRI
42	Cold White I	6000K / High CRI
43	Cold White II	6300K / High CRI
44	Amber (only if available)	100% Amber LED
45	Lime (only if available)	100% Lime LED
46	Cyan (only if available)	100% Cyan LED

Quick Color*

The standalone mode “Quick Color” allows a direct adjustment of the single LED colors R, G, B, L, Dimmer and Shutter.

Level 1

Menu
DMX Mode
➨ Stand Alone
Slave
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto
Editor
Color Macro
➨ Quick Color
Tunable White
User Color
Timer
Color Settings

Level 3

Quick Color	
Dimmer	<0-**100**>
Shutter	<0-**255**>
Tilt.	<**0**-100>
Zoom	<**0**-100>
Smart Filter	<**0**-100>
Red	<**0**-255>
Green	<**0**-255>
Blue	<**0**-255>
Lime	<**0**-255>

To adjust your Quick Color please press ENTER to access to main menu (level 1).
While using the UP / DOWN arrows select the menu item “Stand Alone” and confirm by pressing ENTER. After please select the item “Quick Color” by using the up/down arrows and press ENTER again.
Using UP and DOWN controls, select your desired color and confirm with ENTER.
After you can adjust the brightness for the color between 000-255 and confirm by ENTER.
Besides the individual color mix also a master dimmer can be adjusted between 000-100.
For strobe effects please adjust the Shutter value between 000-255.

ⓘ ***Note: Please see detailed explanation for strobe effects inside DMX chart at the end of this manual.**
If “Factory Calibration” is selected in “Color Settings” only R,G,B is available here.
Using UP/DOWN arrows at homescreen you can change Quick Color´s dimmer value.

Tunable White*

The standalone mode “Tuneable White” allows the color temperature (CCT) to be adjusted from 2.000K – 10.000K in 100K steps. Besides brightness and shutter also a +/- green and magenta correction is available.

Level 1

Menu
DMX Mode
➨ Stand Alone
Slave
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto
Editor
Color Macro
Quick Color
➨ Tunable White
User Color
Timer
Color Settings

Level 3

Tunable White	
Dimmer	<0-**100**>
Shutter	<0-**255**>
Tilt.	<**0**-100>
Zoom	<**0**-100>
Smart Filter	<**0**-100>
CCT	<2000K-10.000> (default 5600K)
Tint	<**000**> +/-127

Starting from home screen press ENTER to access to main menu (level 1).
While using the UP / DOWN arrows select the menu item “Stand Alone” and confirm by pressing ENTER.
After please select the item “Tunable White” by using the up/down arrows and press ENTER again.

Using UP and DOWN controls to select your desired menu item, confirm by ENTER and adjust the desired value by up and down controls and confirm all entries with ENTER.

ⓘ ***Note:**
Tint values
000 = no function/neutral
001 - 127 = + green
-001 to - 127 = - green

ⓘ ***Note: Using UP/DOWN arrows at homescreen the selected CCT value can be changed in +/- 100K steps.**
Shutter: Please see detailed explanation for strobe effects inside DMX chart at the end of this manual.

User Color*
The standalone mode “User Color” allows to store up to 5 customized color presets out of Red, Green, Blue, Lime, brightness and shutter.

Level 1	Level 2	Level 3	Level 4
Menu	**Stand Alone Mode**	**User Color**	**User Color**
DMX Mode	Stop Stand Alone	Color 1	Dimmer <0-**100**>
➨ Stand Alone	Auto	Color 2	Shutter <0-**255**>
Slave	Editor	Color 3	Tilt. <**0**-100>
Settings	Color Macro	Color 4	Zoom <**0**-100>
System Info	Quick Color	Color 5	Smart Filter <**0**-100>
	Tunable White		Red <**0**-255>
	➨ User Color		Green <**0**-255>
	Timer		Blue <**0**-255>
	Color Settings		Lime <**0**-255>

To define a User Color please press ENTER to access to main menu (level 1).
While using the UP / DOWN arrows, please select the menu item “Stand Alone” and confirm by pressing ENTER.
Select the item menu “User Color” by using the up/down controls and press ENTER.
Using UP and DOWN select your desired preset number (Color 1 -5) and confirm with ENTER.
Use UP and DOWN controls to select your desired color, confirm by ENTER and adjust the value by up and down controls between 000-255 and confirm all entries with ENTER.
With dimmer you can adjust the allover brightness of your User Color. Shutter allows several strobe effects. Once your color mix is ready, jump back by ESC. Your individual color is stored under the selected color preset now.

ⓘ ***Note: All five User Colors are also available by DMX at Color Macro channel. Using one of the RGB DMX modes, only User Colors mixed out of RGB values are available. For Direct modes, both RGB and RGBL User Colors are available. For detailed information please see Color Macro Chart at the end of this manual.**
Using UP/DOWN arrows at homescreen the Color Macros can be changed according to the list.

Shutter: Please see detailed explanation for strobe effects inside DMX chart at the end of this manual.

Timer*

Via the internal timer function, all Stand Alone modes except "Auto" and "Editor" can be conveniently faded in and out after the function is enabled in the previously activated standalone mode, without the need for an external controller. Also it remains active even the fixture is switched off and restarted. SimultaNEO fxusly, the timer function is available via cable as well as via wireless DMX for master & slave operation. The fade-in time can be set from 0 to 60 minutes, the dwell time from 1 to 24 hours and the fade-out time from 0 to 60 minutes.
To select “Timer” please press ENTER to access to main menu (level 1). While using the UP / DOWN arrows, please select the menu item “Stand Alone” and confirm by pressing ENTER.

Level 1

Menu
DMX Mode
➡ Stand Alone
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto
Editor
Color Macro
Quick Color
Tunable White
User Color
➡ Timer
Color Settings

Level 3

Timer		
Timer	<On / **Off**>	
Fade In	<**0**-60 min>	1 minute steps
Dwell Time	<**1**-24h>	1 hour steps
Fade Out	<**0**-60 min>	1 minute steps

Select the item menu “Timer” by using the up/down controls and press ENTER. Now you can activate / deactivate the Timer function, select “Fade In”, “Dwell Time” or “Fade Out” for the individual settings and confirm with ENTER. In each case a three-digit number field will be displayed. Use UP and DOWN to set the value as required from 000 to 060 minutes for “Fade In” and “Fade Out”, or 001 to 024 hours for the “Dwell Time”. Confirm by pressing ENTER again. After all time settings have been configured, please activate the timer function by selecting the submenu item “Timer On/Off” using UP and DOWN, confirm with ENTER, select “On” and confirm with ENTER again.
To disable the timer function, please select “Off” and confirm by ENTER.

ⓘ ***Note: Please don´t forget to select one of the Stand Alone modes for "Startup Mode" at "Settings".**

Color Settings*

Here at “Color Settings” you can chose your preferred working color mode for all Stand Alone color modes. Either Factory Calibrated or RAW. Factory color calibration of R, G, B, L for a maximum of color consistency from unit to unit.
Please note If this function is activated only RGB is available at User Color and Quick Color. For a maximum of saturation please chose RAW mode.

Level 1

Menu
DMX Mode
➡ Stand Alone
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto
Editor
Color Macro
Quick Color
Tunable White
User Color
Timer
➡ Color Settings

Level 3

Color Settings
➡ **Color Calibration**
RAW

5.4.4 Settings

Level 1

Menu
DMX Mode
Stand Alone
➡ Settings
System Info

Main Menu	Menu level 2	Menu level 3	Menu level 4	Description
Settings	Wireless DMX	CRMX	<on/**off**>	On=CRMX enabled / Off= CRMX disabled
		Operating Mode	<**receive**/transmit>	Receive= CRMX module as Receiver Transmit= CRMX module as Transmitter
		Transmit Link	<**no**/yes>	Yes= pair with CRMX devices. CRMX must be activated on all devices and the pairing must be picked up by a transmitter (Receive Reset). No= Linking disabled
		Receive Reset	<**no**/yes>	Yes = retain transmitter pairing No = do not retain transmitter pairing
		Pass to DMX Out	<**no**/yes>	Yes= incoming wireless DMX and BLE signal will be passed to wired DMX out No= incoming wireless DMX and BLE signal will not be passed to wired DMX out
		Signal Strength	0-100	CRMX signal strength
		BLE	<on/**off**>	On= BLE enabled / Off= BLE disabled
		BLE Link	<**no**/yes>	Link = starts bluetooth advertising for at least 1 minute
		BLE Password	<**000000**>	Set 6-digits user Password for connection to your mobile device (ROXXAPP)
	Protocol	**DMX**		enables DMX protocol
		Art-Net		
		sACN		
		Dual	DMX (Main) + Artnet (Pixel)	
			DMX (Main) + sACN (Pixel)	
			Artnet only (Main + Pixel)	
			sACN only (Main + Pixel)	
		Slave		
	Ethernet	IP Address	xxx.xxx.xxx.xxx	
		Subnet Mask	xxx.xxx.xxx.xxx	
		Art-Net	Main Universe	**000**-254
		sACN	Main Universe Group	**000**-127
			Pixel Universe	**000**-254
			Pixel Universe Group	**000**-127
			Pixel Address	**001**-xxx
			Send Main Universe to DMX	On / **Off**

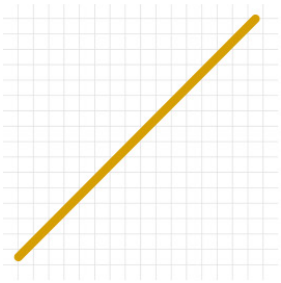
Main Menu	Menu level 2	Menu level 3	Menu level 4	Description
Settings	Display	Auto Flip	<**on**/off>	On= Auto-Display-Flip-Function enabled Off= Auto-Display-Flip-Function disbaled
		Backlight	<**on**/off>	On= controls permanent on, display itself will deactivate after 60 minues of incativity Off= controls and display deactivation after approximately 1 minute of inactivity
		Auto Lock	<on/**off**>	On= Automatically locks the controls after approximately 1 minute of inactivity. After attempted input the display shows: „Locked!“ Unlock process: press arrows up, down, up, down consecutively
	Startup Mode (using last adjust-ments of specific Standalone Modes)	**DMX**		Select your default operating mode when fixture is powered on
		Art-Net		
		sACN		
		Dual		
		Auto		
		Editor (Program 1-3)		
		Color Macro		
		Quick Color		
		Tunable White		
		User Color (User Color 1-5)		
	DMX Fail	**Hold** (factory default)		Hold= last command retains
		Blackout		Blackout= Activates Blackout
		Emergency Light		Emergency Light= Fixtures changes according to Tunable White" settings at Stand Alone mode, by default to 5600K.
	Dimmer Curve	**Linear**		Linear= Light intensity increases linear with DMX value
		Exponential		Exponential= Light intensity can be set more smooth at lower DMX values and broadly at higher DMX values.
		Logarithmic		Light intensity can be broadly adjusted at lower DMX values and more smooth at higher DMX values
		S-Curve		Light intensity can be adjusted smoothly at lower and higher DMX values and broadly at medium DMX values
	Dimmer Response	**LED**		The LED responds abruptly to it´s DMX values
		Halogen		The LED responds similar to a halogen fixture with soft changes at brightness.
	Color Calibration	**Normal CRI**		Colors & CCT calibrated, normal CRI mode
		High CRI		Colors & CCT calibrated, high CRI mode
	RAW Balance (affects RAW Mode in DMX and Stand-alone control)	User Calibration	Red <0-**255**>	Individual color calibration for R,G,B,L
			Green <0-**255**>	
			Blue <0-**255**>	
			Lime <0-2**55**>	

