DMX REFERENCE

Nereid760 Outdoor

User Test



Manufacturer	User Test
GDTF file	User_Test_Nereid760_Outdoor_82204.gdtf
GDTF revision	Nereid760 · 2025-01-02
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1 About this manual

This document describes the Nereid760 Outdoor by User Test. It was compiled from the GDTF file User_Test_Nereid760_Outdoor_82204.gdtf from the GDTF-Share library.

File revision: “Nereid760”.

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 User Test; 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
Weight	15.6 kg
Ingress protection	IP65

DMX modes

Mode	Channels	Units in one universe	First start addresses
23 Channels	23	22	1, 24, 47, 70, ...
35 Channels	35	14	1, 36, 71, 106, ...
51 Channels	51	10	1, 52, 103, 154, ...

No light? Check these channels

- 23 Channels: CH 8 Dimmer above 0; CH 9 Shutter at 104–107, 208–212 or 252–255 “Open”
- 35 Channels: CH 8 Dimmer 1 above 0; CH 10 Shutter 1 at 104–107, 208–212 or 252–255 “Open”; CH 22 Dimmer 2 above 0; CH 23 Shutter 2 at 104–107, 208–212 or 252–255 “Open”; CH 33 Dimmer 3 above 0; CH 34 Shutter 3 at 104–107, 208–212 or 252–255 “Open”
- 51 Channels: CH 8 Dimmer above 0; CH 9 Shutter at 104–107, 208–212 or 252–255 “Open”



Read the manual before use



Do not stare into the light

3 Safety instructions



Read the manual before use



Do not stare into the light

⚠ 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.

⚠ CAUTION

- The device is rated IP65 and may be used outdoors within the limits of this rating.
- This protection is effective only when all connectors are mated or closed with their protective caps and all seals are intact. Use cables and connectors with the same or a higher protection rating.
- Do not open the housing; opening it breaks the seals and the protection rating can no longer be guaranteed.
- Install the device so that water cannot collect around connectors and cable glands, and inspect seals and cables regularly.

⚠ 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.

> ⚠ **WARNING**
>
> - The moving parts of the device (for example the head or arms) can move quickly and unexpectedly at any time – after power-on, during a reset, or on a command from the controller.
> - Keep yourself and any objects out of the range of movement. While the device is switched on, do not touch the moving parts, move them by hand, or obstruct their movement; this can cause injury (pinching) and damage the drive.
> - Do not carry the device by its moving parts. If the device has a transport lock, engage it before transport and release it before switching on.

4 Product description

Description in the GDTF file

“Experience the weatherproof moving heads of the beamZ Nereid series. This series of professional outdoor moving heads guarantees durability and top performance, thanks to its weatherproof IP65 design that can handle any environment. With powerful motors that ensure smooth and fast movements, these moving heads offer precise positioning like no other. The Nereid series brings any event to life with vibrant colours, dynamic effects and impressive light output. Whether for concerts, festivals, outdoor events or architectural applications - this series brings every event to life. Thanks to their clear operation and energy efficiency, they meet all your lighting needs without compromising on versatility and creativity. Light up your world with the beamZ Nereid Series and make every event an unforgettable experience!”

5 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: 15.55 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.

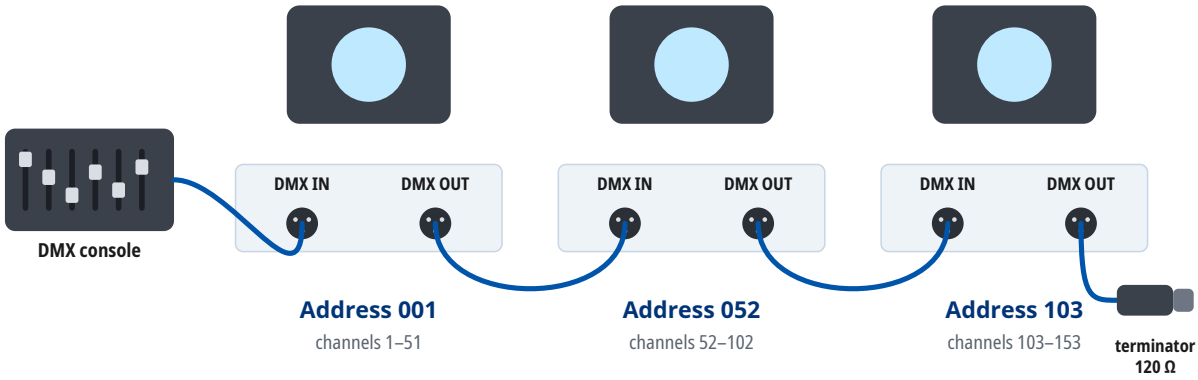
6 Connections

- 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 51 Channels: every unit occupies 51 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.

