A2 Series Air Cooling User Guide

2025/04/02

www.bitdeer.com

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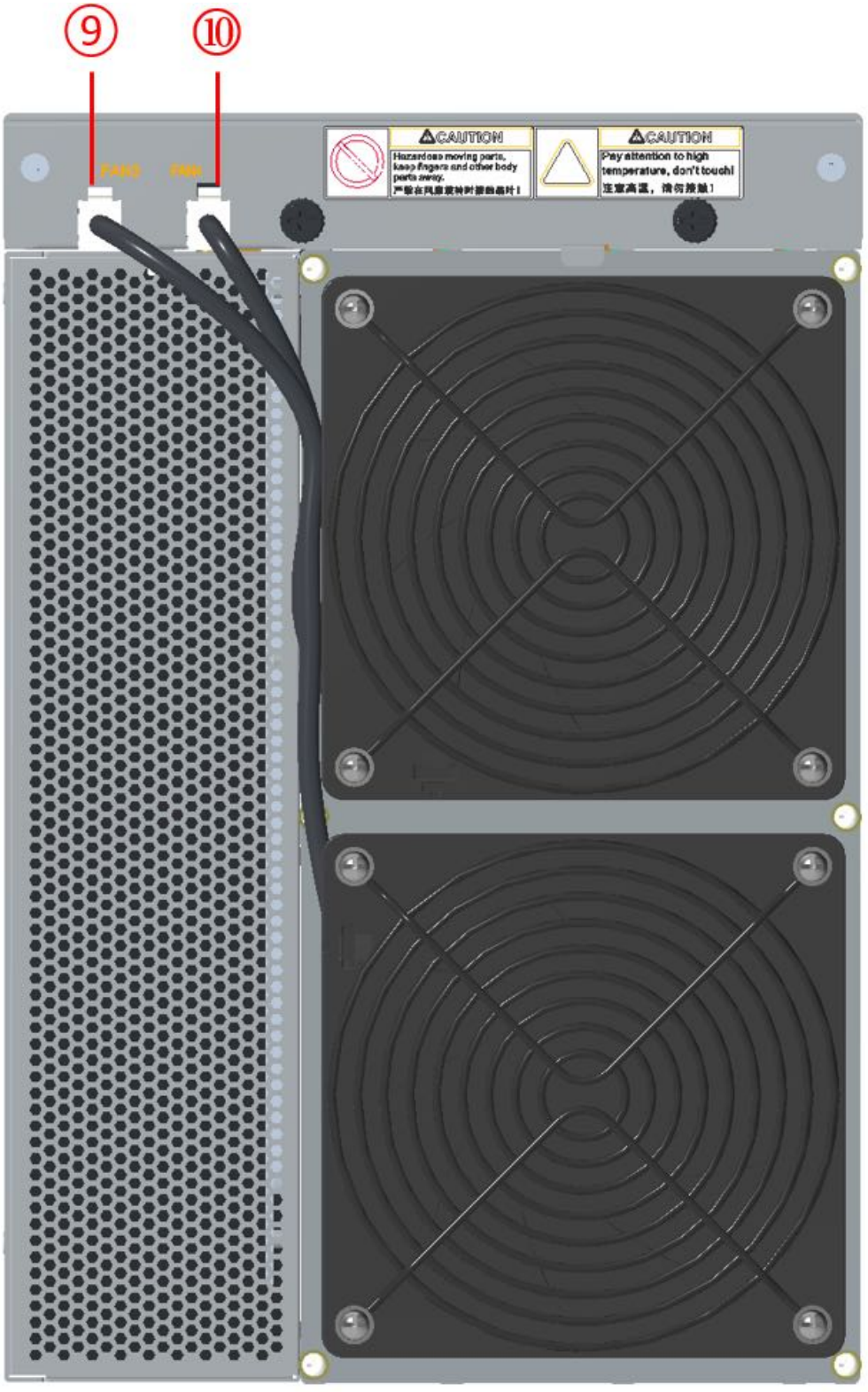
1. Product Introduction



1.1 Component Reference

① Ethernet port
② Indicator light
③ SD card slot
④ Find IP button
⑤ Reset button
⑥ FAN1 port
⑦ FAN2 port
⑧ Power port
⑨ FAN3 port
⑩ FAN4 port