Main Menu	Menu level 2	Menu level 3	Menu level 4	Description
Settings	LED Frequency	800 Hz	Select preferred LED PWM frequency	
		1300 Hz		
		2000 Hz		
		3600 Hz		
		12000 Hz		
		25000 Hz		
	Fan	**Auto 1**		Adjust fan speed relative to internal fixture temperature, maximum 2500rpm
		Auto 2		Adjust fan speed relative to internal fixture temperature, maximum 3000rpm
		Silent		Low fan speed for silent operation, maximum 1800rpm
		Studio		Low fan speed for silent operation, maximum 1500rpm
		Fan Off		Fan Off
		Max Power		High fan speed for maximum cooling effect, maximum 3000rpm
	Redshift	On / **Off**	On= Activates Redshift, Off= Deactivates Redshift	Redshift function simulate traditional halogen fixtures while dimming down. Redshift affects only between 2700-3500K.
	Pixel Invert / Swap	Invert	On / **Off**	Inverts the pixel layout of the fixture
		Swap	On / **Off**	Swaps the pixel layout of the fixture
	Tilt	Tilt Invert	On / **Off**	On: Enables Tilt Invert (Frontside to Backside Rotation / Off: Disbales Tilt Invert (Backside to Frontside Rotation)
		Tilt Position Auto Correction	**On** / Off	On: Enables Tilt-Position Auto Correction / Off: Disables Tilt-Position Auto Correction. If you need to return tilt to its correct position, you must perform a reset.
		Tilt Motor Disable	On / **Off**	On: Disables Tilt Motor current / Off: Enables Tilt Motor Current. Note: When changing from enabled (On) back to disabled (Off) to re-enable tilt movement, you must activate a tilt-reset before you can operate tilt normally.
		Tilt Motor Calibration	127+ to 127-	On: Disables Tilt Motor current / Off: Enables Tilt Motor Current. Note: When changing from enabled (On) back to disabled (Off) to re-enable tilt movement, you must activate a tilt-reset before you can operate tilt normally.
	Zoom	Invert	On / **Off**	
		Zomm Calibration	127+ to 127-	
	LED Mode	**Illumination**		Normal output for constant illumination
		Boost		Boost for temporarily highest output for blinder and strobe effects
	USB Update	Auto		Runs firmware update automatically, once USB stick gets plugged in
		Manual		Runs firmware update manually after USB stick gets plugged in
		No		Do not run firmware update via USB port

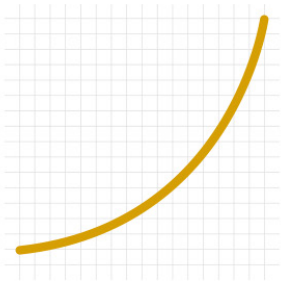
Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu Level 5
Settings	Factory / User Reset For more and detailed information about the different reset options please refer to chapter "5.4.6.1 Reset functions"	Factory Reset	Are you sure to reset? / Confirm by pressing ENTER, cancel with ESC	Restores all factory defaults , but not User defaults and no User Colors
		User Reset	Are you sure to reset? / Confirm by pressing ENTER, cancel with ESC	Restores all User Reset according to the User Preset List. User Colors will not set back. Timer Function and DMX adress restore to Factory default. Once User Reset is activated a fixture self test will start. Self Test is not available while activating User Rest by DMX Settings.
		User Reset List	DMX Mode <15CH RGB mode, 19CH RGB mode, **26CH RGB mode**, 30CH RGB mode, 28CH DIRECT mode, 33CH DIRECT mode, 81CH Pure mode, 154CH Pure mode, 9CH Dual mode, 10CH Dual mode, 95CH FULL ACCESS mode, 168CH FULL ACCESS mode>	
			CRMX <on/**off**>	
			CRMX Operating Mode <**receive**/transmit>	
			CRMX Receive Reset <**no**/yes>	
			BLE <on/**off**>	
			BLE Link <**no**/yes>	
			BLE Password <**000000**>	
			CRMX Pass to DMX Out <**no**/yes>	
			Display Flip <**on**/off>	
			Backlight <**on**/off>	
			Auto Lock <on/**off**>	
			Startup Mode <**DMX**/ Art-Net/ sACN/ Dual /Slave/ Auto/Editor/ Color Macro, Quick Color, Tunable White/ User Color>	
			DMX Fail <**Hold**/Blackout/Emergency (5600K)>	
			Dimmer Curve <**Linear**, Exponential, Logarithmic, S-Curve>	
			Dimmer Response <**LED**, Halogen>	
			Color Calibration <**Normal CRI** / High CRI>	
			RAW Balance <**RAW** / User Calibration>	
			LED Frequency <800Hz, **1300Hz,** 2000Hz, 3600Hz, 12000Hz, 25000Hz>	
			Fan <**Auto 1**, Auto 2, Silent, Studio, Fan Off, Max. Power>	
			Redshift <on/o**ff**>	
			Pixel Invert Mapping <on/**off**>	
			Pixel Swap Mapping <on/**off**>	
			Tilt Invert <on/o**ff**>	
			Tilt-Position Auto Correction <**on**/off>	
			Tilt Motor Disable <on/**off**>	
			Zoom Invert <on/**off**>	
			LED mode <**Illumination**, Boost>	
			USB Update <Auto, **Manual**, No>	

Dimmer Curves

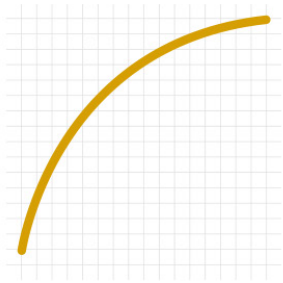
Linear



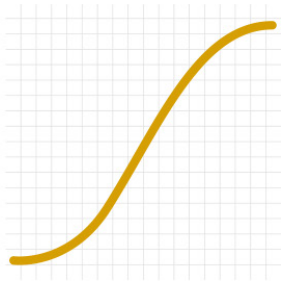
Exponential



Logarithmic



S-Curve



5.4.4.1 Reset Functions

	DMX Address and Mode	Ethernet settings (if available)	Stand Alone User Colors	User Reset List	Other Settings	LED + Fan Test	Note
DMX: Factory Reset	keep	keep	reset to default	keep	reset to default	no	starts only if shutter channel has DMX value "250"
DMX: User Reset	keep	keep	keep	keep	set corre-sponding to user reset list settings	no	starts only if shutter channel has DMX value "250"
RDM: Factory Reset	keep	keep	reset to default	keep	reset to default	no	
RDM: User Reset	keep	keep	keep	keep	set corre-sponding to user reset list settings	no	
RDM: Factory Defaults	reset to default	reset to default	reset to default	keep	reset to default	no	
Menu: Factory Reset (change DMX Address/ Mode	reset to default	reset to default	reset to default	keep	reset to default	yes	
Menu: Factory Reset (keep DMX Address/ Mode	keep	keep	reset to default	keep	reset to default	yes	
Menu: User Reset (change DMX Address/ Mode	reset Adress to default, DMX Mode corre-sponding to user reset list settings	reset to default	keep	keep	set corre-sponding to user reset list settings	yes	
Menu: User Reset (keep DMX Address/Mode	keep	keep	keep	keep	set corre-sponding to user reset list settings	yes	
After USB Firmware Update: Reset (change DMX Address/Mode)	reset to default	reset to default	reset to default	keep	reset to default	no	
After USB Firmware Update: Reset (keep DMX Address/Mode)	keep	keep	keep	keep	keep	no	

5.4.5 System Info

Level 1

Menu
DMX Mode
Stand Alone
Slave
Settings
➡ System Info

Main Menu	Menu level 2	Menu level 3	Menu level 4
System Info	Firmware Version	Main CPU	Display installed firmware version
		LED Baord	
	Serial Number	136xxxxxxxx	
	RDM UID	0X6a6axxxxxxxx	Display unique RDM ID for identification
	Temperatures	Celsius LED : XXX°C or Fahrenheit LED : XXX °F	Display fixture temperature by celsius and fahrenheit
	Power on Time	Total: xxxxxhours	Display fixture total power on time
	LED on Time	Total: xxxxxhours	Display LED total power on time
	Fan Speed	Head	Display the current fan speed from head
		PSU	Display the current fan speed from Base / PSU
	Errors	Errors information	Display error codes

6. ACCESSORIES

6.1 Accessories

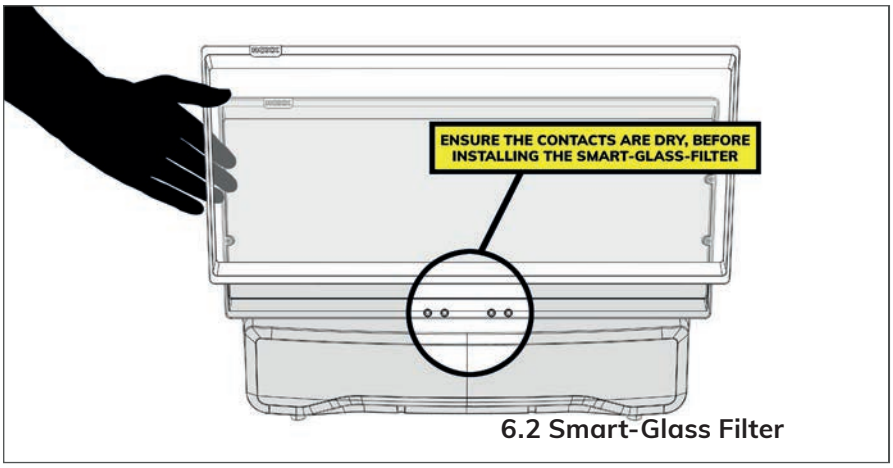
Smart Glass Filter
Art.: 14906201

Elliptical Horizontal Filter
Art.: 14906301

Omega Bracket ST
Art.: 90900002

Cases
TBA

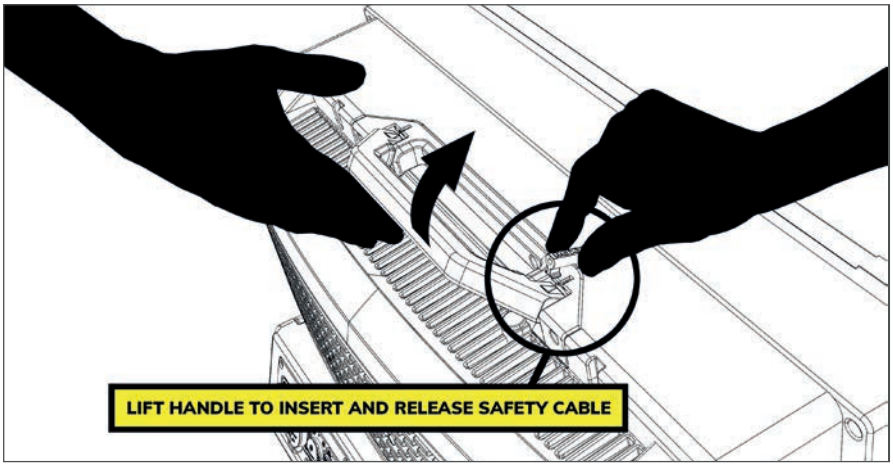
6.2 Smart-Glass Filter



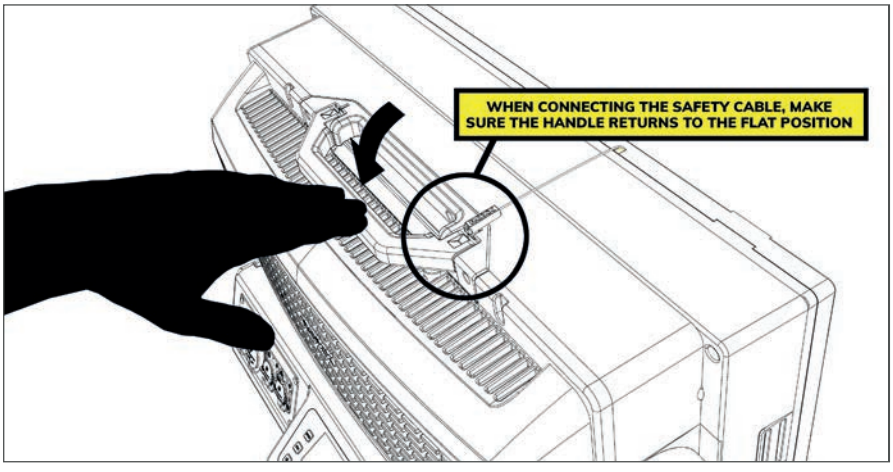
6.2 Smart-Glass Filter

ⓘ ***Note:**
Depending on the used filter respectively on the frost intensity of the Smart Glass Filter there will be a slight shift of the adjusted color temperature.

