User Manual

ROXX®

CLUSTER **S2**

USER MANUAL

User Manual

CONTENT

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. CLUSTER S2

The S2 is an advanced pixel mappable strobe and washlight that combines two complementary effects in one unit, designed for extremely powerful and versatile applications. Thanks to the advanced and tool-free cluster mechanism, ROXX S2 can be combined with all CLUSTER series products to provide lighting designers with new creative possibilities in horizontal and vertical configurations and is suitable for small to large venues and stadiums.

CLUSTER S2 features a large number of build-in patterns and giving users a fast and simple way of creating stunning effects whenever a media server is not available, or the installation requires a speedy solution.

ROXX also offers a wide range of magnetic, easy-to-apply accessory filters. The Blackface filter is especially useful in TV applications, as it allows the devices to visually disappear in the stage design when switched off. The two elliptical filters shape the light beam either vertical or horizontal with a frost effect, giving user even more effect possibilities. ROXX CLUSTER S2 provides an IP65 protection, which guarantees its ideal use in outdoor applications.

3. GENERAL PRODUCT INFORMATION

3.1. Scope of delivery

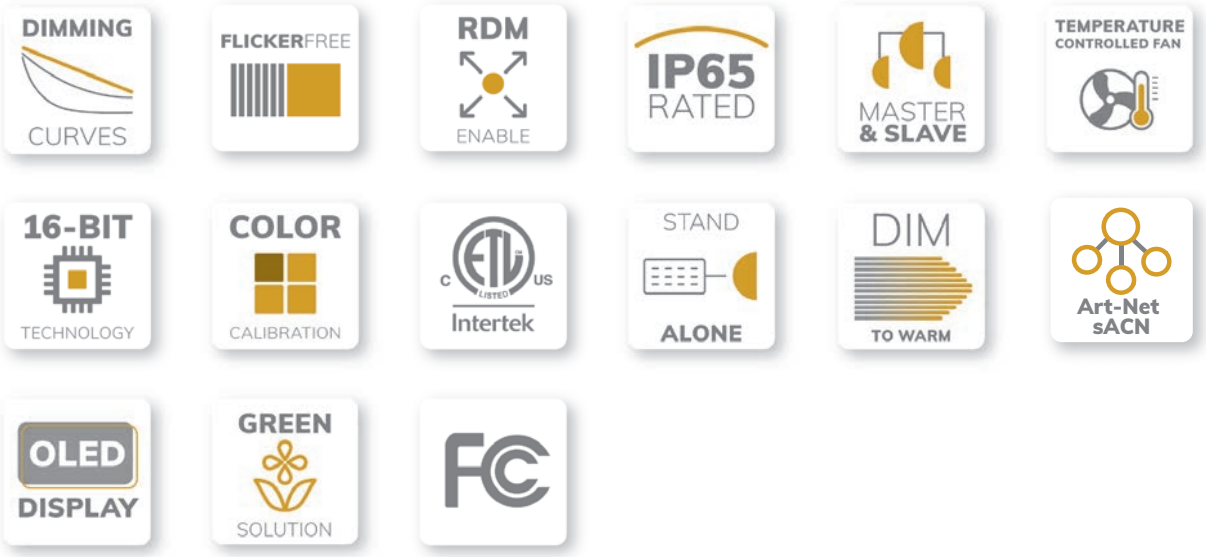
- 1x CLUSTER S2
- Power cord with plug (EU country specific, if not ordered differently)
- Pre-installed PUK

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 Simple, 31CH Easy, 64CH Standard, 112CH Pure, 209CH Pure Mode, 168 CH Full Access, 265CH Full Access Extended
- Art-Net / sACN
- RDM (Remote Device Management)
- Stand Alone Functions including auto programs, LEE adjusted color macros, custom color templates and Tunable White
- Master & Slave

3.3. Features



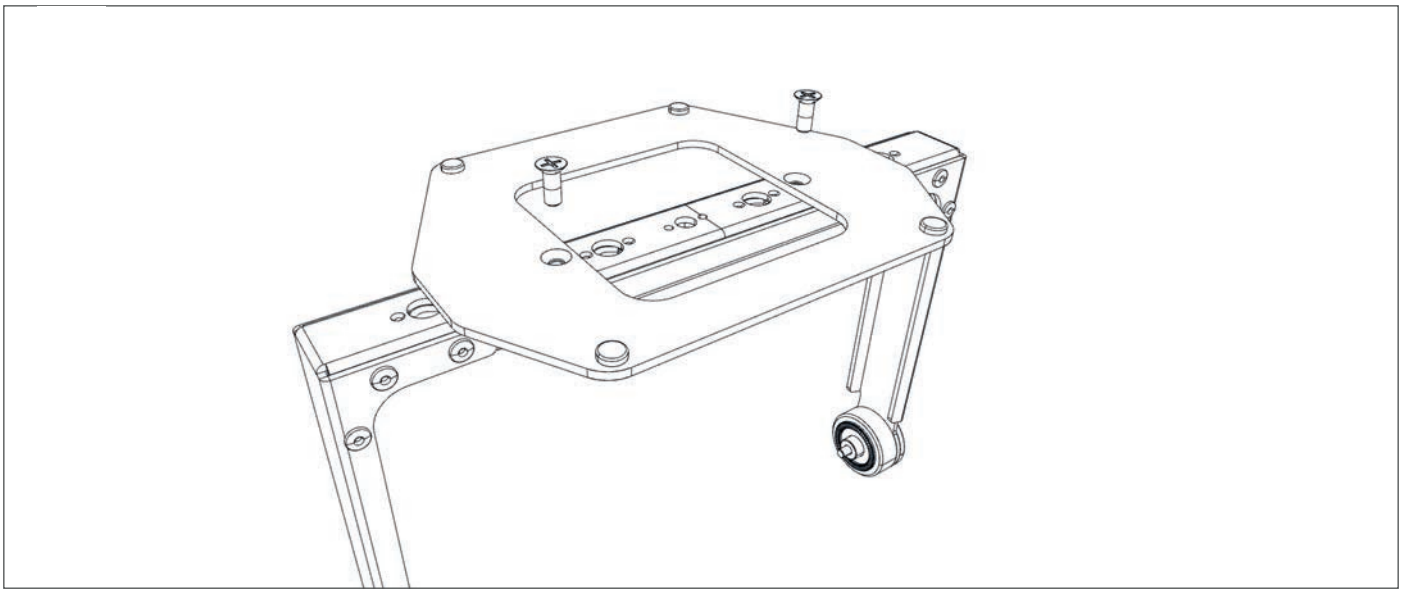
4. INSTALLATION & SETUP

4.1 Physical Installation and Rigging

ROXX CLUSTER S2 may be installed in any orientation. For this purpose the product provides several options:

Standing:

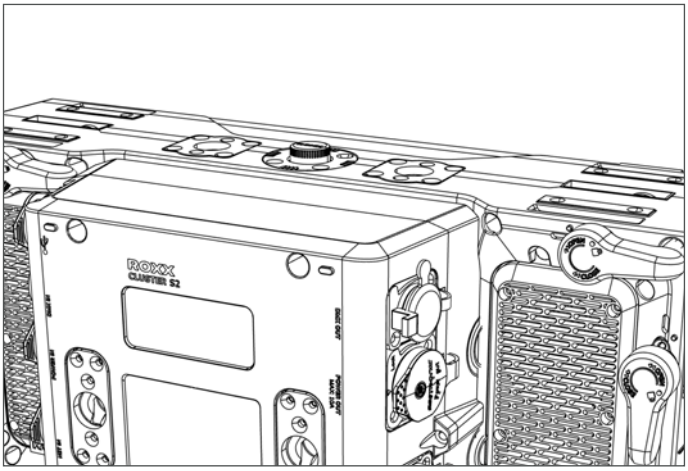
The fixtures Yoke includes two M8 inner threads to install the optional ROXX YOKE FLOOR EXTENSION.

