

Snow Leopard Miner

B1+ User's Guide

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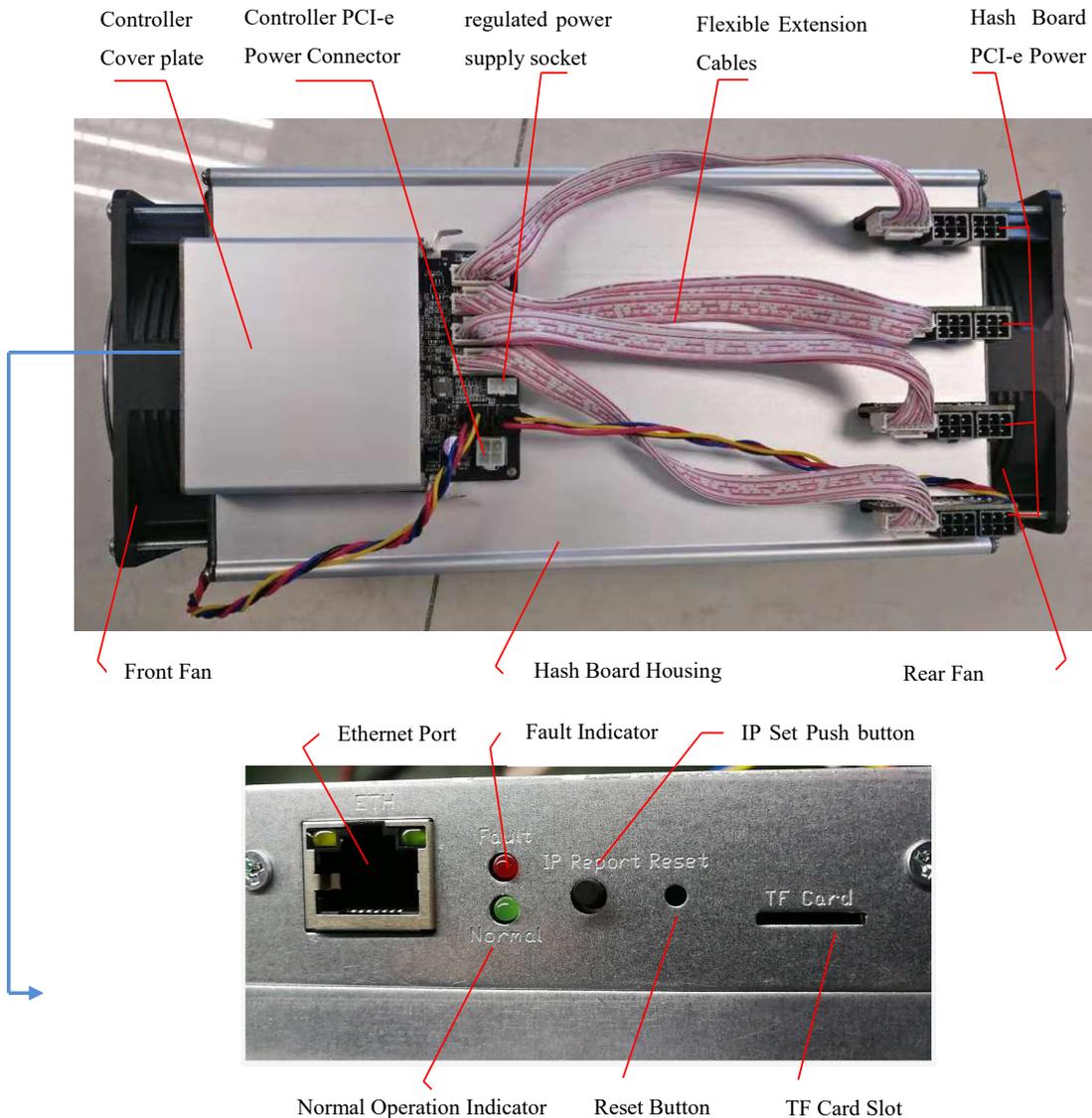
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1. Product Overview

The miner B1+ is Bitfily's new version in the Snow Leopard Miner series. It boasts an advanced ASIC chip using 10nm technology and complies with restrict and reliable design and manufacturing standards, completely surpassing the mainstream miners in the current market.

1.1 Miner B1+'s components

The miner B1+'s main components and controller front panel are shown in the following figures:





Functional Description

- ETH port is used to connect the Ethernet cable.
- The red and green lights indicate the operation status of the miner. When the green light twinkles, it indicates OK; when the red light keeps on, it indicates fault.
- Press and hold IP Report button from 2 seconds to 8 seconds to get the IP address of the miner. from 8 seconds to 15 seconds to change the IP mode, from dynamic address to static state address, or the opposite.
- Press and hold Reset button more than 3 seconds to restore the default settings of the miner.



