

E.SHOW T/D



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. E.SHOW T/D	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	12

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 Slave Mode	19
5.4.5 Settings	19
5.4.6 System Info	22

6. Accessories

6.1. Lenses	23
6.2. More accessories	24

7. Technical Data / Diagrams

7.1 Technical drawings and measurements	25
7.2 IP Rating	26
7.3 Technical Data	27
7.4 DMX-Charts	29
7.5 RDM Templates	32

8. Troubleshooting

33

9. Manufacturer's Declaration

34

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 be used in combination with a power outlet, providing a protective ground. In no circumstances 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 temperature 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/adaptor/connector does not show signs of kinks/warps or is being stepped on.
- 1.2.6. Always 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 exactly 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 lightning strike all units need to be unplugged 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 applies 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 INFORMATION!

- This is a product which has been developed for professional usage in event technology. It is not suitable as a household 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, especially 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. E.SHOW T/D

ROXX® Entertainment SHOW Series offers very high performance, weatherproof fixtures and features Single-Source-LEDs that produce an incredibly smooth lighting and uniform colors, providing a solution for any requirement. The LED variations range from a Tunable White over to a Full Color to a pure Tungsten and up to a Daylight version. Each one reaching an exceptionally good light quality with high CRI / TLCI and a massive light luminosity.

The E.SHOW T- and D-Versions both impress with their homogeneous light and their enormous output. The E.SHOW T (Tungsten) produces high quality white light with 3.200 Kelvin and 11.000lm. The E.SHOW D (Daylight) convinces with an 13.500lm luminous flux @ 5.600 Kelvin. With an extremely high color rendering of CRI/Ra 98 and TLCI 98 these fixtures are the perfect tools for trade fairs, theatre, broadcast and film. Thanks to the specially developed ROXX® R.LOK® technology, the lenses can be changed easily and without any tools. This allows the beam angle to be conveniently adjusted, whether from 24°, 36°, 54° or elliptical 21°x27° and 22°x57°.

In addition to DMX and RDM control, Lumenradio's latest Wireless DMX technology (CRMX) enables wireless as well as flexible control plus integrating a Bluetooth interface allows direct controlling via unique ROXX.APP without additional hardware. Covering all possible requirements, the fixture includes an extensive range of accessories including 8-Way Barndoor, Honey Comb, Anti-Glare Shield, various lenses, Gel Frame, Omega Bracket and a specially developed Snapbag® and Snapgrid® by DoPchoice for an extremely even illumination of motifs in front of the camera.

3. GENERAL PRODUCT INFORMATION

3.1. Scope of delivery

- ⊕ 1x E.SHOW T/D
- ⊕ Power cord with plug (EU country specific, if not ordered differently)
- ⊕ Pendant luminaire closing caps

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

- 1/2/4CH Mode, 3CH Strobe Mode
- Stand Alone Quick Light Function with Timer
- Master & Slave (by DMX and Wireless DMX)
- Wireless DMX (Lumenradio CRMX®)
- ROXX App - Bluetooth 5.0

3.3. Features



4. INSTALLATION & SETUP

4.1 Physical Installation and Rigging

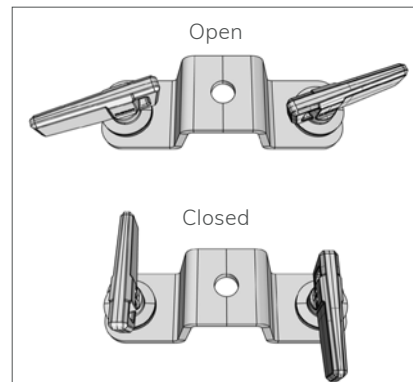
ROXX E.SHOW T/D may be installed in any orientation. For this purpose the product provides several options:

Standing:

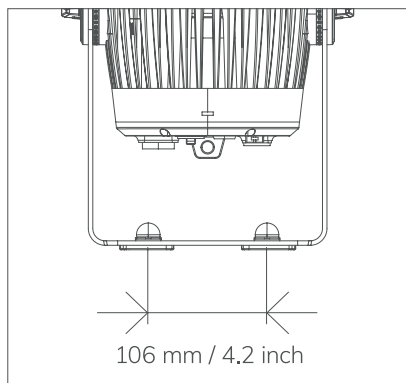
The fixtures yoke with its implemented rubber feet is designed to ensure a secure stand on nearly every plane surface with every possible angle/orientation of the lamp's head. Please take care that supporting surfaces are loadable and stable.

Hanging:

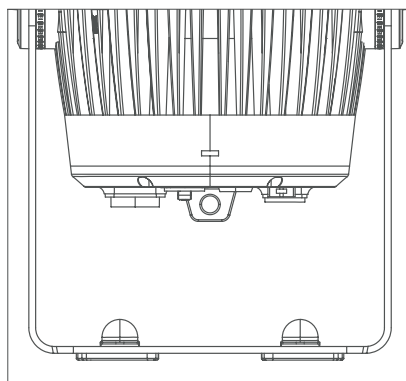
On the bottom the yoke provides 2 Camlock QuickRelease connectors. Here it's possible to click in the ROXX Omega Bracket ST (optional accessory) equipped with any suitable clamp.



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



A centric hole on the yoke's bottom (d=13mm / 0,51 inch) provides a mounting point for more rigging options like a (Mini-) TV Spigot, to use the E.Show on a tripod or for example with a superclamp.

