



# B3 Server Installation Guide

**Document Version 0.1**

**May 2018**

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## 1. Overview

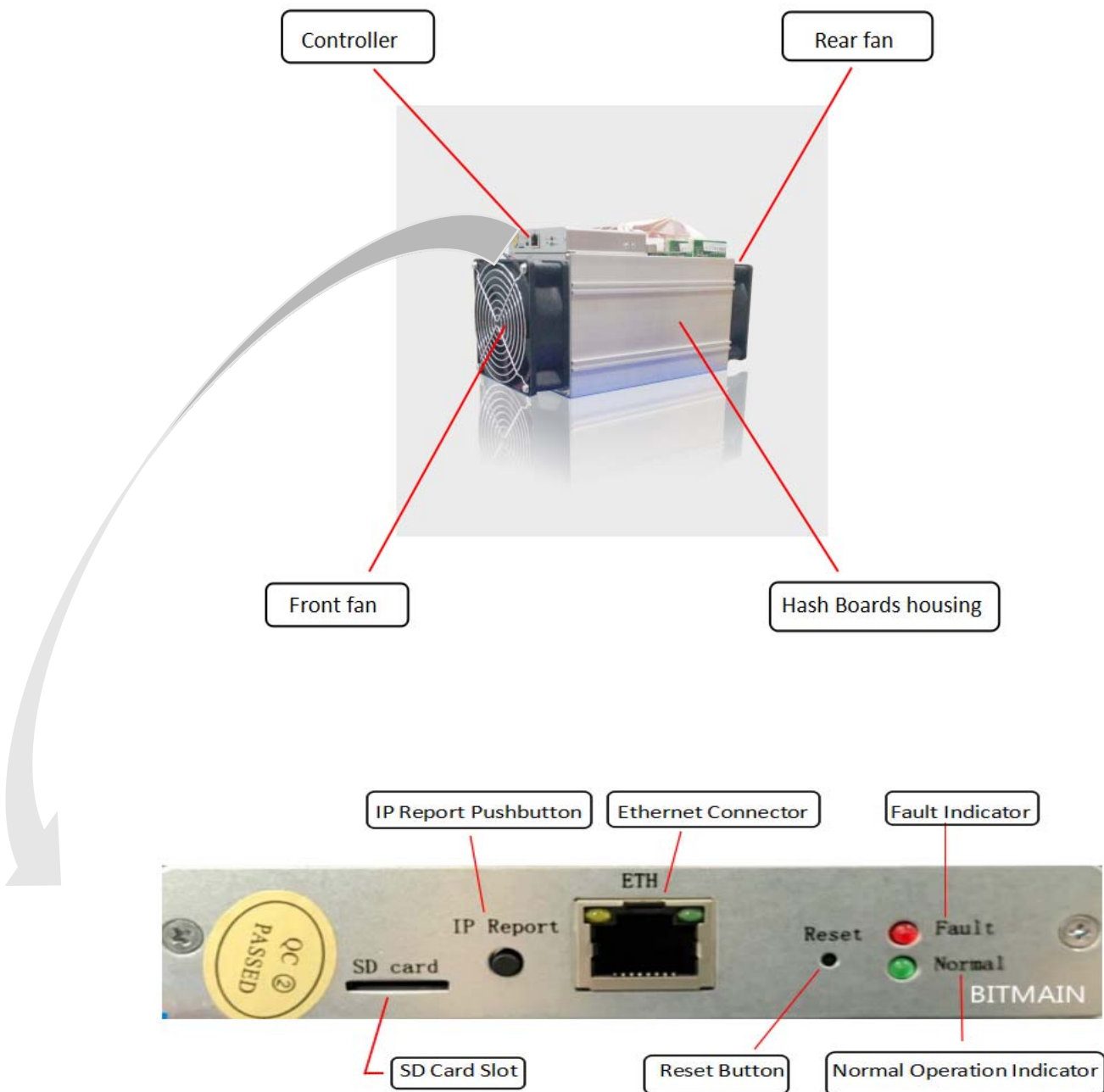
The B3 server is Bitmain's newest version in the B3 series. All B3 servers are tested and configured prior to shipping to ensure easy set up.



You must provide your own ATX power supply.

