USER MANUAL

LED 10W TCL, pinspot, RGB+W, DMX512

LED159



Code LED159

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1 About this manual

This user manual applies to the product LED 10W TCL, pinspot, RGB+W, DMX512 (code LED159).

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
Power	10 W LED / power consumption 12 W
Weight	600 g

DMX modes

Mode	Channels	Units in one universe	First start addresses
6CH	6	85	1, 7, 13, 19, ...

No light? Check these channels

- 6CH: CH 1 Strobe/On at 240–255 “ON”


Read the manual before use


Risk of electric shock


Hot surface


Do not stare into the light


Indoor use only


Not household waste

3 Safety instructions


Read the manual before use


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Hot surface


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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: 90-240 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.

⚠ CAUTION

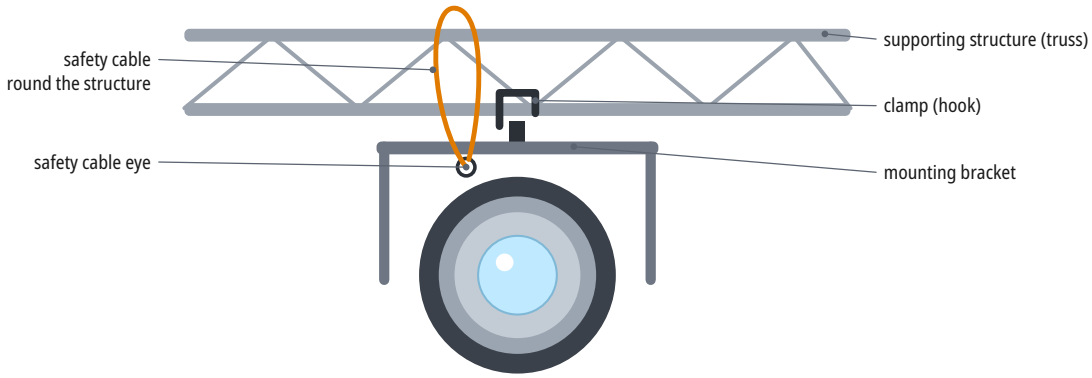
- The surface of the device heats up during operation. Do not touch it during operation or immediately after switching off, and let it cool down before handling.
- The device is cooled by a fan. Do not cover the ventilation openings, do not obstruct the airflow, and leave enough free space around the device.
- Do not place the device near heat sources or flammable materials.

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: 0.6 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

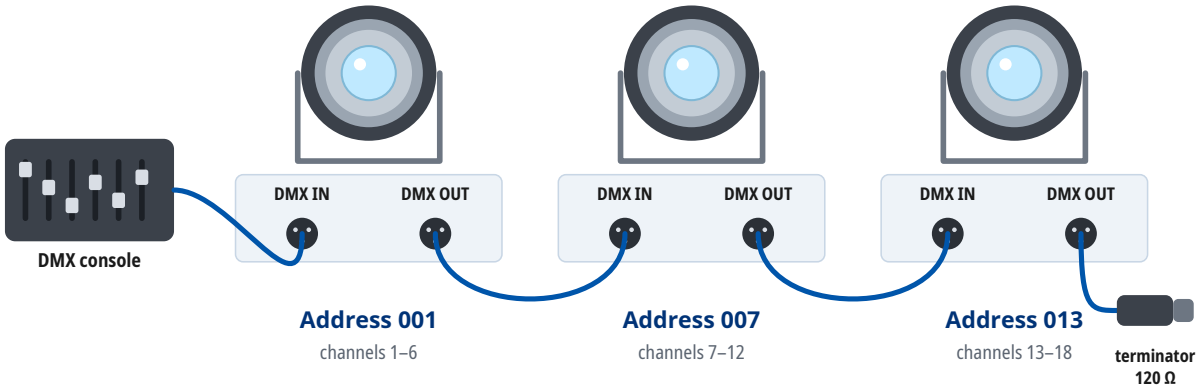


5 Connections

- 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.

