



BITMAIN DR3 Server Installation Guide

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**DR3 Server
Installation Guide
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DR3 Server

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Bitmain

Tel: +86-400-890-8855

www.bitmain.com

Overview

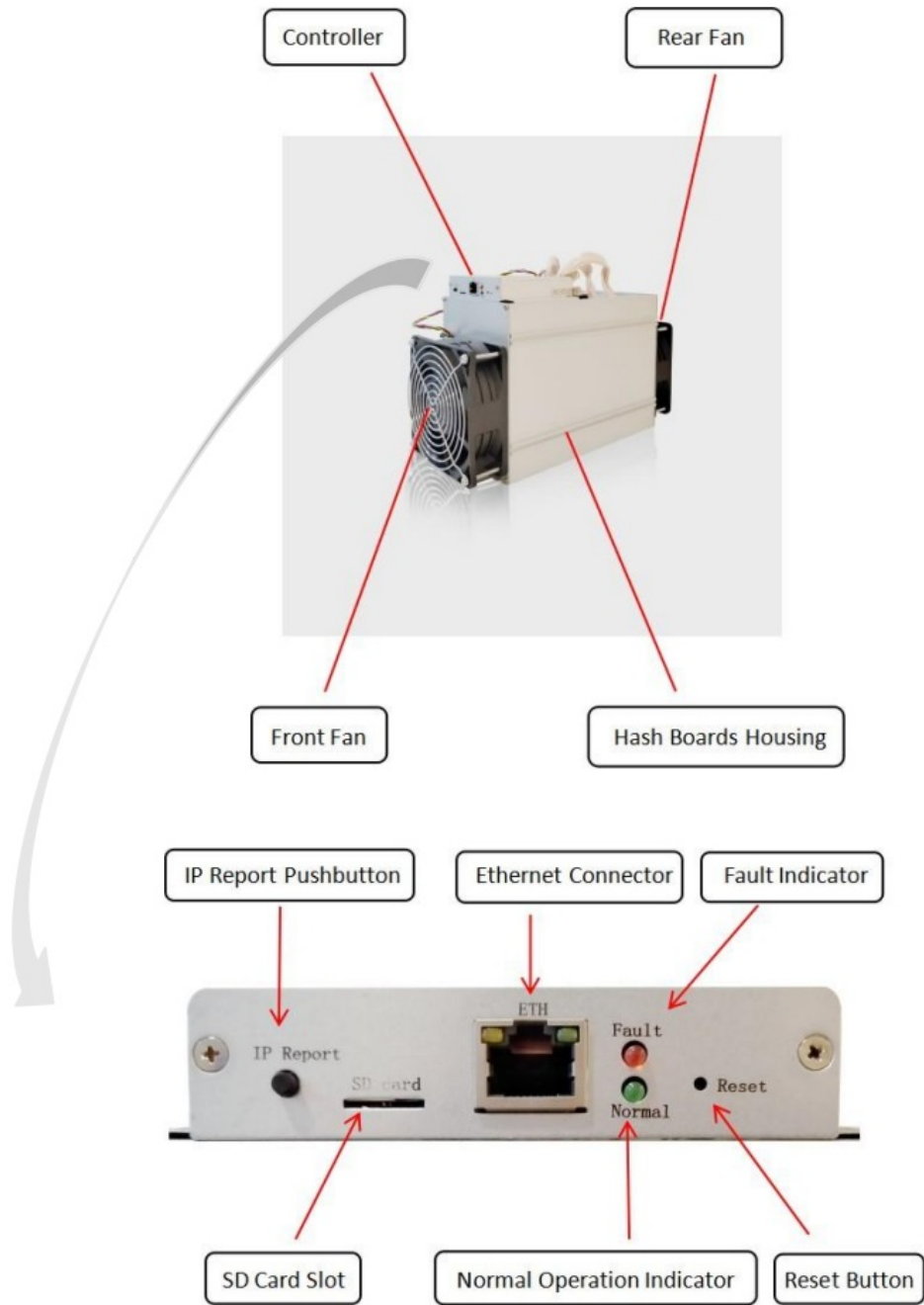
The DR3 server is Bitmain's newest version in the DR3 server series. All DR3 servers are tested and configured prior to shipping to ensure easy set up.



