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How to replace the AC box (CORE One L)



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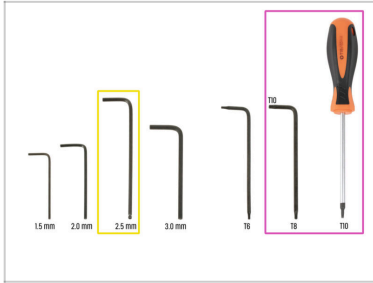


STEP 1 Introduction



- ◆ This guide will take you through the **AC box replacement** on your **Prusa CORE One L**.
- ⚠ This replacement should be performed only by a **qualified electrician** to avoid the risk of injury or damage.
- ◆ 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.
- ⚠ **WARNING: Do not open the AC box!** The AC box contains high-voltage components (230 or 110 V). Opening it **may result in serious injury or death.**

STEP 2 Tools necessary for this guide



● **Please prepare tools for this guide:**

● 2.5mm Allen key

● T10 torx key / T10 torx screwdriver

STEP 3 Manually adjusting the heatbed



i If your AC box is faulty and the printer has no power, you can adjust the heatbed position by hand.

◆ If the printer is powered on, skip this step and adjust the heatbed position via the menu, as shown in the next step.

◆ Slowly turn both front threaded rods at the same time by a few turns in the same direction.

◆ Once the front of the heatbed is adjusted, rotate the rear threaded rod in the same direction by a few turns.

⚠ Only turn the threaded rods by a few turns. The heatbed must be as level as possible when adjusting its height this way.

◆ Repeat the process until the heatbed is in the optimal position, as shown in the picture.

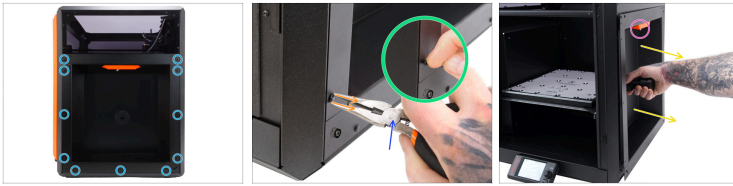
◆ Position the heatbed below the highlighted screws in the back panel to keep them accessible for later steps.

STEP 4 Preparing the printer



- ◆ Open the menu **Control -> Move Axis -> Move Z** to move the heatbed.
- ⓘ Tip: Press and hold the knob for one second, then let go. This will guide you directly to the Move Z control screen.
- ◆ Using the rotary knob, move the heatbed into approximately the same position as shown in the photo.
- ◆ Position the heatbed below the highlighted screws in the back panel to keep them accessible for later steps.
- ◆ On the rear side of the printer, flip the power switch OFF (symbol "O").
- ◆ **Unplug the power cable.**
- ⓘ **Once the power cable is unplugged, flip the power switch ON (symbol "I") to get rid of any electricity left over in the AC box circuits. After 3 seconds, flip the switch OFF again.**

STEP 5 Removing the side cover



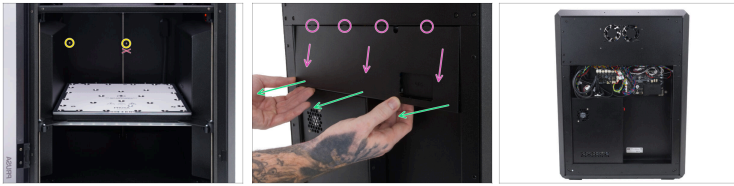
- ◆ Remove eleven nylon rivets holding the side panel.
- ◆ We recommend using the needle-nose pliers.
- ⚠ **Proceed carefully to avoid scratching the side panel.**
- ◆ Squeeze the rivet gently and pull the top part of the rivet out of the side panel.
- ◆ To prevent scratching the side panel, we recommend removing the bottom part of the rivet by hand.
- 📌 Only use the pliers if you are unable to remove the bottom part of the nylon rivet by hand.
- ◆ When removing the panel, proceed carefully to avoid damaging the PTFE tube that is protruding from the handle.
- ◆ Gently pull the side panel off the printer.
- ⓘ You received a bag with spare nylon rivets. In case you destroy any rivets while removing them, use the spare ones later on when re-attaching the side panel.

