DMX REFERENCE

VDO Atomic Dot CLD

Martin Professional



Manufacturer	Martin Professional
GDTF file	Martin_Professional_VDO_Atomic_Dot_CLD_148004.gdtf
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1 About this manual

This document describes the VDO Atomic Dot CLD by Martin Professional. It was compiled from the GDTF file Martin_Professional_VDO_Atomic_Dot_CLD_148004.gdtf from the GDTF-Share library.

File revision: “20260621_MAWorkAround_, Uploaded to GDTF Share.”.

The DMX modes, the channel functions and the technical data are given as the GDTF file states them. Installation, operation from the device's control panel, service and safety instructions are described in the manufacturer's original user manual, which takes precedence over this document.

This document was not issued or endorsed by Martin Professional; product names and trademarks belong to their owners.

Safety notices are marked with signal words according to the severity of the hazard: DANGER – an imminent hazard that will result in death or serious injury; WARNING – a potential hazard that could result in death or serious injury; CAUTION – a potential hazard that could result in minor injury or property damage; NOTE – additional information for correct and safe use.

> **NOTE** This product is designed for stage and effect lighting. It is not suitable for household room illumination.

2 Quick reference

Parameter	Value
Power consumption	50 W
Weight	2.2 kg

DMX modes

Mode	Channels	Units in one universe	First start addresses
1 Channel	1	512	1, 2, 3, 4, ...
3 Channel	3	170	1, 4, 7, 10, ...
4 Channel	4	128	1, 5, 9, 13, ...
Basic	19	26	1, 20, 39, 58, ...
Extended	64	8	1, 65, 129, 193, ...

No light? Check these channels

- 1 Channel: CH 1 Dimmer above 0
- 4 Channel: CH 4 Strobe Effects at 0–5 “No Effect”
- Basic: CH 1 Dimmer 1 above 0; CH 5 Strobe Effects at 0–5 “No Effect”; CH 11 Shutter at 0–49 or 201–210 “Open”; CH 12 Dimmer 2 above 0
- Extended: CH 1 Dimmer 1 above 0; CH 5 Strobe Effects at 0–5 “No Effect”; CH 11 Shutter at 0–49 or 201–210 “Open”; CH 12 Dimmer 2 above 0


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

3 Safety instructions


Read the manual before use


Risk of electric shock


Do not stare into the light


Indoor use only

⚠ WARNING

- This device is intended for professional use. Installation, connection, setup and maintenance must be carried out only by suitably qualified persons who have read this manual.
- Use the device only for its intended purpose and as described in this manual.
- Do not open the housing and do not modify or tamper with the device. Refer all repairs to an authorized service center.
- Do not use the device if its housing, power or data cable, or a connector is damaged, if the device has been dropped, or if liquid or a foreign object has entered it. In such a case, have it checked by a service center.
- Disconnect the device from the power supply before cleaning, maintenance or any work on the connections.
- After moving the device from a cold to a warm environment, let it reach room temperature before switching it on to prevent condensation inside.
- The device is not a toy; keep it out of the reach of children.

⚠ WARNING

- Connect the device only to a properly installed mains outlet with a protective earth (ground) contact. The outlet or other means of disconnection must remain easily accessible.
- Power supply: 100–240 V, 50/60 Hz. Before connecting, make sure that the mains voltage matches this value and the value on the rating plate of the device.
- Do not connect the device to a dimmer or to a dimmed circuit.
- Use only the original power cable or a cable with identical ratings. Protect the cable from damage, do not run it over sharp edges, and never unplug it by pulling on the cable.
- When connecting several devices to one circuit, do not exceed its permitted load.
- Do not touch the device with wet hands.

⚠ WARNING

- This device is designed for indoor use only. Protect it from rain, splashing water, moisture and dust, and do not place containers with liquids on it.
- Do not operate the device in high humidity, near water, or where condensation can form on it.

⚠ CAUTION

- This device emits intense light. Do not look directly into the light source or the beam at close range; doing so may damage your eyes.
- Do not aim the beam at the eyes of people or animals at close range, and do not view the light source through optical instruments (binoculars, camera lenses).
- Do not aim the beam at flammable or heat-sensitive materials at close range.

⚠ CAUTION

- Strobe and fast flashing light effects can trigger epileptic seizures in susceptible people (photosensitive epilepsy) and can cause nausea or disorientation.
- Inform the audience and performers in advance that strobe effects will be used, for example with a notice at the entrance, and do not use them longer than necessary.

4 Installation

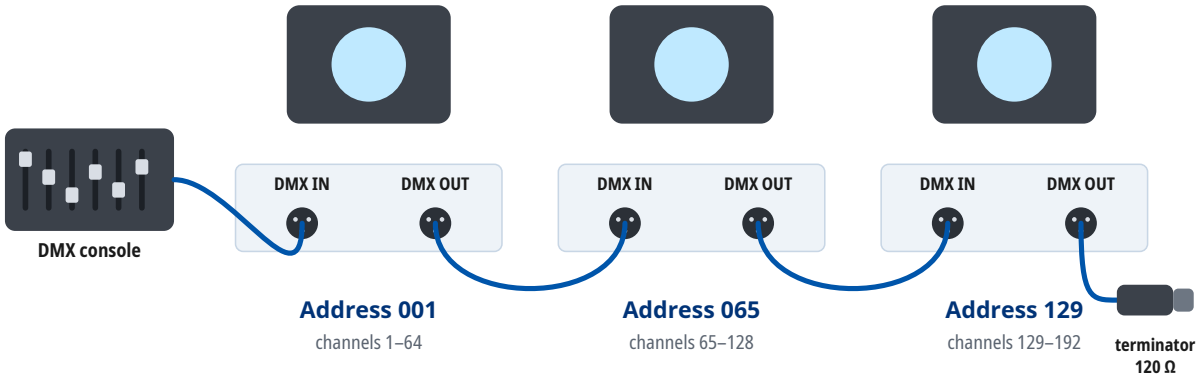
⚠ WARNING

- Rigging must be carried out only by qualified persons in accordance with applicable regulations, in particular those for work at height.
- The supporting structure and fixings must safely carry the weight of all suspended devices; verify their load capacity in advance.
- Weight of the device: 2.2 kg.
- Use suitable mounting hardware (for example truss clamps) and tighten all screw connections properly.
- Always secure the suspended device against falling with a safety cable of adequate load capacity, routed through a fixed point of the device and around the supporting structure.
- During installation and removal, keep people out of the area below the work position.
- Regularly inspect the fixings and the safety cable for damage, corrosion and loosening.

