



Desk Dough® Beam
Manual V01

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Important Information

Abbreviations and naming used in this manual

Abbreviations:

Desk Dough® Beam: DDB

The term "lighting effect device" is used in this manual for all models of Desk Dough® devices.

Identifying the product and other information

This instruction manual relates to lighting effect devices from Stops & Mops GmbH.

The model designation and serial number are located on the serial number tag.

For Desk Dough® Beam the serial number tag is located at the bottom of the unit.

DeskDough Beam

TYPE: DDB-1

HWV.:1.1.0

S/N: AA00100

General information about this instruction manual

With this instruction manual, users of Stops & Mops GmbH lighting effect devices are provided the necessary information for the safe use of their systems.

The safety instructions resulting from the legally prescribed risk analysis and assessment are an essential part of these instructions.

- **IMPORTANT!** Please read these instructions carefully before using your system! Store this instruction manual in a safe place for later reference.

For specific questions and further support, please contact us at:

Stops & Mops GmbH, Tel: +43 (0)720 578 777 12, beams@stopsmops.com

Office hours: On working days 10.00am to 5.00pm CET/CEST.

Subject to change without notice. All information is provided without guarantee and liability.

Safety information

The safety information in this instruction manual can be broken down into the following categories:

- **WARNING** is used for hazards that could result in death or serious injuries.
- **CAUTION** is used for hazards that could result in minor injuries.
- **IMPORTANT** is used for all other cases where the potential for material damage exists or specific actions are recommended.

Target group/qualifications

The use of lighting effect device systems requires AV and IT knowledge. For this reason, the use of lighting effect devices should be limited to qualified personnel. Lighting effect device owners and operators must ensure this via organizational measures.

The qualified personnel responsible for installation and maintenance must also be able to prevent any remaining risks in terms of health and safety with their understanding of the existing dangers.

Warning about electrical hazards

Electrical hazards can arise across a lighting effect device's entire life cycle. These can arise not only from the lighting effect device, but the electrical installation on site as well.

- **WARNING!** Dangerous situations can arise from the careless handling of the device or faulty electrical installation.

These can result in severe injury or death!

- Extreme care should be used when working on the lighting effect device.
- Always consult the responsible specialists when working with dangerous voltages.

Intended use

The lighting effect device are meant exclusively for use in rooms with normal operating conditions (temperature, humidity, radiation) such as air-conditioned rooms, offices and other rooms with similar conditions.

Warning about foreseeable misuse

- **WARNING!** Dangerous situations can arise from using the lighting effect device in unsuitable environments.

These can result in severe injury or death!

- Only use the lighting effect device in professional AV and IT environments!
- The use of the lighting effect device in special environments, such as medical facilities, potentially explosive environments or areas with unusually high EMC requirements, is not permitted!

- **WARNING!** Dangerous situations can arise from unauthorized modifications.

These can result in severe injury or death!

- Do not attempt to modify the existing protections!

Installation on site

Checking for transport damages

Check the packaging and the lighting effect device for possible damage that could have arisen during transport.

- **IMPORTANT!** If you find damage, please report it immediately to your vendor or Stops & Mops GmbH.

Danger from condensation

- **WARNING!** A difference in temperature of 15°C between the room's temperature and the lighting effect device can lead to condensation. This can lead to short circuits and other damage. These can lead to the risk of electrocution. Electrocution can result in severe injury or death!
 - Please ensure that the lighting effect device is not subject to quick changes in temperature!
 - Give the system time to acclimate to its environment.
 - Do not operate the lighting effect device if condensation has formed!

Stops & Mops GmbH recommends installing the lighting effect device in an environment that is:

- Clean and dry
- Not near sources that cause vibrations or shaking.
- Protected from strong electro-magnetic fields that arise from electrical devices.
- Provides access to a properly grounded wall socket.
- Able to be equipped with surge protection, particularly in areas subject to thunderstorms.
- Provides sufficient space for access to the power cables, as these are the primary way to disconnect the lighting effect device from the power supply.
- Provides sufficient space to ensure air circulation (for cooling).

The Desk Dough® Beam is intended to be used with a projector set up in a way that people look into the direction of the lens output.

In case of using a laser projector or a very bright projector please ensure to have complied all safety instructions specified by the manufacturer of the projector or projecting device.

Stops & Mops GmbH is not liable for causing damage due to an incorrectly installed projecting device.

Initial installation

Notes for rack system installations

Install a line disconnecter for the entire rack system.

This line disconnecter must be easily accessible and have a label that states that it controls the power supply to the entire unit and not just the lighting effect devices.

Danger from improper voltage supply

- **WARNING!** Dangerous situations can arise from improper voltages. These can lead to the risk of electrocution.
Electrocution can result in severe injury or death!
 - Only operate the lighting effect device using the voltage specified in this manual!