### 1.1 B3 Server Components

The B3 server main components and controller front panel are shown in the following figure:



## 1.2 Specifications

| Parameters of B3 |  |   |
|------------------|--|---|
| NO.              | Parameters   | Value   |
| 1                | Product model  | B3  |
| 2                | Total quantity of hash chips                                       | 12 PCS  |
| 3                | Total quantity of hash boards                                      | 3 boards per server   |
| 4                | Total hash rate  | 780 H/s $\pm$ 5%  |
| 5                | DC voltage input   | 11.60~13.00 V   |
| 6                | DC current input @12V DC input @25°C                               | 27.33 A $\pm$ 7%  |
| 7                | DC Power @12V DC input @25°C                                       | 328 W $\pm$ 7%  |
| 8                | 220VAC Power @25°C ,93% conversion efficiency of APW3++            | 360 W $\pm$ 7%  |
| 9                | 220VAC Power @40°C ,93% conversion efficiency of APW3++            | 373 W $\pm$ 7%  |
| 10               | 220VAC Power efficiency @25°C ,93% conversion efficiency of APW3++ | 0.46 J/H $\pm$ 7%   |
| 11               | 220VAC Power efficiency @40°C ,93% conversion efficiency of APW3++ | 0.468 J/H $\pm$ 7%  |
| 12               | Operation temperature  | 0-40 °C   |
| 13               | Storage temperature  | -40-85 °C   |
| 14               | Operation humidity   | 5%RH-95%RH, prevent condensation  |
| 15               | Networking connection mode   | Ethernet Cable  |
| 16               | Power connection mode  | All two PCI-E ports are required to power the board. You can use one PSU to power multiple boards, but do not attempt to power one board with two PSUs.<br>If u are using more than one PSU, power up the PSU connected to the controller after you have powered up the other PSU(S). |
| 17               | Size (Length*Width*Hight)  | 312.54mm*124.3mm*154.65mm   |

## 2. Connecting the Power Supply

Seven PCI-e connectors are located at the top of the B3 server for connecting the PSU as follows:

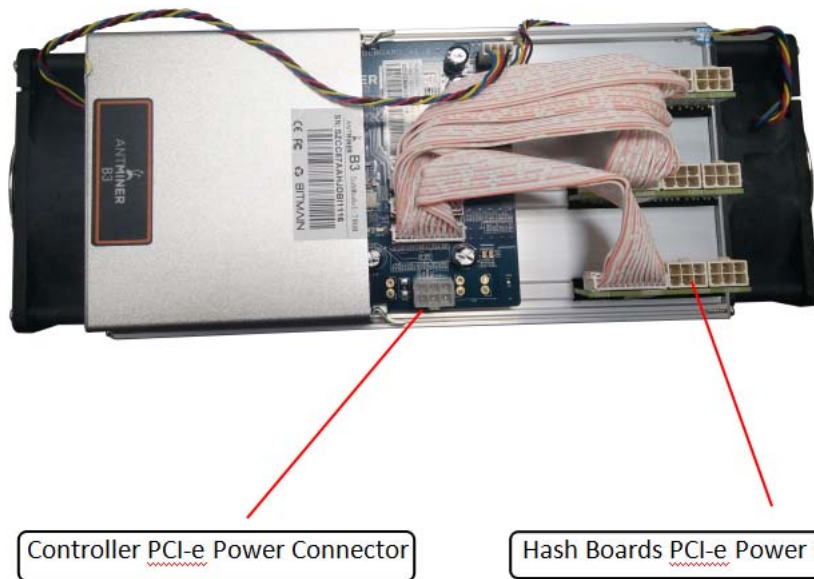
- Six PCI-e connectors for the hash boards. Each hash board has a set of two PCI-e connectors.
- One PCI-e connector located on the controller.



Each hashboard must be powered by the same PSU to prevent possible damage and instability.

### To connect the power supply:

1. Connect PSU power cable connectors to each of the six PCI-e connectors on the top of the B3 server, ensuring that each hash board is powered by the same PSU.




2. Connect a PSU power cable connector to the B3 PCI-e connector on the controller.
3. Connect the network cable to the ETH port.
4. To power up your B3 server, connect the PSUs to the power wall outlet.




If you are using more than one PSU, power up the PSU connected to the controller AFTER you have Powered up the other PSU(s).