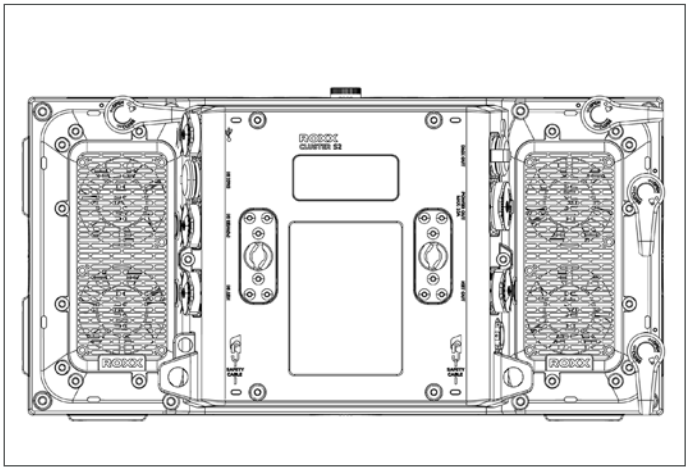


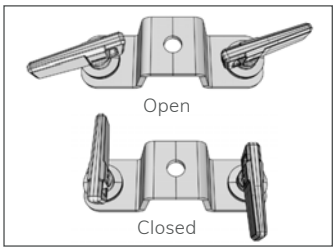
Hanging:

The fixture can be installed in different ways:

1. Directly by integrated 1/4 turn Camlocks on top- or rear side

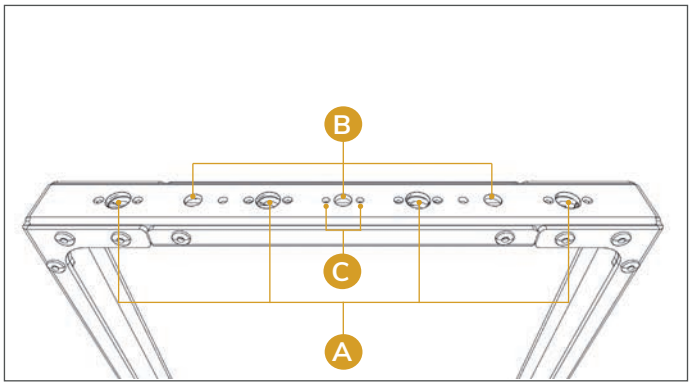






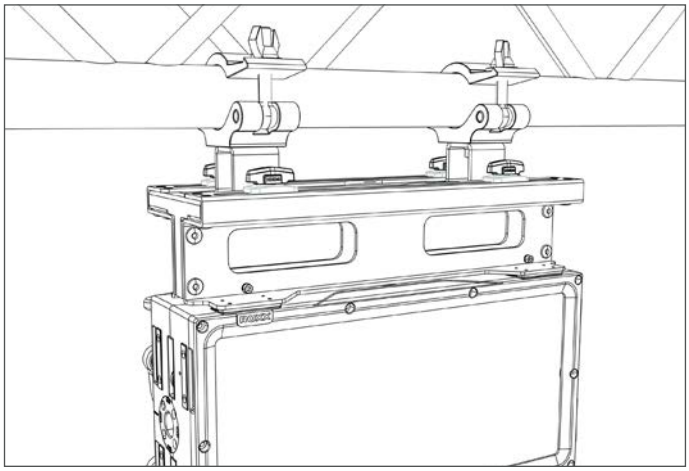
Omega Bracket ST

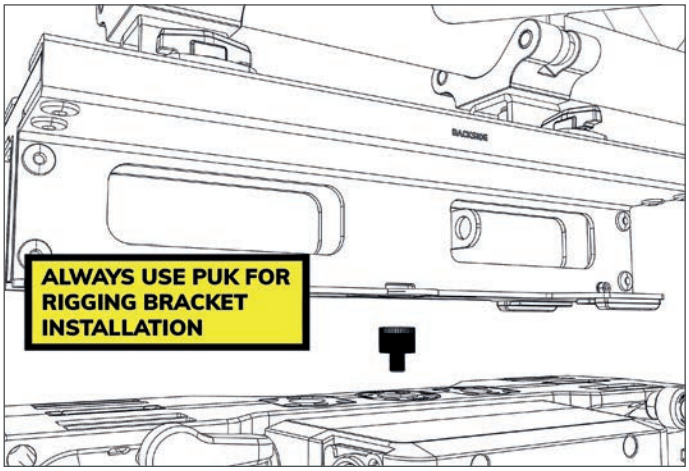
2. By included yoke with several mounting points:



Multiple mounting points:
A: 3x Camlock with ¼ turn adapters
B: 3x M12 / ½“
C: 1x TV Spigot

3. Using optional ROXX RIGGING BRACKET



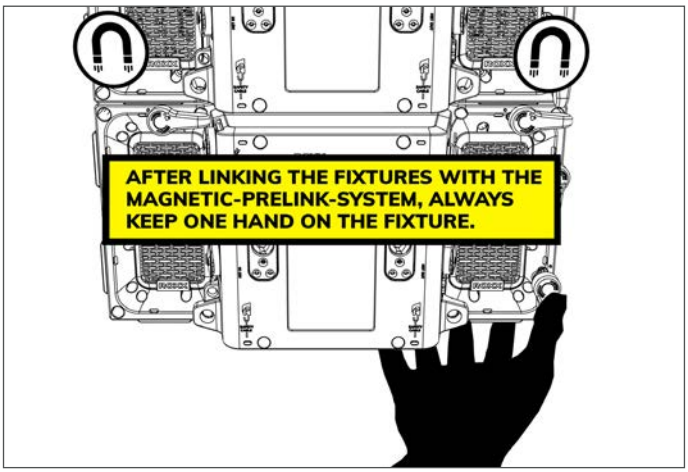


For seemless connection of multiple Blinders, to avoid gaps due to bracing of the truss structure by variable, sliding mounting positions.

Product Clustering
All CLUSTER products can be easily connected both horizontal and vertically, by using the integrated C-Lok system. The series is made to enable toolless multiple array configurations, scalable from a single vertical line, to massive matrix like arrays.

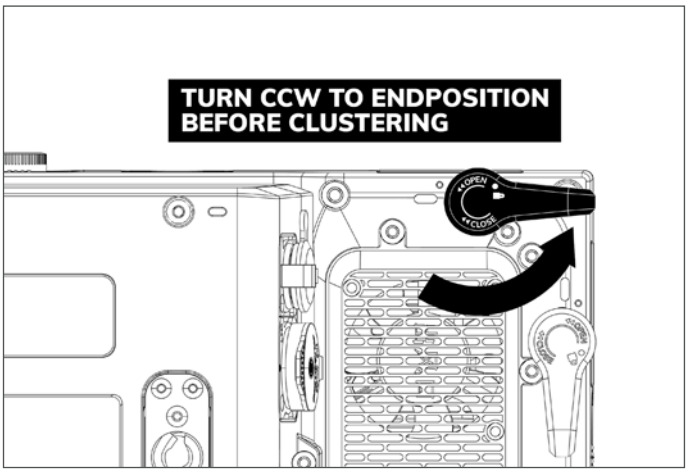
To connect the devices with each other, proceed as follows in sequence:

1. Bring the devices together with the respective top and bottom side.
A so-called centering puk is pre-installed on the top of every cluster device.
This should always be installed when connecting the devices to each other.

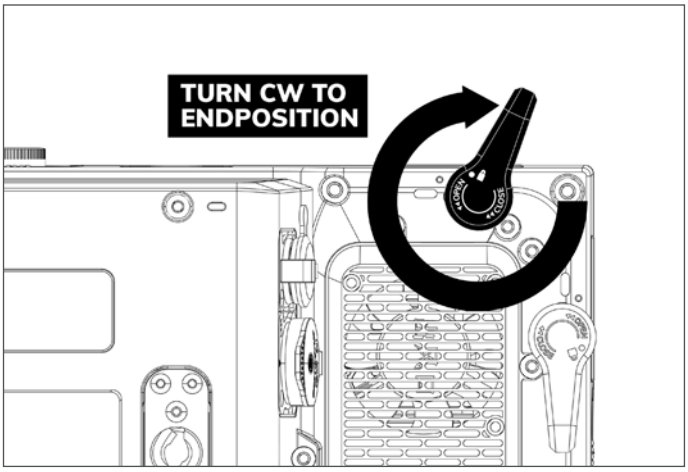


2. Pre-Link Magnets on top and side help to allign the fixtures due cluster process and giving support operation for convenient and save interlocking.

Important Note:
Even though the pre-link magnet system is strong enough to hold the devices together, at least one hand must always remain on the device for support during the connection.



3. Make sure that the C-Lok hooks are turned counterclockwise (CCW) to the end-position first before you finally lock the C-Loks.



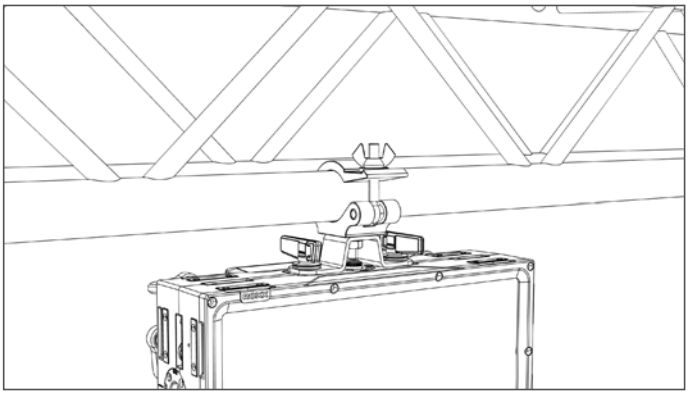
4. For locking all C-Lok´s, please turn them clockwise into end-position.

