

BITMAIN

AntMiner S2 Manual

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1 Overview

AntMiner S2 is a chassis style 1TH/s bitcoin miner with PSU. It has been assembled before Fab out.



1000W PSU: when you set up AntMiner S2, only need to connect to AC 220V/50Hz or 110V/60Hz.
LCD screen: here show IP Address, Hashrate, the highest temperature. There are also Status LEDs, Reset button and Beeper on the screen.

All 5 fans for cooling, 4 bigger fans, one small fan.

Casing size: 442mm*432mm*177mm, which is suitable to install in the server cabinet.

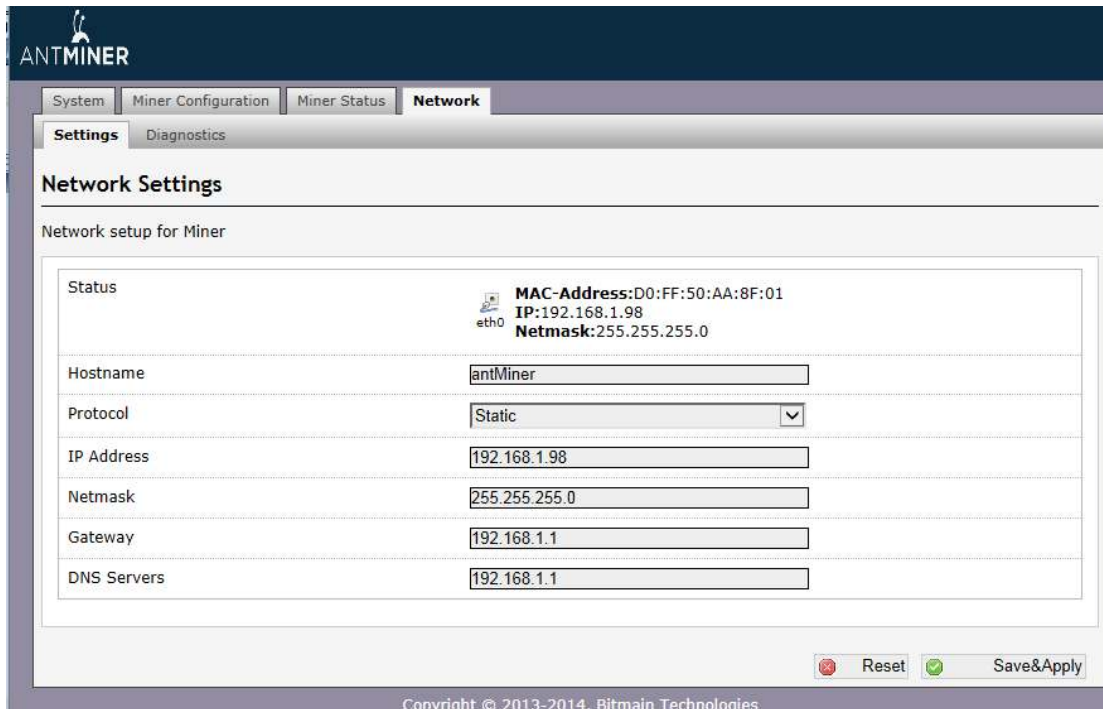
2 Connect to Miner

Step 1. Manually set up your PC's IP address in the network segment same as the miner's IP address. Default IP address of S2 is 192.168.1.99 by default, set up PC's address to 192.168.1.x.

Step 2. Connect miner and your PC via network cable.