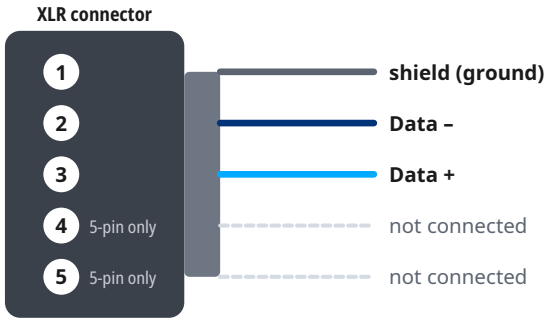
- Connect the shield to pin 1 only. Do not connect the shield (ground) to the metal shell of the connector; this can cause short circuits or erratic behavior.
- XLR pin assignment: pin 1 – shield (ground), pin 2 – Data- (Data Complement), pin 3 – Data+ (Data True). On 5-pin connectors, pins 4 and 5 are 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

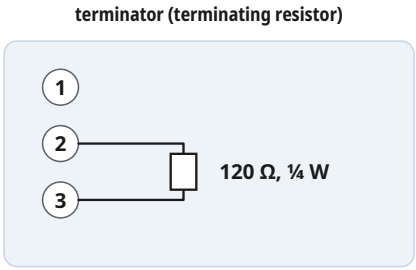


Mode 6CH: every unit occupies 6 channels from its address. At most 32 units on one line; for more units or longer runs use a DMX splitter. A 120 Ω terminator closes the last DMX OUT.

XLR connector and terminator



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

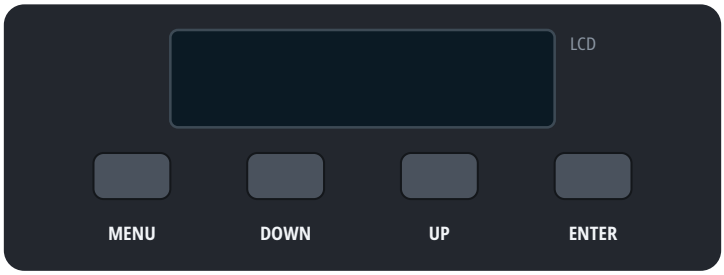


Plug it into the DMX OUT of the last unit.

Connector	Purpose
DMX OUT (3-pin XLR)	DMX data output
DMX IN (3-pin XLR)	DMX data input

6 Operation

Control panel



Button	Function
MENU	Select mode
DOWN	Next/previous value
UP	Next/previous value
ENTER	Confirm and save the selected value

Sound mode

Sound-activated control with 3 modes.

Static mode

Manual color mode offering 16.7 million colors.

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 “6CH”: 6.
- 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 “6CH”, you can use, for example, the start addresses 1, 7, 13, 19.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

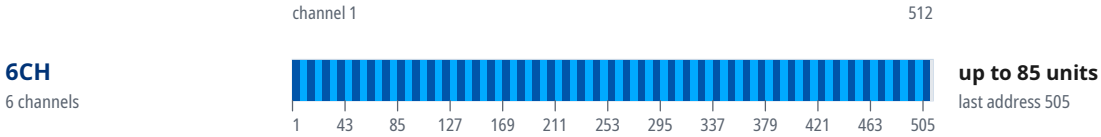
7 Functions at a glance

Functions in each DMX mode

	6CH 6 channels
Shutter / strobe	1
Color mixing	2–5
Effects / macros	6

8 DMX channels

Units in one DMX universe



Start addresses of 20 units in the mode “6CH”

Unit	Start address	Unit	Start address	Unit	Start address	Unit	Start address
1	1	6	31	11	61	16	91
2	7	7	37	12	67	17	97
3	13	8	43	13	73	18	103
4	19	9	49	14	79	19	109
5	25	10	55	15	85	20	115

Console profiles

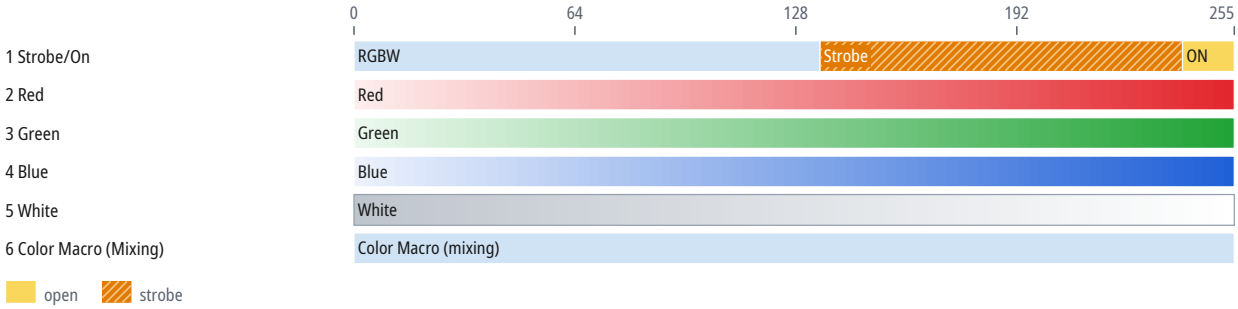
In the grandMA2, Avolites Titan and GDTF libraries, search for the code LED159.