Note:
As soon as both dot indicators are in line, the C-Lok is securely locked

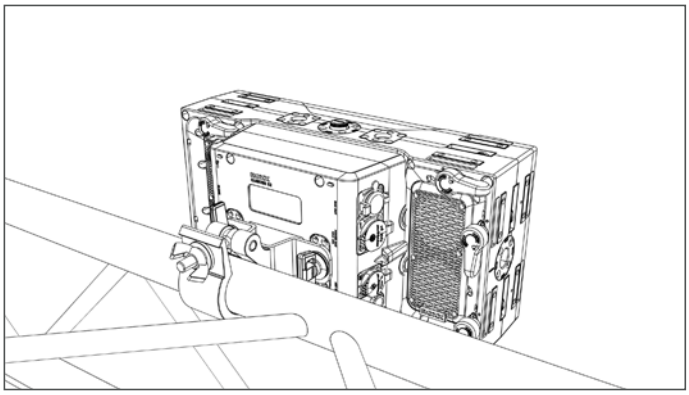
Maximum Tensile and Torsion Load
Before setting up Cluster configurations, be aware of the maximum tensile and torsion load, listed here below. Also make sure the mounting clamps are capable of supporting the total weight of your configuration.
The different rigging options of all Cluster products result in different maximum tensile and torsion loads that must not be exceeded for a safe overhead installation.

The maximum loads listed here below take into account the 10-fold safety!

1. Rigging by integrated 1/4 turn Camlocks on top- or rear side

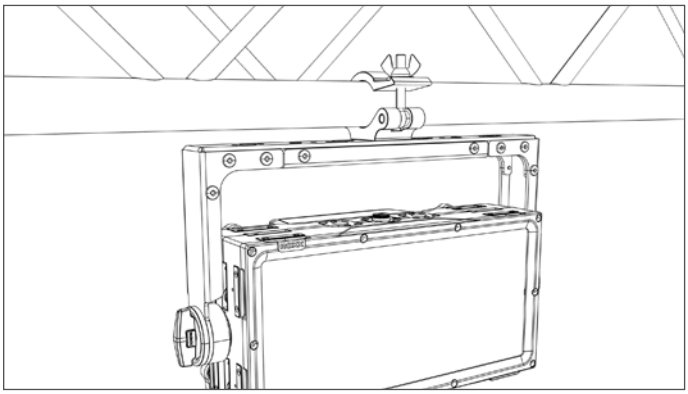


Max. Tension Load: 90kg
Max. Torsion Load: 18.703 Nmm

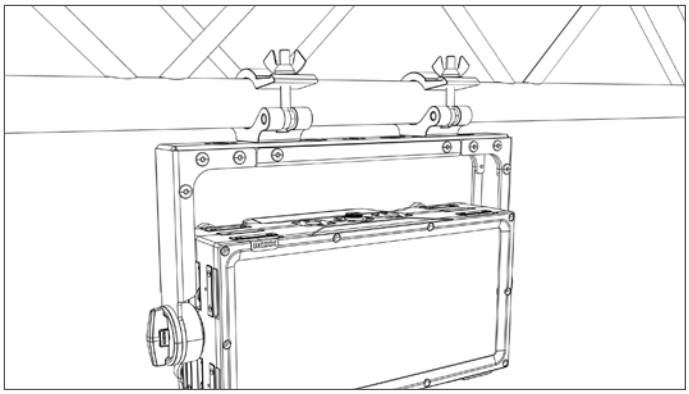


Max. Tension Load: 90kg
Max. Torsion Load: 14.201 Nmm

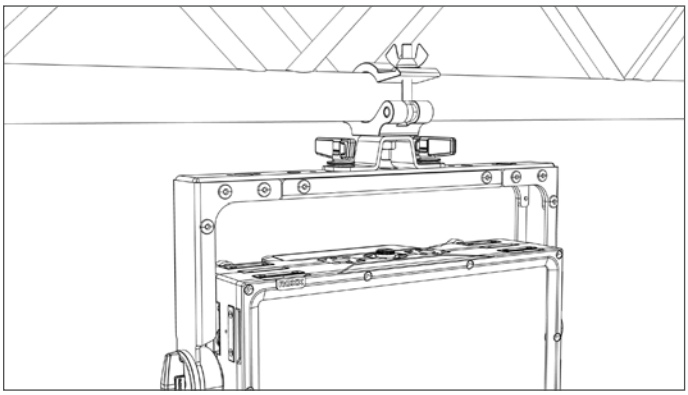
2. Rigging by Yoke with multiple mounting points



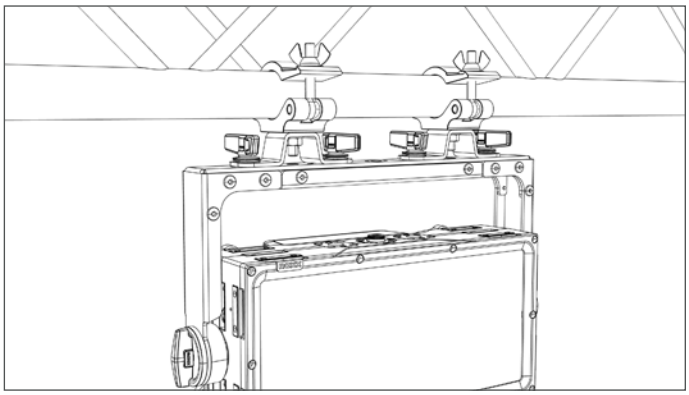
a. With 1x Mounting Clamp
Max. Tension Load: 40kg
Max. Torsion Load: 4.414 Nmm



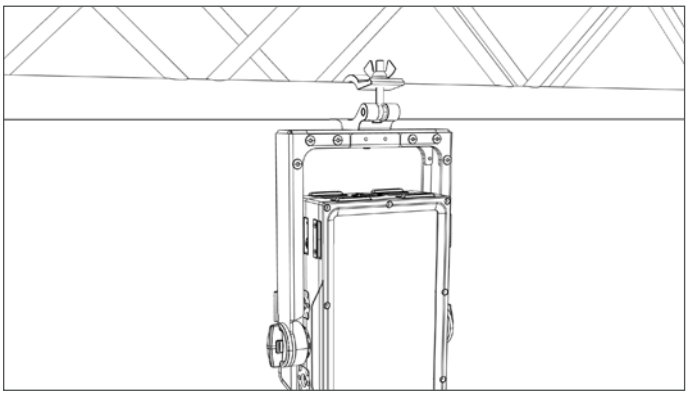
b. With 2x Mounting Clamp
Max. Tension Load: 77kg
Max. Torsion Load: 7.308 Nmm



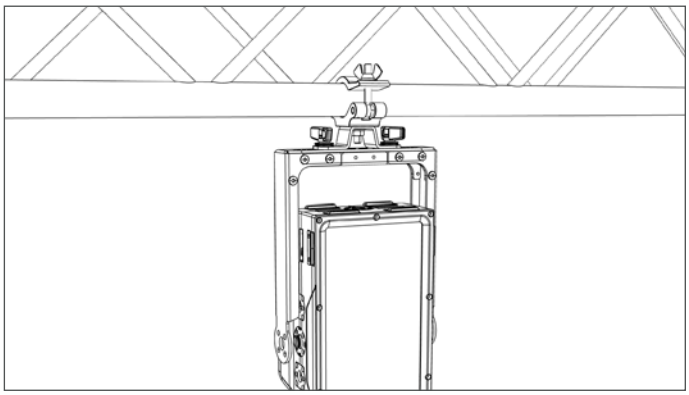
c. With 1x Omega Bracket
Max. Tension Load: 51kg
Max. Torsion Load: 4.768 Nmm



d. With 2x Omega Bracket
Max. Tension Load: 90kg
Max. Torsion Load: 5.943 Nmm

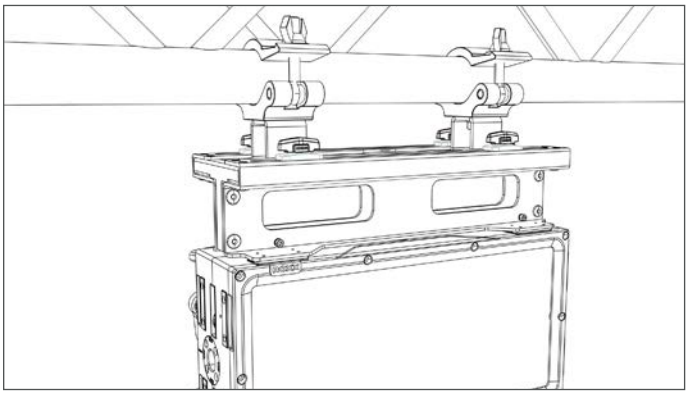


e. YOKE 2.2 with 1x Mounting Clamp
Max. Tension Load: 88kg
Max. Torsion Load: 8.238Nmm