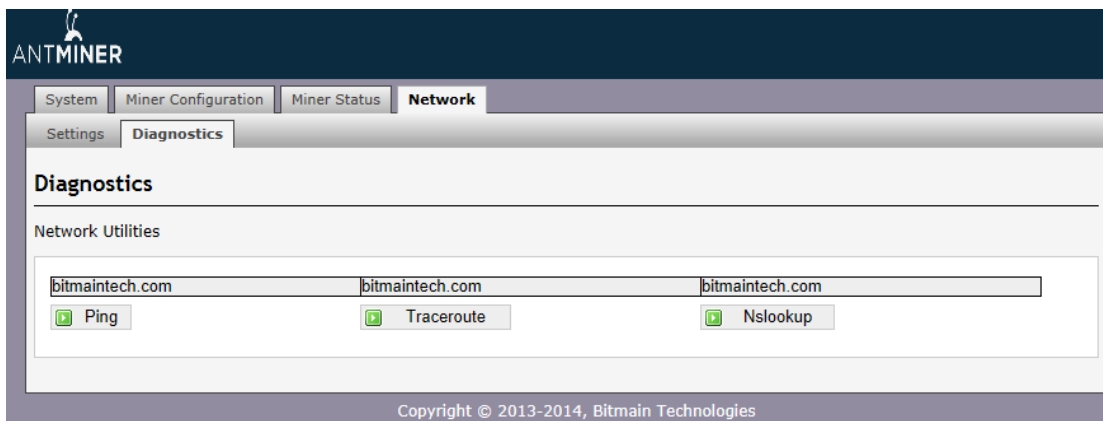
Step3. Enter miner's IP address into your web browser, then login miner management interface, both of username and password is 'root' by default.

Through 'Network', you will be able to modify AntMiner IP address, and choose 'Save and Apply' after modifying it.



The screenshot shows the 'Network Settings' page in the AntMiner web interface. The page has a dark blue header with the 'ANTMINER' logo and navigation tabs for 'System', 'Miner Configuration', 'Miner Status', and 'Network'. Under the 'Network' tab, there are sub-tabs for 'Settings' and 'Diagnostics'. The 'Settings' sub-tab is active, displaying 'Network Settings' for the 'eth0' interface. The status section shows: MAC-Address: D0:FF:50:AA:8F:01, IP: 192.168.1.98, and Netmask: 255.255.255.0. Below this, there are input fields for Hostname (antMiner), Protocol (Static), IP Address (192.168.1.98), Netmask (255.255.255.0), Gateway (192.168.1.1), and DNS Servers (192.168.1.1). At the bottom right, there are 'Reset' and 'Save&Apply' buttons. The footer contains the copyright notice: 'Copyright © 2013-2014, Bitmain Technologies'.

Through Diagnostics page, you can check your network connection.



The screenshot shows the 'Diagnostics' page in the AntMiner web interface. The page has a dark blue header with the 'ANTMINER' logo and navigation tabs for 'System', 'Miner Configuration', 'Miner Status', and 'Network'. Under the 'Network' tab, there are sub-tabs for 'Settings' and 'Diagnostics'. The 'Diagnostics' sub-tab is active, displaying 'Diagnostics' for 'Network Utilities'. There are three input fields, each containing 'bitmaintech.com', with buttons for 'Ping', 'Traceroute', and 'Nslookup' below them. The footer contains the copyright notice: 'Copyright © 2013-2014, Bitmain Technologies'.

3 Pool Setting

Through 'Status->Miner Configuration', you will be able to configure your miner.

Pool URL-In this field you should enter the URL of your desired pool.

Worker- This is your worker ID on the selected pool.

Password- This is the password for your selected worker.

