GDTF Fixture Reference · by SOH

DMX REFERENCE

ZW37

Elation Professional ZW37

Elation Professional

Manufacturer	Elation Professional
GDTF file	Elation_Professional_ZW37_168979.gdtf
GDTF revision	Final · 2026-11-12
Generated	2026-11-24

Contents

1 About this manual 2
2 Quick reference 2
3 Safety instructions 3
4 Product description 4
5 Installation 4
6 Connections 5
7 Operation 5
8 Functions at a glance 6
9 DMX channels 7
Mode 2 - 22 Channels 7
10 Technical specifications 11
11 Maintenance and cleaning 11
12 Troubleshooting 12
13 Disposal 12

1 About this manual

This document describes the Elation Professional ZW37 by Elation Professional. It was compiled from the GDTF file Elation_Professional_ZW37_168979.gdtf from the GDTF-Share library.

File revision: “Final”.

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 Elation 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

DMX modes

Mode	Channels	Units in one universe	First start addresses
Mode 2 - 22 Channels	22	23	1, 23, 45, 67, ...

No light? Check these channels

- Mode 2 - 22 Channels: CH 15 Shutter at 20–24 “Open”; CH 16 Dimmer above 0



Read the manual before use



Do not stare into the light



Indoor use only

3 Safety instructions



Read the manual before use



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

- 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.

⚠ 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

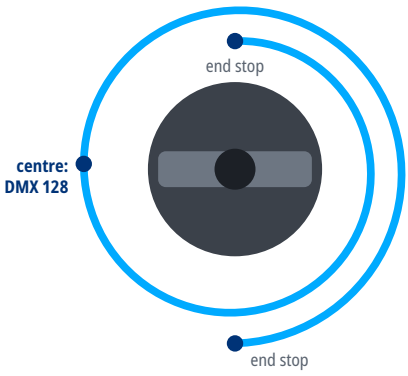
Description in the GDTF file

“Mode 2 - 22 channels; based on Elation ZW37 DMX traits 2016-01-13”

Range of movement

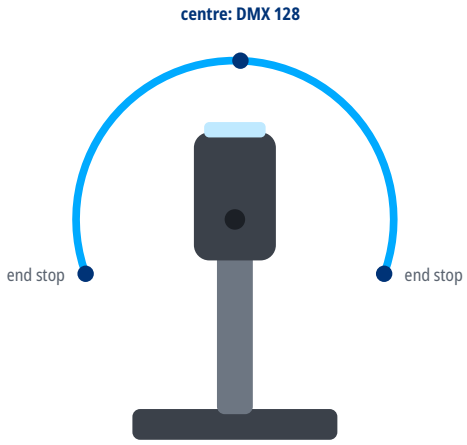
Pan 540°

top view



Tilt 220°

side view



5 Installation

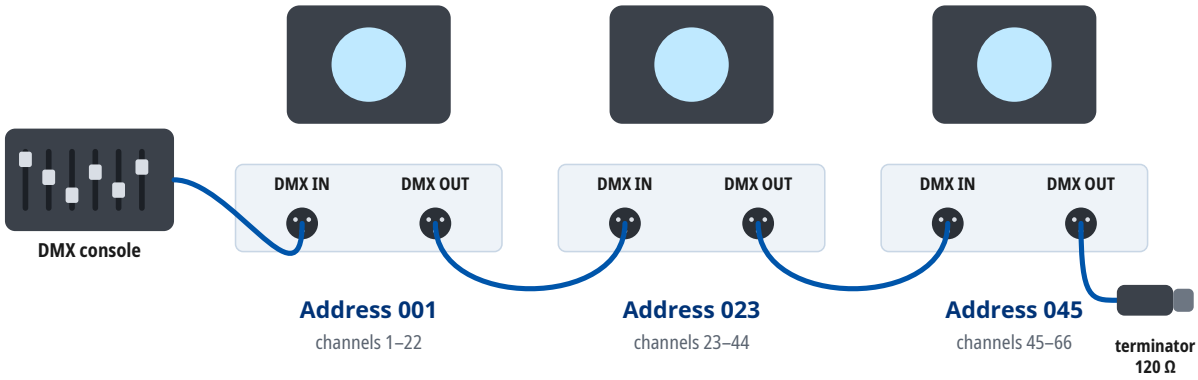
⚠ WARNING

- 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.
- 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 2 - 22 Channels: every unit occupies 22 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 “Mode 2 - 22 Channels”: 22.
- 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 “Mode 2 - 22 Channels”, you can use, for example, the start addresses 1, 23, 45, 67.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

