USER MANUAL

Moving LED head 150 W Beam, DMX

LED337



Code LED337

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1 About this manual

This user manual applies to the product Moving LED head 150 W Beam, DMX (code LED337).

Read this manual carefully before installing the product and putting it into operation for the first time, follow all of its instructions, and keep it for future reference. If you pass the product on to another person, include this manual.

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
DMX address	DMX Address (001–512)
DMX mode	System Setup › Channel mode
Power	250 W
Weight	12 kg
Ingress protection	IP20

DMX modes

Mode	On the display	Channels	Units in one universe	First start addresses
13CH	13CH	13	39	1, 14, 27, 40, ...

No light? Check these channels

- 13CH: CH 6 Dimmer above 0; CH 7 Strobe at 0–3 or 250–255 “No function(LED on)”


Read the manual before use


Risk of electric shock


Hot surface (up to 150 °C)


Do not stare into the light



Distance from lit and flammable objects



Indoor use only


Not household waste

3 Safety instructions


Read the manual before use


Risk of electric shock


Hot surface (up to 150 °C)


Do not stare into the light



Distance from lit and flammable objects



Indoor use only


Not household waste

⚠ 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.
- Ingress protection rating: IP20.
- 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.

⚠ **CAUTION** Maintain a minimum distance of 0.2 m from the LED luminaire to combustible or illuminated objects.

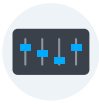
⚠ **CAUTION** Maximum ambient operating temperature ta is 40 °C; maximum housing surface temperature tc is 150 °C.

⚠ **WARNING** Do not project the beam onto combustible substances, and do not install the fixture on combustible surfaces.

⚠ **CAUTION** Keep more than 50 cm away from walls for smooth airflow; ensure there is no obstruction to fans and heat radiation vents.

4 Product description

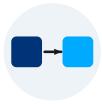
Ways to control the device


DMX mode



Auto mode


Sound mode

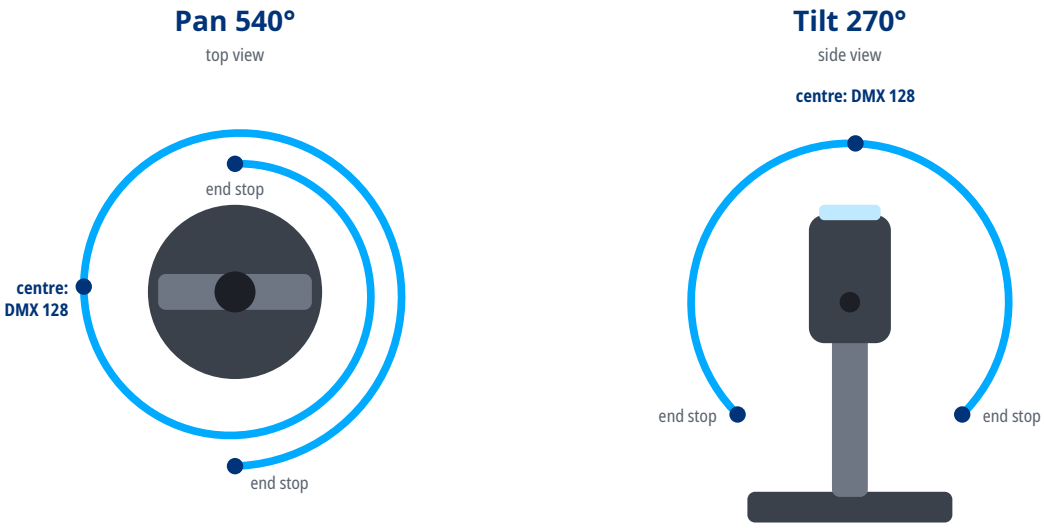

Master/Slave mode

The chapter Operation describes each of them.