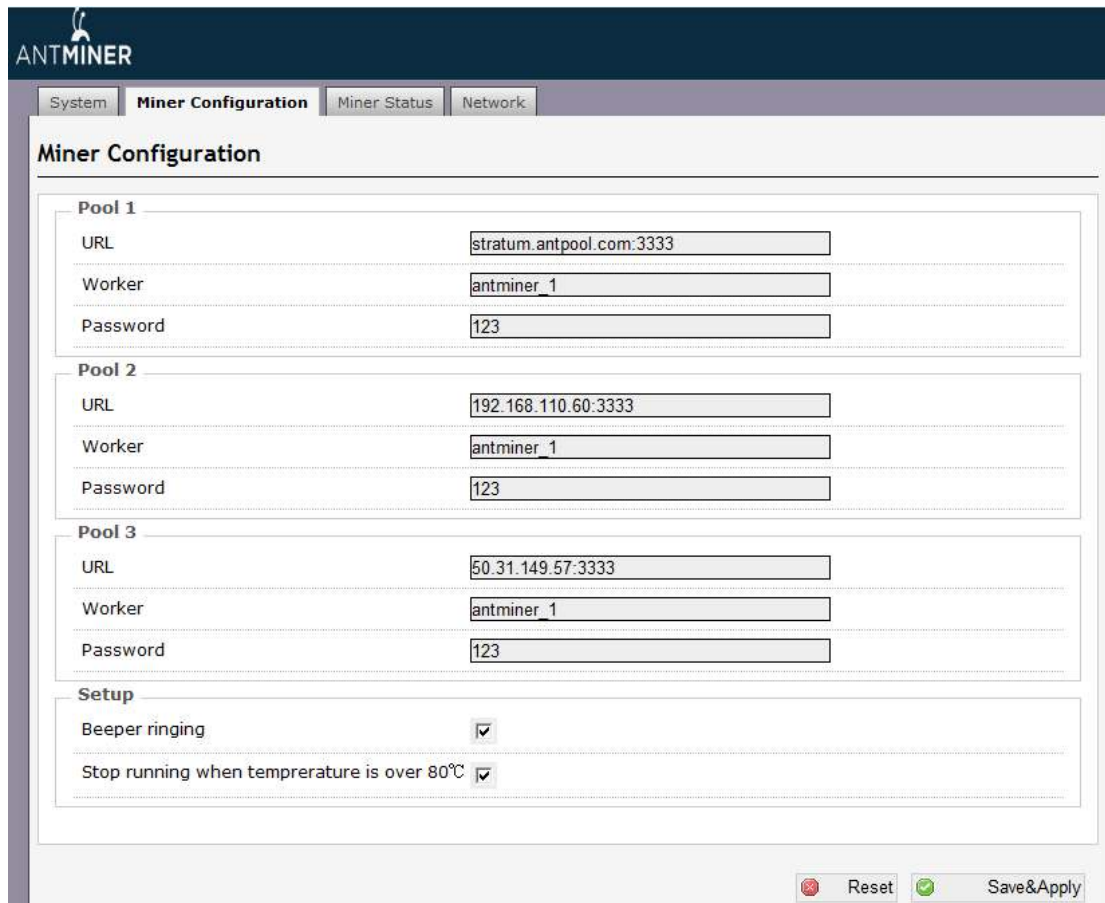
Comment:

2.3.1 AntMiner can setup three mining pools, the priority decreases from first pool (pool 1) to third pool (pool 3). **The low priority pool will start to work, only when the high priority pool encounter fault.**

2.3.2 When 'Beeper ringing' is chosen, beeper is to alert once the miner stops mining, otherwise beeper won't alert, even if the Miner stops mining.

2.3.3 When 'Stop running when temperature is over 80°C' is chosen, Miner won't mine if the temperature is over 80°C' to protect the miner. If it's not chosen, the Miner will continue mining even in high temperature.

Click 'Save & Apply' to save and restart miner.