7 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 “51 Channels”: 51.
- 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 “51 Channels”, you can use, for example, the start addresses 1, 52, 103, 154.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

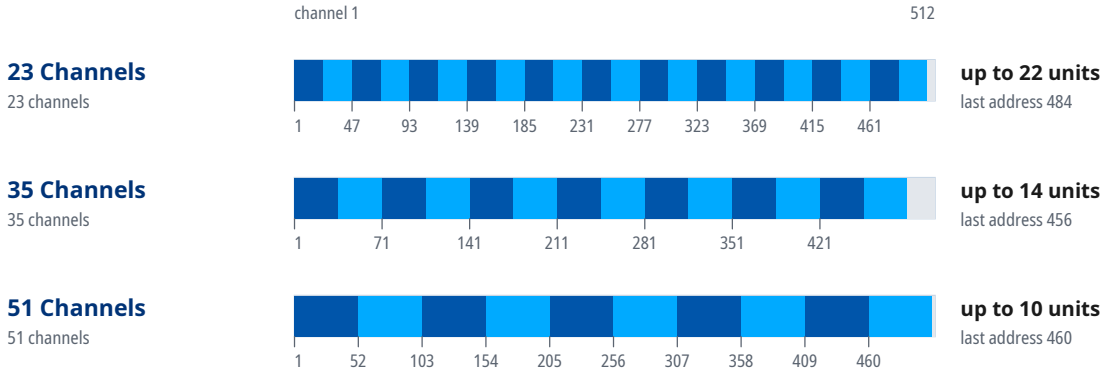
8 Functions at a glance

Functions in each DMX mode

	23 Channels 23 channels	35 Channels 35 channels	51 Channels 51 channels
Pan / Tilt	**1, 3**	**1, 3**	**1, 3**
Dimmer	**8**	**8, 22, 33**	**8, 19**
Dimmer resolution	8 bit	16 bit	8 bit
Shutter / strobe	**9**	**10, 23, 34**	**9**
Color mixing	**10–13, 19–22**	**8 channels (11–29)**	**10–13, 20–22, 24–51**
Color temperature	**14**	**19**	**14**
Zoom	**6**	**6**	**6**
Animation wheel	**16**	**24**	**16**
Effects / macros	**7, 16, 17**	**6 channels (7–35)**	**7, 16, 17**
Pixel control			✓

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “51 Channels”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	256	11	U2 · 1	16	U2 · 256
2	52	7	307	12	U2 · 52	17	U2 · 307
3	103	8	358	13	U2 · 103	18	U2 · 358
4	154	9	409	14	U2 · 154	19	U2 · 409
5	205	10	460	15	U2 · 205	20	U2 · 460

