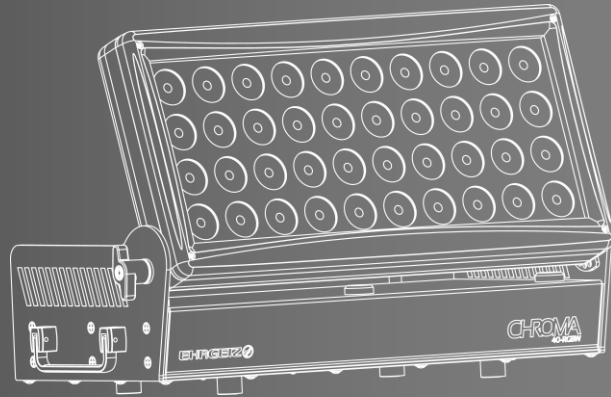


CHROMA

40-RGBW

USER MANUAL



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Introduction

Thank you for your purchase and usage of the Ehrgeiz Chroma 40–RGBW.

You have chosen a reliable product with outstanding features like the unique eventCON® connector system or the Tilt Index. The device is easy to use and is made of high quality components.

Every Ehrgeiz Product is checked before shipping to secure you are able to receive a great product without compromise. This is not a toy. Our ambitious aim is to get you a reliable working tool.

Safety Instructions

In General

In order to maintain the condition and to ensure a safe operation, it is important for all users to follow the safety instructions and warning notes written in this manual.

Do not operate the fixture with missing or damaged covers, shields or any optical component.

Please consider that unauthorized modifications to the device are forbidden due to safety reasons.

If the device is operated in any way that's not described in this manual, the product may suffer damage and the guarantee will become void.

Furthermore, misuse may lead to dangers like short-circuit, burns, electric shock, burns due to ultraviolet radiation, lamp explosion, crash, etc.

IP65 protection rating

The fixture is protected against dust (first digit 6) and against low pressure jets of water from all directions (second digit 5).

Prevention from electrical shock

Make sure to ground (earth) the fixture electrically. (It's essential to connect the yellow/green conductor to earth)

Main Connection

Do not apply any AC mains power to the fixture at any other voltage than that specified.

Never let the eventCON® cable come into contact with other cables. Treat the eventCON® cable and all connections with the mains with particular caution.

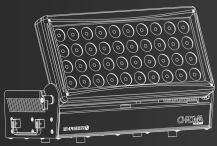
Make sure the eventCON® cable is never crimped or damaged by sharp edges.

Rigging

Check that all external covers and rigging hardware are securely fastened.

When choosing the installation–location, please make sure that the fixture is not exposed to extreme heat. There should not be any cables lying around. You endanger your own and the safety of others.

Make sure that the area below the installation place is cordoned off when rigging, de–rigging or servicing the fixture.



Introduction → Safety Instructions

If suspending from a rigging structure, fasten the fixture to a rigging clamp with an M10 bolt screwed into the threaded hole in the center of the base of the fixture. The bolt must be screwed at 20–25mm into the fixture. If the fixture is suspended by any other method, an M10 bolt must be screwed into this hole so that it is 20–25mm into the fixture.

Make sure all fixtures are operated and installed by qualified personnel with the relevant national certifications.

Install as described in this manual a secondary attachment such as a safety wire that is approved by an official body. The safety wire must comply with EN 60598-2-17 Section 17.6.6 and be capable of bearing a static suspended load ten times the weight of the fixture.

Positioning:

The fixture must be positioned at least 0.2m minimum distance to illuminate objects.

Keep all inflammable materials at least 0.2m from this fixture.

Allow to place the fixture on an inflammable surface.

The maximum ambient temperature of 45°C may not be exceeded.

The exterior of this fixture can reach a very high temperature during operation. Avoid contact by persons and materials.

Maintenance:

This fixture is for professional use only. It is not for household use. Always unplug the mains for any maintenance.

Risk of eye injury:

Do not stare directly into the light when it is switch on. Do not look at LEDs with magnifying glasses, telescopes, binoculars, or similar optical instruments that may concentrate the light output.