Warning

1. Do not touch the rotating fan blades in case of personal injury.
2. Standard B1+ power supply is recommended to avoid damage to B1+ Miner or any safety accident.
3. The maximum power consumption of B1+ Miner is about 2250W. Please confirm whether your power socket meets the power requirements of the mining machine.
4. Do not spill water or other liquids onto B1+ Miner, especially the non-shell parts.

1.2 Specifications

ASIC chip	BFL1001-32core	Hash rate	24.5T±5%
quantity of chips	288PCS	Hash rate of a chip	86.7GH/s
Energy efficiency of chip	0.09J/GH	Power consumption of chip	7.5W/0.405V
Wall -power consumption	2100W+10%	Rated voltage	14.5~15.5V (Hash Board) 12V (Controller Board)
Operating ambient temp.	0°C~40°C (32°F~104°F)	Operating ambient humidity	5%RH~95%RH, non-condensation
Network linking	10/100/1000MBase-T	Dimensions	(L)390mm*(W)149.5mm*(H)185mm
Noise	75dB	Net weight	8.5Kg

2. Starting Your Miner

2.1 Preparatory Work

Prepare a network cable, a Miner B1+, a power supply unit, an AC power cord and a computer.

2.2 Connecting the Power Supply

Ten PCI-e connectors are located at the top of the Miner B1+ for connecting the PSU. Nine PCI-e connectors are for the hash boards and each hash board has a set of three PCI-e connectors. One PCI-e connector located on the controller is for the controller. (See figure 1 in part 1.1)

To connect the power supply:

- 1) Connect PSU power cable connectors to each of the eight PCI-e connectors on the top of the miner and the PCI-e connector on the controller.
- 2) Connect the network cable to the ETH port.
- 3) Check whether the flexible extension cables and the fan connection cable and regulated power supply socket on the top of the miner are connected properly.
- 4) After all cables have been connected correctly, connect the AC power cord to the power outlet.

After connecting the power supply, please check whether the miner operates as follows:

- 1) the front and rear fans operate normally;
- 2) the green light on the controller twinkles;
- 3) the green light on the ETH port keeps on and the orange one twinkles;
- 4) the blue lights on the three sets of hash board PCI-e connectors keep on.

If the miner runs normally, you can move to the next step. If not, please troubleshoot the miner.

3. Setting Up Your Miner

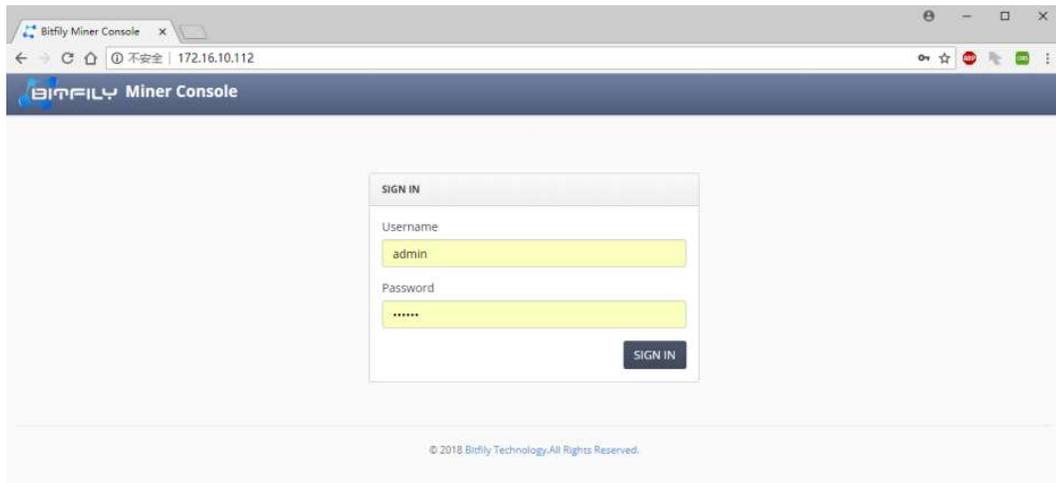
- 1) Go to this site: <https://pan.baidu.com/s/1c2HEX6w>.
- 2) Download the file: IP-Reporter.rar
- 3) Extract the file.
- 4) Install JAVA run time environment (if it is installed, skip this step): run JavaSetu p8u151.exe
- 5) Run the file: IP-Reporter.exe
- 6) Press the **IP Set** button for more than two seconds and then the IP address will be displayed in the IP-Reporter interface.



