

Table of Contents

How to replace the PDU splitter (XL)	3
Step 1 - Introduction	4
Step 2 - Necessary tools	5
Step 3 - Printer preparation	5
Step 4 - Removing the middle-rear panel	6
Step 5 - Disassembling the switch cover	6
Step 6 - Removing the PSU cover	7
Step 7 - Removing PSU cables (left)	8
Step 8 - Removing PSU cables (middle)	9
Step 9 - Removing PSU cables (right)	9
Step 10 - Removing PSU from frame	10
Step 11 - Removing the PDU splitter	11
Step 12 - The new PDU splitter: parts preparation	11
Step 13 - Attaching the new PDU splitter	12
Step 14 - Re-attaching the main PSU - part 3	12
Step 15 - Re-attaching the middle PSU	13
Step 16 - Re-attaching the right PSU	14
Step 17 - Assembling the switch covers	15
Step 18 - Assembling the PSU cover	15
Step 19 - Assembling the middle-rear panel	16
Step 20 - Testing the printer	17
Step 21 - Good job!	17

How to replace the PDU splitter (XL)



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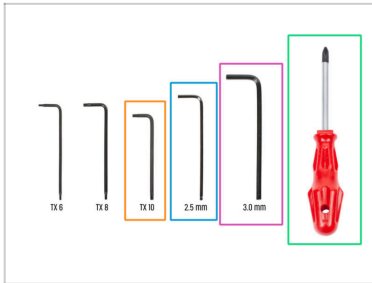


STEP 1 Introduction



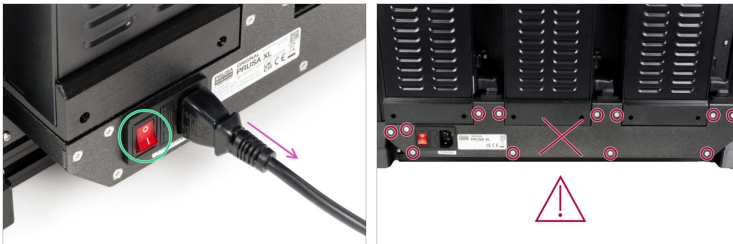
- ◆ This guide will walk you through the process of replacing the PDU splitter on your Original Prusa XL printer.
- ◆ All necessary parts are available in our e-shop: prusa3d.com
- ⓘ Note that you must be logged in to access the spare parts section.
- 📌 Do not throw away any screws or parts that you removed from the printer. We will use them again when mounting the new PDU.
- ⓘ Original Prusa XL printers with one or two toolheads have two PSU units in the back. Original Prusa XL printers with five toolheads have three PSU units. This guide shows how to replace the PDU splitter on all versions of the printer.

STEP 2 Necessary tools



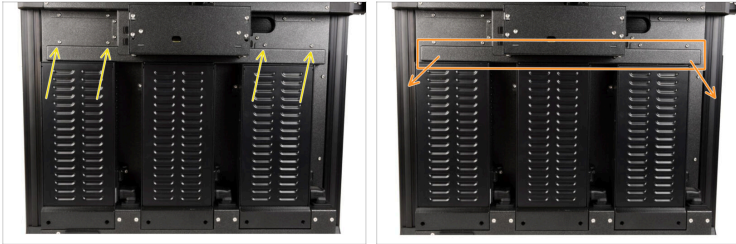
- For the following steps, please prepare:
- TX10 Torx screwdriver
- 2.5mm Allen key
- 3.0mm Allen key
- Philips screwdriver

STEP 3 Printer preparation



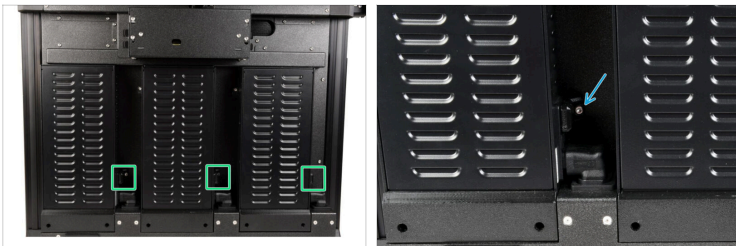
- From the rear side, turn the power switch OFF (symbol "O").
- Unplug the power cable.
- **(i)** Leave the printer off and disconnected from the mains for at least 5 minutes before proceeding to the next step.
- **⚠ Do not remove the PDU splitter screws under any circumstances!**

STEP 4 Removing the middle-rear panel



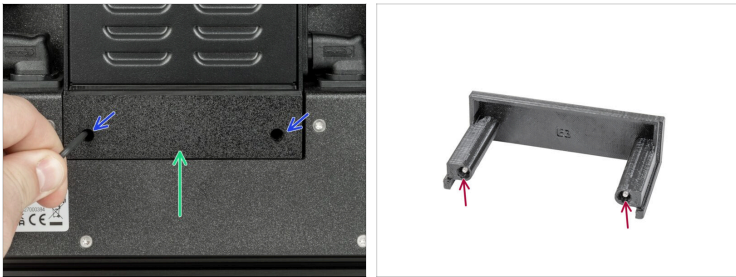
- Using a TX 10 screwdriver, remove all four M3x5rT screws. Do not throw them away, we'll use them later.
- Remove the middle-rear panel by gently pulling it off the printer.

