



S15 Server Installation Guide

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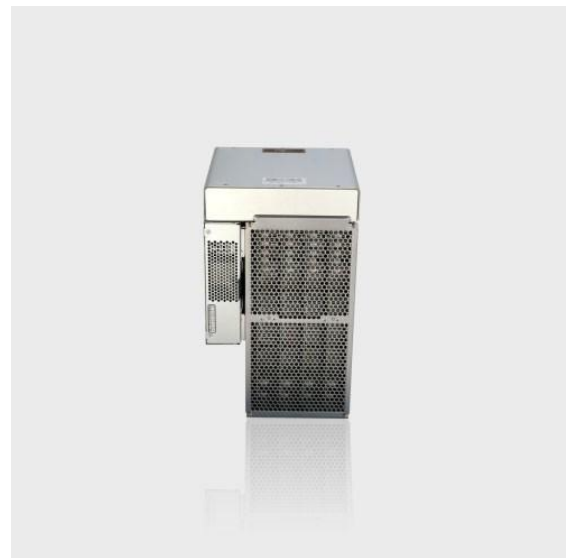
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1. Overview

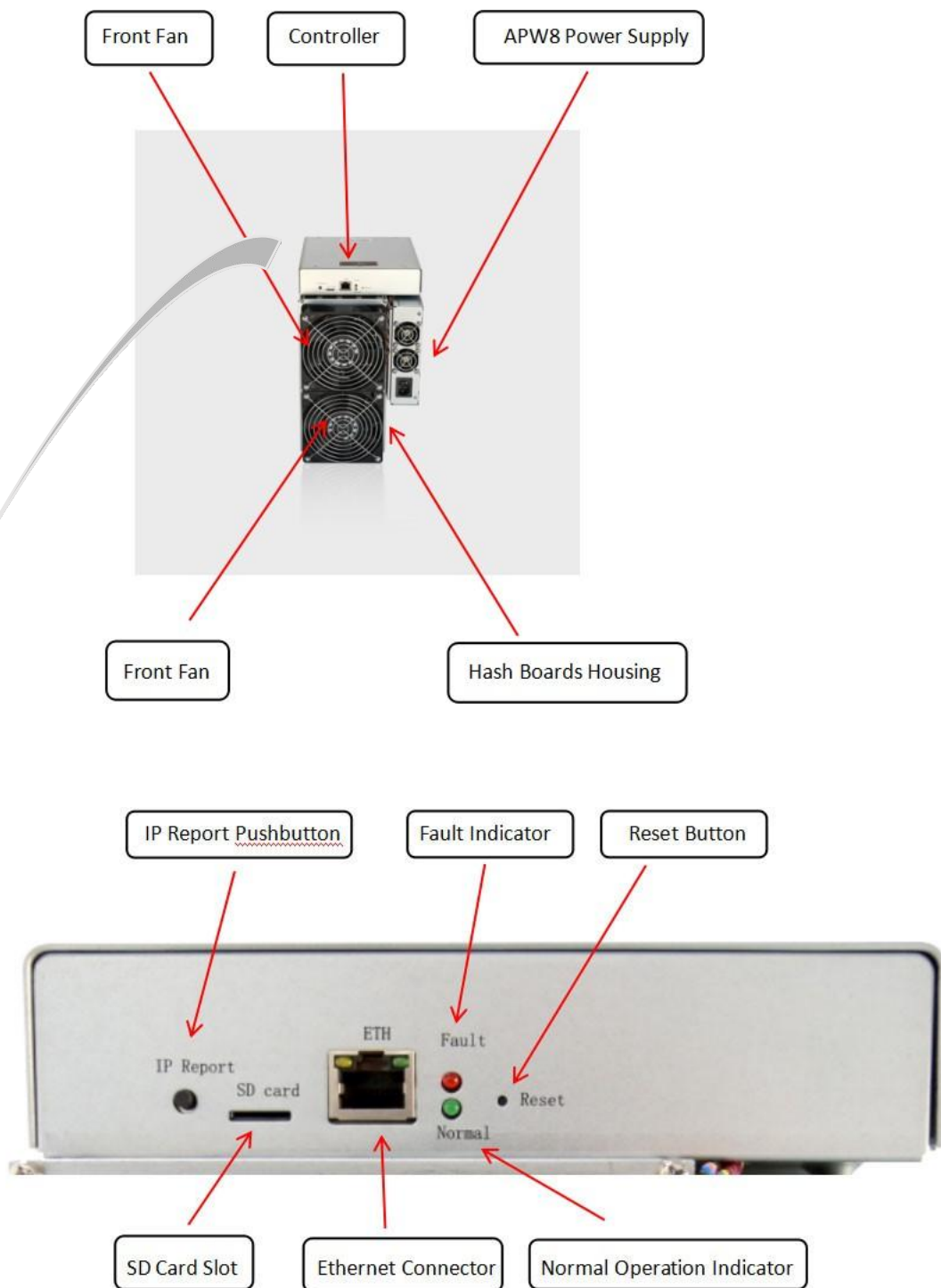
The S15 server is Bitmain's newest version in the S15 server series. Power supply APW8 is part of S15 server. All S15 servers are tested and configured prior to shipping to ensure easy set up.