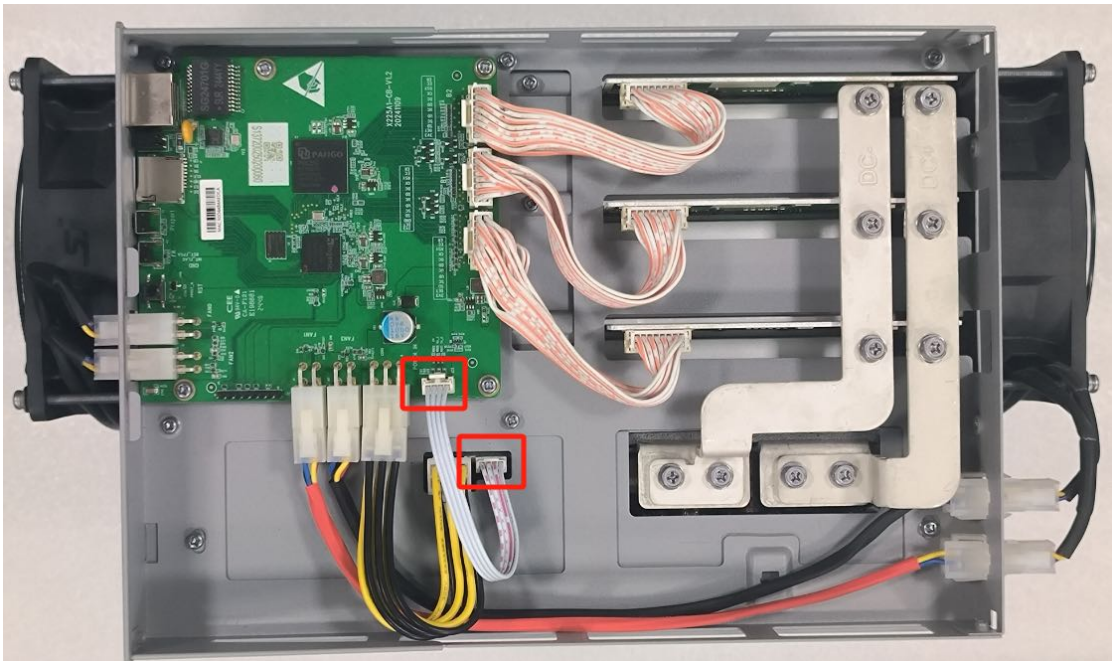
2. Server wiring and shelf operation safety reminder

2.1 Server Wiring

Connect the control board cables to the fan, power supply, and computing board correctly according to the instructions. Make sure the connector clips are locked. Do not force the cable plugs in backwards. Inserting them incorrectly can damage the control board and signal cables when you turn on the power.

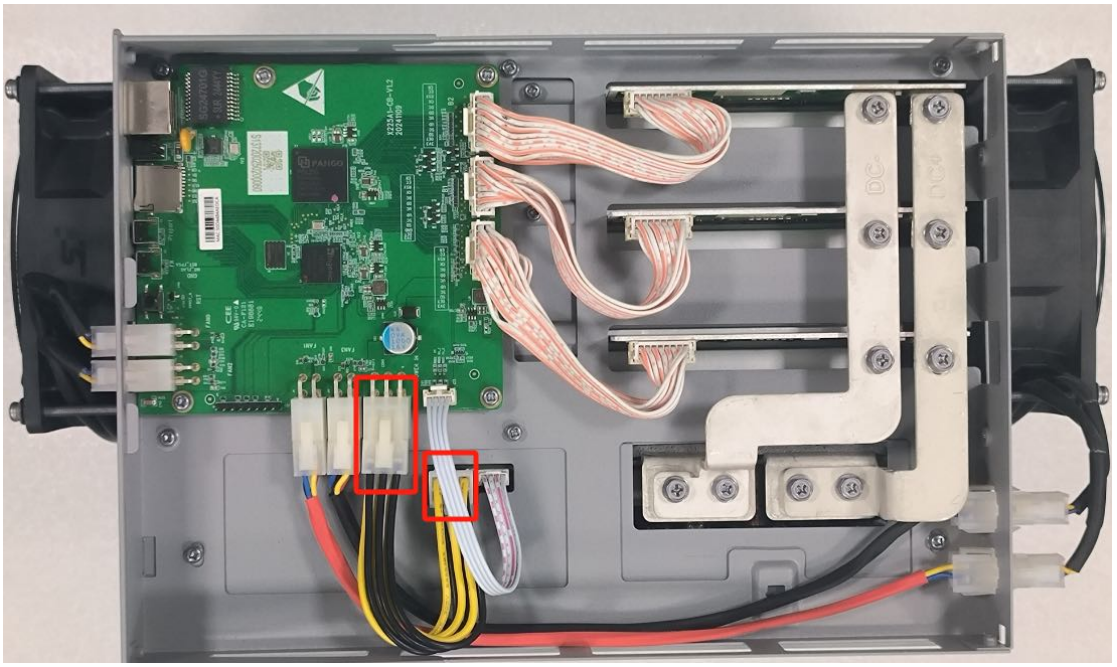
2.2 Power control cable connection

The 4-pin power IIC control cable features a locking buckle on the plug. Ensure correct orientation during connection as shown in the figure below, and verify that the buckle is securely engaged after insertion.



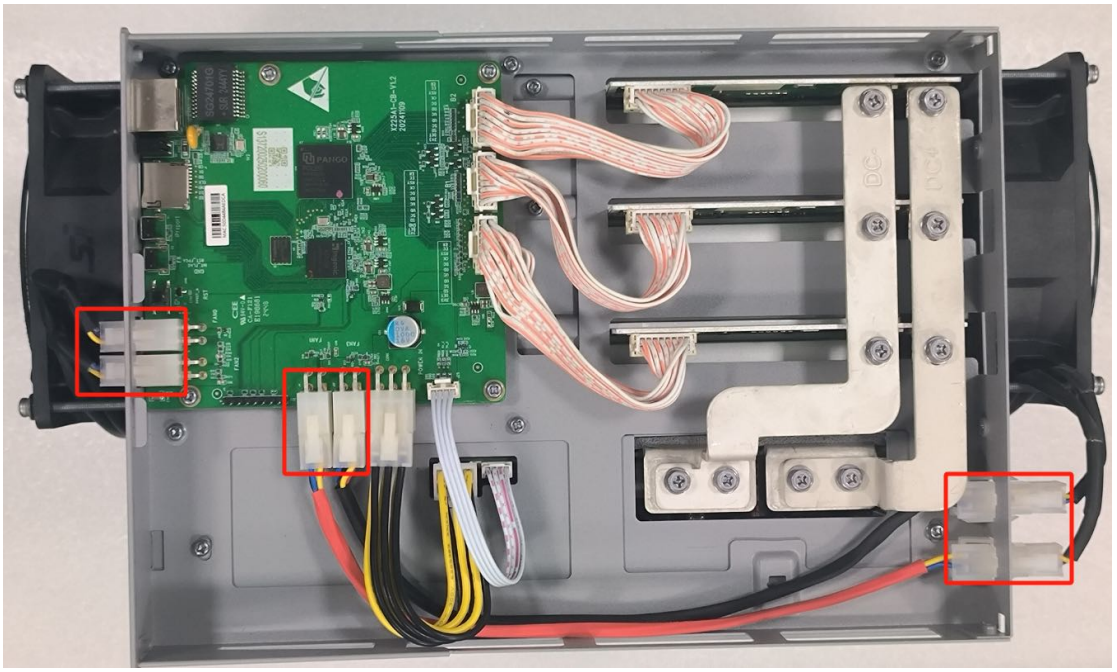
2.3 Precautions for connecting the power cable of the control board