The filter contacts and front headlight contacts should be dry before installation.



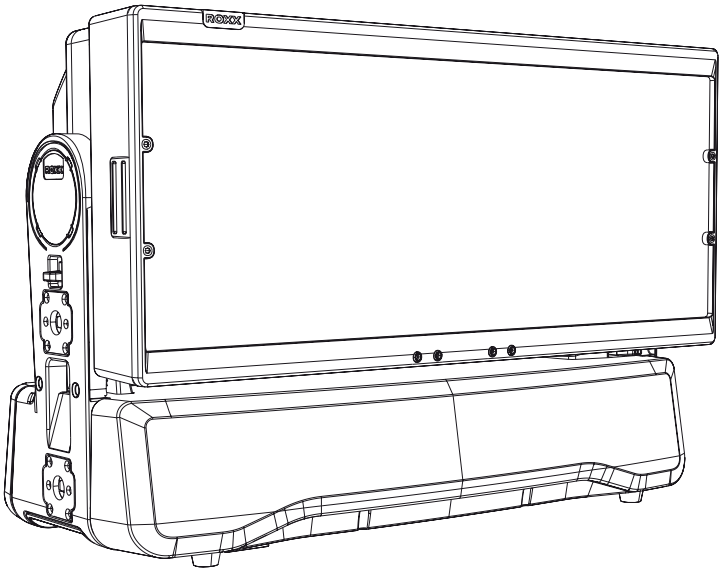
Lift handle to insert an release safety cable.

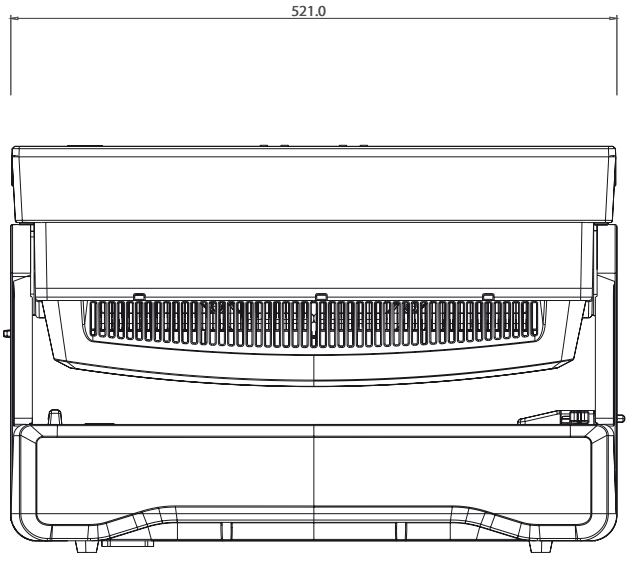


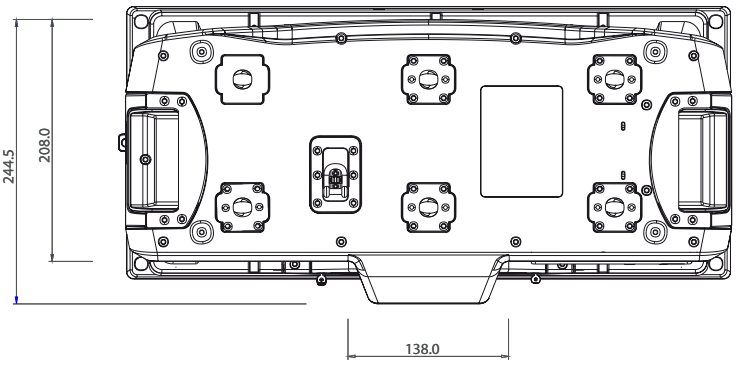
When connecting the safety cable, make sure the handle returns to the flat position.

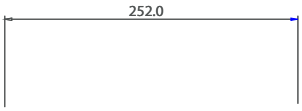
7. TECHNICAL DATA / DIAGRAMS

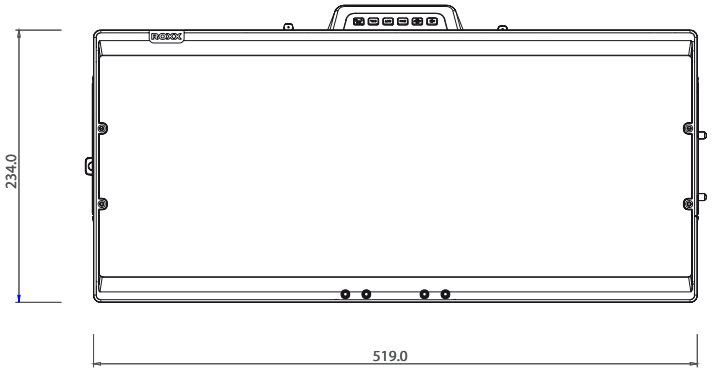
7.1 Technical drawings and measurements

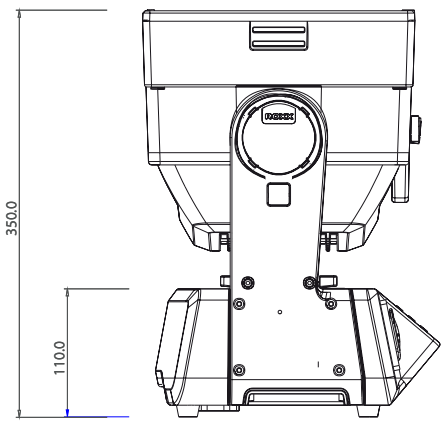






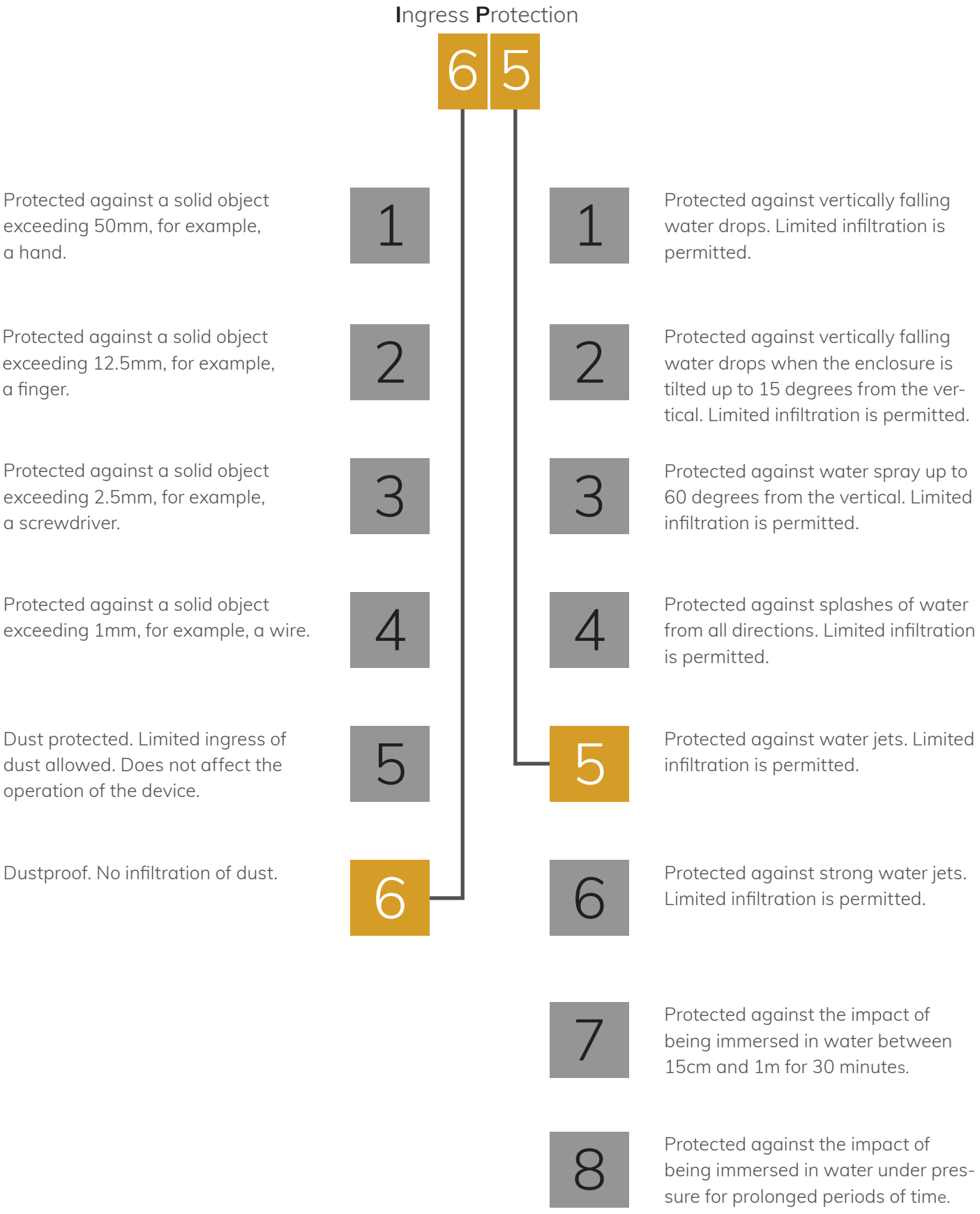






7.2 IP Rating

ROXX products conform to officially classified IP standard levels. NEO fx is rated to IP65 when using the covers for the housing parts. IP stands for Ingress Protection and IP65, according to classified standard, means shielded against dust and high-pressure jets of water from any side.