STEP 6 Removing the Wi-Fi module



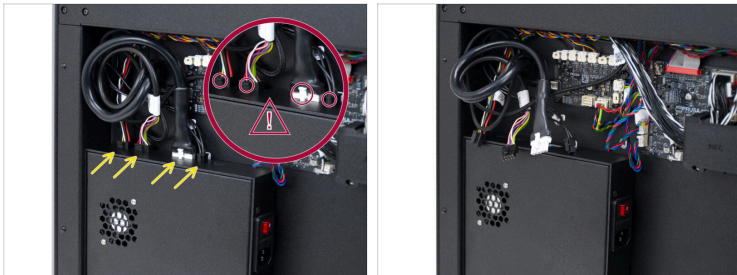
- ◆ Locate the Wi-Fi module at the rear of the printer.
- ◆ Use the 2.5 mm Allen key to remove the M3x14 screw.
- ◆ Note that the Wi-Fi module is connected to the electronics by the pin header with eight pins.
 - ⚠ **Make sure **not to bend the pins** on the pin header when removing the module.**
- ◆ Gently pull the Wi-Fi module **straight down** to remove it from the printer.

STEP 7 Removing the electronics covers



- On the inside of the printer, use the T10 screwdriver to remove the two M3x4rT screws that hold the electronics cover in place.
- Only remove the **highlighted top screw** in the middle. The lower screw in the middle will be removed later.
- On the back of the printer, carefully, yet firmly, pull the bottom of the cover towards you.
- Pull slightly downward to release the four tabs on top of the cover from the docks to remove the electronics cover.

STEP 8 Unplugging the AC cables



- ◆ Unplug all four cables that are connected to the AC box.



Do not use excessive force to unplug the cables.



The cable connectors have **safety latches**. It is necessary to **press the latch** before disconnecting the cables from the AC box.

STEP 9 Removing the AC box




- Use the T10 torx key / T10 torx screwdriver to **slightly loosen** the two M3x4rT screws by just a few turns.
- ⓘ The two M3x4rT screws are hooked onto the back panel.
- Use the 2.5mm Allen key to remove the two M3x10 screws in the back panel of the printer.
- On the back of the printer, slightly lift the AC box to unhook it from the printer.
- Pull the AC box to the side to remove it from the printer.

STEP 10 Removing the screws



- Use the T10 torx key / T10 torx screwdriver to completely remove the two loosened M3x4rT screws from the AC box.

 Do not discard the two M3x4rT screws. We will need them for the new AC box.

STEP 11 Parts Preparation: AC box



- For the following steps, please prepare:**
 - New AC box (1x)

STEP 12 Preparing the new AC box



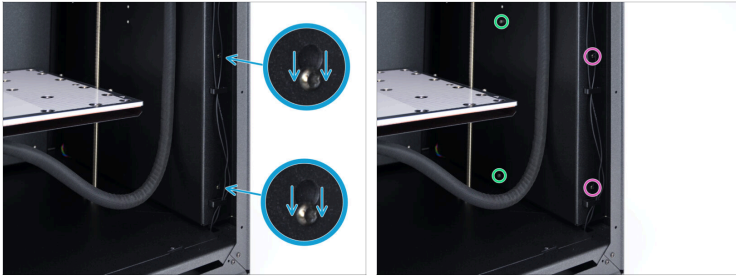
- Insert the two M3x4rT screws and tighten them slightly with a few turns. **Do not tighten the screws completely.**
- Leave a 2 mm / 0.07 inch space between so the new AC box can be securely hooked onto the printer.

STEP 13 Attaching the new AC box



- Align the two M3x4rT screws in the new AC box with the two openings in the printer.
- Attach the new AC box.
- Ensure that no cables are pinched by the new AC box!**
- Lower the new AC box to hook it onto the printer.

STEP 14 Securing the new AC box



- ◆ Double-check that the two M3x4rT screws are properly hooked onto the printer. Do not tighten them yet.
- ◆ First, secure the AC box in the correct position with two M3x10 screws. Use the 2.5mm Allen key to tighten the screws.
- ◆ Then, with the new AC box secured in the correct position, use the T10 torx key / T10 torx screwdriver to tighten the two M3x4rT screws.

