



V-2 SPARK FALL MACHINE

USER MANUAL

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1. Safety instructions



- This device is suitable for indoor use (not outdoors) only.
- Unauthorized modifications will invalidate the warranty.
- Repairs are to carry out by skilled workers only.
- Use only fuses of the same type and original parts as spare parts.
- To avoid fire and electric shocks protect the unit from rain and humidity.

1.1 For a safe and efficient operation

Be careful with heat and extreme temperature!

Do not place the device in a location where it is exposed to extreme temperatures.

Operate the device only in an ambient temperature between 0°C (32°F) - 40°C (104°F). Do not expose the device to direct sunlight or heat sources.

Keep away from humidity, water and dust!

Avoid placing the device in a location with high humidity or excessive dust. Place no liquids on or near the system.

Place the device on a firm ground!

To avoid vibrations always place the device on a firm ground.

Do not use chemicals for cleaning!

Use a clean and dry cleaning rag to remove dust. Metal parts can be cleaned with a dampened cleaning rag. Before cleaning always unplug the device from the power supply.

If the device is not working properly!

If problems occur unplug the device from the power supply. The user should not try to service the device independently. All repairs and service must be performed by a qualified technician.

Take proper care with the power cord!

Never pull the power cord to disconnect the device from the power supply, but remove the plug with plug housing in the hand. If you do not use the device for an extended period, unplug the device from the power supply.

Attention!

Damages caused by the disregard of this user manual are not subject to warranty. The dealer will not accept liability for any consequent secondary failures. Only skilled workers are allowed to carry out the electrical connections. All electrical and mechanical connections have to be carried out according to the European safety standards.

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1.2 Intended use of the device

This device was developed for professional use on stages, in discos, theatres etc. The device is only approved for a connection up to 230V 50/60 Hz alternating current and only for indoor use.

Regular breaks during operation increase the lifetime of your device.

Avoid convulsions or any form of forceful impact during the installation or the startup of the device.

Take care that no cables are lying around. You would endanger your own safety and also the safety of a third party.

It's not allowed to operate or store the device in an environment in which spray water or rain is expected. Humidity or very high atmospheric humidity could reduce the isolation of the device and could cause deadly electric shocks.

If using fog machine you have to ensure that the fog saturation of the room must allow a good visibility of at least 10m.

Operate the device not during thunderstorms. Surge voltages could destroy the device. Unplug the power supply during thunderstorms.

Surrounding objects or surfaces should not be in contact with the device.

Make sure that during the installation and removal of the device the area below the place of installation is basically cordoned off. This also applies to implementation of service.

Make familiar yourself with the functions of the device before start-up. People without the experience should not handle with the device. The most cause of functional disorder is inappropriate handling.

Keep the device away from children and never operate it unattended.

Never aim the nozzle on people and keep a distance from 50cm to the nozzle. Attention! The ejected sparks can be hot.

Keep a minimum distance of 50cm to other objects.

Use only the recommended, high quality granule from your dealer. Other granule may cause damages.

Never aim the nozzle on open fire or flammable objects.

Operate the unit only in a hanging position.

Never use solvents or aggressive detergents for cleaning. Use instead of this a dampened cleaning rag.

To prevent damages during transport use for transport the original packing or provided accessories.

For reasons of safety unauthorized changes are forbidden!

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A usage of the device which differs from usages which are described in this manual can cause damages of the device. In this case the warranty expires. Additionally you should notice that every different usage is related with dangers and can cause e.g. an electrical short, fire, electric shock or crash.

Overhead installation



Danger to life!

You have to observe the regulations of BGV C1 (formerly VBG 70) and EN60598-2-17! Installations are to carry out by skilled personnel only.

The suspension devices have to be built and measured so they can withstand for an hour the tenfold of the payload without suffering a permanent detrimental deformation.

Basically installation has to be made by using a second separate suspension. This can be e.g. a suitable net. The second suspension must be designed and attached so no part of the installation can fall down in case of failure.

During construction, reconstruction and deconstruction unnecessary stay in the range of moving areas, on lightning bridges, under elevated work stations or any other danger zones is forbidden.

The operator is obliged to the following safety-related and mechanical facilities:

- Before the first start-up or after critical changes before restarting it has to be checked by an expert.
- Review in the frame of the inspection test at least all four years by an expert.
- Review by a qualified person at least once a year.