Package contents

- 1× Moving LED head 150 W Beam, DMX
- 2× Hanging bracket
- 1× User manual
- 1× Signal cable
- 1× Power cable

Range of movement

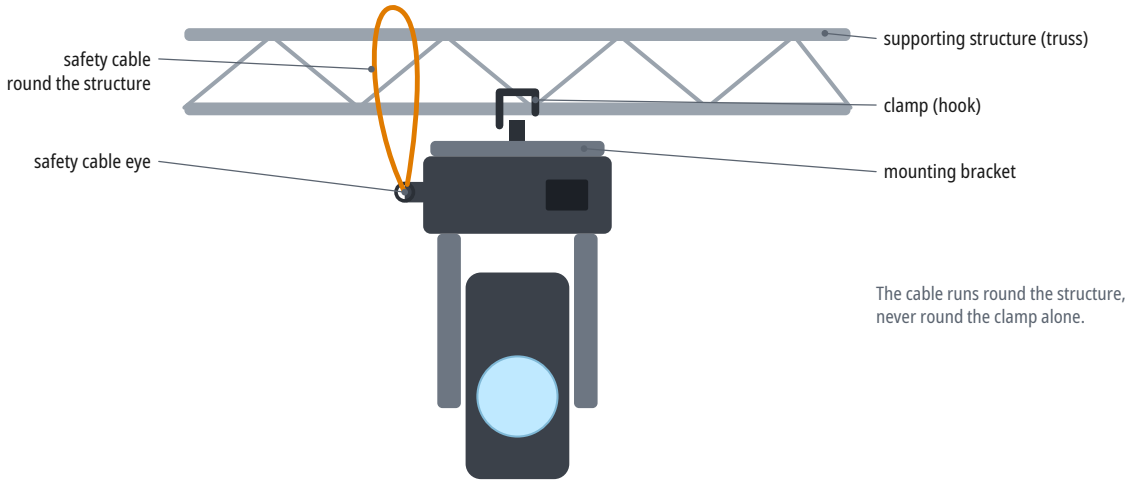


5 Installation

⚠ 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: 12 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.

Mounting on a truss



The installation surface must be able to support a minimum point load of 10 times the device weight.

Mount the fixture in areas outside walking paths, seating areas, or places where unauthorized personnel might reach it.

When mounting to a truss, secure an appropriately rated clamp to the included Omega Bracket using an M10 screw through the center hole. Insert the 1/4-turn quick-lock fasteners into the base assembly and turn until fully secured.

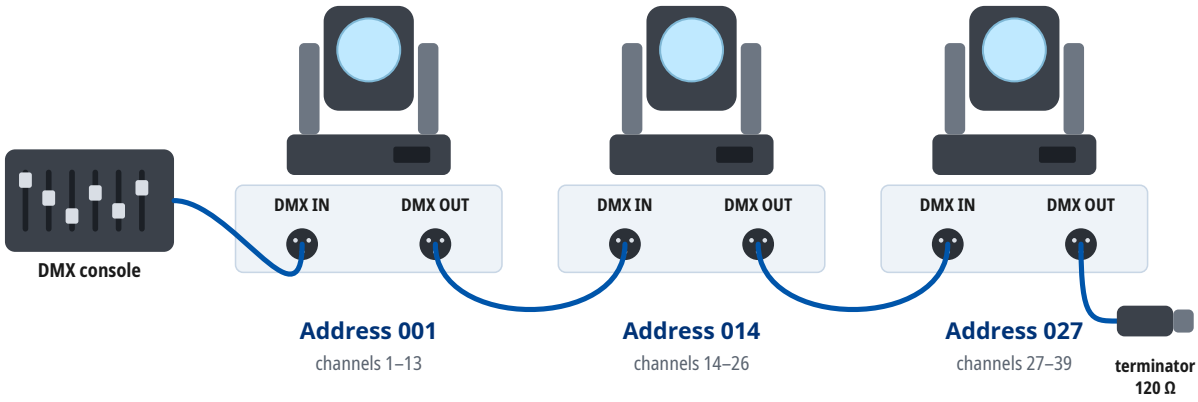
Never stand directly below the device when mounting, removing, or servicing it.

Maintain more than 50 cm distance from walls to ensure smooth airflow; do not cover or obstruct the cooling fans or ventilation.

