English ⌄   Login

PRUSA
RESEARCH
by JOSEF PRUSA

3D printers   **Materials**   **Parts & Accessories**   **Software**   **3D Models**   **Applications**   Con

🏠 > Support > General Information > **SD cards and USB drives**

SD cards and USB drives

Relevant for   MK4 FAMILY   MMU FAMILY   MINI FAMILY   MK3 FAMILY

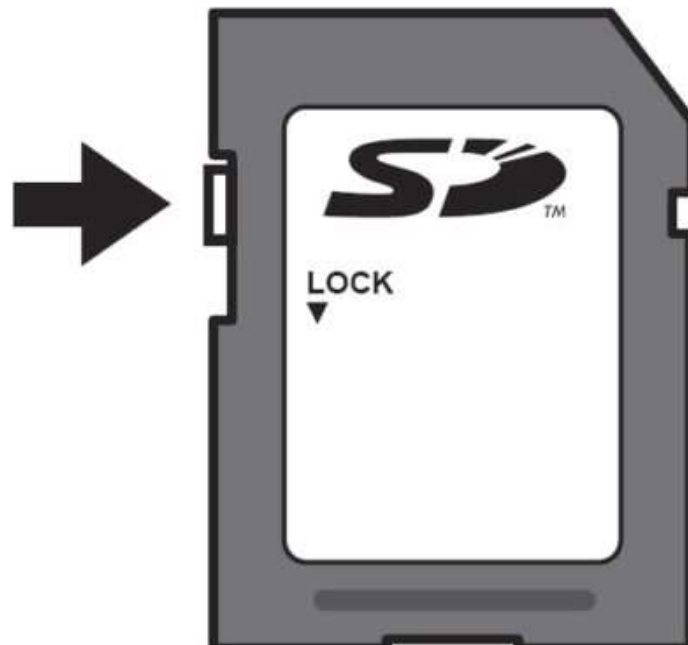MK3.5 FAMILY   +

Last updated 7 months ago   ·   44 comments

Article is also available in following languages

🇬🇧 🇨🇿 🇵🇱 🇩🇪 🇫🇷 🇪🇸 🇮🇹 🇯🇵

As there are ways of remotely transferring files and starting prints, an SD card or USB flash drive is the most common and reliable way to get your files to your machine. Though common and convenient, flash memory is not the most reliable in itself and your storage can be corrupted or fill up without any obvious signs. Therefore, we have put together a small guide on how to maintain, format, and purchase memory for your Original Prusa printer.

Make sure your SD card is not locked!

The SD card has a latch on the side. Before using your SD card, make sure that the latch is not set to the Locked position. In case it is locked, you will not be able to save files on the card, and the printer will not be able to open the SD card.

Storage over 32 GB

There is no upper size limit on compatible storage media, but **the built-in Windows formatting tool does not support formatting storage media from a size of 32 GB or more to FAT32.** It will only provide the option for exFAT, which is currently not supported by our printers. There are similar limitations under various versions of Apple's OSx, where a third-party application must be used to format it correctly.

To format such a drive you need a third-party application, like Rufus, FAT32 format, or EaseUS Partition Master. **Be careful when using such programs** so you do not **accidentally format the wrong storage media**, like your hard drive. However, 8-16 GB is more than enough for most use cases, as a G-code file rarely exceeds 100 MB.

How do I format the USB drive/SD card?

If your SD card or USB drive is full or if you can't read the content of the drive, but the drive is recognized by windows, most often all you need to do is to format the drive.

