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How to replace the Prusa Nozzle (CORE One L)

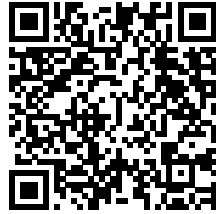
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STEP 1 Introduction



🔵 **This guide will take you through the nozzle replacement on your Prusa CORE One L.**

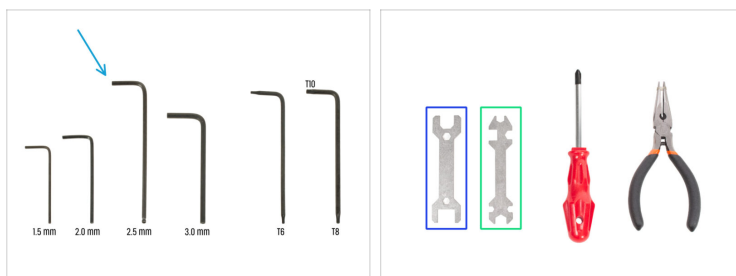
ⓘ The following instructions are compatible with all Prusa nozzle diameters.

⬛ All necessary parts are available in our eshop prusa3d.com.

📌 Note that you have to be logged in to have access to the spare parts section.

ⓘ Keep all the fasteners that you remove from the printer during the replacement process at hand; they will be reused.

STEP 2 Tools necessary for this guide



● Prepare these tools for this guide:

- 2.5mm Allen key
- Wrench 13-16
- Universal wrench

STEP 3 Printer preparation (part 1)



- 🟠 Close the door.
- 🟡 Navigate the screen to **Filament -> Unload filament**
- 🟢 Unload the filament from the printer.
- ⬛ Remove the filament spool from the printer.
- ⚠️ **Ensure that the printer has completely cooled down.**
- ⬛ On the printer screen, navigate to **Preheat -> Cooldown** and wait for the temperatures to drop to ambient levels. This may take several minutes.

STEP 4 Printer preparation (part 2)



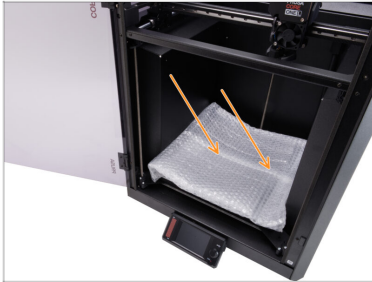
- 🟡 Open the menu **Control -> Move Axis -> Move Z** and move the heatbed all the way down.
- 🔴 Wait until the heatbed moves down.
- 🟢 From the rear side of the printer, unplug the PSU cable.
- 🟢 Flip the power switch OFF (symbol "O").

STEP 5 Removing the printer top cover



- Open the door and reach in to the front of the top cover.
- ① The cover is held in place by a set of plastic security latches.
- Locate two of the plastic latches at the bottom front of the cover. Squeeze them together simultaneously.
- Lift the front of the cover just enough to unhook it from the printer and pull the cover 2 cm / 0.8 inch towards you.
- Remove the top cover from the outside.

STEP 6 Protecting the heatbed



 Before proceeding any further, it is recommended to protect the heatbed first!

- Use a piece of fabric, cardboard, bubble wrap, or any soft material to cover the heatbed. This will prevent damaging the heatbed/print sheet during the process.

STEP 7 Accessing the hotend cables



- Adjust the printer so you have access to the left side of the Extruder.
- Using the 2.5mm Allen key, remove the M3x10 screw on top of the Printhead-cover-left (cover).
- Remove the cover.

STEP 8 Disconnecting the hotend cables



 Each connector has a safety latch. **It is necessary to press the latch before pulling the cables out.** Otherwise, the connector may get damaged.

