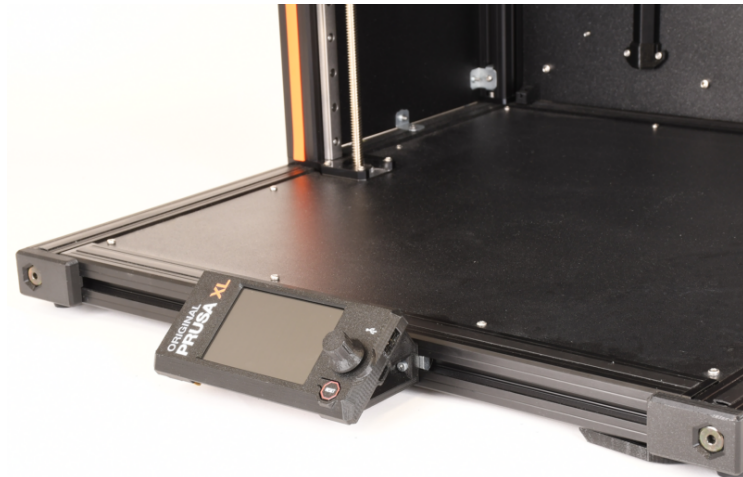


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How to change xLCD and xLCD cable (XL single-tool)

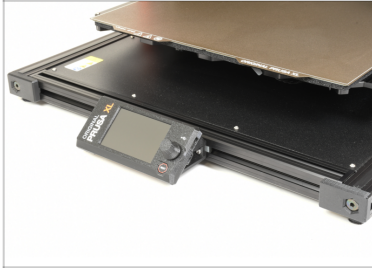


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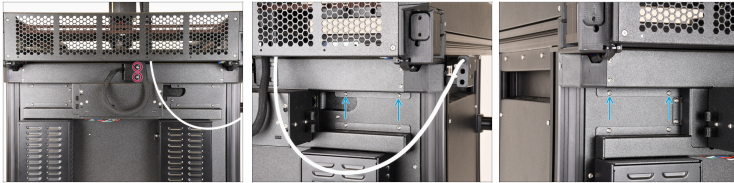
STEP 1 Introduction



i This guide will take you through the replacement of the **xLCD** on the **Original Prusa XL (single-tool)**.

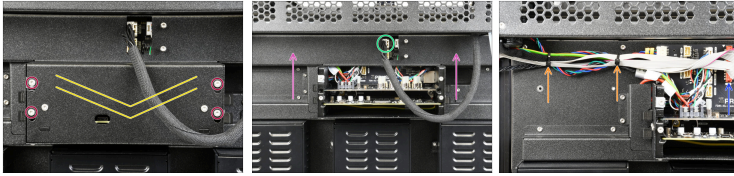
◆ All necessary parts are available in our shop prusa3d.cz







STEP 2 Accessing the electronics



- ◆** Loosen two screws on the xl-rear-cable-management-plug slightly and push the cover to the side or remove them completely along with the cover to get better access.
- ◆** Remove the two M3x5rT screws using a T10 screwdriver. Do so also on the other side.




STEP 3 Disconnecting the cables



-  Loosen (or remove) the four screws.
-  Remove the XL-buddy-box-cover.
-  Disconnect the extruder cable.
-  Remove the Rear-cable-management-upper electronics cover.
-  Gently disconnect the LCD cable.
-  Cut the two zip ties holding the cables and leave the xLCD cables hanging.






STEP 4 Removing the xLCD cables



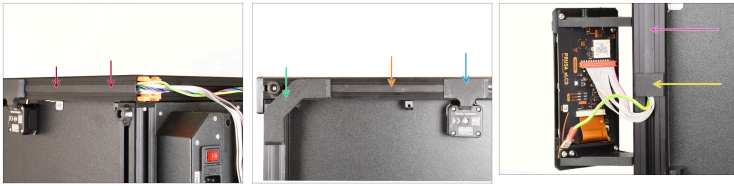
-  Remove the plastic cable cover from the vertical extrusion and carefully pull out the xLCD cables.
-  Remove the M3x10 screw.
-  Remove the frame-rear-cover.