### 3. Setting Up the Server

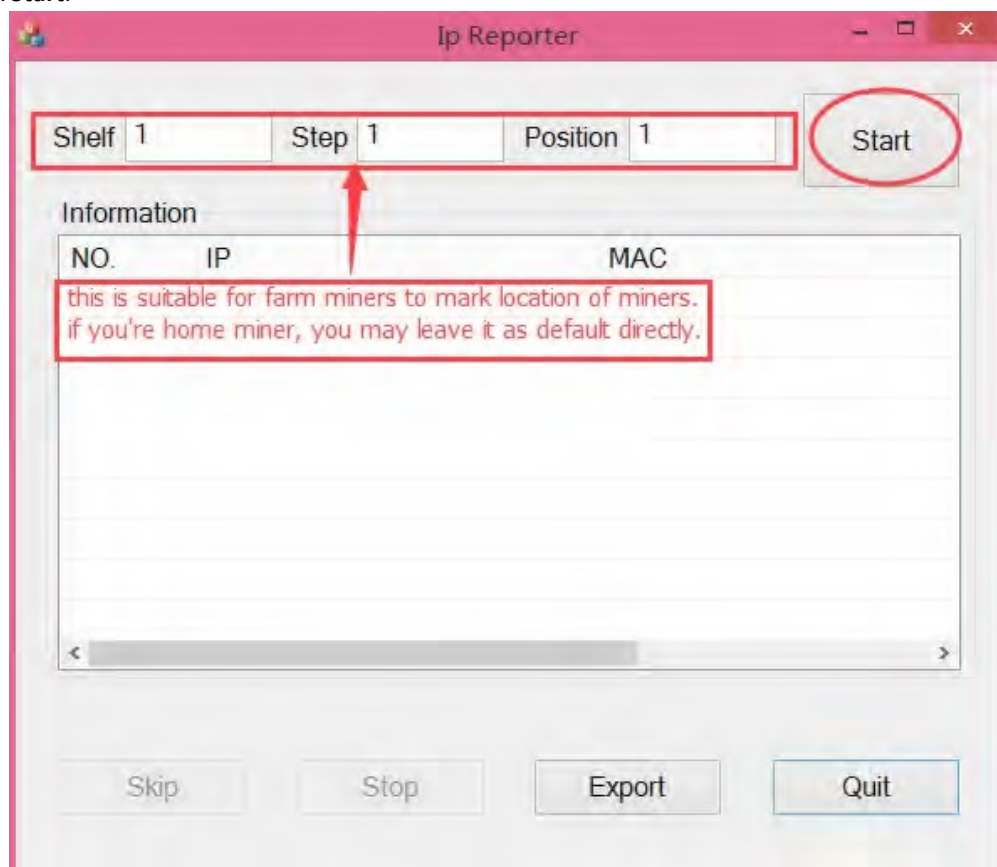
To set up the server:

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

1. Go to the following site:  
<https://shop.bitmain.com/support.htm?pid=00720160906053730999PVD2K0vz0693>
2. Download the following file: IPReporter.zip
3. Extract the file.

 The default DHCP network protocol distributes IP addresses automatically.

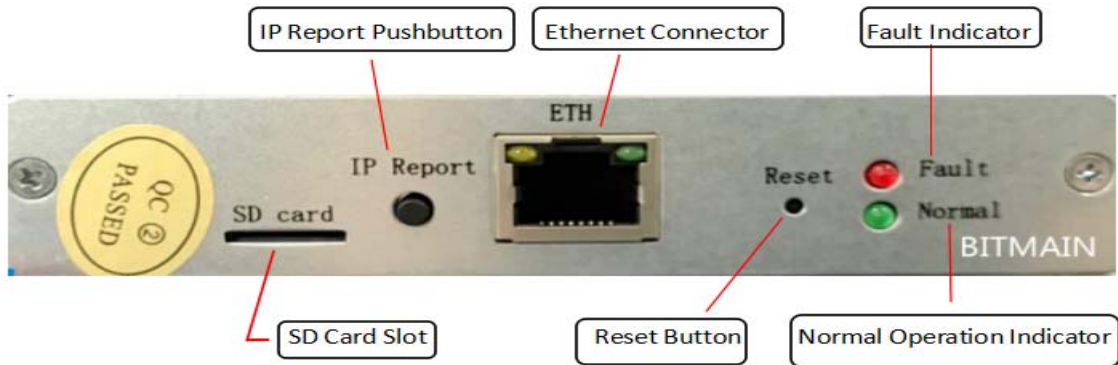
4. Right-click **IPReporter.exe** and run it as Administrator.
5. Select one of the following options:
  - Shelf, Step, Position – suitable for farm servers to mark the location of the servers.
  - Default – suitable for home servers.
6. Click **Start**.