7.3 Technical Data

Photometrics	
LED expected lifetime	50.000 hours
Lightsource	24x 40W RGBL
Type of optical system	Lightrod & PC Zoom lens
LED PWM Frequency	selectable 800Hz, 1.300Hz, 2.000Hz, 3.600Hz, 12kHz, 25kHz
Total Zoom Beam / Field angle	4,5° - 70° (50% beam) / 6,9° - 142° (10% field)
Optical (Motor) Zoom Beam / Field angle	4,5° - 30° (50%) / 6,9° - 40° (10% field)
Color temperature range	2000-10.000K
CRI/Ra @ 5600K	76 @ Normal CRI / 85 @ High CRI
TLCI @ 5600K	63 @ Normal CRI / 75 @ High CRI
TLCI mixed @ 11.000K	85
Luminous flux @ 5600K (wide zoom / normal CRI)	12.300lm
illuminance Lux @ 5m / 16,4ft (@ Full / RAW) @ narrow zoom	59.820lx
illuminance Lux @ 5m / 16,4ft (@ 5600K Normal CRI) @ narrow zoom	56.790lx
illuminance Lux @ 5m / 16,4ft (@ 5600K High CRI) @ narrow zoom	34.780lx
Efficancy @ Full 230V (max)	12.30 lm/W
Dimensions & Weight	
IP class	IP65
IK class	IK08
Body material	Magnesium, Aluminum, Nylon
Lens material	Tempered glass front
Net dimensions (w x h x d) - head straight up	521 x 347 x 245
Net dimensions inches - head straight up	20,52 x 13,66 x 9,65
Net weight	24.15 kg / + Filter 24.8 kg
Tilt	188°
Tilt Locking System	Mechanical locking system
Thermal Characteristics	
Cooling	Active, Forced Air, Temperature-regulated
Humidity (max.)	95%
Temperature range, Operating	-40°C to 45°C
Temperature range, Start-Up	-20° to 45°C
Temperature range, Storage	-40°C to 80°C
Thermal Protection	Automatic overtemperature protection
Electrical Data	
AC Power, max	90 – 285V 50/60Hz
AC Power, nominal	100 – 240V 50/60Hz
Electrical protection	Overload protection with automatic recover
Max. power consumption (Boost Mode)	1234W @ 230V / 1310W @ 100V
Constant power consumption (Illumination Mode)	1000W @ 230V / 1055W @ 100V
Power Max. Out @ Max. Power Consumption (Boost Mode)	5,55A @ 230V (1234W) / 13,44A @ 100V (1310W)

7.3 Technical Data

Electrical Data	
Power Max. Out @ Constant Power Consumption (Illumination Mode)	4,44A @ 230V (1000W) / 10,6A @ 100V (1055W)
Power Linking @ Max. Power Consumption (Boost Mode)	2 units @ 230V / 1 units @ 100V
Power Linking @ Constant Power Consumption (Illumination Mode)	2 units @ 230V / 1 units @ 100V
Power Factor @ Max. Power Consumption (Boost Mode)	0.993PF @ 100V / 0.976PF @ 230V
Power Factor @ Constant Power Consumption (Illumination Mode)	0.994PF @ 100V / 0.976PF @ 230V
Standby Power	40W
Power Supply Unit	Inbuilt auto-ranging electronic switch-mode
Operator & Controller	
DMX channels	15CH RGB, 19CH RGB, 26CH RGB, 30CH RGB, 28CH DIRECT, 33CH DIRECT, 81CH PURE, 154CH PURE, 9CH Dual mode, 10CH Dual mode, 95CH FULL ACCESS, 168CH FULL ACCESS
DMX modes	12
Protocol	USITT DMX512A
	RDM ANSI E1.20
	Art-Net
	sACN
	CRMX, W-DMX™ G2, W-DMX™ G3, W-DMX™ G4, W-DMX™ G4S
	Bluetooth (Low Energy)
Setting and addressing	2.0" TFTdisplay / 10 controls
	RDM ANSI E1.20
	Near Field Control (NFC)
Standalone mode	Auto Program, Color Macro, Quick Color, Tunable White, User Color
Wireless DMX	Lumen Radio transmitt & receive function (CRMX)
indicator	2.0" TFT display
controls	10 backlighted controls
Strobe LED	0-30Hz
Strobe Smart-Glass	0-5Hz
DMX I/O	IP65 XLR 5-pin male/female
Ethernet I/O	IP65 RJ45 Ethernet male/female
Power In	TRUE1 compatible input & link-thru sockets
USB Firmware Update	IP65 USB socket
Installation	
Mounting point on fixture bottom side	3x 1/4 turn Omega Bracket
Mounting point on fixture Yoke side	1x 1/4 turn Omega Bracket
Orientation	Any
Rigging possibilities	hanging direct
Safety features	1x bottom mount for fixtures safety wire / 2x head-mount (handle) for accessory safety wires
Minimum distance from flammable materials	0,3 meters (11,8 inch)

7.4 DMX-Charts / Color Macro Charts / CCT Chart / Pixel Chart

15CH RGB | **28CH DIRECT** | **9CH Dual Mode**

19CH RGB | **33CH DIRECT** | **10CH Dual Mode**

26CH RGB / Default Mode | **81CH Pure Mode** | **95CH Full Access Mode**

30CH RGB | **154CH Pure Mode** | **168CH Full Access Mode**

Channel	15CH RGB	19CH RGB	26CH RGB (default)	30CH RGB	28CH DIRECT	33CH DIRECT
1	Master Dimmer	Master Dimmer	Master Dimmer	Master Dimmer	Master Dimmer	Master Dimmer
2	Shutter	Master Dimmer fine	Shutter	Master Dimmer fine	Shutter	Master Dimmer fine
3	Tilt	Shutter	Duration	Shutter	Duration	Shutter
4	Tilt fine	Tilt	Tilt	Duration	Tilt	Duration
5	Zoom	Tilt fine	Tilt fine	Tilt	Tilt fine	Tilt
6	Smart Filter	Zoom	Zoom	Tilt fine	Zoom	Tilt fine
7	Total Zoom	SmartFilter	Smart Filter	Zoom	Smart Filter	Zoom
8	Red	Total Zoom	Smart Filter Shutter	Smart Filter	Smart Filter Shutter	SmartFilter
9	Green	Red	Total Zoom	Smart Filter Shutter	Total Zoom	Smart Filter Shutter
10	Blue	Red fine	Red	Total Zoom	Red	Total Zoom
11	CTC	Green	Green	Red	Green	Red
12	Tint	Green fine	Blue	Red fine	Blue	Red fine
13	Color Macro	Blue	CTC	Green	Lime	Green
14	Color Macro Crossfade	Blue fine	Tint	Green fine	CTC	Green fine
15	Device Settings	CTC	Color Macro	Blue	Tint	Blue
16		Tint	Color Macro Crossfade	Blue fine	Color Macro	Blue fine
17		Color Macro	Pattern Dimmer	CTC	Color Macro Crossfade	Lime
18		Color Macro Crossfade	Pattern Shutter	Tint	Pattern Dimmer	Lime fine
19		Device Settings	Pattern selection	Color Macro	Pattern Shutter	CTC
20			Pattern selection X-fade	Color Macro Crossfade	Pattern selection	Tint
21			Pattern speed	Pattern Dimmer	Pattern selection X-fade	Color Macro
22			Pattern X-fade	Pattern Shutter	Pattern speed	Color Macro Cross-fade
23			Pattern Red	Pattern selection	Pattern X-fade	Pattern Dimmer
24			Pattern Green	Pattern selection X-fade	Pattern Red	Pattern Shutter
25			Pattern Blue	Pattern speed	Pattern Green	Pattern selection
26			Device Settings	Pattern X-fade	Pattern Blue	Pattern selection X-fade

Channel	15CH RGB	19CH RGB	26CH RGB (default)	30CH RGB	28CH DIRECT	33CH DIRECT
27				Pattern Red	Pattern Lime	Pattern speed
28				Pattern Green	Device Settings	Pattern X-fade
29				Pattern Blue		Pattern Red
30				Device Settings		Pattern Green
31						Pattern Blue
32						Pattern Lime
33						Device Settings

Ch.	9CH DUAL MODE	10CH DUAL MODE	Ch.	81CH PURE MODE	Ch.	154CH PURE MODE	Ch.	95CH FULL ACCESS	Ch.	168CH FULL ACCESS
1	Master Dimmer	Master Dimmer	1	Master Dimmer	1	Master Dimmer	1	Master Dimmer	1	Master Dimmer
2	Shutter	Master Dimmer fine	2	Shutter	2	Master Dimmer fine	2	Shutter	2	Master Dimmer fine
3	Duration	Shutter	3	Duration	3	Shutter	3	Duration	3	Shutter
4	Tilt	Duration	4	Tilt	4	Duration	4	Tilt	4	Duration
5	Tilt fine	Tilt	5	Tilt fine	5	Tilt	5	Tilt fine	5	Tilt
6	Zoom	Tilt fine	6	Zoom	6	Tilt fine	6	Zoom	6	Tilt fine
7	SmartFilter	Zoom	7	Smart Filter	7	Zoom	7	Smart Filter	7	Zoom
8	Smart Filter Shutter	SmartFilter	8	Smart Filter Shutter	8	SmartFilter	8	Smart Filter Shutter	8	Smart Filter
9	Device Settings	Smart Filter Shutter	9	Red 1	9	Smart Filter Shutter	9	Total Zoom	9	Smart Filter Shutter
10		Device Settings	10	Green 1	10	Red 1	10	CTC	10	Total Zoom
			11	Blue 1	11	Red 1 fine	11	Tint	11	CTC
			12	Red 2	12	Green 1	12	Color Macro	12	Tint
			13	Green 2	13	Green 1 fine	13	Color Macro Crossfade	13	Color Macro
			14	Blue 2	14	Blue 1	14	Pattern Dimmer	14	Color Macro Crossfade
			15	Red 3	15	Blue 1 fine	15	Pattern Shutter	15	Pattern Dimmer
			16	Green 3	16	Red 2	16	Pattern selection	16	Pattern Shutter
			17	Blue 3	17	Red 2 fine	17	Pattern selection X-fade	17	Pattern selection
			18	Red 4	18	Green 2	18	Pattern speed	18	Pattern selection X-fade
			19	Green 4	19	Green 2 fine	19	Pattern X-fade	19	Pattern speed
			20	Blue 4	20	Blue 2	20	Pattern Red	20	Pattern X-fade
			21	Red 5	21	Blue 2 fine	21	Pattern Green	21	Pattern Red
			22	Green 5	22	Red 3	22	Pattern Blue	22	Pattern Green

			23	Blue 5	23	Red 3 fine	23	Red 1	23	Pattern Blue
			24	Red 6	24	Green 3	24	Green 1	24	Red 1
			25	Green 6	25	Green 3 fine	25	Blue 1	25	Red 1 fine
			26	Blue 6	26	Blue 3	26	Red 2	26	Green 1
			27	Red 7	27	Blue 3 fine	27	Green 2	27	Green 1 fine
			28	Green 7	28	Red 4	28	Blue 2	28	Blue 1
			29	Blue 7	29	Red 4 fine	29	Red 3	29	Blue 1 fine
			30	Red 8	30	Green 4	30	Green 3	30	Red 2
			31	Green 8	31	Green 4 fine	31	Blue 3	31	Red 2 fine
			32	Blue 8	32	Blue 4	32	Red 4	32	Green 2
			...80	....Blue 24	33	Blue 4 fine	33	Green 4	33	Green 2 fine
			81	Device Settings	...153	....Blue 24 fine	34	Blue 4	34	Blue 2
					154	Device Settings	35	Red 5	35	Blue 2 fine
							36	Green 5	36	Red 3
							37	Blue 5	37	Red 3 fine
							38	Red 6	38	Green 3
							39	Green 6	39	Green 3 fine
							40	Blue 6	40	Blue 3
							41	Red 7	41	Blue 3 fine
							42	Green 7	42	Red 4
							43	Blue 7	43	Red 4 fine
							44	Red 8	44	Green 4
							45	Green 8	45	Green 4 fine
							46	Blue 8	46	Blue 4
							...94	...Blue 24	46	Blue 4 fine
							95	Device Settings	...168	....Blue 24 fine
									169	Device Settings

7.4 DMX-Charts / Color Macro Charts / CCT Chart / Pixel Chart

15CH RGB	**28CH DIRECT**	**9CH Dual Mode**
19CH RGB	**33CH DIRECT**	**10CH Dual Mode**
26CH RGB / Default Mode	**81CH Pure Mode**	**95CH Full Access Mode**
30CH RGB	**154CH Pure Mode**	**168CH Full Access Mode**

15 CH RGB Mode - 8bit					
Ch.	**Function**	**Value**	**Setting**		**Default**
1	**Master Dimmer**	000-255	0 - 100%		
2	**Shutter**	000 - 019	Shutter close		
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		20
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
3	**Tilt**	000-255	0 - 100% Back - Front		128
4	**Tilt fine**	000-255	0 - 100% Back - Front		255
5	**Zoom**	000-255	0 - 100% Narrow - Wide		0
6	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
7	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
8	**Red**	000-255	0 - 100%	affects main & pattern background color	255
9	**Green**	000-255	0 - 100%		255
10	**Blue**	000-255	0 - 100%		255