You must provide your own ATX power supply.

1.1 DR3 Server Components

The DR3 server main components and controller front panel are shown in the following figure:



1.2 Specifications

Product Glance	Value
Product model	DR3
Hashrate, TH/s	7.80
Reference power on wall, Watt	1410
Reference power efficiency on wall @25°C, J/TH	180.73
Adapted AC/DC output requirement, Watt/ Volt	1605/ 12.00

Detailed Characteristics	Value		
	Min	Typ	Max
Hashrate & Power			
Hashrate, TH/s		7.80	8.00
Power efficiency on wall @25°C, J/TH⁽¹⁻¹⁾	180.73		188.11
Power efficiency on wall @40°C, J/TH(1-2)	186.51		194.13
Reference power on wall, Watt (1-3)	1410		1553
DC input voltage range, Volt ⁽¹⁻⁴⁾	11.60	12.00	13.00
DC input current range, Amp (1-5)		117.5	133.9
Adapted AC/DC output power requirement, Watt (1-6)	1444	1605	
Hardware Configuration			
Quantity of hash chips	162		
Quantity of hash boards	3		
Networking connection mode	RJ45 ethernet 10/100M		
Server Size (Length*Width*Height, w/o package), mm	293*130*187		
Net weight, kg	3.83		
Noise, dBA @25°C (2-1)			76
Environment Requirements			
Operation temperature,°C	0	25	40
Storage temperature,°C	-40	25	85
Operation humidity, RH	5%		95%

Notes:

(1-1) Refers PSU power conversion efficiency of 93%

(1-2) Refers PSU power conversion efficiency of 93%

(1-3) Min condition: 25°C, min J/TH, typical hashrate

Max condition: 40°C, max J/TH, max hashrate

Refers PSU power conversion efficiency of 93%

(1-4) Caution: Wrong input voltage may probably cause server damaged

(1-5) Typ condition: min reference power, typical DC input voltage

Max condition: max reference power, min DC input voltage

(1-6) Min condition: 40°C, max J/TH, max hashrate,

PSU output power should be no less than the min value to make sure mining stable.

Typical condition: (typical power) = (min power)/90%, leave power output margin for PSU.

Caution: It is strongly recommended that using typical power can make sure your server can work well. You can use one PSU to power multiple boards. Do not attempt to power one board with more than one PSU. All PCI-E ports are required to plug in while powering up the board.

(2-1) Max condition: Fan is under max RPM(rotation per minute).

**Note:**

Parameters above are the measured data of DR3 server in the laboratory environment, which is for reference only, the actual data may differ.

Connecting the Power Supply

Ten PCI -e connectors are located at the top of the DR3 server for connecting the PSU as follows:

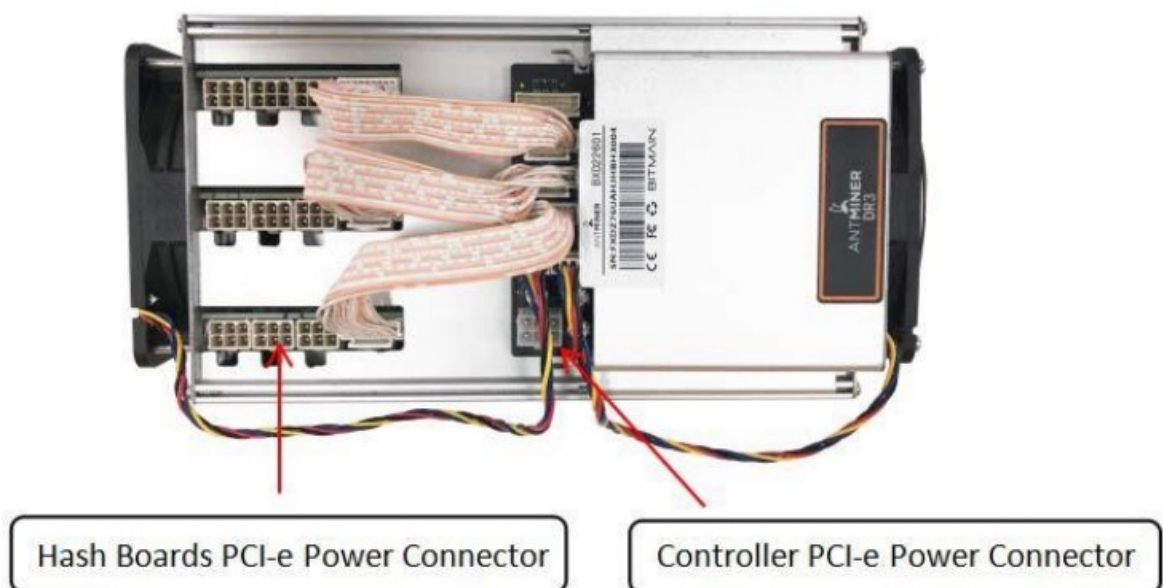
- Nine PCI -e connectors for the hash boards. Each hash board has three PCI -e connectors.
- One PCI -e connector located on the controller.