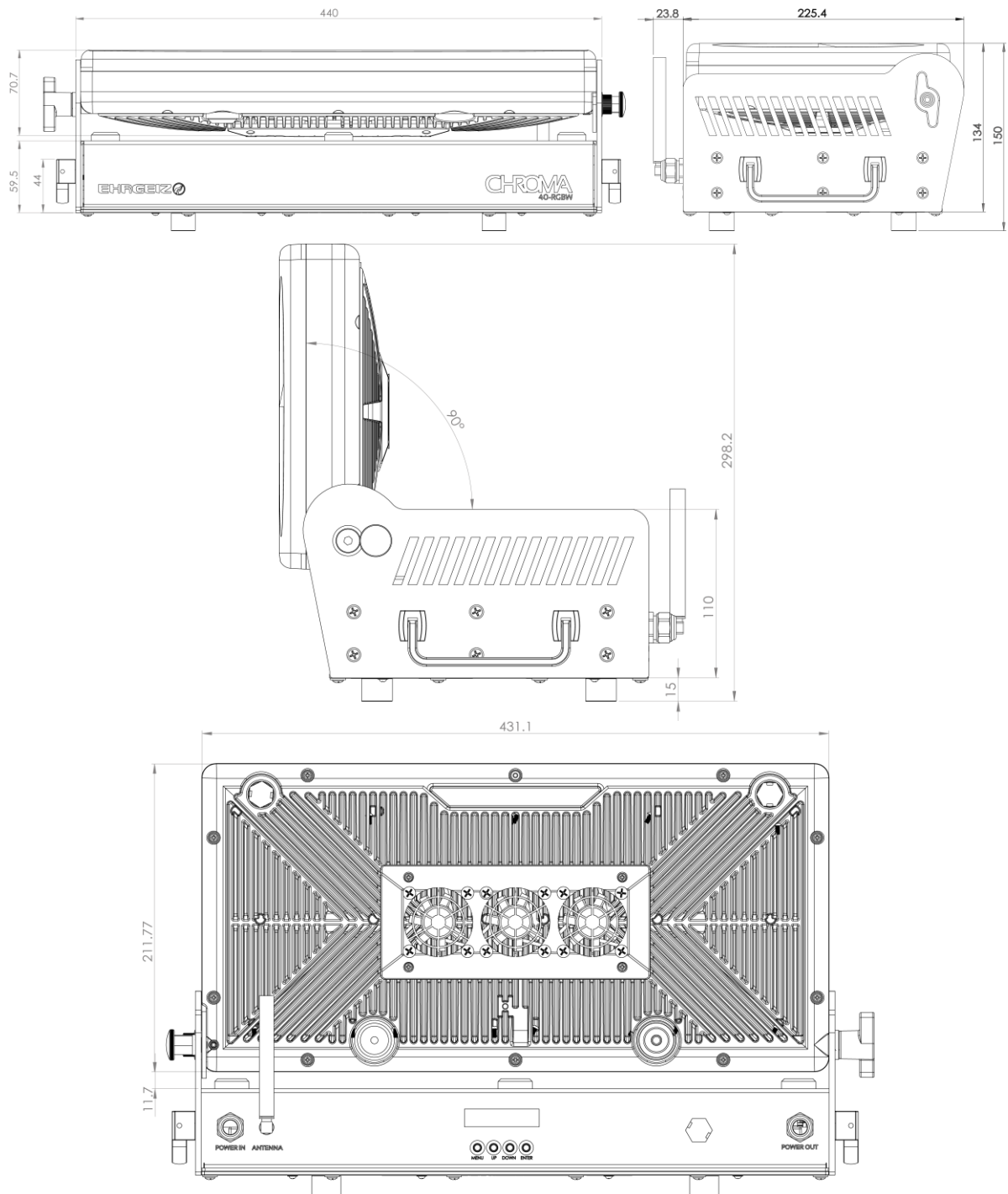
Introduction → Delivery Contents

Delivery Contents

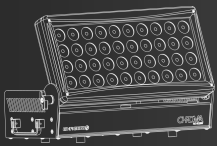
You received your Chroma 40-RGBW with the following content

- Chroma 40-RGBW 40x 15W Washer
- eventCON® Input cable Input cable with Neutrik XLR and Schuko merging to Eventcon

Fixture Dimensions



Dimensions in mm



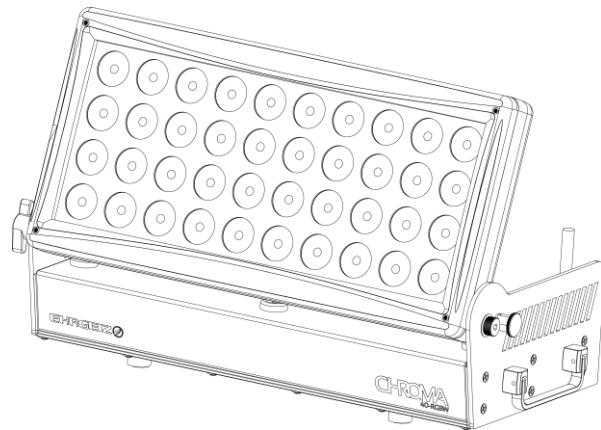
Installations → Installation on the floor

Installations

Your Chroma 40-**RGBW** can be installed in every kind of following positions. Please see the explanations and rely to the Instructions for a safe operation and secure handling.

Installation on the floor

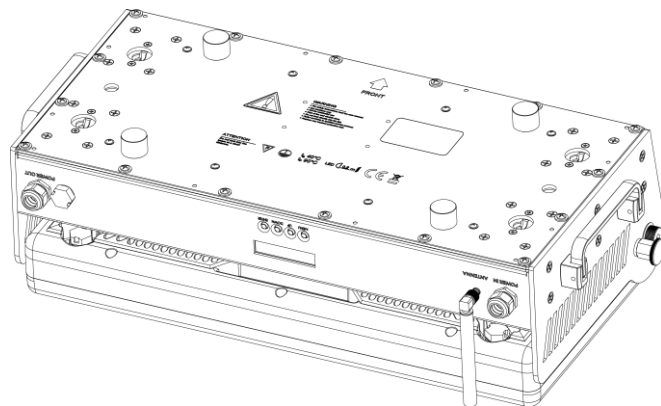
You could place the Chroma 40-**RGBW** on the floor. Please make sure the surface is plane and the reliability of the floor is sufficient.



Installation hanging

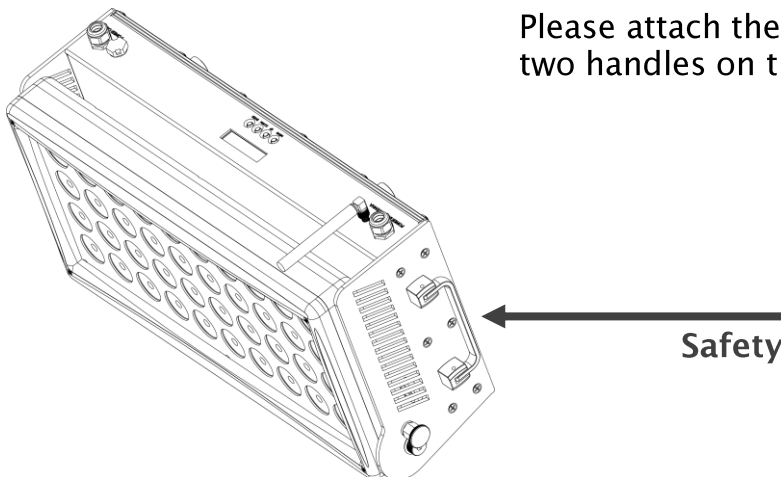
You can attach the Chroma 40-**RGBW** to a Truss or Pipe facing down or to the side.

If you wish to install the fixture using a Clamp, make sure that the length of the M10 bolt does not exceed 25mm!



Safety attachment

Please attach the Safety rope to one of the two handles on the side of the housing.