**Caution:**

1. The socket-outlet shall be installed near the equipment and shall be easily accessible.
2. Please refer to the layout above to place your goods in usage in case of any damage.
3. Please keep S15 servers operated in an appropriate temperature in case of any damage. Please refer to the specifications for more details.

1.1 S15 Server Components

The main components and controller front panel of S15 server are shown in the following figure:



APW8 Power Supply:



Note:

1. Power supply APW8 is part of S15 server. For detailed parameters, please refer to the specifications below.
2. Additional power cord is needed.

1.2 Specifications

Model No.: 240-A

Version: S15

Product Glance	Value	
Crypto Algorithm	SHA256	
	Normal	Low Power
Hashrate, TH/s	28.00	15.50~18.00
Reference power on wall, Watt	1596	775~900
Reference power efficiency on wall @25°C, J/TH	57.00	50.00

Detailed Characteristics		Value		
		Min	Typ	Max
Hashrate & Power				
Hashrate, TH/s	Normal		28.00	28.45
	Low Power		15.50~18	+3% ⁽¹⁻¹⁾
Power efficiency on wall @0°C, J/TH	Normal	63.17		67.60
	Low Power	53.02		56.73
Power efficiency on wall @25°C, J/TH	Normal	57.00		60.99
	Low Power	50.00		53.50
Power efficiency on wall @40°C, J/TH	Normal	60.31		64.53
	Low Power	52.34		56.00
Power on wall, Watt ⁽¹⁻²⁾	Normal	1596		1923
	Low Power	775		1052
Power supply AC input voltage, Volt ⁽¹⁻³⁾		200	220	240
Power supply AC input current, Amp ⁽¹⁻⁴⁾	Normal		7.25	9.62
	Low Power		3.52	5.26
Power supply Input AC Frequency Range, Hz		47	50	63
Hardware Configuration				
Quantity of hash chips		288		

Quantity of hash boards	4			
Networking connection mode	RJ45 Ethernet 10/100M			
Server Size (Length*Width*Height, w/o package),mm ⁽²⁻¹⁾	240*178*296			
Net weight, kg ⁽²⁻²⁾	7.0			
Noise, dBA @25°C ⁽²⁻³⁾				76
Environment Requirements				
Operation temperature,°C	0	0	25	40
Storage temperature,°C	-40	-40	25	85
Operation humidity, RH	5%	5%		95%

Notes:

- (1-1) In Low Power Mode, Max Hashrate should be Typ hashrate *103%
- (1-2) Min condition: 25°C, min J/TH, typical hashrate
Max condition: 0°C, max J/TH, max hashrate
- (1-3) Caution: Wrong input voltage may probably cause server damaged
- (1-4) Typ condition: min reference power, typical AC input voltage
Max condition: max reference power, min AC input voltage
- (2-1) Including PSU size
- (2-2) Including PSU weight
- (2-3) Max condition: Fan is under max RPM(rotation per minute).