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 three PCI -e connectors on the top of the DR3 server, ensuring that each hash board is powered by the same PSU.



2. Connect a PSU power cable connector to the DR3 PCI -e connector on the controller.
3. Connect the network cable to the ETH port.

4. To power up your DR3 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).

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.

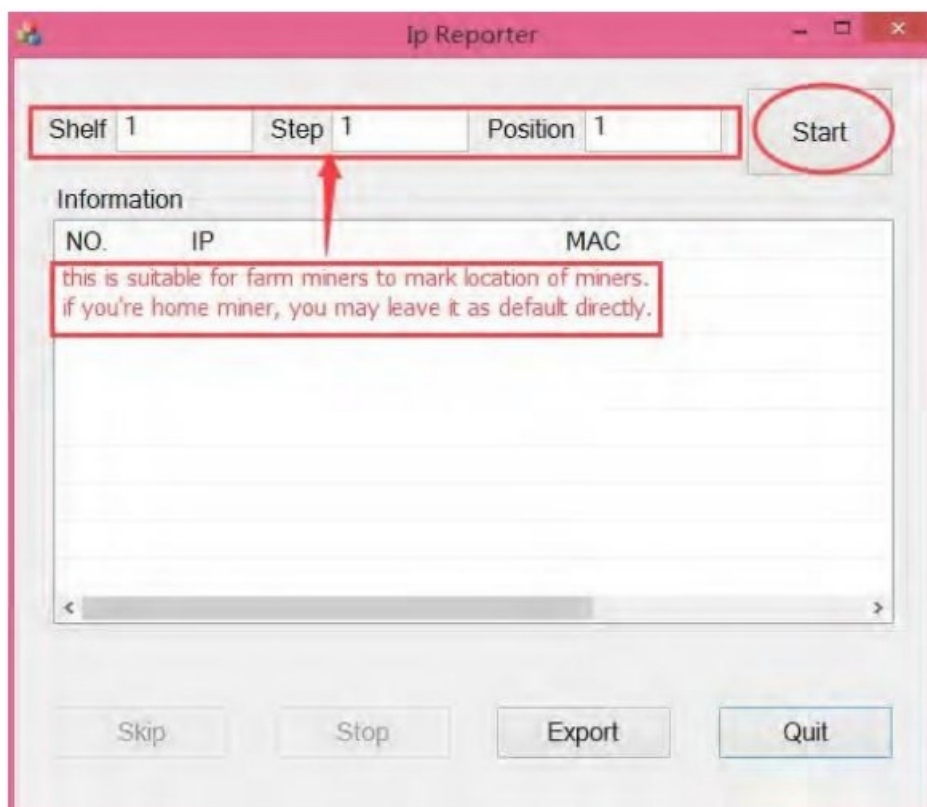
4. Right-click IPReporter.exe and run it as Administrator.

