



Disassembling and Reassembling Printhead for Inspection or Maintenance

This guide will show you how to remove and replace the 3D printhead nozzle.

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INTRODUCTION

Outline what you are going to teach someone how to do.



TOOLS:

- [Wiha 96706 Torx Screwdriver \(T6\)](#) (1)
 - [Wiha 96704 Torx Screwdriver \(T4\)](#) (1)
 - [2.5 mm allen key](#) (1)
 - [M 3X3 cone point screw](#) (1)
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Step 1 — Removing the Acrylic Base



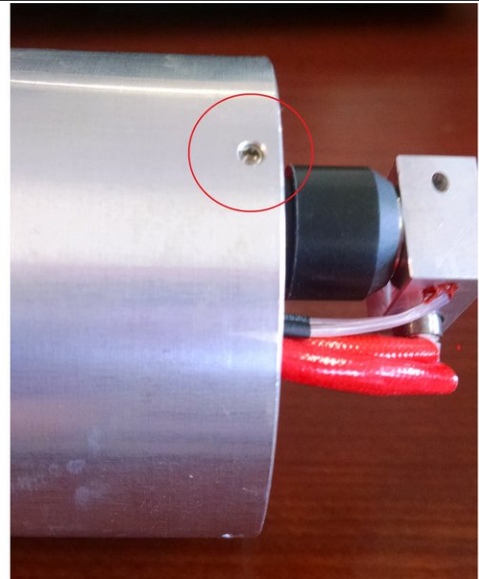
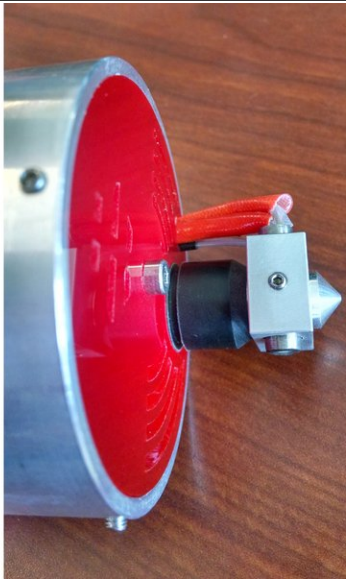
- To begin, you will need to remove the four screws holding the acrylic base at the bottom of the canister.
- You will need to use a Wiha T6 screwdriver to remove these screws. You can use an allen key as well, but you risk stripping the screws.
- We recommend replacing the screws every time you unscrew and rescrew them. We have sourced them in the tools section for you.
- After all four screws are loosened, the acrylic should detach from the canister. You do not need to take the bolts out completely to remove the the acrylic.

Step 2 — Removing the Nozzle



- Once the acrylic is detached, loosen the larger bolt attached to the nozzle using the 2.5 mm allen key. The arrow in the first picture is pointing to the appropriate bolt.
- To remove the nozzle from the filament tubing, push down on the flange on the quick release connector at the very end of the nozzle, as identified in the second picture. You must push the flange all the way to the base to release the tubing.
- It is **not** necessary to detach the filament tubing from the nozzle, but, depending on your purpose for disassembly, it might be prudent.
- If you need to detach the heater cartridge and thermistor wires from the nozzle, loosen the screw circled in the third picture. Use the Wiha T4 for this screw.
- Once the screw is loosened, you can remove the heater cartridge from the nozzle and **very** carefully pull the thermistor from the nozzle.
- You can also remove the thermistor by clipping the wires at the heat shrink. During reassembly, you will need to strip them and reattach them with heat shrink.
- Depending on your purposes, you might not need to detach the heater cartridge and thermistor.

Step 3 — Reattaching the Nozzle



- After all the bolts and screws are loosened, you should be able to slide the nozzle component out of the acrylic.
- After you have performed the desired actions on the removed nozzle, you can reassemble the head by sliding the nozzle back into the acrylic and repeating the previous steps in reverse.
- When placing the nozzle in the acrylic, align the second edge in the black plastic cold end to the edge of the acrylic, as demonstrated in the first photo.
- As you place the acrylic and nozzle back into the canister, make sure that the wires are not kinked or pinched by any components.
- Make sure that the acrylic is level with the canister edge.
- Tighten the four screws using the T6 wrench. Turn them until they are below the surface of the aluminum, as shown in the last picture, and holding the acrylic firmly.
- It is very important that the screws are below the surface of the aluminum. If they are near the surface, they may damage your gantry. If necessary, the acrylic can be recessed slightly to allow for the screws to sit below the canister edge.