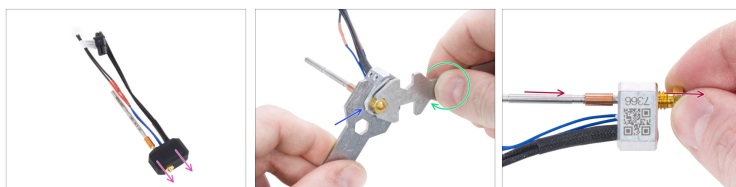
-  Press the safety latch and pull the hotend heater cable out.
-  Press the safety latch and pull the hotend thermistor cable out.

STEP 9 Removing the hotend assembly



-  Unhook the hotend cables from the plastic cable guide behind the two thumb screws.
-  Hold the hotend with your hand to prevent it from falling down.
-  Use your other hand to loosen the two thumb screws with a few turns. **Do not remove them completely.**
-  Pull the hotend assembly down from the heatsink.

STEP 10 Removing the nozzle



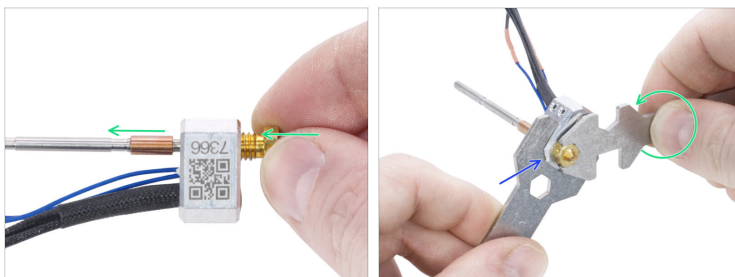
- ✦ Remove the silicone sock from the heater block.
- ✦ Use the 13-16 wrench to hold the heater block in place.
- ✦ Use the 7mm cutout in the universal wrench to loosen the nozzle.
- ✦ Manually unscrew and remove the nozzle from the hotend assembly.
- ① We recommend discarding the old nozzle immediately to avoid confusing it with the new one.

STEP 11 New nozzle parts preparation



- ✦ **For the following steps, prepare:**
- ✦ New nozzle (1x)
- ① See the [Different Nozzle Types](#) article for more info on the available options.

STEP 12 Installing the new nozzle



- Screw the new nozzle fully into the heater block until it touches the heater block surface.
- Hold the heater block in place using the 13-16 wrench.
- Use the 7mm cutout in the universal wrench to tighten the nozzle against the heater block. **Avoid applying excessive force!**
 - ⓘ The specified torque value is 1.5 Nm (13.3 lb-in). The use of a torque wrench is recommended.

STEP 13 Reattaching the silicone sock



With the new nozzle in place, reattach the silicone sock.

i The CORE One L hotend assembly comes with a Nextruder silicone sock installed by default. However, the silicone sock is optional.

For more information, read this article: [Nextruder Silicone Sock](#).

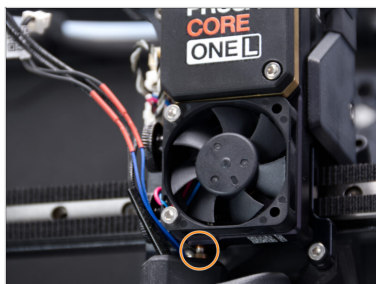
P The default nozzle on the CORE One L is the 0.4mm HF, (High Flow version) labeled CHT

STEP 14 Inserting the hotend



- Locate the hole on the bottom of the heatsink and insert the hotend assembly.
- ⓘ Ensure that there is enough free space between the new hotend assembly and the fan shroud.
- Tighten both thumbscrews once the hotend assembly is completely inserted in the Nextruder.
- Double-check that the hotend is fully inserted into the heatsink. It has to align with the fan shroud.

STEP 15 Checking the new nozzle

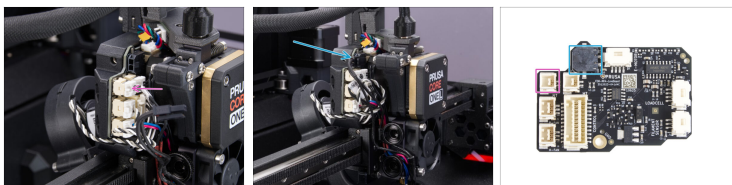


- Verify that the **nozzle is fully inserted** into the heatsink. The copper ring on the nozzle has to be barely visible.