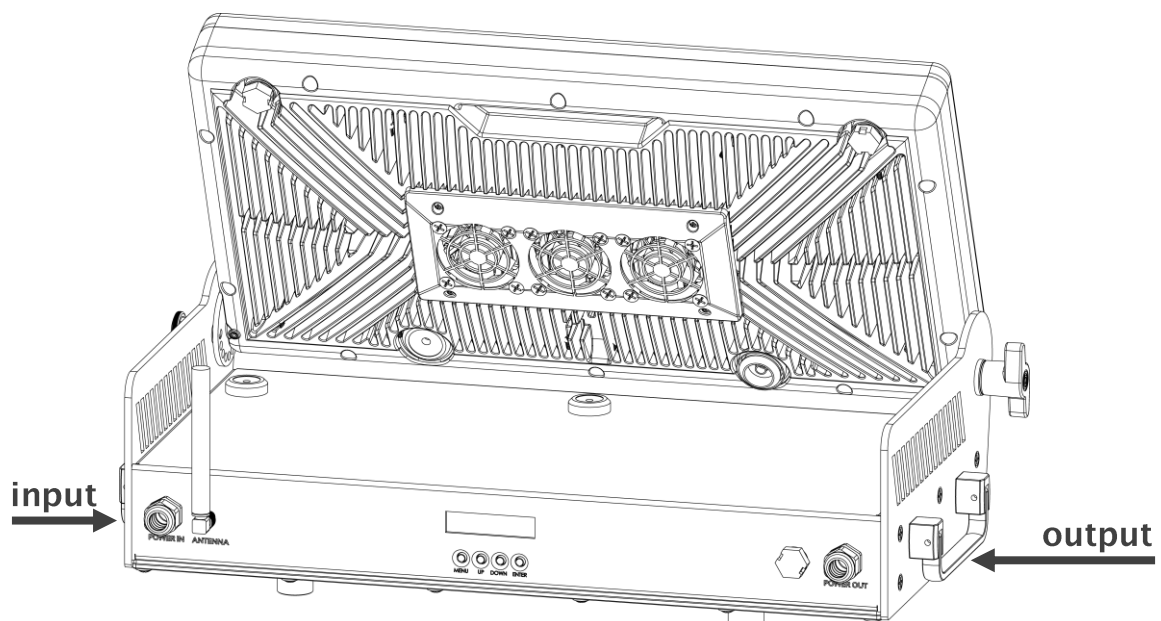


Connections

Mains & DMX

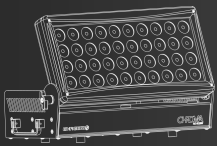
The eventCON® system is an innovative VDE certified connection System for professional use. It offers one connection for Power supply as well as the DMX signal. You will only be in need for one cable. You are able to loop through to the next device, while the Chroma 40-**RGBW** offers you an input and output.

The connection of the Power supply has to be done by qualified personnel only. Do not connect the Chroma 40-**RGBW** if you are not able to survey the consequences.



Do not try to connect another Type of Plug than an original eventCON®. Do not use any force to connect the eventCON® plug. You could use the outlet for connecting additional devices. The internal Power wiring is done with a cable cross section of 2,5mm².

The eventCON® System offers a big range of optional cables and mergers. For more information see Chapter eventCON® on Appendix page IV



Connections → DMX

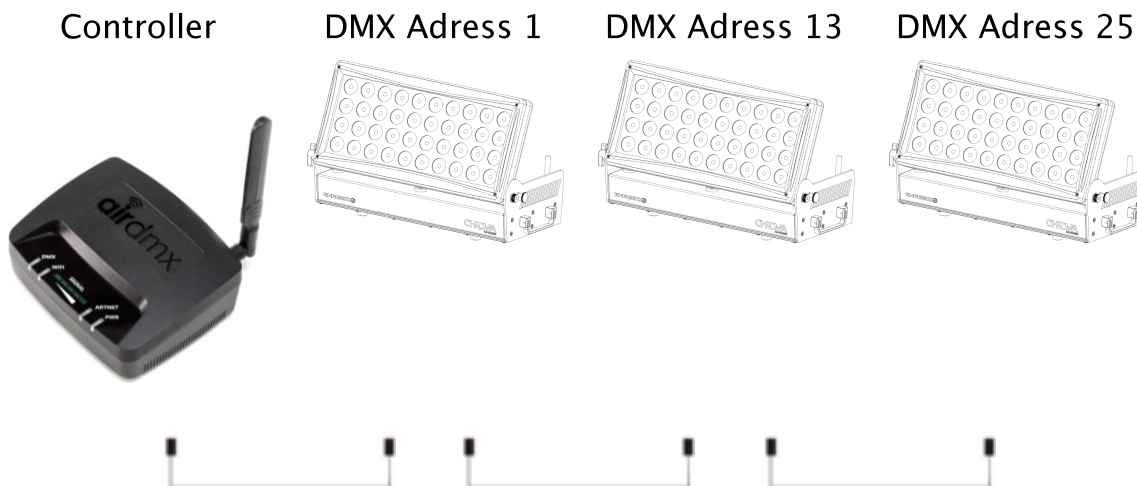
DMX

We recommend the use of High quality XLR connectors like original NEUTRIK. Please use real DMX cable with a surge impedance of 110 Ω .

Please notice that the USITT DMX Standard does allow the use a max of 32 DMX fixtures in one line. You should terminate the signal by a 120 Ω resistor.

In the Standard mode the Chroma 40-RGBW uses 12 DMX channels.

Connect the devices and increase the value of the DMX channel by 12 from one device to another



Wireless DMX

The Device is equipped with a Wireless DMX Input from Lumenradio. The receiver is also compatible with the Wireless Solution G3 protocol.

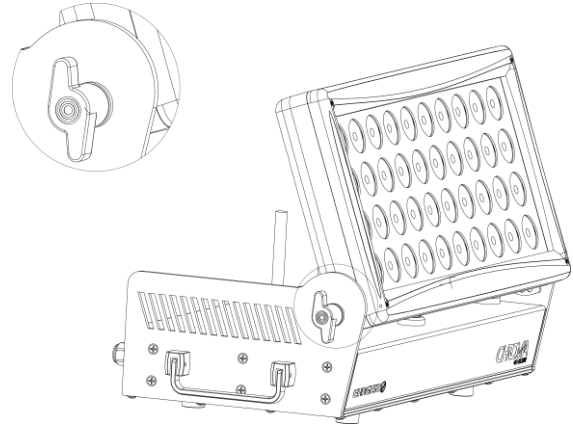
To establish a connection simply use the “Link” Option in the Chroma 40-RGBW Menu and set your transmitter to the Link Mode.

After both devices are linked you will be able to control the Chroma via Wireless DMX, as long as the W-DMX Mode is turned on in the Menu.

Operations

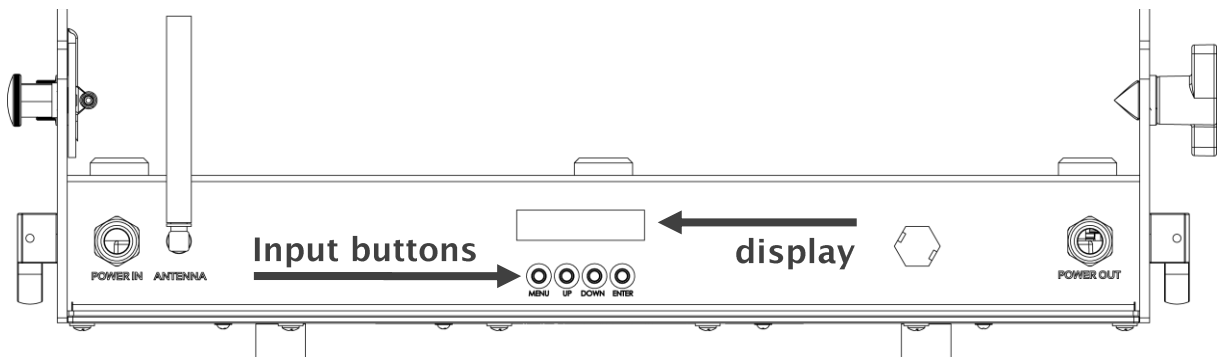
TILT Index

You can set up the TILT individually.
 On most applications you will be able to use the TILT Index System on the Side of your Chroma 40-RGBW. Open the screw on the one Side, pull out the Index Tilt bolt on the other side, then choose your desired Angle. Let the Bolt snap back in and fasten the wing screw again. This is an easy way to adjust a lot of devices to the same Angle in short time.