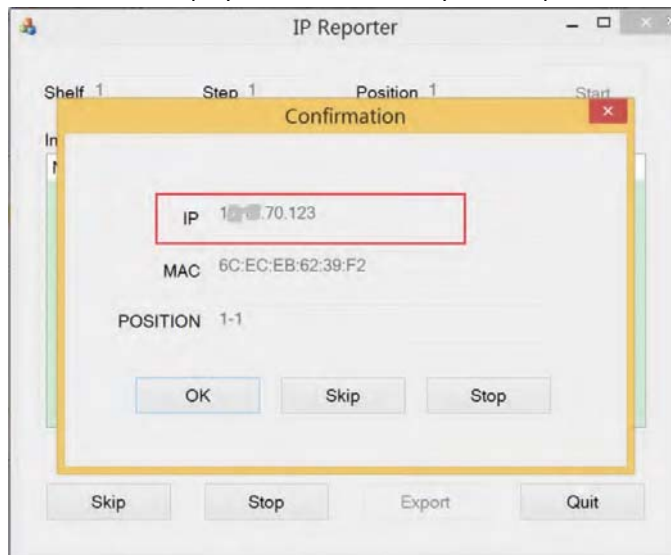


3. Setting Up the Server

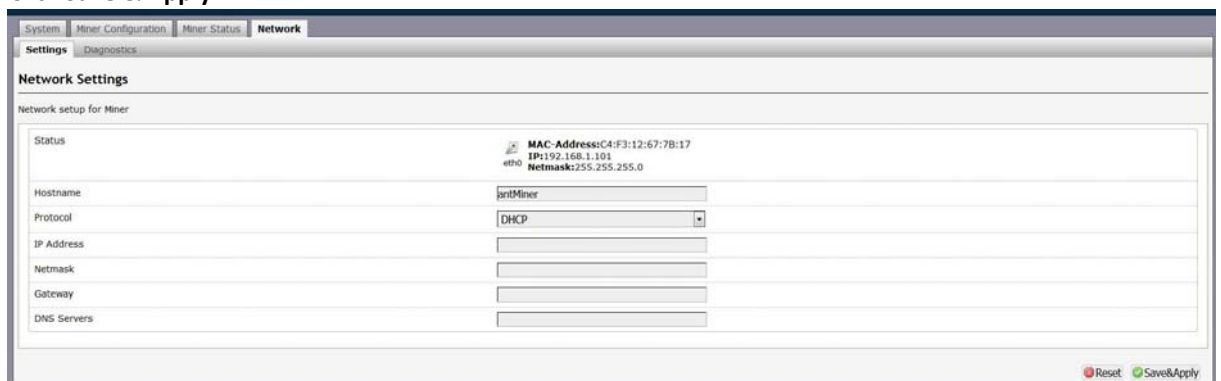
- On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