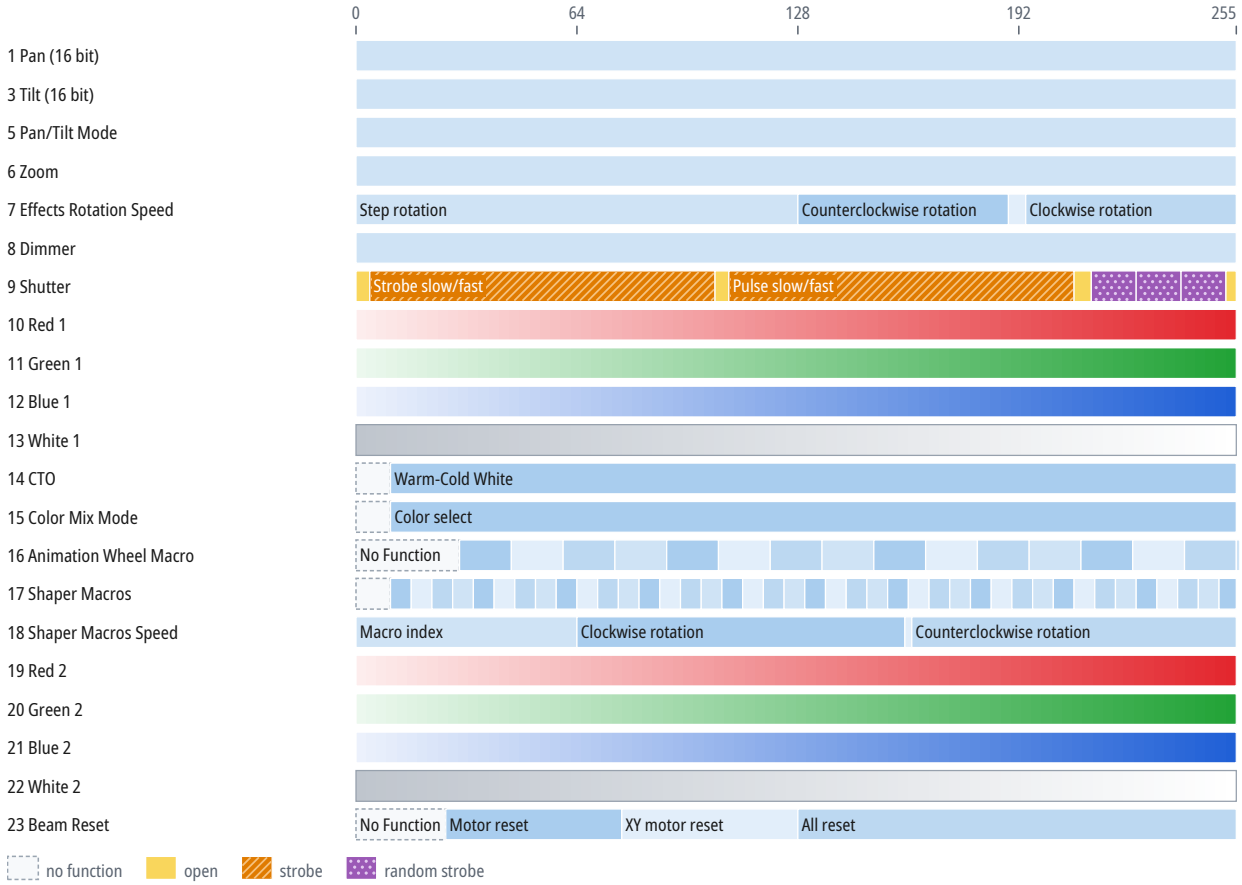
Where a DMX universe is full, the next units continue in the next universe: “U2 · 1” is address 1 in the second universe, counted from the universe of the first unit.

Mode 23 Channels

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 8 Dimmer above 0; CH 9 Shutter at 104–107, 208–212 or 252–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 255, CH 10 Red 1 255, CH 11 Green 1 255, CH 12 Blue 1 255, CH 13 White 1 255, CH 19 Red 2 255, CH 20 Green 2 255, CH 21 Blue 2 255, CH 22 White 2 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–255	
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan/Tilt Mode	0–255	
6	Zoom	0–255	
7	Effects Rotation Speed	0–127	Step rotation
		128–188	Counterclockwise rotation
		189–193	Stop
		194–255	Clockwise rotation
8	Dimmer	0–255	
9	Shutter	0–3	No Function
		4–103	Strobe slow/fast

CH	Function	DMX	Description
9	Shutter (continued)	104–107	Open
		108–207	Pulse slow/fast
		208–212	Open
		213–225	Random strobe slow
		226–238	Random strobe medium
		239–251	Random strobe high
		252–255	Open
10	Red 1	0–255	
11	Green 1	0–255	
12	Blue 1	0–255	
13	White 1	0–255	
14	CTO	0–9	No Function
		10–255	Warm-Cold White
15	Color Mix Mode	0–9	No Function
		10–255	Color select
16	Animation Wheel Macro	0–29	No Function
		30–44	Static Macro 1
		45–59	Static Macro 2
		60–74	Static Macro 3
		75–89	Static Macro 4
		90–104	Static Macro 5
		105–119	Static Macro 6
		120–134	Static Macro 7
		135–149	Static Macro 8
		150–164	Static Macro 9
		165–179	Static Macro 10
		180–194	Static Macro 11
		195–209	Static Macro 12
		210–224	Static Macro 13
		225–239	Static Macro 14
		240–254	Static Macro 15
		255	Static Macro 16
17	Shaper Macros	0–9	No Function
		10–15	Dynamic Macro 1
		16–21	Dynamic Macro 2
		22–27	Dynamic Macro 3
		28–33	Dynamic Macro 4
		34–39	Dynamic Macro 5
		40–45	Dynamic Macro 6
		46–51	Dynamic Macro 7
		52–57	Dynamic Macro 8
		58–63	Dynamic Macro 9