5 Connections

- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it in a star; the line may be split only with a DMX splitter.
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are not connected; a 5-pin connector can be connected to a 3-pin one with a cable adapter.
- Terminate the end of the line (for impedance matching): plug an XLR connector with a 120 Ω, ¼ W resistor between pins 2 and 3 into the DMX OUT of the last device. This reduces the risk of erratic behavior.
- Connect no more than 32 devices to one DMX line. For more devices or longer runs, use a DMX splitter or booster.

DMX line



Mode Extended: every unit occupies 64 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

6 Operation

Setting the DMX address

- The device occupies as many consecutive channels in the DMX universe as the selected DMX mode uses, starting at the set start address.
- Number of channels occupied in the DMX mode “Extended”: 64.
- Choose start addresses so that the channels of individual devices do not overlap and the last occupied channel does not exceed 512. Devices with the same start address and mode respond identically.
- For several devices in a row in the DMX mode “Extended”, you can use, for example, the start addresses 1, 65, 129, 193.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.
- The device supports RDM (Remote Device Management), two-way communication with the controller over the DMX line.

7 Functions at a glance

Functions in each DMX mode

	1 Channel 1 channel	3 Channel 3 channels	4 Channel 4 channels	Basic 19 channels	Extended 64 channels
Pan / Tilt	✓	✓	✓	✓	✓
Dimmer	1	1	1	1, 12	1, 12
Dimmer resolution	8 bit	8 bit	8 bit	16 bit	16 bit
Shutter / strobe		2, 3	2–4	3–5, 11	3–5, 11
Color mixing				17–19	17–64
Color temperature				14	14
Color wheel				15	15
Effects / macros				8–10	8–10
Pixel control					16 cells

Color wheel

1. Color Selection: Open — DMX 0–10
2. Moroccan Pink — DMX 11–15
3. Pink — DMX 16–20
4. Special Rose Pink — DMX 21–25
5. Follies Pink — DMX 26–30
6. Fuchsia Pink — DMX 31–35
7. Surprise Pink — DMX 36–40
8. Congo Blue — DMX 41–45
9. Tokyo Blue — DMX 46–50
10. Deep Blue — DMX 51–55
11. Just Blue — DMX 56–60
12. Medium Blue — DMX 61–65
13. Double CT Blue — DMX 66–70
14. Slate Blue — DMX 71–75
15. Full CT Blue — DMX 76–80
16. Half CT Blue — DMX 81–85
17. Steel Blue — DMX 86–90
18. Lighter Blue — DMX 91–95
19. Light Blue — DMX 96–100
20. Medium Blue Green — DMX 101–105
21. Dark Green — DMX 106–110
22. Primary Green — DMX 111–115
23. Moss Green — DMX 116–120
24. Fern Green — DMX 121–125

