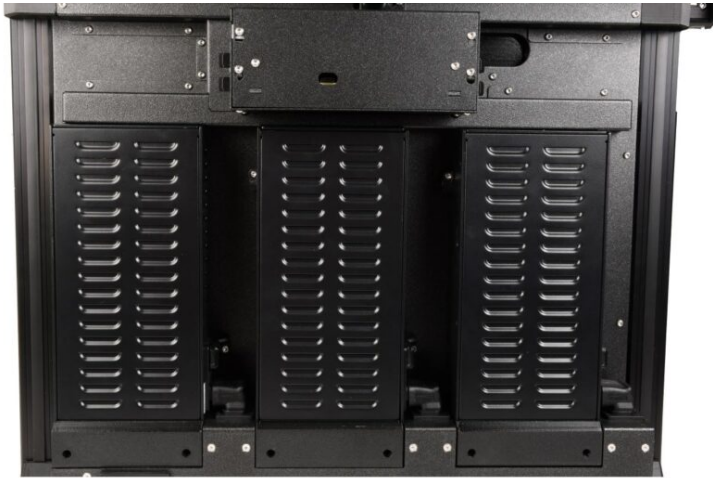


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How to replace a PSU (XL)

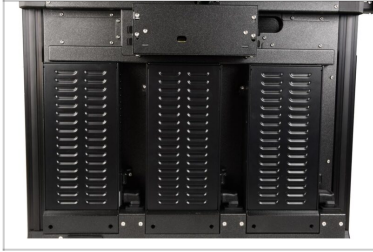


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STEP 1 Introduction



- This guide will take you through the replacement of one of the **Power Supply Units (PSU)** on your **Original Prusa XL**.

- ⓘ The following instructions are compatible with all Original Prusa XL versions.

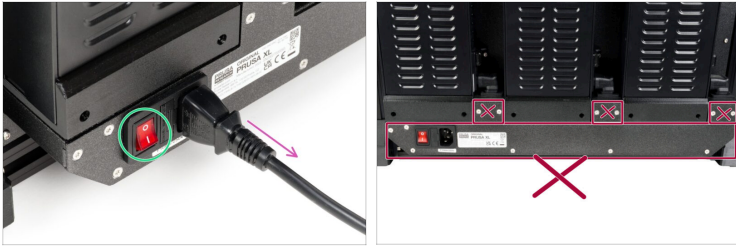
STEP 2 Necessary tools



- **For the following steps, please prepare:**

- TX10 Torx screwdriver
- 2.5mm Allen key
- 3.0mm Allen key
- Philips screwdriver

STEP 3 Printer preparation



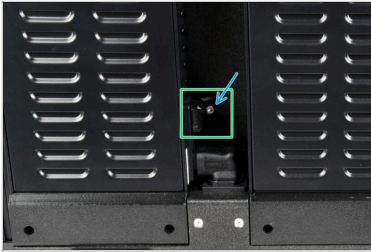
- ◆ From the rear side, turn the power switch OFF (symbol "O").
- ◆ Unplug the power cable.
- ⚠ **Do not manipulate the PDU and its bolts under any circumstances!**
- ◆ Leave the printer off and disconnected from the mains for at least 10 minutes before proceeding to the next step.

STEP 4 Removing the middle-rear-panel



- ◆ Using a TX 10 screwdriver, loosen 4x M3x5rT screws. Do not throw them away, we'll use them later.
- ◆ Remove the middle-rear-panel, gently pull it out.

STEP 5 Disassembling the switch cover

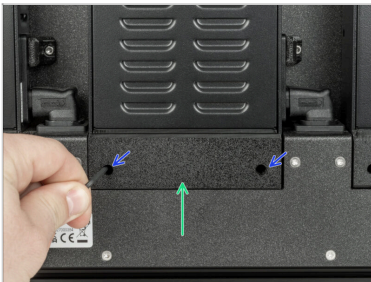


- Locate the switch cover on the right side of the PSU that will be replaced.
- Using the 2.5mm Allen key, remove the M3x8 screw, and take out the switch cover.



Do not throw the screw away! We'll use it later.

STEP 6 Removing the PSU cover



- Using a 2.5mm Allen key, loosen two M3x10 screws that hold the PSU cover. Do not throw them away, we'll use them later.
- Carefully slide out the cover. You can use the 2.5mm Allen key or the T10 screwdriver as a lever.

How to replace a PSU (XL)

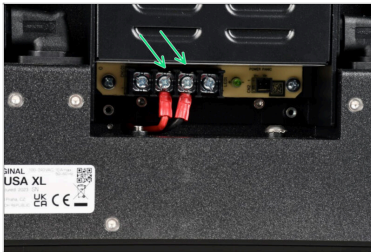
Power panic



The power panic connector has a safety latch. It is necessary to press the latch before disconnecting. Otherwise, the connector may get damaged.

How to replace a PSU (XL)

STEP 8 Removing PSU cables (middle)



Follow this step if the PSU to replace is the central one.