11	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
12	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
13	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart		0
14	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
15	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode		0

19CH RGB Mode - 16bit

Ch.	Function	Value	Setting	Default
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Master Dimmer fine**	000-255	0 - 100%	0
3	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	

19CH RGB Mode - 16bit					
3	**Shutter**	205 - 209	Shutter open		20
		210 - 224	Strobe 9:sine wave (fast ⊖ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⊖ slow)		
		245 - 255	Shutter open		
4	**Tilt**	000-255	0 - 100% Back - Front		127
5	**Tilt fine**	000-255	0 - 100% Back - Front		255
6	**Zoom**	000-255	0 - 100% Narrow - Wide		0
7	**SmartFilter**	000-255	0 - 100% Clear - Frosted		0
8	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
9	**Red**	000-255	0 - 100%	affects main & pattern background color	255
10	**Red fine**	000-255	0 - 100%		255
11	**Green**	000-255	0 - 100%		255
12	**Green fine**	000-255	0 - 100%		255
13	**Blue**	000-255	0 - 100%		255
14	**Blue fine**	000-255	0 - 100%		255
15	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
16	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
17	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart		0
18	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
19	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode		0

26CH RGB Mode -8bit (Default Mode)					
Ch.	**Function**	**Value**	**Setting**		**Default**
1	**Master Dimmer**	000-255	0 - 100%		0
2	**Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⊖ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⊖ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⊖ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⊖ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⊖ slow)		
		245 - 255	Shutter open		
3	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
4	**Tilt**	000-255	0 - 100% Back - Front		127
5	**Tilt fine**	000-255	0 - 100% Back - Front		255
6	**Zoom**	000-255	0 - 100% Narrow - Wide		0
7	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
8	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⊖ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)		

26CH RGB Mode -8bit (Default Mode)					
8	**Smart Filter Shutter**	165 - 169	Shutter open		20
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
9	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
10	**Red**	000-255	0 - 100%		255
11	**Green**	000-255	0 - 100%	affects main & pattern background color	255
12	**Blue**	000-255	0 - 100%		255
13	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
14	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
15	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart	affects main & pattern background color	0
16	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
17	**Pattern Dimmer**	000-255			0
18	**Pattern Shutter**	000 - 019	Shutter close		0
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		

26CH RGB Mode -8bit (Default Mode)				
18	**Pattern Shutter**	130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	20
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	
19	**Pattern selection**	000-255	according to Pattern chart	0
20	**Pattern selection X-fade**	000 - 005	no function	0
		006-255	1s - 250s (1s steps)	
21	**Pattern speed**	000-005	No Function	0
		006-124	Left to Right / Fast to slow	
		125-130	No Function	
		131-249	Right to Left / Slow to fast	
		250-255	No Function	
22	**Pattern X-fade**	000-005	Snap from cell to cell	0
		006-255	Fade Duration short to long	
23	**Pattern Red**	000-255	0 - 100%	255
24	**Pattern Green**	000-255	0 - 100%	255
25	**Pattern Blue**	000-255	0 - 100%	255
26	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0

30CH RGB Mode - 16bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Master Dimmer fine**	000-255	0 - 100%	0
3	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	

30CH RGB Mode - 16bit					
3	**Shutter**	125 - 129	Shutter open		20
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
4	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
5	**Tilt**	000-255	0 - 100% Back - Front		127
6	**Tilt fine**	000-255	0 - 100% Back - Front		255
7	**Zoom**	000-255	0 - 100% Narrow - Wide		0
8	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
9	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		

30CH RGB Mode - 16bit					
10	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
11	**Red**	000-255	0 - 100%	affects main & pattern background color	255
12	**Red fine**	000-255	0 - 100%		255
13	**Green**	000-255	0 - 100%		255
14	**Green fine**	000-255	0 - 100%		255
15	**Blue**	000-255	0 - 100%		255
16	**Blue fine**	000-255	0 - 100%		255
17	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
18	**Taccording to Pattern chart**	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
19	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart		0
20	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
21	**Pattern Dimmer**	000-255			0
22	**Pattern Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⊖ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)		
		165 - 169	Shutter open		

30CH RGB Mode - 16bit				
22	**Pattern Shutter**	170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	20
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9: sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	
23	**Pattern selection**	000-255	according to Pattern chart	0
24	**Pattern selection X-fade**	000 - 005	no function	0
		006-255	1s - 250s (1s steps)	
25	**Pattern speed**	000-005	No Function	0
		006-124	Left to Right / Fast to slow	
		125-130	No Function	
		131-249	Right to Left / Slow to fast	
		250-255	No Function	
26	**Pattern X-fade**	000-005	Snap from cell to cell	0
		006-255	Fade Duration short to long	
27	**Pattern Red**	000-255	0 - 100%	255
28	**Pattern Green**	000-255	0 - 100%	255
29	**Pattern Blue**	000-255	0 - 100%	255
30	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0

28CH DIRECT Mode - 8bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	

28CH DIRECT Mode - 8bit					
2	**Shutter**	185 - 189	Shutter open		20
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
3	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
4	**Tilt**	000-255	0 - 100% Back - Front		128
5	**Tilt fine**	000-255	0 - 100% Back - Front		255
6	**Zoom**	000-255	0 - 100% Narrow - Wide		0
7	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
8	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
9	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
10	**Red**	000-255	0 - 100%	affects main & pattern background color	250
11	**Green**	000-255	0 - 100%		255
12	**Blue**	000-255	0 - 100%		88
13	**Lime**	000-255	0 - 100%		255

28CH DIRECT Mode - 8bit					
14	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
15	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
16	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart	affects main & pattern background color	0
17	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
18	**Pattern Dimmer**	000-255			0
19	**Pattern Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⊖ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⊖ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⊖ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⊖ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⊖ slow)		
		245 - 255	Shutter open		

28CH DIRECT Mode - 8bit				
20	**Pattern selection**	000-255	according to Pattern chart	0
21	**Pattern selection X-fade**	000 - 005	no function	0
		006-255	1s - 250s (1s steps)	
22	**Pattern speed**	000-005	No Function	0
		006-124	Left to Right / Fast to slow	
		125-130	No Function	
		131-249	Right to Left / Slow to fast	
		250-255	No Function	
23	**Pattern X-fade**	000-005	Snap from cell to cell	0
		006-255	Fade Duration short to long	
24	**Pattern Red**	000-255	0 - 100%	255
25	**Pattern Green**	000-255	0 - 100%	255
26	**Pattern Blue**	000-255	0 - 100%	255
27	**Pattern Lime**	000-255	0 - 100%	255
28	**Device Settings** (please see remark *1)		According to our Device Settings chart Direct modes	0

33CH DIRECT Mode - 16 bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Master Dimmer fine**	000-255	0 - 100%	0
3	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⊖ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⊖ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⊖ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⊖ slow)	
		225 - 229	Shutter open	

33CH DIRECT Mode - 16 bit					
3	**Shutter**	230 - 244	Strobe 10: burst (fast ⇒ slow)		20
		245 - 255	Shutter open		
4	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
5	**Tilt**	000-255	0 - 100% Back - Front		127
6	**Tilt fine**	000-255	0 - 100% Back - Front		255
7	**Zoom**	000-255	0 - 100% Narrow - Wide		0
8	**SmartFilter**	000-255	0 - 100% Clear - Frosted		0
9	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
10	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
11	**Red**	000-255	0 - 100%	affects main & pattern background color	250
12	**Red fine**	000-255	0 - 100%		255
13	**Green**	000-255	0 - 100%		255
14	**Green fine**	000-255	0 - 100%		255
15	**Blue**	000-255	0 - 100%		88
16	**Blue fine**	000-255	0 - 100%		255
17	**Lime**	000-255	0 - 100%		255
18	**Lime fine**	000-255	0 - 100%		255

33CH DIRECT Mode - 16 bit					
19	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
20	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
21	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart	affects main & pattern background color	0
22	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
23	**Pattern Dimmer**	000-255			0
24	**Pattern Shutter**	000 - 019	Shutter close		
		020 - 024	Shutter open		20
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		

33CH DIRECT Mode - 16 bit				
25	**Pattern selection**	000-255	according to Pattern chart	0
26	**Pattern selection X-fade**	000 - 005	no function	0
		006-255	1s - 250s (1s steps)	
27	**Pattern speed**	000-005	No Function	0
		006-124	Left to Right / Fast to slow	
		125-130	No Function	
		131-249	Right to Left / Slow to fast	
		250-255	No Function	
28	**Pattern X-fade**	000-005	Snap from cell to cell	0
		006-255	Fade Duration short to long	
29	**Pattern Red**	000-255	0 - 100%	255
30	**Pattern Green**	000-255	0 - 100%	255
31	**Pattern Blue**	000-255	0 - 100%	255
32	**Pattern Lime**	000-255	0 - 100%	255
33	**Device Settings** (please see remark *1)		According to our Device Settings chart Direct modes	0

81CH Pure Mode - 8bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	

81CH Pure Mode - 8bit					
3	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
4	**Tilt**	000-255	0 - 100% Back - Front		128
5	**Tilt fine**	000-255	0 - 100% Back - Front		255
6	**Zoom**	000-255	0 - 100% Narrow - Wide		0
7	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
8	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
9	**Red 1**	000-255	0 - 100%		255
10	**Green 1**	000-255	0 - 100%		255
11	**Blue 1**	000-255	0 - 100%		255
12	**Red 2**	000-255	0 - 100%		255
13	**Green 2**	000-255	0 - 100%		255
14	**Blue 2**	000-255	0 - 100%		255
15	**Red 3**	000-255	0 - 100%		255
16	**Green 3**	000-255	0 - 100%		255
17	**Blue 3**	000-255	0 - 100%		255
18	**Red 4**	000-255	0 - 100%		255
19	**Green 4**	000-255	0 - 100%		255

81CH Pure Mode - 8bit				
20	**Blue 4**	000-255	0 - 100%	255
21	**Red 5**	000-255	0 - 100%	255
22	**Green 5**	000-255	0 - 100%	255
23	**Blue 5**	000-255	0 - 100%	255
24	**Red 6**	000-255	0 - 100%	255
25	**Green 6**	000-255	0 - 100%	255
26	**Blue 6**	000-255	0 - 100%	255
27	**Red 7**	000-255	0 - 100%	255
28	**Green 7**	000-255	0 - 100%	255
29	**Blue 7**	000-255	0 - 100%	255
30	**Red 8**	000-255	0 - 100%	255
31	**Green 8**	000-255	0 - 100%	255
32	**Blue 8**	000-255	0 - 100%	255
...80	**....Blue 24**	000-255	0 - 100%	255
81	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0

154CH Pure Mode - 16 bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Master Dimmer fine**	000-255	0 - 100%	0
3	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⊖ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⊖ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⊖ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⊖ slow)	
		225 - 229	Shutter open	

154CH Pure Mode - 16 bit					
3	**Shutter**	230 - 244	Strobe 10: burst (fast ⇒ slow)		20
		245 - 255	Shutter open		
4	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
5	**Tilt**	000-255	0 - 100% Back - Front		127
6	**Tilt fine**	000-255	0 - 100% Back - Front		255
7	**Zoom**	000-255	0 - 100% Narrow - Wide		0
8	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
9	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
10	**Red 1**	000-255	0 - 100%		255
11	**Red 1 fine**	000-255	0 - 100%		255
12	**Green 1**	000-255	0 - 100%		255
13	**Green 1 fine**	000-255	0 - 100%		255
14	**Blue 1**	000-255	0 - 100%		255
15	**Blue 1 fine**	000-255	0 - 100%		255
16	**Red 2**	000-255	0 - 100%		255
17	**Red 2 fine**	000-255	0 - 100%		255
18	**Green 2**	000-255	0 - 100%		255
19	**Green 2 fine**	000-255	0 - 100%		255
20	**Blue 2**	000-255	0 - 100%		255
21	**Blue 2 fine**	000-255	0 - 100%		255
22	**Red 3**	000-255	0 - 100%		255