> 💬 If your USB drive or SD card does not even show up in your computer file explorer it is probably corrupted beyond repair, or at least beyond the scale of this article. If you get an error like the one in the picture below and it does not show up anywhere, off to google you go, but you might have to consider this card/USB drive lost and get a new one.
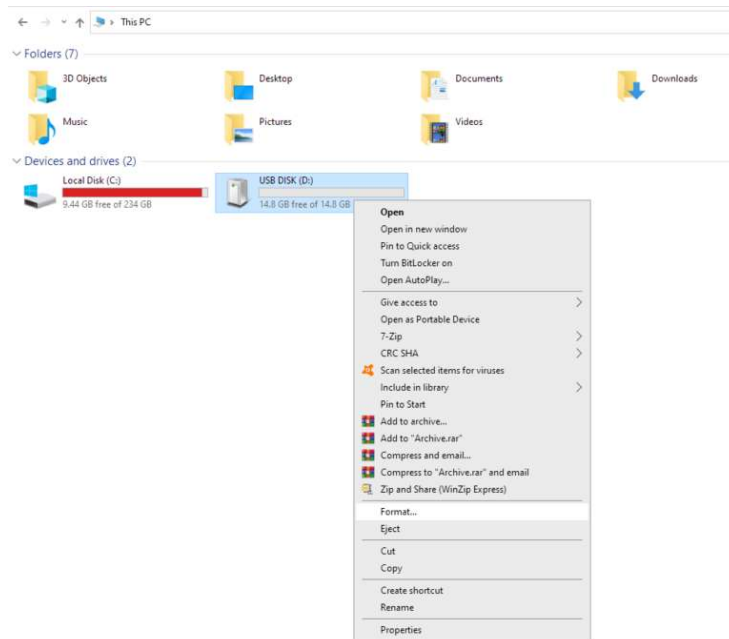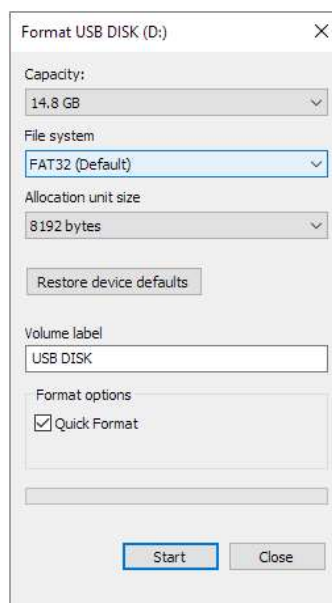

How to format on Windows

On Windows, this is very simple. Locate your USB drive or SD card in my computer, right-click, and choose format.

A new small window will pop up. Most of the time you can simply leave everything to default, but the most important thing is that the **File System is set to FAT32.** This and the Volume Label (Name of the drive) is the only thing you want to touch here. Click Start and your drive will be formatted in a matter of seconds.

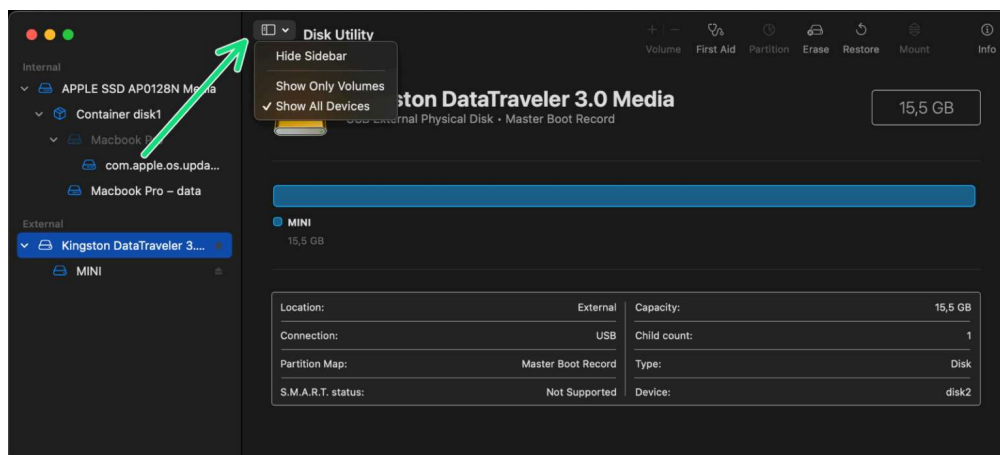> ❗ Formatting any drive will delete all the content of the drive! Back up your stuff!

> 💬 If the USB stick will not work even after this procedure, it is either broken or its "partitioning scheme" is set as GPT, which is incorrect. **It must be set as MBR (Master Boot Record).** For how to change this, please see Microsoft's official documentation.

