

USER MANUAL

DMX512 3-channel LED decoder,RJ45,3x8 A SOH017



Code SOH017

1 About this manual

This user manual applies to the product DMX512 3-channel LED decoder, RJ45, 3x8 A (code SOH017).

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.

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 12–24V); higher voltages may destroy the controller.

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

CAUTION Connect lead wires correctly according to the colors shown 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
Power (Screw terminal)	Power input (V+, V-)
Output (Screw terminal)	Load output for LED strips (COM, CH1/R, CH2/G, CH3/B)
DMX512 IN (RJ45)	DMX512 input signal
DMX512 OUT (RJ45)	DMX512 output signal
DMX512 IN (XLR)	DMX512 input signal
DMX512 OUT (XLR)	DMX512 output signal

4 Operation

Switches and indicators

Control	Function
DIP switches (SWITCH)	Sets DMX start address (switches 1-9 when FUN(10) is OFF), or sets static color/auto program and speed (when FUN(10) is ON).

DMX mode

Receives DMX signal when switch FUN(10) is set to OFF.

Static mode

Selects static colors (black, red, green, blue, yellow, purple, cyan, white) using DIP switches 1 to 7 when switch FUN(10) is ON.

- Set switch FUN(10) to ON.
- Set the desired DIP switch 1 through 7 to ON.

Auto mode

Performs seven-color jump changing or seven-color gradual changing with 8 selectable speed steps.

- Set switch FUN(10) to ON.
- Set switch 8 or switch 9 to ON.
- Select the speed using switches 1 through 7.

Setting the DMX address

- Set switch FUN(10) to OFF.
- Set switches 1 through 9 to ON or OFF according to the binary value of the desired start address (switch 1 = 1, switch 9 = 256), where switching upward corresponds to ON (1) and switching downward corresponds to OFF (0).
- 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 3CH mode: 3.
- 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 3CH mode, you can use, for example, the start addresses 1, 4, 7, 10.
- The DMX mode set on the device must match the fixture profile (personality) used in the controller.

NOTE Each DMX decoder occupies 3 DMX addresses (CH1 = Red, CH2 = Green, CH3 = Blue).

NOTE When multiple switches are set to ON at the same time in speed or static selection mode, the highest value takes precedence.

5 DMX channels

Mode	Channels
3CH	3

Mode 3CH

CH	Function	DMX	Description
1	Red	0-255	Red
2	Green	0-255	Green
3	Blue	0-255	Blue

6 Technical specifications

Parameter	Value
DMX channels	3
Connections	3-pin XLR IN/OUT, RJ45 IN/OUT, 6-pin screw terminal block
Input voltage	12 V - 24 V DC
Maximum output current	3x 8 A
LED wiring	common anode
Dimensions	166 x 67 x 41 mm (L x W x H)
Weight	340 g
Recommended operating temperature	-20-60 °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.

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