2. Setting Up the Server

To set up the server:



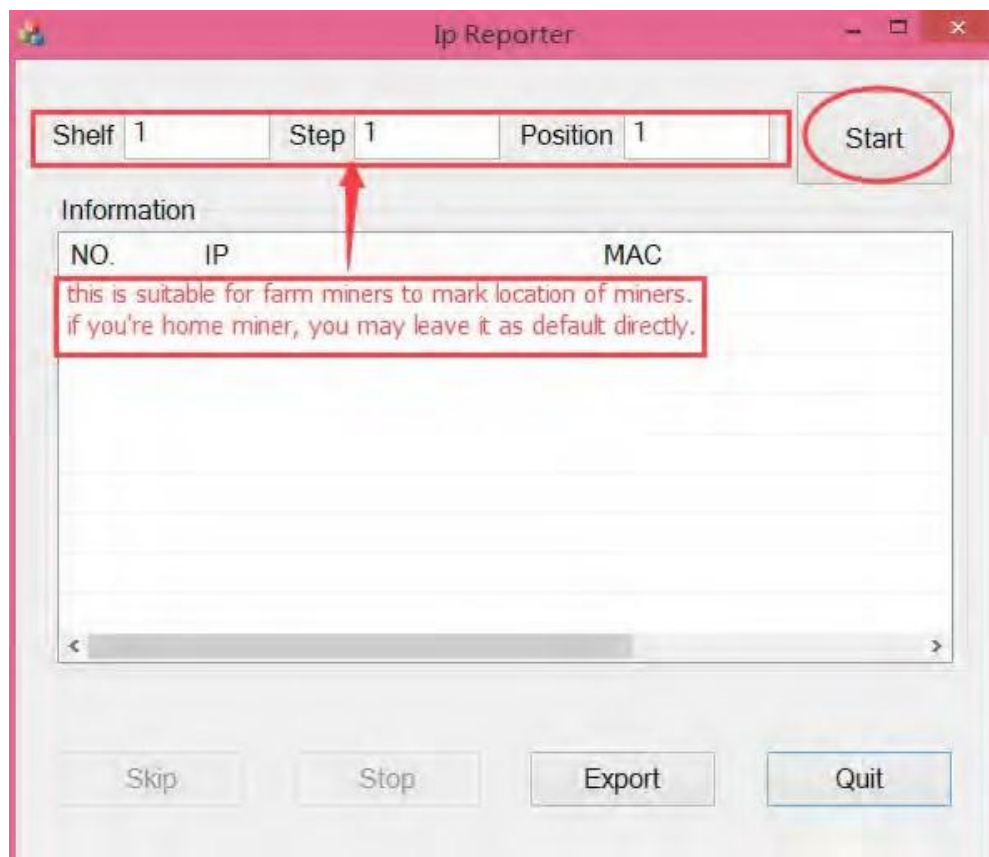
The file IPReporter.zip is supported by Microsoft Windows only.

1. Go to the following site: <https://shop.bitmain.com/support/download>
2. Choose 'Others' and download the following file: IPReporter.zip
3. Extract the file.



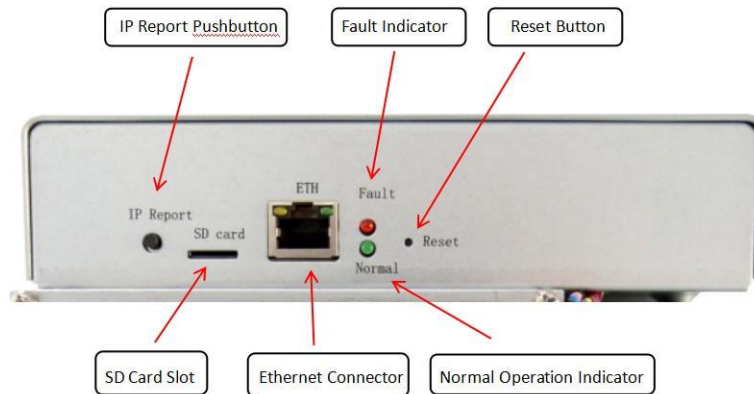
The default DHCP network protocol distributes IP addresses automatically.