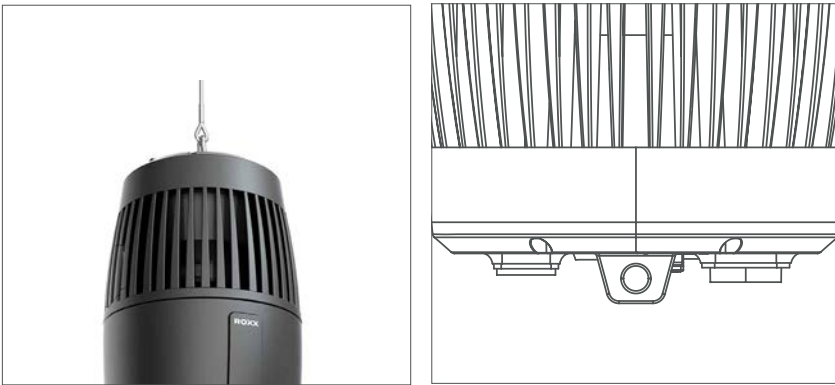


Pendant Light*:

The sophisticated and attractive design of the ROXX E.SHOW T/D makes the luminaire predestinated for the use as a pendant light, e.g. for exhibition booths, galas,... The position of the safety eyelet and the lamp body balancing makes that possible in a perfect way. Dismount the Yoke by turning out the both wing screws completely and detach them together with the Yoke and the scaled plastic parts. Seal the apertures with the 2pcs covering "Pendant Caps" (included). Use the safety eyelet for hanging down the E.Show.

ⓘ Note:

To hang down the fixture as a pendant light with only one wire and without the need of a secondary safety the setup has to be done as a „stationary installation“. Please mounting material, that is not dismountable without tools (e.g. halfcoupler with nut and chain link).



Also in this application, please take care of the current requirements and regulations for dimensioning and design of the used wires, clamps and all other possible mounting materials.

⚠ Always take care of an adequate distance between the fixture and surrounding surfaces and be sure to keep the fans outlets free for good ventilation.

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

ⓘ *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 E.SHOW T/D operates on any 100–260 V, 50/60 Hz AC mains power supply with a maximum power consumption of 220W.

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 E.SHOW T/D is fully controllable by DMX (USITT DMX512-A standard, based on RS-485) and RDM. It can be connected using either DMX cables or via the built-in LumenRadio CRMX wireless system.

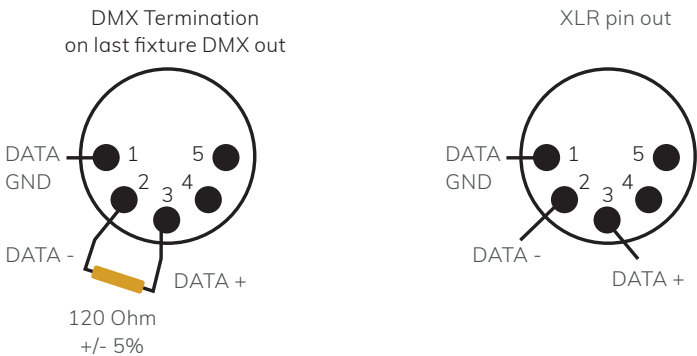
4.2.2.1. Cable Connection

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.



4.2.2.2. Wireless Connection*

E.SHOW T/D 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.

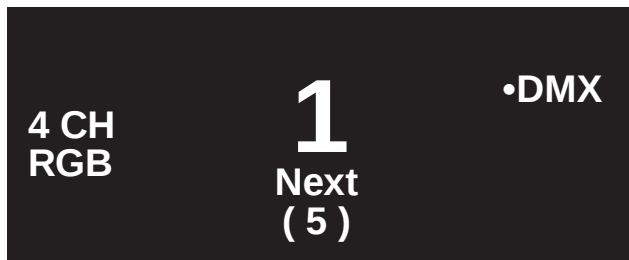
E.SHOW T/D can act as a fully operative CRMX Receiver and be paired to an active wireless transmitter (CRMX) simultaneously as being connected to a cabled DMX. The device will prioritize cabled DMX input over wireless DMX and over Bluetooth. A small indicator in front of "DMX", "CRMX" or "BLE" gives an easy overview which protocol is currently 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.

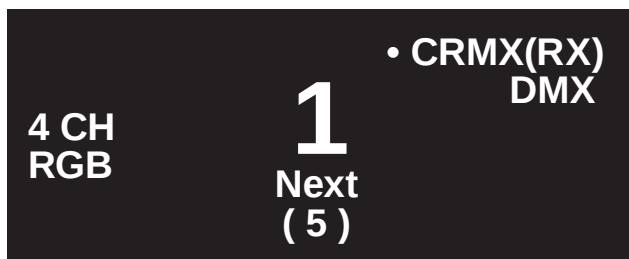
ⓘ ***Note: If you are using XLR for DMX and not Bluetooth we recommend to not connect to Bluetooth unless you need to since it can cause a few dropped DMX packets.**

BLE and CRMX RX are not available simultaneously.