25 Jas Green
DMX 126–130

26 Lime Green
DMX 131–135

27 Spring Yellow
DMX 136–140

28 Deep Amber
DMX 141–145

29 Chrome Orange
DMX 146–150

30 Orange
DMX 151–155

31 Gold Amber
DMX 156–160

32 Millennium Gold
DMX 161–165

33 Deep Golden Amber
DMX 166–170

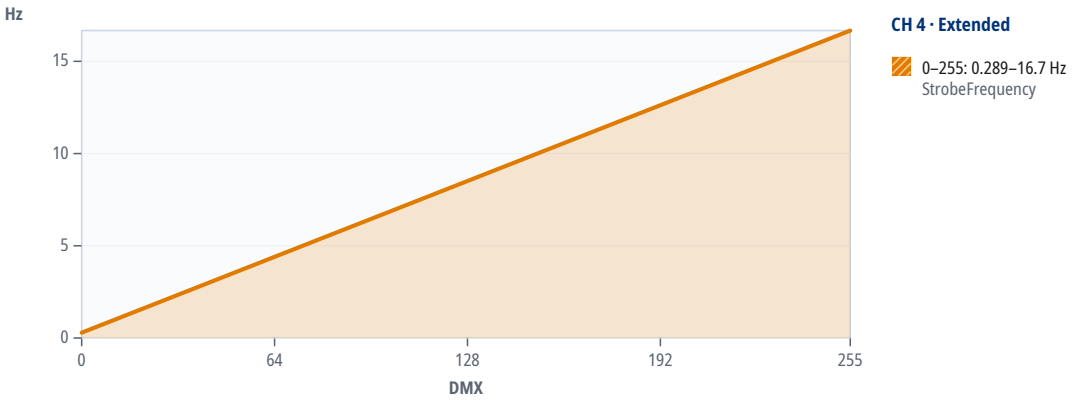
34 Flame Red
DMX 171–175

35 Red Magenta
DMX 176–180

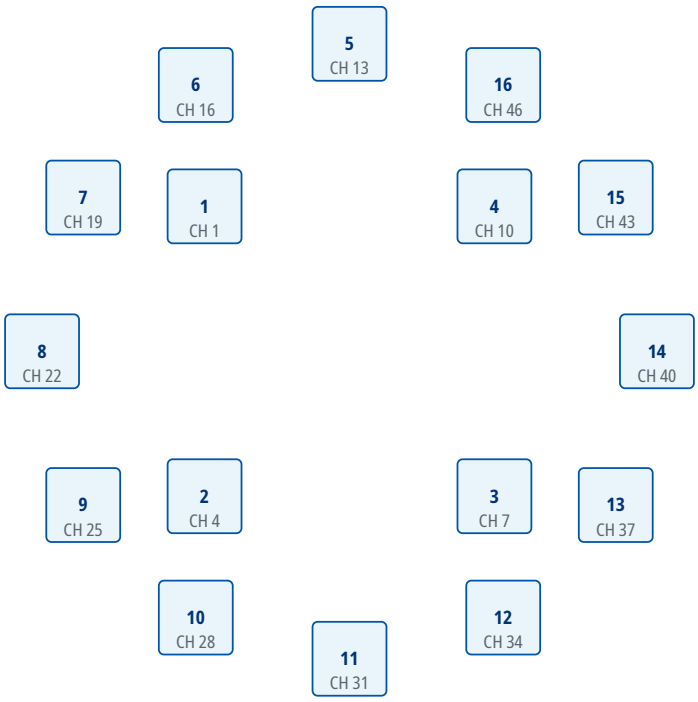
36 Medium Lavender
DMX 181–185

37 Pure White
DMX 186–191

Strobe rate



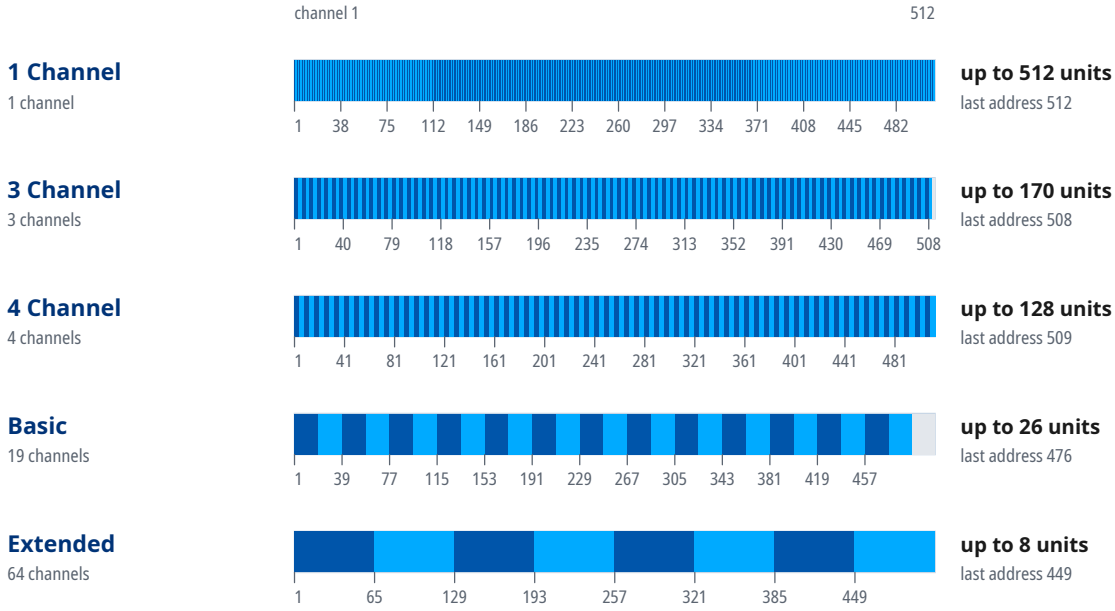
Cells (pixels)



16 cells where the GDTF file places them (seen from above), numbered by their first DMX channel (CH) in the mode “Extended”.

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Extended”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	321	11	U2 · 129	16	U2 · 449
2	65	7	385	12	U2 · 193	17	U3 · 1
3	129	8	449	13	U2 · 257	18	U3 · 65
4	193	9	U2 · 1	14	U2 · 321	19	U3 · 129
5	257	10	U2 · 65	15	U2 · 385	20	U3 · 193

Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

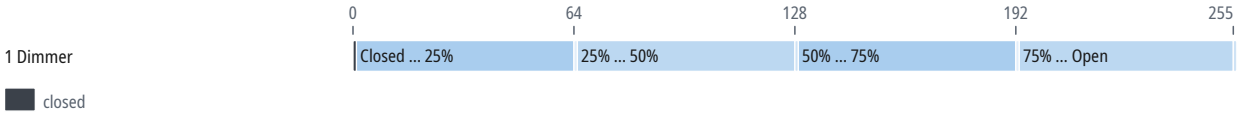
RDM personalities

Mode	Channels	RDM personality
1 Channel	1	1
3 Channel	3	2
4 Channel	4	3
Basic	19	4
Extended	64	5

Mode 1 Channel

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255.

Channel functions at a glance

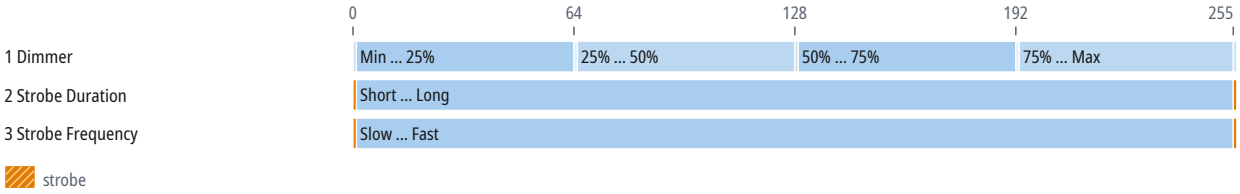


CH	Function	DMX	Description
1	Dimmer	0	Closed
		1–63	Closed ... 25%
		64	25%
		65–127	25% ... 50%
		128	50%
		129–191	50% ... 75%
		192	75%
		193–254	75% ... Open
		255	Open

Mode 3 Channel

The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 2 Strobe Duration 255, CH 3 Strobe Frequency 255.