How to format on Mac

On Mac, it is a few more steps, but still very accessible. Again, you want to choose **FAT32 as your file system**, but you also have the option of changing the "partitioning scheme", which **should always be MBR (Master Boot Record).**
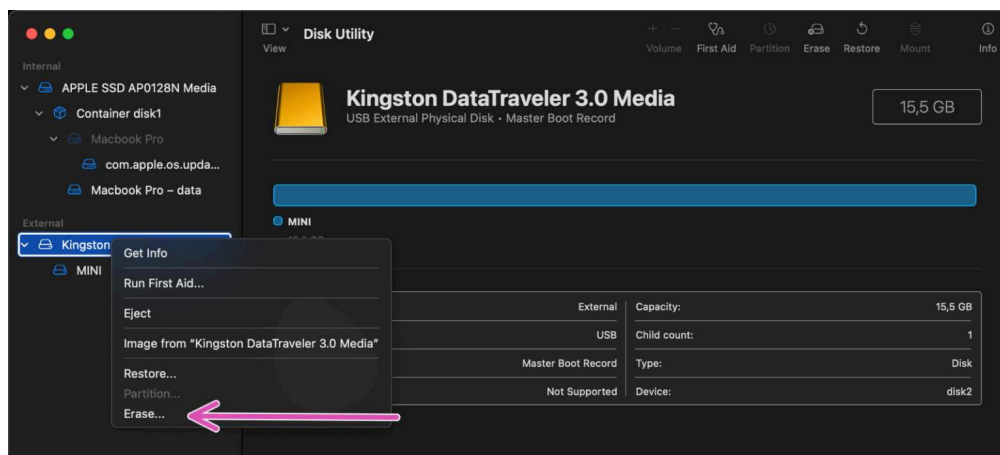
> ❗ This process deletes all content from the drive.

1. Plug the USB drive or SD card into your Mac.

2. Go to *Applications -> Utilities* and launch *Disk Utility.*

3. Click on the icon in the top-left (green arrow) and select "Show All Devices" from the drop-down menu.
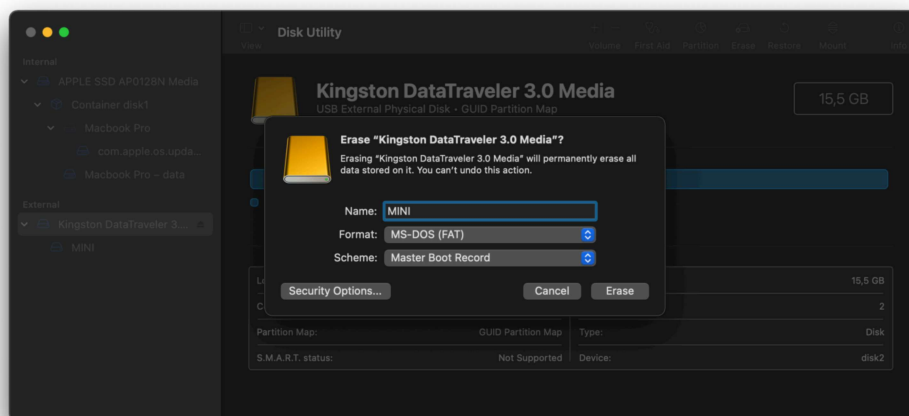
macOS Big Sur 11.6

4. Right-click on the USB drive/SD card in the sidebar under "External". *Select the top entry for your drive, not a partition located below.*

5. Select Erase in the Disk Utility-toolbar (purple arrow).

macOS Big Sur 11.6

6. Enter a name for the formatted disk.

7. Click on the Format menu and choose MS-DOS (FAT).

8. Make sure the Scheme is set to "Master Boot Record".

macOS Big Sur 11.6

9. Click Erase.

10. Your USB drive will now be erased and re-formatted correctly.

> ℹ️ If your SD card is not detected by the printer at all, be sure to check out SD card not working for further information.

20 comments

Log in to post a comment

craikan · 18 days ago

Ahoj, mám problém s Prusa MINI+, pokud mám flashdisk připojený k tiskárně a je jedno zda zkouším flashovat firmware nebo je prázdná, vždy dostanu chybu: ERROR #12613
Když chci tisknout nějaký gcode, tak je tiskárna ani nevidí, včetně složek.
Prostě musím vždy při zapnutí/restartnutí odpojit flashku, aby to naběhlo.

Bootloader 2.3.4
Firmware 5.1.2+13478

Kdo poradí? Děkuji všem!

Reply

VINNIE3000 · about 1 year ago

Hey I have tried so many things but am still unable to flash the firmware on my mini. I am getting frustrated!Bootloader 1.1.0. Firmware 4.3.4.I tried: multiple USB Sticks including formatting according to Article (Disk Utility on MAC) and the suggested SD Card Formatter as in the comments. Nothing works so far, MINI always just boots 4.3.4. and does not seem to recognise the boot files.Please help!

Reply

Sajo · about 1 year ago

Did you get any answers ?I have exactly same problem, except I have even older firmware 4.05.