6 Connections

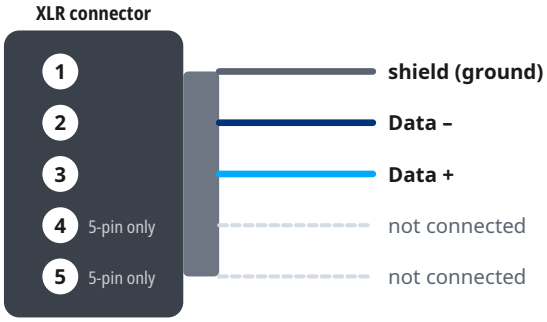
- Use shielded cable designed for DMX512 with an impedance of 110 Ω. Ordinary microphone cable is not suitable for DMX, especially over longer distances.
- Connect the devices in a daisy chain: connect the DMX OUT of one device to the DMX IN of the next. Do not split the line with Y-cables or wire it 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

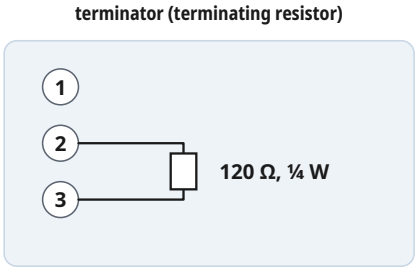


Mode 13CH: every unit occupies 13 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

XLR connector and terminator



Do not connect the shield to the connector's metal shell.

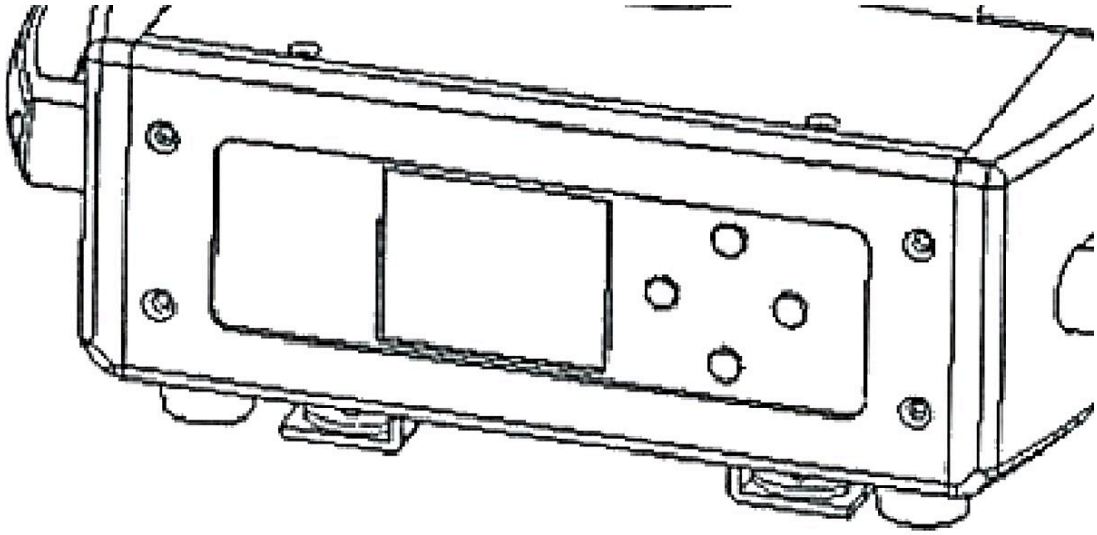


Plug it into the DMX OUT of the last unit.

Connector	Purpose
DMX IN (3-pin XLR)	DMX data input
DMX OUT (3-pin XLR)	DMX data output
Power in	Mains power input