The lighting effect device can be operated in combination with an uninterruptible power supply (UPS). In this case, please follow the instruction manual for the UPS system!

Danger from improper grounding

- **WARNING!** Dangerous situations can arise from improper grounding. These can lead to the risk of electrocution.
Electrocution can result in severe injury or death!
 - Please ensure that the lighting effect device and/or the rack itself and all incorporated devices are properly grounded!
 - For such work, always consult the responsible specialists.

Proper grounding is also very important for protection against EMC interference.

Danger from fire

- **WARNING!** Dangerous situations can arise from improper electrical installations. These can lead to the risk of fire.
Fires can result in severe injury or death!
 - Please ensure that electrical installations are properly performed!
 - Always consult the responsible specialists for such work.

Operation, maintenance, modifications, cleaning and disassembly

Electrical hazards

Incidents arising from electrical hazards can occur during operation, maintenance, when making modifications, cleaning or disassembling the lighting effect device.

Turn off all connected peripheral devices before opening the lighting effect device.

NOTE: Opening the lighting effect device will void its warranty!

- **WARNING!** Dangerous situations can arise if the lighting effect device is not turned off before opening the system.

These can result in severe injury or death!

- Ensure that the lighting effect device is disconnected from the power source before opening!
- Turn off the lighting effect device by unplugging all power cables from the outlet!
- Ensure that the lighting effect device will not be plugged in unexpectedly by another person or that the system will unexpectedly restart after an interruption in the power supply.

Additional comments on the subject:

- The lighting effect device must be completely disconnected from the source of power.
- To do this, all power cables must be removed from the electrical outlet.
- A system may be equipped with multiple power cables. In such cases, ensure that all power cables have been unplugged.
- Do not make any modifications to the power cable and do not use any cables except those with the correct specifications. Each power supply in the system must be connected to the power source via its own cable.
- Power supplies do not have any parts that can be serviced by the user.
- Never open a power supply. Power supplies contain dangerous voltages, currents and energy sources. Send the device back for any necessary maintenance work.
- The lighting effect device can unexpectedly restart after an interruption in the supply of power.

One exception is components that can explicitly be plugged in (hot-plug) or swapped (hot-swap) during operation. Please note the following safety instructions for hot-plug power supplies.

Electrical hazards related to hot-plug power supplies

Electrical accidents can occur when exchanging hot-plug power supplies.

- **WARNING!** Dangerous situations can arise from the careless handling of hot-plug power supplies. These can result in severe injury or death!
 - Unplug all power cables of a hot-plug power supply before swapping it out!

Avoiding data loss

- **IMPORTANT!** Remember to backup your data before performing any maintenance or any other similar work inside your lighting effect device. Check to ensure that your data restoration system works properly.

Disassembly and assembly of the housing

Should you need to remove the lighting effect device's housing for maintenance work or any similar work inside the system, make sure to store all screws and fastenings in a safe place.

NOTE: Opening the lighting effect device will void its warranty!

Once you have completed your work on the lighting effect device, reassemble the housing using the original screws and fasteners.

- **IMPORTANT!** Operating the system without its case can lead to damage for the system components. Reattach the case as follows:
 1. First, ensure that you have not left any tools or other parts in the system!
- 2. Check whether all cables, add-on components and other components are correctly configured and attached.
- 3. Re-mount the panels onto the product's frame!

Danger from sharp corners and edges

- **CAUTION!** Despite careful selection of the components, sharp corners and edges can occur on the housing. Plastic parts can also break during assembly or disassembly and leave sharp corners and edges. Injuries can be the result.
- Work with care and avoid sharp corners and edges.
- Wear protective gloves especially when working on the housing and when installing rack systems!

Danger of pinching

- **CAUTION!** Moving parts can pinch fingers. Injuries can result!
 - Work carefully and pay attention to places where pinches can occur.
 - Wear protective gloves when working on the housing!

Danger from hot components

- **WARNING!** During operation, the processor and heat sink can get very hot. Burns can result.
 - Do not open the system until it has cooled completely!
 - Be careful when removing or installing hot-plug components to avoid contact with hot elements!

Danger from moving parts

- **WARNING!** Some lighting effect devices contain moving parts, such as rotating fan blades. Contact with such components can cause injury.
 - Never touch rotating fan blades or other moving parts!
 - Always operate the lighting effect device with the housing closed!

Danger from batteries

- **WARNING!** A danger of explosion and corrosion can arise from improper battery replacements. Hazardous substances can be leaked. Improper use can result in serious injury.
 - Only use the battery types recommended!
 - Never try to charge or open a battery!

Preventing damage caused by a lack of ESD measures

- **IMPORTANT!** Electrostatic discharge can damage electronic components, circuit boards and other components. Perform all work at an ESD workstation!