The control board power cable is a 2x3PIN connector with a locking buckle. Please refer to the figure below for the correct connection method. Ensure the insertion direction is accurate and the buckle is securely latched after connection.



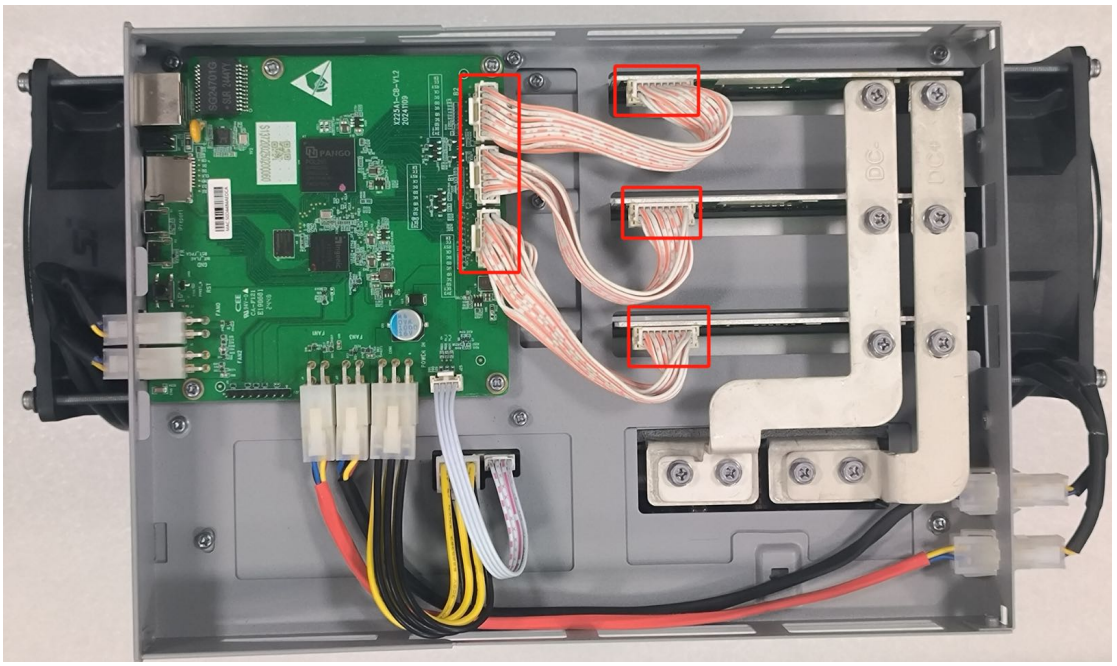
2.4 Fan cable connection

The fan cable is a 2*2PIN with a locking buckle. Please refer to the illustration below for the correct connection method. Ensure the insertion direction is accurate and the buckle is securely latched after connection.



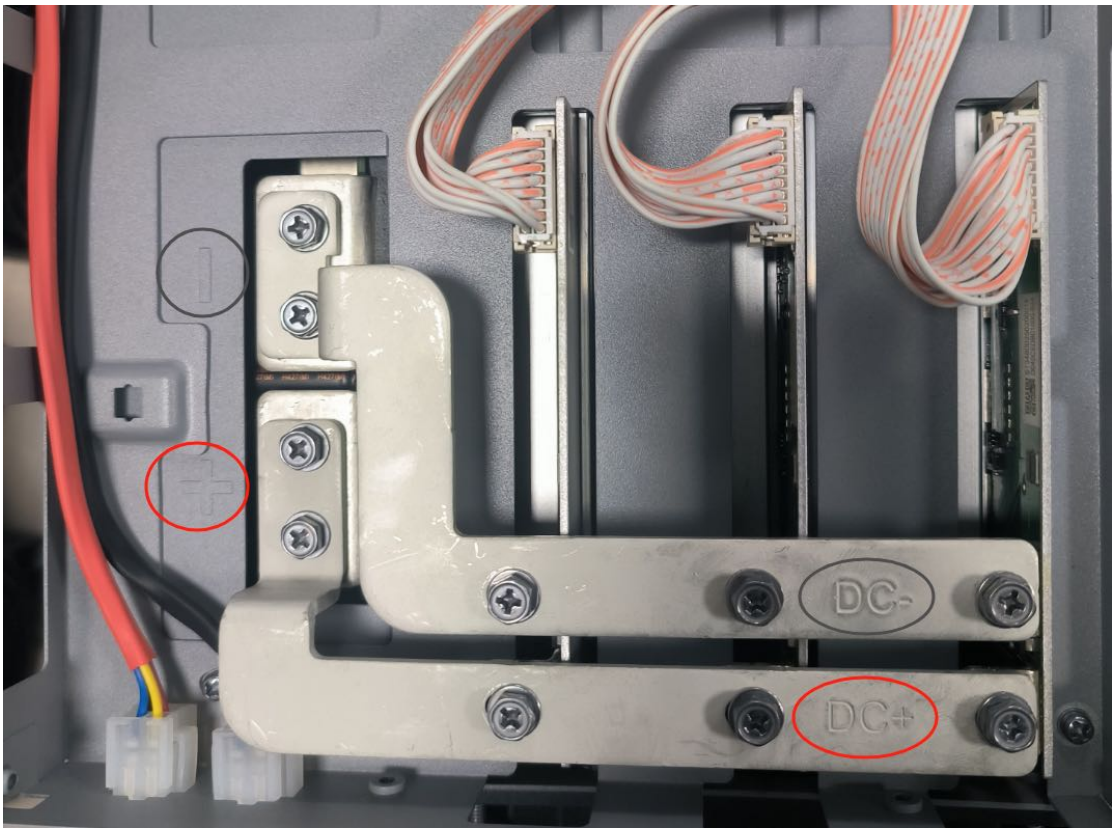
2.5 Precautions for connecting the control board and the hash board