5. Select one of the following options:

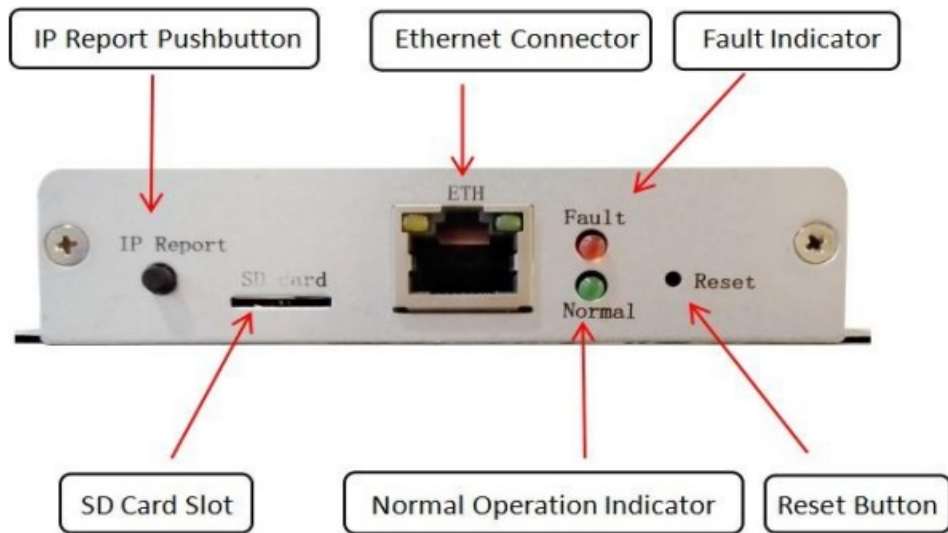
■ Shelf, Step, Position – suitable for farm servers to mark the location of the servers.

■ Default – suitable for home servers.

6. Click Start.



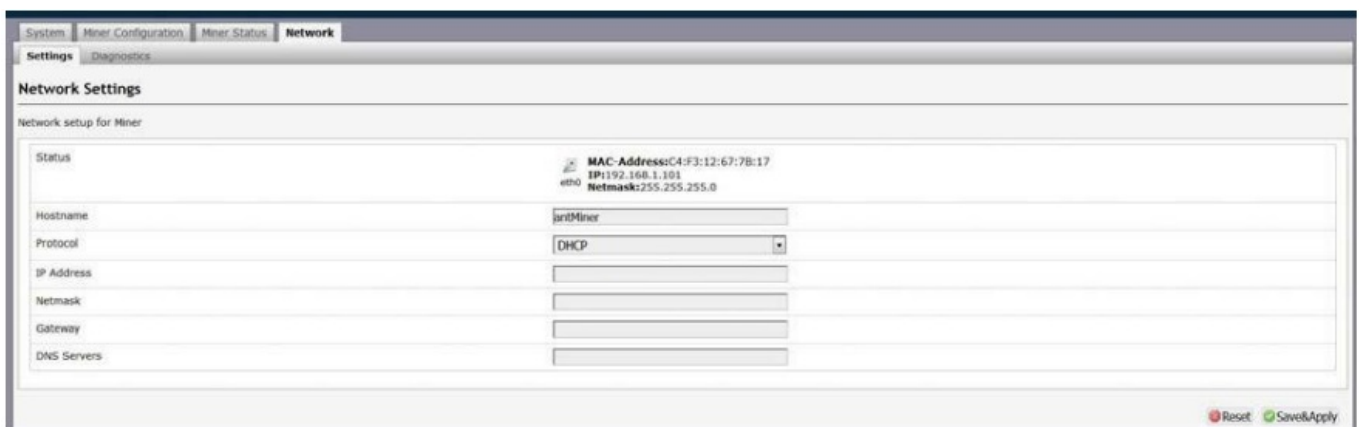
7. On the controller board, click the IP Report button. Hold it down until it beeps (about 5 seconds).



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.