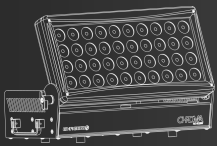
Menu control

Your Chroma 40-RGBW has an easy to read and setup display and Menu. It is programmed with a lot of built in functions as well as DMX Modes for different applications.



The Menu of the Chroma 40-RGBW is very intuitive. You will find a menu map on the following pages. The four buttons are used to scroll the values, select a setting or hop back in the menu structure:

- ◀ Go back in the menu structure or leave a value as it is
- ▶ Go forward in the menu structure or confirm the selected value
- ▲▼ Scroll up / down in the menu structure or scroll the selected value



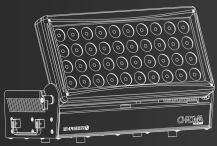
Operations → Menu map

Menu map

Personality	DMX Address	Address + / -	1 - 512	▶ Choose your DMX adress
	DMX Mode		Standard	▶ 12 Chanel with most features
			Pixel Mapping	▶ 42 channels with full control for every section
			Compressed RGBW	▶ 7 channels with RGBW control only
			Advanced	▶ 16 Chanel with 16 bit dimming
	Wireless DMX	Enable	No / Yes	▶ Enable / disable Wireless DMX
		Link	No / Yes	▶ Link / Unlink to a Transmitter
	Remote DMX Address	Off / On		▶ Enable the Remote DMX addressing
	Dimmer curve		Linear	▶ Set up the Dimmer Curve; see Appendix / page VIII
			Square Law	
			Inverse Square	
			Theatrical	
	Dimmer Speed		Fast	▶ Set up the speed of the dimmer
			Smooth	
	Cooling Mode		Auto	▶ Regulate the fan according the fixtures temp.
			Standard	▶ Medium Fan speed
			Silent	▶ light output will lower if device get's too warm
			High Power	▶ Fan always spins at highest level
	Mic enable	Disable / Enable		▶ Enable the build in Mic
	Mic sensitivity		Normal	▶ Set the sensitivity for "Sound Active Mode"
			High	
			Low	
	Reset via DMX	Off / On		▶ Choose if device can be reset via DMX
	Display Setting	Intensity	1 - 10	▶ set Display intensity
		Shutoff Time	Off - 60 minutes	▶ set time when display turns off
		No Signal Flash	On / Off	▶ display flashes if no DMX input
	Temperature Unit	Celsius / Fahrenheit		▶ choose the temperature unit
	No DMX		Shutter Closed	▶ Set behaviour for DMX signal loss
		Hold		
		Play Program 1		
Fixture ID		Disable	▶ Set the Fixture ID	
	Set	0 - 255		
Lock		Off / On	▶ Set a Password and Disable / Enable it	
	Set Password	0000 - 9999		
Boot Mode		DMX Mode	▶ Set behaviour at Startup; DMX Mode: Device reacts to DMX input Signal Program Play: Program 1 is played at startup OBDCtrl: Playback Static State from On Board Control	
		Program Play		
		On Board Ctrl		

Operations → Menu map

Stand Alone	Test Sequences	Off / On	▶ Plays a Test sequence			
	Master/Slave	Alone	▶ Set unit to Alone (No Master or Slave)			
		Master	▶ Set unit to Master (in Program Mode)			
		Slave	▶ Set unit to slave (in Program Mode)			
	On Board CTRL	Red	▶ Set a static state			
		Green				
		Blue				
		White				
		Dimmer				
		Color Macro				
		Shutter				
		Pattern				
		Pattern Speed				
		Reset All				
		Save				
		Load				
	Program Edit	Program 1	Prog 1 Max Step (01 - 30)	Select Step	01 - 30	▶ Select amount of Steps
				Capture DMX	▶ Capture and Safe the actual DMX input	
				Hold Time	▶ Select hold time in seconds (0 - 999)	
				Fade Time	▶ Select fade time in seconds (0 - 999)	
Program 2		▶ see above				
Program 3		▶ see above				
Program Play		Program 1	No / Yes	▶ Play Program 1		
		Program 2	No / Yes	▶ Play Program 2		
		Program 3	No / Yes	▶ Play Program 3		
		Program All	No / Yes	▶ Play Program 1, 2 & 3 in a Loop		
Service	Reset	Reset All	No / Yes	▶ Reset the device		
	Calibrations	Color Offset	Red Offset	▶ Set Offset for the LED Colors		
			Green Offset			
			Blue Offset			
			White Offset			
	Factory Default	Load	No / Yes	▶ Set device back to factory defaults		



Operations → Software updates

Information	Fixture Time	Resettable	XXX hours	▶ see the resettable fixture time	
		Total	XXX hours	▶ see total working time of the device	
		Clear Resettable	Clear / Cancel	▶ clear the resettable fixture time	
	Fixture Temp	Head LED	Actual		▶ see temp. measured at LED's
			Max		▶ see max. temp. Till last reset
		Head Driver	Actual		▶ see temp. measured at Driver Board
			Max		▶ see max. temp. Till last reset
Version	V. XXXX.XX		▶ See the installed Firmware Version		
Serial Number	XXXXXXX		▶ See the Serial Number off this device		
DMX Live	Refresh Rate	XX Hz		▶ See the refresh rate of the received DMX signal	
	Control				
	CTO				
	Color Wheel				
	Red 1				
	Green 1		▶ Input value of channel chosen		
	Blue 1				
	White 1				
	Dimmer 1				
	Shutter 1				

Software updates

Your Chroma 40-RGBW can be updated via the DMX connection, so no need to open it.

If you experience issues which could probably be solved by a Firmware Update please contact your Ehrgeiz Dealer for further instructions.