CH	Function	DMX	Description
17	Shaper Macros (continued)	64–69	Dynamic Macro 10
		70–75	Dynamic Macro 11
		76–81	Dynamic Macro 12
		82–87	Dynamic Macro 13
		88–93	Dynamic Macro 14
		94–99	Dynamic Macro 15
		100–105	Dynamic Macro 16
		106–111	Dynamic Macro 17
		112–117	Dynamic Macro 18
		118–123	Dynamic Macro 19
		124–129	Dynamic Macro 20
		130–135	Dynamic Macro 21
		136–141	Dynamic Macro 22
		142–147	Dynamic Macro 23
		148–153	Dynamic Macro 24
		154–159	Dynamic Macro 25
		160–165	Dynamic Macro 26
		166–171	Dynamic Macro 27
		172–177	Dynamic Macro 28
		178–183	Dynamic Macro 29
		184–189	Dynamic Macro 30
		190–195	Dynamic Macro 31
		196–201	Dynamic Macro 32
		202–207	Dynamic Macro 33
		208–213	Dynamic Macro 34
		214–219	Dynamic Macro 35
		220–225	Dynamic Macro 36
		226–231	Dynamic Macro 37
		232–237	Dynamic Macro 38
		238–243	Dynamic Macro 39
		244–249	Dynamic Macro 40
		250–255	Dynamic Macro 41
18	Shaper Macros Speed	0–63	Macro index
		64–158	Clockwise rotation
		159–160	Stop
		161–255	Counterclockwise rotation
19	Red 2	0–255	
20	Green 2	0–255	
21	Blue 2	0–255	
22	White 2	0–255	

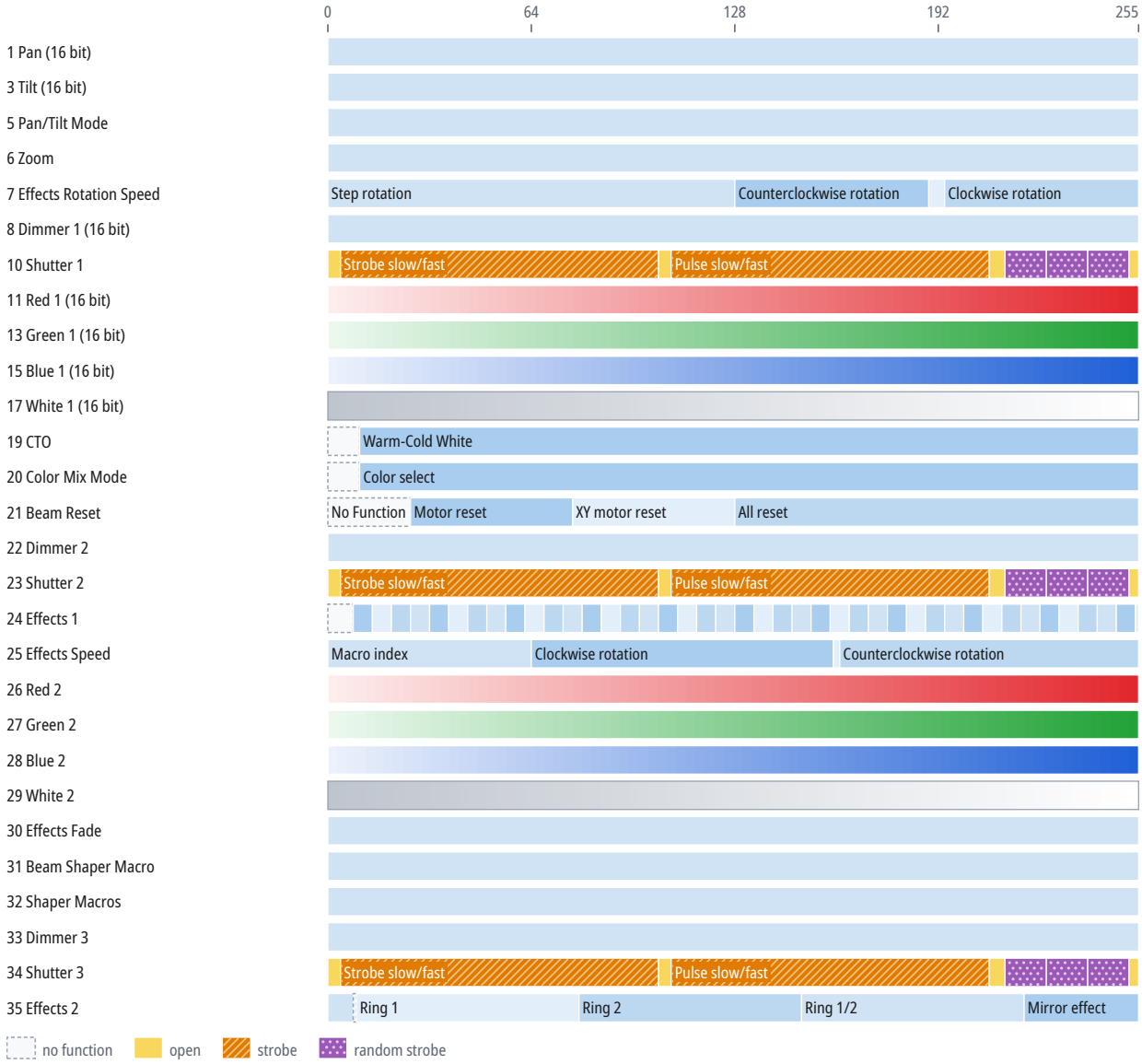
CH	Function	DMX	Description
23	Beam Reset	0–25	No Function
		26–76	Motor reset
		77–127	XY motor reset
		128–255	All reset