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

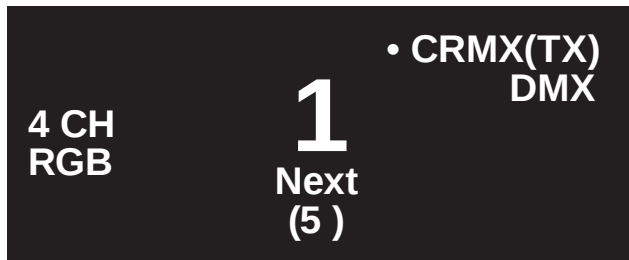


CRMX	Disabled	The indicator in front of "DMX" shows that DMX is active.
Operation Mode	n.a.	
Linked	No	
Receive Reset	No	
DMX	Enabled	
BLE (Bluetooth)	Disabled	

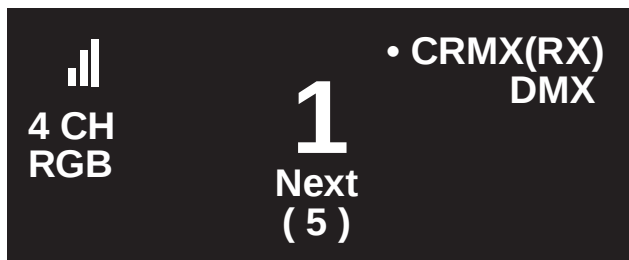


CRMX	Enabled	The indicator in front of "CRMX (RX)" shows that the fixture is now working in wireless DMX receive mode.
Operation Mode	RX	
Linked	No	
Receive Reset	Yes	"(RX)"= CRMX operating mode is set to receive
DMX	Disconnect	
BLE (Bluetooth)	Disabled	

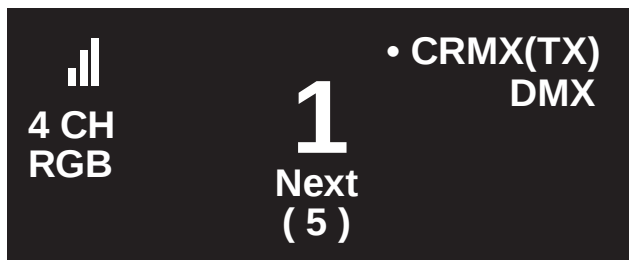
4.2.2.2. Wireless Connection



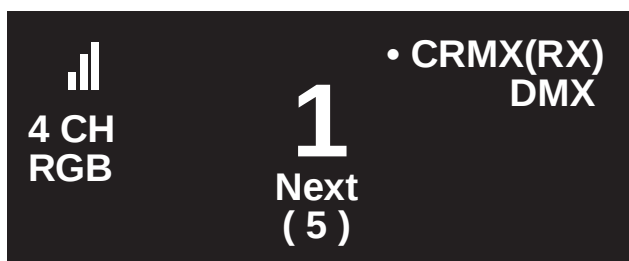
CRMX	Enabled	The indicator in front of "CRMX (TX)" shows that the fixture is now working in wireless DMX transmit mode.
Operation Mode	TX	
Linked	No	
Receive Reset	Yes	"(TX)"= CRMX operating mode is set to transmit
DMX	Disconnect	
BLE (Bluetooth)	Disabled	



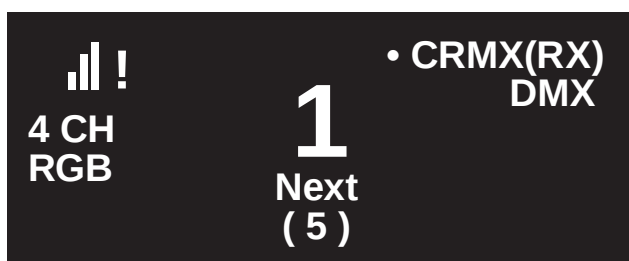
CRMX	Enabled	Once the fixture is linked to an external transmitter, the CRMX signal-symbol appears on upper left side.
Operation Mode	RX	
Linked	Yes	
Receive Reset	Yes	1 dash= 1-30% signal strength 2 dashes= 31-70% signal strength 3 dashes= 71-100% signal strength
DMX	Disconnect	
BLE (Bluetooth)	Disabled	



CRMX	Enabled	Once the fixture is linked to an external transmitter, the CRMX signal-symbol appears on upper left side.
Operation Mode	TX	
Linked	Yes	
Receive Reset	Yes	1 dash= 1-30% signal strength 2 dashes= 31-70% signal strength 3 dashes= 71-100% signal strength
DMX	Disconnect	
BLE (Bluetooth)	Disabled	

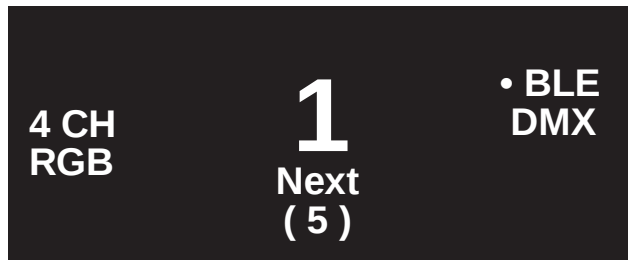


CRMX	Enabled	In case the external transmitter is switched off or out of signal range the signal-symbol starts to blink.
Operation Mode	RX	
Linked	Yes, out of range	
Receive Reset	Yes	
DMX	Disconnect	
BLE (Bluetooth)	Disabled	