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



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




## 4. Configuring the Server

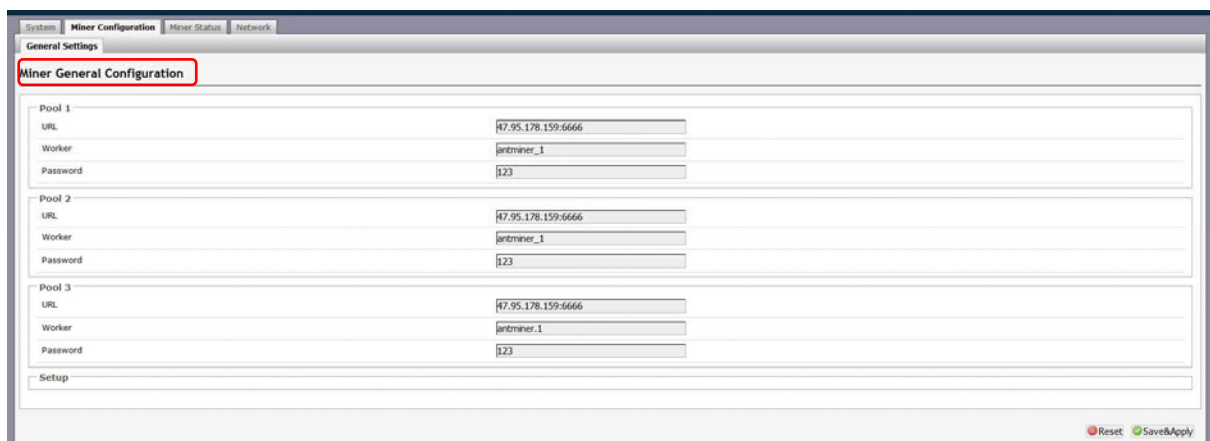
### Setting Up the Pool

To configure the server:

1. click **General Settings**.
2. Set the options according to the following table:

| Option   | Description   |
|----------|---|
| Pool URL | <p>Enter the URL of your desired pool.</p> <div style="border: 1px solid black; padding: 10px; margin-top: 10px;"> <p> The B3 server can be set up with three mining pools, with decreasing priority from the first pool (pool 1) to the third pool (pool 3).<br/>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.

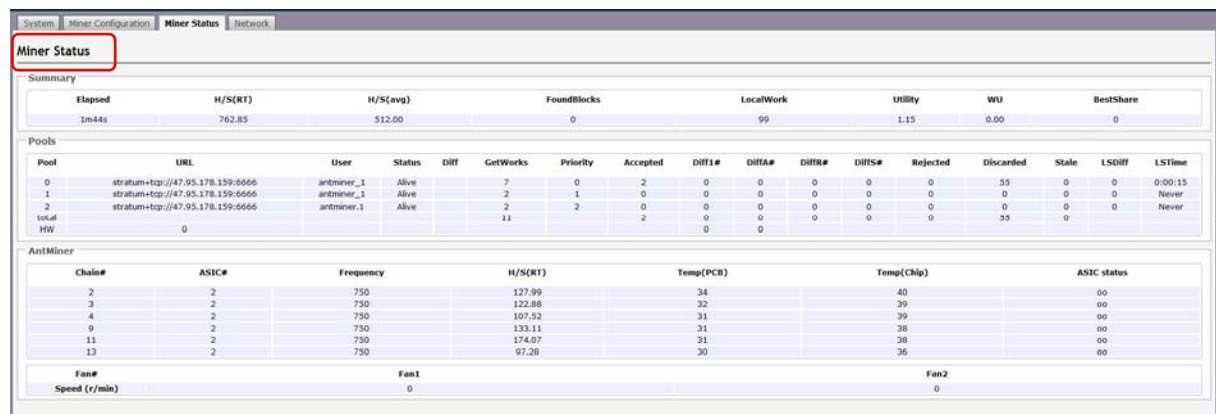


## 5. Monitoring Your Server

To check the operating status of your server:

1. Click the status marked below
2. Monitor your server according to the descriptions in the following

| 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 miner 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"> <li>● <b>O</b> - indicates OK</li> <li>● <b>X</b> - indicates error</li> <li>● <b>- -</b> indicates dead</li> </ul> |



The screenshot shows the 'Miner Status' page with the following data:

| Summary |         |          |             |           |         |      |           |  |  |
|---------|---------|----------|-------------|-----------|---------|------|-----------|--|--|
| Elapsed | H/S(RT) | H/S(avg) | FoundBlocks | LocalWork | Utility | WU   | BestShare |  |  |
| 1m44s   | 762.85  | 512.00   | 0           | 99        | 1.15    | 0.00 | 0         |  |  |


| Pools |                                  |            |        |      |          |          |          |        |        |        |        |          |           |       |        |         |
|-------|----------------------------------|------------|--------|------|----------|----------|----------|--------|--------|--------|--------|----------|-----------|-------|--------|---------|
| Pool  | URL                              | User       | Status | Diff | GetWorks | Priority | Accepted | Diff1# | DiffA# | DiffR# | DiffS# | Rejected | Discarded | Stale | LSDiff | LSTime  |
| 0     | stratum-tcp://47.95.178.159:6666 | antminer_1 | Alive  |      | 7        | 0        | 2        | 0      | 0      | 0      | 0      | 0        | 55        | 0     | 0      | 0:00:15 |
| 1     | stratum-tcp://47.95.178.159:6666 | antminer_1 | Alive  |      | 2        | 1        | 0        | 0      | 0      | 0      | 0      | 0        | 0         | 0     | 0      | Never   |
| 2     | stratum-tcp://47.95.178.159:6666 | antminer.1 | Alive  |      | 2        | 0        | 0        | 0      | 0      | 0      | 0      | 0        | 0         | 0     | 0      | Never   |
| total |                                  |            |        |      | 11       |          | 2        | 0      | 0      | 0      | 0      | 0        | 55        | 0     |        |         |
| HW    | 0                                |            |        |      |          |          |          |        |        |        |        |          |           |       |        |         |