The hashboard cable is a 2*2PIN with a locking buckle. Please refer to the illustration below for the correct connection method. Ensure the insertion direction is accurate and the buckle is securely latched after connection.



2.6 Power Copper Busbar Connection Precautions

During the installation of the hash board copper busbars, please ensure that copper bars of the same polarity are positioned as illustrated below. Verify that the copper bars are placed parallel to each other and are not in contact. Securely tighten the copper bar fixing screws. After tightening, reconfirm that the copper bars remain parallel and without any contact. Failure to adhere to these instructions may result in abnormal operation or even permanent damage to the machine.



2.7 Machine wiring check

After connecting the cables and tightening the screws, ensure that the cables and screws are installed correctly.

2.8 Precautions for server transportation and racking

Please wear work gloves when handling and positioning the server onto the rack. To prevent accidental drops during transportation, minimize manual carrying over long distances. Exercise caution when placing the server on the shelf to avoid hand injuries from metal parts, and ensure cables are not pulled, which could cause the machine to fall.

3.Server configuration and preparation

3.1 Server configuration item list

	Item Name	Qty	Item Use	Remarks
1	Computer	1 unit	Configuring server operations	
2	Network Switch	1 unit	Enabling network communication between the configuration computer and the server	The network switch must be able to connect to the external network.
3	DHCP/Router	1 unit	Providing dynamic IP address for initial server power-on	The server is configured to obtain a dynamic IP address via DHCP by default.

3.2 Server network environment

The factory default setting for the server is to obtain a dynamic IP address through DHCP, hence a DHCP server must be configured in the network, or the router must enable the DHCP dynamic IP address allocation service.

4.Server connection and power-on check

(1) Prior to connecting any cables and powering on the server, thoroughly inspect it to ensure that no heat sinks or other components have become detached. It is imperative that all heat sinks and components are securely in place before proceeding with wiring and power-up.

(2) Connect the power cord to the server and the network cable to the switch. Before powering on the server, verify that the power control cable, fan control cable, control board power supply cable, hash board cables, and fan cables are firmly secured and not loose. Additionally, confirm that the copper busbars are correctly connected.

Note:

1) When installing the hash board copper busbars, ensure the positive and negative polarity busbars are correctly positioned. Verify that the busbars are placed parallel to each other and are not in contact. The copper busbar fixing screws must be securely tightened. After tightening, reconfirm that the copper bars remain parallel and without any contact. Failure to comply with these instructions may lead to abnormal operation or even permanent damage (burnout) of the machine.

2) The power control cable between the control board and the power supply must be connected correctly. Incorrect connection may prevent the control of the power supply voltage output, resulting in a lack of hashing power.

3) The control board must have a reliable connection to the fan cables. If a fan cable becomes detached or poorly connected, the server may be unable to cool down, triggering a protective power-off.

4) Server Data Configuration (Webpage Configuration) (Software)

5) Querying the Dynamic IP Address Obtained by the Server

5. Server data configuration

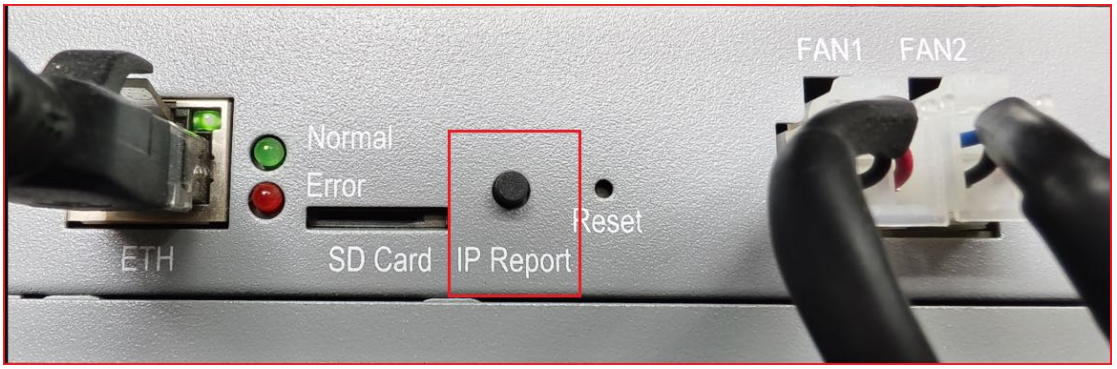
5.1 Query the Dynamic IP Address Assigned to the Server

Ensure your computer is connected to the same network segment as the server. Utilize the Sealminer management tool and click "Scan、Detect" to discover and open the server's IP address.(Note: The mining pool address, miner name, and password in the figure below are SEALMINER Demo examples. For actual operations, please refer to your own mining pool address, miner name, and password.)

