

Original Instructions



CUREBOX CB-4051 USER GUIDE

Version 020118

Post-Curing, Taken Seriously.

This user guide will teach you how to safely use your new Curebox UV post-cure chamber and help you get the most from it. Please use Curebox safely and enjoy.

Wicked Engineering, LLC
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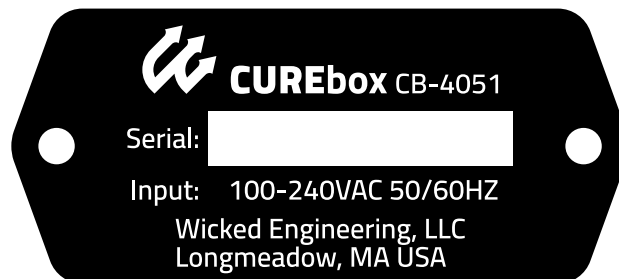
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Machine Description

CUREbox is an ultra-violet (UV) and visible light (VIS) post-curing chamber. It uses light and heat energy to provide an ideal environment suitable for post-curing SLA and DLP type 3D printed models.

Machine Designation



Unpacking

Note: Open the packaging carefully and retain it for safe transport. Original packaging is a requirement should your CUREbox need warranty repair or replacement.

CUREbox ships in two boxes (a box in a box) to ensure it arrives to you undamaged. It is easiest to unpack if you have a second person to help.

1. Open the outer box top flaps
2. Remove and retain the foam corner protectors
3. Remove the power cord
4. Remove the inner box
5. Open the inner box top flaps

There is an orange “Important” insert immediately inside the inner box. This insert contains important safety information and should be read thoroughly prior to use of your CUREbox.

6. Remove, read, and retain the orange “Important” insert
7. Remove CUREbox from the inner box
8. Remove CUREbox from the protective poly bag. Take care that the door doesn’t fall open unexpectedly.
9. Place your CUREbox on a solid worksurface
10. Return all packaging materials to the outer box and save for safe transport should it be necessary

Safety

Please read these few important notices before using your new CUREbox CB-4051.

1. Do not put flammable liquids in the curing chamber. Allow any solvents to completely evaporate from your prints before placing in the curing chamber. Flammable fluids in the curing chamber create a risk of fire and/or explosion.
2. Do not look at the lamps without appropriate eye protection. CUREbox uses high intensity visible (405nm) and ultraviolet (365nm) lamps. CUREbox is equipped with a safety interlock that turns off the lamps when the door is opened. This is for your safety.
3. Do not place items on or around CUREbox. CUREbox gets hot, up to 60C (140F). Keep flammable liquids away. Do not put liquids on top of CUREbox as a spill could create a risk of electric shock.
4. CUREbox is intended for post-curing 3D printed models. Do not use CUREbox for any other purpose as we cannot ensure safety of the device for unintended uses.

If you have any questions about the setup, use, or care of your CUREbox CB-4051, please contact support at: support@wickedengineering.com

Set-up

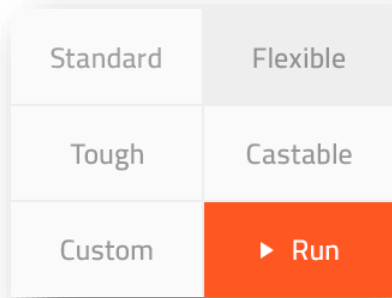
1. Place CUREbox on a secure platform.
2. Make sure the power switch is in the off (O) position
3. Insert the supplied power cord into the power entry module at the back of the unit
4. Plug the power cord into a power outlet

Operation

1. Switch on (I) CUREbox with the power switch on the back panel
2. The power switch will illuminate red
3. The LCD will display a splash screen for several seconds and then will change to the main screen
4. Open the front door and place the part(s) to be cured into the chamber

Operation Modes

CUREbox has two operation modes, preset and custom. Preset mode uses resin manufacturer recommended settings. Custom mode allows you to create your own settings.



Preset Mode

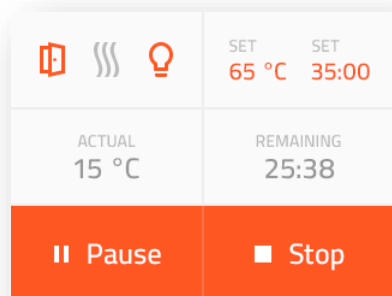
1. Chose a resin from the menu and press Run.
2. CUREbox will wait for the set temperature to be reached and then post-curing will begin
3. When post-curing is complete LEDs and heat will turn off automatically

Custom Mode

1. Choose Custom from the main menu
2. On the custom setting screen use the up and down arrows to set the time and temperature to the desired settings
3. Press and hold the arrows to move quickly through range of a setting.
4. To use CUREbox without the heat feature use the down arrow until the setting reads "--"
5. When the settings are complete press Run
6. When post-curing is complete LEDs and heat will turn off automatically

Run Screen

The run screen is full of information about the settings and status of your CUREbox.



1. The status area (top left) shows the status of the door, lamps, and heater.
2. The set area (top right) shows the chosen program time and temperature settings.
3. The actual area (middle) shows the process time remaining and chamber temperature.
4. The pause button (bottom left) pauses the process until the resume button is pressed.
5. The stop button (bottom right) stops the process and returns you to the main screen.

