

Bitmain has closed the ability to install third-party firmware starting from March 2024, you need to downgrade the factory firmware to an earlier version in order to install the VNISH firmware

For the L7 and 19 series you can download stock SD recovery image for the required miner model and control board type (Xilinx, amlogic, BB, cvitek) from [our website](#) and then use the **VNISH TOOLKIT** to flash without an SD card directly to NAND.

- For the 21st series this archive contains a stock bitmain recovery image for S21, T21(amlogic, cvitek) and S21hydro from February 2024.
- For Amlogic S21+/S21pro/S21xp/S21_imm/S21xp_imm models you need to use the sd image from S19xp.
- For Xilinx S21+hydro, S21xphydro, and T21 models you need to use the sd image from S21Hydro.

After installing the image, you can install the vnish firmware using the toolkit.

1. You must use a flash drive or SD card with a capacity of up to 32GB and must format it in FAT32 format. It is not recommended to use an SD card with an OTG adapter for AMLOGIC control boards instead of a flash drive .
2. Unpack the archive for your type of control board into the root of the flash drive (SD card).
3. Connect an SD card or OTG adapter with a flash drive to the turned off miner .
4. Turn on the power of the miner and wait for the green LED on the front panel to light up (and remain constantly lit) miner This will mean that the firmware process was completed successfully. This process takes no more than one minute.
5. Turn off the power of the miner and remove the SD card or OTG adapter with a flash drive from the control board.
6. Turn on the miner's power and wait for it to boot, after that, using the VNISH [TOOLKIT](#), following the instructions in the archive with the utility, install the firmware. If the miner was flashed with S19xp/S21hydro firmware in paragraph 8 of the toolkit tutorial you must manually specify the model of your miner in the "Miner model" field. If there is no required model, then you must leave DETECT AUTOMATICALLY and the firmware for S19 XP/S21hydro will be installed. In this case, you will additionally need to update the vnish firmware via the Web interface for your control board model and type by downloading the web nand update version from our website [vnish.ru](#)