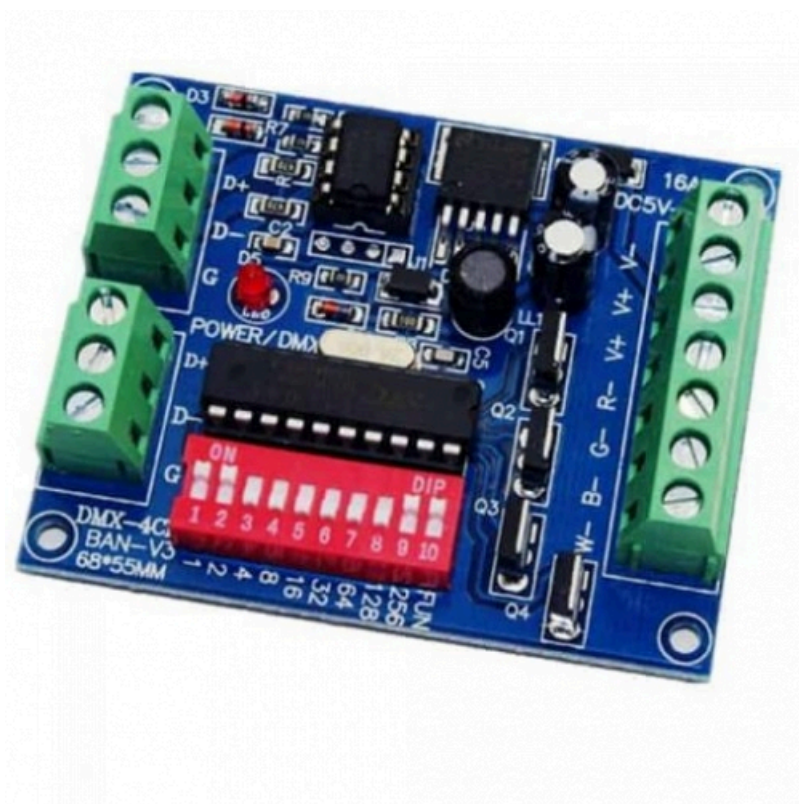


USER MANUAL**4-channel RGBW LED DMX512 dimmer DC
5-24 V****SOH124****Code** SOH124

1 About this manual

This user manual applies to the product 4-channel RGBW LED DMX512 dimmer DC 5-24 V (code SOH124).

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.

2 Safety instructions

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

- This device is designed to be powered by safety extra-low voltage (SELV). Use only a power supply that meets SELV requirements and has sufficient capacity for the total current drawn by the device and any connected load.
- Power supply: DC 5 V – 24 V.
- Observe the correct polarity and do not exceed the specified voltage; reversed polarity or overvoltage can damage the device.
- Size the supply wires for the total current drawn. Undersized wires heat up and cause a voltage drop.
- Connect and disconnect wires only with the power switched off.

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.

DANGER The input voltage must match the specifications (DC 5 V–24 V); higher voltage may destroy the controller.

WARNING Never connect two wires directly together, to avoid short circuits.

CAUTION Connect the lead wires correctly according to the colors in the wiring diagram.

3 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.

Connector	Purpose
DMX IN (screw terminal)	DMX signal input (D+, D-, GND)
DMX OUT (screw terminal)	DMX signal output (D+, D-, GND)
Power (screw terminal)	Power supply input (V+, V-)
Output (screw terminal)	LED load output (V+, R, G, B, W)

4 Operation

Switches and indicators

Control	Function
DIP switches (DMX ADDR AND FUN)	10-position DIP switch: switches 1 to 9 set the binary DMX start address (values 1, 2, 4, 8, 16, 32, 64, 128, 256) when switch 10 is OFF; when switch 10 (FUN) is ON, it controls standalone static color and dynamic modes.
POWER/DMX indicator	Indicates power and DMX status.

DMX mode

The DMX signal can be received when DIP switch FUN (10) is set to OFF. The decoder occupies 4 DMX addresses.

Static mode

Outputs a static color: Black (switches 1–9 OFF), Red (switch 1 ON), Green (switch 2 ON), Blue (switch 3 ON), Yellow (switch 4 ON), Purple (switch 5 ON), Cyan (switch 6 ON), or White (switch 7 ON). If multiple switches are ON simultaneously, the highest value takes priority.

- Set DIP switch 10 (FUN) to ON.
- Set DIP switches 1 to 7 to ON to select the desired color, or leave switches 1 to 9 OFF for black.

Auto mode

Seven-color snap change (switch 8 ON) or seven-color fade change (switch 9 ON). Speed is set in 8 steps via switches 1 to 7 (switches 1–7 OFF = 0 steps, up to switch 7 ON = 7 steps for maximum speed).

- Set DIP switch 10 (FUN) to ON.
- Set DIP switch 8 to ON for seven-color snap change, or DIP switch 9 to ON for seven-color fade change.
- Set DIP switches 1 to 7 to select the speed (from switches 1–7 OFF for 0 steps up to switch 7 ON for 7 steps).

Setting the DMX address

- Set DIP switch 10 (FUN) to OFF.
- Set the binary DMX start address using switches 1 to 9 (where switch 1 = 1, 2 = 2, 3 = 4, 4 = 8, 5 = 16, 6 = 32, 7 = 64, 8 = 128, 9 = 256) by flipping the switches corresponding to the sum of the desired address up to ON.
- 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 4CH mode: 4.
- 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 4CH mode, you can use, for example, the start addresses 1, 5, 9, 13.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

NOTE Each DMX controller occupies 4 DMX addresses.

NOTE When multiple DIP switches are ON simultaneously in function mode, the switch with the highest value takes priority.

5 DMX channels

Mode	Channels
4CH	4

Mode 4CH

CH	Function	DMX	Description
1	Red	0–255	Red intensity 0-100%
2	Green	0–255	Green intensity 0-100%
3	Blue	0–255	Blue intensity 0-100%
4	White	0–255	White intensity 0-100%

6 Technical specifications

Parameter	Value
Power supply	DC 5 V – 24 V
Maximum output load	16 A total (4 A per channel)
Output wiring	common anode
Dimensions	68 x 55 x 15 mm (L x W x H)
Weight	60 g
Recommended operating temperature	-20° C - +60° C

7 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.

8 Troubleshooting

- 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.

9 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.

10 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