

Kobo Glo HD Display Replacement

This guide shows how to remove/replace the EPD...

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INTRODUCTION

This guide shows how to remove/replace the EPD panel (including frontlight) on a Kobo Glo HD.

This guide applies to the Kobo Glo HD (model N437).

This guide does **not** apply to the Kobo Touch 2.0, and regular Kobo Glo and Touch models.

You will need to perform the display replacement in a room with little to no dust, as dust and/or scratches on the back of the EPD panel can result in artefacting and/or dead pixels.

As the display assembly and EPD panel are held on using adhesive, removing the display assembly from the bezel may result in a cracked bezel if you're not careful, and removing the EPD panel from the display assembly may damage it.

Please exercise caution to not bend and/or puncture the battery in the process.

For best results when aligning the display, ensure that it's displaying an image with a white background or border.

TOOLS:

iFixit Opening Picks (Set of 6) (1) Spudger (1) ESD Safe Blunt Nose Tweezers (1) Phillips #00 Screwdriver (1) Plastic Cards (1) Microfiber Cleaning Cloths (1)

🌣 PARTS:

E-ink ED060KG1 (1) (LF) EPD panel Tesa 61395 Double-Sided Tape (1) For securing the EPD panel to the mid-frame

Step 1 — Rear Cover



• If you haven't done so already, power off your eReader by holding down the power button for 3 seconds until the display refreshes to indicate that it has powered off.

⚠ Opening picks are required for this step as opening tools can be too wide to get into the gap between the rear cover and the side/front.

- Start by inserting the pick into the area around the power button or Micro USB port.
 Don't insert it too far, as that could result in damage to the power button, status indicator, and/or Micro USB port.
- Then, slide the pick around to undo these clips.

Step 2



• The rear cover should then pop off.

Step 3 — Mainboard - Disconnect the battery



• Using the pointed end of your spudger, while holding your eReader using your other hand or a weight, disconnect the battery.

Step 4 — Remove the internal memory card



• If your eReader has a memory card instead of a storage chip, remove the memory card.

Don't lose, misplace, or damage this memory card, as it not only contains any books and any other data you downloaded or copied over, but it also contains the firmware, as well as the serial number and important files required for your eReader to be able to start up.

• Image needed in position 1: innards after disconnecting the battery

Step 5 — Disconnect the display



- Using the flat end of your spudger and a pair of flat-bladed tweezers, disconnect the display.
- Image needed: innards after disconnecting the battery and removing the start-up memory card



Step 6 — Disconnect the frontlight

- Using the pointed end of your spudger, disconnect the frontlight.
- Image needed: innards after disconnecting the battery, removing the start-up memory card, and disconnecting the display

Step 7 — Remove the mainboard



• Using your screwdriver with a PH00 tip, remove these screws and set them aside.

Step 8



- Use the flat end of your spudger to lift the top of the mainboard, and your fingers to slowly pull out the bottom.
- Image needed: me pulling out the mainboard

Step 9



• The mainboard has been removed.

Step 10 — Front Bezel



- Remove these screws, and keep them aside.
- Image needed: me unscrewing the bezel screws

Step 11



(i) Now comes the start of the hard part.

• Press down on the display to slowly free the display assembly from the bezel.

 \triangle Don't press down too hard, as doing so may result in damage to the bezel.

• This may take 5-15 minutes.

Step 12



- Once you have freed the display assembly from the bezel, use the tweezers to reposition any bits of doublesided tape that may have come loose.
 - Image needed depicting this
- Place the bezel off to the size, face up.
- The front bezel has been removed.

Step 13 — Display assembly - Removing the infrared light guide



- Press down on the display while using your fingernail in between the infrared light guide and mid-frame in order to separate the former from the latter and EPD panel that's still attached to it.
- ⚠️ Don't press down too hard, as doing so may result in damage to the infrared light guide, which may result in erratic touch input and/or unresponsive areas on the display once reassembled.
- The infrared light guide has been removed.

Step 14



• Use your thumb and finger on the rear-facing side of the mid-frame to pry apart part of the mid-frame, enough for you to slip your <u>plastic card</u> into.

Don't press on the battery, as doing so can puncture it, resulting in damage and serious injury.

- Slip the card in between the EPD panel and mid-frame, and pull it around the perimeter and push it in and out, in order to break adhesive holding the former in place.
- You may need to use your thumb and finger to bend the mid-frame and break some of the adhesive.

Step 15



• The EPD panel has been removed from the mid-frame.

Step 16 — **Installing the replacement EPD panel**



- (Placeholder for details on preparing the EPD panel, lightly cleaning the back of it, adding double-sided tape)
- Without the tape, the back of the EPD panel may get scratched by the midframe, and the infrared light guide won't sit flush with the bezel.
- Do not press down on the display panel yet, in the event that the display may have to be removed again.



• (Placeholder for details on aligning the display panel to the mid-frame)

Step 18 — Testing the replacement EPD panel (optional)



- Optionally, you can insert the memory card back onto the mainboard, and connect your eReader to an external power source in order to test the replacement EPD panel for any artefacts and/or dead pixels.
 - This process of testing EPD panels without connecting the battery, frontlight, touch, and/or pen input (depending on model) is basically the same process used by suppliers of new-old-stock EPD panels in China, when they sell them on online stores like AliExpress and/or eBay, which you would've most likely purchased your display panel from.
 - (i) However, they would sometimes test displays on another device that uses the same display or used a display with similar specifications, in order to not have too many test devices around, for example, a Kobo Aura display tested using a Kindle Paperwhite 2, or a Likebook Mars display tested using a Dangdang Reader R7.

- (i) At this stage, you should **not** have the infrared light guide attached to the panel but not to the mid-frame, which is what the photo shows as I made mistakes while writing this guide, so that you don't have to.
- You should instead have the display panel loosely attached to the mid-frame, without the infrared light guide and front bezel attached at this stage.
- Connect a USB cable from a USB power adaptor or external battery to your eReader, and it should automatically power on.
- Without the infrared light guide, you will not be able to navigate menus on your eReader and open a book or Pocket article, but you will still be able to use the power button to take it in and out of sleep mode, and power off.
- Don't mind the weird selection of books in the middle row, but I had not removed the previous owner's sideloaded e-books before carrying out this repair.

To reassemble your device, follow these instructions in reverse order.