STEP 5 Removing the filament sensor and the spool holder



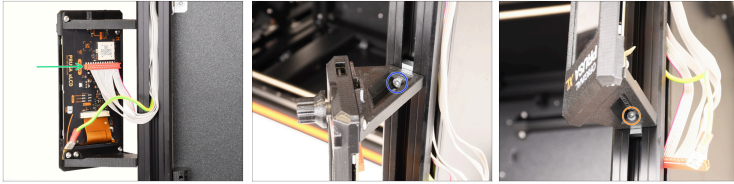
-  Follow this step only if the side where you intend to place the printer on has the spoolholder and the filament sensor already mounted.
-  Remove the M3x12rT screw by using a T10 screwdriver and remove the filament sensor (leave it hanging on its cable).
-  Loosen the M5x85 screw and remove the spool holder.
-  Place the printer on its side.
-  Make sure the filament sensor doesn't get crushed or its cable pinched while laying the printer.

STEP 6 Removing the xLCD cables II



- ◆ While the printer is laying on its left side, remove the extrusion cover to further release the xLCD cables.
- ◆ Remove the Z-motor-cable-bottom-cover.
- ◆ Remove the 182mm extrusion cover.
- ◆ Remove the xLCD-cable-bottom-cover.
- ◆ Remove the extrusion cover 172 mm.
- ◆ Remove the xLCD-cable-bottom-holder.
- ⓘ Continue carefully pulling out the xLCD cable while keeping the grounding cable and the right Z-axis motor cable inside the extrusion.

STEP 7 Disconnecting the xLCD cable



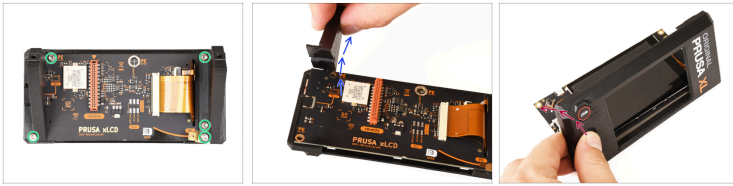
- ◆ Disconnect the xLCD cable from the xLCD unit.
- ⓘ Gently pull the cable while slightly wiggling to disconnect them.
- ◆ Remove the M3x16 screw in the right (now the top) xLCD support.
- ◆ Remove the M3x16 screw in the left (now the bottom) xLCD support and remove the xLCD unit.

STEP 8 Disconnecting the xLCD PE cable



- ◆ Disconnect the xLCD PE cable from the xLCD unit:
 - ◆ Version A: Take a closer look at the rear side of the xLCD assembly and locate the **lower** PE Faston on the xLCD board.
 - ◆ Version B: Take a closer look at the rear side of the xLCD assembly and locate the **upper** PE Faston on the xLCD board.
- ⓘ Gently pull the cable while slightly wiggling to disconnect them.

STEP 9 Removing the xLCD



- ◆ Remove the five M3x8 screws and take off the right plastic support.
 - ◆ Take off the left plastic support by turning it upwards in order to lift the xLCD out of its printed housing.
 - ◆ Remove the xLCD button's printed knob and carefully push onto the button while holding the plastic housing to separate the xLCD from its housing.
- ⚠ Remember the position of the PE faston, as it will be essential in following steps.

STEP 10 xLCD parts preparation

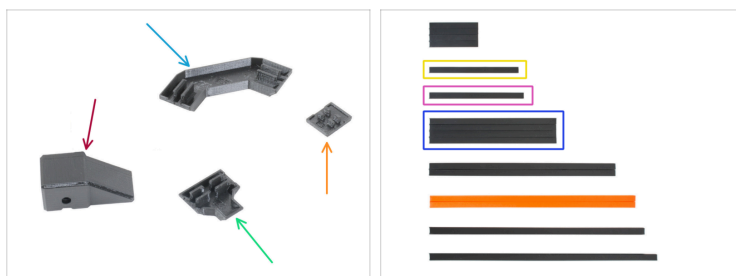


i For the following steps, please prepare:

- Left xLCD support (1x)
- Right xLCD support (1x)
- xLCD cover (1x)
- M3x8 screw (5x)
- M3x16 screw (2x)
- xLCD unit (1x)
- xLCD cable (1x)

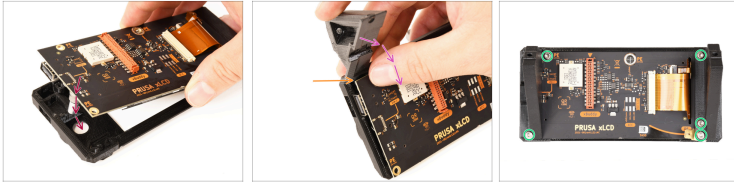
i The list continues in the next step...