4. Right-click **IPReporter.exe** and run it as Administrator.
5. Select one of the following options:
 - Shelf, Step, Position – suitable for farm servers to mark the location of the servers.
 - Default – suitable for home servers.
6. Click **Start**.

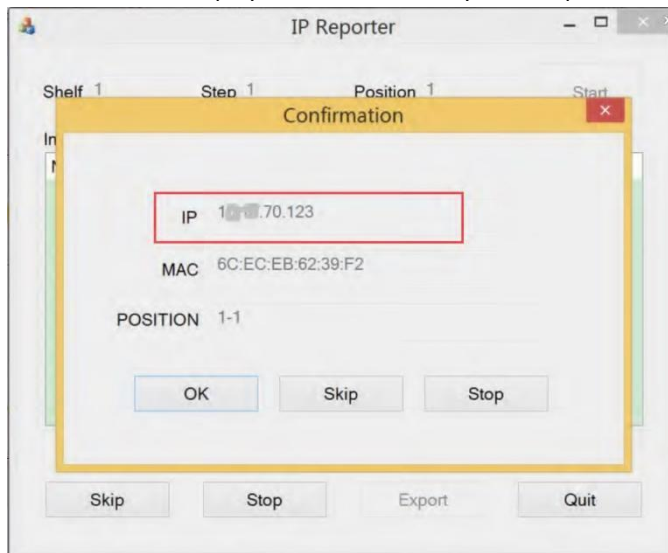


2. Setting Up the server

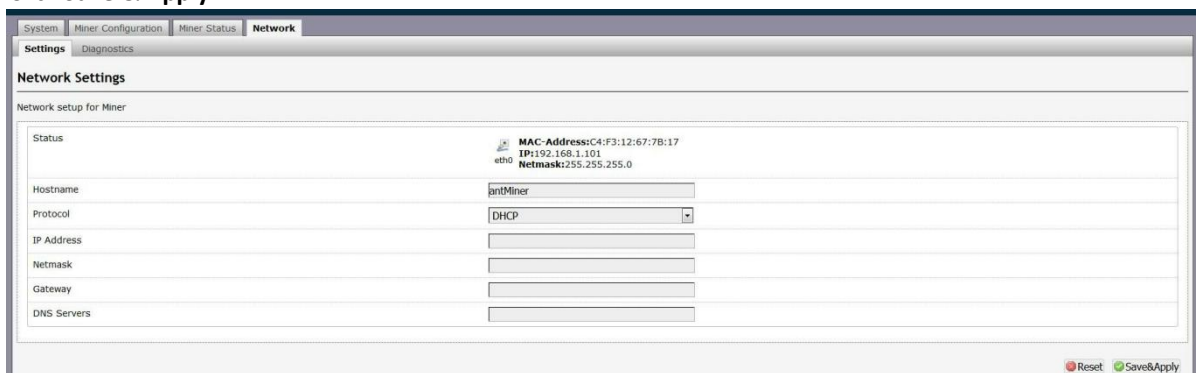
7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



The IP address will be displayed in a window on your computer screen.



8. In your web browser, enter the IP address provided.
9. Proceed to login using `root` for both the username and password.
10. In the Network section, you can assign a DHCP IP address (optional).
11. Click **Save & Apply**.