If such a workspace is not available, you can achieve a degree of protection against electrostatic discharge by wearing an anti-static wristband. You can use these to keep you grounded by attaching the clip to any unpainted metal part of your computer case.

Always handle circuit boards with utmost caution. They are extremely sensitive to electrostatic discharge. Hold circuit boards by the edges.

After removing the circuit board from its protective case or the lighting effect device, place it right side up on a grounded, fully discharged surface. We recommend the use of a conductive foam pad and not the board's protective case.

Never drag the board across a surface.

Use gloves when working with sensitive components.

Preventing damage due to improper cooling and a lack of air flow

- **IMPORTANT!** Make sure that all cooling fins of the heat sink and/or the ventilation slots are not covered.

Route all cables carefully to avoid disturbances in the air flow and avoid cooling problems.

To ensure proper cooling and air flow, only operate the system with its case fully assembled.

Preventing damage caused by unsuitable cleaning agents

- **IMPORTANT!** Only use suitable cleaning agents.
A microfiber cloth is suitable for external cleaning.

Compressed air may be used to clean the lighting effect device. Please ensure that the air is applied gently and from a sufficient distance, as the components can otherwise be damaged.

Vacuum cleaners are not suitable for cleaning the inside of the lighting effect device.

Instructions for disposal

The lighting effect device and batteries must be properly disposed of as electrical waste at the end of their use. The disposal of electrical and electronic equipment is regulated by law. Please observe all local regulations. Disposal via household waste or ordinary industrial waste is not permitted.



Many of the materials are reusable. By following this notice, you make an important contribution to protecting the environment.

Specifications

To ensure proper operation, make sure that the following operating conditions are met for the lighting effect device.

- **IMPORTANT!** When you receive your lighting effect device, place it in the environment where you will install it. Leave the lighting effect device in its shipping crate at its final destination for 12 hours and do not connect it to the power supply! This resting period prevents thermal shock and condensation.

Ambient temperature

An ambient temperature range of 21°C to 23°C is optimal for device reliability. This temperature range allows the recommended relative humidity level to be maintained quite easily. The maximum admissible temperature range is between 10°C and 30°C. Please bear in mind that high temperatures have a negative effect on the components' life cycle.

Relative humidity

Ambient relative humidity levels between 45% and 50% are the most suitable for data processing operations.

- Prevent corrosion
- Provide an operating time buffer in the event of environmental control system failure.
- Help avoid failures caused by the intermittent interference from static discharges that occur when relative humidity is too low.

The maximum admissible relative humidity range is between 20% and 80% (noncondensing).

Airflow considerations

- Ensure that ventilation openings, such as cabinet doors, for both the inlet and exhaust of the lighting effect device provide a minimum open area equal to the lighting effect device's open areas.
- Take care to prevent recirculation of exhaust air within a rack or cabinet.
- Manage cables to minimize interfering with the lighting effect device exhaust vent.

In case the lighting effect device is equipped with fans:

- Ensure unobstructed airflow through the chassis.
- Ensure that air enters at the front of the lighting effect device housing.
- Ensure that air exits at the openings designated for this purpose.

Scope of delivery

DDB: Manual

Optional: lockable power cord

Optional: Mounting Bracket

Warranty

We offer 2 years warranty on Desk Dough® Beam devices.

An additional warranty of total 3, 4 or 5 years is available on request.

- **IMPORTANT!** Please note that opening or modifying the lighting effect device voids its warranty.

Environmental specifications - operating

Temperature (altitude less than 1000m, no direct sunlight)	10°C to 30°C
Maximum Temperature Gradation	10°C per hour
Temperature De-Rating (altitude more than 1000m)	Reduce max. temp. by 1°C per 300m
Maximum Altitude	3000m
Relative Humidity (noncondensing)	20%RH to 80%RH
Maximum Humidity Gradation	10%RH per hour

Environmental specifications - storage

Temperature (no direct sunlight)	-30°C to 55°C
Maximum Temperature Gradation	20°C per hour
Relative Humidity (noncondensing)	5%RH to 95%RH
Maximum Humidity Gradation	10%RH per hour

Power supply

	DDB
Power Supply	100-240VAC, 50-60Hz
Power Consumption Peak	20W
Power Consumption Average with High Load *	15W

* Power Consumption Average with High Load = Tested with very high CPU, GPU and storage workload.