STEP 5 Disassembling the switch cover



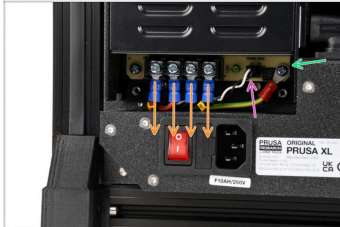
- Locate the switch cover on the right side of each PSU.
- Using the 2.5mm Allen key, remove the M3x8 screw, and take out the switch cover.

STEP 6 Removing the PSU cover



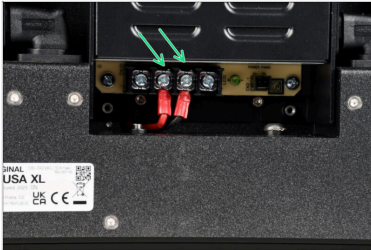
- Using a 2.5mm Allen key, loosen two M3x10 screws that hold the PSU cover.
- Carefully slide out the cover. You can use the 2.5mm Allen key or the T10 screwdriver as a lever.
- Leave both M3x10 screws inside the PSU cover.

STEP 7 Removing PSU cables (left)



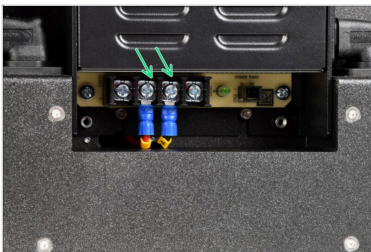
- Disconnect the following cables:
 - Use the Philips screwdriver to loosen the four screws, so you are able to remove the four power cables by sliding them down from under the washers. Leave the screws and washers in the PSU.
 - Power panic
 - ⚠ The power panic connector has a safety latch. Press the latch before disconnecting. Otherwise, the connector may get damaged.
 - PE cable. Use the Philips screwdriver to loosen it.
 - ⓘ Leave the screw and washer attached to the PE cable connector.

STEP 8 Removing PSU cables (middle)



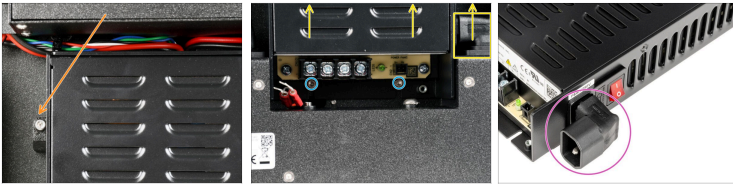
- i** Follow this step if you are removing the middle PSU.
- ◆** Using the Philips screwdriver, loosen the pair of screws and washers at the center. Remove the cables, and leave the screws and washers in the PSU.

STEP 9 Removing PSU cables (right)



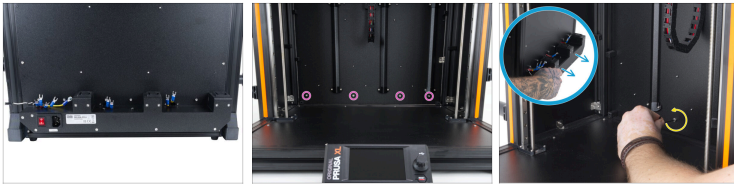
- i** Follow this step when removing the PSU on the right.
- ◆** Using the Philips screwdriver, loosen the pair of screws and washers at the center. Remove the cables, and leave the screws and washers in the PSU.

STEP 10 Removing PSU from frame



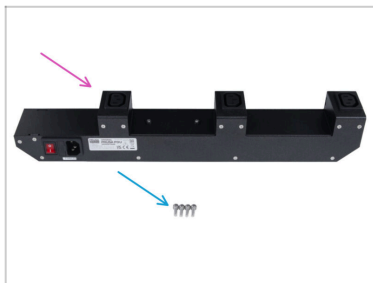
- ◆ Using a 2.5mm Allen key, loosen the M3x16 from the PSU-upper-cover-mount.
- ◆ Using a 2.5mm Allen key, loosen the two M3x8 screws without removing them.
- ◆ While holding the PSU with one hand, grab the AC adapter with the other hand and pull upwards, detaching the PSU from the rear frame.
- ◆ Keep the AC adapter attached to the removed PSU.

STEP 11 Removing the PDU splitter



- With each PSU removed, you are ready to exchange the PDU splitter.
- Facing the printer, locate the four M3x12 screws under the heatbed on the back panel.
- Use the 2.5 Allen key to unscrew each of the M3x12 screws.
- Use one hand to hold the PDU splitter from the back and pull it away from the rear frame once all four screws are removed.

STEP 12 The new PDU splitter: parts preparation



- **For the following steps, please prepare:**
- PDU splitter (1x) *new one*
- M3x12 screws (4x) *reuse the old parts*

STEP 13 Attaching the new PDU splitter



- Prepare the new PDU and the four M3x12 screws. Move the new PDU splitter to the back of the printer.
- Insert one M3x12 screw from the front. Use the protruding screw to align the new PDU in the correct position.
- While holding the new PDU splitter, secure it in place with the first M3x12 screw.
- Align the new PDU splitter with the other holes. While holding it in place, secure it with the rest of the M3x12 screws.