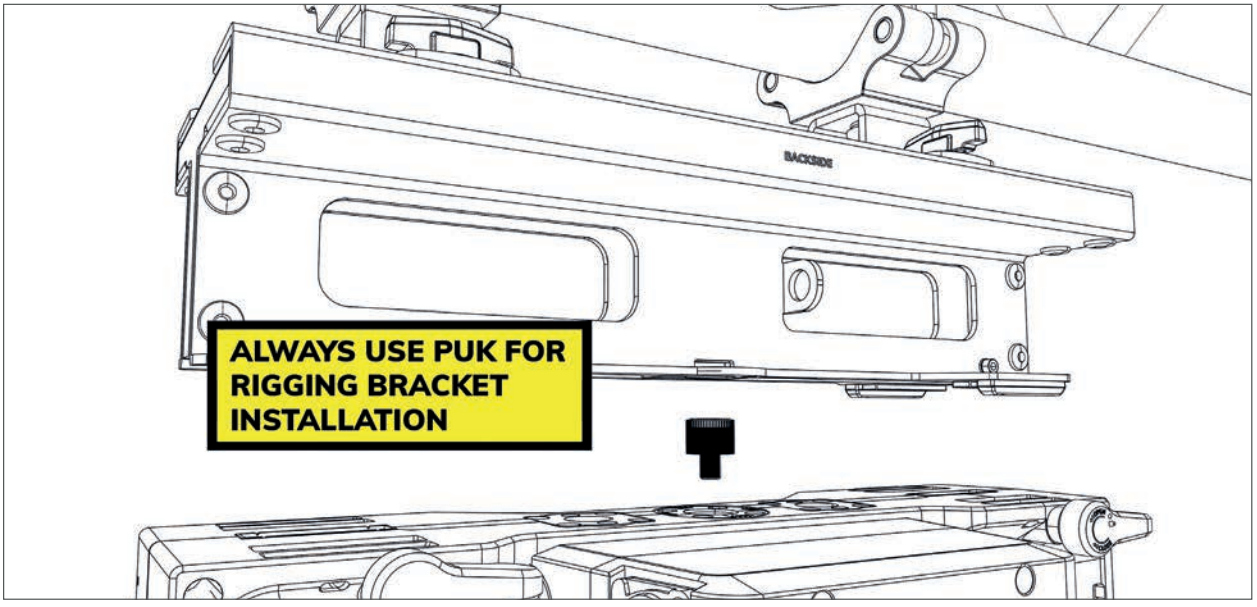
f. YOKE 2.2 with 1x Omega Bracket
Max. Tension Load: 66kg
Max. Torsion Load: 6.476Nmm

3. Using optional ROXX RIGGING BRACKET with 2x Mounting Clamps

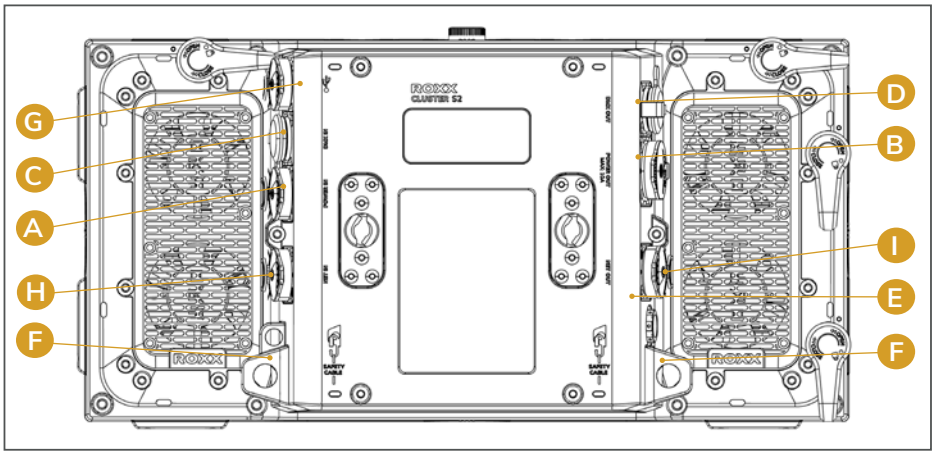


Max. Tension Load: 72kg
Max. Torsion Load: 6.326 Nmm

Important Note:
Please be aware of using the centering PUK for safe RIGGING BRACKET installation to the CLUSTER device.



4.2 Connections*



A: Mains In: IP65 Power input connector with rubber sealing cap.Connect using the provided power cable (when not in use, always close with rubber sealing cap).

B: Mains Out: IP65 Power output connector with rubber sealing cap. Provides power to additional fixtures. Ensure that the total power consumption of all daisy-chained devices connected do not exceed 8A (Ampere)! (when not in use, always close with rubber sealing cap).

C: DMX IN: Male IP65 5-pin XLR connector (when not in use, always close with rubber sealing cap).

D: DMX OUT: Female IP65 5-pin XLR connector (when not in use, always close with rubber sealing cap).

E: GoreTex

F: Safety Eyelet

G: IP65 USB port for firmware updates

H: Ethernet IN, Art-Net /sACN

I: Ethernet OUT, Art-Net /sACN

ⓘ ***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 CLUSTER S2 operates on any 100–260 V, 50/60 Hz AC mains power supply with a maximum power consumption of 1250W. 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

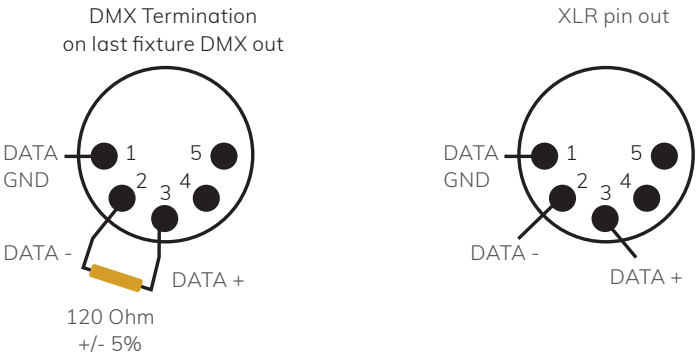
The CLUSTER S2 is fully controllable by DMX (USITT DMX512-A standard, based on RS-485) Art-Net, sACN and RDM.

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.



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*

OLED Display with Touch-Sensitive controls

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:**
For a smooth navigation thru the menu settings, please make sure the display surface is dry and dust free.

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*

ENTER ⊕ ESC

Pressing ESC+ENTER simultaneously 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:**
After Factory Reset all fixture settings are set back to factory default values.
After User Reset all user selected reset functions and user default values will set back.
Also a short self-test will start immediately while dimming in and out each single color.

Display Off

ESC + ▽

Pressing ESC + arrow down simultaneously 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.

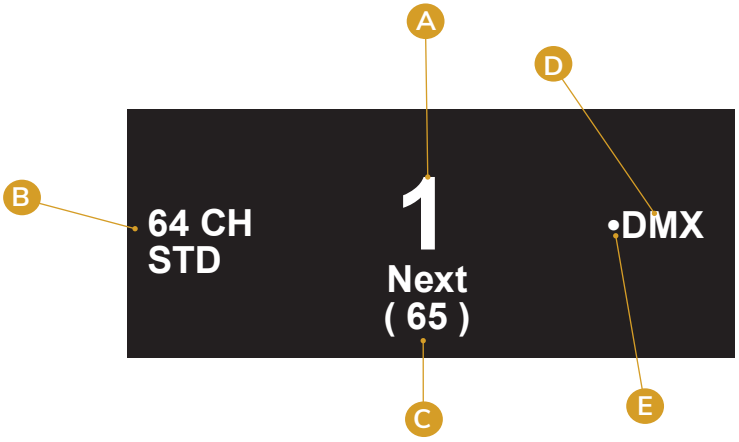
ⓘ ***Note:**
Once the display is flipped both Up / Down controls will work according to the display rotation.

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 (DMX / Art-Net / sACN).
- **E** The dot indicates the active protocol



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 7 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.

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Level 1

Menu
➡ DMX Mode
Stand Alone
Settings
System Info

Level 2

DMX Mode
➡ 15CH Simple
31CH Easy
64CH Standard
112CH Pure
209CH Pure Mode
168 CH Full Access
265CH Full Access Extended

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 5 different Stand Alone operating modes (Auto, Color Macro, Quick Color, Tunable White, User Color) ,Stop Stand Alone 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 DMX is disconnected to the fixture, as this protocol has 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
Color Macro
Quick Color
Tunable White
User Color
Color Settings
Master

Auto FX*

Select “Auto FX” by using the up/down arrows and press ENTER.
Here at sub-menu (level 3), you can choose between 10 different Auto Effects (Effect 1 - 10) and Stop Program. Using the Up/Down arrows you can select one of the 10 Effects and confirm by pressing ENTER or step back by ESC.
After confirming your preferred Effect, you can now adjust speed and brightness at level 4.
To adjust speed, please use the UP / DOWN arrows to select the menu item “Speed”, and confirm with ENTER. After use UP / DOWN arrows to adjust the speed value between 000-100 and confirm by ENTER or jump back by ESC.
To adjust brightness please select “Dim” as per the procedure previously described and confirm with ENTER. After use UP / DOWN arrows again to adjust the brightness value between 000-100 and confirm by ENTER or jump back by ESC.
Once it´s confirmed or denied the display will automatically jump back to level 3.
To stop running a selected Effect 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	Level 2	Level 3	Level 4
Menu	**Stand Alone Mode**	**Auto**	**Program**
DMX Mode	Stop Stand Alone	➡ Stop Program	➡ Speed <0-100> **(Default 50)**
➡ Stand Alone	➡ Auto FX	Effect 1	Dim <0-**100**>
Settings	Color Macro	Effect 2	
System Info	Quick Color	Effect 3	
	Tunable White	Effect 4	
	User Color	Effect 5	
	Color Settings	Effect 6	
	Master	Effect 7	
		Effect 8	
		Effect 9	
		Effect 10	

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
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto FX
➡ Color Macro
Quick Color
Tunable White
User Color
Color Settings
Master

Level 3

Color Macro
Color Off
➡ Color Macros
Color Macro Chart
Dim <0-**100**>

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
39	Halogen White	3200K
40	Neutral White	4200K
41	Daylight White	5600K
42	Cold White I	6000K
43	Cold White II	6300K
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 segments, Dimmer and Shutter.