Channel functions at a glance



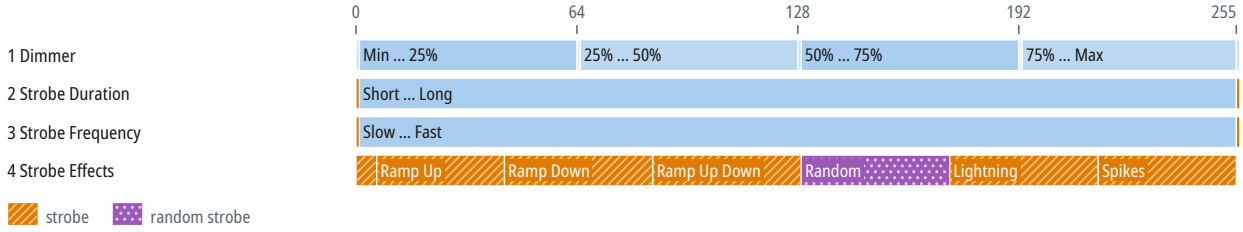
CH	Function	DMX	Description
1	Dimmer	0	Min
		1–63	Min ... 25%
		64	25%
		65–127	25% ... 50%
		128	50%
		129–191	50% ... 75%
		192	75%
		193–254	75% ... Max
		255	Max
2	Strobe Duration	0	Short
		1–254	Short ... Long
		255	Long

CH	Function	DMX	Description
3	Strobe Frequency	0	Slow
		1–254	Slow ... Fast
		255	Fast

Mode 4 Channel

If the device receives DMX in this mode but gives no light, check these channels: CH 4 Strobe Effects at 0–5 “No Effect”. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 255, CH 2 Strobe Duration 255, CH 3 Strobe Frequency 255, CH 4 Strobe Effects 0.

Channel functions at a glance



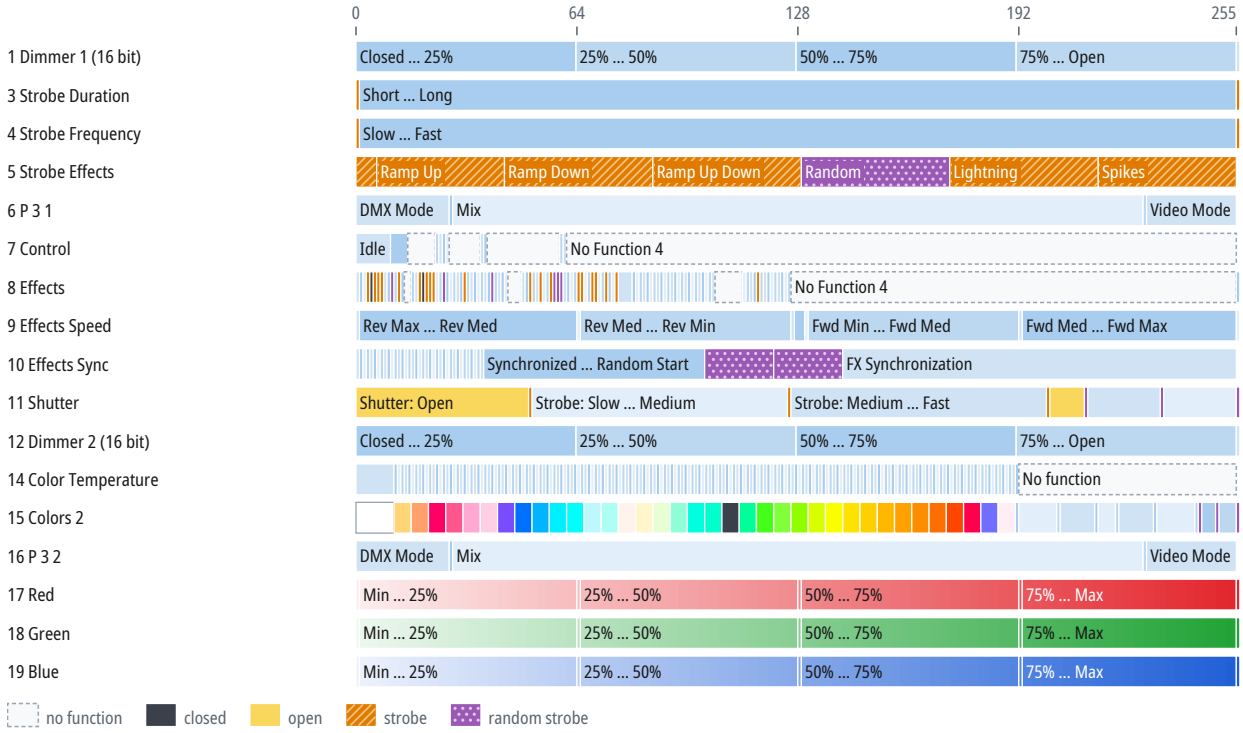
CH	Function	DMX	Description
1	Dimmer		Same as CH 1 in the mode “3 Channel” (p. 11)
2	Strobe Duration		Same as CH 2 in the mode “3 Channel” (p. 11)
3	Strobe Frequency		Same as CH 3 in the mode “3 Channel” (p. 12)
4	Strobe Effects	0–5	No Effect
		6–42	Ramp Up
		43–85	Ramp Down
		86–128	Ramp Up Down
		129–171	Random
		172–214	Lightning
		215–255	Spikes

Mode Basic

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer 1 above 0; CH 5 Strobe Effects at 0–5 “No Effect”; CH 11 Shutter at 0–49 or 201–210 “Open”; CH 12 Dimmer 2 above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 1 255, CH 3 Strobe Duration 255, CH 4 Strobe Frequency 255, CH 5 Strobe Effects 0, CH 11 Shutter 30, CH 12 Dimmer 2 255, CH 14 Color Temperature 0, CH 15 Colors 2 0, CH 17 Red 255, CH 18 Green 255, CH 19 Blue 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer 1	0–63	Closed ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		192–255	75% ... Open
		255	Open
2	Dimmer 1 Fine	0–255	Fine adjustment of CH 1
3	Strobe Duration		Same as CH 2 in the mode “3 Channel” (p. 11)
4	Strobe Frequency		Same as CH 3 in the mode “3 Channel” (p. 12)
5	Strobe Effects		Same as CH 4 in the mode “4 Channel” (p. 12)
6	P 3 1	0–26	DMX Mode
		27	DMX
		28–227	Mix
		228	Video
		229–255	Video Mode
7	Control	0–9	Idle