7 Operation

Control panel



Display menu



Code	Values	Function
DMX Address	001–512	Set DMX start address. Set the DMX address between 001 and 512.
System Setup		System settings menu. Access the system configuration options.
– Run Mode	DMX, Sound, Auto 1, Auto 2, Auto 3	Operating mode selection. Select the operating run mode from DMX, Sound, Auto 1, Auto 2, or Auto 3.
– Channel mode	13CH	Select DMX-channel mode.
– Invert Pan	ON, OFF	Reverse pan movement direction. ON or OFF.
– Invert Tilt	ON, OFF	Reverse tilt movement direction. ON or OFF.
– Pan-Tilt Swap	ON, OFF	Swap pan and tilt channels. ON or OFF.
– Encoder	ON, OFF	Enable or disable position correction encoder. ON or OFF.
– No Singal	Keep, Clean	Behavior on DMX signal loss.
– Screen Saver	On, Off	Display screen saver activation. Set screen saver to On or Off.
– Language	EN, Chinese	Menu language. EN or 中文.
– Load Default		Restore factory default settings. Load factory defaults.
Check		Diagnostics and testing menu. Diagnostics check submenu.
– Manual Drive		Manual control of fixture functions.
Motor Calibration		Calibrate motors and microphone sensitivity. Submenu for motor and mic calibration. Do not change the data unless necessary.
– PAN		Calibrate pan motor.
– TILT		Calibrate tilt motor.
– Colour		Calibrate color wheel motor. Color wheel calibration.
– Gobo		Calibrate gobo wheel motor.
– Prism		Calibrate prism motor.
– Focus		Calibrate focus motor.
– MIC		Calibrate internal microphone sensitivity.
– Change code		Change calibration access code.
System Test		Run internal system test.
System Info		Display system information.

DMX mode

Selected on the display: Run Mode › DMX

Sound mode

Selected on the display: Run Mode › Sound

Auto mode (Auto 1)

Selected on the display: Run Mode › Auto 1

Auto mode (Auto 2)

Selected on the display: Run Mode › Auto 2

Auto mode (Auto 3)

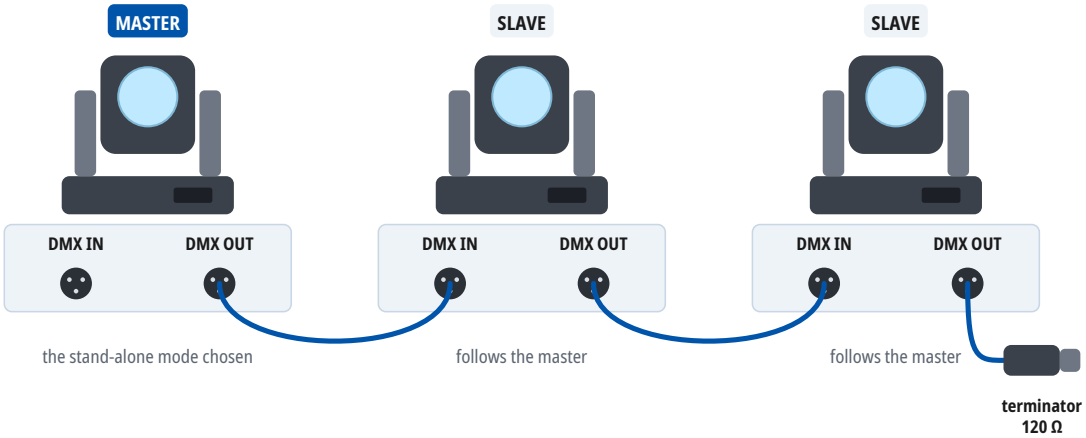
Selected on the display: Run Mode › Auto 3

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 “13CH”: 13.
- 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 “13CH”, you can use, for example, the start addresses 1, 14, 27, 40.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

Master/Slave mode

- In Master/Slave mode, one device (Master) controls the other devices (Slaves), which copy its behavior in sync. No controller is needed.
- Connect the devices with DMX cable in a daisy chain, just as for control from a desk (DMX OUT to the DMX IN of the next device), and terminate the end of the line.
- On the master device, select the desired standalone mode (auto mode or sound mode, depending on the device), and set all other devices to Slave mode.
- Only one master device may be on the line; do not connect a DMX controller to the line in Master/Slave mode.
- For reliable synchronization, link only devices of the same type.



One master and no DMX console on the line; link units of the same type.

NOTE During initial startup, some smoke or odor may arise; this is normal and will decrease gradually.

NOTE Do not lift or carry the fixture solely by the moving head, as this may damage mechanical components.

NOTE If the fixture experiences severe temperature changes, do not turn it on immediately; let it reach room temperature first to avoid damage from condensation.