How to carry out the overhead installation:

Ideally the device should be installed outside lounge areas of people.

Important! Overhead installation requires a high level of experience. This includes knowledge of calculating the payload, used installation material and safety inspections of the used material and the projector whereas the required experience is not limited to this. Do not try to carry out installation yourself under any circumstances if you are not qualified. Contact a professional installer. An inappropriate installation can lead injuries and/ or damaged properties.

It is not allowed to install the device in the grip area of people.

If the device may hang from the ceiling or from high beams, the use of truss systems is mandatory. The device may not be installed so it can swing freely in the room.

Please note: Crashing down items can cause serious injuries! Do not install the projector, if you doubt the safety of a possible installation form!



Before installation make sure that the mounting surface has the ability to carry the tenfold point load of the own weight of the device.

Mount the device with the mounting-bracket to your trussing system using appropriate clamp.

During overhead installation the device must be always secured by a safety rope which is designed to hold the twelvefold weight of the device. Only safety ropes with quick-release safety fastener elements may be used. Hang up the safety rope in the hole of the mounting bracket. Direct the rope over the truss or an appropriate fastening point. Hang up the end in the fastening element and tie up the locking nut. A safety rope once exposed to failing load or damaged may not be used furthermore.

The maximum drop exceed must not exceed 20cm.

Adjust the desired inclination angle via the mounting bracket and tighten the screw.

1.3 Connections

1.3.1 Electrical connections

Connect the fixture to the mains with the enclosed power cable and plug. The earth has to be connected.

Cable (EU)	Cable (US)	Pin	International
Brown	Black	Live	L
Blue	White	Neutral	N
Green/ Yellow	Green	Earth	

1.3.2 DMX connections

Make sure that you use shielded cable. 3pol or 5pol XLR cables are suitable.

1.3.3 DMX connection with terminator

Where the DMX cable has to run a long distance or the equipment is operated in an electrically noisy environment like a disco, for installations we recommend using a DMX terminator. This prevents corruption of the digital control signal by electrical noise. The DMX terminator is simply an XLR connector with a 120 OHM resistor between pins 2 and 3, which is then plugged into the XLR output socket of the last device in the series. Please look to the bottom drawings.