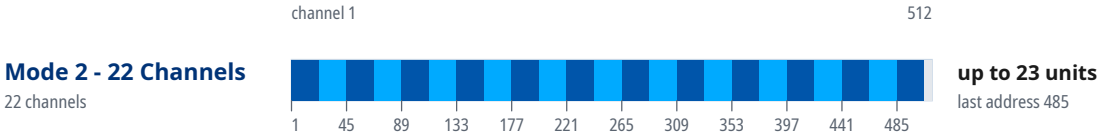
8 Functions at a glance

Functions in each DMX mode

	Mode 2 - 22 Channels 22 channels
Pan / Tilt	1, 3
Dimmer	16
Shutter / strobe	15
Color mixing	4× (5–11)
Color temperature	14
Zoom	19
Effects / macros	13

9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “Mode 2 - 22 Channels”

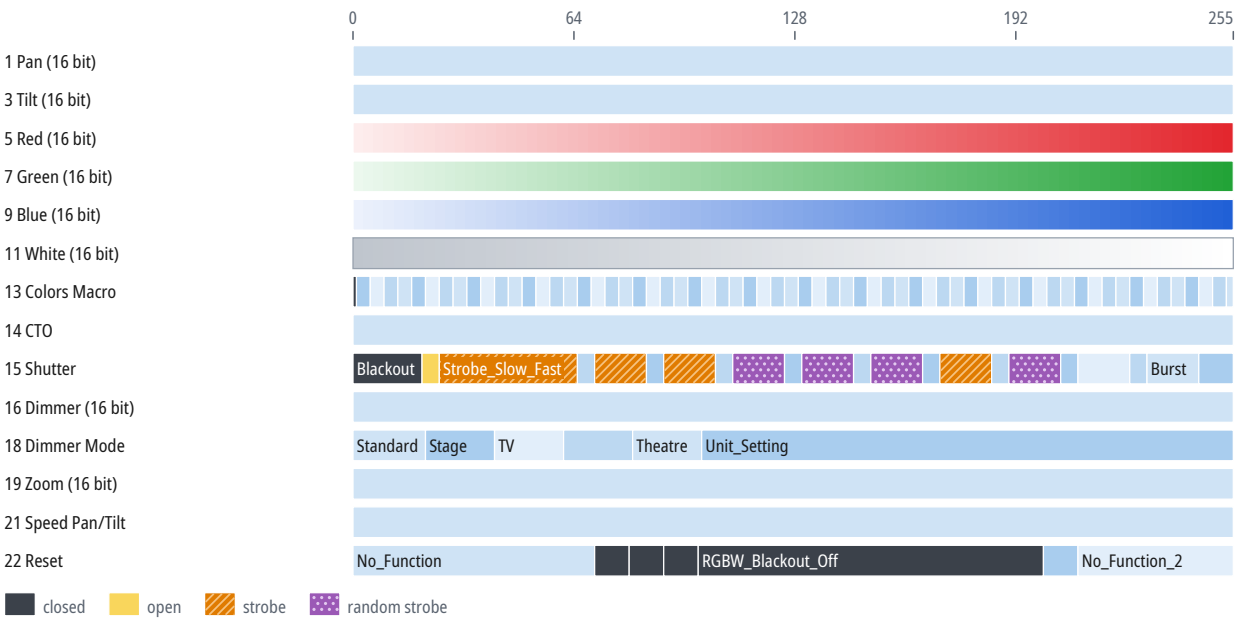
Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	111	11	221	16	331
2	23	7	133	12	243	17	353
3	45	8	155	13	265	18	375
4	67	9	177	14	287	19	397
5	89	10	199	15	309	20	419

Mode 2 - 22 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 15 Shutter at 20–24 “Open”; CH 16 Dimmer above 0.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–255	540°
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	220°
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Red	0–255	

CH	Function	DMX	Description
6	Red Fine	0–255	Fine adjustment of CH 5
7	Green	0–255	
8	Green Fine	0–255	Fine adjustment of CH 7
9	Blue	0–255	
10	Blue Fine	0–255	Fine adjustment of CH 9
11	White	0–255	
12	White Fine	0–255	Fine adjustment of CH 11
13	Colors Macro	0	Blackout
		1–4	Color_01
		5–8	Color_02
		9–12	Color_03
		13–16	Color_04
		17–20	Color_05
		21–24	Color_06
		25–28	Color_07
		29–32	Color_08
		33–36	Color_09
		37–40	Color_10
		41–44	Color_11
		45–48	Color_12
		49–52	Color_13
		53–56	Color_14
		57–60	Color_15
		61–64	Color_16
		65–68	Color_17
		69–72	Color_18
		73–76	Color_19
		77–80	Color_20
		81–84	Color_21
		85–88	Color_22
		89–92	Color_23
		93–96	Color_24
		97–100	Color_25
		101–104	Color_26
		105–108	Color_27
		109–112	Color_28
		113–116	Color_29
		117–120	Color_30
		121–124	Color_31
		125–128	Color_32
		129–132	Color_33
		133–136	Color_34