154CH Pure Mode - 16 bit				
23	**Red 3 fine**	000-255	0 - 100%	255
24	**Green 3**	000-255	0 - 100%	255
25	**Green 3 fine**	000-255	0 - 100%	255
26	**Blue 3**	000-255	0 - 100%	255
27	**Blue 3 fine**	000-255	0 - 100%	255
28	**Red 4**	000-255	0 - 100%	255
29	**Red 4 fine**	000-255	0 - 100%	255
30	**Green 4**	000-255	0 - 100%	255
31	**Green 4 fine**	000-255	0 - 100%	255
32	**Blue 4**	000-255	0 - 100%	255
33	**Blue 4 fine**	000-255	0 - 100%	255
...153	**....Blue 24 fine**	000-255	0 - 100%	255
154	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0

9CH Dual Mode - 8 bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	

9CH Dual Mode - 8 bit					
3	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
4	**Tilt**	000-255	0 - 100% Back - Front		127
5	**Tilt fine**	000-255	0 - 100% Back - Front		255
6	**Zoom**	000-255	0 - 100% Narrow - Wide		0
7	**SmartFilter**	000-255	0 - 100% Clear - Frosted		0
8	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
9	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode		0

10CH Dual Mode - 16 bit				
Ch.	**Function**	**Value**	**Setting**	**Default**
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Master Dimmer fine**	000-255	0 - 100%	0
3	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	

10CH Dual Mode - 16 bit				
3	**Shutter**	090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	20
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	
4	**Duration**	000-255	0 - 100%	0
5	**Tilt**	000-255	0 - 100% Back - Front	127
6	**Tilt fine**	000-255	0 - 100% Back - Front	255
7	**Zoom**	000-255	0 - 100% Narrow - Wide	0
8	**SmartFilter**	000-255	0 - 100% Clear - Frosted	0
9	**Smart Filter Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	

10CH Dual Mode - 16 bit				
9	**Smart Filter Shutter**	230 - 244	Strobe 10: burst (fast ⊖ slow)	20
		245 - 255	Shutter open	
10	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0

95CH Full Access Mode - 8 bit					
Ch.	**Function**	**Value**	**Setting**		**Default**
1	**Master Dimmer**	000-255	0 - 100%		0
2	**Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⊖ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⊖ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⊖ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⊖ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⊖ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⊖ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⊖ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⊖ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⊖ slow)		
		245 - 255	Shutter open		
3	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
4	**Tilt**	000-255	0 - 100% Back - Front		128
6	**Tilt fine**	000-255	0 - 100% Back - Front		255
6	**Zoom**	000-255	0 - 100% Narrow - Wide		0
7	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
8	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⊖ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⊖ slow)		
		085 - 089	Shutter open		

95CH Full Access Mode - 8 bit					
8	**Smart Filter Shutter**	090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		20
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
9	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
10	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
11	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
12	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart	affects main & pattern background color	0
13	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function		0
		006-105	0,1s - 10s (0,1s steps)		
		106-214	11s - 119s (1s steps)		
		215-244	2m - 6m50s (10s steps)		
		245-255	7m - 17m (1m steps)		
14	**Pattern Dimmer**	000-255			0
15	**Pattern Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		

95CH Full Access Mode - 8 bit				
15	**Pattern Shutter**	085 - 089	Shutter open	20
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6: random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	
16	**Pattern selection**	000-255	according to Pattern chart	0
17	**Pattern selection X-fade**	000 - 005	no function	0
		006-255	1s - 250s (1s steps)	
18	**Pattern speed**	000-005	No Function	0
		006-124	Left to Right / Fast to slow	
		125-130	No Function	
		131-249	Right to Left / Slow to fast	
		250-255	No Function	
19	**Pattern X-fade**	000-005	Snap from cell to cell	0
		006-255	Fade Duration short to long	
20	**Pattern Red**	000-255	0 - 100%	255
21	**Pattern Green**	000-255	0 - 100%	255
22	**Pattern Blue**	000-255	0 - 100%	255
23	**Red 1**	000-255	0 - 100%	255
24	**Green 1**	000-255	0 - 100%	255
25	**Blue 1**	000-255	0 - 100%	255
26	**Red 2**	000-255	0 - 100%	255
27	**Green 2**	000-255	0 - 100%	255
28	**Blue 2**	000-255	0 - 100%	255
29	**Red 3**	000-255	0 - 100%	255
30	**Green 3**	000-255	0 - 100%	255
31	**Blue 3**	000-255	0 - 100%	255
32	**Red 4**	000-255	0 - 100%	255
33	**Green 4**	000-255	0 - 100%	255
34	**Blue 4**	000-255	0 - 100%	255

35	**Red 5**	000-255	0 - 100%	255
36	**Green 5**	000-255	0 - 100%	255
37	**Blue 5**	000-255	0 - 100%	255
38	**Red 6**	000-255	0 - 100%	255
39	**Green 6**	000-255	0 - 100%	255
40	**Blue 6**	000-255	0 - 100%	255
41	**Red 7**	000-255	0 - 100%	255
42	**Green 7**	000-255	0 - 100%	255
43	**Blue 7**	000-255	0 - 100%	255
44	**Red 8**	000-255	0 - 100%	255
45	**Green 8**	000-255	0 - 100%	255
46	**Blue 8**	000-255	0 - 100%	255
...94	**....Blue 24**	000-255	0 - 100%	255
95	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0

168CH Full Access Mode - 16 bit

Ch.	Function	Value	Setting	Default
1	**Master Dimmer**	000-255	0 - 100%	0
2	**Master Dimmer fine**	000-255	0 - 100%	0
3	**Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	

168CH Full Access Mode - 16 bit					
4	**Duration**	000-255	0 - 100%	(only affects to channel 2 - Strobe 1 - 025-064)	0
5	**Tilt**	000-255	0 - 100% Back - Front		127
6	**Tilt fine**	000-255	0 - 100% Back - Front		255
7	**Zoom**	000-255	0 - 100% Narrow - Wide		0
8	**Smart Filter**	000-255	0 - 100% Clear - Frosted		0
9	**Smart Filter Shutter**	000 - 019	Shutter close		20
		020 - 024	Shutter open		
		025 - 064	Strobe 1 (fast ⇒ slow)		
		065 - 069	Shutter open		
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)		
		085 - 089	Shutter open		
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)		
		105 - 109	Shutter open		
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)		
		125 - 129	Shutter open		
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)		
		145 - 149	Shutter open		
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)		
		165 - 169	Shutter open		
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)		
		185 - 189	Shutter open		
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)		
		205 - 209	Shutter open		
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)		
		225 - 229	Shutter open		
		230 - 244	Strobe 10: burst (fast ⇒ slow)		
		245 - 255	Shutter open		
10	**Total Zoom** (override Zoom + SG Filter)	000-005	no function		0
		006 - 255	0 - 100% Narrow - Wide (Zoom + Frost)		
11	**CTC** (affects RGB)	000 - 004	5600K	according to CTC chart	0
		005-226	2000K-6500K linear in 20-21K steps (please see detailed CTC chart)		
		182-182	5600K		
		226-226	6500K		
		227-255	6621K-10.000K linear in 120-121K steps (please see detailed CTC chart)		
12	**Tint** (affects CTC and RGB)	0	no function		0
		001-127	Magenta -> Neutral		
		128-128	Neutral		
		129-255	Neutral -> Green		
13	**Color Macro** (override RGB/CTC)		please use color macros from ROXX color macro chart	affects main & pattern background color	0

168CH Full Access Mode - 16 bit				
14	**Color Macro Crossfade** (Transition Time between Color Macros)	000 - 005	no function	0
		006-105	0,1s - 10s (0,1s steps)	
		106-214	11s - 119s (1s steps)	
		215-244	2m - 6m50s (10s steps)	
		245-255	7m - 17m (1m steps)	
15	**Pattern Dimmer**	000-255	according to Pattern chart	0
16	**Pattern Shutter**	000 - 019	Shutter close	20
		020 - 024	Shutter open	
		025 - 064	Strobe 1 (fast ⇒ slow)	
		065 - 069	Shutter open	
		070 - 084	Strobe 2: opening pulse (fast ⇒ slow)	
		085 - 089	Shutter open	
		090 - 104	Strobe 3: closing pulse (fast ⇒ slow)	
		105 - 109	Shutter open	
		110 - 124	Strobe 4: random strobe (fast ⇒ slow)	
		125 - 129	Shutter open	
		130 - 144	Strobe 5: random opening pulse (fast ⇒ slow)	
		145 - 149	Shutter open	
		150 - 164	Strobe 6:random closing pulse (fast ⇒ slow)	
		165 - 169	Shutter open	
		170 - 184	Strobe 7: burst pulse (fast ⇒ slow)	
		185 - 189	Shutter open	
		190 - 204	Strobe 8: random burst pulse (fast ⇒ slow)	
		205 - 209	Shutter open	
		210 - 224	Strobe 9:sine wave (fast ⇒ slow)	
		225 - 229	Shutter open	
		230 - 244	Strobe 10: burst (fast ⇒ slow)	
		245 - 255	Shutter open	
17	**Pattern selection**	000-255		0
18	**Pattern selection X-fade**	000 - 005	no function	0
		006-255	1s - 250s (1s steps)	
19	**Pattern speed**	000-005	No Function	0
		006-124	Left to Right / Fast to slow	
		125-130	No Function	
		131-249	Right to Left / Slow to fast	
		250-255	No Function	
20	**Pattern X-fade**	000-005	Snap from cell to cell	0
		006-255	Fade Duration short to long	
21	**Pattern Red**	000-255	0 - 100%	255
22	**Pattern Green**	000-255	0 - 100%	255
23	**Pattern Blue**	000-255	0 - 100%	255

168CH Full Access Mode - 16 bit				
24	**Red 1**	000-255	0 - 100%	
25	**Red 1 fine**	000-255	0 - 100%	255
26	**Green 1**	000-255	0 - 100%	255
27	**Green 1 fine**	000-255	0 - 100%	255
28	**Blue 1**	000-255	0 - 100%	255
29	**Blue 1 fine**	000-255	0 - 100%	255
30	**Red 2**	000-255	0 - 100%	255
31	**Red 2 fine**	000-255	0 - 100%	255
32	**Green 2**	000-255	0 - 100%	255
33	**Green 2 fine**	000-255	0 - 100%	255
34	**Blue 2**	000-255	0 - 100%	255
35	**Blue 2 fine**	000-255	0 - 100%	255
36	**Red 3**	000-255	0 - 100%	255
37	**Red 3 fine**	000-255	0 - 100%	255
38	**Green 3**	000-255	0 - 100%	255
39	**Green 3 fine**	000-255	0 - 100%	255
40	**Blue 3**	000-255	0 - 100%	255
41	**Blue 3 fine**	000-255	0 - 100%	255
42	**Red 4**	000-255	0 - 100%	255
43	**Red 4 fine**	000-255	0 - 100%	255
44	**Green 4**	000-255	0 - 100%	255
45	**Green 4 fine**	000-255	0 - 100%	255
46	**Blue 4**	000-255	0 - 100%	255
47	**Blue 4 fine**	000-255	0 - 100%	255
...168	**....Blue 24 fine**	000-255	0 - 100%	255
169	**Device Settings** (please see remark *1)		According to our Device Settings chart RGB mode	0
remark 1: After adjustments please set the value back to 000 to avoid any disturbance by endless function call.				