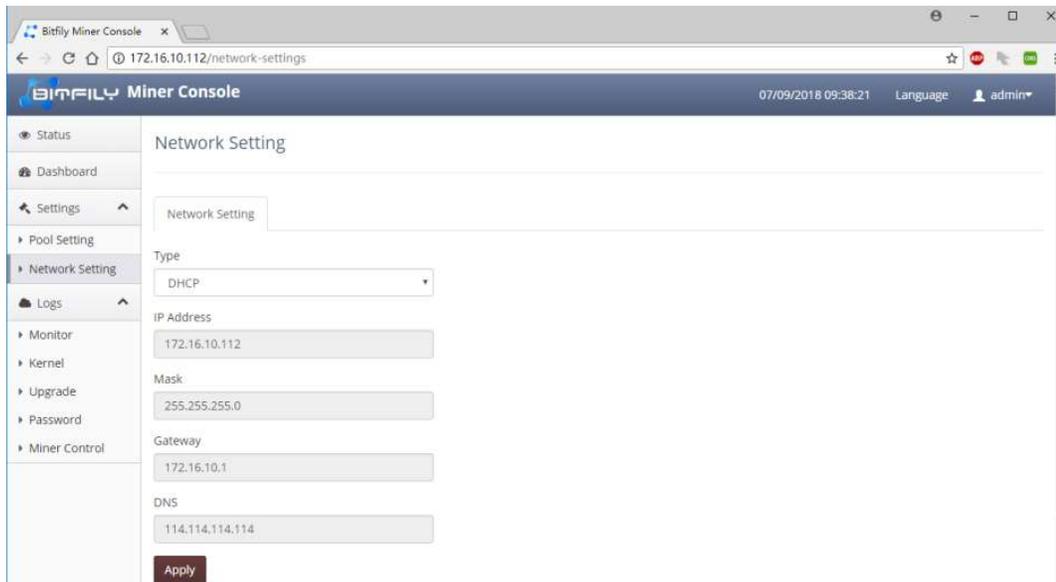
Statement

- The file IP Reporter.zip is supported by Microsoft Windows only.
- The default DHCP network protocol distributes IP addresses automatically.
- The computer should be connected to the same LAN as the miner.
- If the IP report function is broken, maybe you should turn off firewall.

- 7) In your web browser, enter the IP address provided and proceed to login using the username “admin” and password “123456”.



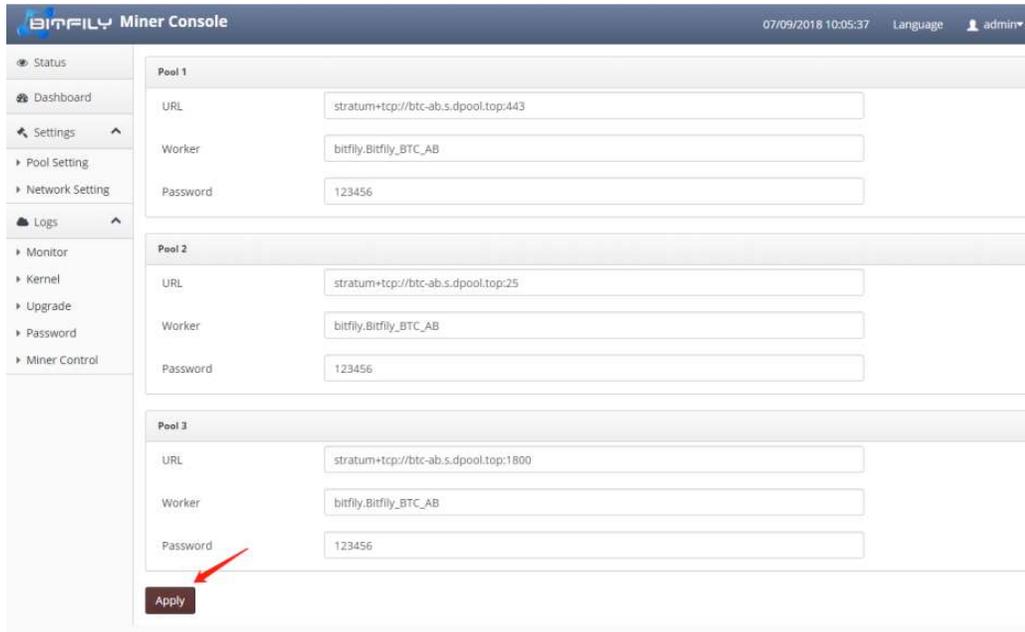
- 8) In the **Network Setting** of Settings section, you can assign a Static IP address (optional).