CH	Function	DMX	Description
7	Control (continued)	10–14	Reset Entire Fixture (5s)
		15–22	No Function 1
		23	Linear (1s)
		24	Square Law (1s)
		25	Inverse Square Law (1s)
		26	S-Curve (1s)
		27–35	No Function 2
		36	Enable (1s)
		37	Disable (1s)
		38–58	No Function 3
		59	LED (1s)
		60	Xenon (1s)
		61–255	No Function 4
8	Effects	0	No Effect
		1	Beam Wave
		2	Beam Step
		3	Beam Pulse
		4	Beam Blackout Strobe
		5	Beam 2x Strobe
		6	Beam 3x Strobe
		7	Beam 4x Strobe
		8	Beam Up Down Flash
		9	Beam Up Flash Down Flash
		10	Beam Random Levels
		11	Beam HouseLight
		12	Beam Threshold Strobe
		13	Beam Threshold On
		14–15	No Function 1
		16	Backlight Wave
		17	Backlight Step
		18	Backlight Pulse
		19	Backlight Blackout Strobe
		20	Backlight 2x Strobe
		21	Backlight 3x Strobe
		22	Backlight 4x Strobe
		23	Backlight Up Down Flash
		24	Backlight Up Flash Down Flash
		25	Backlight Random Levels
		26	Backlight Noise Overlay
		27	Backlight PixelKiller
		28	Backlight Build UpDown
		29	Backlight Ring Wave

CH	Function	DMX	Description
8	Effects (continued)	30	Backlight Ring Step
		31	Backlight Ring Pulse
		32	Backlight Waterdrop
		33	Backlight Sonar 1
		34	Backlight Sonar 2
		35	Backlight Sonar 3
		36	Backlight Sonar 6
		37	Backlight Sonar 9
		38	Backlight Slice Pie Chase
		39	Backlight Random Chase
		40	Backlight Movie Flicker
		41	Backlight Pixel Intensity FX: Backlight Electric Arc
		42	Backlight Atomic Lighting
		43	Backlight Thunderstorm
		44–47	No Function 2
		48	Backlight Rainbow Wave
		49	Backlight Rainbow Step
		50	Backlight Rainbow Pulse
		51	Backlight RGB Wave
		52	Backlight RGB Step
		53	Backlight RGB Pulse
		54	Backlight CMY Wave
		55	Backlight CMY Step
		56	Backlight CMY Pulse
		57	Backlight Random Wave
		58	Backlight Random Step
		59	Backlight Random Pulse
		60	Backlight Solid
		61	Backlight Spectrum Shifter
		62	Backlight RGB to White Wave
		63	Backlight RGB to White Step
		64	Backlight RGB to White Pulse
		65	Backlight RGB to White Strobe
		66	Backlight Normal to White Wave
		67	Backlight Normal to White Step
		68	Backlight Normal to White Pulse
		69	Backlight Normal to White Strobe
		70	Backlight RGB to Invert Wave
		71	Backlight RGB to Invert Step
		72	Backlight RGB to Invert Pulse
		73	Backlight Normal to Invert Wave
		74	Backlight Normal to Invert Step

CH	Function	DMX	Description
8	Effects (continued)	75	Backlight Normal to Invert Pulse
		76–79	Backlight Normal to Invert Pulse … Backlight RedWhiteBlue Fade
		80	Backlight RedWhiteBlue Fade
		81	Backlight RedWhiteBlue Snap
		82	Backlight Fire
		83	Backlight Water
		84	Backlight Ice
		85	Backlight Hot and Cold
		86	Backlight Warm and Fuzzy
		87	Backlight Silver and Gold
		88	Backlight Gold and Silver
		89	Backlight NightRider
		90	Backlight Police Car 1
		91	Backlight Police Car 2
		92	Backlight Police Car 3
		93	Backlight Swimming Pool
		94	Backlight Color FX: Backlight Electric Arc
		95	Backlight Stars
		96	Backlight Fiberoptic White
		97	Backlight Fiberoptic Mix
		98	Backlight Plasma
		99	Backlight Starfield
		100	Backlight Colorwave
		101	Backlight Noise
		102	Backlight Snowflakes
		103	Backlight Rain
		104–111	No Function 3
		112	Tungsten Beam+Backlight
		113	Tungsten Beam+Backlight Decay
		114	Beam Backlight Thunderstorm
		115	Beam Backlight Welding
		116	Beam Backlight 3-Step Strobe
		117	Beam Backlight Tick Tock
		118	Backlight Ramp Beam Flash
		119	Beam Ramp Backlight Flash
		120–125	Police Car 4…9
		126–254	No Function 4
		255	LED Frequency
9	Effects Speed		When CH 8 is 0–254:
		0	Rev Max
		1–63	Rev Max … Rev Med