Mode 35 Channels

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 8 Dimmer 1 above 0; CH 10 Shutter 1 at 104–107, 208–212 or 252–255 “Open”; CH 22 Dimmer 2 above 0; CH 23 Shutter 2 at 104–107, 208–212 or 252–255 “Open”; CH 33 Dimmer 3 above 0; CH 34 Shutter 3 at 104–107, 208–212 or 252–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 1 0, CH 11 Red 1 0, CH 13 Green 1 0, CH 15 Blue 1 0, CH 17 White 1 0, CH 22 Dimmer 2 255, CH 26 Red 2 255, CH 27 Green 2 255, CH 28 Blue 2 255, CH 29 White 2 255, CH 33 Dimmer 3 255.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–255	
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan/Tilt Mode	0–255	
6	Zoom	0–255	
7	Effects Rotation Speed		Same as CH 7 in the mode “23 Channels” (p. 9)
8	Dimmer 1	0–255	
9	Dimmer 1 Fine	0–255	Fine adjustment of CH 8
10	Shutter 1	0–3	No Function
		4–103	Strobe slow/fast
		104–107	Open
		108–207	Pulse slow/fast
		208–212	Open
		213–225	Random strobe slow
		226–238	Random strobe medium
		239–251	Random strobe high
		252–255	Open
11	Red 1	0–255	
12	Red 1 Fine	0–255	Fine adjustment of CH 11
13	Green 1	0–255	
14	Green 1 Fine	0–255	Fine adjustment of CH 13
15	Blue 1	0–255	
16	Blue 1 Fine	0–255	Fine adjustment of CH 15
17	White 1	0–255	
18	White 1 Fine	0–255	Fine adjustment of CH 17
19	CTO		Same as CH 14 in the mode “23 Channels” (p. 10)
20	Color Mix Mode		Same as CH 15 in the mode “23 Channels” (p. 10)
21	Beam Reset		Same as CH 23 in the mode “23 Channels” (p. 12)
22	Dimmer 2	0–255	
23	Shutter 2	0–3	No Function
		4–103	Strobe slow/fast
		104–107	Open
		108–207	Pulse slow/fast
		208–212	Open
		213–225	Random strobe slow
		226–238	Random strobe medium
		239–251	Random strobe high
		252–255	Open
24	Effects 1	0–7	No Function
		8–13	Macro 1