Scan/Detect Window.

Click "Start" on the window to initiate the scan.

IP Reporting Method: After starting the miner, press and hold the IP Report button on the miner for 5 seconds. Wait a few seconds, and the current device's IP address will be displayed in the software. (Note: The PC running the management tool and the miner must be on the same local area network).



View the dynamically obtained IP and MAC addresses reported by the server in the Sealminer management tool.

Note:

1) If none of the indicator lights on the server control board panel are on after powering on, please check the reliability and correctness of the power cable connections.

2) If the indicator light on the right side of the server control board panel is on, but the network port lights are off or the green light is not flashing, please check if the network switch is functioning correctly, if the network cable connection is reliable, and if there are any issues with the network cable quality.

3) The computer running the Sealminer management tool and the server must be on the same network segment. Otherwise, the software may not receive the broadcast packets sent by the server, and consequently, the IP address and MAC address information reported by pressing the server's IP Report button will not be found.

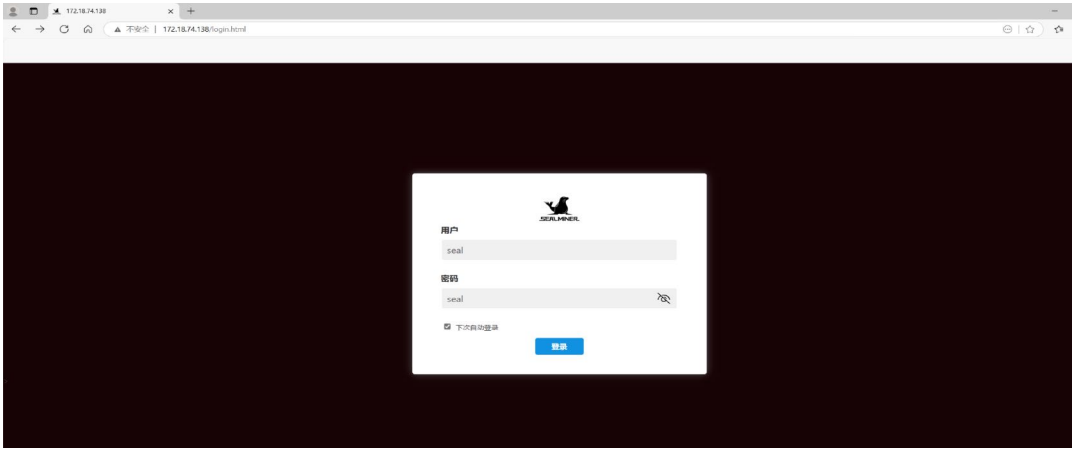
4) If the computer and server are on the same network segment and DHCP service is enabled on the network, but the Sealminer management tool does not find the server's IP after pressing the IP Report button, press and hold the Reset button on the server panel for more than 5 seconds to restore the factory default configuration. Then, power off and then power on the server to restart it. After the server starts normally, press the IP Report button for 5 seconds to detect the server's IP address.