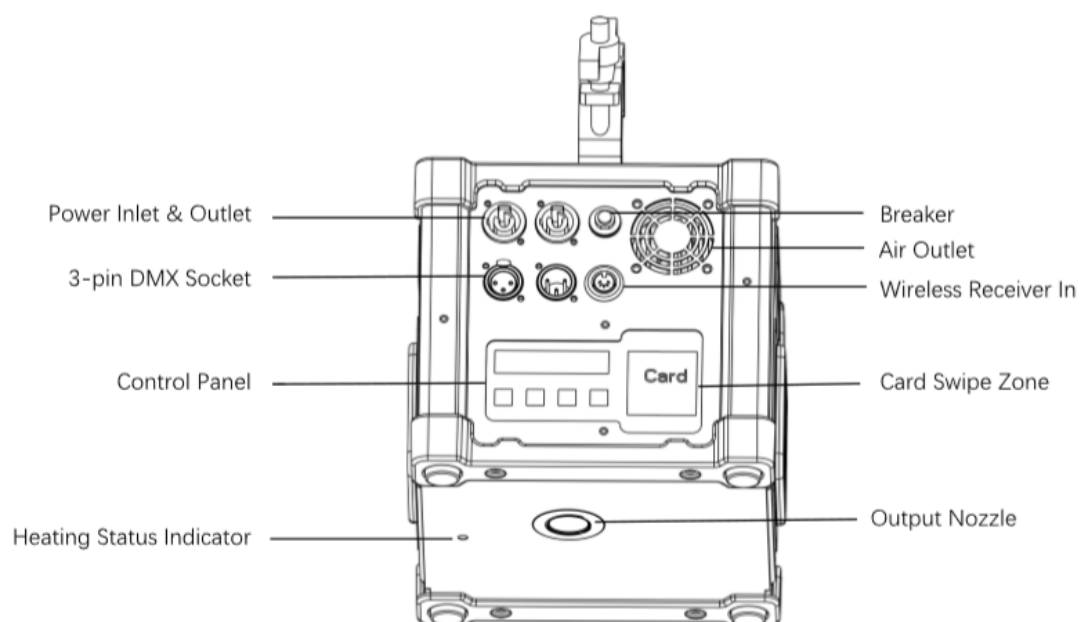
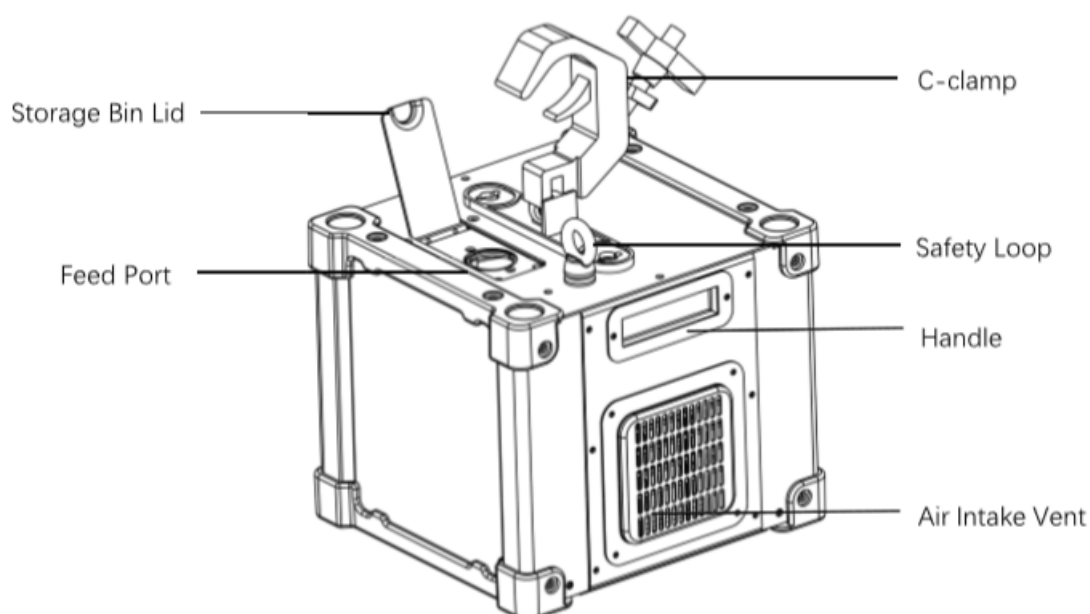
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2. Introduction

Thank you for choosing the DJ Power Spark V-2.

We recommend carefully reading of these operating instructions before commissioning the unit. Please follow the instructions in this manual. This is the only way to ensure safe operation, proper use and long service life.

2.1 Produktbeschreibung



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3. Before using

Attention!

Remove complete packing material before start-up.

1. After verifying the unit is intact and complete, place the device on a level surface.
2. Connect the device to the power supply and switch it on.
3. The unit starts to heat up now. This process needs about 4 min, meanwhile the display shows up „Heating“.
4. The heating process is finished. The display shows „Ready to Spark“.
5. Now you have to fill in the granules. You are only allowed to use the granules of DJ Power.

Attention!

The DJ Power Spark V-2 is made for hanging use **ONLY!** Operation while standing on the nozzle may cause serious damage to the unit or other objects!

4. Bedienelement

Taste	Funktion
MENU	Navigation through the menu
▲	Increase a value or make a setting
▼	Decrease a value or make a setting
ENTER	Back to the root menu

5. User Interface

5.1 Status Interface

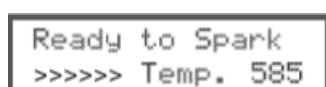
Main Page



Heating Up
>>>>> Temp. 585

- The unit is heating.

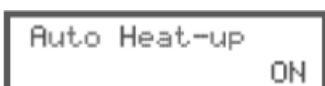
Standby Page



Ready to Spark
>>>>> Temp. 585

- The unit finished pre-heating. Current temperature is 580°C.

Manual Mode

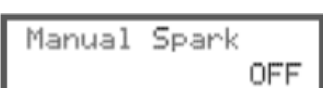


Auto Heat-up
ON

- Press the up/ down buttons for de/ activating the Auto heat-up.



