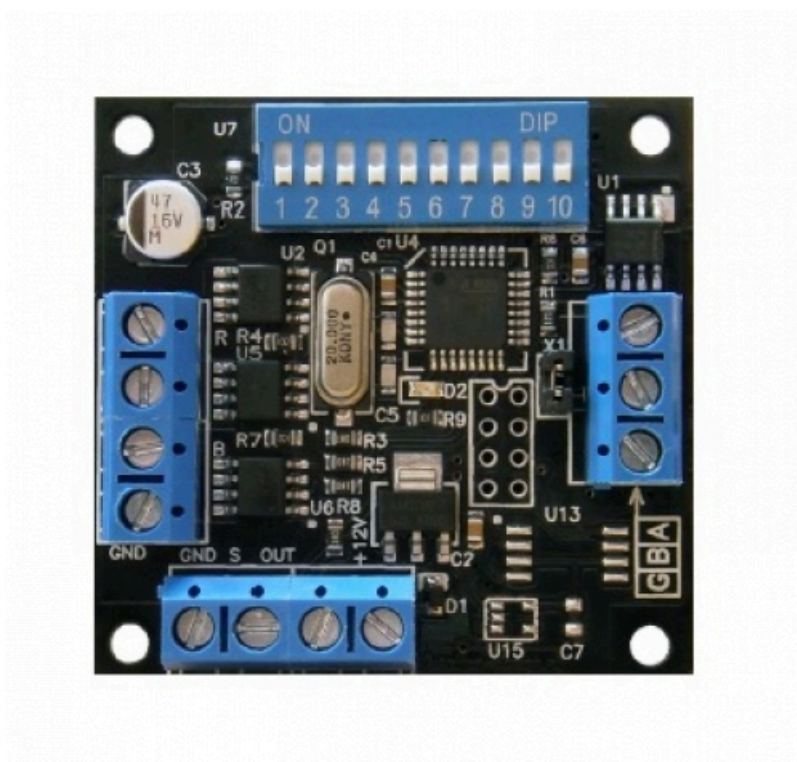


USER MANUAL

DMX512 3-ch. LED dimmer 24A

soh015



Code soh015

1 About this manual

This user manual applies to the product DMX512 3-ch. LED dimmer 24A (code soh015).

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.

CAUTION If the total current is greater than 12 A, connect the power supply positive terminal directly to the load.

WARNING Do not connect the DATA out pin when wiring a standard common anode LED strip.

3 Product description

Three modes:

4 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 input connector (3-pin terminal block)	DMX input (A, B, GND)
High-power output connector (4-pin terminal block)	Output channels R, G, B, and common anode/GND
Power connector / data output (4-pin terminal block)	Power input and pixel data output (GND, GND, S, OUT)

5 Operation

Switches and indicators

Control	Function
DIP switch	10-position DIP switch to set mode, DMX address, programs, and speed
DMX LED activity	Indicates presence of DMX signal
DMX terminator jumper	Connects 120-ohm termination resistor between D+ and D- when closed
Input speed pins	Pins to set interface input speed for DMX (250 kbps, 500 kbps, 625 kbps, 1250 kbps)

DMX mode (DMX decoder)

DMX decoder mode for RGB (256x256x256 brightness levels, full-color control). Bit 10 is set to 0 (Off).

DMX mode (DMX to led strip 1903 IC)

DMX to 1903 LED strip mode, supporting up to 480 channels (160 pixels). Bit 9 is set to 0 (Off) and bit 10 is set to 1 (On).

Auto mode (RGB led controller)

Internal program controller for RGB LED strips. Bits 8, 9, and 10 are set to 1 (On). Bits 1–4 select programs 1 to 16. Bit 6 increases speed, and bit 7 decreases speed.

Auto mode (1903 IC strip led controller)

Internal program controller for 1903 IC LED strips. Bit 8 is set to 0 (Off), and bits 9 and 10 are set to 1 (On). Bits 1–5 select programs 1 to 30. Bit 6 increases speed, and bit 7 decreases speed.

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 decoder (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 decoder (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 Elements must be connected to a common anode for high-power output.

NOTE In DMX decoder mode, bits 1–9 define the 9-bit DMX start address (e.g., 1 = 100000000, 2 = 010000000, 510 = 011111111, 511 = 111111111).

NOTE In DMX to 1903 LED strip mode, bits 1–8 define the starting pixel address (pixel 1 = DMX address 1, pixel 2 = DMX address 4, pixel 254 = DMX address 760, pixel 255 = DMX address 763; formula is $DMX = pixel * 3 - 2$).

NOTE In RGB LED controller mode, bits 1–4 select programs 1 to 16. To increase speed, set bit 6 to 1, wait, and set back to 0. To decrease speed, set bit 7 to 1, wait, and set back to 0. Speed is stored in memory; the normal state for bits 6 and 7 is 0 (Off).

NOTE In 1903 IC strip LED controller mode, bits 1–5 select programs 1 to 30. Speed adjustment on bits 6 and 7 operates identically by setting to 1, waiting, and resetting to 0.

NOTE Interface input speed can be configured to 250 kbps (DMX mode), 500 kbps, 625 kbps, or 1250 kbps via jumper pins.

NOTE The controller has two ground terminals and two plus terminals. Up to 12 A can be connected through each terminal.

NOTE If the total current exceeds 12 A, connect the power supply positive terminal directly to the load.

NOTE Warning: Do not connect the DATA out pin when using standard RGB LED strips.

6 DMX channels

Mode	Channels
decoder (3CH)	3

Mode decoder (3CH)

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%

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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