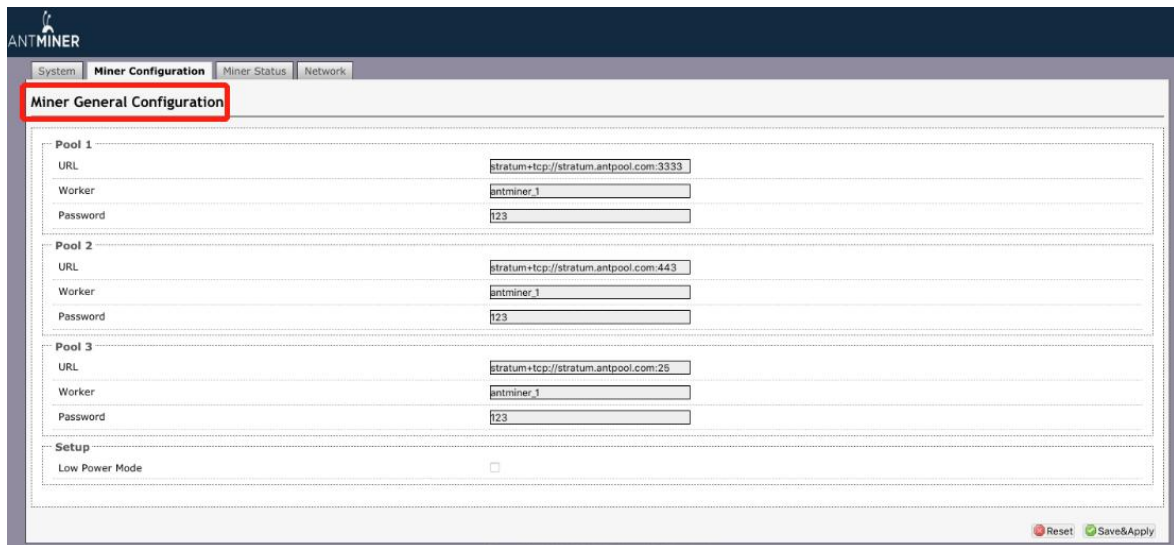


3. Configuring the Server

Setting Up the Pool


To configure the server:

1. click **General Settings**.




Note: There are two modes of Hashrate which u may adjust for S15 server: Low Power Mode and Normal Mode. Power consumption varies with different mode. Please refer to the specifications above for more details.

2. Set the options according to the following table:

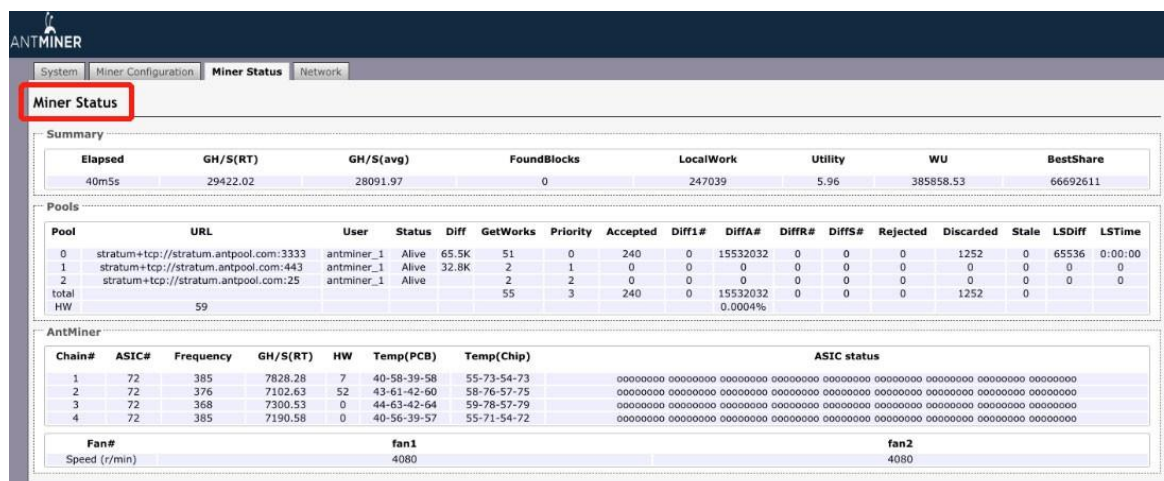
Option	Description
Pool URL	<p>Enter the URL of your desired pool.</p> <div>  <p>The S15 server can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3). The pools with low priority will only be used if all higher priority pools are offline.</p> </div>
Worker	Your worker ID on the selected pool.
Password	The password for your selected worker.