CH	Function	DMX	Description
24	Effects 1 (continued)	14–19	Macro 2
		20–25	Macro 3
		26–31	Macro 4
		32–37	Macro 5
		38–43	Macro 6
		44–49	Macro 7
		50–55	Macro 8
		56–61	Macro 9
		62–67	Macro 10
		68–73	Macro 11
		74–79	Macro 12
		80–85	Macro 13
		86–91	Macro 14
		92–97	Macro 15
		98–103	Macro 16
		104–109	Macro 17
		110–115	Macro 18
		116–121	Macro 19
		122–127	Macro 20
		128–133	Macro 21
		134–139	Macro 22
		140–145	Macro 23
		146–151	Macro 24
		152–157	Macro 25
		158–163	Macro 26
		164–169	Macro 27
		170–175	Macro 28
		176–181	Macro 29
		182–187	Macro 30
		188–193	Macro 31
		194–199	Macro 32
		200–205	Macro 33
		206–211	Macro 34
		212–217	Macro 35
		218–223	Macro 36
		224–229	Macro 37
		230–235	Macro 38
		236–241	Macro 39
		242–247	Macro 40
		248–253	Macro 41
		254–255	Macro 42
25	Effects Speed	0–63	Macro index

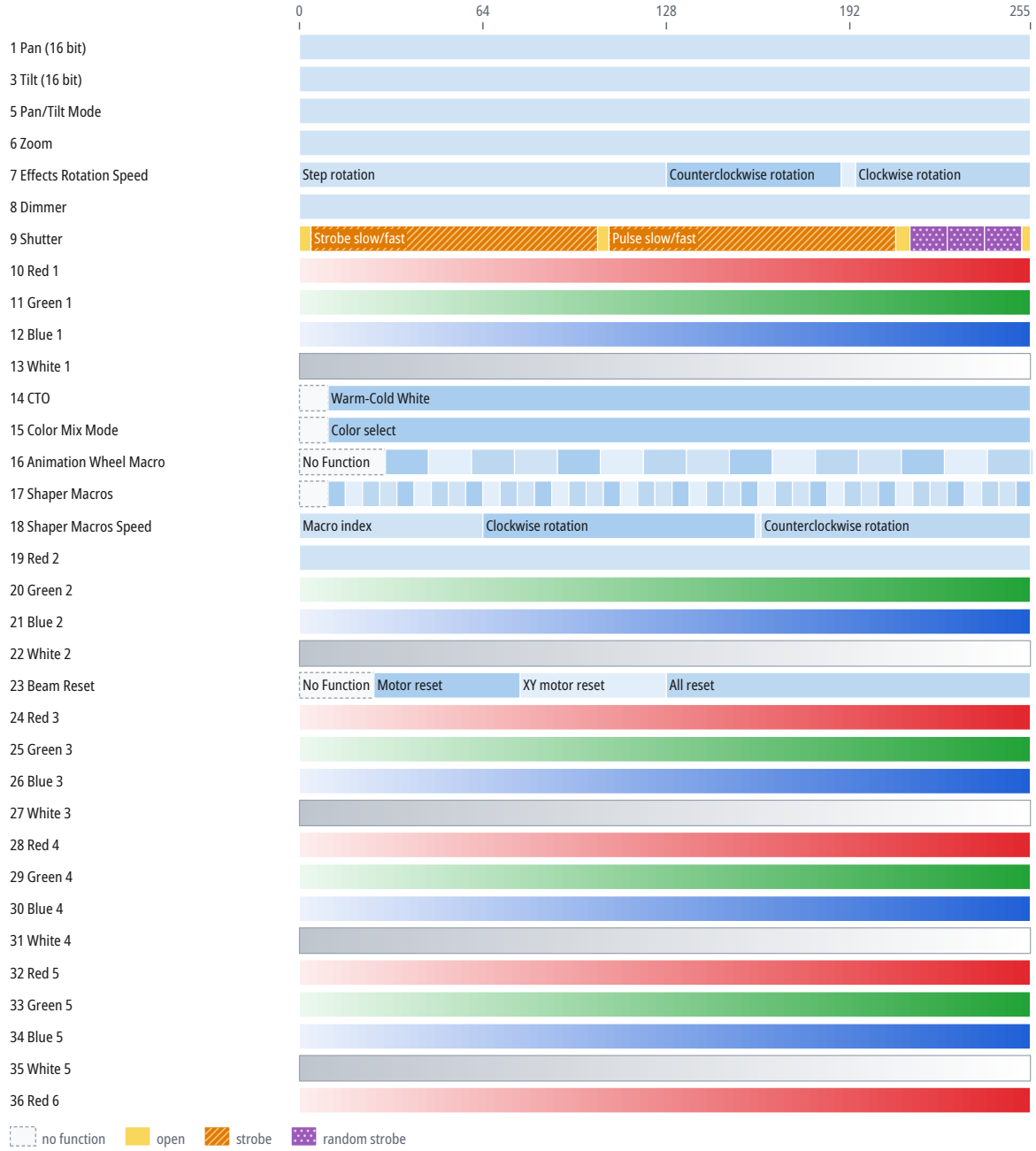
CH	Function	DMX	Description
25	Effects Speed (continued)	64–158	Clockwise rotation
		159–160	Stop
		161–255	Counterclockwise rotation
26	Red 2	0–255	
27	Green 2	0–255	
28	Blue 2	0–255	
29	White 2	0–255	
30	Effects Fade	0–255	
31	Beam Shaper Macro	0–255	
32	Shaper Macros	0–255	
33	Dimmer 3	0–255	
34	Shutter 3	0–3	No Function
		4–103	Strobe slow/fast
		104–107	Open
		108–207	Pulse slow/fast
		208–212	Open
		213–225	Random strobe slow
		226–238	Random strobe medium
		239–251	Random strobe high
		252–255	Open
35	Effects 2	0–7	Wash
		8	No Function
		9–78	Ring 1
		79–148	Ring 2
		149–218	Ring 1/2
		219–255	Mirror effect

