# NiceHash Miner

## Custom Firmware Upgrade



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## Read before continuing

In this guide, we will show you how to upgrade S17+, T17+, S17, S17 Pro, T17, and S9 to **NiceHash custom** *firmware* and how to set **overclocking profiles.** 

There are few prerequisites needed to upgrade to NiceHash custom firmware:

- MicroSD card (16GB or less is recommended),
- Card reader,
- Computer,
- S17+, T17+, S17, S17 Pro, T17, or S9 ASIC device,
- Custom firmware and SD files can be found on our Download Center or can be downloaded from your **Mining dashboard.**

To download custom firmware files, navigate to **NiceHash Dashboard > Mining > DOWNLOAD MINER OR ADD ASIC > Connect your ASIC device**, then select your ASIC model and download **firmware** or **firmware + SD unlock files**.

#### Read before continuing!

If you are using **November 2019 or later versions,** you are required to flash the ASIC with SD card because Bitmain implemented a signature check which only allows you to upgrade official Antminer firmware **(Flashing the ASIC with SD cards).** 

Note that you are not required to upgrade the firmware via web interface if you flash your ASIC with an SD card. Firmware will be upgraded automatically.

If you are using firmware that was released before **November 2019**, then you can just use the firmware files and **upgrade it via the web interface (Upgrading the ASIC to NiceHash custom firmware).** 

Note that you are not required to flash the ASIC with SD card if your firmware is older than November 2019.

DISCLAIMER: NiceHash does not take any responsibility in case your device is damaged during the firmware upgrade process.

## Flashing the ASIC with SD cards

This is important, as the firmware will not be able to be loaded if you are using a firmware from November 2019 onwards.

If you ASIC uses firmware from before November 2019, you can skip the SD flashing steps.

Follow these steps to **flash your ASIC with SD card:** 

1. Insert the SD card into your computer and format it with FAT32,

Capacity:	
14,5 GB	~
ile system	
FAT32 (Default)	~
llocation unit size	
8192 bytes	~
/olume label	
/olume label SD CARD	
folume label SD CARD Format options	
/olume label SD CARD Format options	
/olume label SD CARD Format options ☑ Quick Format	

2. Unzip the files for flashing and **copy the contents on the SD card** (make sure you select the correct files based on your ASIC model),

				F
ze	Туре	Date modified	Name	
	File folder	05/06/2019 19:48	🔄 bin	Y Quick access
2.687 KB	BIN File	22/01/2019 22:42	BOOT.bin	dive Cloud Files
8 KB	DTB File	27/08/2018 15:38	devicetree.dtb	
3.913 KB		22/01/2019 22:42	📄 ulmage	- Olieblive
26.490 KB	WinRAR archive	22/01/2019 22:42	🧱 uramdisk.image.gz	💻 This PC
	DIB File File WinRAR archive	22/08/2018 15:38 22/01/2019 22:42 22/01/2019 22:42	devicetree.dtb ulmage uramdisk.image.gz	<ul> <li>OneDrive</li> <li>This PC</li> </ul>

3. Safely remove the SD card from your computer and insert it in the control board on your ASIC device,



- 4. Turn on the ASIC and wait for **3-5 minutes** for the flashing to complete (red and green lights will blink once the flashing is completed),
- 5. Turn off the ASIC and remove the SD card,
- 6. Turn the ASIC back on and search for the ASIC on your network.

Note that the ASIC could have a new IP address at this point and the NiceHash custom firmware will be already installed.

## Upgrading the firmware to NiceHash custom firmware

To upgrade the firmware via web interface follow these steps:

- 1. Login to Antminer web interface,
- 2. Navigate to System > Upgrade > Flash new firmware image
- 3. Click on the **Choose File** and select the previously downloaded **NiceHash custom firmware** in your download folder (double-check that you used the correct firmware version!),
- 4. Enable Keep Settings checkbox,
- 5. Click on Flash Image.