5.2 Mining pool & miner data

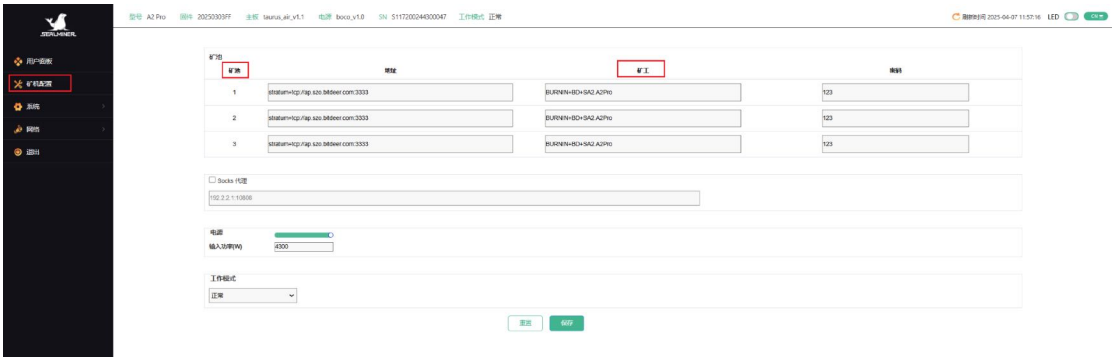
5.2.1 Mining pool & miner configuration

(1) Log in to the web page

Account: seal, Password: seal



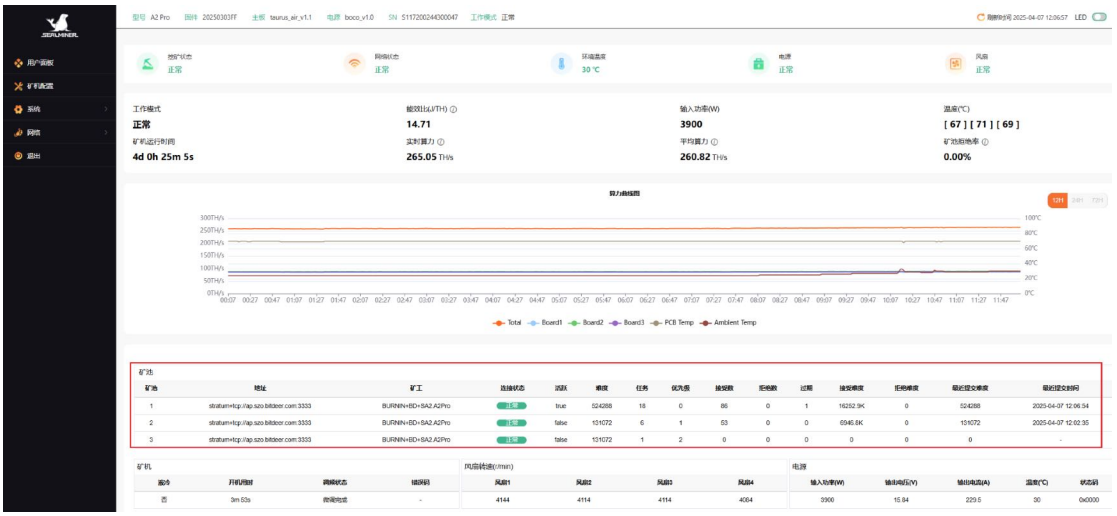
(2) In the mining machine configuration interface, modify the mining pool address and miner name. After modification, click "Save" below to save the changes made.(Note: The mining pool address, miner name, and password in the figure below are SEALMINER Demo examples. For actual operations, please refer to your own mining pool address, miner name, and password.)



After the mining pool configuration is modified, it will take effect immediately without needing to restart the Miner program or the mining machine.

(3) Check whether the configuration changes are effective.

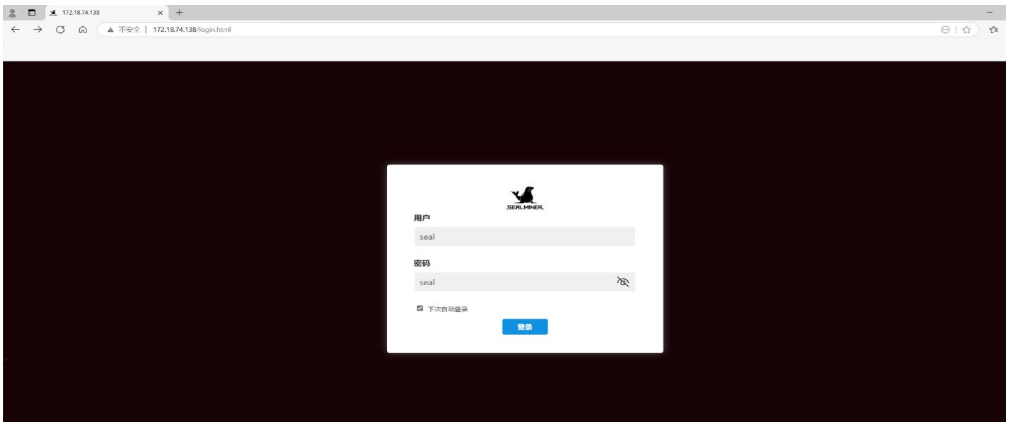
In the user panel interface, check whether the configured mining pool and miner data can be seen.(Note: The mining pool address, miner name, and password in the figure below are SEALMINER Demo examples. For actual operations, please refer to your own mining pool address, miner name, and password.)



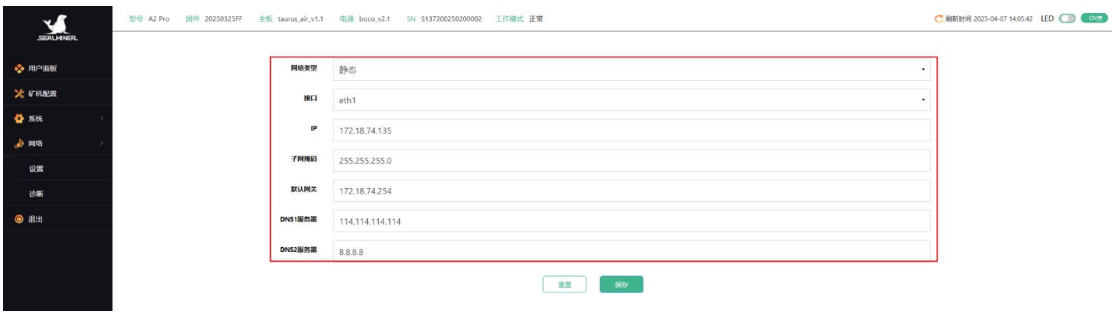
5.3. Configure the server static IP address (optional)

(1) Log in to the web page

Account: seal, Password: seal



(2) On the Network->Settings page, select "Static" in the Network Type option, change the IP address, mask, gateway, and DNS address to the actual miner address, and click "Save".