DMX Modes

You can set up your Chroma 40–RGBW in 4 different DMX Modes:

Standard Mode

Page 11; Uses 12 DMX channels

Pixel Mapping Mode

Page 12; Uses 42 DMX channels

Compressed RGBW Mode

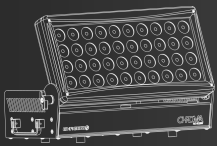
Page 13; Uses 7 DMX channels

Advanced Mode

Page 13; Uses 16 DMX channels

Standard Mode

CH	Function
1	Colour Wheel (see Colour Wheel chart / Appendix Page VI)
2	Red
3	Green
4	Blue
5	White
6	Shuttereffects (see Shutter effects chart / Appendix Page VIII)
7	Dimmer
8	CTO
9	Pattern (see Pattern effects table / Appendix Page IX)
10	Pattern Speed
11	Control (see Control channel table / Appendix Page VII)
12	Remote DMX adress



Operations → DMX Modes

Pixel Mapping Mode

CH	Function
1	Colour Wheel (see Colour Wheel chart / Appendix Page VI)
2	Red
3	Green
4	Blue
5	White
6	Shuttereffects (see Shutter effects chart / Appendix Page VIII)
7	Dimmer
8	CTO
9	Pattern (see Pattern effects table / Appendix Page IX)
10	Pattern Speed
11	Red 1
12	Green 1
13	Blue 1
14	White 1
15	Shutter 1
16	Dimmer 1
...	Red X
...	Green X
...	Blue X
...	White X
...	Shutter X
...	Dimmer X
35	Red 5
36	Green 5
37	Blue 5
38	White 5
39	Shutter 5
40	Dimmer 5
41	Control (see Control channel table / Appendix Page VII)
42	Remote DMX adress

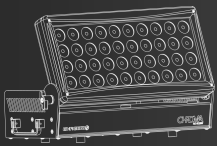
Operations → DMX Modes

Compressed RGBW Mode

CH	Function
1	Colour Wheel (see Colour Wheel chart / Appendix Page VI)
2	Red
3	Green
4	Blue
5	White
6	Shuttereffects (see Shutter effects chart / Appendix Page VIII)
7	Dimmer

Advanced Mode

CH	Function
1	Red
2	Red fine
3	Green
4	Green fine
5	Blue
6	Blue fine
7	White
8	White fine
9	Shuttereffects (see Shutter effects chart / Appendix Page VIII)
10	Dimmer
11	Dimmer fine
12	CTO
13	Pattern (see Pattern effects table / Appendix Page IX)
14	Pattern Speed
15	Control (see Control channel table / Appendix Page VII)
16	Remote DMX adress



Services

Trouble Shooting

Problem	Causes	Solutions
No Display / Not switched on	No power to fixture	<p>Check AC mains power and connections</p> <p>Inspect connections and cables. Correct poor connections. Repair or replace damaged cables</p> <p>Check the power supply voltage.</p>
	Incorrect fixture DMX addressing	Check the fixture is assign to correct DMX address (See Page 8)
	Incorrect DMX mode	Check fixture is set to correct DMX mode (See Page 11)
Fixture does not respond to DMX correctly.	Fault on data link	check for the data link is correctly linked from the DMX source if all cables are in good condition
	Other device on DMX link defective.	Unplug eventCON® IN and OUT connectors and connect them directly together to bypass one fixture at a time until normal operation is regained
	Data transmission lines should be terminated.	Insert termination plug in OUTPUT of the last fixture on the link.
	Faulty DMX link	Run built-in test mode or static control mode to verify if LEDs are illuminated
	Broken parts / wires / LEDs	Have fixtures serviced by an Ehrgeiz service technician
LC-Display works but no light outputs can be generated.	Fixture is set to Auto cooling mode and fixture is still cool	<p>Set the cooling mode to other modes other than Auto mode (See Menu Map on Page 8)</p> <p>Set the fixture to generate light output, the fan will start to work when temperature reached 35 deg. Celsius (95 deg. Fahrenheit)</p>
	Broken Fans	Have the Fan replaced by an Ehrgeiz service technician

Maintenance

There are no serviceable Part inside your Chroma 40-RGBW. If problems occur contact your Ehrgeiz dealer or a qualified Ehrgeiz Service technician.

Use a slightly moist and smooth cloth to clean the device. Do not use any aggressive detergents.

If you want to replace the fuse make sure to use a fuse of the recommended type. Do not use any other kind of fuse as this might result in a damage of the device or even serious injuries of persons.

We are sure you will have a sophisticated experience with your Chroma 40-RGBW.

Appendix

Specifications

Light source

- 40 x 15 W Class RGBW LED
- CRI of min. 75
- Rated lumen output: 30.000 lm
- Efficiency with typ. 55 lm / W
- LED life expectancy: approx. 50.000 hours

Optical system

- Beam angle 43°
- Optional lenses in 15° and 21°

Functions

- High resolution dimmer 0 – 100 %
- Selectable dimmer curves
- Strobe with variable speed (max. 20 Hz)
- Pre-programmed random strobe & pulse effects
- RGBW, 8 or 16 bit color mixing
- SteadyColor™ Dimming
- 5 controllable LED zones
- Seamless CTO
- Virtual color wheel with 39 color including whites (2700 K / 3200 K / 4200 K / 5600 K / 7200 K / 8000 K)
- Pattern effects with variable speed

Thermal

- Maximum ambient temperature: 45° C (113° F)
- Intelligent fan module

Control and programming

- Setting & addressing: 2 x 16 characters LC display & 4 buttons
- Protocol: USITT DMX-512
- 5 DMX protocol modes

- 3-editable programs, each up to 25 steps
- Stand-alone mode
- Wireless DMX (LumenRadio)
- Firmware update via Update cable
- DMX In / Out: eventCON®
- Power In / Out: eventCON®

Electrical Specifications

- Electronic switching power supply with auto-sensing
- Input voltage: 100 ~ 240 V AC / 50 ~ 60 Hz
- Max. power consumption: 620 Watt

Mecanical Specification

- IP65 rating
- Height (LED module up): 300 mm (11,8")
- Height (LED module down): 155 mm (6,10")
- Width: 484 mm (19,05")
- Depth: 233 mm (9,17")
- Weight: 12,5 kg (27,55 lbs)

Rigging

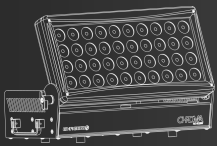
- Two M10 insert
- Four 1/4th turn mounting inserts for two omega bracket
- Two attachment points for safety wire (Handles)