Heat dissipation

	DDB
Heat Dissipation Peak	68BTU/h
Heat Dissipation Average with High Load *	52BTU/h

* Heat Dissipation Average with High Load = Tested with very high CPU, GPU and storage workload

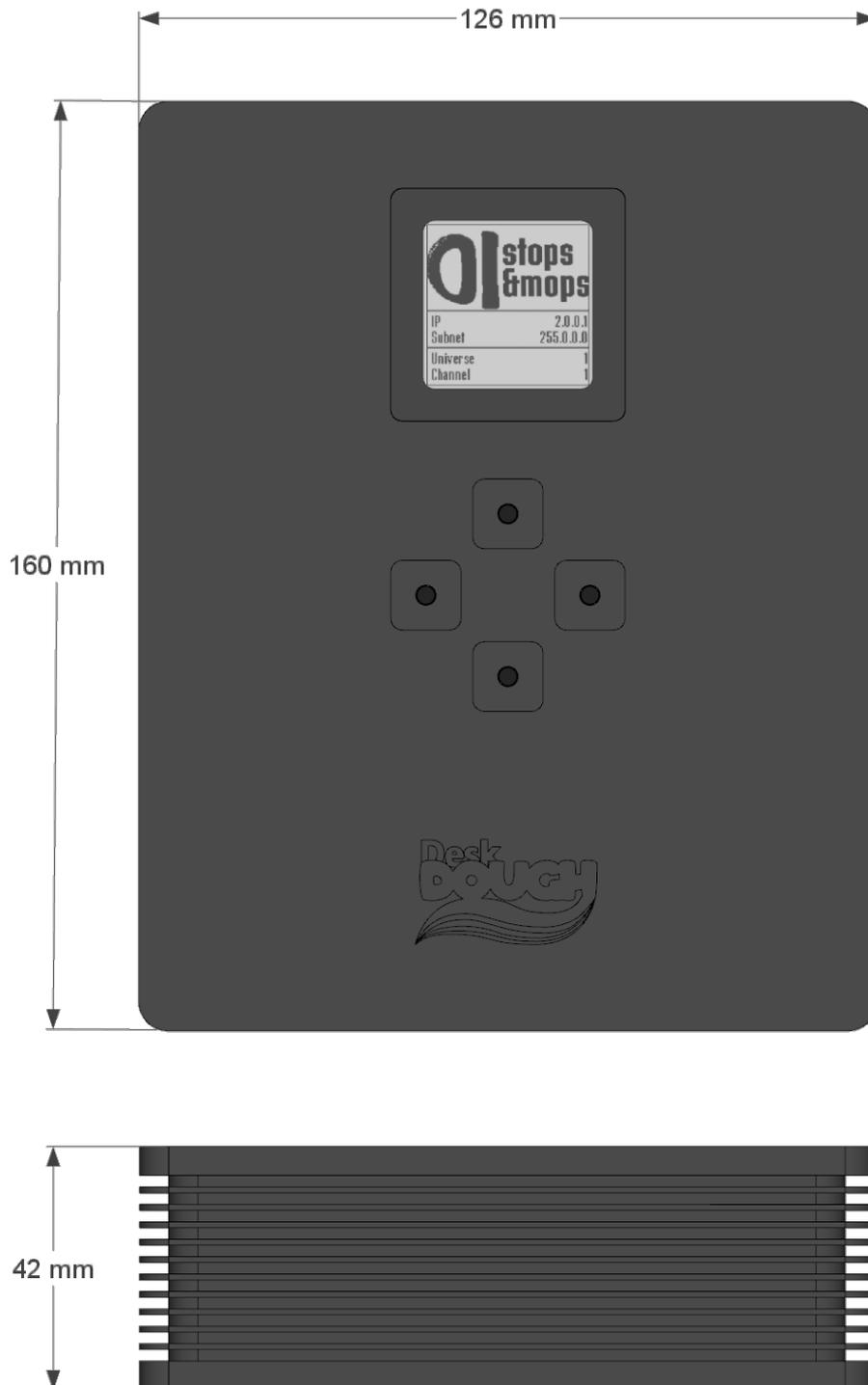
Physical

	DDB
Case Dimension (WxDxH)	126 x 160 x 42mm
Max. Product Dimension (WxDxH)*	126 x 160 x 42mm
Power Supply Dimension (WxDxH)*	Built-in
Product Weight	1 kg
Power Supply Weight	Built-in
Shipping Dimension	250 x 250 x 190mm
Shipping Weight	1,5kg

Dimensions

Case dimensions

IMPORTANT! Please note that due to the production process there may be deviations in the dimensions. For exact dimensions please use the measures of the actual device.