STEP 15 Plugging in the AC box cables



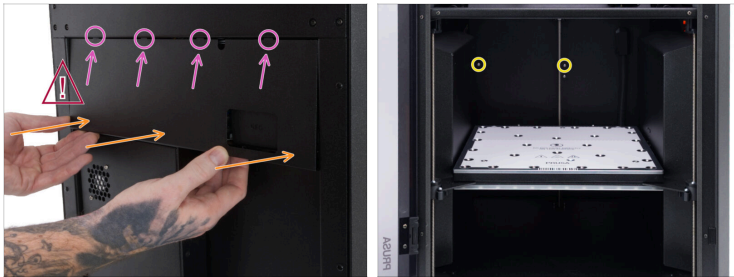
- ◆ On the rear side of the printer, loop the heatbed data cable and the heatbed heater cable as shown in the photo. This is to ensure that all cables fit under the cover in the next step.
- ◆ Plug the four cables into the new AC box. Double-check that the cables are plugged in the correct order, as shown in the photo:
 - ◆ PSU controller cable
 - ◆ Heatbed data cable
 - ◆ Heatbed heater cable
 - ◆ Main FE cable
- ⚠ **Always check that the safety latch on each cable is fully engaged** - this ensures the connector is securely locked and the cable is properly connected.
- ◆ Note that this AC box socket will remain empty.

STEP 16 Re-attaching the side cover



- ◆ Place the side cover on the printer.
- ◆ **Carefully insert the short PTFE tube** from the filament sensor through the opening in the side cover handle.
- ◆ **You received a spare bag of nylon rivets with your printer.** If you damaged any rivets, use the spare ones when re-attaching the side panel.
- ◆ Fix the side cover in place using 11x nylon rivets. Push one in each indicated hole, and the rivet will hold the side cover in place.
- ◆ Start at the top of the side cover. We recommend holding the side panel in place with one hand while installing the first few rivets.

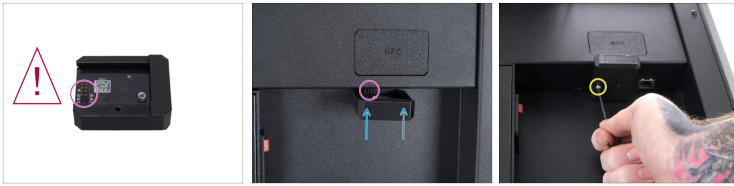
STEP 17 Covering the electronics








⚠ While reattaching the electronics cover, ensure that all cables are covered and that no cables are pinched!

- Ensure that the four tabs on top of the electronics cover slide into the four docks in the rear printer cover.
- Carefully, yet firmly, push the bottom of the cover towards the printer to re-attach it to the printer.
- Secure the electronics cover in place with two M3x4rT screws from inside the printer.

STEP 18 Reattaching the Wi-Fi module



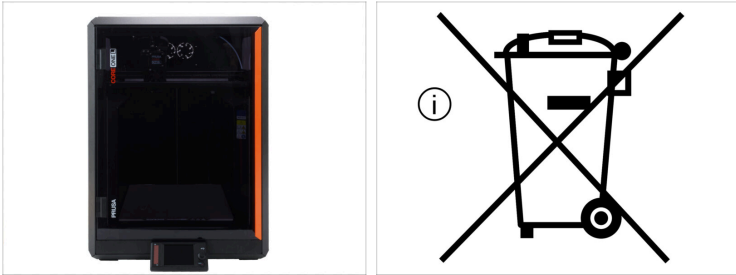
-  Ensure that you **do not bend any pins** on the pin header when reattaching the module.
-  Note that the Wi-Fi module will be connected to the electronics by the pin header with eight pins.
-  Ensure that the Wi-Fi module is positioned correctly when plugging it into the connector.
-  **Gently insert the Wi-Fi module straight upward** into the connector to avoid bending the pins.
-  Use the 2.5 mm Allen key to tighten the M3x14 screw.

STEP 19 Powering the printer & selftest



- ◆ From the rear side of the printer, plug in the power cable into the new AC box.
- ◆ Flip the power switch ON (symbol "I").
- ① After replacing the AC box and turning the printer on for the first time, the printer might display an error, as the new AC box has to be flashed. If that happens, press the reset button. The printer will then boot up normally.
- ◆ Navigate through the menu to **Control -> Calibrations & tests-> Fan test** and initiate the fan test.
- ◆ Once the fan test is completed, run the remaining tests by selecting ALL on the screen and following the instructions on the screen.

STEP 20 Well done



- ◆ Congratulations. You have successfully replaced the AC box on your PRUSA CORE One L
- ⓘ The AC box is made up of components that must be disposed of in accordance with the Electronic equipment waste directive. **Take the old AC box to an electronic waste collection point to dispose of it.**