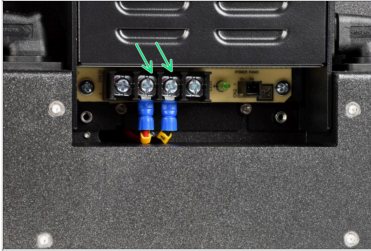


Using the Philips screwdriver, loosen the pair of power cables at the center.



Do not throw away the screws and washers, we'll use them later.

STEP 9 Removing PSU cables (right)



i Follow this step if the PSU to replace is the rightmost one.

◆ Using the Philips screwdriver, loosen the pair of power cables at the center.

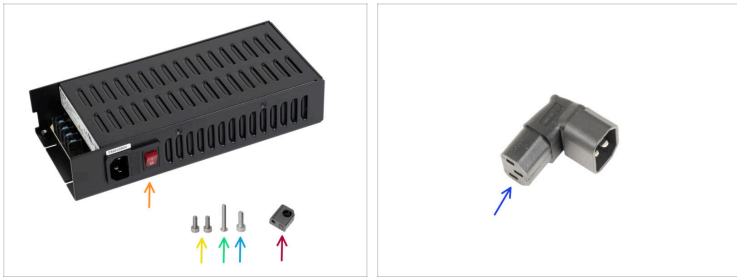
📌 Do not throw away the screws and washers, we'll use them later.

STEP 10 Removing PSU from frame



- Using a 2.5mm Allen key, loosen the M3x16 from the PSU-upper-cover-mount. Start holding the PSU while doing this, with the other hand.
- Using a 2.5mm Allen key, loosen slightly, without removing them, the M3x8 screws on the 'bottom mount' of PSU.
- With one hand slide the down-angled-ac-adapter upwards, and with the other hand slide up the PSU.
- Remove the PSU together with the down-angled-ac-adapter from the frame, then detach the down-angled-ac-adapter.
- Do not throw the adapter away, we'll use it later.

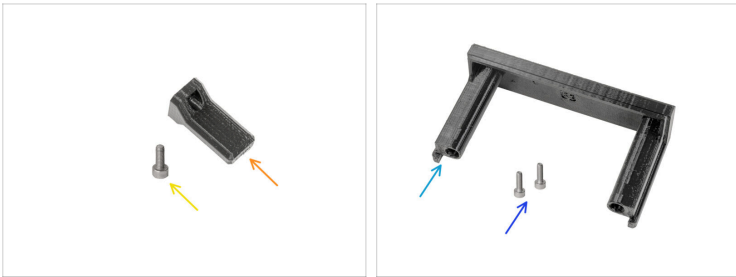
STEP 11 Replacing the PSU - parts preparation







⬛ For the following steps, please prepare:

- 🟠 PSU (1x)
- 🟡 M3x6 screws (2x)
- 🟢 M3x20rT screw (1x)
- 🟠 M4x12 screw (1x)
- 🟡 PSU-upper-cover-mount (1x)
- 🟠 Down-angled-ac-adapter (1x)

STEP 12 PSU covers - parts preparation



From the upgrade kit, please prepare:

-  Switch cover (1x)
-  M3x8 screw (1x)
-  PSU cover (1x)
-  M3x10 screw (2x)

STEP 13 Preparing the PSU



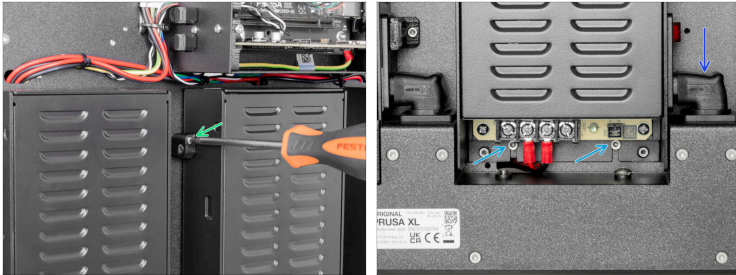
- Using a Phillips screwdriver, release the **terminal screws**, without removing them.
- ⓘ Release the center two terminal screws if you are replacing the central or the right PSU.
- 📌 Release all of the four terminal screws if you are replacing the left PSU.
- From the side of the PSU, insert the Down-angled-ac-adapter.
- Turn the PSU power switch ON (symbol "I").

STEP 14 Assembling the PSU upper-cover-mount



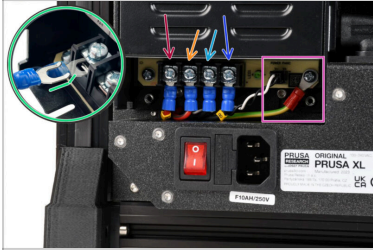
- ◆ Insert an M4x12 screw into the PSU-upper-cover-mount.
- 📌 Locate the hole on the top left side of the PSU.
- ◆ Attach the PSU-upper-mount-cover to the PSU and secure the M4x12 screw using a 3mm Allen key.