Mode 51 Channels

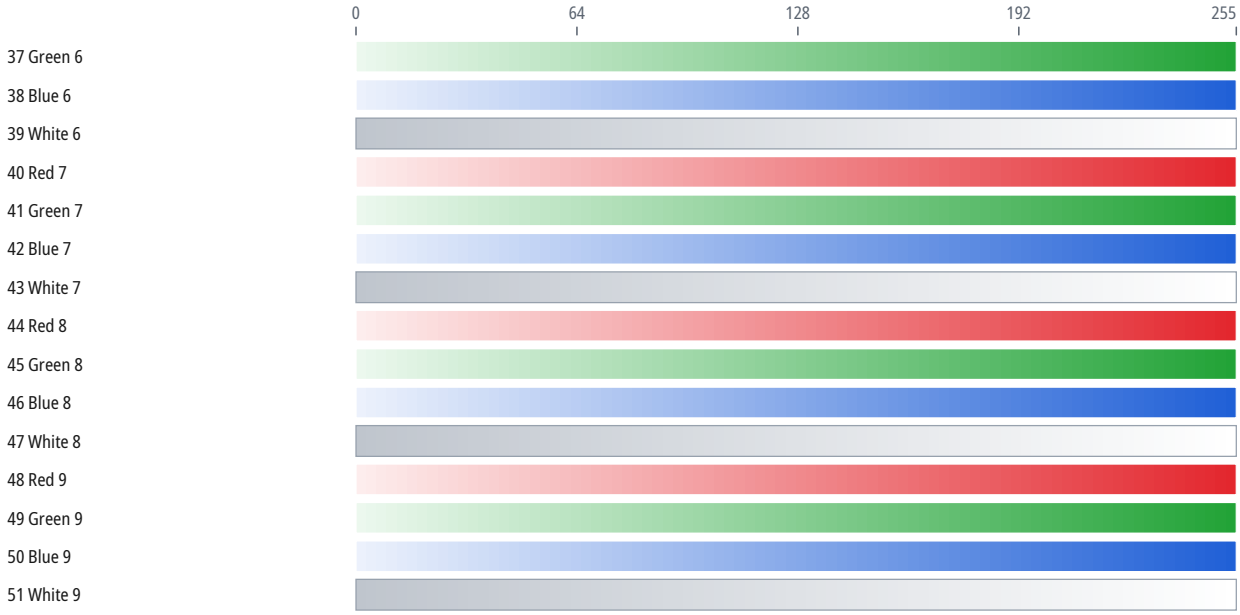
16-bit parameters use two channels, coarse and fine: value = 256 × coarse value + fine value.

If the device receives DMX in this mode but gives no light, check these channels: CH 8 Dimmer above 0; CH 9 Shutter at 104–107, 208–212 or 252–255 “Open”. The GDTF file gives these values for a console's Highlight function: CH 8 Dimmer 255, CH 10 Red 1 255, CH 11 Green 1 255, CH 12 Blue 1 255, CH 13 White 1 255, CH 19 Red 2 255, CH 20 Green 2 255, CH 21 Blue 2 255, CH 22 White 2 255, CH 24 Red 3 255, CH 25 Green 3 255, CH 26 Blue 3 255, CH 27 White 3 255, CH 28 Red 4 255, CH 29 Green 4 255, CH 30 Blue 4 255, CH 31 White 4 255, CH 32 Red 5 255, CH 33 Green 5 255, CH 34 Blue 5 255, CH 35 White 5 255, CH 36 Red 6 255, CH 37 Green 6 255, CH 38 Blue 6 255, CH 39 White 6 255, CH 40 Red 7 255, CH 41 Green 7 255, CH 42 Blue 7 255, CH 43 White 7 255, CH 44 Red 8 255, CH 45 Green 8 255, CH 46 Blue 8 255, CH 47 White 8 255, CH 48 Red 9 255, CH 49 Green 9 255, CH 50 Blue 9 255, CH 51 White 9 255.