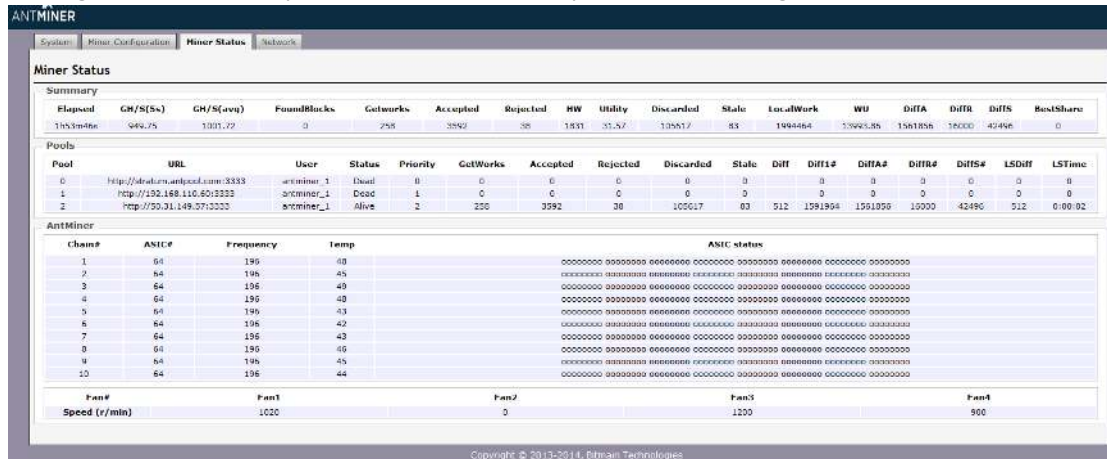


The screenshot shows the 'Miner Configuration' page in the AntMiner web interface. It features a navigation bar with tabs for 'System', 'Miner Configuration', 'Miner Status', and 'Network'. The 'Miner Configuration' tab is active. Below the navigation bar, there are three sections for configuring mining pools (Pool 1, Pool 2, and Pool 3). Each pool section contains input fields for 'URL', 'Worker', and 'Password'. Pool 1 is configured with URL 'stratum.antpool.com:3333', Worker 'antminer_1', and Password '123'. Pool 2 is configured with URL '192.168.110.60:3333', Worker 'antminer_1', and Password '123'. Pool 3 is configured with URL '50.31.149.57:3333', Worker 'antminer_1', and Password '123'. Below the pool sections, there is a 'Setup' section with two checkboxes: 'Beeper ringing' and 'Stop running when temperature is over 80°C', both of which are checked. At the bottom right of the configuration area, there are two buttons: 'Reset' (with a red 'X' icon) and 'Save&Apply' (with a green checkmark icon).

4 Miner Status

4.1 Miner Status web page

Through 'Miner Status', you will be able to check your miner running status.



ASIC#: ASIC number in the chain

Frequency: ASIC setting frequency

Temp: Temperature, centigrade

ASIC status: o stands for OK, x stands for error.

4.2 LCD Screenshot



IP address: 192.168.1.98.

Hash rate: 1255.82 GH/s, average speed every one minute.

Temperature: the maximum value among all collected data.

4.3 LED and beep

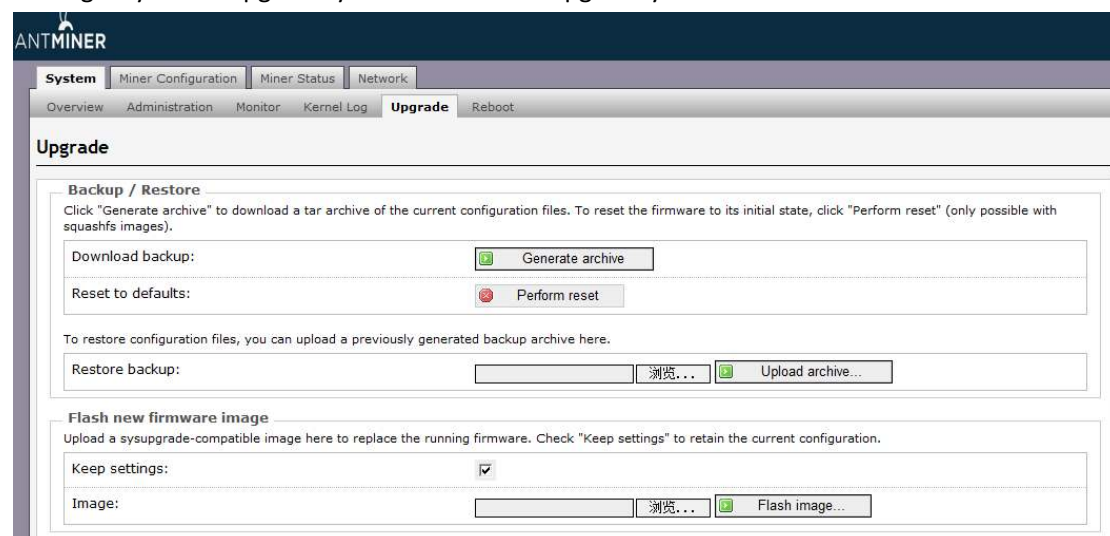
4.3.1 When the miner is running well, green LED flashing with 1 second interval. If network is off for more than one minute, Green LED will be off and beeper rings.