- 9) **Setting up the pool.** Click the Pool Setting in Settings section to set the options. Take the Dpool as an example:

- ◆ Pool URL: btc-hn.s.dpool.top
- ◆ Port: 443 / 25 / 1800
- ◆ Worker: set up according to the sub-account you create on the pool
- ◆ Password: arbitrary password

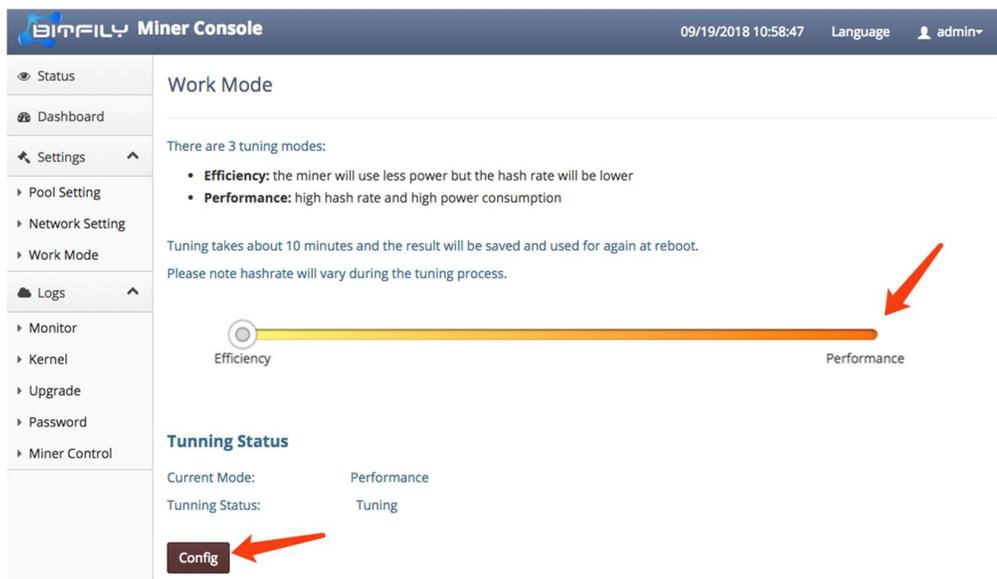
After finishing the three settings, click Apply button.



Statement

- The Miner B1+ only supports the mining of pools using ASIC BOOST technology. The Dpool is recommended.
- The pool URL should use the node address where the miner is placed.

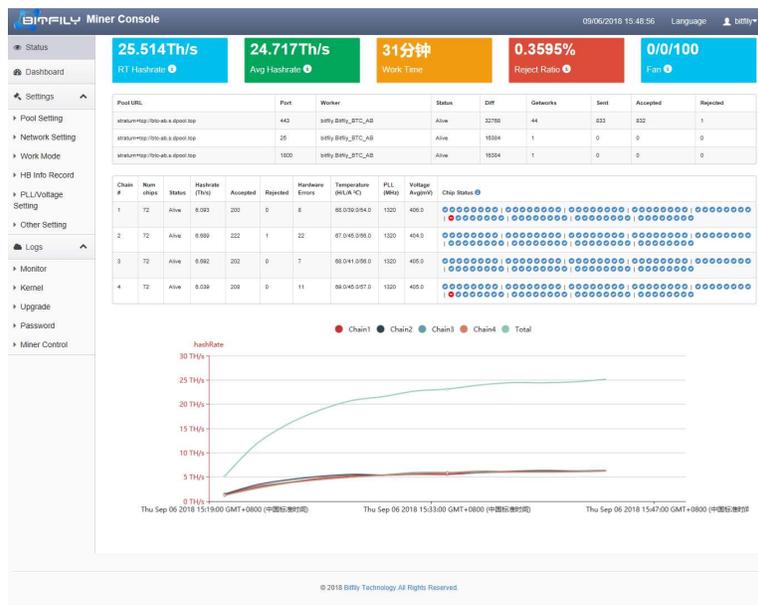
10) In the **Work Mode** of Settings section, you can set up the work mode of the miner between Efficiency and Performance.



After finishing the three settings, click Config button.

4. Monitoring Your Miner

- 1) Click **Miner Status**.
- 2) Monitor your miner through the followings:
 - ◆ Real-time hash rate: it shows the real-time hash rate of the miner in one minute.
 - ◆ Average hash rate: it shows the average value of hash rate produced by the operating miner.
 - ◆ Working hour: it shows the uptime of the miner.
 - ◆ Fan: it respectively shows the rotating speeds of the front and rear fans as well as the duty cycle.
 - ◆ Curve graph: it shows the hash rate fluctuation of corresponding hash board from the moment it starts to work to the moment you check it.