STEP 11 xLCD parts preparation



- ◆ Frame-rear-cover (1x)
- ◆ xLCD-cable-bottom-cover (1x)
- ◆ xLCD-cable-bottom-holder (1x)
- ◆ Z-motor-cable-bottom-cover (1x)
- ◆ Extrusion cover 172 mm (1x)
- ◆ Extrusion cover 182 mm (1x)
- ◆ Extrusion cover 243 mm (2x)

STEP 12 xLCD assembly



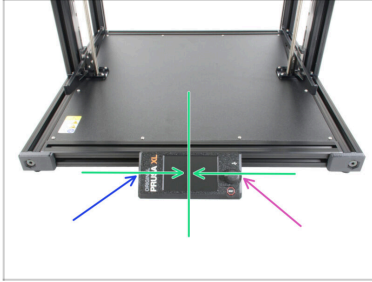
- ◆ Insert the xLCD unit into the xLCD cover.
- ◆ Notice a little latch on the left xLCD support. Insert this latch in between the xLCD unit and the xLCD cover.
- ◆ Flip the left xLCD support onto the xLCD unit while keeping the latch in place.
- ◆ Mount the right xLCD support and secure both xLCD supports with five M3x8 screws.

STEP 13 Attaching the xLCD



- Locate the M3nEs nuts in the front base extrusion and place the xLCD assembly in front of it.
- Insert the M3x16 screw into the right xLCD support.
- ⚠ **Do not tighten the screws fully, a few turns are enough for now.**
- Use the 2.5mm Allen key to tighten the M3x16 screw into the M3nEs nut in the frame.
- Insert the second M3x16 screw from the left side and tighten it, but not overtighten. We will adjust the correct position of the xLCD assembly later on.

STEP 14 Aligning the LCD



⚠ Aligning the xLCD to the center is recommended or you can go slightly to the left side. Moving the xLCD to the right is not recommended as the cables won't be long enough.

- ◆** Align the xLCD approximately to the center of the base.
- ◆** Tighten the left M3x16 screw with the 2.5mm Allen key.
- ◆** Tighten the right M3x16 screw with the 2.5mm Allen key.

STEP 15 xLCD assembly versions



⚠ Take a look at the xLCD. As there are two variants, it is necessary to mount the PE faston as it was before the xLCD disassembly, otherwise the already installed cables would need to be re-routed:

- 🟠** Version A: faston on the bottom right
- 🟡** Version B: faston on the top left

STEP 16 Connecting the xLCD PE cable

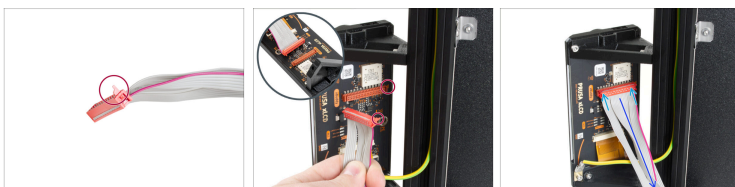


- i** Take a closer look at the rear side of the xLCD assembly and locate the PE Faston on the xLCD board. Slide the PE cable connector all the way onto the PE Faston.

Version A

Version B

STEP 17 Connecting the xLCD cable

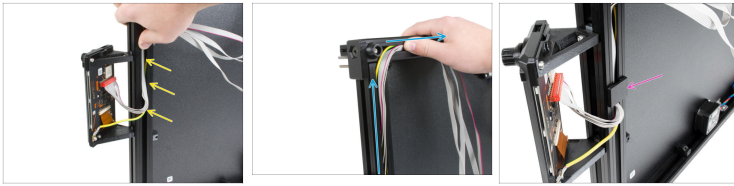







- !** The xLCD cable connector has a locking latch that has to face the red triangle near the xLCD connector.

Connect the xLCD cable to the xLCD slot on the board.

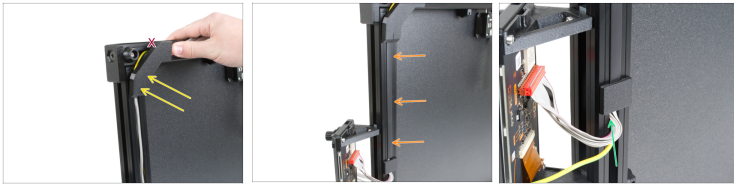
Make sure, that cable is not twisted.

STEP 18 Routing the xLCD cable



-  **Make sure, that the xLCD cable is not twisted.**
-  Insert the xLCD cable into the frame, copy the line of the PE cable, and cover the PE cable.
-  Guide all xLCD cables as close to corner as possible.
-  Once in the corner flip the cables along the upper edge. See the picture.
-  Insert the xLCD-cable-bottom-holder into the frame.