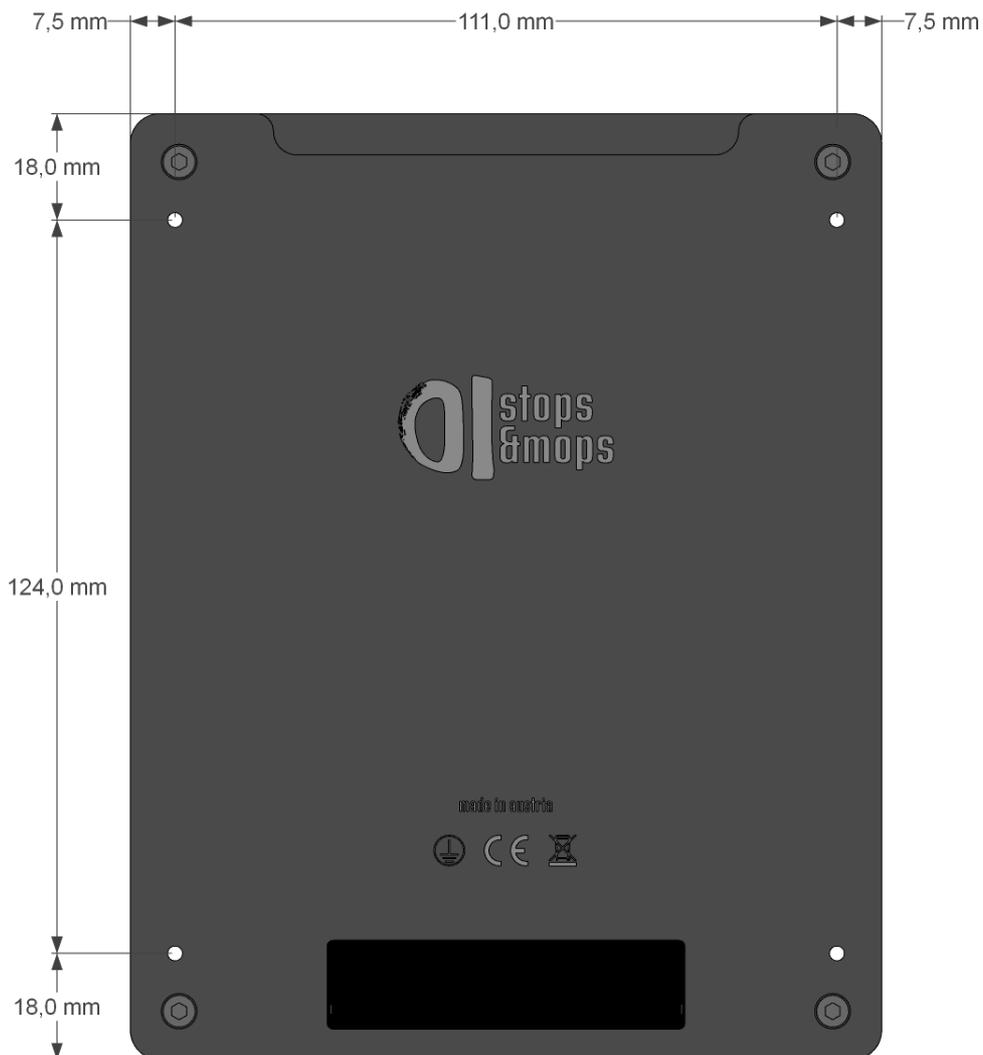


Mounting threads

There are four M3 threaded mounting holes on the bottom side of the case. The threads are in blind holes and thus have no connection to the inner components of the unit. Therefore, the screws cannot destroy any internal components.

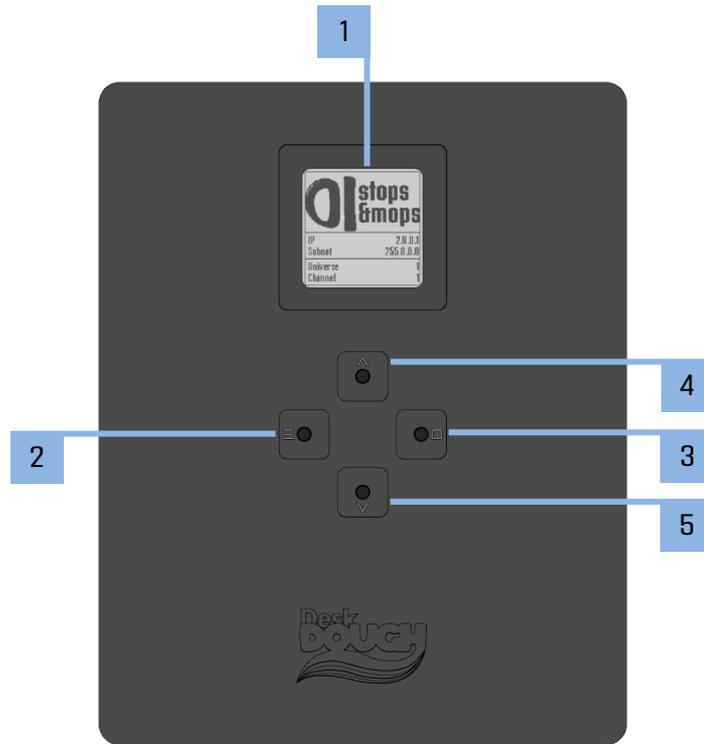
IMPORTANT! Do not overtighten the screws to avoid damaging the threads.