Parameter	Value
Manufacturer in the library	SOH
Fixture type (GDTF, grandMA2)	LED 10W TCL pinspot RGB+W DMX512
Fixture type (Avolites Titan)	LED 10W TCL, pinspot, RGB+W, DMX512
GDTF file	SOH_LED_10W_TCL_pinspot_RGB_W_DMX512_LED159.gdtf
Avolites Titan file	SOH_LED_10W_TCL_pinspot_RGB_W_DMX512_LED159.d4
grandMA2 file, mode 6CH (6 channels)	SOH@LED 10W TCL pinspot RGB+W DMX512@6CH.xml
Library dated	19 November 2026

Mode 6CH

If the device receives DMX in this mode but gives no light, check these channels: CH 1 Strobe/On at 240–255 “ON”.

Channel functions at a glance



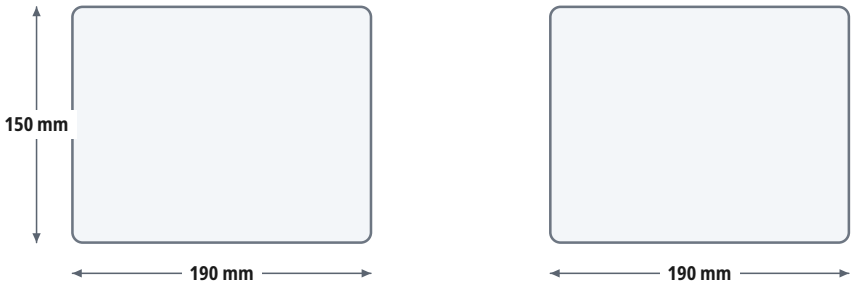
CH	Function	DMX	Description
1	Strobe/On	0–134	RGBW
		135–239	Strobe
		240–255	ON
2	Red	0–255	Red
3	Green	0–255	Green
4	Blue	0–255	Blue
5	White	0–255	White
6	Color Macro (Mixing)	0–255	Color Macro (mixing)

9 Technical specifications

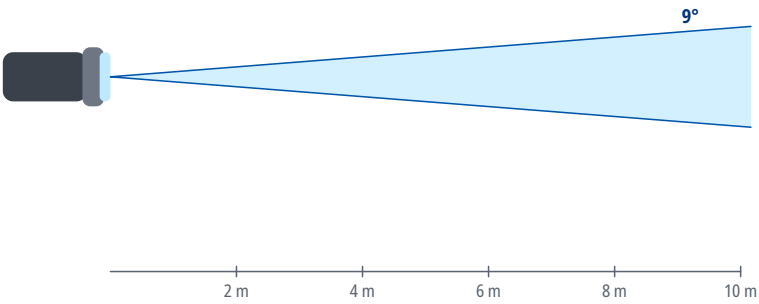
Parameter	Value
General	
Certification	CE
Light	
Light source	1x 10 W RGBW 4-in-1 CREE LED
Colors	RGBW (+mix)
LED lifetime	up to 50 000 hours
Optics	
Beam angle	9 °
Control	
Operating modes	Auto (12 modes), Sound (3 modes), Manual (16.7 million colours), DMX
DMX channels	6 channels
DMX connection	3-pin XLR IN/OUT connectors
Controls	LCD display, 4 buttons
Electrical	
Power supply	90-240 V ~ 50-60 Hz
Power	10 W LED / power consumption 12 W
Dimensions and construction	
Dimensions	190 × 190 × 150 mm
Weight	600 g
Weight incl. packaging	800 g
Material	plastic and metal
Cooling	active air cooling

Dimensions

weight 600 g



Spot diameter



Distance	Ø 9°
2 m	0.31 m
4 m	0.63 m
6 m	0.94 m
8 m	1.3 m
10 m	1.6 m
15 m	2.4 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.

NOTE

- Keep fans and ventilation openings free of dust. Clogged cooling can lead to overheating, reduced output and a shorter service life.
- Remove dust with a soft brush or a vacuum cleaner. When using compressed air, hold the fan blades so that they do not spin at excessive speed.

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.

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.

13 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.
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