4.3.2 Red LED is Fault alert, which keep off when miner is running well. When the temperature is higher than 80 Degree Celsius and some fans are spinning up, red LED flashing with 1 second interval; when the temperature is higher than 80 Degree Celsius and all fans are not spinning up, red LED keep lighting and beeper rings.

5 System Configuration and Status

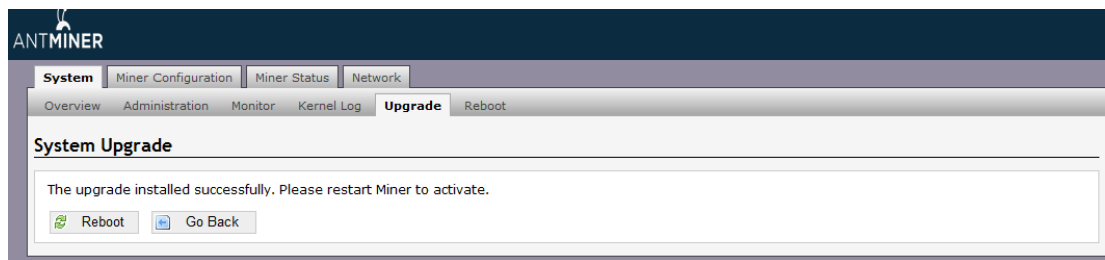
5.1 System Upgrading

Through 'System->Upgrade' you will be able to upgrade your miner.



'Keep setting' is chosen by default, you should choose it if you hope to preserve the current settings. You should cancel this option if you hope to restore to initial settings.

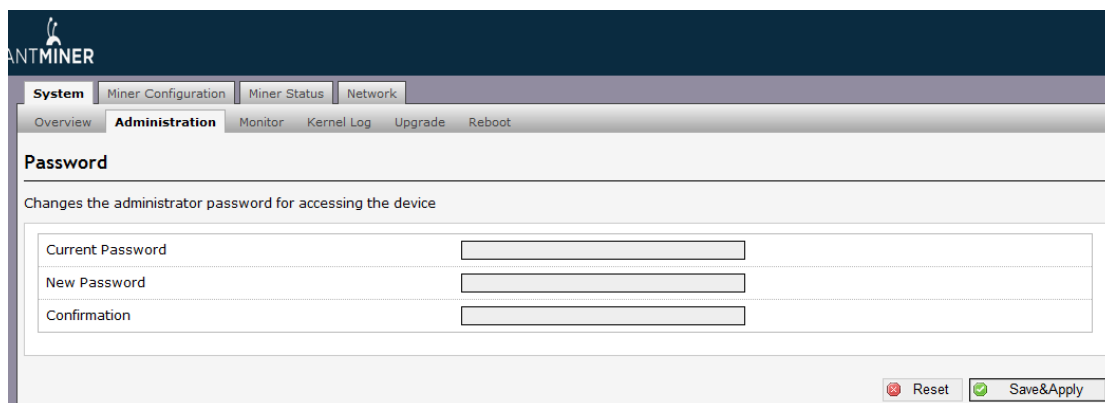
Click 'Browse' button to choose upgrade file. After choosing upgrade file, then click 'Flash image...' button, it will remind when upgrading software, start to download software after choosing upgrading software. During the upgrade process, you need to **wait patiently, and must keep power on, otherwise, AntMiner should be shipped to factory to restore**. You will see bellow screenshot after upgrading successfully.



Choose 'Reboot' button, Miner will restart and run the new system. Choose 'Go Back', Miner will continue running the old system, will run new system when power on next time.