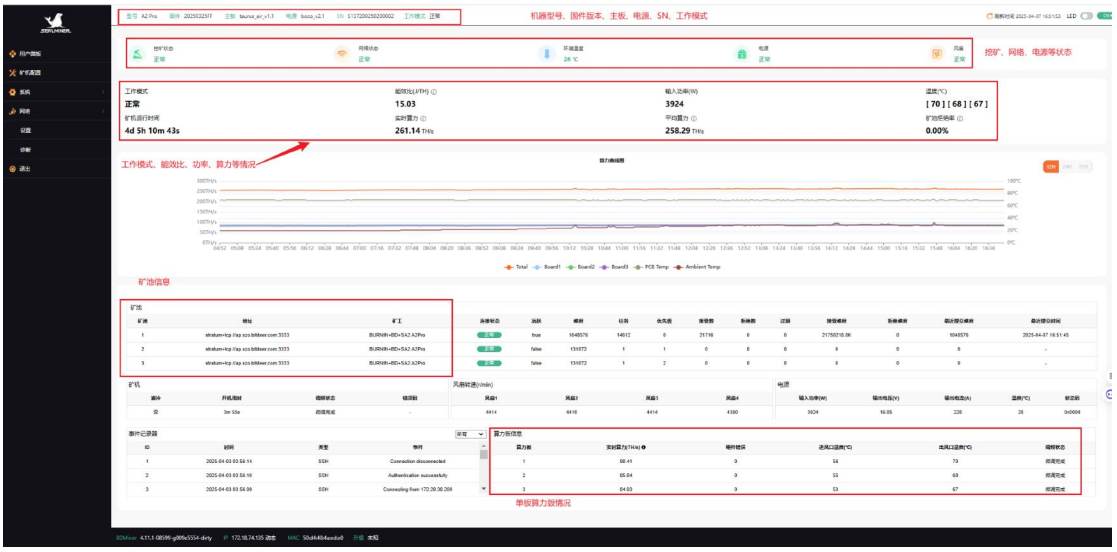
After saving the configuration with a newly set static IP address, you will need to use this new static IP address to log in to the server. Attempting to log in using the previous IP address may result in the page continuously

loading until it fails.

6.Server running status check

Once the server is connected to the operational network, log in to the server to check its running status.

1) Within the server interface, select the "User Panel" option to access the "Miner Running Status" interface.
2) Here, you can view the server's overall hash rate, connected mining pool, fan status, individual board hash rates, individual board temperatures, and other operational parameters.(Note: The mining pool address, miner name, and password in the figure below are SEALMINER Demo examples. For actual operations, please refer to your own mining pool address, miner name, and password.)



7. Configuring Server batch data, server status check, upgrading of firmware

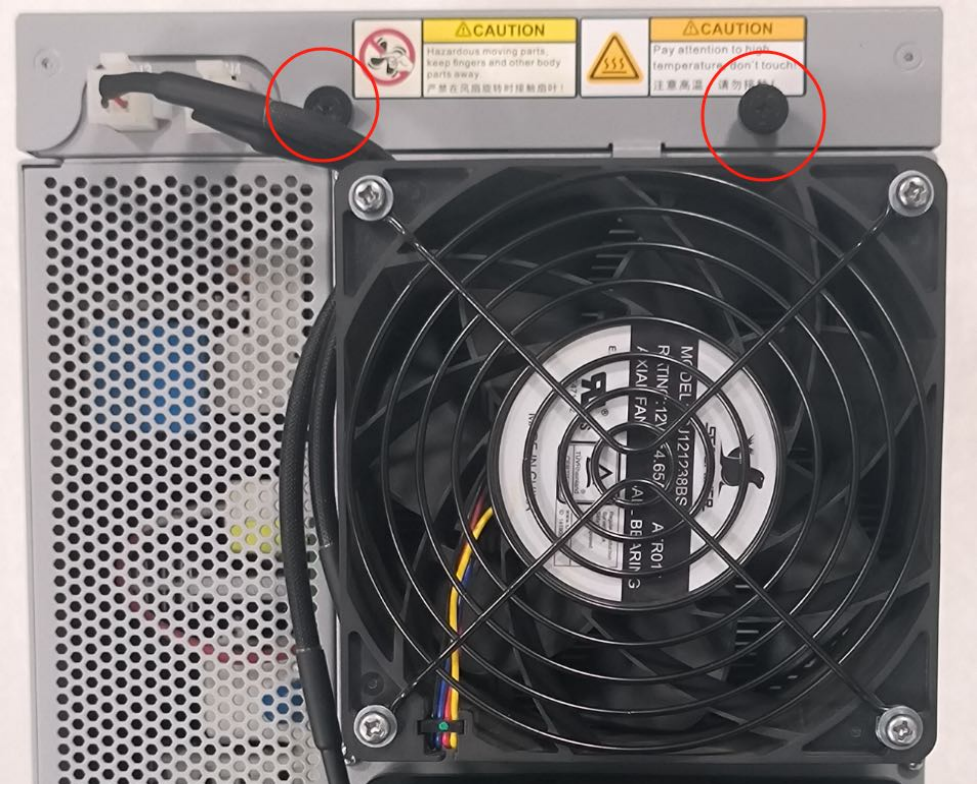
The Sealminer management tool can be used for batch server data configuration, status monitoring, and firmware upgrades. For detailed instructions, please refer to the "Sealminer Management Tool User Manual."