IMPORTANT! Please note that due to the production process there may be deviations in the dimensions. For exact dimensions please use the measures of the actual device.



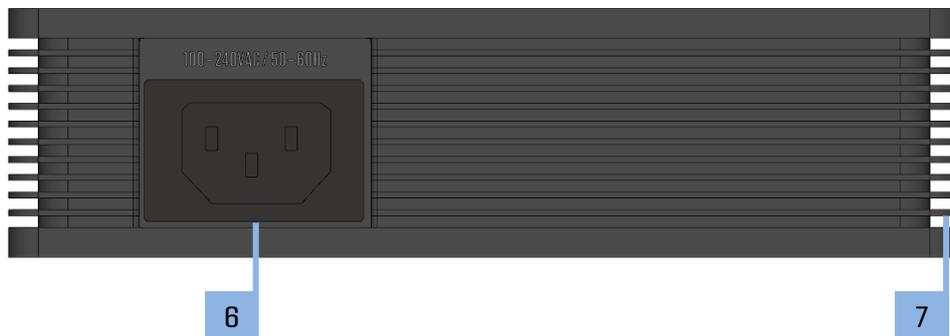
Views

Top view



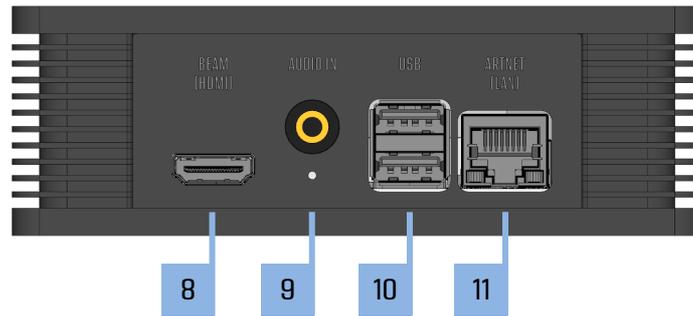
1. Display
2. Menu/Back Button
3. OK Button
4. Up Button
5. Down Button

Side view



6. Socket for mains connection
Possible input range is 100 - 240VAC, 50 - 60Hz
7. Cooling fins

Rear view



8. HDMI output
Video output standard: HDMI2.0
Video output resolution (max.): 3840x2160@60Hz (max rendered resolution: 1920x1200 @60Hz)
9. Sound Input: 1 x Microphone / 1 x Stereo Jack (3,5mm TRS)
10. 2x USB2.0
11. 1Gbps LAN:
10Mbps, 100Mbps and 1Gbps speeds are supported
The factory default IP address is set to 2.0.0.101.
The IP address can of course be changed individually via the web interface as well as via buttons and display.

Mechanical installation

This section provides information on installing the lighting effect device.

There are a variety of 19" rack units on the market, which may mean that the assembly procedure will differ slightly from the instructions provided. You should also refer to the installation instructions that came with the rack unit you are using.

- **CAUTION!** Always ensure that the lighting effect device rests on an appropriate base plate.

Precautions

- Ensure that the leveling jacks on the underside of the rack are fully extended to the floor, with the entire weight of the rack resting on them.
- For single rack mounting, stabilizers must be attached to the rack.
- For multiple racking systems, the racks must be coupled together.
- Always make sure that the rack is stable before pulling a component out of the rack.
- You may only extend one component at a time – the simultaneous extension of two or more components can cause the rack to become unstable.
- The units must be installed in a rack in such a way that no dangerous condition arises due to uneven mechanical loading.
- Install the heaviest device components on the bottom of the rack first, and then work your way up.
- Use an uninterruptible power supply (UPS) to protect the lighting effect device from power surges and voltage spikes and keep your system up and running in the event of a power failure.