Included accessories

- Cable Merger eventCON® / Schuko + XLR-3

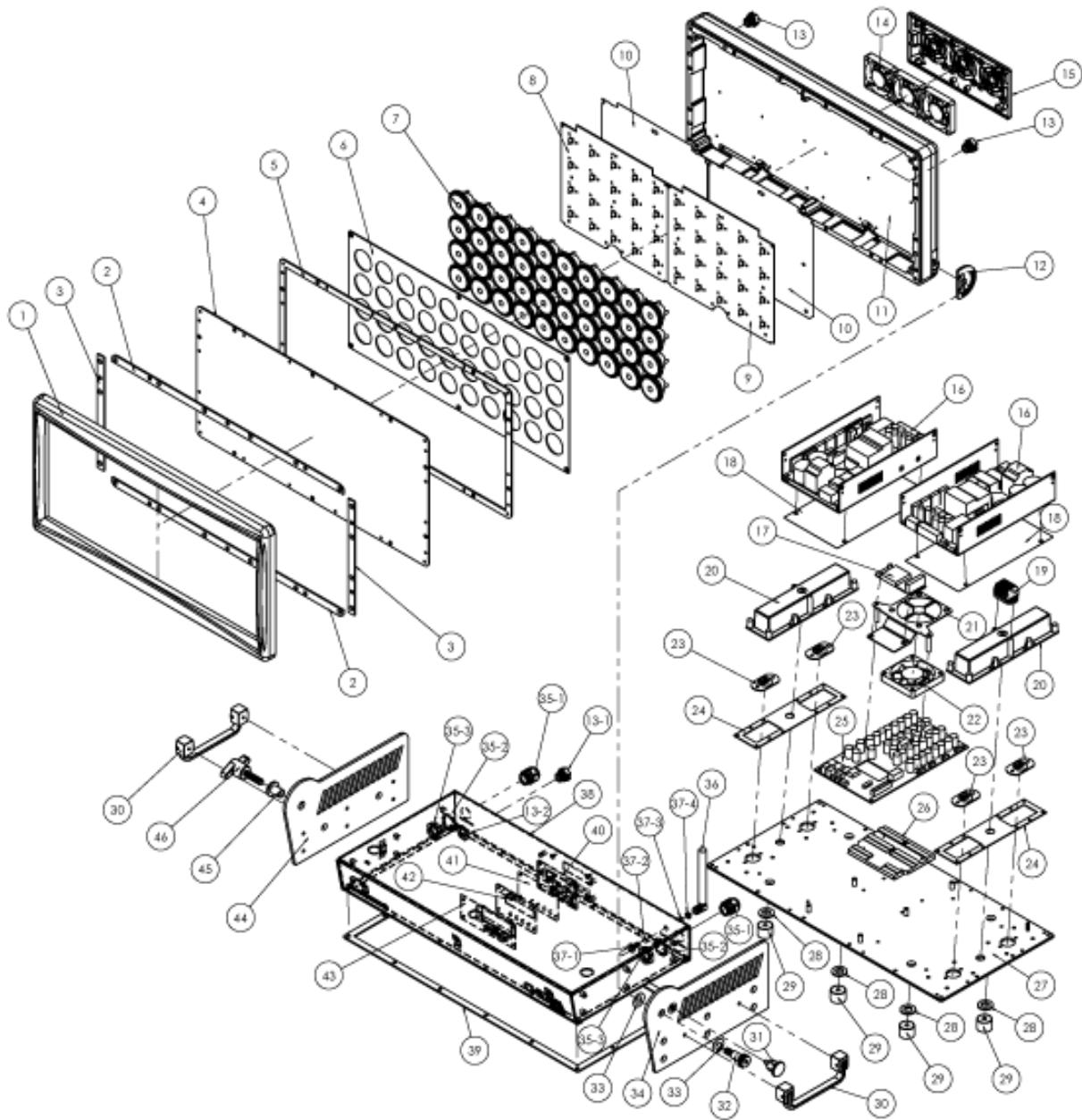
Available Accessoires

- 2 x Omega brackets



Appendix → Exploded drawing

Exploded drawing

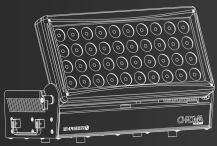


Appendix → Spareparts

Spareparts

#	Description (EN)	Q'TY	Item No.
1	Top Cover	1	111102
2	Lens plate bracket A	2	114186
3	Lens plate bracket B	2	114187
4	Top protection lens plate	1	111103
5	Top Waterproof Seal Ring	1	111107
6	Lens cover plate	1	114148
7	43 degrees Lens Kit	40	113812
	15 degrees Lens Kit	40	113665
8	LED Board for Chroma 40-RGBW (L) V.01	1	112251
9	LED Board for Chroma 40-RGBW (R) V.01	1	112252
10	Heat dissipation pads for LED board	2	114188
11	Top Heat Sink	1	114189
12	Angular Indexing Plate	1	111108
13	Waterproof Air Ventilation Valve	3	106271
14	Waterproof Brushless DC Fan	1	111113
15	Fan Cover	1	111114
16	Power supply	2	113526
17	Wireless DMX module OE-BRX1 RDM Receiver	1	114190
18	Heat Dissipation Pad for Power Supply	2	114191
19	Terminal Block	2	111129
20	Waterproof Box	2	111132
21	Internal Cooling Fan Bracket	1	114192
22	Internal Cooling Fan	1	114193
23	1/4 Turn fast lock mount	4	111090

#	Description (EN)	Q'TY	Item No.
24	Waterproof Box Seal Packing	2	111133
25	Chroma 40-RGBW CTRL+Driver Board	1	112253
26	CTRL+Driver Board Heat Sink	1	114194
27	Bottom Housing Plate	1	114195
28	Rubber washer	4	114196
29	Fixture Standing Feet	4	111138
30	Handle	2	111119
31	Indexed Plunger	1	111117
32	Screw $\varnothing 10 \times 16 (M8)$	1	111116
33	Plate Type Spring ($\varnothing 20 \times \varnothing 10.2 \times T0.5$)	2	114197
34	Side Plate - Left - Chroma	1	114198
35	Waterproof PG Glands	2	106273
36	Wireless Antenna	1	114199
37	Antenna Cable	1	114200
38	Fixture Base Housing-Chroma	1	114201
39	Base Waterproof Rubber Seal	1	114202
40	Display Seal Packing	1	111135
41	Transparent Window for Display	1	111134
42	Display waterproof seal pressure plate	1	114204
43	EHRGEIZ 16x2 LCD Board T1	1	105730
44	Side Plate - Right - Chroma	1	114205
45	Conversion Shaft - M8	1	111123
46	Rotary Knob	1	111124



Appendix → eventCON®

eventCON®

The eventCON is a new, innovative cable connector system, which combines power and DMX signal in one cable and one plug. This is the revolution of connection in lighting. The plug is IP67 certified and can be assembled in the customers need without losing the IP certification. The VDE certification attests the eventCON system a power current up to 16A.

Thanks to the future-oriented mechanism the plug just needs to be inserted into the connector and locks automatically. By turning the sleeve the connection is unlocked.

Innovative cabin solutions simplify the work in the event industry. In order that the eventCON system works with your classic fixtures we have developed adapter sets which connect classic XLR/Schuko/PowerCON with the eventCON system.