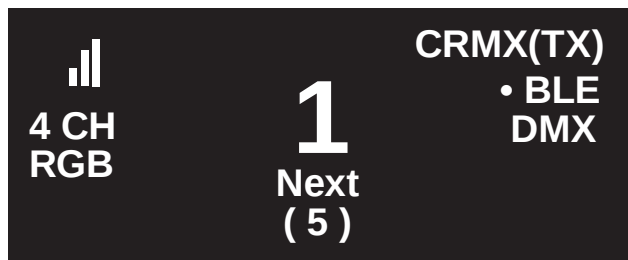


CRMX	Enabled	An exclamation appears and blinks although the external transmitter is switched on and is inside the signal range but no DMX is connected to the external transmitter.
Operation Mode	RX	
Linked	Yes, but no DMX	
Receive Reset	Yes	
DMX	Disconnect	
BLE (Bluetooth)	Disabled	

4.2.2.2. Wireless Connection

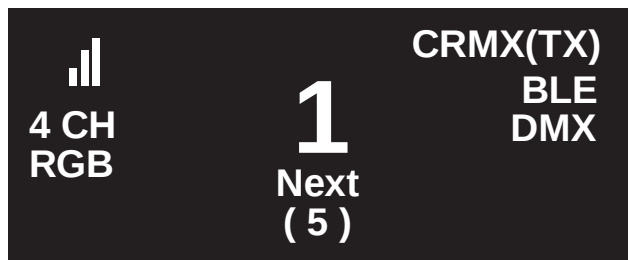


CRMX	Disabled	The indicator in front of "BLE" shows that the fixture is now working in Bluetooth mode and is paired to ROXX App.
Operation Mode	n.a.	
Linked	No	
Receive Reset	No	
DMX	Disconnect	
BLE (Bluetooth)	Enabled + Paired	

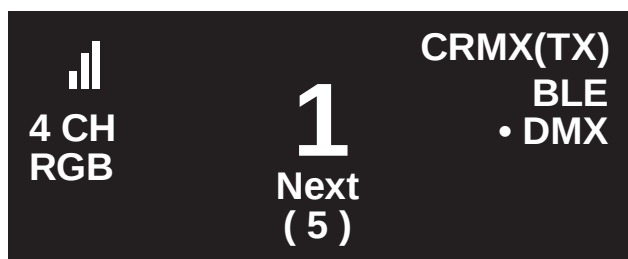


CRMX	Enabled	The indicator in front of "BLE" shows that the fixture is now working in Bluetooth mode and is paired to ROXX App.
Operation Mode	TX	
Linked	Yes	
Receive Reset	No	
DMX	Disconnect	
BLE (Bluetooth)	Enabled + Paired	

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



CRMX	Enabled	No indicator in front of "BLE", fixture is not paired to ROXX App.
Operation Mode	TX	
Linked	Yes	
Receive Reset	No	
DMX	Disconnect	
BLE (Bluetooth)	Enabled, not paired	



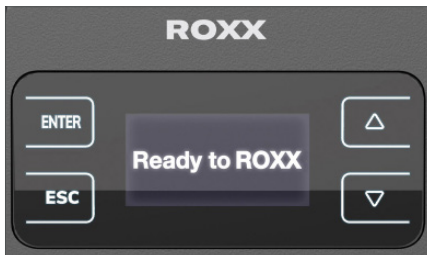
CRMX	Enabled	DMX is active. As CRMX TX is enabled and linked a full DMX universe is send out by CRMX (wireless DMX).
Operation Mode	TX	
Linked	Yes	
Receive Reset	No	
DMX	Connect	
BLE (Bluetooth)	Enabled	

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



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



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*



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



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.

BLE enabled / disabled



Pressing ESC + Arrow Up simultaneously the Bluetooth will enabled or disabled. Confirm by pressing ENTER, step back by pressing ESC.

Manual display flip function*



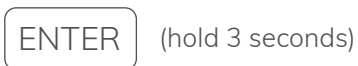
The fixture includes an auto display flip function by default.

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.

Quick Light function



For easy and fast operation during setting the lights the fixture includes a user-friendly Quick Light function. If DMX, CRMX or Bluetooth is not assigned please press and hold ENTER for 3 seconds at homescreen, after the Quick Light function will appear.

Here dimmer can be adjusted from 0-100% by using up/down arrows, to take over the dimming value please press ENTER to confirm.

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:

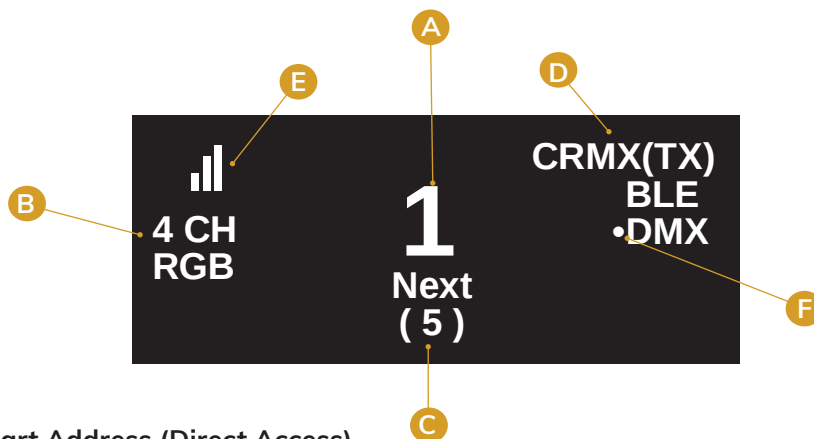
- A** DMX Address
- B** Operating Mode (DMX Mode, Quick Light or Standalone Mode)
- C** Next available DMX address depending on the fixtures DMX footprint
- D** External Data protocol (CRMX, DMX, BLE).
- E** CRMX status and strength
- F** The dot indicates the active protocol

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 4 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 - Slave - Settings - System Info

Level 2

DMX Mode
1CH - 8bit 2CH - 16bit 3CH Strobe - 8bit 4CH - 16bit (default)

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 the Quick Light function and the Timer 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.

