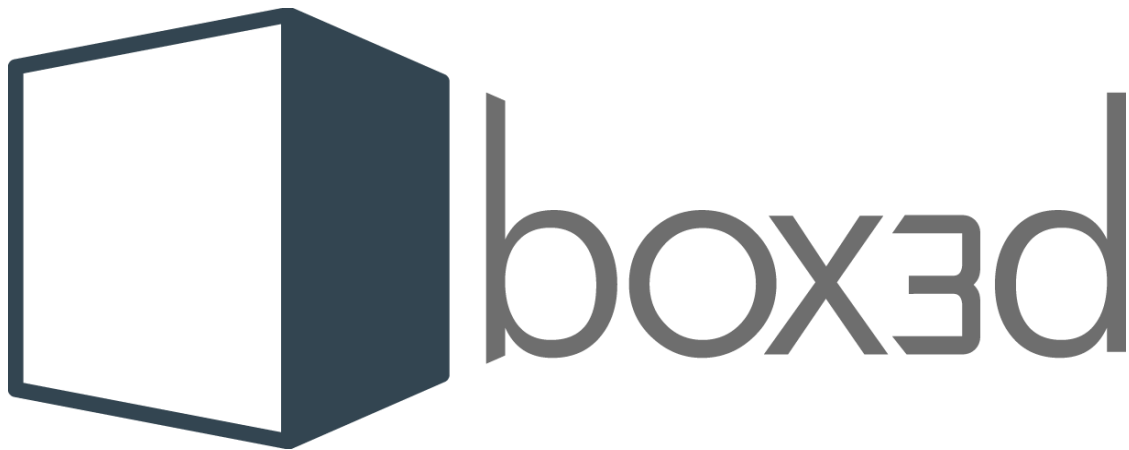




BOX3D USER MANUAL

For box3d 500 and box3d XL



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The building instructions of box3d can be downloaded on www.box3d.eu. Please follow these instructions carefully. Read and follow these instructions when installing and using your box3d.

	 CAUTION
	Avoid damage Read and understand owner's manual before operating this product

PREFACE

All modifications to box3d can influence the safety and warranty of the box3d. Local laws and regulations for installing and using box3d may apply. It is the users responsibility to be aware of the local regulations and to follow them.



CAUTION: The use of box3d is at your own risk. box3d is not responsible for any damage to your 3D printer.

INTRODUCTION

box3d can be used for all FDM 3D printers. The box3d provides the following functions:

- **Stability:** Control of the temperature in the build environment. This can reduce warping, cracking and failed prints.
- **Safety:** Extraction and filtration of fumes polluted by the 3D printer increases.
- **Silence:** Reduce the noise of the 3D printer by sound isolation.

box3d contains a controller which is located at the upper front. The controller is connected to the ventilator. These two components control the inside air temperature. The controller contains an OLED display and four buttons.

The box3d should be placed over the 3D printer. The printer is accessible through the transparent door, or by lifting the box3d from the printer. With proper usage the lifetime should be at least 2 years. It can be used safely as long as:

- The electronic components are working properly.
- The white outer panels are intact.

Contact your reseller our check our website www.box3d.eu for replacement parts.

USER

The user can work with the FDM 3D printer that will be placed inside box3d. The user has no prior knowledge of the product, but the user is familiar with basic tools and assembly.

PRODUCTS

This manual is intended for the following models:

- box3d 500
- box3d XL

The type nr. can be found on the right side of the box3d. All instructions apply for both models.

SPECIFICATIONS

The product specifications can be found in the table below. box3d should only be used inside in a dry environment. The working area where box3d is installed should be flat in order to have a proper sealing with the rubbers.