Reply

David B. · about 1 year ago

Hi! To update the firmware from 4.0.5, try this: First update to 4.3.4. Then, update to 4.4.0 (use BOTH .bbf files. Then, update to the latest 5.xx version. (select the bbf file with the language selection you prefer).
To start the update, insert the USB drive with the corresponding firmware file/ files, restart the printer and keep clicking the encoder wheel until the printer shows the FW update screen.

Reply

Amatér35 · about 1 year ago

Mám MK4 (11/2023), přes WiFi jsem přenášel soubor do tiskárny (ne poprvé), najednou se dodaný USB stál nečitelný a nenaformátovaný, USB byl správně zasunutý, předtím jsem tiskl. V PC (Win11) jsem musel USB naformátovat a ze zálohy zpátky nahrát soubory. Další tisky byli OK. Nechápu, jak se to mohlo stát. Jsem první nebo již někdo má obdobnou zkušenost ?

Reply

Jakub Dolezal · about 1 year ago

Dobrý den, je možné, že se něco pokazilo při zápisu na flashku a systém ji pak vyhodnotil jako poškozenou. Osobně jsem to u nás nezažil a to mi rukama prošly desítky kusů. Nicméně, pokud by se to stalo znovu napište na podporu a kolegové na to kouknou :)

Reply

superjubi · about 1 year ago

I need help. The SD card is formatted correctly, and I always click "eject" every time I remove it from my computer (Windows 10). And my Prusa MK3S can always read the card. But sometimes, when I remove the card from the printer and put it in my laptop, Windows can't read it. It doesn't appear in the file explorer, but it does appear in the device driver list, with an error symbol, and I have to remove it from there and restart the computer. That fixes it. The guide says they can't help with it not appearing in Windows file explorer, but it has to be something the Prusa printer does to the SD card, because I always click eject.

Reply

Hunterprime · about 2 years ago

Quick question, when I have dealt with SD cards before for electronic Synths it was strongly suggested to use the SD Association format tool due to a large difference in performance between formated SD's vs OS formatted. Is it similar story for 3D printing? https://www.sdcard.org/downloads/formatter/

Reply

> ⬡ **Jakub Dolezal** · almost 2 years ago
>
> Hi, I have formatted over the years multiple SD cards and always used the OS native tool (Windows, macOS, Linux).
>
> Reply

Show older comments

Leave a comment

Blog

Flash
Contes
ts
Theme:
Fridge
Repairs

Newsletter

Signup and get our **monthly** squeeze on updates, blog, printables and much more.
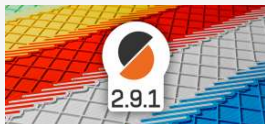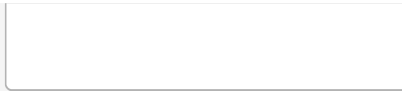
E-mail

⬡ **Printables**

Practical movie effects: Sara Villareal & Studio Gillis

Prusa Firmware Dev Diary – Regressive Extrusion Preview

PrusaSlicer 2.9.1: Smarter Sequential Printing & Stronger Multi-Material Interlocking

I would like to receive the e-book "Basics of 3D Printing" as a gift

By clicking, you agree to receive our newsletter.

Subscribe

This site is protected by reCAPTCHA Enterprise and the Google Privacy Policy and Terms of Service apply.

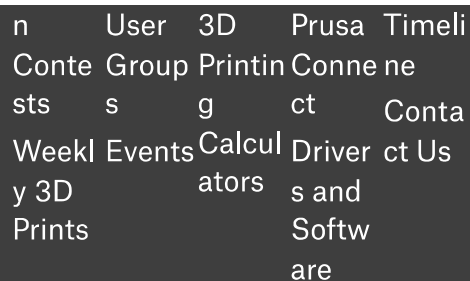**Ultra Compact Mini Whistle 100 dB on your Keychain**

PRUSA RESEARCH by JOSEF PRUSA

n Contests
User Groups
3D Printing
Prusa Connect
Timeline

Weekly 3D Prints
Events
Calculators
Drivers and Software
Contact Us

General Terms and Conditions

General Terms and Conditions of Use of the PRUSA Websites

Privacy Policy

Information about cookies

Status Page

PRUSA RESEARCH by JOSEF PRUSA

General Terms and Conditions
 | General Terms and Conditions of Use of the PRUSA Websites
 | Privacy Policy
 | Information about cookies
 | Status Page
 | Cookie settings
 | Supplemental Statements

© Prusa Research a.s.