5.2 Password Modification

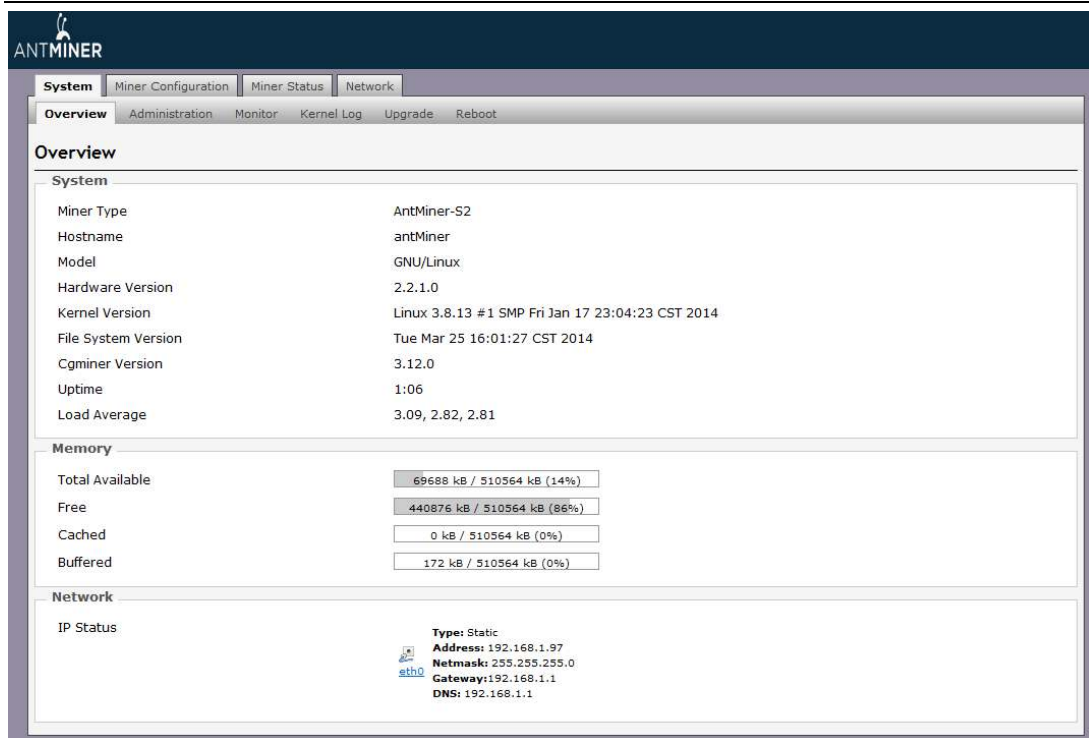
Through 'System->Administration', you will be able to modify AntMiner login password, and choose 'Save' and 'Save and Apply' after modifying it.



5.3 Software Version Checking

Through 'System->Overview', you will be able to check the software version you used.

After upgrading the software, to check if you are using the latest version of software via 'File System Version'.



The screenshot displays the AntMiner web interface. At the top, there is a navigation bar with tabs for 'System', 'Miner Configuration', 'Miner Status', and 'Network'. Below this, there are sub-tabs for 'Overview', 'Administration', 'Monitor', 'Kernel Log', 'Upgrade', and 'Reboot'. The 'Overview' section is active and shows the following information:

System	
Miner Type	AntMiner-S2
Hostname	antMiner
Model	GNU/Linux
Hardware Version	2.2.1.0
Kernel Version	Linux 3.8.13 #1 SMP Fri Jan 17 23:04:23 CST 2014
File System Version	Tue Mar 25 16:01:27 CST 2014
Cgminer Version	3.12.0
Uptime	1:06
Load Average	3.09, 2.82, 2.81

Memory	
Total Available	69688 kB / 510564 kB (14%)
Free	440876 kB / 510564 kB (86%)
Cached	0 kB / 510564 kB (0%)
Buffered	172 kB / 510564 kB (0%)

Network	
IP Status	Type: Static Address: 192.168.1.97 Netmask: 255.255.255.0 Gateway: 192.168.1.1 DNS: 192.168.1.1

5.4 Restore Initial Setting

Press the 'Reset' button on the left bottom of LCD screen and hold on for 3 seconds, red led flashing every one second/ 1S. Release 'Reset' button, Miner will restore the initial setting and restart automatically.