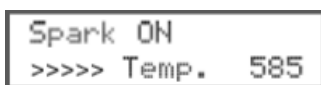
The basic adjustment of the Auto Heat-up is ON. The heating progress starts automatically after switching on the device.



Manual Spark
OFF

- Press the up/ down buttons to start the Spark manually.

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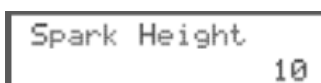


Spark ON
>>>> Temp. 585

- The unit starts running.



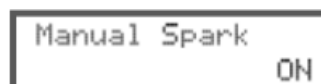
The unit stops sparking after 30 seconds! You can restart the sparking immediately.



Spark Height
10

- Press the up/ down buttons to adjust the output manually between 1 (minimum) and 10 (maximum).

Operation via Remote



Manual Spark
ON

- The Spark output is now adjustable via remote.



Further information for operation via remote on page 15.

DMX Configuration Page

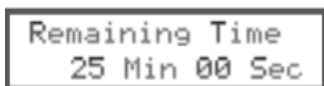


DMX Address
1

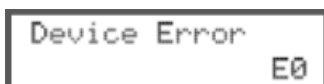
- Press the up/ down buttons for choosing the DMX address.

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Status Interface

A rectangular digital display with a black border. It shows the text "Remaining Time" on the top line and "25 Min 00 Sec" on the bottom line, both in a monospaced font.

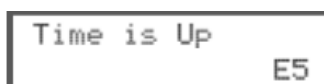
- Remaining Time of current load.

A rectangular digital display with a black border. It shows the text "Device Error" on the top line and "E0" on the bottom line, both in a monospaced font.

- Shows up a possible malfunction.



Further information on page 13!

A rectangular digital display with a black border. It shows the text "Time is Up" on the top line and "E5" on the bottom line, both in a monospaced font.

- Granule runs out soon.

6. Meldungen/ Fehlermeldungen

Display	Meaning
Ready To Spark ⇒ 580	The unit finished pre-heating. Current temp. is 580°C.
Working ⇒ 580	The unit is working. Current temp. is 580°C.
Heating ⇒ 0-580	The unit is heating. Current temp. will appear in display.
Device Error E0	The unit stops to over temperature.
Device Error E1	The unit failed to heat.
Device Error E2	Feeding motor is protected.
Device Error E3	Temperature sensor failed.
Device Error E4	Temperature sensor tripped off.
Time is Up E5	The granules will run out soon.
Device Error E6	Temperatur inside the unit is too high (over 60°C)
Device Error E7	Step motor is not able to reset.
Device Error E8	The input power frequency is abnormal.

7. Operation

The unit stops sparking after 30 seconds! You can restart the sparking immediately.

7.1 Manual Operation

Menu		Function
Manual Heat	ON/ OFF	(De-)Activates the manual operation.
Manual Fountain	ON/ OFF	Start the manual operation.
Fountain Height	1-10	Setting the fountain height.
DMX Address Set	1-512	Setting the DMX address.
Surplus Time	XX Min XX Sec	Check out the remaining time of using.

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7.2 Operation via DMX

Channel	Value from	Value to	Function
1	0	9	No Function
	10	35	Height 1
	36	60	Height 2
	61	85	Height 3
	86	110	Height 4
	111	135	Height 5
	135	160	Height 6
	161	185	Height 7
	186	210	Height 8
	211	235	Height 9
	236	255	Height 10
2	0	9	Normal operation
	10	60	Clear material
	61	120	EMERGENCY STOP
	121	182	Pre-heat OFF
	183	255	Pre-heat ON

7.3 Operation via Remote

This mode will allow you to control the Spark Machine V-2 using the wireless controller W-2. This consists of the transmitter and the receiver. Any one (or more) W-2 transmitter can work with any one (or more) W-2 receiver, no pairing procedure needed.

You may control up to 4 independent Spark Machines V-2 or many more if you run them simultaneously. See below instructions on setting up your Spark Machine V-2 to operate with the W-2.

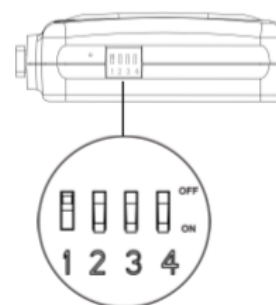


- Plug the Wireless Receiver into the Spark 5-pin port, labeled „Wireless Controller“. The red LED indicator will be on when the transmitter is successfully connected. There is no reaction in the green LED indicator.