Level 1

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

Level 2

Stand Alone Mode
- Quick Light - Timer

Level 4

Program
- Dimmer <0-100> - Shutter <0-255>

Shutter:

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

Timer*

Via the internal timer function, the Quick Light can be conveniently faded in and out after the function is enabled, without the need for an external controller. Also it remains active even the fixture is switched off and restarted. Simultaneously, 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.

Level 1

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

Level 2

Stand Alone Mode
- Quick Light - Timer

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

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.

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.

5.4.4 Slave Mode*

Slave Mode allows same model fixtures to be controlled by the “Master” fixture via DMX or wireless DMX (CRMX). The “Master” device should run in Stand Alone mode, all “Slave” devices should set to “Slave”.

Level 1

Menu
DMX Mode
Stand Alone
■ Slave
Settings
System Info

To select “Slave” please press ENTER to access to main menu (level 1).

While using the UP / DOWN arrows, please select the menu item “Slave” and confirm by pressing ENTER. Now this unit is set to “Slave”. Please connect the slave and the master devices (same model) either with a DMX cable or via wireless DMX and enable the Quick Light function. Once the Stand Alone mode is activated all slave devices will follow the master device. For using Master & Slave function via wireless DMX (CRMX), please activate CRMX transmit function at Master unit and CRMX receive function at all “Slave” units.

For detailed CRMX information please read chapter “Wireless DMX”.

Note: All devices should use same software version.

Once Stand Alone mode is disabled at Master unit the display of Slave unit starts to blink.

5.4.5 Settings

Level 1

Menu
DMX Mode
Stand Alone
Slave
■ Settings
System Info

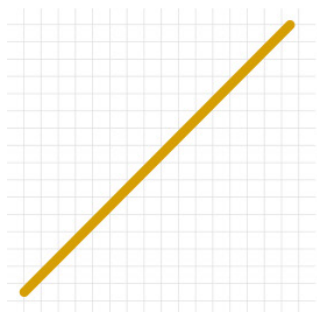
Main Menu	Menu level 2	Menu level 3	Menu level 4	Description
Settings	Wireless DMX	CRMX	<on/off>	On=CRMX enabled / Off= CRMX disabled
		Operating Mode	<receive/transmit>	Receive= CRMX module as Receiver Transmit= CRMX module as Transmitter
		Transmit Link	<no/yes>	Yes= pair with CRMX devices. CRMX must 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)
	Display	Auto Flip	<on/off>	On= Auto-Display-Flip-Function enabled Off= Auto-Display-Flip-Function disabled
		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 specific Standalone Modes)	DMX		Select your default operating mode when fixture is powered on
		Quick Light		
	DMX Fail	Hold		Hold= last command retains
		Blackout		Blackout= Activates Blackout
		Emergency Light		Emergency Light= Fixtures changes to full output
	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

Main Menu	Menu level 2	Menu level 3	Menu level 4	Description
Settings	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.
	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, maximum 3000rpm
		Silent		Low fan speed for silent operation, maximum 2000rpm
		Studio		Low fan speed for silent operation, maximum 1500rpm
		Fan Off		Fan Off
		Max. Power		High fan speed for maximum cooling effect, maximum 4000rpm
Factory / User Reset	Factory Reset	Are you sure to reset? Confirm by pressing ENTER, cancel with ESC	Restores all factory defaults including User Colors, but no User defaults.	
	User Reset	Are you sure to reset? Confirm by pressing ENTER, cancel with ESC	Restores all User Reset according to the User Preset List. Timer Function and DMX adress restore to Factory default. Once User Reset is activated a fixture self test will start.	

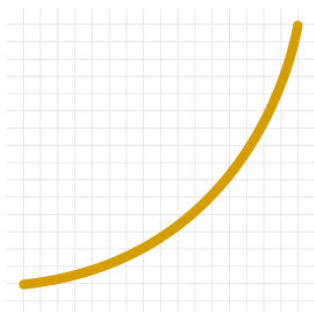
Main Menu	Menu level 2	Menu level 3	Menu level 4	Menu Level 5	Description
Settings	Factory / User Reset	User Reset List	1CH, 2CH, 3CH, 4CH		Select your User Reset defaults
			CRMX	<on/off>	
			CRMX Operating Mode.	<receive/transmit>	
			CRMX Receive Reset.	<no/yes>	
			BLE	<on/off>	
			BLE Link	<no/yes>	
			BLE Password	<000000>	
			CRMX Pass to DMX Out.	<no/yes)	
			Display Flip	<on/off>	
			Backlight	<on/off>	
			Auto Lock	<on/off>	
			Startup Mode	<DMX/Quick Light>	
			DMX Fail	<Hold/Blackout/Emergency Light>	
			Dimmer Curve	<Linear, Exponential, Logarithmic, S-Curve>	
			Dimmer Response	<LED, Halogen>	
			LED Frequency	<800Hz, 1200Hz, 2000Hz, 3600Hz, 12000Hz, 25000Hz>	
			Fan	<Auto, Silent, Studio, Fan Off, Max. Power>	