Technical Data:

Contact durability	1000	Upper limiting temperature / °C	105
Rated voltage (Power) / V	250	Lower limiting temperature / °C	-40
Rated voltage (Signal) / V	30	Pollution degree	3
Rated impulse voltage / V	2500	Insulating medium group	II
Rated current (Power) / A	16	Protection class	IP67
Rated current (Signal) / A	2	Support structure material	PA66
Cable cross-section (Power) / mm ²	1,5	Contact material	Copper base, gilded
Cable cross-section (Signal) / mm ²	0,5	Connection method	Solder connection
Number of poles (Power)	3	Connection type	Fee plug connector
Number of poles (Signal)	3	Pull relief / mm	7,5 - 9,5
Environmental temperature / °C	40		

Appendix → eventCON®

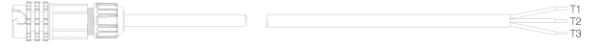
Here is an extract of the available eventCON accessories:

Adapters & Extension



eventCON Adapter Power OUT

- Power OPEN to eventCON OUT



eventCON Adapter Power OUT

- eventCON IN to power OPEN



eventCON Adapter DMX OUT

- eventCON IN to XLR-3F OUT



eventCON Extension

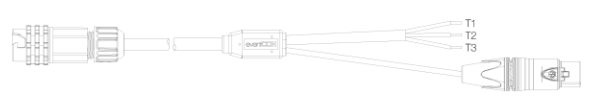
- eventCON IN to eventCON OUT

Splitter & Merger



Input Merger eventCON

- PD1F/PD1M separate
2 eventCON IN to 1 eventCON OUT



Output Splitter eventCON

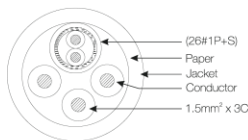
- PD1M/XLR-3/Open
eventCON IN to XLR-3 OUT & Power OPEN



Input Merger Schuko eventCON

- PD1F/XLR-3/Schuko
1 x XLR & 1 x Schuko IN to eventCON OUT

Cable & Plugs

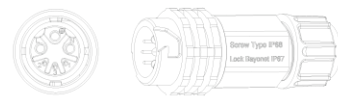


The eventCON cables have a diameter of 9,5mm



Pin Definition

- | | |
|------------|------------|
| Signal | Power |
| • 1: GND | L: Line |
| • 2: Data- | N: Neutral |
| • 3: Data+ | ⊕ : PE |

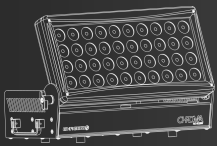


Pin Definition

- | | |
|------------|------------|
| Signal | Power |
| • 1: GND | L: Line |
| • 2: Data- | N: Neutral |
| • 3: Data+ | ⊕ : PE |

Please consider to your own safety:

Only qualified electricians are allowed to wire the eventCON system or solder plugs onto the eventCON cable. Please contact your local dealer for further information if necessary.



Appendix → Colourwheel table

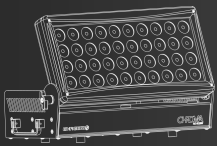
Colourwheel table

Value	Function
0 - 5	No Function, RGBW Colour mixing
6 - 10	LEE 790-Moroccan Pink
11 - 15	LEE 157-Pink
16 - 20	LEE 332-Special Rose Pink
21 - 25	LEE 328-Follies Pink
26 - 30	LEE 345-Fuchsia Pink
31 - 35	LEE 194-Surprise Pink
36 - 40	LEE 181-Congo Blue
41 - 45	LEE 071-Tokyo Blue
46 - 50	LEE 120-Deep Blue
51 - 55	LEE 079-Just Blue
56 - 60	LEE 132-Medium Blue
61 - 65	LEE 200-Double CT Blue
66 - 70	LEE 161-Slate Blue
71 - 75	LEE 201-Full CT Blue
76 - 80	LEE 202-Half CT Blue
81 - 85	LEE 117-Steel Blue
86 - 90	LEE 353-Lighter Blue
91 - 95	LEE 118-Light Blue
96 - 100	LEE 116-Medium Blue Green
101 - 105	LEE 124-Dark Green
106 - 110	LEE 139-Primary Greem
111 - 115	LEE 089-Moss Green
116 - 120	LEE 122-Fern Green
121 - 125	LEE 738-JAS Green
126 - 130	LEE 088-Lime Green
131 - 135	LEE 100-Spring Yellow
136 - 140	LEE 104-Deep Amber
141 - 145	LEE 179-Chrome Orange
146 - 150	LEE 105-Orange
151 - 155	LEE 021-Gold Amber
156 - 160	LEE 778-Mellennium Gold
161 - 165	LEE 135-Deep Golden Amber
166 - 170	LEE 164-Flame Red
Colourwheel rotation effects	
171 - 185	Coulourwheel rotation forward (fast - slow)
186 - 190	Coulourwheel rotation stop
191 - 205	Coulourwheel rotation backward (fast - slow)
206 - 210	Coulourwheel rotation stop
Random colours	
211 - 225	Fast - slow
White hue	
226 - 230	Warmwhite - 2700K
231 - 235	Warmwhite - 3200K
236 - 240	Neutralwhite - 4200K
241 - 245	Coldwhite - 5600K
246 - 250	Coldwhite - 7200K
251 - 255	Coldwhite - 8000K

Appendix → Special control channel

Special control channel

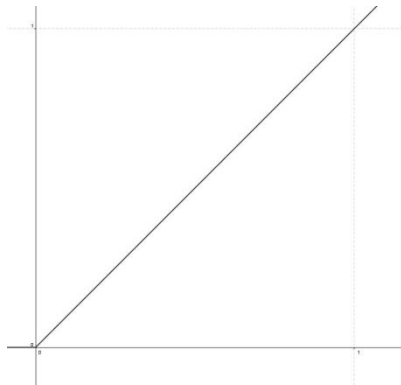
Value	Function
0 – 10	Reserved
11 – 15	fan Regulated
16 – 20	fan Silent
21 – 25	fan Standard
25 – 30	fan High power
31 – 35	Reserved
36 – 40	Remote DMX Address–Low (001–256)
41 – 45	Reserved
46 – 50	Remote DMX Address–High (257–512)
51 – 55	Reserved
56 – 60	Dimmer Speed: Smooth
61 – 65	Dimmer Speed: Fast
66 – 70	Reserved
71 – 75	Dimmer Curve: Linear
76 – 80	Dimmer Curve: Theatrical
81 – 85	Dimmer Curve: Sqaure Law
86 – 90	Dimmer Curve: Inverse Sqaure Law
91 – 175	Reserved
176 – 180	Fixture Reset
181 – 255	Reserved



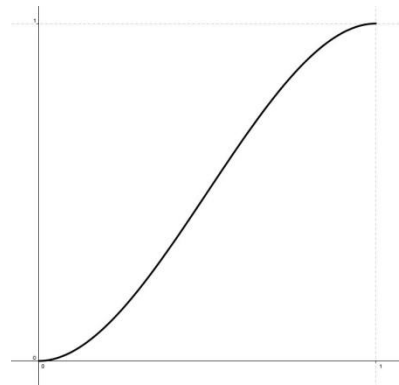
Shutter Channel Table

Value	Function
0 - 15	Shutter Closed
16-47	Random Strobe (slow - fast)
48-79	Random Ramp Up (slow - fast)
80-111	Random Ramp Down (slow - fast)
112-143	Random Ramp UP & down (slow - fast)
144-199	Strobe Pause 5s - 1s (slow - fast)
200-239	Strobe 1Hz - 20 Hz (slow - fast)
240-255	Shutter Open