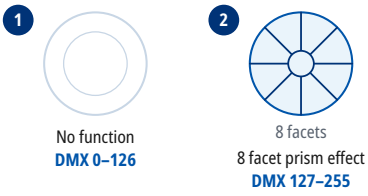
NOTE The LCD display shows the current temperature of the fixture and can automatically invert 180 degrees to match the installation orientation.

8 Functions at a glance

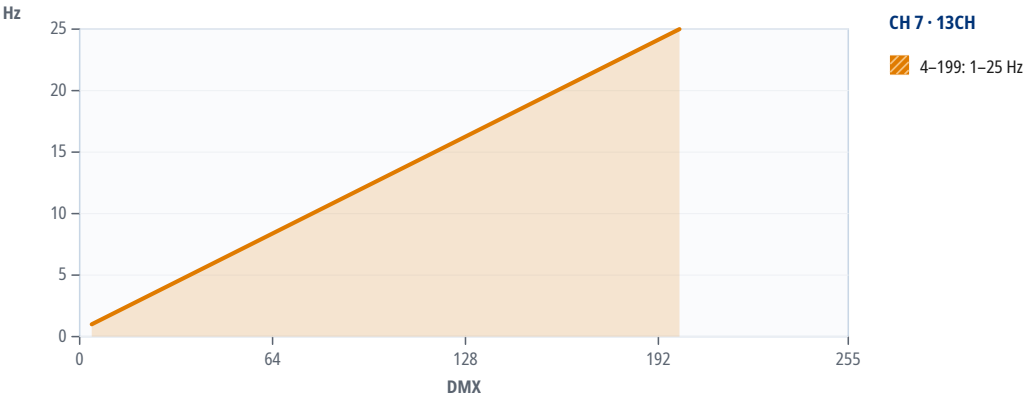
Functions in each DMX mode

	13CH 13 channels
Pan / Tilt	1, 3
Dimmer	6
Shutter / strobe	7
Color wheel	8
Gobo wheel	9
Prism	10, 11
Focus	12

Prism

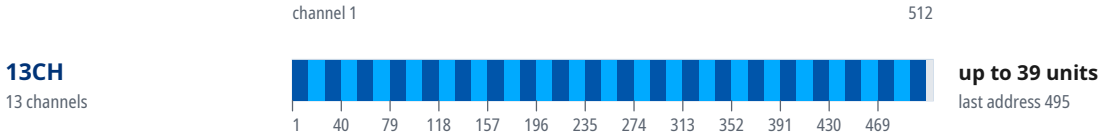


Strobe rate



9 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “13CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	66	11	131	16	196
2	14	7	79	12	144	17	209
3	27	8	92	13	157	18	222
4	40	9	105	14	170	19	235
5	53	10	118	15	183	20	248

Console profiles

In the grandMA2, Avolites Titan and GDTF libraries, search for the code LED337.

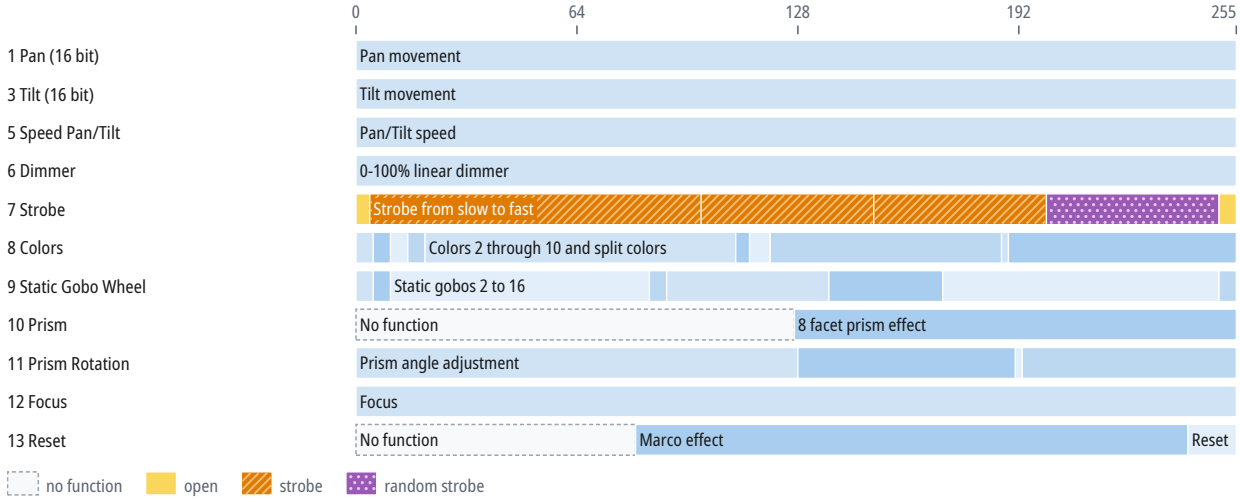
Parameter	Value
Manufacturer in the library	SOH
Fixture type (GDTF, grandMA2)	Moving LED head 150 W Beam DMX
Fixture type (Avolites Titan)	Moving LED head 150 W Beam, DMX
GDTF file	SOH_Moving_LED_head_150_W_Beam_DMX_LED337.gdtf
Avolites Titan file	SOH_Moving_LED_head_150_W_Beam_DMX_LED337.d4
grandMA2 file, mode 13CH (13 channels)	SOH@Moving LED head 150 W Beam DMX@13CH.xml
Library dated	19 November 2026