CH	Function	DMX	Description
9	Effects Speed (continued)	64	Rev Med
		65–125	Rev Med ... Rev Min
		126	Rev Min
		127–129	Stop
		130	Fwd Min
		131–191	Fwd Min ... Fwd Med
		192	Fwd Med
		193–254	Fwd Med ... Fwd Max
		255	Fwd Max
			When CH 8 is 255:
		0	2400 Hz
		1–63	2400 Hz ... 2700 Hz
		64	2700 Hz
		65–127	2700 Hz ... 3000 Hz
		128	3000 Hz
		129–254	No Function 1
		255	Frequency High: High
10	Effects Sync		FX Synchronization
		0	No Sync
		1	Fixture Offset 10deg
		2	Fixture Offset 20deg
		3	Fixture Offset 30deg
		4	Fixture Offset 40deg
		5	Fixture Offset 50deg
		6	Fixture Offset 60deg
		7	Fixture Offset 70deg
		8	Fixture Offset 80deg
		9	Fixture Offset 90deg
		10	Fixture Offset 100deg
		11	Fixture Offset 110deg
		12	Fixture Offset 120deg
		13	Fixture Offset 130deg
		14	Fixture Offset 140deg
		15	Fixture Offset 150deg
		16	Fixture Offset 160deg
		17	Fixture Offset 170deg
		18	Fixture Offset 180deg
		19	Fixture Offset 190deg
		20	Fixture Offset 200deg
		21	Fixture Offset 210deg
		22	Fixture Offset 220deg
		23	Fixture Offset 230deg

CH	Function	DMX	Description
10	Effects Sync (continued)	24	Fixtrue Offset 240deg
		25	Fixture Offset 250deg
		26	Fixture Offset 260deg
		27	Fixture Offset 270deg
		28	Fixture Offset 280deg
		29	Fixture Offset 290deg
		30	Fixture Offset 300deg
		31	Fixture Offset 310deg
		32	Fixture Offset 320deg
		33	Fixture Offset 330deg
		34	Fixture Offset 340deg
		35	Fixture Offset 350deg
		36	Synchronized
		37–100	Synchronized ... Random Start
		101–120	Random Start
		121–140	Random Duration
		141–255	FX Synchronization
11	Shutter	0–49	Shutter: Open
		50	Strobe: Slow
		51–124	Strobe: Slow ... Medium
		125	Strobe: Medium
		126–199	Strobe: Medium ... Fast
		200	Strobe: Fast
		201–210	Shutter: Open
		211	Strobe Random: Slow
		212–232	Strobe Random: Slow ... Medium
		233	Strobe Random: Medium
		234–254	Strobe Random: Medium ... Fast
		255	Strobe Random: Fast
12	Dimmer 2	0–63	Closed ... 25%
		64–127	25% ... 50%
		128–191	50% ... 75%
		192–255	75% ... Open
		255	Open
13	Dimmer 2 Fine	0–255	Fine adjustment of CH 12
14	Color Temperature	0–10	Disable
		11	2000K
		12	2050K
		13	2100K
		14	2150K
		15	2200K
		16	2250K

CH	Function	DMX	Description
14	Color Temperature (continued)	17	2300K
		18	2350K
		19	2400K
		20	2450K
		21	2500K
		22	2550K
		23	2600K
		24	2650K
		25	2700K
		26	2750K
		27	2800K
		28	2850K
		29	2900K
		30	2950K
		31	3000K
		32	3050K
		33	3100K
		34	3150K
		35	3200K
		36	3250K
		37	3300K
		38	3350K
		39	3400K
		40	3450K
		41	3500K
		42	3550K
		43	3600K
		44	3650K
		45	3700K
		46	3750K
		47	3800K
		48	3850K
		49	3900K
		50	3950K
		51	4000K
		52	4050K
		53	4100K
		54	4150K
		55	4200K
		56	4250K
		57	4300K
		58	4350K

CH	Function	DMX	Description
14	Color Temperature (continued)	59	4400K
		60	4450K
		61	4500K
		62	4550K
		63	4600K
		64	4650K
		65	4700K
		66	4750K
		67	4800K
		68	4850K
		69	4900K
		70	4950K
		71	5000K
		72	5050K
		73	5100K
		74	5150K
		75	5200K
		76	5250K
		77	5300K
		78	5350K
		79	5400K
		80	5450K
		81	5500K
		82	5550K
		83	5600K
		84	5650K
		85	5700K
		86	5750K
		87	5800K
		88	5850K
		89	5900K
		90	5950K
		91	6000K
		92	6050K
		93	6100K
		94	6150K
		95	6200K
		96	6250K
		97	6300K
		98	6350K
		99	6400K
		100	6450K

CH	Function	DMX	Description
14	Color Temperature (continued)	101	6500K
		102	6550K
		103	6600K
		104	6650K
		105	6700K
		106	6750K
		107	6800K
		108	6850K
		109	6900K
		110	6950K
		111	7000K
		112	7050K
		113	7100K
		114	7150K
		115	7200K
		116	7250K
		117	7300K
		118	7350K
		119	7400K
		120	7450K
		121	7500K
		122	7550K
		123	7600K
		124	7650K
		125	7700K
		126	7750K
		127	7800K
		128	7850K
		129	7900K
		130	7950K
		131	8000K
		132	8050K
		133	8100K
		134	8150K
		135	8200K
		136	8250K
		137	8300K
		138	8350K
		139	8400K
		140	8450K
		141	8500K
		142	8550K

CH	Function	DMX	Description
14	Color Temperature (continued)	143	8600K
		144	8650K
		145	8700K
		146	8750K
		147	8800K
		148	8850K
		149	8900K
		150	8950K
		151	9000K
		152	9050K
		153	9100K
		154	9150K
		155	9200K
		156	9250K
		157	9300K
		158	9350K
		159	9400K
		160	9450K
		161	9500K
		162	9550K
		163	9600K
		164	9650K
		165	9700K
		166	9750K
		167	9800K
		168	9850K
		169	9900K
		170	9950K
		171	10000K
		172	10050K
		173	10100K
		174	10150K
		175	10200K
		176	10250K
		177	10300K
		178	10350K
		179	10400K
		180	10450K
		181	10500K
		182	10550K
		183	10600K
		184	10650K