5. Administering Your Miner

- 1) Check your software version in **Dashboard** section.

In the example below, the miner is using software version: B1+_20180917_143358

The screenshot shows the Bitfily Miner Console interface. On the left is a navigation menu with options like '矿机面板', '设置', '日志管理', '监控日志', '内核日志', '固件升级', '密码管理', and '矿机控制'. The main content area is titled '矿机面板' and displays system information in a table:

Miner Model	B1+
矿机类型	B1+
SN	B1+
序列号	B1+
OS	Linux
操作系统	Linux
Hardware Version	b20
硬件版本	b20
Kernel Version	Linux Bitfily 4.14.0-xilinx #1 SMP PREEMPT Mon Sep 17 14:30:14 CST 2018 armv7l GNU/Linux
内核版本	Linux Bitfily 4.14.0-xilinx #1 SMP PREEMPT Mon Sep 17 14:30:14 CST 2018 armv7l GNU/Linux
Software Version	b1+_20180917_143358
软件版本	b1+_20180917_143358
Release Date	20180917
版本发布时间	20180917
Uptime	1小时 15分钟
运行时间	1小时 15分钟
Load Average	0.02 0.03 0.00 1/99 3343
平均负载	0.02 0.03 0.00 1/99 3343

On the right, there are three donut charts for '内存(MB)' (Memory) showing usage (89), available (177), and cache (37). Below these are network settings for '网络' (Network):

Type	dhcp
类型	dhcp
IP Address	172.16.10.111
IP地址	172.16.10.111
Physical Address	00:BF:B1:11:43:E4
物理地址	00:BF:B1:11:43:E4

2) Upgrade your firmware

In **Upgrade** of Logs section, select a **.swu** formatted file and then click **Upgrade** button.

The screenshot shows the 'Upgrade' page in the Bitfily Miner Console. The left navigation menu has 'Upgrade' selected. The main content area is titled 'Upgrade' and contains the following text:

System Upgrade

Please select the firmware file in your local computer then upload it to the miner by clicking 'Upgrade Firmware' button

Note: The firmware is a .swu formatted file, other formats are not supported.

Upload Progress :

Upgrade Progress :

Upgrade Status :

Upload .swu format file: 未选择任何文件



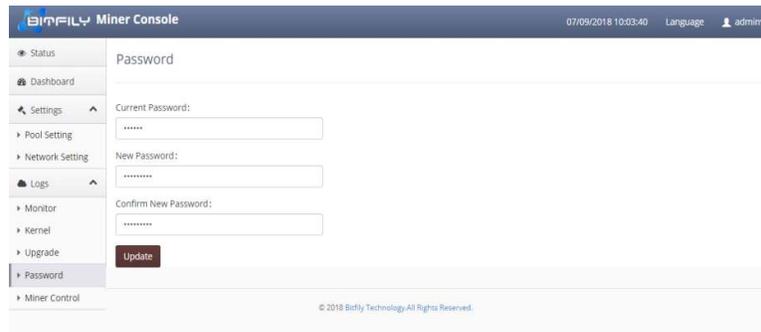
Statement

- When the upgrade is complete, the miner system will reboot. Therefore, you need to refresh the interface to log in again.
- The Monitor and Kernel in Logs section are designed for technicians to troubleshoot.
- Make sure that the miner remains powered during the upgrade process.

3) Modifying your password

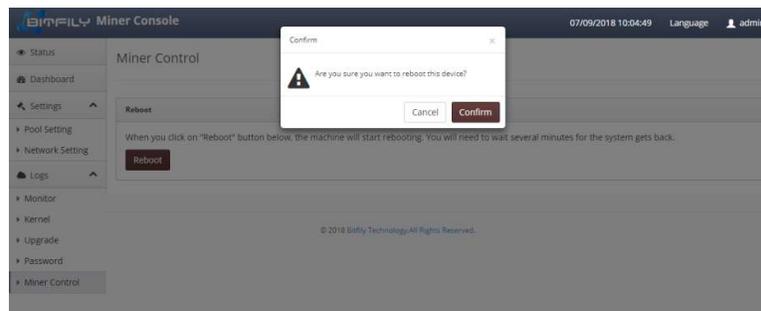
In **Password** of Logs section, input your current password and new password and then click

Apply button to modify your password.



4) Reboot your miner

In **Miner Control** of Logs section, click Reboot button and Confirm button, the miner will reboot immediately.



Statement

In reboot process, the Miner Console is unavailable. After the reboot is complete, you can log in again.