Mode 13CH

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 6 Dimmer above 0; CH 7 Strobe at 0–3 or 250–255 “No function(LED on)”.

Channel functions at a glance



CH	Function	DMX	Description
1	Pan	0–255	Pan movement
2	Pan Fine	0–255	Fine adjustment of CH 1
3	Tilt	0–255	Tilt movement
4	Tilt Fine	0–255	Fine adjustment of CH 3
5	Speed Pan/Tilt	0–255	Pan/Tilt speed
6	Dimmer	0–255	0-100% linear dimmer
7	Strobe	0–3	No function(LED on)
		4–99	Strobe from slow to fast
		100–149	Pulse strobe from slow to fast
		150–199	Thunder strobe from slow to fast
		200–249	Random strobe from fast to slow
		250–255	No function(LED on)
8	Colors	0–4	Open
		5–9	Color 1 mix with open
		10–14	Color 1
		15–19	Color 1 mix with color 2
		20–109	Colors 2 through 10 and split colors
		110–114	Color 11
		114–119	Color 11 mix with open
		120–186	Color wheel clockwise rotates from slow to fast
		187–188	No function(Stop)
		189–255	Color wheel counter-clockwise rotates from slow to fast
9	Static Gobo Wheel	0–4	Open

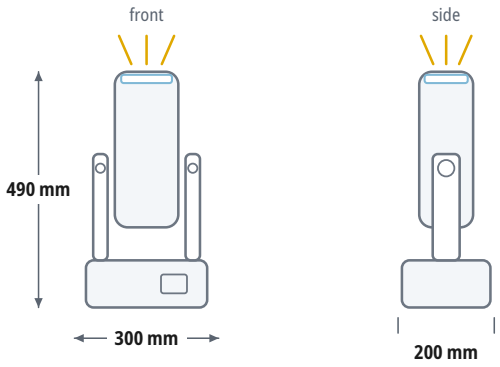
CH	Function	DMX	Description
9	Static Gobo Wheel (continued)	5–9	Static gobo 1
		10–84	Static gobos 2 to 16
		85–89	Static gobo 17
		90–136	Gobo wheel clockwise rotates from slow to fast
		137–169	Gobo wheel counter-clockwise rotates from slow to fast
		170–249	1th to 16 th Gobo shake from slow to fast
		250–255	Static gobo 17 shake from slow to fast
10	Prism	0–126	No function
		127–255	8 facet prism effect
11	Prism Rotation	0–127	Prism angle adjustment
		128–190	Prism clockwise rotates from slow to fast
		191–192	No function(Stop)
		193–255	Prism counter-clockwise rotates from slow to fast
12	Focus	0–255	Focus
13	Reset	0–80	No function
		81–240	Marco effect
		241–255	Reset