Device Setting RGB Modes				
Ch.	Settings	DMX Value	Function	remark
	Device Settings (please see remark *1)	000-005	No function	
		6	Display Backlight On (hold 3s)	
		7	Display Backlight Off (hold 3s)	
		8	Display Lock On (hold 3s)	
		9	Display Lock Off (hold 3s)	
		010-014	reserved / no function	
		15	DMX Fail - Blackout (hold 3s)	
		16	DMX Fail - Hold (hold 3s)	
		17	DMX Fail - Emergency Light (hold 3s)	
		018-022	reserved / no function	
		23	Linear Dimmer Curve (hold 3s)	
		24	Exponential Dimmer Curve (hold 3s)	
		25	Logarithmic Dimmer Curve (hold 3s)	
		26	S-Curve Dimmer Curve (hold 3s)	
		027-031	reserved / no function	
		32	Dimmer Response LED / fast (hold 3s)	
		33	no function	
		34	Dimmer Respononse Halogen / slow (hold 3s)	
		035-039	reserved / no function	
		40	Calibration - High CRI (Colors & CCT / hold 3s)	
		41	Calibration - Normal CRI (Colors & CCT / hold 3s)	
		042-046	reserved / no function	
		47	LED Frequency 800Hz (hold 3s)	
		48	LED Frequency 1200Hz (hold 3s)	
		49	LED Frequency 2000Hz (hold 3s)	
		50	LED Frequency 3600Hz (hold 3s)	
		51	LED Frequency 12kHz (hold 3s)	
		52	LED Frequency 25kHz (hold 3s)	
		053-057	reserved / no function	
		58	Fan Auto 1 (hold 3s)	
		59	Fan Auto 2 (hold 3s)	
		60	Fan Silent (hold 3s)	
		61	Fan Studio (hold 3s)	
		62	Fan Off (hold 3s)	

Device Setting RGB Modes				
		63	Fan High Power (hold 3s)	
		064-068	reserved / no function	
		69	Redshift On (hold 3s)	
		70	Redshift Off (hold 3s)	
		071-093	reserved / no function	
		94	Invert Mapping On (hold 3s)	
		95	Invert Mapping Off (hold 3s)	
		96-113	reserved / no function	
		114	Swap Mapping On (hold 3s)	
		115	Swap Mapping Off (hold 3s)	
		116-128	reserved / no function	
		129	LED Modes - Boost (hold 3s)	
		130	LED Modes - Illumination (hold 3s)	
		131-135	reserved / no function	
		136	Tilt Invert On (hold 3s)	
		137	Tilt Invert Off (hold 3s)	
		138-142	reserved / no function	
		143	Tilt Position Auto Correction On (hold 3s)	
		144	Tilt Position Auto Correction Off (hold 3s)	
		145-149	reserved / no function	
		150	Tilt Motor Disable On (hold 3s)	
		151	Tilt Motor Disable Off (hold 3s)	
		152-156	reserved / no function	
		157	Zoom Invert On (hold 3s)	
		158	Zoom Invert Off (hold 3s)	
		159-244	reserved / no function	
		245	Snapshot (hold 3s)	
		246-248	reserved / no function	
		249	User Reset (hold 3s)	No Change of DMX Address and Mode! / Reset activates only if Shutter is set to DMX 250
		250	Factory Reset (hold 3s)	No Change of DMX Address and Mode! / Reset activates only if Shutter is set to DMX 250
		251 - 255 reserved	No Function	

Device Setting DIRECT Modes				
Ch.	Settings	DMX Value	Function	remark
	Device Settings (please see remark *1)	000-005	No function	
		6	Display Backlight On (hold 3s)	
		7	Display Backlight Off (hold 3s)	
		8	Display Lock On (hold 3s)	
		9	Display Lock Off (hold 3s)	
		010-014	reserved / no function	
		15	DMX Fail - Blackout (hold 3s)	
		16	DMX Fail - Hold (hold 3s)	
		17	DMX Fail - Emergency Light (hold 3s)	
		018-022	reserved / no function	
		23	Linear Dimmer Curve (hold 3s)	
		24	Exponential Dimmer Curve (hold 3s)	
		25	Logarithmic Dimmer Curve (hold 3s)	
		26	S-Curve Dimmer Curve (hold 3s)	
		027-031	reserved / no function	
		32	Dimmer Response LED / fast (hold 3s)	
		33	no function	
		34	Dimmer Respononse Halogen / slow (hold 3s)	
		035-039	reserved / no function	
		40	RAW mode (hold 3s)	
		41	User Calibration (hold 3s)	
		042-046	reserved / no function	
		47	LED Frequency 800Hz (hold 3s)	
		48	LED Frequency 1200Hz (hold 3s)	
		49	LED Frequency 2000Hz (hold 3s)	
		50	LED Frequency 3600Hz (hold 3s)	
		51	LED Frequency 12kHz (hold 3s)	
		52	LED Frequency 25kHz (hold 3s)	
		053-057	reserved / no function	
		58	Fan Auto 1 (hold 3s)	
		59	Fan Auto 2 (hold 3s)	
		60	Fan Silent (hold 3s)	
		61	Fan Studio (hold 3s)	
		62	Fan Off (hold 3s)	

Device Setting DIRECT Modes				
Ch.	Settings	DMX Value	Function	remark
	Device Settings (please see remark *1)	63	Fan High Power (hold 3s)	
		064-068	reserved / no function	
		69	Redshift On (hold 3s)	
		70	Redshift Off (hold 3s)	
		071-093	reserved / no function	
		94	Invert Mapping On (hold 3s)	
		95	Invert Mapping Off (hold 3s)	
		96-113	reserved / no function	
		114	Swap Mapping On (hold 3s)	
		115	Swap Mapping Off (hold 3s)	
		116-128	reserved / no function	
		129	LED Modes - Boost (hold 3s)	
		130	LED Modes - Illumination (hold 3s)	
		131-135	reserved / no function	
		136	Tilt Invert On (hold 3s)	
		137	Tilt Invert Off (hold 3s)	
		138-142	reserved / no function	
		143	Tilt Position Auto Correction On (hold 3s)	
		144	Tilt Position Auto Correction Off (hold 3s)	
		145-149	reserved / no function	
		150	Tilt Motor Disable On (hold 3s)	
		151	Tilt Motor Disable Off (hold 3s)	
		152-156	reserved / no function	
		157	Zoom Invert On (hold 3s)	
		158	Zoom Invert Off (hold 3s)	
		159-244	reserved / no function	
		245	Snapshot (hold 3s)	
		246-248	reserved / no function	
		249	User Reset (hold 3s)	No Change of DMX Address and Mode! / Reset activates only if Shutter is set to DMX 250
		250	Factory Reset (hold 3s)	No Change of DMX Address and Mode! / Reset activates only if Shutter is set to DMX 250
		251 - 255 reserved	No Function	

Color Macro Chart

Gels - Color Macros for Standalone Mode		
Position	Gel Name	Color Number
1	Red	100% Red LED
2	Fire	LEE 019
3	Medium Red	LEE 027
4	Primary Red	LEE 106
5	Med Amber	LEE 020
6	Dark Amber	LEE 022
7	Deep Amber	LEE 104
8	Orange	LEE 105
9	Deep Golden Amber	LEE 135
10	Yellow	LEE 101
11	Green	100% Green LED
12	Lime Green	LEE 088
13	Moss Green	LEE 089
14	LEE Green	LEE 121
15	Primary Green	LEE 139
16	Jas Green	LEE 738
17	Jade	LEE 323
18	Blue	100% Blue LED
19	Sky Blue	LEE 068
20	Tokyo Blue	LEE 071
21	Light Blue	LEE 118
22	Marine Blue	LEE 131
23	Med Blue	LEE 132
24	Congo Blue	LEE 181
25	Mikkel Blue	LEE 716
26	Rose Pink	LEE 002
27	Med Pink	LEE 036
28	Light Lavender	LEE 052

Gels - Color Macros for Standalone Mode		
Position	Gel Name	Color Number
29	Lavender	LEE 058
30	Magenta	LEE 113
31	Mauve	LEE 126
32	Smokey Pink	LEE 127
33	Special Med Lavender	LEE 343
34	Ultimate Violet	LEE 707
35	Magical Magenta	LEE 795
36	Chrysalis Pink	LEE 798
37	Specia KH Lavender	LEE 799
38	Bulb White	2700K / High CRI
39	Halogen White	3200K / High CRI
40	Neutral White	4200K / High CRI
41	Daylight White	5600K / High CRI
42	Cold White I	6000 / High CRI
43	Cold White II	6300K / High CRI
44	White (only if available)	100% White LED
45	Amber (only if available)	100% Amber LED
46	Lime (only if available)	100% Lime LED
47	Cyan (only if available)	100% Cyan LED

Pixel Charts

Standard

1	2	3	4	5	6	7	8
9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24

Invert

8	7	6	5	4	3	2	1
16	15	14	13	12	11	10	9
24	23	22	21	20	19	18	17

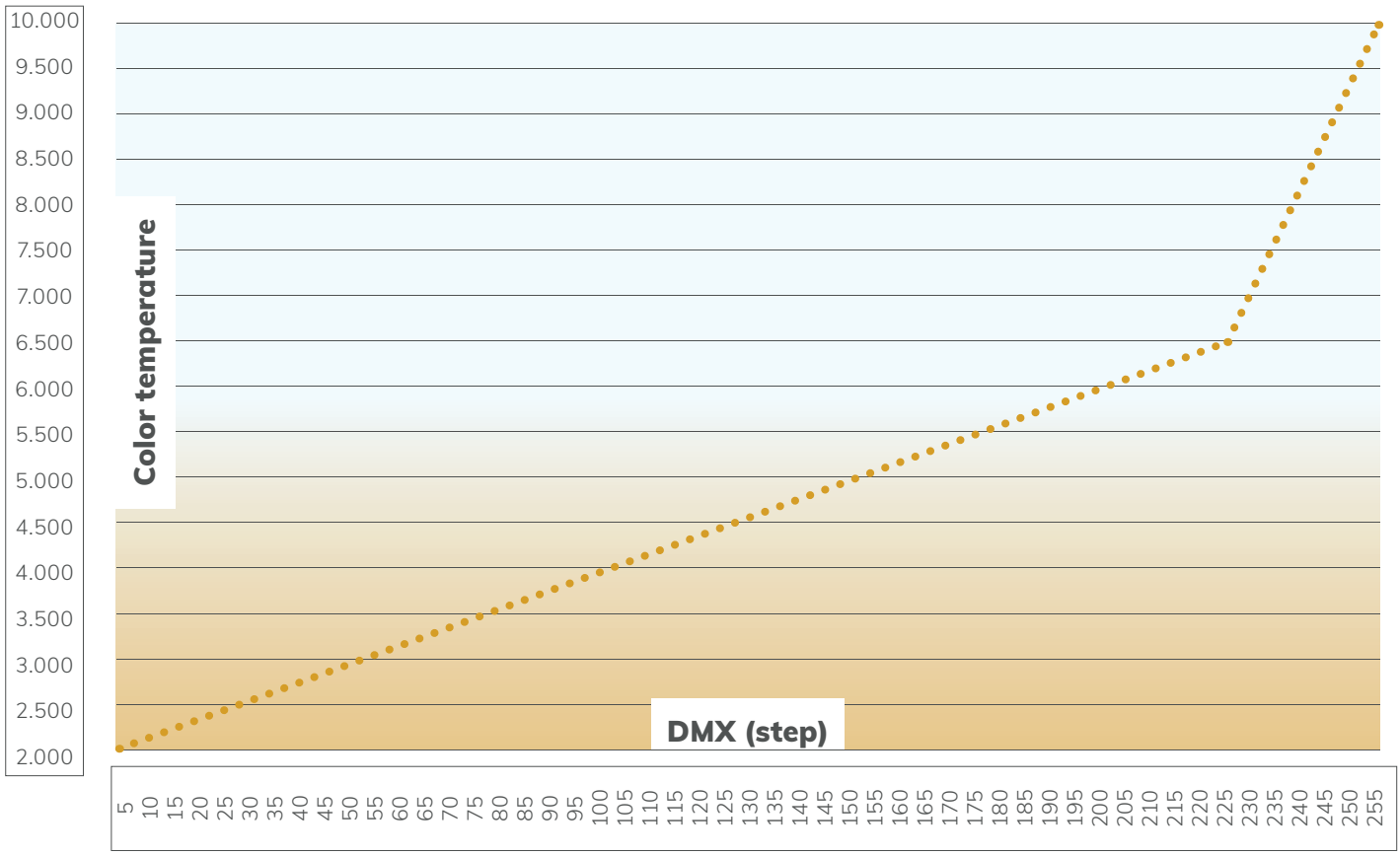
Swap

17	18	19	20	21	22	23	24
9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8

Invert/Swap

24	23	22	21	20	19	18	17
16	15	14	13	12	11	10	9
8	7	6	5	4	3	2	1

CTC channel
DMX / Color temperature



CTC-Chart

DMX (Step)	Color Temp (°K)
0	5600
1	5600
2	5600
3	5600
4	5600
5	2000
6	2020
7	2041
8	2061
9	2081
10	2102
11	2122
12	2143
13	2163
14	2183
15	2204
16	2224
17	2244
18	2265
19	2285
20	2305
21	2326
22	2346
23	2367
24	2387
25	2407
26	2428
27	2448
28	2468
29	2489
30	2509
31	2529
32	2550
33	2570
34	2590
35	2611
36	2631
37	2652
38	2672
39	2692
40	2713
41	2733
42	2753