Dimmer Curves

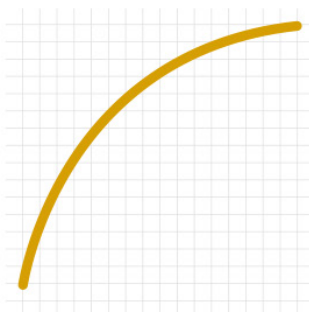
LINEAR



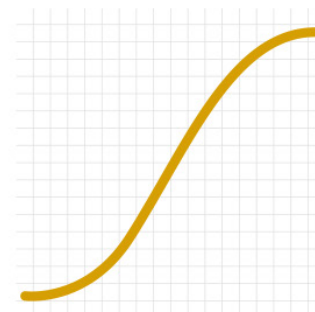
EXPONENTIAL



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	101xxxxxxxx (E.SHOW T)	
		100xxxxxxxx (E.SHOW D)	
	RDM UID	0X6a6a0101xxxx (E.SHOW T)	Display unique RDM ID for identification
		0X6a6a0100xxxx (E.SHOW D)	
	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
	Errors	Errors information	Display error codes
	Fan Speed	xxxx RPM	Display the current fan speed

6. ACCESSORIES

6.1 Lenses

Available lenses for ROXX E.SHOW black with order numbers:



Narrow
Art.: 11207001



Medium
Art.: 11207101



Wide
Art.: 11207201



Elliptical Narrow
Art.: 11207301



Elliptical Wide
Art.: 11208201

Lens matrix:

	COLOR CODES E.SHOW	LENS CODE A.SHOW	SHOW TW+ (beam angle / field angle)	SHOW FC (beam angle / field angle)	SHOW T (beam angle / field angle)	SHOW D (beam angle / field angle)
Circular						
NARROW	N	N	19° / 36°	17° / 34°	24° / 38°	24° / 38°
MEDIUM	M	M	36° / 72°	35° / 70°	36° / 69°	36° / 69°
WIDE	W	W	59° / 88°	59° / 88°	54° / 85°	54° / 85°
Elliptical						
ELLIPTICAL NARROW	EN	EN	17° / 24° 35° / 46°	16° / 24° 34° / 45°	21° / 27° 41° / 51°	21° / 27° 41° / 51°
ELLIPTICAL WIDE	EW	EW	19° / 57° 43° / 81°	18° / 57° 42° / 80°	22° / 57° 48° / 82°	22° / 57° 48° / 82°

6.2 More accessories



Accessory Holder
Art.: 11907401



8-way barndoor
Art.: 11907501



Honey comb
Art.: 11907601



Gel-frame
Art.: 11907701



Omega Bracket ST
Art.: 90900002



Softbox by DoPchoice
Art.: 11908301



Snapgrid by DoPchoice
Art.: 11908301



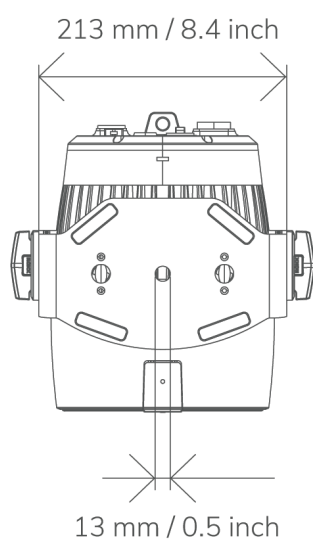
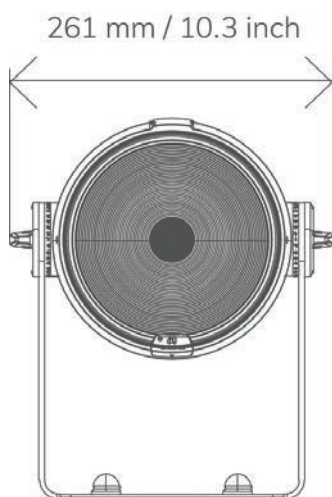
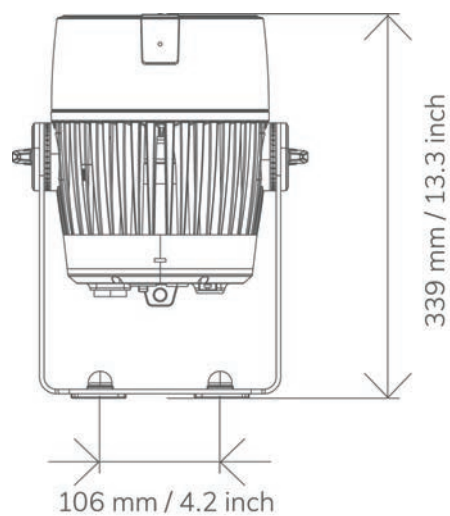
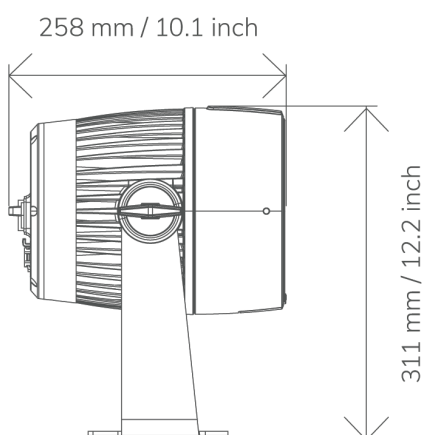
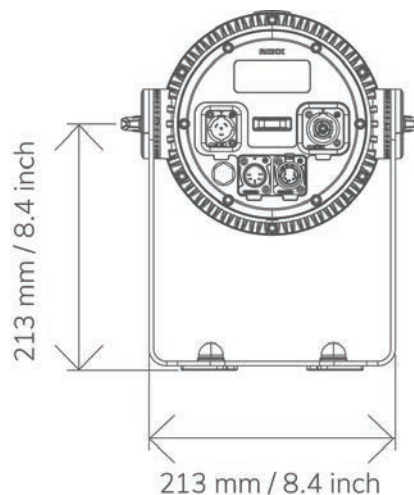
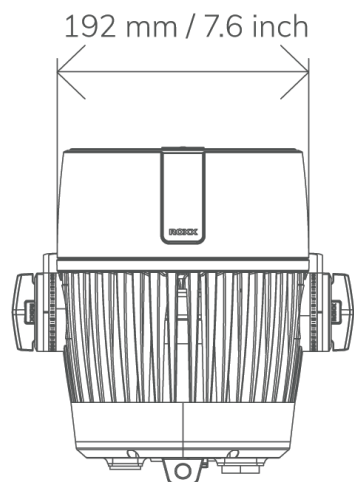
Full anti-glare shield
Art.: 11208401