	Specifications	
	Box3d 500	Box3d XL
Outer dimensions	w: 680 mm d: 660 mm h: 700 mm	w: 680 mm d: 850 mm h: 730 mm
Inner dimensions (max printer size)	w: 500 mm d: 560 mm h: 580 mm	w: 500 mm d: 750 mm h: 610 mm
Shipping dimensions	w: 700 mm d: 670 mm h: 140 mm	w: 730 mm d: 860 mm h: 140 mm
Input voltage	12V DC (adapter supplied)	12V DC (adapter supplied)
Fuse	1.6A	1.6A
EAN number	8719326084749	8719326084756

SAFETY

The foam used in the inside of box3d is flame retardant. box3d contains a fuse which is located on the controller.



WARNING: Toxic fumes might flow out of the box3d's outlet. Do not inhale these fumes. This can cause health issues.



WARNING: Do not block the air inlet on the back, and the air outlet on the top of box3d. This can cause severe damage to box3d and the 3D printer placed inside box3d.



WARNING: Putting the printer in a too hot environment can cause severe damage to the 3D printer. Check the documentation of the 3D printer for the maximum environmental temperature the 3D printer can handle.



WARNING: Do not use liquids close to box3d. This can cause electrical shocks and damage to box3d.



CAUTION: Unplug the power cord before doing any maintenance on box3d



TRANSPORT AND STORAGE

box3d is shipped as a self-assembly kit, or as a pre-assembled product. Lift the box with a straight back to prevent injury. Store the package in a dry and flat environment. Handle the product with care.

ASSEMBLY AND INSTALLATION

Open the packaging by removing the tape. For air extraction, box3d can be connected to a ventilation system using the 120mm or 100mm tube connector. The ventilation system should have a flow rate of at least 150m³/hour. It is the user's responsibility to be aware of and meet local regulations about discharging of polluted air.

Basic tools should be provided by the user. The product contains a 2.5mm and 3mm inbus wrench.

Follow the building instructions which can be found on www.box3d.eu.

OPERATION

Remove any items that could fall into ventilation vents or that could block a proper air flow of the system. Make sure the ventilation openings on the box3d are open.

ON/OFF

TURNING BOX3D ON

1. Insert the power adapter in the power connector on the right side of box3d.
2. Set the power switch to |

TURNING BOX3D OFF

1. Set the power switch to ○

HOME SCREEN



Tair: Measured temperature.

Tset: Reference temperature for automatic fan speed control.

Fan: Current fan speed (% of maximum speed).

BUTTONS

Auto/Max/Min Control mode (click to change)



Go to function menu



Increase Tset



Decrease Tset

CONTROL MODES

Click on **Auto/Max/Min** button to change the control mode:

- **Auto:** Automatic switching between Max and Min fan speed. Max if $T_{air} > T_{set}$, and Min if $T_{air} < T_{set}$.
- **Max:** Fan speed at Max setting
- **Min:** Fan speed at Min setting

FUNCTION MENU



TO CHANGE A MENU SETTING:

1. Enter the menu by pressing ≡ on the home screen.
2. Use ▲ and ▼ to navigate to the required setting
3. Click "ok" to select the required setting
4. Use ▲ and ▼ to change the value
5. To save the new value, click **ok**. To discard the new value, click ↶.
6. Click ↶ to return to the home screen.

FUNCTIONS

Function	Range	Default value	Description
Fan min	0% to (Fan max - 5)%	25%	Minimum fan speed
Fan max	(Fan min + 5)% to 100%	100%	Maximum fan speed
T calib	-10C to +10C	0C	Temperature calibration
Factory reset			Reset parameter values
Info			General info

ERROR MESSAGES

If the temperature sensor is not connected, **Tair** shows -273C.

MAINTENANCE

All maintenance on box3d can be done by the user. Possible maintenance can be replacing the fuse, or replacing electronic components. **Always turn box3d off and unplug the adapter before doing any maintenance.**

The HEPA filter should be replaced if it is discolored and/or the airflow is reduced.

The carbon filters should be replaced when the outflowing air is odorous.

DISMISSAL

Box3d should be dismissed according to local regulations for electronic devices.