STEP 15 Securing the PSU to the frame



- On the left side of the PSU, insert the M3x20rT screw into the PSU-upper-cover-mount and secure the cover with the back plate of the printer.
- On the bottom of the PSU, tighten two M3x6 screws using a 2.5mm Allen key.
- Pushing down the Down-angled-ac-adapter, secure its position.







STEP 16 Connecting the left PSU cables (CRITICAL) - part 1



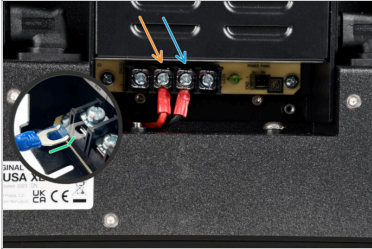
-  **WARNING: Triple-check you have connected the cables correctly. There is a risk of damaging the PSU or the printer itself, if the cables are connected incorrectly or not tightened properly!**
-  Starting from the left, the PSU polarity is: ++--
-  **Make sure the bent part of the cable connector is always facing up, and connected under the square washer.**
-  One cable pair is labeled with B.
 -  Connect the red cable on the leftmost connector.
 -  Connect the black cable on the rightmost connector.
-  The other cable pair does not have a label.
 -  Connect the red cable on the center-left connector.
 -  Connect the black cable on the center-right connector.
-  We will connect the remaining cables in the next step.

STEP 17 Connecting the left PSU cables (CRITICAL) - part 2



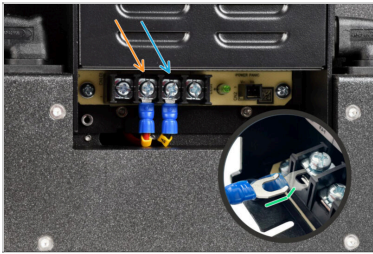
-  **WARNING: Triple-check you have connected the cables correctly. There is a risk of damaging the PSU or the printer itself, if the cables are connected incorrectly or not tightened properly!**
-  Starting from the left, the PSU polarity is: ++--
-  Plug the power panic cable on its connector.
-  Using the Philips screwdriver, fully tighten the bolt with the washer under it to connect the PE cable.
-  Double-check now the correctness of the connection for the two pairs of power cables.
-  **Triple-check again that all screw-attached connectors are correctly connected, as tight as possible, and with the correct polarity.**

STEP 18 Connecting the center PSU cables (CRITICAL)



- ⚠ WARNING: Triple-check you have connected the cables correctly. There is a risk of damaging the PSU or the printer itself, if the cables are connected incorrectly or not tightened properly!**
- ⚠ Starting from the left, the PSU polarity is: ++--**
- 🟢 Make sure the bent part of the cable connector is always facing up, and connected under the square washer.**
- ⓘ The cable pair does not have a label.**
 - 🟡 Connect the red cable to the center-left connector.**
 - 🟢 Connect the black cable to the center-right connector.**
- ⚠ Triple-check again that all screw-attached connectors are correctly connected, as tight as possible, and with the correct polarity.**

STEP 19 Connecting the right PSU cables (CRITICAL)



- ⚠ WARNING: Triple-check you have connected the cables correctly. There is a risk of damaging the PSU or the printer itself, if the cables are connected incorrectly or not tightened properly!**
- ⚠ Starting from the left, the PSU polarity is: ++--**
- 🟢 Make sure the bent part of the cable connector is always facing up, and connected under the square washer.**
- ⓘ The cable pair is labeled A.**
 - 🟡 Connect the red cable to the center-left connector.**
 - 🟢 Connect the black cable to the center-right connector.**
- ⚠ Triple-check again that all screw-attached connectors are correctly connected, as tight as possible, and with the correct polarity.**

STEP 20 Assembling the switch cover



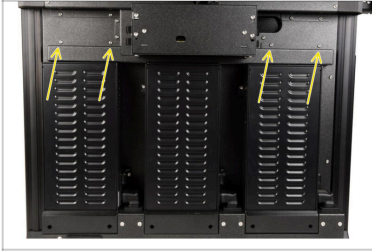
- ◆ Insert the M3x8 screw into the switch-cover.
- ◆ On the right side of the PSU, locate the hole in the back plate of the printer.
- ⚠ **Make sure that the switch is ON**
- ◆ Using a 2.5mm Allen key, secure the cover screw with the back of the printer.

STEP 21 Assembling the PSU cover



- ◆ Insert both M3x10 screws into the PSU cover.
- ◆ Insert the prepared PSU cover under the PSU.
- ◆ Tighten both M3x10 screws using a 2.5mm Allen key.

STEP 22 Assembling the middle-rear-panel



- Using a TX 10 screwdriver, tighten 4x M3x5rT screws to install the middle-rear-panel.

STEP 23 Testing the printer



- From the rear side, plug in the power cable.
- Turn the power switch ON (symbol "I").
- Perform a selftest or test the printer heating as a test for the replaced PSU.

STEP 24 Good job!



- ◆ That's it, good job!
You successfully replaced the PSU on your Original Prusa XL.