| AntMiner |       |           |         |           |            |             |  |
|----------|-------|-----------|---------|-----------|------------|-------------|--|
| Chain#   | ASIC# | Frequency | H/S(RT) | Temp(PCB) | Temp(Chip) | ASIC status |  |
| 2        | 2     | 750       | 127.99  | 34        | 40         | 00          |  |
| 3        | 2     | 750       | 122.88  | 32        | 39         | 00          |  |
| 4        | 2     | 750       | 107.52  | 31        | 39         | 00          |  |
| 9        | 2     | 750       | 133.11  | 31        | 38         | 00          |  |
| 11       | 2     | 750       | 174.07  | 21        | 38         | 00          |  |
| 13       | 2     | 750       | 97.28   | 30        | 36         | 00          |  |

| Fan#          |  | Fan1 |  | Fan2 |  |
|---------------|--|------|--|------|--|
| Speed (r/min) |  |      |  |      |  |
|               |  | 0    |  | 0    |  |

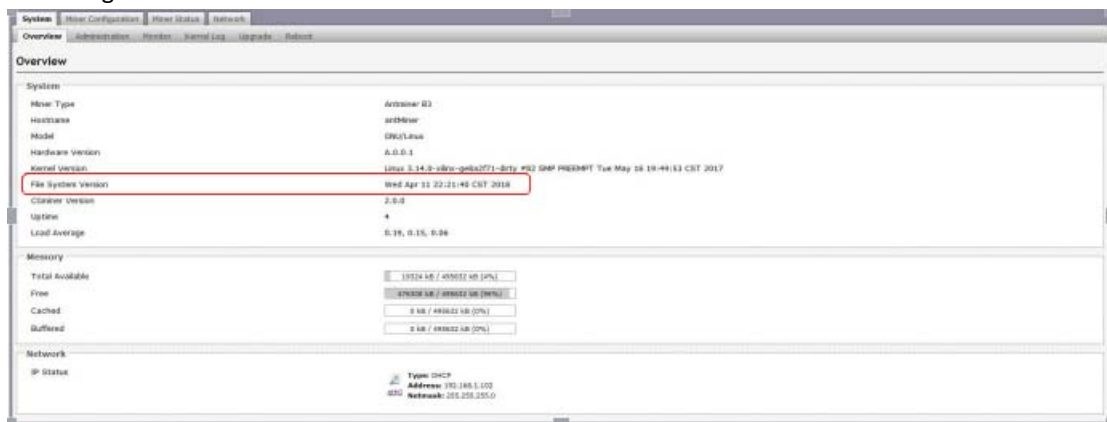
 **Note:** The B3 server is with fixed frequency 750 MHZ. Firmware will stop running when the Temp(PCB) reaches to 80-85 °C or the Temp(Chips) reaches to 125-135 °C, there will be an error message "Fatal Error: Temperature is too high!" shown in the bottom of kernel log page.