Setting Screen (future version)

Coming soon, the setting screen will allow for setting the input voltage to eliminate the need for separate 110 and 220-volt firmware. The setting screen will also display the LCD and PCB firmware versions.

Firmware Updates

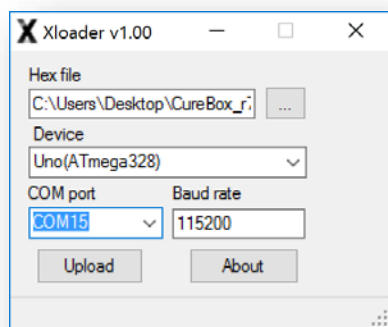
It is possible to update the firmware of your CUREbox to take advantage of new materials, features and improvements as they are added. There are two firmware files required for CUREbox to operate, one for the PCB and one for the LCD. Sometimes it is necessary to update just one or the other, sometimes both.

Firmware updates can be found at <http://www.wickedengineering.com/curebox/downloads>. Current firmware version can be found on the settings screen (coming soon)

Note: To update firmware you need a Windows PC with a USB port and a USB cable

Prerequisites:

1. Download and install communications driver
2. Download and install Nextion editor for updating LCD firmware
3. Download and install Xloader for updating PCB firmware



To update your firmware:

1. Turn off (O) the power at the main power switch on the back of the unit.
2. Set the jumpers to the appropriate configuration for the hardware you are updating, PCB or LCD. (diagram coming soon)
3. Connect the USB cable from the USB port on your CUREbox to your Windows PC
4. Turn on (I) the power at the main power switch on the back of the unit.
5. CUREbox is now ready for a firmware update. Use the appropriate steps below depending on what hardware type you are updating.

For PCB firmware:

1. Launch Xloader

2. Choose the appropriate com port (typically the highest number)
3. Choose the PCB firmware file you downloaded from the Download section of our web site.
4. Press Update Firmware and wait about 20 seconds for a status of “upload finished”.
5. Power off the unit and set the jumpers to the run position or to the LCD update position if you are planning to also update the LCD firmware

For LCD firmware:

1. Launch Nextion Editor
2. Click Update from the top application menu
3. Choose the appropriate com port (typically the highest number)
4. Choose the LCD firmware file you downloaded from the Download section of our web site.
5. Press Update Firmware and wait about 2 minutes for a status of “0 Bytes Remaining”. The LCD will reboot at this point.
6. Power off the unit and set the jumpers to the run position.

Your firmware update is now complete. You can turn on your CUREbox and enjoy new features, material settings, and/or improvements.

Care and Maintenance

CUREbox is virtually maintenance free, but it is advisable to keep the work surface clean to allow efficient light passage to the workpiece. If you treat your CUREbox with care, it will last a long time.

The preferred method of cleaning interior and exterior surface is mild detergent and water. Before cleaning, unplug the unit from the electrical outlet. Use a soft cloth dampened (not dripping) with soapy water. Do not soak the CUREbox in water or other liquid. Wipe surfaces until clean and then rinse with a clean cloth dampened with clean water. For resin residue, it is ok to use isopropyl alcohol. If isopropyl alcohol is used, allow it to evaporate with the door open prior to connecting your CUREbox to power. It is also acceptable to use general purpose household cleaners such as 409 and Fantastik, or Windex for mirrored surfaces. Take care when cleaning the Lexan work surface not to allow excess cleaning product to run over the edges where it would be impossible to rinse clean. When all surfaces are dry it is safe to reconnect the CUREbox to the electrical outlet.

Note: Do not use harsh solvents like acetone, MEK, Toluene, etc. They will damage the unit. When in doubt, contact support@wickedengineering.com

Should your CUREbox malfunction in any way, immediately unplug it and contact support at: support@wickedengineering.com. We will help you diagnose the issue in a safe manner. Do not continue to operate a malfunctioning unit as damage or even injury may occur.

Spare Parts

CUREbox is not user-serviceable with the exception of the LED lamps. Replacement LED lamps are available for purchase at the Wicked Engineering web store at <http://store.wickedengineering.com>. Should something break please refer to the warranty section of this guide. If your unit is out of warranty we will not leave you stranded. Contact support@wickedengineering.com for help. Your unit can likely be repaired by us, and in some cases, we can ship replacement parts to you if you choose to repair your CUREbox yourself.

Storage and Transportation

Should it be necessary to transport or store your CUREbox, the following will ensure the safety of the device:

1. Turn off power switch.
2. Unplug unit from power.
3. Wipe down inside and outside of unit with mild detergent and water or isopropyl alcohol to remove excess uncured resin and other debris.
4. Ensure the chamber is empty.
5. Place unit in poly bag (optional)
6. Reinstall the protective foam endcaps that originally shipped with the machine onto the left and right ends of the unit.
7. Slide the bagged unit with endcaps into the original shipping container. Be sure the unit is in upright position.
8. Place the power cord in the open space created by the protective foam endcaps.
9. Close the top of the box by using reinforced paper tape (preferred) or clear adhesive shipping tape (if you do not have access to reinforced paper tape). Tape all box seams.
10. It is not necessary to remove the LED lamps for storage or transportation.
11. CUREbox should be stored and transported in the upright position.

Warranty

CUREbox has a limited one-year warranty which covers everything but the LED lamps which are considered consumable items. Details on the warranty can be found on the downloads section of the CUREbox website: <https://wickedengineering.com/curebox/downloads/>