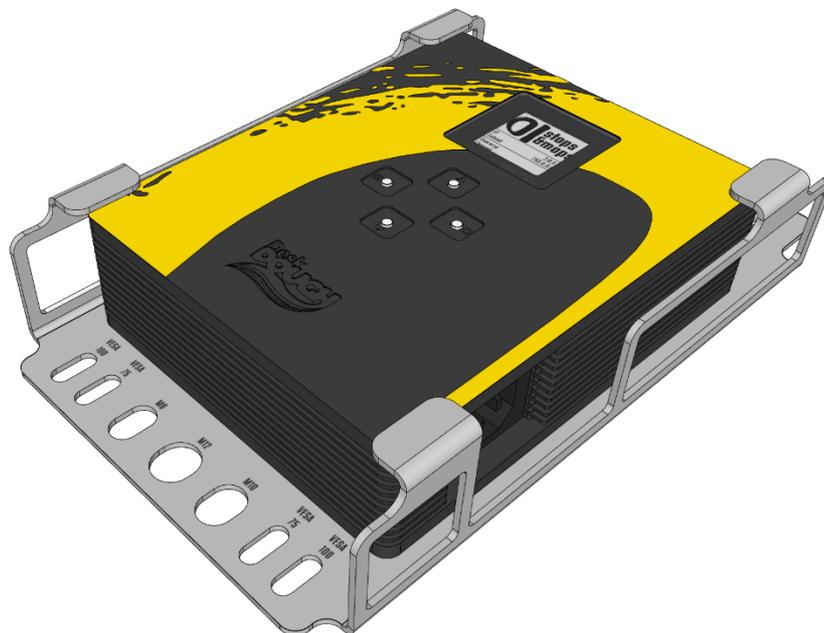
Mounting the Mounting Bracket on DDB

The Mounting Bracket is designed to safely mount the DDB to a truss, a wall, VESA mounts or a rack adapter.

Fix the DDB Device on the bottom side with M3 screws to the Mounting Bracket.

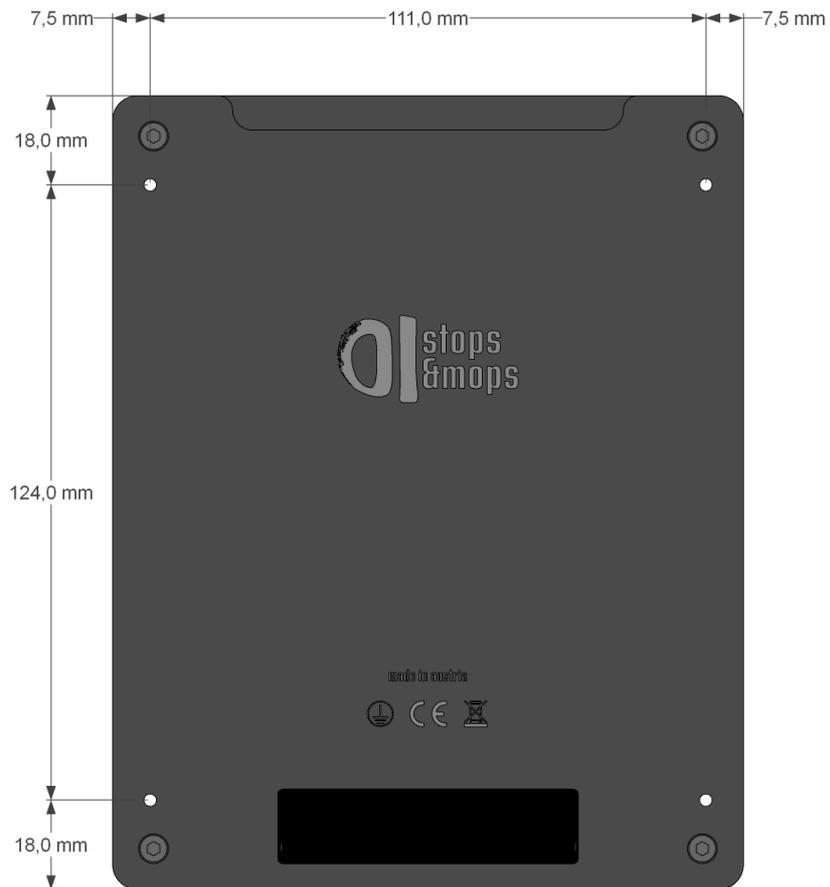
Use the holes to fix the Mounting Bracket to a rack adapter or a wall or attach a super clamp. You can also attach a safety wire here.

You can use the holes as well to fix the cables with a retaining band.



Mounting a rackadapter on DDB

As there are many different rackadapters on the market use either the VESA holes of the adapter plate to mount two DDBs to a rackadapter with VESA Standard or mount the DDBs directly to a rackadapter with M3 screws.



Operating the lighting effect device

Starting the lighting effect device

Plug in all cables first!

Do not connect or disconnect any cables during operation. This can cause damage to the device.

The lighting effect device has no power switch. As soon as you plug in the AC power plug, the device is ready for use.

Turn on the lighting effect device when operating conditions are within its operating range (see specifications). If the unit is operated outside this operating environment, the lighting effect device may be damaged.

Configure the device via display and button

Push the Menu Button (2) to get to the menu structure.

With the Buttons (4) and (5) you can switch through the sub menus or changing values.

Always confirm your choice and changes with the "OK" Button (3).