Touring case 8
Art.: 11908001

7. TECHNICAL DATA / DIAGRAMS

7.1 Technical drawings and measurements



7.2 IP Rating

ROXX products conform to officially classified IP standard levels. E.SHOW T/D 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.

Ingress Protection		
	6	5
Protected against a solid object exceeding 50mm, for example, a hand.	1	1
Protected against a solid object exceeding 12.5mm, for example, a finger.	2	2
Protected against a solid object exceeding 2.5mm, for example, a screwdriver.	3	3
Protected against a solid object exceeding 1mm, for example, a wire.	4	4
Dust protected. Limited ingress of dust allowed. Does not affect the operation of the device.	5	5
Dustproof. No infiltration of dust.	6	6
		7
		8

Protected against vertically falling water drops. Limited infiltration is permitted.

Protected against vertically falling water drops when the enclosure is tilted up to 15 degrees from the vertical. Limited infiltration is permitted.

Protected against water spray up to 60 degrees from the vertical. Limited infiltration is permitted.

Protected against splashes of water from all directions. Limited infiltration is permitted.

Protected against water jets. Limited infiltration is permitted.

Protected against strong water jets. Limited infiltration is permitted.

Protected against the impact of being immersed in water between 15cm and 1m for 30 minutes.

Protected against the impact of being immersed in water under pressure for prolonged periods of time.

7.3 Technical Data

Photometrics	
LED expected lifetime	50.000 hours
Lightsource	1 x 200W Tungsten/Daylight
Type of optical system	reflector + interchangeable lens plates
LED PWM Frequency	selectable 800Hz, 1200Hz, 2000Hz, 3600Hz, 12kHz, 25kHz
Beam angles (50%)	24° (with narrow lens) 36° (with medium lens) 54° (with wide lens) 21°x27° (with elliptical narrow lens) 22°x57° (with elliptical wide lens)
Maximum Field angles (10%)	38° (with narrow lens) 69° (with medium lens) 85° (with wide lens) 42°x51° (with elliptical-narrow lens) 48°x82° (with elliptical-wide lens)
Color temperature	3.200K (E.SHOW T)
	5.600K (E.SHOW D)
Efficacy (max)	49,87 lm/W (E.SHOW T)
	61,55 lm/W (E.SHOW D)
CRI/RA	98
TLCI	98
TM-30-15	Rf 95 / Rg 102 (E.SHOW T)
	Rf 94 / Rg 103 (E.SHOW D)
Luminous flux	10.743lm (E.SHOW T)
	13.222lm (E.SHOW D)
illuminance Lux @ 5m (narrow lens)	1.664 lx (E.SHOW T)
	1.989 lx (E.SHOW D)
illuminance Lux @ 5m (medium lens)	615 lx (E.SHOW T)
	743 lx (E.SHOW D)
illuminance Lux @ 5m (wide lens)	355 lx (E.SHOW T)
	430 lx (E.SHOW D)
illuminance Lux @ 5m (elliptical-narrow lens)	1.120 lx (E.SHOW T)
	1.340 lx (E.SHOW D)
illuminance Lux @ 5m (elliptical-wide lens)	550 lx (E.SHOW T)
	641 lx (E.SHOW D)
Thermal Characteristics	
Cooling	Active, Forced Air, Temperature-regulated
Humidity (max.)	95%
Temperature range, Operating	-20°C to 45°C
Temperature range, Start-up	-20°C to 50°C
Temperature range, Storage	-20°C to 80°C
Thermal Protection	Automatic overtemperature protection

