

USER MANUAL

Spark machine, 850 W, DMX LIGHT324



Code LIGHT324

1 About this manual

This user manual applies to the product Spark machine, 850 W, DMX (code LIGHT324).

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

- 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: 230 V AC, PowerCon IN/OUT. 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.

WARNING

- The fog outlet can be very hot and hot droplets of fluid may escape from it; risk of burns. Do not touch the nozzle during or immediately after operation, and do not aim the outlet at people.
- Place the machine level on a stable, non-flammable surface away from flammable materials.

Never direct the fog at open flames, pyrotechnics or other ignition sources.

- Use only the fluid recommended by the manufacturer; other fluids can damage the machine and endanger health.
- Do not drink the fluid and keep it out of the reach of children. In case of eye contact, rinse with plenty of water; if swallowed, seek medical advice.
- Wipe up spilled fluid immediately; both the fluid and settled fog residue can make surfaces slippery.
- Fog can trigger fire and smoke detectors. Agree on the use of fog with the venue operator in advance.
- Ensure adequate ventilation and visibility; escape routes and their signs must remain clearly visible.
- People with asthma, respiratory problems or allergies should avoid exposure to artificial fog.
- Refill the tank only with the machine switched off and disconnected. Never leave the machine unattended while it is connected to power.

3 Product description

Package contents

- Spark machine, 850 W, DMX
- Wireless remote control

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: 5.5 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.

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.

6 Operation

Control panel

Button	Function
Menu	Go to the next menu.
Up	Use to select a submenu or return to the previous menu. After pressing the confirm button, increase the address in the DMX address interface, or increase the operating temperature in the operating temperature interface.
Down	After pressing the confirm button, decrease the address in the DMX address interface, or decrease the operating temperature in the operating temperature interface.
Confirm	Enter setting mode to adjust values up or down. (Valid only for address code and operating temperature)

Switches and indicators

Control	Function
Yellow indicator	Lights up when an error occurs, such as a problem with temperature detection or heating.
Green indicator	Indicates DMX signal status: on when receiving a DMX signal, off when disconnected.
Red indicator	Lights steadily during heating.
Blue indicator	Indicates that heating is complete and the operating temperature has been reached.

Display menu

Code	Values	Function
A001	001-512	Address interface. Sets the DMX address from 001 to 512. Press Up or Down to select an address between 001 and 512. Press Confirm again to exit address editing.
0200		Temperature interface. Displays the real-time temperature. This screen is read-only.
H500	480-550	Operating temperature setting interface. Sets the target operating temperature between 480 and 550 degrees. Spraying can begin once the unit heats to this temperature. Use Up or Down to select a temperature between 480 and 550 degrees. Press Confirm again to exit edit mode.
H100		Master/Slave selection interface. Press OK to confirm the selection.
- H101		Master interface. Configures the unit as the master device.
- H102		Slave interface. Configures the unit as a slave device.
H810		In the master chase interface, set the first digit to specify the number of running units.
H820		Slave chase interface. Sets the second digit to determine the unit's order in the chase sequence (Master is H 8 1 -, first slave is H 8 2 -, second slave is H 8 3 -, third slave is H 8 4 -, and fourth slave is H 8 5 -).

DMX mode

Control via DMX across 3 channels for spray height, heating, and material clearing.

Remote control

Control heating, spray height levels, material clearing, and chase function using a wireless remote control.

Setting the DMX address

- Press Confirm once to enter edit mode.
- Press Up or Down to set the address from 001 to 512.
- Press Confirm to exit address editing.
- 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.

Master/Slave mode

- Master/Slave operation including master and slave roles, with support for chase sequences across multiple units.
- Navigate to the Master/Slave interface and press OK to enter the selection.
- Navigate to the Master/Slave interface and press OK to enter the selection.
- Select the master interface or slave interface as required.
- In the master chase interface, set the first digit to the total number of running units.
- On each slave unit, set the second digit to determine its sequence number (H 8 1 - for master, H 8 2 - for slave 1, H 8 3 - for slave 2, H 8 4 - for slave 3, and H 8 5 - for slave 4).

Remote control

Button	Function
1	Heat
2	Stop heating
3	Low height
4	Medium height
5	Super height
6	Turn off spray
7	Clear powder
8	chase function

7 DMX channels

Mode	Channels
3CH	3

Mode 3CH

CH	Function	DMX	Description
1	Control Functions	0–9	Close
		10–79	Spray height 1
		80–159	Spray height 2
		160–255	Spray height 3
2	Warm Up	0–10	Warm up off
		11–239	Void
		240–255	Warm up ON
3	Light Material/Clean Powder	0–29	Close
		201–255	Light material

8 Technical specifications

Parameter	Value
DMX connection	3-pin XLR IN/OUT
DMX control	yes
Remote control	8-button, 1x battery 12 V 23A (included)
Power supply	230 V AC, PowerCon IN/OUT
Power	850 W
Dimensions	250 x 205 x 195 mm (V x H x D)
Weight	5500 g
Use	indoor i outdoor
Warm-up time	approx. 2 minutes, temperature sensor on LCD display
Effect height	up to 5 m (adjustable via DMX)
Motors	two (furnace and feeding)
Heater cleaning function	yes

9 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.

CAUTION

- Never operate the machine without fluid; the pump would run dry and could be damaged.
- Regularly check the fluid hoses and the filter, if the machine has one, and clean them when necessary.
- Condensed droplets at the outlet are normal; wipe them off only after the machine has cooled down completely.
- Before transport, empty the tank or close it securely so that fluid cannot leak into the machine.

10 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.

The machine produces little or no fog – check the fluid level in the tank, whether the machine has reached operating temperature, and whether the hoses are kinked or blocked. The machine stops producing fog for a while during operation – it may be reheating or the thermal protection may have tripped; wait and check that the ventilation openings are not covered.

Problem	Remedy
Yellow light turns on	Check for temperature detection errors or heating problems.

11 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.

12 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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