DMX (Step)	Color Temp (°K)
43	2774
44	2794
45	2814
46	2835
47	2855
48	2876
49	2896
50	2916
51	2937
52	2957
53	2977
54	2998
55	3018
56	3038
57	3059
58	3079
59	3100
60	3120
61	3140
62	3161
63	3181
64	3201
65	3222
66	3242
67	3262
68	3283
69	3303
70	3324
71	3344
72	3364
73	3385
74	3405
75	3425
76	3446
77	3466
78	3486
79	3507
80	3527
81	3548
82	3568
83	3588
84	3609
85	3629

DMX (Step)	Color Temp (°K)
86	3649
87	3670
88	3690
89	3710
90	3731
91	3751
92	3771
93	3792
94	3812
95	3833
96	3853
97	3873
98	3894
99	3914
100	3934
101	3955
102	3975
103	3995
104	4016
105	4036
106	4057
107	4077
108	4097
109	4118
110	4138
111	4158
112	4179
113	4199
114	4219
115	4240
116	4260
117	4281
118	4301
119	4301
120	4342
121	4362
122	4382
123	4403
124	4423
125	4443
126	4464
127	4484
128	4505

DMX (Step)	Color Temp (°K)
129	4525
130	4545
131	4566
132	4586
133	4606
134	4627
135	4647
136	4667
137	4688
138	4708
139	4729
140	4749
141	4769
142	4790
143	4810
144	4830
145	4851
146	4871
147	4891
148	4912
149	4932
150	4952
151	4973
152	4993
153	5014
154	5034
155	5054
156	5075
157	5095
158	5115
159	5136
160	5156
161	5176
162	5197
163	5217
164	5238
165	5258
166	5278
167	5299
168	5319
169	5339
170	5360
171	5380

DMX (Step)	Color Temp (°K)
172	5400
173	5421
174	5441
175	5462
176	5482
177	5502
178	5523
179	5543
180	5563
181	5584
182	5604
183	5624
184	5645
185	5665
186	5686
187	5706
188	5726
189	5747
190	5767
191	5787
192	5808
193	5828
194	5848
195	5869
196	5889
197	5910
198	5930
199	5950
200	5971
201	5991
202	6011
203	6032
204	6052
205	6072
206	6093
207	6113
208	6133
209	6154
210	6174
211	6195
212	6215
213	6235
214	6256

DMX (Step)	Color Temp (°K)
215	6276
216	6296
217	6317
218	6337
219	6357
220	6378
221	6398
222	6419
223	6439
224	6459
225	6480
226	6500
227	6621
228	6741
229	6862
230	6983
231	7103
232	7224
233	7345
234	7466
235	7586
236	7707
237	7828
238	7948
239	8069
240	8190
241	8310
242	8431
243	8552
244	8672
245	8793
246	8914
247	9034
248	9155
249	9276
250	9397
251	9517
252	9638
253	9759
254	9879
255	10000

7.5 RDM Templates*

The ROXX NEO fx features support for various RDM functions. RDM (Remote Device Management) is a protocol enhancement to USITT DMX512 that allows bi-directional communication between the fixtures and the controller over a standard DMX line. This protocol will allow configuration, status monitoring and management. You will need a RDM controller to get control over the supported parameters. See the tables below for supported RDM features.

Label:	ROXX NEO fx
Model:	NEO fx
Manufacturer:	ROXX
ID:	6A6Ah
Device ID:	0136 xxxx

ⓘ ***Note: During RDM identifying process NEO fx flashes white to blue color alternately.**

RDM functions

For easy identifying ROXX NEO fx during RDM process the unit will jump from white color to blue color every second.

PID	Function	Action	Values
0x00F0	DMX Start Adress	Set	001-512
0x00E0	DMX Personality	Set	DMX modes
0x00E1	DMX Slots	Read	Channels
0x8010	Fan Mode	Set	1= Auto 1 / 2= Auto 2 / 3= Silent / 4= Studio / 5= Fan Off / 6= Max. Power
0x8030	Dimmer Curve	Set	1= Linear / 2= Exponential / 3= Logarithmic / 4= S-Curve
0x8031	Dimmer Response	Set	1= LED / 2= Halogen
0x8032	Redshift	Set	0= Off / 1= On
0x8033	Color Calibration	Set	0= Normal CRI / 1= High CRI
0x8034	RAW Balance	Set	0= RAW / 1= User Calibration
0x8035	User Calibration- Red	Set	000-255
0x8036	User Calibration- Green	Set	000-255
0x8037	User Calibration- Blue	Set	000-255
0x8038	User Calibration- Lime	Set	000-255
0x8040	LED Frequency (PWM)	Set	1= 800Hz / 2= 1200Hz / 3= 2000Hz / 4= 3600Hz / 5= 12kHz / 6= 25kHz
0x8041	Startup Mode	Set	0= DMX / 1= AUTO FX / 2= Editor / 3= Color Macro / 4= Quick Color / 5= Tunable White / 6= User Color
0x8011	DMX Fail	Set	1= Hold / 2= Blackout / 3= Emergency
0x8012	Display Backlight	Set	0= Off / 1= On
0x8013	Display Auto Flip	Set	0= Off / 1= On
0x8017	Display Lock	Set	0= Off / 1= On
0x8018	CRMX Operating Mode	Set	0= RX / 1= TX
0x8019	CRMX Receive Reset	Set	0= No / 1= Yes
0x801A	CRMX Transmit Link	Set	0= No / 1= Yes
0x801B	CRMX Pass to DMX out	Set	0= No / 1= Yes
0x801C	Bluetooth	Set	0= Off / 1= On
0x801D	Bluetooth Link	Set	0= No / 1= Yes
0x8048	Protocol	Set	1=DMX / 2= Artnet / 3=sACN / 4=Slave
0x8045	Invert Pixel Mapping	Set	0= Off / 1= On

PID	Function	Action	Values
0x8049	Swap Pixel Mapping	Set	0= Off / 1= On
0x0601	Tilt Invert	Set	0= Off / 1= On
0x804C	Tilt Position Auto Correction	Set	0= Off / 1= On
0x804D	Tilt Motor Disable	Set	0= Off / 1= On
0x804E	Zoom Invert	Set	0= Off / 1= On
0x804F	LED Mode	Set	0= Illumination / 1= Boost
0x801E	Factory Reset	Set	0= No / 1= Yes
0x801F	User Reset	Set	0= No / 1= Yes
0x00C0	Firmware Version	Read	n.a.
0x0082	Serial Number	Read	n.a.
0x0400	Device Power on Time	Read	n.a.
0x0401	LED on Time	Read	n.a.
Sensor1	LED Temperature	Read	n.a.
Sensor2	Fan Speed	Read	n.a.

* For more and detailed information about the different reset options please refer to chapter "5.4.6.1 Reset functions"

Sensors

RDM enables various readouts for remote device monitoring. See the table below for sensors and sensor types. Please note: The RDM controller communicates with the fixtures to show only the available sensors for this fixture. The table is subject to change without notice.

Name	
Temperature	xx°C / xxx°F
Software Version	SW-Version
Errors	

8. TROUBLESHOOTING

Did you try turning the device off and on again?

Problem	Reason	Solution
Device is not responding.	No power.	Check cable connections and conform that power is switched on.
	Fuse defect.	Contact your qualified service technician / manufacturer.
Device has turned off.	Power failure or power was turned off.	Check power supply, fuse, connections, switches.
Device has stopped responding.	DMX cable correct?	Check cables.
	Wireless connection got cut off.	Check wireless transmitter and connection signals.
Device operates strangely.	DMX cable inverted (pins correct?)	Use a phase inverter or different cables.
	DMX cable terminated?	If not, install DMX termination at the end of the cable.
	Stand Alone program running?	Stop internal Stand Alone.
No Bluetooth Connectivity	No Bluetooth Connectivity	Please make sure your mobile device is inside the connectivity range of maximum 10-15m.
	Bluetooth is disabled at your mobile device	Please eanble Bluetooth at your mobile device settings.
	Mobile device has wrong Bluetooth Pin	Please use same Bluetooth Pin to connect ROXX. APP with the fixture. Current BLE Pin can be read out inside fixture´s wireless DMX settings.
	Mobile device has different Bluetooth connectivity	As only one Bluetooth connectiviy can be active, please make sure your mobile device is currently not connected to some other devices.
	Different mobile device is still conneced to the fixture	Please disconnect other mobile device from fixture.
	No Bluetooth Advertisment	Please send new BLE advertisement by enable "BLE Link" inside Settings of the fixture.
	Bluetooth module has hang up	Please enable Factory Reset at the fixture to re-start the Bluetooth module.

9. MANUFACTURER´S DECLARATION

Manufacturer´s Warranty & Limitations of Liability

Please find our warranty conditions and limitations of liability inside our manufacturer´s declaration at www.roxxlight.com/support

Requesting Warranty-Service

To request warranty service for your product, please contact:
ROXX GmbH,
Hansestr. 91, 51149 Köln
Email: info@roxxlight.com or the ROXX authorized reseller in your country, from where you purchased your product.

Correct Disposal of this product

This is for the European Union and European countries with electrical waste collection systems. When this label is shown on the product or brochure it means that the item cannot be disposed with household waste. In order to

prevent damage to the environment or human health please do not dispose this product uncontrolled. Make sure to act responsible, recycle this product separately from other types of waste to enable lasting reuse of resources. Private users please contact the retailer where you purchased this product or your local authorities to find out where and how proper recycling of this item is possible. Business users please contact your supplier or check the terms and conditions of your purchasing contract. Make sure not to mix this product with other commercial waste.

FCC Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:
(1) This device may not cause harmful interference, and
(2) This device must accept any interference received, including interference that may cause undesired operation

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement:
The equipment complies with FCC Radiation exposure limits set forth for uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator and your body.

CE Compliance

The equipment marketed by ROXX GmbH complies (where applicable) with the essential requirements and other specifications of the following Directives:
- 2014/53/EU (RED)
- 2014/30/EU (EMC)
- 2014/35/EU (LVD)
- 2011/65/EU (RoHS)

The complete EU- and UK-Declaration of Conformity can be found at www.roxxlight.com/support, or you can also request it at info@roxxlight.com