CH	Function	DMX	Description
14	Color Temperature (continued)	185	10700K
		186	10750K
		187	10800K
		188	10850K
		189	10900K
		190	10950K
		191	11000K
		192–255	No function
15	Colors 2	0–10	Color Selection: Open
		11–15	Moroccan Pink
		16–20	Pink
		21–25	Special Rose Pink
		26–30	Follies Pink
		31–35	Fuchsia Pink
		36–40	Surprise Pink
		41–45	Congo Blue
		46–50	Tokyo Blue
		51–55	Deep Blue
		56–60	Just Blue
		61–65	Medium Blue
		66–70	Double CT Blue
		71–75	Slate Blue
		76–80	Full CT Blue
		81–85	Half CT Blue
		86–90	Steel Blue
		91–95	Lighter Blue
		96–100	Light Blue
		101–105	Medium Blue Green
		106–110	Dark Green
		111–115	Primary Green
		116–120	Moss Green
		121–125	Fern Green
		126–130	Jas Green
		131–135	Lime Green
		136–140	Spring Yellow
		141–145	Deep Amber
		146–150	Chrome Orange
		151–155	Orange
		156–160	Gold Amber
		161–165	Millennium Gold
		166–170	Deep Golden Amber
		171–175	Flame Red

CH	Function	DMX	Description
15	Colors 2 (continued)	176–180	Red Magenta
		181–185	Medium Lavender
		186–190	Pure White
		191	CW Max
		192–202	CW Max ... CW Med
		203	CW Med
		204–213	CW Med ... CW Min
		214	CW Min
		215–219	Color Spin: Stop
		220	CCW Min
		221–230	CCW Min ... CCW Med
		231	CCW Med
		232–242	CCW Med ... CCW Max
		243	CCW Max
		244	Color Random: Fast
		245–248	Fast ... Medium
		249	Medium
		250–254	Medium ... Slow
		255	Color Random: Slow
16	P 3 2	0–26	DMX Mode
		27	DMX
		28–227	Mix
		228	Video
		229–255	Video Mode
17	Red	0	Min
		1–63	Min ... 25%
		64	25%
		65–127	25% ... 50%
		128	50%
		129–191	50% ... 75%
		192	75%
		193–254	75% ... Max
		255	Max
18	Green	0	Min
		1–63	Min ... 25%
		64	25%
		65–127	25% ... 50%
		128	50%
		129–191	50% ... 75%
		192	75%
		193–254	75% ... Max
		255	Max

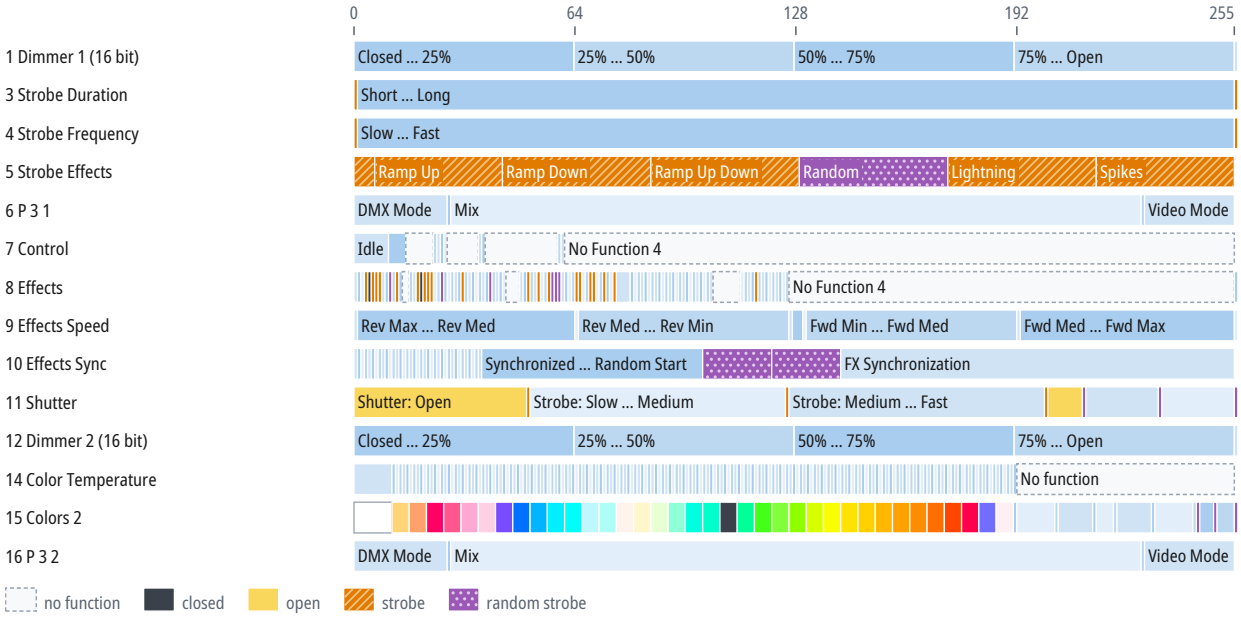
CH	Function	DMX	Description
19	Blue	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–191	50% … 75%
		192	75%
		193–254	75% … Max
		255	Max

Mode Extended

16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Dimmer 1 above 0; CH 5 Strobe Effects at 0–5 “No Effect”; CH 11 Shutter at 0–49 or 201–210 “Open”; CH 12 Dimmer 2 above 0. The GDTF file gives these values for a console's Highlight function: CH 1 Dimmer 1 255, CH 3 Strobe Duration 255, CH 4 Strobe Frequency 255, CH 5 Strobe Effects 0, CH 11 Shutter 30, CH 12 Dimmer 2 255, CH 14 Color Temperature 0, CH 15 Colors 2 0, CH 17 Red 255 (the same in each of the 16 cells), CH 18 Green 255 (the same in each of the 16 cells), CH 19 Blue 255 (the same in each of the 16 cells).