For further instructions see the document "Desk Dough_Menu_V01".

IMPORTANT! For security reasons, the lighting effect devices must be operated in a separate network, from which you have no access to other networks (e.g. operational company networks, etc.). Stops & Mops GmbH cannot accept any liability for damage (e.g. virus attack, loss of data, etc.) resulting from disregard of this guideline.

IMPORTANT! The lighting effect device runs on an operating system based on Linux which is optimized for performance and stability. Any changes to the system can have a negative effect on performance and stability. It is therefore not recommended to make any changes to the system. If an installation or any other manipulation is nevertheless carried out, it is no longer possible to guarantee a faultless function. Any changes to the system will also void the warranty. Exceptions are installations that have been approved by Stops & Mops.

Configure the device via web interface

Connect your PC via ethernet cable to the DDB or the switch which is connected to the DDB.

Open the webbrowser and type in the IP address and the port 8080 (e.g. "2.0.0.101:8080").

For further instructions see the document "Desk Dough_Menu_V01".

Connect the device to a lighting desk

Connect your lighting desk directly or via switch to the DDB ethernet port.

Have in mind that the Art-Net IP address of your lighting desk must be different from the IP Address of your DDB.

You have to patch 3 Layers and 1 Cam to see the full output of the Desk Dough Beam.

Resetting the Operating System

To do a factory reset open the menu point "Update" in the webinterface . Choose "Factory Reset" and confirm.

IMPORTANT! All your files (e.g. Custom Gobos/Custom Presets) will be deleted after this step.

Making Updates

IMPORTANT! The lighting effect device runs on an operating system optimized for performance and stability. Any changes to the system can have a negative effect on performance and stability. It is therefore not recommended to install any kind of updates on the lighting effect device. If an installation or any other manipulation is nevertheless carried out, it is no longer possible to guarantee a faultless function. Any changes to the system will also void the warranty. Exceptions are installations that have been approved by Stops & Mops.

Updating the system

For updating the system open the menu point "Update" in the webinterface . Choose "Update", select the "XXX_update.zip" and confirm.

IMPORTANT! Only use updates provided by Stops & Mops!

IMPORTANT! Please note the above information regarding system instability and warranty loss!

Servicing

The device does not contain any components that require service. Therefore, the device does not need to be opened.

Cleaning the device

Please make sure that there is no dust between as well as on the cooling fins.

The cooling fins can be cleaned with a soft brush.

- **CAUTION!** If the cooling fins are dirty, the device can become extremely hot and this can cause burns!
- **IMPORTANT!** If the cooling fins are dirty, this can lead to overheating and thus to a defect of the device. Therefore, make sure that the cooling fins are cleaned regularly.

Stops & Mops contact

If you encounter any problems using our products, please contact our Support. If you have any questions or would like to make any suggestions, you can reach us on the phone on working days 10.00am to 5.00pm CET/CEST.

Tel.: +43 (0)720 578 777

In order to ensure that we can return your call as soon as possible and offer best-possible support we are asking you to leave a message with your

- Company name
- Name
- Telephone number
- Dongle or customer number

on the answering machine and we will call you back.

Imprint

Stops & Mops GmbH

Mitterweg 46

A-4702 Wallern

Tel.: +43 (0)720 578 777

info@stopsmops.com

www.stopsmops.com

Declaration of Conformity



Manufacturer:

Stops & Mops GmbH
Mitterweg 46, 4702 Wallern, Austria
Tel.: +43 (0)720 578 777
info@stopsmops.com
www.StopsMops.com

Products:

- DeskDough Beam

We hereby declare that the lighting effect device described above complies with all relevant regulations. It meets the requirements of the following guidelines and standards.

Applied Guidelines:

- Low Voltage Directive 2014/35/EU
- Electromagnetic Compatibility Directive 2014/30/EU
- Restriction of Hazardous Substances Directive 2011/65/EU
- Energy Related Products Directive 2009/125/EC.

Applied harmonized Standards:

Low Voltage Directive:

- EN 60950-1:2006 + A1:2009 + A1:2010 + A12:2011 + AC:2011 + A2:2013
Information technology equipment – Safety – Part 1: General requirements

Electromagnetic Compatibility Directive:

- EN 55032:2016-02
Electromagnetic compatibility of multimedia devices and equipment – Emission requirements
- EN 55024:2010
Information technology equipment Immunity characteristics – Limits and methods of measurement

Restriction of Hazardous Substances Directive:

- EN 50581:2012
Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

Wallern, 2021-02-01

Tobias Stumpfl, CEO

Version History

Date	Document Version	Hardware Version	Changes
2020-12		V1.0.0	First hardware version
2021-06	V01		First manual release version
2021-06		V1.1.0	First hardware release version



0 | stops
& mops