CH	Function	DMX	Description
13	Colors Macro (continued)	137–140	Color_35
		141–144	Color_36
		145–148	Color_37
		149–152	Color_38
		153–156	Color_39
		157–160	Color_40
		161–164	Color_41
		165–168	Color_42
		169–172	Color_43
		173–176	Color_44
		177–180	Color_45
		181–184	Color_46
		185–188	Color_47
		189–192	Color_48
		193–196	Color_49
		197–200	Color_50
		201–204	Color_51
		205–208	Color_52
		209–212	Color_53
		213–216	Color_54
		217–220	Color_55
		221–224	Color_56
		225–228	Color_57
		229–232	Color_58
		233–236	Color_59
		237–240	Color_60
		241–244	Color_61
		245–248	Color_62
		249–252	Color_63
		253–255	Color_64
14	CTO	0–255	2700–6000 K
15	Shutter	0–19	Blackout
		20–24	Open
		25–64	Strobe_Slow_Fast
		65–69	Open_2
		70–84	Pulse_Slow_Open_Fast_Close
		85–89	Open_3
		90–104	Pulse_Fast_Open_Slow_Close
		105–109	Open_4
		110–124	Random_Strobe
		125–129	Open_5
		130–144	Random_Opening_Pulse

CH	Function	DMX	Description
15	Shutter (continued)	145–149	Open_6
		150–164	Random_Closing_Pulse
		165–169	Open_7
		170–184	Burst_Pulse
		185–189	Open_8
		190–204	Random_Burst_Pulse
		205–209	Open_9
		210–224	Pulsing
		225–229	Open_10
		230–244	Burst
		245–255	Open_11
16	Dimmer	0–255	
17	Dimmer Fine	0–255	Fine adjustment of CH 16
18	Dimmer Mode	0–20	Standard
		21–40	Stage
		41–60	TV
		61–80	Architectural
		81–100	Theatre
		101–255	Unit_Setting
19	Zoom	0–255	10–60°
20	Zoom Fine	0–255	Fine adjustment of CH 19
21	Speed Pan/Tilt	0–255	
22	Reset	0–69	No_Function
		70–79	Movement_Blackout_On
		80–89	Movement_Blackout_Off
		90–99	RGBW_Blackout_On
		100–199	RGBW_Blackout_Off
		200–209	Reset_All
		210–255	No_Function_2

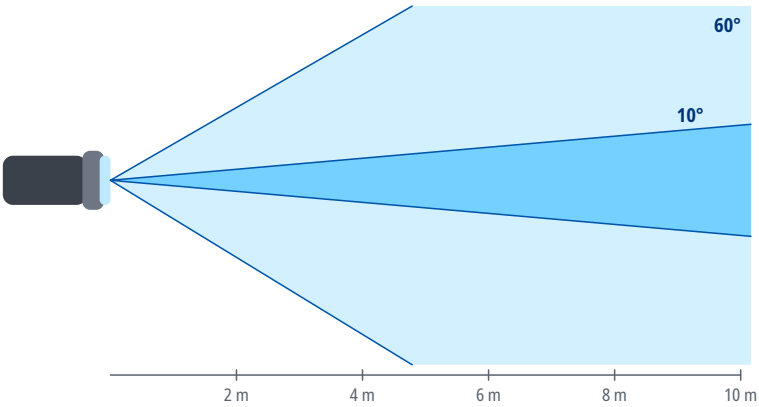
10 Technical specifications

Parameter	Value
Light source	LED
Color temperature	6,000 K
Color rendering index (CRI)	100
Zoom	10–60°
Pan	540°
Tilt	220°
Operating temperature	0 to 40 °C

Speeds and ranges

Parameter	Value
Color temperature range	2700–6000 K

Spot diameter



Distance	Ø 10°	Ø 60°
2 m	0.35 m	2.3 m
4 m	0.7 m	4.6 m
6 m	1 m	6.9 m
8 m	1.4 m	9.2 m
10 m	1.7 m	11.5 m
15 m	2.6 m	17.3 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.
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.