Level 1

Menu
DMX Mode
➡ Stand Alone
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto FX
Color Macro
➡ Quick Color
Tunable White
User Color
Color Settings
Master

Level 3

Quick Color	
Dimmer Center Tube	<**0**-100>
Dimmer Single Tubes	<**0**-100>
Dimmer RGB Panels	<0-**100**>
Shutter	<0-**255**>
Red	<**0**-255>
Green	<**0**-255>
Blue	<**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 LED segment or 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.**
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 and affects both RGB panels only. Besides brightness and shutter also a +/- green and magenta correction is available.

Level 1

Menu
DMX Mode
➡ Stand Alone
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto FX
Color Macro
Quick Color
➡ Tunable White
User Color
Color Settings
Master

Level 3

Tunable White	
CCT	<**5600**>
TINT	<**000**> (+/-127)
Dimmer	<0-**255**>
Shutter	<0-**255**>

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, 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 FX	Color 2	Shutter <0-**255**>
Settings	Color Macro	Color 3	Red <**0**-255>
System Info	Quick Color	Color 4	Green <**0**-255>
	Tunable White	Color 5	Blue <**0**-255>
	➡ User Color		
	Color Settings		
	Master		

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.**

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.

Color Settings*

Here at “Color Settings” you can chose your preferred working color mode for all Stand Alone modes. Either Color Calibration or RAW. Chose Color Calibration if the fixture should work accroding to the settings at Color Calibration, either Full Calibration or CCT Calibration, RAW works according to the settings at RAW Balance, either RAW or User Calibrated.

Level 1

Menu
DMX Mode
➡ Stand Alone
Settings
System Info

Level 2

Stand Alone Mode
Stop Stand Alone
Auto FX
Color Macro
Quick Color
Tunable White
User Color
➡ Color Settings
Master

Level 3

Color Settings
➡ **Color Calibration**
RAW

Master

If you want to set up a Master-Slave-System, select "On" at the fixture, that should be the Master and controls all connected Slaves. Keep this "Off", if you don´t need it to prevent DMX collisions.

Level 1

Menu
DMX Mode
➡ Stand Alone
Slave
Settings
System Info

Level 2

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

Level 3

Master
On
➡ **Off**

5.4.5 Settings

Level 1

Menu
DMX Mode
Stand Alone
➡ Settings
System Info

Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu level 5	Menu level 6	Remark
DMX Mode	• 15CH Simple • 31CH Easy • 64CH Standard • 112CH Pure • 209CH Pure Mode • 168 CH Full Access • 265CH Full Access Extended					
Stand Alone	Stop Stand Alone					
	Auto FX	**Stop Program**				
		Dimmer <0-**100**>				
		Speed <0-100> **(default 50)**				
		Effect 1				
		Effect 2				
		Effect 3				
		Effect 4				
		Effect 5				
		Effect 6				
		Effect 7				
		Effect 8				
		Effect 9				
		Effect 10				
	Color Macro (affects both RGB Panels)	Color Off				
		Dimmer <0-**100**>				
		Color macros **1**-46 (Reference to Stand Alone Color Macro chart)				
	Quick Color	Dimmer Center Tube <**0**-100>	affects Center CW Tube only			
		Dimmer Single Tubes <**0**-100>	affects 4x single CW Tubes			
		Dimmer RGB Panels <0-**100**>	affects both RGB Panels			
		Shutter <0-**255**>	affetcs all			
		Red <**0**-255>	affects both RGB Panels			
		Green <**0**-255>	affects both RGB Panels			
		Blue <**0**-255>	affects both RGB Panels			

Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu level 5	Menu level 6	Remark
Stand Alone	Tunable White (affetcs both RGB Panels)	Dimmer <0-**100**>				
		Shutter <0-**255**>				
		CCT <2000K-10.000K> **(default 5600K)**	adjustable in 100K steps			
		Tint <**000**> +/-127	0= no function 001--127 plus green -001 to -127 plus magenta			
	User Color (affects both RGB Panels)	Color1	Dimmer<0-**100**>			
		Color2	Shutter <0-**255**>			
		Color3	Red <**0**-255>			
		Color4	Green <**0**-255>			
		Color5	Blue <**0**-255>			
	Color Settings (affects Stand Alone Modes only)	Color Calibration	Working accroding to the settings at Color Calibration, either Full Calibration or CCT Calibration.			
		RAW Balance	Working accroding to the settings at RAW Balance, either RW or User Calibrated.			
	Master	on/**off**				
Settings	Protocol	**DMX**				enables DMX protocol
		Art-Net				enables Art-Net protocol
		sACN				enables sACN protocol
		Slave				confirm with ENTER, after Slave Mode is activated Display will show Slave Mode. Connect the master and slave units (same model) with a DMX cable and enable one of the standalone modes on the master unit (Auto, Quick Color).
	Ethernet	Art-Net	IP Address	xxx.xxx.xxx.xxx		IP address: 1. Set block, confirm, Set 2nd block, confirm
		sACN	Subnet Mask	xxx.xxx.xxx.xxx		Subnet Mask: 1. Set block, confirm, Set 2nd block, confirm
			Universe	000-254		Sets the Universe
			Universe Group	000-127		Sets the Universe Group
			Send Current Universe to DMX	On / Off		On: passes current Universe to DMX Out Off: doesn´t pass current Universe to DMX Out
Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu level 5	Menu level 6	Remark

Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu level 5	Menu level 6	Remark
Settings	Display	Display Flip <on/**off**>	On= Flip control panel display by 180° (e.g. for overhead installation) Off= normal control panel dispaly			
		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 adjustments of Standalone Modes)	**DMX / Art-Net / sACN**	Select your default operating mode when fixture is powered on			
		Auto				
		Color Macro				
		Quick Color				
		Tunable White				
		User Color (User Color 1-5)				
	DMX Fail	**Hold**	Hold= last command retains			
		Blackout	Blackout= Activates Blackout			
		Emergency Light	Emergnecy Light= Fixtures changes 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 (Fast)**	The LED responds abruptly to DMX value changes at brightness			
		Medium	The LED responds with medium delay to DMX value changes at brightness			
		Halogen (Slow)	The LED responds similar to a halogen fixture with soft changes at brightness.			

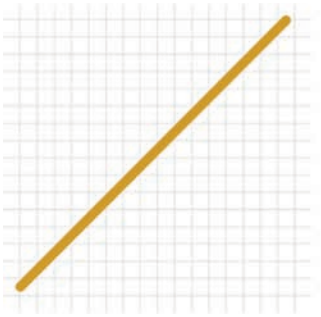
Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu level 5	Menu level 6	Remark
Settings	Color Calibration (affetcs Calibrated DMX modes and Stand Alone)	Full Calibration	Calibration on RGB Panels for CCT & Colors			
		CCT Calibration	Calibration on RGB Panels on CCT only, RAW Colors			
	RAW Balance (affects DIRECT DMX modes and Stand Alone)	**RAW**				R,G,B with maximum value of brightness
		User Calibration	Red <0-255>			individual color calibration of R,G,B for each single eye
			Green <0-255>			
			Blue <0-255>			
	LED Frequency	800 Hz	Select preferred LED PWM frequency			
		1200 Hz				
		2000 Hz				
		3600 Hz				
		12000 Hz				
		25000 Hz				
	Fan	**Auto**	Adjust fan speed relative to internal fixture temperature			
		Silent	Low fan speed for silent operation			
		Fan Off	Fan Off			
		Max. Power	High fan speed for maximum cooling effect			
	Invert / Swap Mapping	RGB Panel 1	On / **Off**			Inverts the pixel layout of the fixture
		RGB Panel 2	On / **Off**			Inverts the pixel layout of the fixture
		Centric Tube	On / Off			Inverts the pixel layout of the fixture
		Single Tube 1	On / **Off**			Inverts the pixel layout of the fixture
		Single Tube 2	On / **Off**			Inverts the pixel layout of the fixture
		Single Tube 3	On / **Off**			Inverts the pixel layout of the fixture
		Single Tube 4	On / **Off**			Inverts the pixel layout of the fixture
		Swap RGB Panels	On / **Off**			Swaps the RGB Panels of the fixture
		Swap Single Tubes	On / **Off**			Swaps the Single Tubes 1+2 / 3+4 of the fixture
	Transfer Configuration	Including DMX Address	Transfer the same menu settings of this fixture to all the other in daisy chain (same model), either with DMX address or without. After power off and on again, the transfered settings should stay the same.			
		Without DMX Address				

Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu level 5	Menu level 6	Remark
Settings	LED Mode	Illumination	Normal output for constant illumination			
		Boost	Boost for temporarily hig-hest output for blinder and strobe effects			
	USB Update	Yes	Run firmware update via USB port / keeps the current DMX Address			
		No	Do not run firmware update via USB port			
	Factory / User Reset	Factory Reset	Are you sure to reset? Confirm by pressing ENTER, cancel with ESC	Select your User Reset defaults		Note: Factory Reset by Menu sets DMX address back to 1 and DMX mode back to default mode Factory Reset by DMX / RDM keeps current DMX address and DMX mode
		User Reset	Are you sure to reset? Confirm by pressing ENTER, cancel with ESC			Restores all User Reset according to the User Preset List. DMX address restore to Factory default. Once User Reset is activated a fixture self test will start while dimming in and out every single LED and eye and fan. Self Test is not available while activating User Rest by DMX Settings.
		User Reset List	15CH Simple, 31CH Easy, 64CH Standard, 112CH Pure, 209CH Pure Mode 168 CH Full Access, 265CH Full Access Extended	Select your User Reset defaults		
			Color Settings <**Factory Calibration**, RAW>			
			Protocol <**DMX**/Art-Net/sACN/			
			Display Flip <on/**off**>			
			Backlight <**on**/off>			
			Auto Lock <on/**off**>			
			Startup Mode <**DMX**, Art-Net, sACN, Auto,Color Macro, Quick Color, Tunable-White, User Color >			
			DMX Fail <**Hold**/Blackout/Emergency>			
			Dimmer Curve <**Linear**, Exponential, Logarithmic, S-Curve>			
			Dimmer Response <**LED**, Medium, Halogen>			
			Color Calibration <Full Calibration/ **CCT Calibration**>			

Settings	Factory / User Reset	User Reset List	RAW Balance <**RAW**/User Calibrated>	Select your User Reset defaults		
			LED Frequency <800Hz, **1200Hz**, 2000Hz, 3600Hz, 12000Hz, 25000Hz>			
			Fan <**Auto**, Silent, Fan Off, Max. Power>			
			Transfer Configuration <including DMX address / **without DMX address**>			
			LED Mode <Illumination, **Boost**>			
			USB Update <yes/**no**>			
System Info	Firmware Version	vx.xx				Display installed firmware version
	Serial Number	202042200001				
	RDM UID	0X6a6ahxxxxxxx				
	Temperatures	Celsius LED : XXX°C or Fahrenheit LED : XXX °F"	LED RGB Panels & Single Tubes			Display RGB Panels temperature by celsius or fahrenheit
			LED Centric Tube			Display Centric CW Tube temperature by celsius or fahrenheit
	Power on Time	Total:xxxxxhours				Display fixture total power on time
	LED on Time	LED RGB Panels & Single Tubes	Total:xxxxxhours	Display LED RGB Panels total power on time		
		LED Centric Tube	Total:xxxxxhours	Display LED Centric CW Tube total power on time		
	Errors	Errors information				Display error codes
	Fan Speed					Display the current fan speed

Dimmer Curves

LINEAR



EXPONENTIAL

LOGARITHMIC

S-CURVE

5.4.6 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	vx.xx	Display installed firmware version
	Serial Number	204xxxxxxxx	
	RDM UID	0X6a6ahxxxxxxx	Display unique RDM ID for identification
	Temperatures	Celsius LED: XXX°C or Fahrenheit LED: XXX°F	LED RGB Panels & Single Tubes LED Centric Tube
	Power on Time	Total: xxxxxhours	Display fixture total power on time
	LED on Time	LED RGB Panels & Single Tubes LED Centric Tube	Total:xxxxxhours
	Errors	Errors information	Display error codes