( IMINER		
System Miner Configuration Miner Status Network		
Overview Administration Monitor Kernel Log Upgrade Reboot		
Upgrade		
Backup / Restore - Click "Generate archive" to download a tar archive of the current configuration files. To reset the firmware to its initial state, click "Perform reset" (only po	ussible with squashfs images).	
Jownload backup:		
Reset to defaults:	Perform reset	
To restore configuration files, you can upload a previously generated backup archive here.		
Restore backup:	Browse Upload archive	
Flash new firmware image Upload a sysupprade-compatible image here to replace the running firmware. Check "Keep settings" to retain the current configuration.		
Keep settings:		
Image:	Browse Drash image	
	Copyright © 2013-2014, Bitmain Technologies	

### Point a miner to NiceHash

Open your devices web interface and follow these steps to **point the miner to NiceHash:** 

Note that these steps are for SHA256 ASIC miners only.

- 1. Navigate to Miner Configuration > General Settings,
- 2. Type **stratum+tcp://sha256asicboost.eu.nicehash.com:3368#xnsub** in the URL field. Note: **#XNSUB** enables extranonce subscription. It allows NiceHash to let the miner know when it will be switched to another order,
- 3. Type your BTC wallet address and worker name in **Worker** field. *Example: 3FkU45xV3zynHr2N91ANv7TA26J4iFkqpM.worker1*,
- 4. Type **x** in the password field,
- 5. Repeat the steps in **Pool 1** and **Pool 2** but use different stratum locations,
- 6. Click **Save** on the top right part of the screen.

<b>8</b> пісе <b>назн</b>		Find Miner Stop CGMiner Restart CGMiner Reboot
System Miner Configuration Miner Status Network Config multiplier DevFee		
General Settings Mining profiles Chain Freq Settings Chip Freq Settings		
Miner General Configuration		Reset PreSave Save
Pool 0		
URL	stratum+tcp://sha256asicboost.eu.nicehash.com:3368#xnsub	
Worker	3FkU45xV3zynHr2N91ANv7TA26J4iFkqpM.Worker1	
Password	x	
Pool 1		
URL	stratum+tcp://sha256asicboost.usa.nicehash.com:3368#xnsub	
Worker	3FkU45xV3zynHr2N91ANv7TA26J4iFkqpM.Worker1	
Password	x	
Pool 2		
URL	stratum+tcp://sha256asicboost.in.nicehash.com:3368#xnsub	
Worker	3FkU45xV3zynHr2N91ANv7TA2634iFkqpM.Worker1	
Password	X	
		Reset PreSave Save

## Select mining overclock preset

Open your devices web interface and follow these steps to **select a preset profile:** 

- 1. Navigate to Miner Configuration > Mining profiles,
- 2. Find **Preset** drop-down menu on the top part of the page,
- 3. Select the profile you want to use,
- 4. Click **Save** on the top right part of the screen.
- 5. Wait between 10-45 minutes on average for the machine to finish auto-tuning.

в пісеназн		Online 1110	Find Miner Stop CGMiner Restart CGMiner Reboot
System Miner Configuration Miner Status Network Config General Settings Mining profiles Chain Freq Settings Chip Freq S	multiplier DevFee		
Mining Profiles Configuration			Reset Clear log <u>HR</u> / HW PreSave Save
Timer: 5 / 15   44 < 50%   75 > 50% & < 85%   86 > 85% & < 120%	<u>133</u> > 120%		
Profile Preset	Profile 53Th @ 600MHz [tuned]		
Fan rpm check (For Immersion)	Disabled		
Disable restart after X times (0 - disabled)	Profile 44Th @ 500MHz		
Restart if hashrate lower: (0 - disable)	Profile 53Th @ 600MHz [tuned]		
Disable chains at CHIP temperature (0 - default, 90C) Target CHIP temp (0 - default, 75C)	Profile 57Th @ 550MHz Profile 61Th @ 700MHz		
Manual Fan RPM config	Profile 661h @ 750MHz Profile 70Th @ 800MHz		
Quiet fan mode at startup	Profile 73Th @ 825MHz		
AsicBoost	Pronie /Sin @ 850MHz		
Disable 'UNBALANCED' restart	OFF		
Disable voltage check	099		
Downscale profile on fail autotune	440		
Downscale profile on overheat	OPP		
Chip warmup disable	940		
Reset profile	OFF		

When it is done your hashrate will stabilize. **Machine reboots are normal during this stage.** Also, be mindful to choose a reasonable overclock given your cooling situation. Most users should use a **10-25%** overclock over their factory settings for easy trouble-free setup.