Channel functions at a glance



Channel functions at a glance



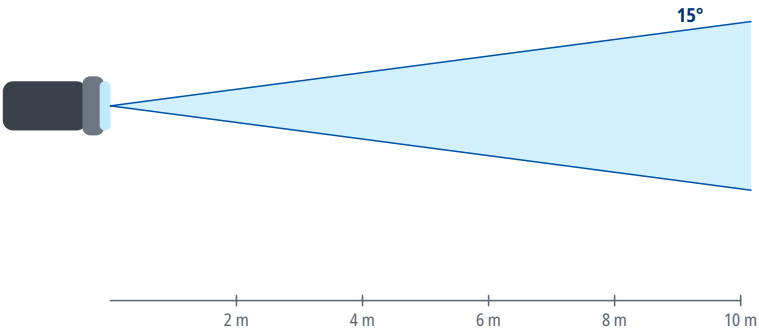
CH	Function	DMX	Description
1	Pan	0–255	
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Pan/Tilt Mode	0–255	
6	Zoom	0–255	
7	Effects Rotation Speed		Same as CH 7 in the mode “23 Channels” (p. 9)
8	Dimmer	0–255	
9	Shutter		Same as CH 9 in the mode “23 Channels” (p. 9)
10	Red 1	0–255	
11	Green 1	0–255	
12	Blue 1	0–255	
13	White 1	0–255	
14	CTO		Same as CH 14 in the mode “23 Channels” (p. 10)
15	Color Mix Mode		Same as CH 15 in the mode “23 Channels” (p. 10)
16	Animation Wheel Macro		Same as CH 16 in the mode “23 Channels” (p. 10)
17	Shaper Macros		Same as CH 17 in the mode “23 Channels” (p. 10)
18	Shaper Macros Speed		Same as CH 18 in the mode “23 Channels” (p. 11)
19	Red 2	0–255	
20	Green 2	0–255	
21	Blue 2	0–255	
22	White 2	0–255	
23	Beam Reset		Same as CH 23 in the mode “23 Channels” (p. 12)
24	Red 3	0–255	
25	Green 3	0–255	
26	Blue 3	0–255	

CH	Function	DMX	Description
27	White 3	0–255	
28	Red 4	0–255	
29	Green 4	0–255	
30	Blue 4	0–255	
31	White 4	0–255	
32	Red 5	0–255	
33	Green 5	0–255	
34	Blue 5	0–255	
35	White 5	0–255	
36	Red 6	0–255	
37	Green 6	0–255	
38	Blue 6	0–255	
39	White 6	0–255	
40	Red 7	0–255	
41	Green 7	0–255	
42	Blue 7	0–255	
43	White 7	0–255	
44	Red 8	0–255	
45	Green 8	0–255	
46	Blue 8	0–255	
47	White 8	0–255	
48	Red 9	0–255	
49	Green 9	0–255	
50	Blue 9	0–255	
51	White 9	0–255	

10 Technical specifications

Parameter	Value
Weight	15.6 kg
Ingress protection	IP65
Meaning of the IP code (IEC 60529)	Dust-tight; protected against water jets
Operating temperature	-20 to 45 °C

Spot diameter



Distance	Ø 15°
2 m	0.53 m
4 m	1.1 m
6 m	1.6 m
8 m	2.1 m
10 m	2.6 m
15 m	3.9 m

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

11 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.

12 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.

Problem	Remedy
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.
Movement is reversed	Check whether Pan/Tilt inversion is enabled in the device menu or in the controller.
Moving parts do not reach the correct position after power-on or transport	Switch the device off and on again to reset the position, and make sure the transport lock, if any, is released. If this does not help, contact a service center.
Movement is jerky	Check the value of the Pan/Tilt speed channel, if the device has one, and the stability of the DMX signal.

13 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.