10 Technical specifications

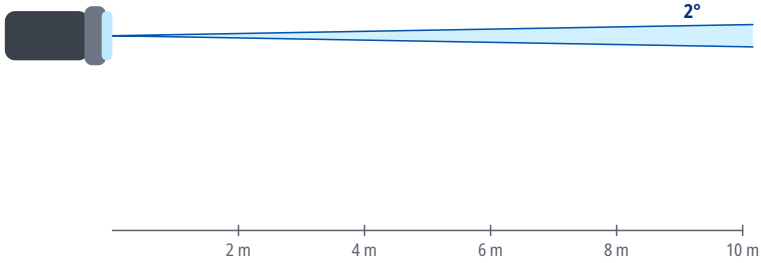
Parameter	Value
Light	
Light source	1x 150 W white LED
Color temperature	6800 K
Dimming	0 - 100 % smooth linear dimmer
Strobe	1-25 Hz, with pulse effect
LED lifetime	more than 50 000 hours
Optics	
Beam angle	2°
Color wheel	11 colors + open
Gobos	17 static Gobo + open
Prism	8-facet rotating prism
Movement	
Pan	540° + fine; 540 °
Tilt	270° + fine; 270 °
Control	
Operating modes	DMX512, Master/Slave, Auto, Sound
DMX channels	13
Display	LCD display, showing current fixture temperature with display inversion option when hanging the head on a truss
Electrical	
Power supply	100-240 V, 50-60 Hz
Power	250 W
Total power	250 W
Dimensions and construction	
Dimensions	300 × 200 × 490 mm (W × D × H)
Weight	12 kg
Weight incl. packaging	12.5 kg
Operating environment	
Ingress protection	IP20

Dimensions

weight 12 kg



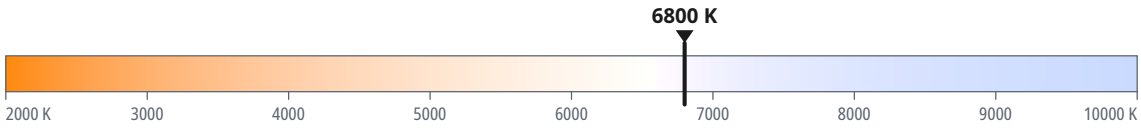
Spot diameter



Distance	Ø 2°
2 m	0.07 m
4 m	0.14 m
6 m	0.21 m
8 m	0.28 m
10 m	0.35 m
15 m	0.52 m

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

Color temperature



Color temperature as the product specification states it; the color strip only illustrates the scale.

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.

Clean the inside and outside lenses weekly to avoid light reduction caused by dust accumulation.

Clean the cooling fan weekly.

Have a certified electrical engineer perform a detailed electrical inspection every three months.

Inspection of mounting screws, housing deformation, mechanically moved parts, and cables.

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. In this device's menu: Invert Pan, Invert Tilt.
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.

SOH Sound & Lights s.r.o. provides take-back through the collective compliance scheme ASEKOL a.s. (Československého exilu 2062/8, 143 00 Praha 4 – Modřany, www.asekol.cz).

Recycle the packaging materials according to their type.

14 Warranty and service

For products purchased from SOH, a buyer who is a consumer may, under the Czech Civil Code, notify the seller of a defect that becomes apparent within 24 months of taking delivery; this statutory right is not affected by any warranty. Defect claims for these products and out-of-warranty repairs are handled by sending the goods to SOH's premises or bringing them in person: SOH, Antala Staška 242/14, 140 00 Praha 4, Czech Republic. Further information (in Czech) is available at eshop.soh.cz/casto-kladene-otazky.

Statutory rights in respect of defects and the warranty are governed by applicable law and the seller's terms and conditions.

Submit any claim to the seller from whom you purchased the product. Enclose proof of purchase and as precise a description of the fault as possible.

Neither the statutory rights nor the warranty cover defects caused by the buyer, for example by installation or operation contrary to this manual, mechanical damage or unskilled tampering. Wear caused by normal use is not a defect either.

Service and technical support are provided by SOH Sound & Lights s.r.o., Antala Staška 242/14, 140 00 Praha 4.
Company ID: 07894791
Web: www.soh.cz
Email: servis@soh.cz
Phone: +420 272 272 500