3. Click **Save & Apply** to save and restart the server.

4. Monitoring Your server

To check the operating status of your server:

1. Click the status marked below.



Miner Status

Summary

Elapsed	GH/S(RT)	GH/S(avg)	FoundBlocks	LocalWork	Utility	WU	BestShare
40m5s	29422.02	28091.97	0	247039	5.96	385858.53	66692611

Pools


Pool	URL	User	Status	Diff	GetWorks	Priority	Accepted	Diff1#	DiffA#	DiffR#	DiffS#	Rejected	Discarded	Stale	LSDiff	LSTime
0	stratum+tcp://stratum.antpool.com:3333	antminer_1	Alive	65.5K	51	0	240	0	15532032	0	0	0	1252	0	65536	0:00:00
1	stratum+tcp://stratum.antpool.com:443	antminer_1	Alive	32.8K	2	1	0	0	0	0	0	0	0	0	0	0
2	stratum+tcp://stratum.antpool.com:25	antminer_1	Alive		2	2	0	0	0	0	0	0	0	0	0	0
total					55	3	240	0	15532032	0	0	0	1252	0		
HW	59							0.0004%								

AntMiner

Chain#	ASIC#	Frequency	GH/S(RT)	HW	Temp(PCB)	Temp(Chip)	ASIC status
1	72	385	7828.28	7	40-58-39-58	55-73-54-73	00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
2	72	376	7102.63	52	43-61-42-60	58-76-57-75	00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
3	72	368	7300.53	0	44-63-42-64	59-78-57-79	00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000
4	72	385	7190.58	0	40-56-39-57	55-71-54-72	00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000

Fan#

Speed (r/min)	fan1	fan2
	4080	4080

 **Note:** The S15 server is with automatic frequency adjustment. Firmware will stop running when the Temp(PCB) reaches to 80°C, there will be an error message "Fatal Error: Temperature is too high!" shown in the bottom of kernel log page.

2. monitor your server according to the descriptions in the following table:

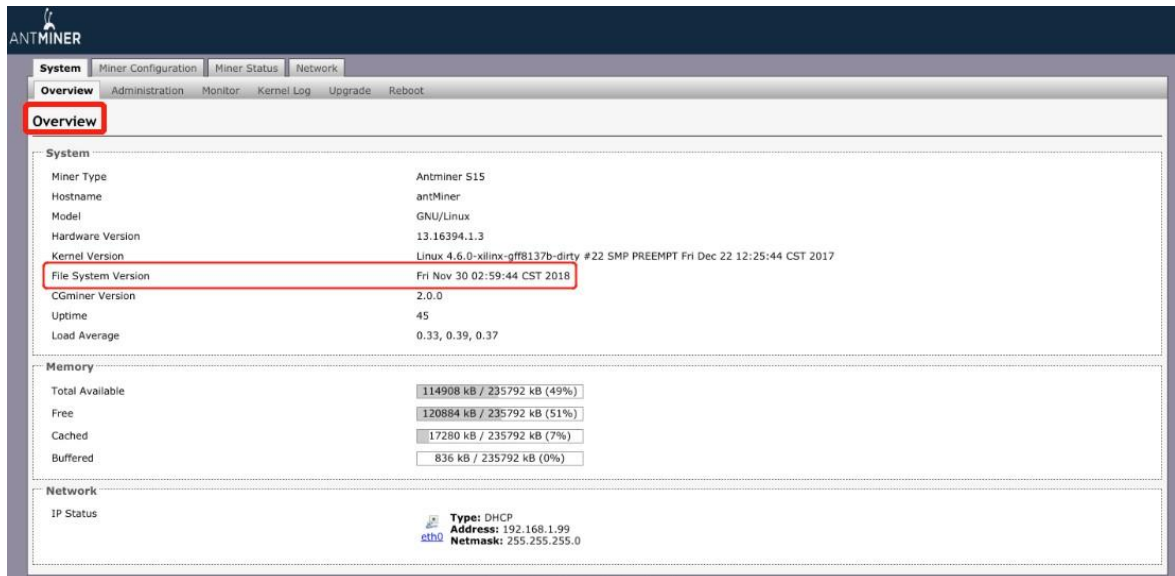
Option	Description
ASIC#	Number of chips detected in the chain.
Frequency	ASIC frequency setting.
GH/S(RT)	Hash rate of each hash board (GH/s)
Temp(PCB)	Temperature of each hash board (°C).(Applied only to server with fixed frequency)
Temp(Chip)	Temperature of the chips on each hash board (°C).
ASIC status	One of the following statuses will appear: <ul style="list-style-type: none"> ● O - indicates OK ● X - indicates error ● - - indicates dead