7.3 Technical Data

Electrical Data	
AC power, max.	90 – 285V 50/60Hz
AC Power, nominal	100 – 260V 50/60Hz
Electrical Protection	Overload protection with automatic recover
Max Inrush Current	50A
Max power consumption	220W
Typical power consumption	160W
Standby power	6,7W
Max power thru @ 100 V	8A
Max power thru @ 230 V	8A
Power factor	0,92 PF (230 V) / 0,99 PF (100V)
Power Supply Unit	Inbuilt auto-ranging electronic switch-mode
Power Linking	4 units @ 120 V; 8 units @ 230 V
Operator & Controller	
DMX channels	1/2/3/4CH
DMX modes	4
Protocol	CRMx, W-DMX™ G2, W-DMX™ G3, W-DMX™ G4, W-DMX™ G4S USITT DMX512A RDM ANSI E1.20 Bluetooth (Low Energy)
Setting and addressing	OLED graphical display / 4 controls RDM ANSI E1.20
Standalone mode	Quick Light
Wireless DMX	Lumenradio with RDM (CRMx)
Indicator	OLED graphical display
Controls	4 touch sensitive, backlighted controls
Strobe	0-20Hz
DMX I/O	IP65 XLR 5-pin male/female
Power I/O	TRUE1 compatible input & link-thru sockets
Dimensions & Weight	
IP class	IP 65
Net Dimensions (w x h x d)	261 x 311 x 258 mm
Physical Head Straight Up Height	339 mm
Net Dimensions inches	10,3 x 12,2 x 10,1 inches
Net Weight	5,7 kg (12,6 lbs)
Included / Optional	
Included items	2x radiator caps for pendant installation 2m power cable
Color options	Black – RAL 9004 (Standard) White – RAL 9010 Custom color – any RAL

7.4 DMX-Charts

1 CH Mode - 8bit

3 CH Strobe Mode - 8bit

2 CH Mode - 16bit

4 CH Mode - 16bit / Default Mode

1 CH MODE - 8bit

Ch.	Function	Value	Setting
1	Dimmer	000-255	0 - 100%

2 CH MODE - 16bit

Ch.	Function	Value	Setting
1	Dimmer	000-255	0 - 100%
2	Dimmer-fine	000-255	0 - 100%

3 CH STROBE MODE - 8bit

Ch.	Function	Value	Setting
1	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)
		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 (only affects to channel 2 - Strobe 1 / 025-064)	000-255	0 - 100%

4 CH MODE - 16bit / Default Mode

Ch.	Function	Value	Setting
1	Dimmer	000-255	0 - 100%
2	Dimmer-fine	000-255	0 - 100%
3	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)
		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	Device Settings	000-029	No function
		030-034	Linear Dimmer Curve (hold 3s)
		035-039	Exponential Dimmer Curve (hold 3s)
		040-044	Logarithmic Dimmer Curve (hold 3s)
		045-049	S-Curve Dimmer Curve (hold 3s)
		050-054	Dimmer Response LED (Hold 1,5s)
		055-059	Dimmer Response Halogen (Hold 1,5s)
		060-094	No function
		095-099	LED Frequency 800Hz (hold 3s)
		100-104	LED Frequency 1200Hz (hold 3s)
		105-109	LED Frequency 2000Hz (hold 3s)

4	Device Settings	110-114	LED Frequency 3600Hz (hold 3s)
		115-119	LED Frequency 12kHz (hold 3s)
		120-124	LED Frequency 25kHz (hold 3s)
		125-129	No function
		130-134	Fan Auto (hold 3s)
		135-139	Fan Silent (hold 3s)
		140-144	Fan Studio (hold 3s)
		145-149	Fan Off (hold 3s)
		150-154	Fan High Power (hold 3s)
		155-179	No function
		180-184	Factory Reset (hold 3s / except User Reset defaults)
		185-189	User Reset (hold 3s)
		190-255	No function

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 E.SHOW T/D
Model:	E.SHOW T/D
Manufacturer:	ROXX
ID:	6A6Ah
Device ID:	0101 xxxx (E.SHOW T)
	0100 xxxx (E.SHOW D)

***Note:** During RDM identifying process E.SHOW T/D flashes white 100% to 50% alternately.

RDM functions

For easy identifying ROXX E.SHOW T/D during RDM process the unit will jump from white 100% to 50% color every second.

PID	Function	Action	Values
0x00F0	DMX Start Adress	Set	001-512
0x00E0	DMX Personality	Set	4x DMX modes
0x00E1	DMX Slots	read	n.a.
0x8012	Display Backlight	Set	0= Off / 1= On
0x8010	Fan Mode	Set	1= Auto / 2= Silent / 3= Studio / 4= Fan Off / 5= Max. Power
0x8030	Dimmer Curve	Set	1= Linear / 2= Exponential / 3= Logarithmic / 4= S-Curve
0x8031	Dimmer Response	Set	1= LED / 2= Halogen
0x8018	CRMX Operating Mode	Set (Receive / Transmit)	0= RX / 1= TX
0x8019	CRMX Receive Reset	Yes/No	0= No / 1= Yes
0x801A	CRMX Transmit Link	Yes/No	0= No / 1= Yes
0x801B	CRMX Pass to DMX out	Yes/No	0= No / 1= Yes
0x801C	Bluetooth	On/Off	0= Off / 1= On
0x801D	Bluetooth Link	Yes/No	0= No / 1= Yes
0x8040	LED Frequency (PWM)	Set	1= 800Hz / 2= 1200Hz / 3= 2000Hz / 4= 3600Hz / 5= 12kHz / 6= 25kHz
0x801E	Factory Reset	Yes/No	0= No / 1= Yes
0x801F	User Reset	Yes/No	0= No / 1= Yes
0x0401	Lamp hours	read	n.a.
0x0400	Device hours	read	n.a.
0x8011	DMX Fail	Set	1= Hold / 2= Blackout / 3= Emergency
none	Software Version	read	n.a.
Sensor 1	LED Temperature	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	

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 enable 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 connectivity can be active, please make sure your mobile device is currently not connected to some other devices.
	Different mobile device is still connected to the fixture	Please disconnect other mobile device from fixture.
	No Bluetooth Advertisement	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 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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This equipment 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.

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