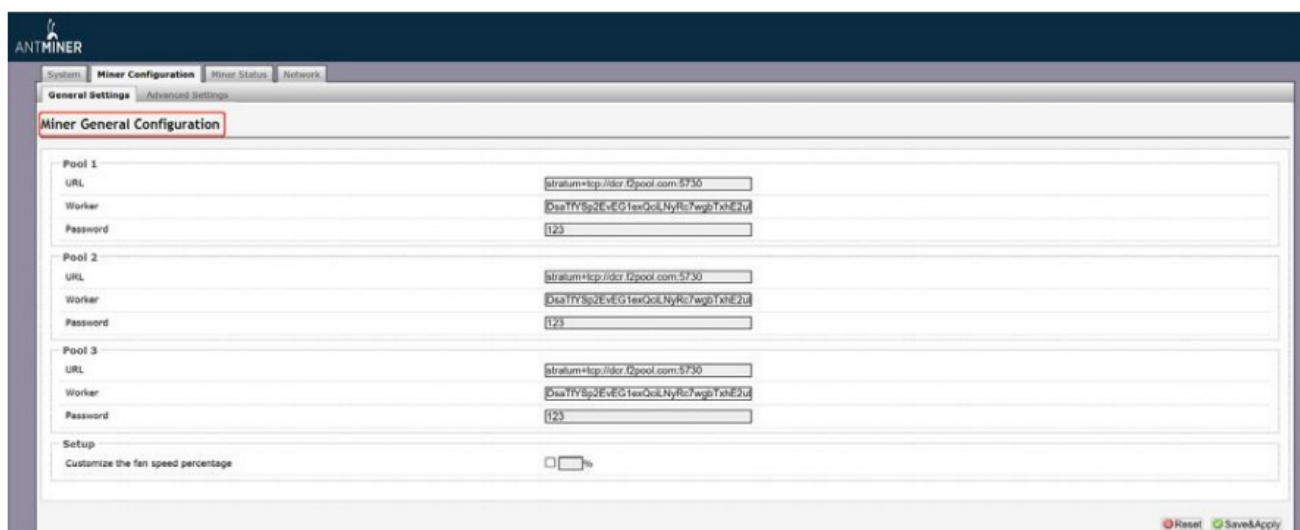



Configuring the Server

Setting Up the Pool


To configure the server:

1. click General Settings.



 **Note:** Fan speed can be adjusted, but we recommend keeping the default setting.

2. Set the options according to the following table:

Option	Description
Pool URL	Enter the URL of your desired pool.  The DR3 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.
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.

Monitoring Your server

To check the operating status of your server:

1. Click the status marked below.

Summary														
Elapsed	GH/S(RT)	GH/S(ewg)	FoundBlocks	LocalWork	Utility	WU	BestShare							
4m19s	7,405	7,615.43	7,169	705,687	190.13	103,403.62	189,109							

Pool	URL	User	Status	Diff	GetWorks	Priority	Accepted	Nonce#	DiffA#	DiffR#	DiffS#	Rejected	Discarded	Stale	LSDiff	LSTime
0	stratum+tcp://dcr.f2pool.com:5730	DwaUpENd9h1U8R7Q42v5K5ad8ghNc0Bw	Alive	1.02K	2	0	820	7,172	445,952	0	0	0	0	672	0	1,024 0:00:00
1	stratum+tcp://dcr.f2pool.com:5730	DwaTYp2EvE6G1exQcILNyRc7wgbTwhE2uB	Alive	512.0000	2	1	0	0	0	0	0	0	0	0	0	0
2	stratum+tcp://dcr.f2pool.com:5730	DwaTYp2EvE6G1exQcILNyRc7wgbTwhE2uB	Alive	512.0000	2	2	0	0	0	0	0	0	0	0	0	0
Total					6		820	7,172	445,952	0	0	0	0	672	0	
HW	125							1.7429%	0.0289%							

Chain#	ASIC#	Frequency	GH/S(RT)	HW	Temp(PCB)	Temp(Chip)	ASIC status
1	54	400	2451.84	42	58	70	00000000 00000000 00000000 00000000 00000000 00000000
2	54	400	2528.80	43	56	69	00000000 00000000 00000000 00000000 00000000 00000000
3	54	400	2424.35	42	55	66	00000000 00000000 00000000 00000000 00000000 00000000