6. ACCESSORIES

Yoke 2.2
Art.: 13907001

Yoke 4.3
Art.: 13907101

Floor Extension
Art.: 13907201

Rigging Bracket
Art.: 13907411

Omega Bracket ST
Art.: 90900002

Amptown Case 8 pcs. Art.: 13907411
Amptown Case 4 pcs. Art.: 13907511

CS Case 5 pcs. Art.: 13908201

FX Filterframe SC
Art.: 13908001

FX Filterframe EH
Art.: 13907801

FX Filterframe EV
Art.: 13907201

FX Distance Frame
Art.: 13907901

Line Array
Fly Bar
Art.: 13909501

Line Array
Side Bracket Set
Art.: 13909601

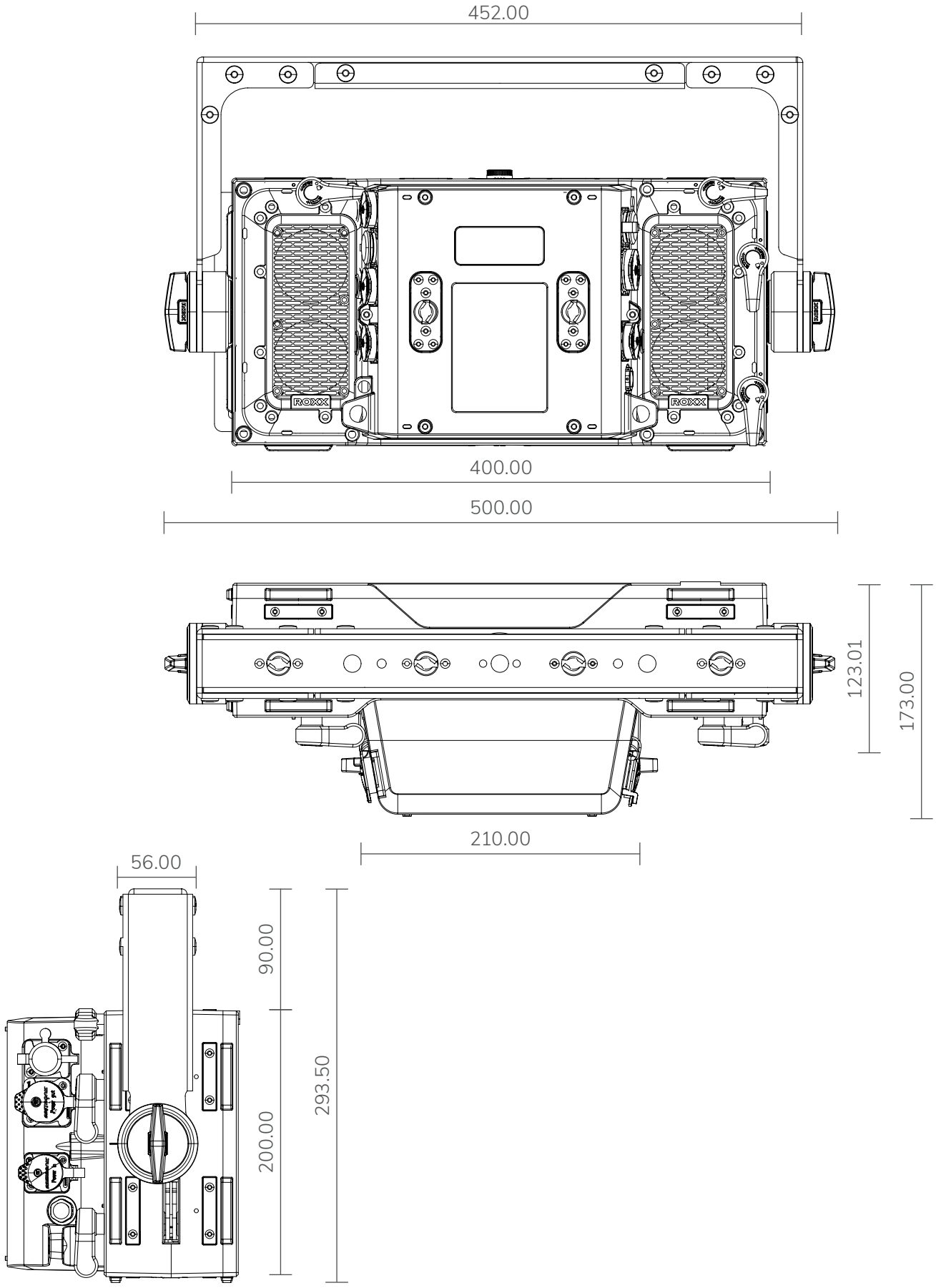
Line Array
Backbone 4
Art.: 13909701

Line Array
Backbone 2+2
Art.: 13909801

Line Array
Floor Bracket
Art.: 13909901

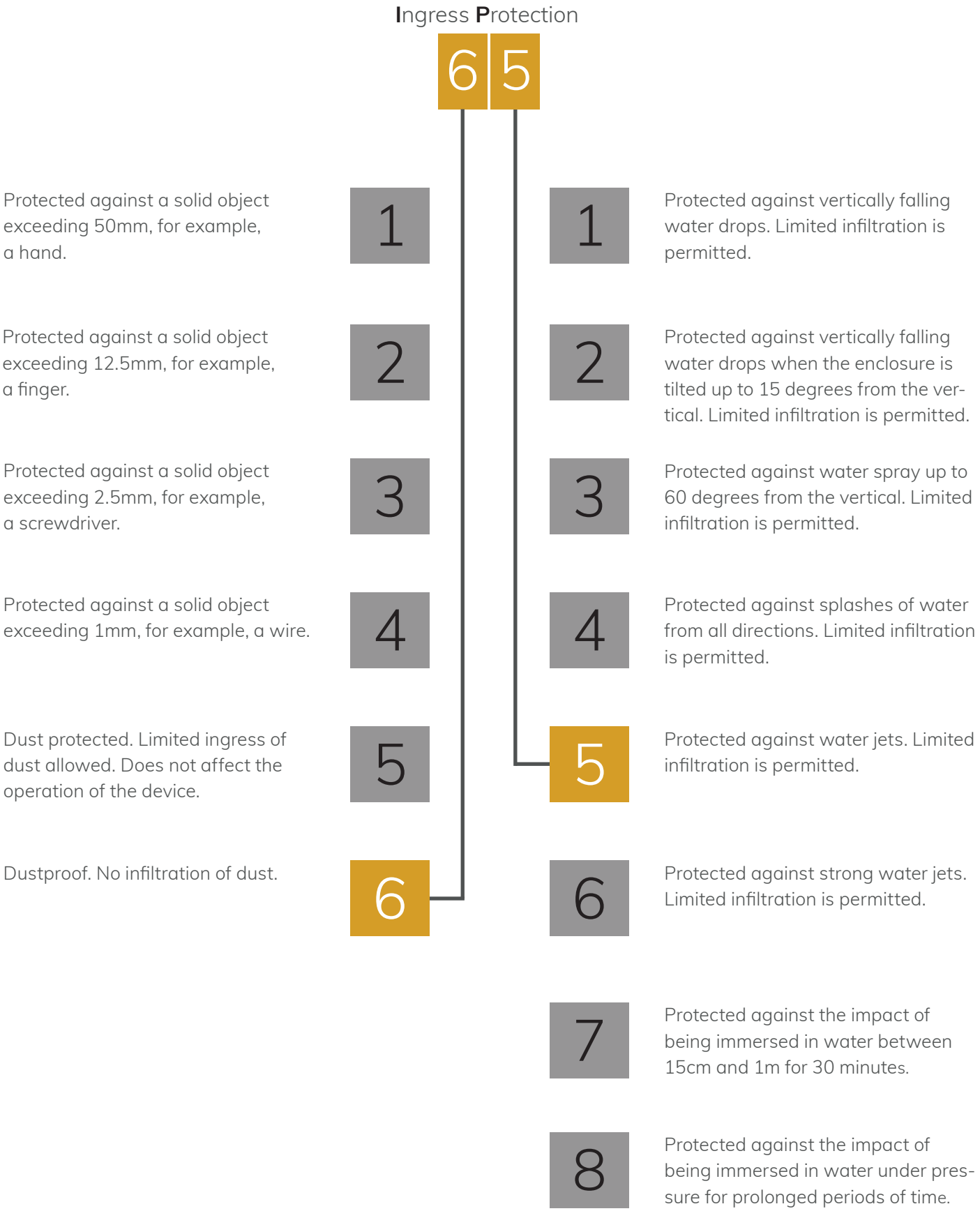
7. TECHNICAL DATA / DIAGRAMS

7.1 Technical drawings and measurements



7.2 IP Rating

ROXX products conform to officially classified IP standard levels. CLUSTER S2 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	612x CW LED´s (7000K), 680x RGB LED´s
Type of optical system	native, elliptical lens
LED PWM Frequency	selectable 800Hz, 1.200Hz, 2.000Hz, 3.600Hz, 12kHz, 25kHz
Beam angles @ Full (50%)	66°
Maximum Field angles @ Full (10%)	108°
Color temperature range	2000-10.000K
CRI/Ra @ Full	88
Efficancy @ Full (max)	48,07 lm/W
Luminous flux @ Full	57.750 lm (1200W)
Luminous flux @ Full (illumination mode)	14.807lm (305W)
Luminous flux @ Center Strobe (Boost Mode)	70.661lm (1135W)
Luminous flux @ 4x Single Strobes (Boost Mode)	35.582lm (982W)
Luminous flux @ 2x RGP Panels (Boost Mode)	22.685lm (853W)
Luminous flux @ Center Strobe (Illumination Mode)	20.260lm (300W)
Luminous flux @ 4x Single Strobes (Illumination Mode)	14.480lm (300W)
Luminous flux @ 2x RGP Panels (Illumination Mode)	7.920lm (300W)
illuminance Lux @ 3m / 9,84ft (@ Full)	4460lx / 414fcd
illuminance Lux @ 3m / 9,84ft (@ Center Strobe)	3500lx / 325fcd
illuminance Lux @ 3m / 9,84ft (@ 4x Single Strobes)	2560lx / 238fcd
illuminance Lux @ 3m / 9,84ft (@ Center Strobe + 4x Single Strobes)	4045lx / 376fcd
illuminance Lux @ 3m / 9,84ft (@ 2x RGB Panels)	1075lx / 100fcd
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	1250W
Constant power consumption (Illumination Mode)	320W
Power Max. Out	6,24A @ 230V / 6,14A @ 120V
Power Linking @ Max Power Consumption (Boost Mode)	1 unit @ 230V / 0 unit @ 120V
Power Linking @ Constant Power Consumption (Illumination Mode)	7 units @ 230V / 3 units @ 120V
Power Factor	0.998 PF (230V) / 0.997 PF (120V)
Power Supply Unit	Inbuilt auto-ranging electronic switch-mode

7.3 Technical Data

Operator & Controller	
DMX channels	Simple Mode 15CH, Easy Mode 39CH, Standard Mode 72CH (default mode), Pure Mode 112CH Single Pixel 8 Bit with Strobefunction, Pure Mode 209CH Single Pixel 16 Bit with Strobefunction, Full Access Mode 177CH 8 Bit single Pixel with Pattern, Full Access Extended Mode 274CH 16 Bit with Pattern
DMX modes	7
Protocol	USITT DMX512A
	RDM ANSI E1.20
	Art-Net
	sACN
Setting and addressing	OLED graphical display / 4 controls
	RDM ANSI E1.20
Standalone mode	Auto Program, Color Macro, Quick Color, Tunable White, User Color
Wireless DMX	n.a.
Indicator	OLED graphical display
Controls	4 touch sensitive, backlighted controls
Strobe	0-30Hz
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
Dimensions & Weight	
IP class	IP65
IK class	IK08
Body material	Aluminum, Nylon
Lens material	Tempered glass front
Net dimensions without Yoke (w x h x d)	400 x 200 x 191mm
Net dimensions inches	15,75 x 7,87 x 7,52 inches
Net weight (incl. Yoke)	12,6 kg (27,78lbs)
Tilt	360°
Tilt Locking System	Locking system with toothing and angle indicator
Included / Optional	
Included items	Yoke 4.1, 2m Power Cable, Puk
Optional Accessories	Yoke 2.2, Yoke 4.3, Yoke Floor Extension, Rigging Bracket, Omega Bracket ST
Color options	Black – RAL 9004 (Standard) / Custom color – any RAL (on request)
Installation	
Mounting point by Yoke (included)	3x 13mm / 1/2" holes, 1x centric TV Spigot attachement, 3x integrated Camlocks for Omega Brackets
Mounting point on fixture	1/4 turn Omega Bracket on top and rear side
Mounting point with otional Rigging Bracket	2x 13mm / 1/2" holes for Clamp fixation
Orientation	Any
Rigging possibilities	Hanging or ceiling / pendant mount
Safety features	2x rear mount for safety wire
Minimum distance from flammable materials	0,3 meters (11,8 inch)

7.4 DMX-Charts / Color Macro Charts / CCT Chart

15CH Simple Mode

39CH Easy Mode

72CH Standard Mode (default)

112CH Pure Mode

209CH Pure Mode

177CH Full Access Mode

274CH Full Access Extended Mode

Here you can find the DMX charts and Pattern Charts for the Cluster S2 for reading or
downloading. Simply click on the icon or scan the QR code.

DMX charts

DOWNLOAD
DMX-Chart

Pattern charts

DOWNLOAD
Pattern Chart

Gels - Color Macros for DMX		
DMX value	**Gel Name**	**Color Number**
000-005	no function	
006-008	Red	100% Red LED
009-011	Fire	LEE 019
012-014	Medium Red	LEE 027
015-017	Primary Red	LEE 106
018-020	Med Amber	LEE 020
021-023	Dark Amber	LEE 022
024-026	Deep Amber	LEE 104
027-029	Orange	LEE 105
030-032	Deep Golden Amber	LEE 135
033-035	Yellow	LEE 101
036-038	Green	100% Green LED
039-041	Lime Green	LEE 088
042-044	Moss Green	LEE 089
045-047	LEE Green	LEE 121
048-050	Primary Green	LEE 139
051-053	Jas Green	LEE 738
054-056	Jade	LEE 323
057-059	Blue	100% Blue LED
060-062	Sky Blue	LEE 068
063-065	Tokyo Blue	LEE 071
066-068	Light Blue	LEE 118
069-071	Marine Blue	LEE 131
072-074	Med Blue	LEE 132
075-077	Congo Blue	LEE 181
078-080	Mikkel Blue	LEE 716
081-083	Rose Pink	LEE 002
084-086	Med Pink	LEE 036
087-089	Light Lavender	LEE 052
090-092	Lavender	LEE 058