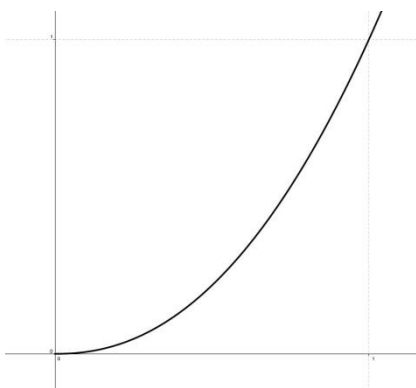
Dimmer Curves



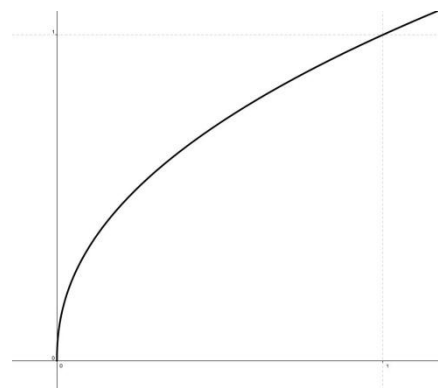
Linear



Theatrical



Square



Inverse square

Appendix → Patterns

Patterns

Chroma 40-**RGBW** Animation Pattern

DMX 000 - 025 = Static

DMX 026 - 092 = Chase Animation -works with Pattern speed table

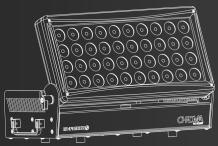
DMX 093 - 159 = Fade Animation -works with Pattern speed table

Static

Value	Pattern	Value	Pattern	Value	Pattern	Value	Pattern	Value	Pattern	Value	Pattern
001-005		006		007		008		009		010	
011		012		013		014		015		016	
017		018		019		020		021		022	
023		024		025							

Animated

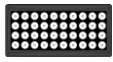
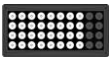
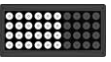
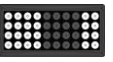
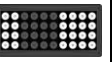

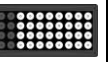

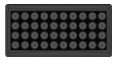
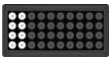
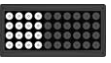
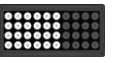
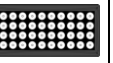
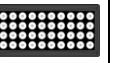
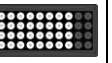
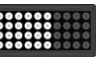
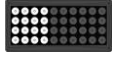



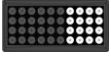

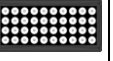
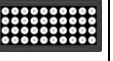

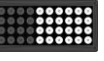




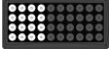
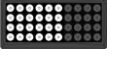
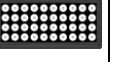
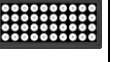
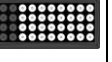
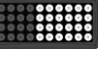










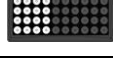


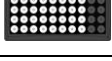







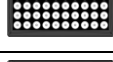
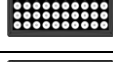
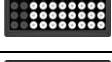














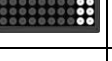

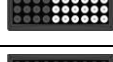


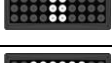

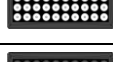
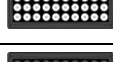






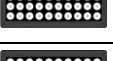





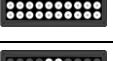






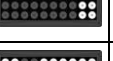
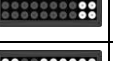


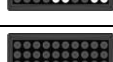
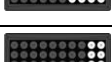
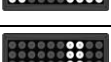

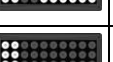
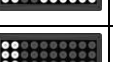
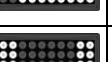
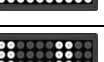

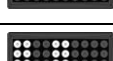
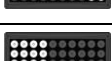
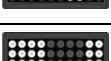
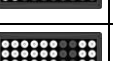
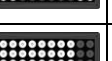
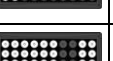
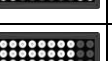
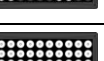














chase	fade	1	2	3	4	5	6	7	8
026	093								
027	094								
028	095								
029	096								
030	097								
031	098								
032	099								
033	100								
034	101								
035	102								
036	103								

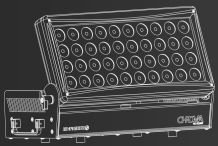


Appendix → Patterns

037	104								
038	105								
039	106								
040	107								
041	108								
042	109								
043	110								
044	111								
045	112								
046	113								
047	114								
048	115								
049	116								
050	117								
051	118								
052	119								
053	120								
054	121								
055	122								
056	123								
057	124								
058	125								
059	126								
060	127								

Appendix → Patterns

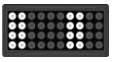
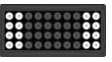
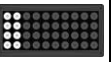
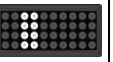
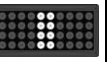
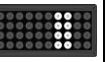
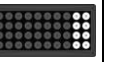



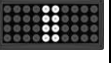
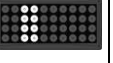

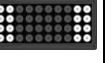
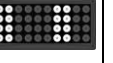



























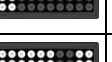

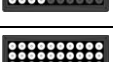
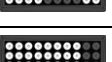
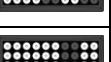





















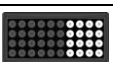
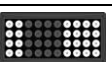
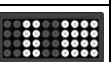
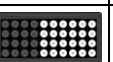
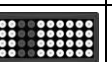
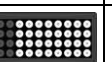

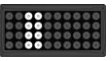
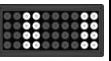
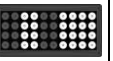
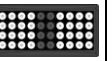
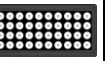



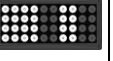
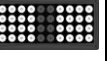
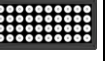


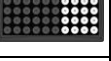
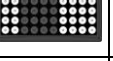
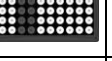







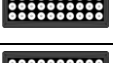











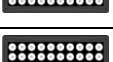











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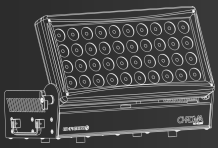


Appendix → Patterns

076	143								
077	144								
078	145								
079	146								
080	147								
081	148								
082	149								

Appendix → Patterns

									
									
									
083	150								
									
									
084	151								
									
									
									
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086	153								
087	154								
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089	156								
090	157								
091	158								
092	159								



Appendix → For your notes

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