Fan#	Speed (r/min)	Fan1	Fan2
		4,560	4,560

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

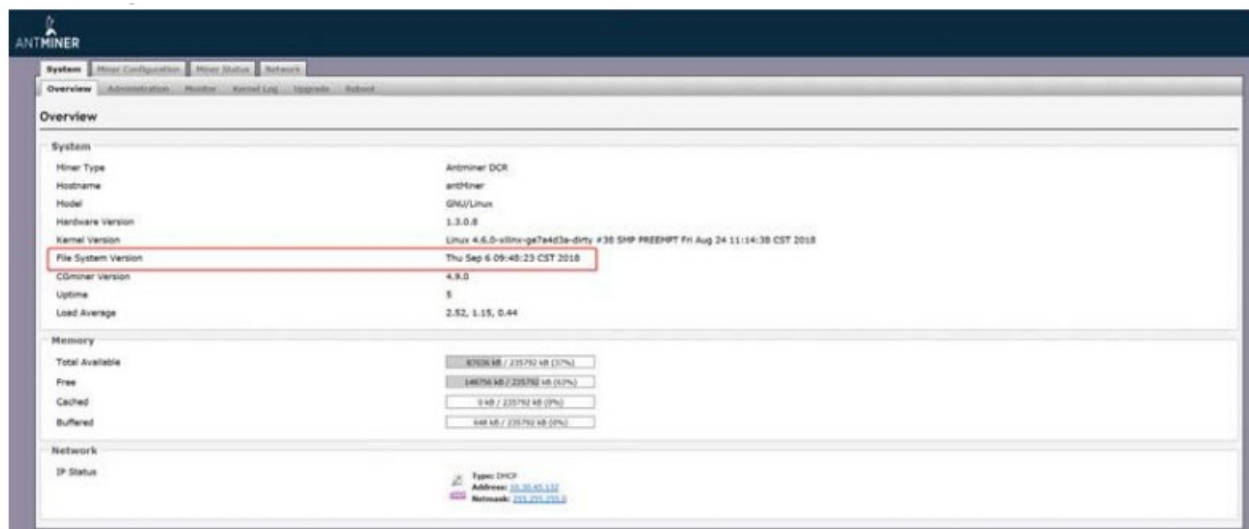
Note: The DR3 server is with fixed frequency 400 MHz. Firmware will stop running when the Temp(PCB) reaches to 85°C , there will be an error message “Fatal Error: Temperature is too high!” shown in the bottom of kernel log page.

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 20180906.



6.2 Upgrading Your System

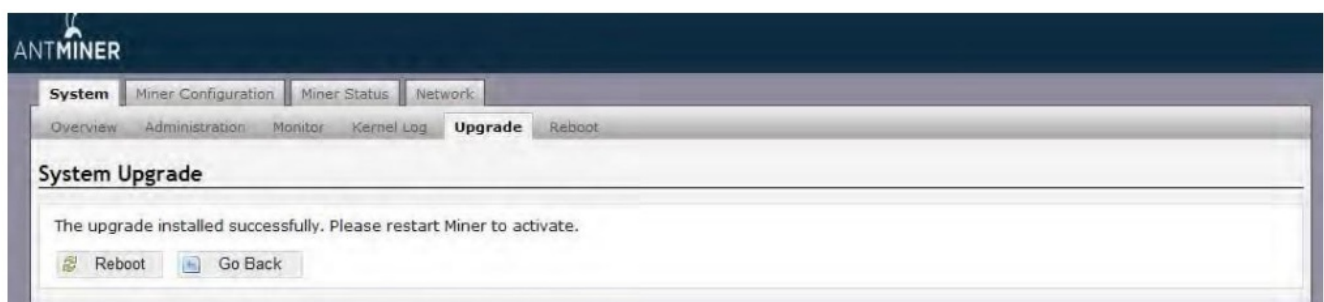
i Make sure that the DR3 server remains powered during the upgrade process. If power fails before the upgrade is completed, you will need to return it to Bitmain for repair.

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 (Browse) button and navigate to the upgrade file. Select the upgrade file, then click Flash image. A message appears notifying you if the DR3 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.




The screenshot shows the 'System' tab with the 'Administration' sub-tab selected. The 'Password' section is active, displaying the text 'Changes the administrator password for accessing the device'. Below this, there are three input fields: 'Current Password', 'New Password', and 'Confirmation'. Each field has a corresponding label on the right side. At the bottom right of the form, there are two buttons: 'Reset' (with a red circular icon) and 'Save&Apply' (with a green circular icon).

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.

Regulation:

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.

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Documents / Resources

 A thumbnail image of a document titled "BITMAIN DR3 Server Installation Guide". It features the Bitmain and Antminer logos at the top, followed by the title and a small "Ver 2.0" label. Below the title is a block of small, illegible text.	<p>BITMAIN DR3 Server [pdf] Installation Guide DR3 Server, DR3, Server</p>
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References

-  [BITMAIN](#)
-  [BITMAIN](#)
- [User Manual](#)

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