5. Administering Your Server

5.1 Checking Your Firmware Version

To check your firmware version:

1. In **System**, click the **Overview** tab.
2. **File System Version** displays the date of the firmware your server use. In the example below, the server is using firmware version 20181130.



The screenshot shows the Antminer S15 web interface. The 'System' menu is selected, and the 'Overview' tab is active. The 'File System Version' is highlighted with a red box, displaying 'Fri Nov 30 02:59:44 CST 2018'. Other system information includes Miner Type (Antminer S15), Hostname (antMiner), Model (GNU/Linux), Hardware Version (13.16394.1.3), Kernel Version (Linux 4.6.0-xxlinux-gff8137b-dirty #22 SMP PREEMPT Fri Dec 22 12:25:44 CST 2017), CGminer Version (2.0.0), Uptime (45), Load Average (0.33, 0.39, 0.37), Memory (Total Available: 114908 kB / 235792 kB (49%), Free: 120884 kB / 235792 kB (51%), Cached: 17280 kB / 235792 kB (7%), Buffered: 836 kB / 235792 kB (0%)), and Network (IP Status: Type: DHCP, Address: 192.168.1.99, Netmask: 255.255.255.0).

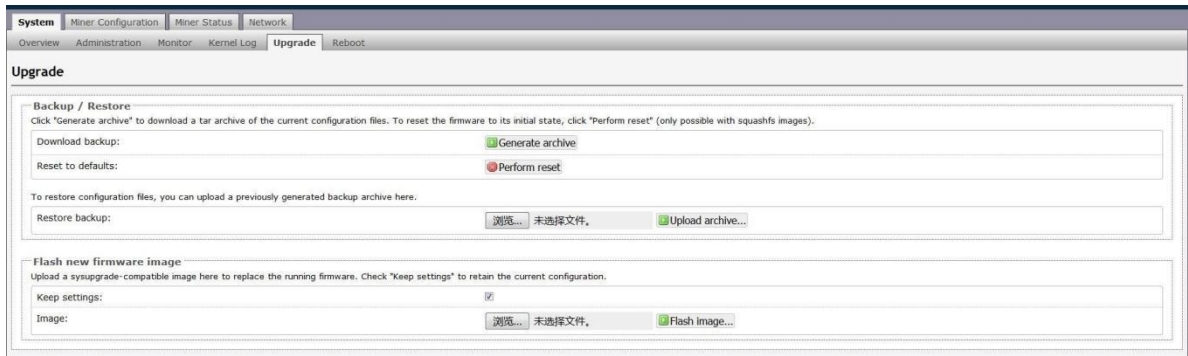
5.2 Upgrading Your System



Make sure that the S15 server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

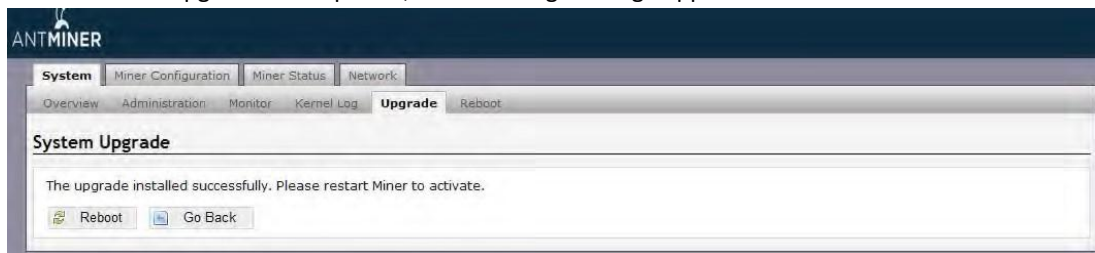
To upgrade the server's firmware:

1. In **System**, click **Upgrade**.



The screenshot shows the Antminer S15 web interface with the 'Upgrade' tab selected. The 'Backup / Restore' section includes a 'Generate archive' button and a 'Perform reset' button. The 'Flash new firmware image' section includes a 'Flash image' button. The interface also shows a 'Download backup' button and a 'Restore backup' button.

