



Ultrasonic Cutter Usage

This guide will explain the proper usage of the Ultrasonic Cutter

Written By: Nico Willem Lagendyk



Introduction

This guide will explain the proper usage of the Ultrasonic Cutter for parts processing.

Pictures by: Nico Lagendyk

Step 1 — Safety



- The ultrasonic cutter operates by vibrating a small blade at very high frequencies to cut through plastics
- ① Due to the nature of high frequencies it is virtually impossible to tell if the machine is on from visual inspection of the blade

⚠ Be careful not to make contact with the blade since it will go through skin with ease

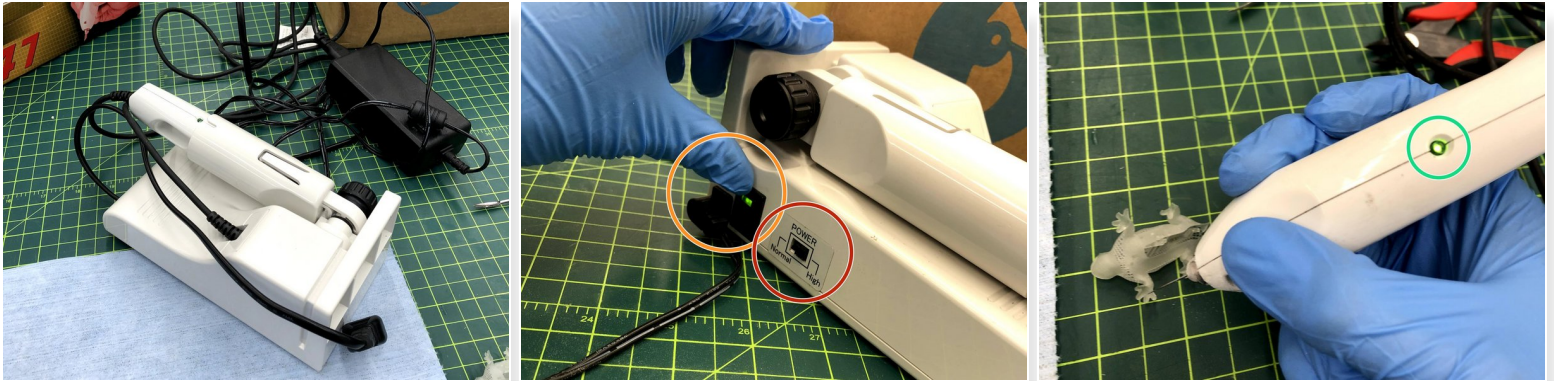
Step 2 — Use Cases



⚠ Use the ultrasonic cutter ONLY with plastics

- Never cut plastics which release toxic gases when melted
- The Ultrasonic Cutter is great at removing support material from various 3D printed materials

Step 3 — How to Use



- Remove the Ultrasonic Cutter from its box and plug it in
- For most cases set the power level to normal
- Flip the side switch so that the light turns green
- Press the white button on the handle, currently underneath the operator's thumb in the picture, to turn it on
- The light will be green when it is on

Step 4 — Overheating Considerations



- The Ultrasonic Cutter will heat up as it is used due to the power supply and transducer
- To prevent overheating:
 - Make small cuts
 - Pause between cutting
 - Don't leave the machine on for more than 5 continuous minutes

Step 5 — Troubleshooting



- If the switch on the base does not turn green ensure all power cables are connected (plug, power supply, base)
- If the machine doesn't turn on when the small white button is pressed then it may be overheating
 - Set the power level to normal and wait a few minutes before trying to turn the machine on again
- ① The device has an internal failsafe to not operate when it's too hot
- The blade must also be rigidly attached to the cutter for it to work so tighten down the nut at the tip of the handle
 - Be sure to use the correct size allen key (1.5 mm)