Channel functions at a glance



CH	Function	DMX	Description
1	Dimmer 1		Same as CH 1 in the mode “Basic” (p. 13)
2	Dimmer 1 Fine	0–255	Fine adjustment of CH 1
3	Strobe Duration		Same as CH 2 in the mode “3 Channel” (p. 11)
4	Strobe Frequency		Same as CH 3 in the mode “3 Channel” (p. 12)
5	Strobe Effects		Same as CH 4 in the mode “4 Channel” (p. 12)
6	P 3 1		Same as CH 6 in the mode “Basic” (p. 13)

CH	Function	DMX	Description
7	Control		Same as CH 7 in the mode “Basic” (p. 13)
8	Effects		Same as CH 8 in the mode “Basic” (p. 14)
9	Effects Speed		Same as CH 9 in the mode “Basic” (p. 16)
10	Effects Sync		Same as CH 10 in the mode “Basic” (p. 17)
11	Shutter		Same as CH 11 in the mode “Basic” (p. 18)
12	Dimmer 2		Same as CH 12 in the mode “Basic” (p. 18)
13	Dimmer 2 Fine	0–255	Fine adjustment of CH 12
14	Color Temperature		Same as CH 14 in the mode “Basic” (p. 18)
15	Colors 2		Same as CH 15 in the mode “Basic” (p. 23)
16	P 3 2		Same as CH 16 in the mode “Basic” (p. 24)
17	Red 1	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–191	50% … 75%
		192	75%
		193–254	75% … Max
		255	Max
18	Green 1	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–191	50% … 75%
		192	75%
		193–254	75% … Max
		255	Max
19	Blue 1	0	Min
		1–63	Min … 25%
		64	25%
		65–127	25% … 50%
		128	50%
		129–191	50% … 75%
		192	75%
		193–254	75% … Max
		255	Max

CH 17–64: 16 cells of 3 channels each. Every cell works as cell 1 in the table above (CH 17–19); the table below gives each cell's channel numbers.

Cell	Red	Green	Blue	Cell	Red	Green	Blue	Cell	Red	Green	Blue
1	17	18	19	2	20	21	22	3	23	24	25
4	26	27	28	5	29	30	31	6	32	33	34
7	35	36	37	8	38	39	40	9	41	42	43
10	44	45	46	11	47	48	49	12	50	51	52
13	53	54	55	14	56	57	58	15	59	60	61
16	62	63	64								

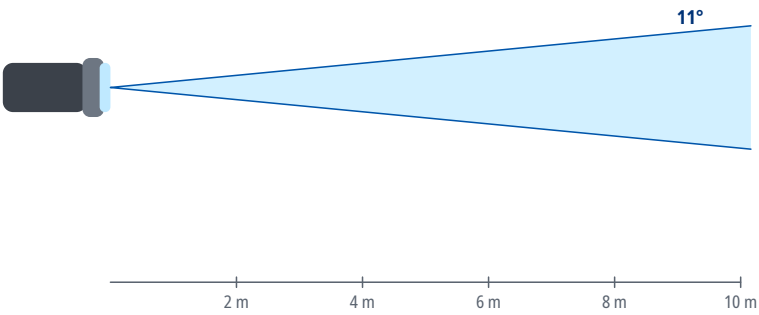
9 Technical specifications

Parameter	Value
Light	
Light source	LED
Control	
DMX connection	Martin PDE IN/OUT
RDM	yes (manufacturer ID 0x4D50, device model ID 0x0092)
Electrical	
Power supply	100–240 V, 50/60 Hz
Power consumption	50 W
Power connectors	Martin PDE IN
Dimensions and construction	
Weight	2.2 kg
Operating environment	
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2000–11000 K
Strobe frequency	0.289–20 Hz
Strobe flash duration	0.007–0.65 s
Color wheel rotation	up to 73.5 °/s (12 rpm)

Spot diameter



Distance	Ø 11°
2 m	0.39 m
4 m	0.77 m
6 m	1.2 m
8 m	1.5 m
10 m	1.9 m
15 m	2.9 m

Spot diameter square to the beam axis, calculated from the beam angle.

10 Maintenance and cleaning

- Before cleaning and maintenance, switch the device off, disconnect it from the power supply and let it cool down.
- Clean the housing with a soft, dry or slightly damp cloth. Do not use solvents, abrasive cleaners or pressure washers, and make sure no liquid gets into the device.
- Clean optical parts (lenses, front glass), if the device has any, with a soft lint-free cloth and a cleaner intended for optics or glass.
- Regularly inspect the housing, cables, connectors and fixings. Have damaged parts replaced by a service center.
- How often to clean depends on the environment; dust, smoke and fog make the device dirty much faster.

11 Troubleshooting

Problem	Remedy
The device does not switch on	Check the supply voltage, the cables and the fuse, if the device has one.
The device does not respond to DMX	Check the start address, the selected DMX mode and whether it matches the profile in the controller, the cable connection to DMX IN, and the controller output (universe).
The device behaves erratically or flickers	Check the terminator at the end of the line, the condition and wiring of the cables (shield on pin 1 only), the number of devices on the line (32 at most), and that the line is not split without a splitter.
Only some devices on the line respond	Check the cable and connectors between the last working and the first non-working device, and make sure all devices on the line are switched on.
Devices respond to the wrong channels or affect each other	Check that the addresses do not overlap and that the DMX mode on the devices matches the patch in the controller.
The device or the connected load does not light up although it receives DMX	Check the values of the dimmer, shutter and strobe channels against the DMX channel table. For the DMX modes for which the sources state it, the chapter DMX channels gives under the mode's heading which channels must be open.

12 Disposal

The crossed-out wheeled bin symbol on the product, in the manual or on the packaging means that the product must not be disposed of with unsorted household waste at the end of its life.

Take the end-of-life equipment to a collection point, for example a municipal collection site or a retailer. Proper disposal enables materials to be recycled and helps prevent possible negative effects on the environment and human health.

Follow the regulations applicable in your country; in the Czech Republic, take-back is governed by Act No. 542/2020 Coll., on End-of-Life Products.

Recycle the packaging materials according to their type.