2. For **Keep Settings**:
 - Select the check box to keep your current settings (default).
 - Clear the check box to reset the server to default settings.
3. Click the **选择文件 (Browse)** button and navigate to the upgrade file. Select the upgrade file, then click **Flash image**. A message appears notifying you if the S15 firmware can be upgraded and if yes, will then proceed to flash the image.
4. When the upgrade is completed, the following message appears:

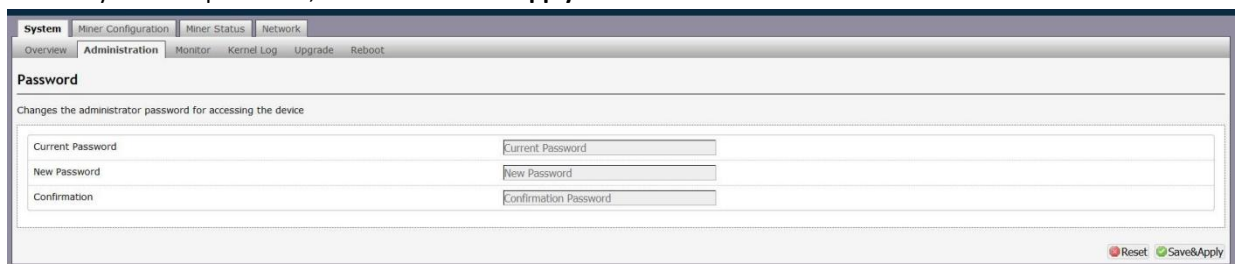


5. Click one of the following options:
 - **Reboot** - to restart the server with the new firmware.
 - **Go Back** - to continue mining with the current firmware. The server will load the new firmware next time it is restarted.

5.3 Modifying Your Password

To change your login password:

1. In **System**, click the **Administration** tab.
2. Set your new password, then click **Save & Apply**.



5.4 Restoring Initial Settings

To restore your initial settings

1. Turn on the server and let it run for 5 minutes.
2. On the controller front panel, press and hold the **Reset** button for 10 seconds.



Resetting your server will reboot it and restore its default settings. The red LED will automatically flash once every 15 seconds if the reset is operated successfully.

Regulations:

FCC Notice (FOR FCC CERTIFIED MODELS):

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

EU WEEE: Disposal of Waste Equipment by Users in Private Household in the European Union



This symbol on the product or on its packaging indicates that this product must not be disposed of with your other household waste. Instead, it is your responsibility to dispose of your waste equipment by handing it over to a designated collection point for the recycling of waste electrical and electronic equipment. The separate collection and recycling of your waste equipment at the time of disposal will help to conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment. For more information about where you can drop off your waste equipment for recycling, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

台灣 ROHS:

設備名稱: S15 服務器, 型號: 240-A

單元	有害物質					
	鉛 (Pb)	汞 (Hg)	鎘 (Cd)	六價鉻 (Cr+6)	多溴聯苯 (PBB)	多溴二苯醚 (PBDE)
外殼	○	○	○	○	○	○
電路板組件	—	○	○	○	○	○
其他線材	—	○	○	○	○	○
<p>備考 1. “超出 0.1 wt %” 及 “超出 0.01 wt %” 係指限用物質之百分比含量超出百分比含量基準值。</p> <p>備考 2. “○” 係指該項限用物質之百分比含量未超出百分比含量基準值。</p> <p>備考 3. “—” 係指該項限用物質為排除項目</p>						