 If not inserted properly, the nozzle can cause poor heat transfer and potentially lead to nozzle clogs.

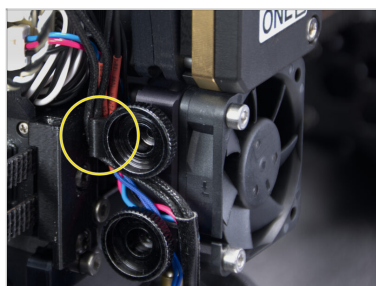
-  To adjust the nozzle position, loosen the thumbscrews and push the hotend assembly up. Then tighten the thumbscrews again.

STEP 16 Connecting the hotend cables



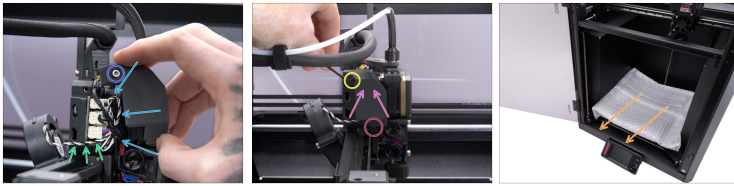
- ✚ Connect the hotend thermistor cable to the top left slot on the love board. Ensure that the safety latch clicks securely into place.
- ✚ Connect the hotend heater to the black slot on the upper part of the love board. Ensure that the safety latch clicks securely into place.

STEP 17 Guiding the hotend cables



- ✚ Insert the hotend cables behind the plastic cable guide hook. Guide the thermistor cable first, then the hotend heater cable.

STEP 18 Attaching the Printhead-cover-left



- Organize the cables to ensure they are not sticking out to prevent pinching them once you attach the Printhead-cover-left (cover).
- Ensure that the print fan cable is led through the ridge in the plastic Printhead-cover-rear.
- Tip: Prepare the M3x10 screw and set it up in the cover before attaching the cover.
- Insert the cover into the bottom slot in the Printhead-cover-rear first.
- Place the cover onto the Nextrunder.
- Fix the cover in place using the M3x10 screw.
- Remove the protective material from the heatbed.

STEP 19 Attaching the printer top cover



- ✦ Place the cover on the printer with the ventilation grille in the front and slide the cover towards the back.
- ✦ Align the cover so that the two plastic latches at the rear of the cover slide in and lock the cover in place.
- ✦ Once the back is secured in place, lower the front of the cover and gently push the cover down, so the front latches will snap in place.

STEP 20 Turning the printer on



 Make sure that the printer is placed in a stable place where no ambient vibrations are transmitted (for example, where other printers are printing).

-  Close the door.
-  From the rear side of the printer, plug in the PSU cable.
-  Turn the power switch ON (symbol "I").

STEP 21 Nozzle set up



 This step only applies if you changed the nozzle diameter or type. If you did not, continue to the next step.

- Navigate the screen to **Settings -> Hardware -> Printhead**.
- Select the **nozzle diameter** you are using (e.g. 0.25 / 0.3 / 0.4 / 0.5 / 0.6 / 0.8)
 - ① On CORE One L, the 0.40 mm is the default nozzle.
- Turn on the **silicone sock** option if applicable.
- Select the **nozzle type**.
 - ① On CORE One L, the high flow nozzle is the default version.

STEP 22 Final check



- ✚ To verify the correct connection of the cables, navigate the screen to **Control -> Temperature -> Nozzle Temperature** and set it to above 200°C.
- ✚ Return to the main screen and check the bottom bar to ensure the temperature is rising as expected.



Great job! You just replaced the nozzle on your PRUSA CORE One L.

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Notes:

[illegible]