## 6. Administering Your Server

### 6.1 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 20180411.



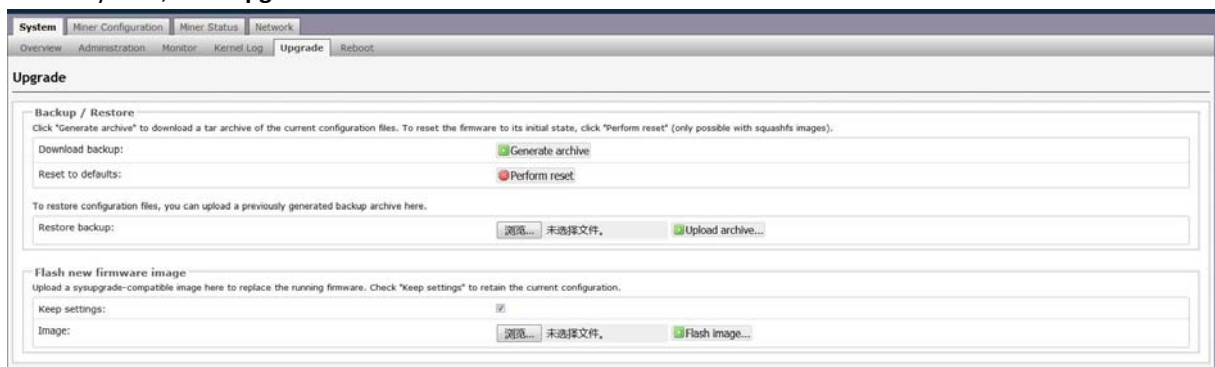
### 6.2 Upgrading Your System



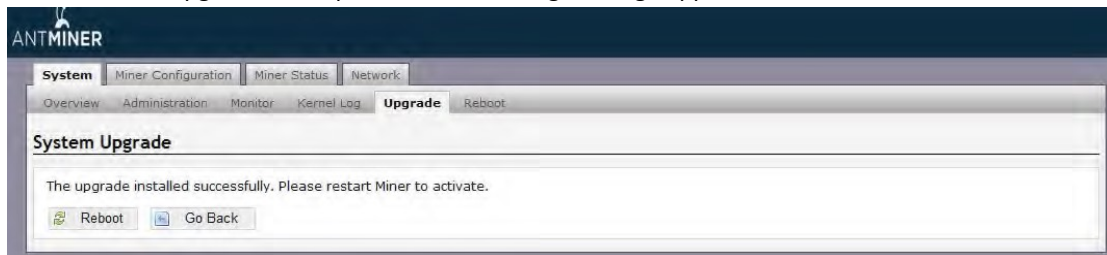
Make sure that the B3 server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

To upgrade the server's firmware:

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



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 B3 server firmware can be upgraded and if yes, will then proceed to flash the image.
4. When the upgrade is completed, the following message appears:

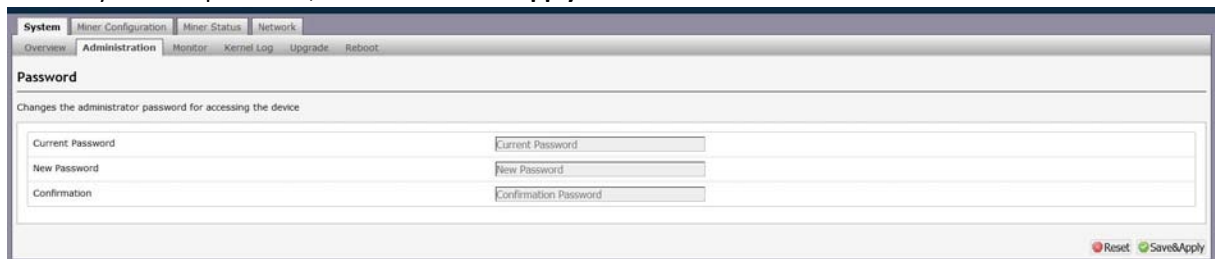


5. Click one of the following options:
  - **Reboot** - to restart the server with the new firmware.
  - **Go Back** - to continue mining with the current firmware. The server will load the new firmware next time it is restarted.

### 6.3 Modifying Your Password

To change your login password:

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



### 6.4 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.

**台湾 ROHS:**

| 設備名稱: _____, 型號: _____  |           |           |           |               |               |                     |
|---|-----------|-----------|-----------|---------------|---------------|---------------------|
| 單元  | 有害物質      |           |           |               |               |                     |
|   | 鉛<br>(Pb) | 汞<br>(Hg) | 鎘<br>(Cd) | 六價鉻<br>(Cr+6) | 多溴聯苯<br>(PBB) | 多溴二苯<br>醚<br>(PBDE) |
| 外殼  | ○         | ○         | ○         | ○             | ○             | ○                   |
| 電路板組<br>件   | —         | ○         | ○         | ○             | ○             | ○                   |
| 其他線材  | —         | ○         | ○         | ○             | ○             | ○                   |
| 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<br>基準<br>值。<br>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。<br>備考 3. “—” 係指該項限用物質為排除項目 |           |           |           |               |               |                     |