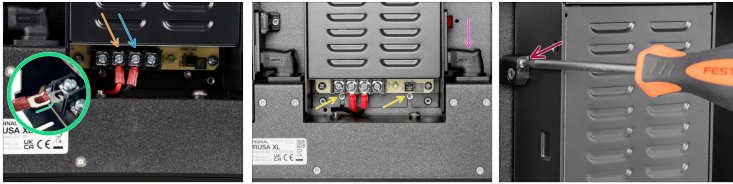
STEP 14 Re-attaching the main PSU - part 3



- Once the PSU is held in place by the bottom screws and the AC connector, insert the M3x20rT screw into the cover-mount and secure the PSU.

How to replace the PDU splitter (XL)

STEP 15 Re-attaching the middle PSU



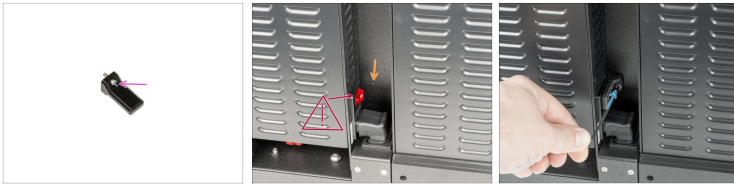
- i** Only printers with five toolheads have the middle PSU. If you do not have this version, skip to the next step.
- ◆ Make sure the bent part of the cable connector is always facing up and is connected under the square washer. These two PSU cables are not labeled.
- i** The PSU polarity is:
++--
- ◆ Connect the red cable to the center-left connector.
- ◆ Connect the black cable to the center-right connector.
- ⚠ **Double-check that 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!**
- ◆ While pushing the PSU down, ensure that the M3x6 screws slide into the PSU slots.
Only tighten these once the AC adapter and PSU cables are connected.
- ◆ When all the PSU cables are connected, gently but firmly push the AC adapter down into the slot.
- ◆ Once the PSU is held in place by the bottom screws and the AC connector, insert the M3x20rT screw into the cover-mount and secure the PSU.

STEP 16 Re-attaching the right PSU



- i** These two PSU cables are labeled with a yellow A label.
- ◆** Make sure the bent part of the cable connector is always facing up and is connected under the square washer.
- i** The PSU polarity is:
++--
- ◆** Connect the red cable to the center-left connector.
- ◆** Connect the black cable to the center-right connector.
- ⚠** **Double-check that 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!**
- ◆** While pushing the PSU down, ensure that the M3x6 screws slide into the PSU slots.
Only tighten these once the AC adapter and PSU cables are connected.
- ◆** When all the PSU cables are connected, gently but firmly push the AC adapter down into the slot.
- ◆** Once the PSU is held in place by the bottom screws and the AC connector, insert the M3x20rT screw into the cover-mount and secure the PSU.

STEP 17 Assembling the switch covers



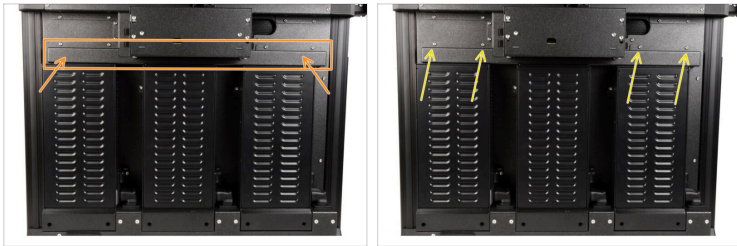
- ◆ Insert the M3x8 screw into the switch-cover.
- ⚠ **Make sure that the PSU switch is ON (symbol "I") before installing the switch cover.**
- ◆ Locate the hole on the right side of the PSU
- ◆ Using a 2.5mm Allen key, secure the cover M3x8 screw with the back of the printer.

STEP 18 Assembling the PSU cover



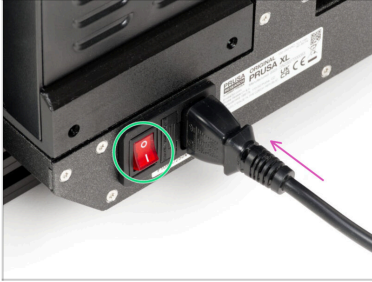
- ◆ Both M3x10 screws are prepared in the PSU cover from the previous step.
- ◆ Insert the PSU cover under the PSU.
- ◆ Tighten both M3x10 screws using a 2.5mm Allen key.

STEP 19 Assembling the middle-rear panel



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

STEP 20 Testing the printer



- ◆ On the rear side, plug in the power cable.
- ◆ Turn the power switch ON (symbol "I").
- ◆ Perform a self-test: On the printer screen, navigate to: *Control* *Calibrations & Tests* to→ *Calibrations & Tests* to verify the printer's heating function as a test for the replaced PDU splitter.

STEP 21 Good job!



- ◆ **That's it, well done!** You successfully replaced the PDU splitter on your Original Prusa XL.