STEP 19 Routing the cables






- ⚠** Be careful, don't pinch any cables!
- 🟡** Gently insert the xLCD-cable-bottom-cover into the vertical frame.
- ⚠** The xLCD-cable-bottom-cover has to be in line with the horizontal frame. Don't insert the plastic cover into the horizontal frame.
- 🟠** Insert the Extrusion cover 172mm to the frame and push it up to the xLCD-cable-bottom-cover.
- ⬛** Fully insert the Extrusion cover 172 mm into the frame.
- 🟢** Take the xLCD and PE cables and gently push them up.
- ⓘ** Make sure the cable loop is not too large.

STEP 20 Horizontal cable inserting






 **Be careful, don't pinch any cables!**

-  Guide the xLCD and the PE cables through the extrusion.
-  Insert the Z motor cable into the extrusion.
-  Guide the cables together through the extrusion, as in the picture.

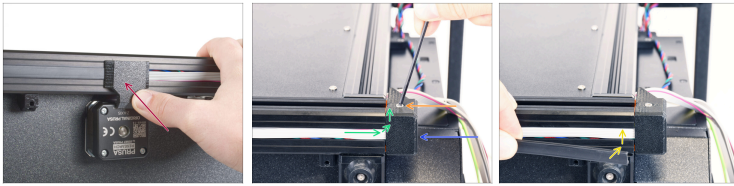
STEP 21 Corner frame cover



 **Be careful, don't pinch any cables!**

-  Insert the 182mm extrusion cover into the extrusion.
-  Push the extrusion cover to the left side.
-  Fully insert the 182mm extrusion cover right next to the corner-frame-cover.

STEP 22 Inserting Z-motor-cable-bottom-cover



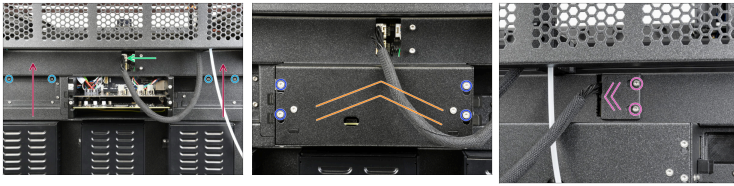
- ◆ Push the Z-motor-cable-bottom-cover into the frame.
- ◆ Gently bend the cables over the corner and insert them into the extrusion. Start with the Z motor cable and then proceed with xLCD and PE cables. Gently bend the xLCD cable over the corner and insert it in the extrusion.
- ◆ Attach the frame-rear-cover on the printer. Make sure it perfectly fits on the extrusions.
- ⚠ **Be careful, don't pinch any cables!**
- ◆ Secure it with the M3x10 screw.
- ◆ Insert the Extrusion cover 243mm.

STEP 23 Connecting the xLCD cable



- ◆ Lead the xLCD cable all the way up the vertical metal extrusion.
- ◆ Secure the cables with the Extrusion cover 354 mm.
- ⚠ The xLCD cable connector has a locking latch that has to face the red (or white) triangle near the xLCD connector.
- ◆ Connect the xLCD cable.
- ◆ Insert two zip ties through the perforations in the metal sheet to secure the cables. Tighten them gently.
- ◆ Cut the excess of the zip ties.
- ⚠ **ATTENTION: Do not overtighten the zip ties! Otherwise, you risk damaging the cables.**

STEP 24 Covering the electronics



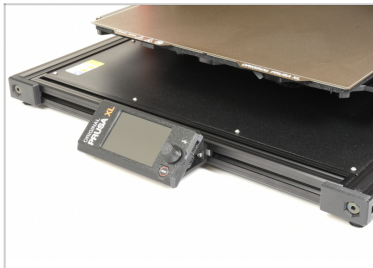
- ◆ Gently attach the Rear-cable-management-upper on the rear side.
- ◆ Secure it with four M3x5rT screws using a T10 screwdriver.
- ◆ Connect the extruder cable.
- ⚠ **Be careful, don't pinch any cables.**
- ◆ Put the XL-buddy-box-cover back on the printer.
- ◆ With a T10 key tighten the four screws.
- ◆ Mount the xl-rear-cable-management-plug and tighten its two M3x5rT screws using a T10 screwdriver.

STEP 25 Mounting the filament sensor and the spool holder



- ◆ To the printer's side where you previously removed the filament sensor and the spool holder from, mount the filament sensor and secure it with the M3x12rT screw by using a T10 screwdriver.
- ◆ Mount the spool holder and secure it with the M5x85 screw.

STEP 26 Well done!



- ◆ Good job! You made it!