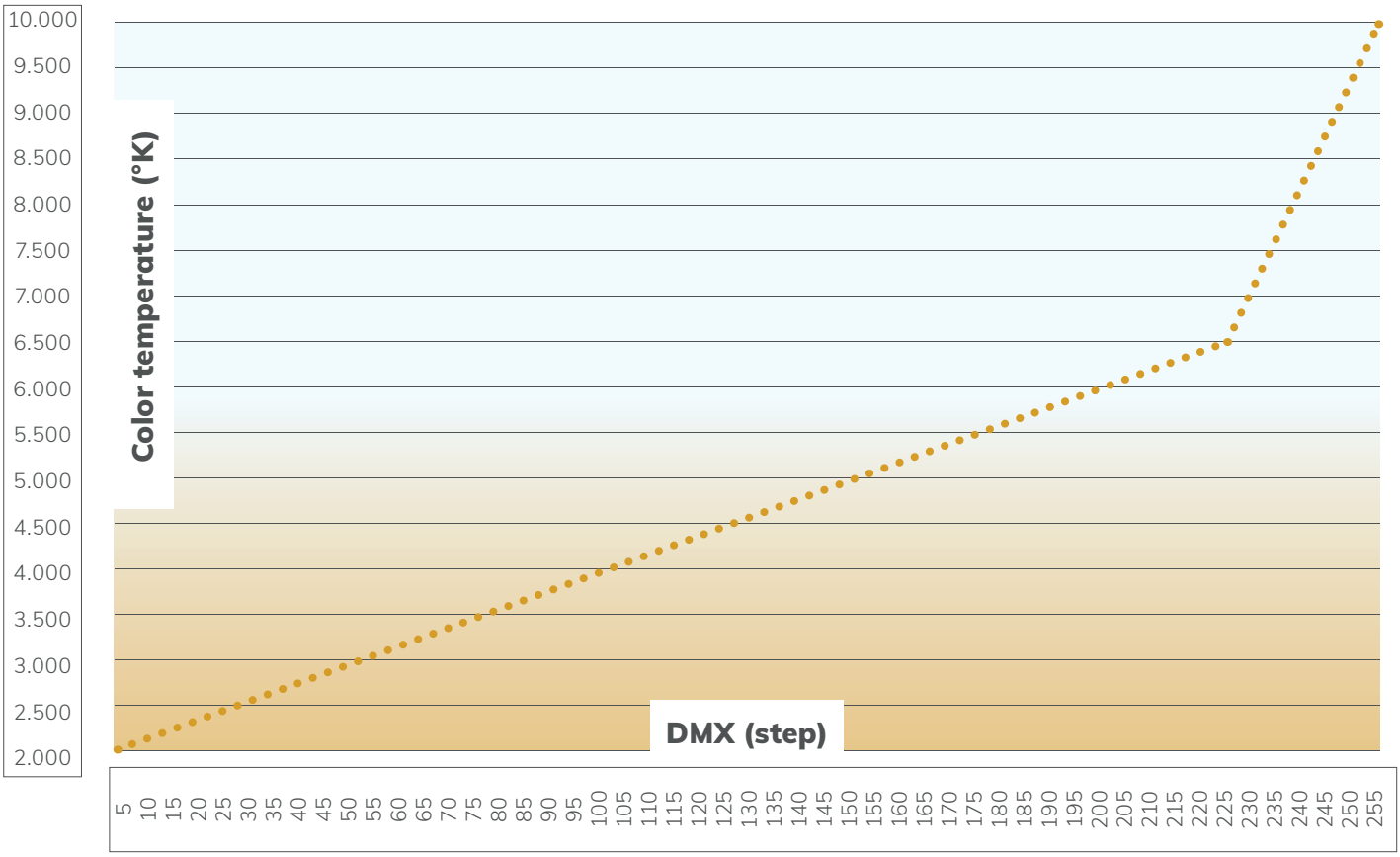
Gels - Color Macros for DMX		
093-095	Magenta	LEE 113
096-098	Mauve	LEE 126
099-101	Smokey Pink	LEE 127
102-104	Special Med Lavender	LEE 343
105-107	Ultimate Violet	LEE 707
108-110	Magical Magenta	LEE 795
111-113	Chrysalis Pink	LEE 798
114-116	Specia KH Lavender	LEE 799
117-119	Bulb White	2700K
120-122	Halogen White	3200K
123-125	Neutral White	4200K
126-128	Daylight White	5600K
129-131	Cold White I	6000K
132-134	Cold White II	6300K
135-137	White (only if available)	100% White LED
138-140	Amber (only if available)	100% Amber LED
141-143	Lime (only if available)	100% Lime LED
144-146	Cyan (only if available)	100% Cyan LED
147-149	User Color 1	
150-152	User Color 2	
153-155	User Color 3	
156-158	User Color 4	
159-161	User Color 5	
162-164	Color Jumping stop	
165-209	Color Jumping speed slow ⊖ fast	color 1-37
210-255	Color fading speed slow ⊖ fast	color 1-37

Color Macro Chart for Stand Alone

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
39	Halogen White	3200K
40	Neutral White	4200K
41	Daylight White	5600K
42	Cold White I	6000K
43	Cold White II	6300K
44	Amber (only if available)	100% Amber LED
45	Lime (only if available)	100% Lime LED
46	Cyan (only if available)	100% Cyan LED

CTC channel
DMX / Color temperature



CTC-Chart

DMX (Step)	Color Temp (°K)
0	7000
1	7000
2	7000
3	7000
4	7000
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 Show series 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 CLUSTER S2
Model:	CLUSTER S2
Manufacturer:	ROXX
ID:	6A6Ah
Device ID:	204 xxxx

ⓘ ***Note: During RDM identifying process CLUSTER S2 flashes white to blue color alternately.**

RDM functions

For easy identifying ROXX CLUSTER S2 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	7 x DMX Modes
0x00E1	DMX Slots	Read	n.a.
0x0500	Display Flip	Set	0= On / 1= Off
0x8051	Display Backlight	Set	0= Off / 1= On
0x8052	Display Lock	Set	0= Off / 1= On
0x8001	Effect	Set	tba
0x8002	Effect Dimmer	Set	0-100
0x8003	Effect Speed	Set	0-100
0x8062	Protocol	Set	tba
0x8053	Startup Mode	Set	0= DMX / 1= AUTO / 2= Color Macro / 3= Quick Color / 4= Tunable White / 5=User Color
0x8060	Color Settings	Set	0= Color Calibration / 1= RAW
0x8054	DMX Fail	Set	1= Hold / 2= Blackout / 3= Emergency
0x8055	Dimmer Curve	Set	1= Linear / 2= Exponential / 3= Logarithmic / 4= S-Curve
0x8056	Dimmer Response	Set	1= LED / 2= Medium / 3= Halogen
0x8061	Color Calibration	Set	0=CCT Calibration / 1= Full Calibration
0x8058	RAW Balance	Set	0= RAW / 1= User Calibration
0x8101	User Calibration - Red	Set	0-255
0x8102	User Calibration - Green	Set	0-255
0x8103	User Calibration - Blue	Set	0-255
0x8059	LED Frequency (PWM)	Set	1= 800Hz / 2= 1200Hz / 3= 2000Hz / 4= 3600Hz / 5= 12kHz / 6=25kHz
0x805A	Fan	Set	0= Auto / 1= Silent / 2= Fan Off / 3= Max. Power
0X8063	Invert Mapping RGB Panel1	Set	0= Off / 1= On
0x8064	Invert Mapping RGB Panel2	Set	0= Off / 1= On

PID	Function	Action	Values
0x8065	Invert Mapping Centric Tube	Set	0= Off / 1= On
0x8066	Invert Mapping Single Tube 1	Set	0= Off / 1= On
0x8067	Invert Mapping Single Tube 2	Set	0= Off / 1= On
0x8068	Invert Mapping Single Tube 3	Set	0= Off / 1= On
0x8069	Invert Mapping Single Tube 4	Set	0= Off / 1= On
0x806A	Invert Mapping Swap RGB Panel	Set	0= Off / 1= On
0x806B	Invert Mapping Swap Single Tubes	Set	0= Off / 1= On
0x805C	LED Mode	Set	0= Illumination / 1= Boost
0x805E	Factory Reset	Set	0= No / 1= Yes
0x805F	User Reset	Set	0= No / 1= Yes
0x00C0	Firmware Version	Read	n.a.
0x8700	Serial Number	Read	n.a.
0x0400	Device Power on Time	Read	n.a.
0x8701	Temperature LED RGB Panels & Single Tubes	Read	n.a.
0x8702	Temperature LED Centric Tube	Read	n.a.
0x8705	LED on Time RGB Panels	Read	n.a.
0x8706	LED on Time Centric Tube	Read	n.a.
0x8707	LED on Time Single Tubes	Read	n.a.
0x8709	Fan Speed	Read	n.a.

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	

7.6 Firmware Updating

Here you can find the Firmware Update Instructions for reading or downloading.
Simply click on the icon or scan the QR code.

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.
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.

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.

CE Compliance

The equipment marketed by ROXX GmbH complies (where applicable) with the essential requirements and other specifications of the following Directives:
- 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

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