Ready to Spark
>>>>> Temp. 585

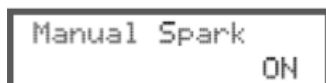
- There are 4 buttons on the wireless remote transmitter which act as triggers. Each button can be assigned to a different Spark Machine V-2. You may only choose 1 dipswitch on each receiver. See the below configuration options for setting the receivers to operate with the transmitter remote.

Mode	Dipswitches
CH1	1 = On, 2-4 = Off
CH1, CH2	1, 2 = On, 3,4 = Off
CH1, CH2, CH3	1, 2, 3 = On, 4 = Off
CH1, CH2, CH3, CH4	1, 2, 3, 4 = On
...	...

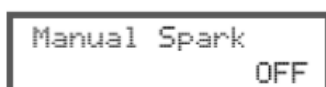


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- Press the button and the Spark Machine V-2 will output spark momentarily for as long as you hold down the button (no more than 30 seconds). The screen display as below:



- Release the button, Spark stops. The screen display as below:



8. Einstellungen

8.1 DMX address

Connect the DMX signal, the unit will display „DMX Address Set“ in the LCD or press „MENU“ button until page „DMX Address Set“. Use the up/down buttons to set the address.

8.2 Fan speed setting

Press „Menu“ button until page „Fountain Height“. Adjust the fan speed through the up/down button. Max speed is 10.

8.3 Manual operation

Press „Menu“ button until page „Manual Heat“. Turn ON/ OFF the heating system through the up/down button.

LED displays „Ready to Spark“ after the unit finished heating. Press „MENU“ button until page „Manual Fountain“. Turn ON/ OFF the manual fountain through the up/down button. When the temperature is lower than 520°C or the unit failed, this function will shut off automatically.

9. RFID Card

9.1 How to use the card

Tap the IC card in the card reader area to activate the unit. Each card enables the unit to work 25 minutes. The IC card will be invalid after being read.

9.2 How to check the remaining time

Press „Menu“ button until page „Surplus Time“ to check the remaining time of using. The LCD displays „No Time“ „E5“ when there is not enough granules and the time is up. Tap another new card to re-activate the unit.

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Technical Data

AC Power	Input Voltage & Rate	220-240 V, 50/60 Hz
	Current Limiter Type	Breaker
	Current Limiter Specifications	5 A, 250 V
	Total Power Consumption	600 W
	Typical Current	2.6 A
	Power Input Connector	Lockable PowerCon
	Power Output Connector (Daisy Chained)	Lockable PowerCon
Heating	Heat Up Time	<3 min
	Re-heat Up Time	0 min
Capacity	Powder Tank Capacity	200 g
Output	Adjustable Output	√
	Adjustment Level/Range	Level 1-10
	Max Fall Length	4 m
	Powder Consumption (100% Output)	Approx. 11 g/min
	Maximum Continuous Duration (100% Output)	30 S
	Continuous Output	x
	Consumable Type for Standard Output Test	PRO-K
Accessory	Power Cord	√
	Wireless Controller Model	W-2/ 315MHz/ Remoter & Receiver
	Wired Controller Model	x
Placement & Mounting	Horizontal	√
	Inclined	√
	Vertical	x
	Hang Upside Down	x
	Rigging & Trussing	√
	Rotating Nozzle	x
	Deflector	x
Features	Operation Noise	1 m, 80 dB
Control	On-device Manual Control	LCD control board
	Wireless Control	W-2/ 315MHz/ S5 for Ext.
	Wired Control	x
	Control Protocol	DMX-512
	DMX Channel Range	2
	RFID Card	√
Certification	CE	√
	RoHS	√
Weight & Dimensions	Net Weight	7.8 kg
	Gross Weight	8.7 kg
	Machine Dimensions - Length	228 mm
	Machine Dimensions - Width	206 mm
	Machine Dimensions - Height	227 mm
	Packing Dimensions - Length	315 mm
	Packing Dimensions - Width	290 mm
	Packing Dimensions - Height	285 mm
Consumable	Consumable	Spark Seed PRO-K



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