8.Machine Disassembly and Installation

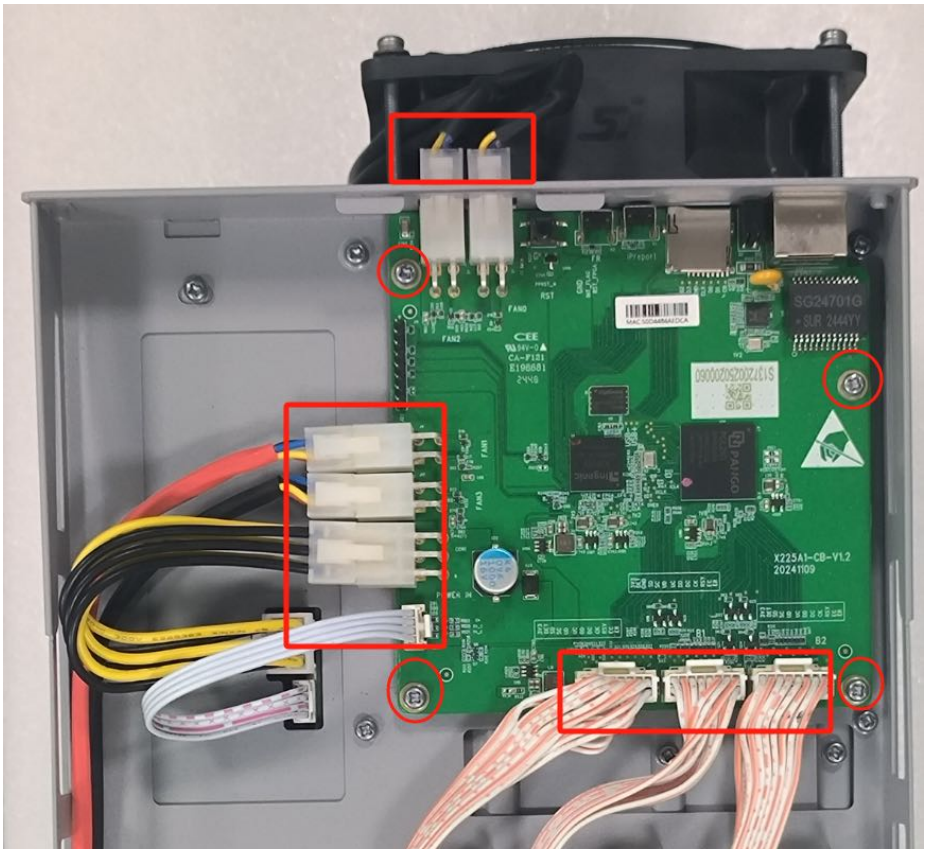
8.1 Disassembly and Installation of the Control Board

8.1.1 Disassembly of the Control Board

(1) First, loosen the two cover screws on the back of the control box, as indicated by the circles in the figure below, and then remove the control box cover;

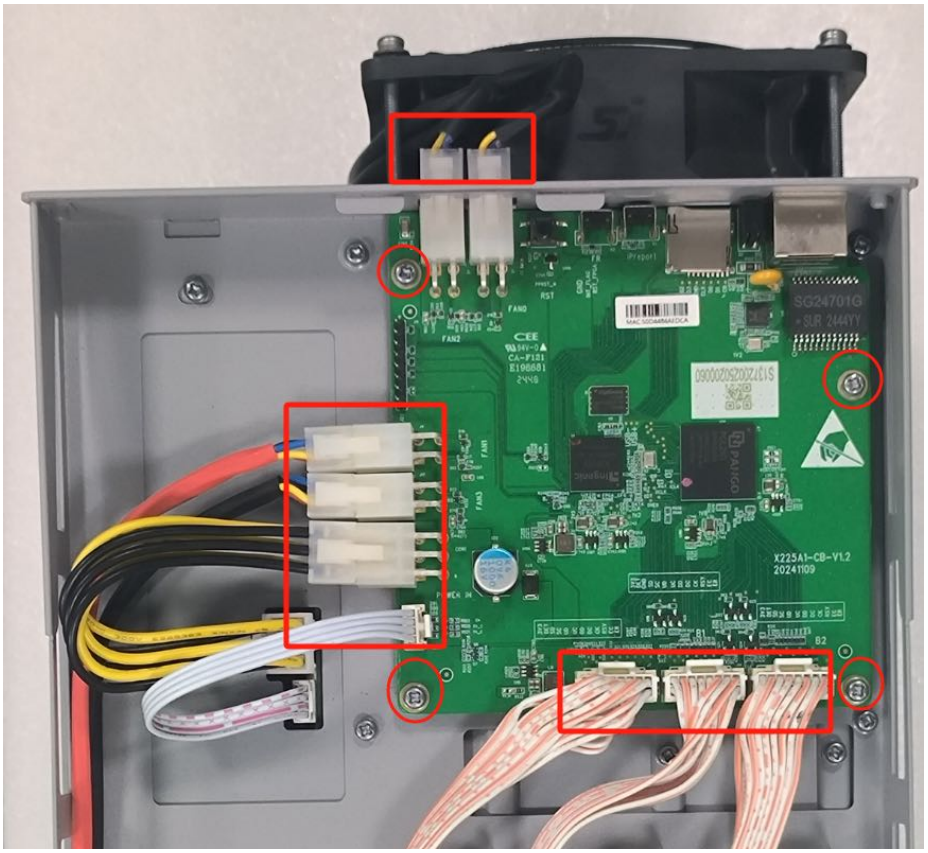


(2) Unplug the fan cable, control board power cable, power IIC control cable, and hash board cable, and remove the corresponding screws at the four corners of the control board as seen in the figure below to remove the control board;



8.1.2 Control board installation

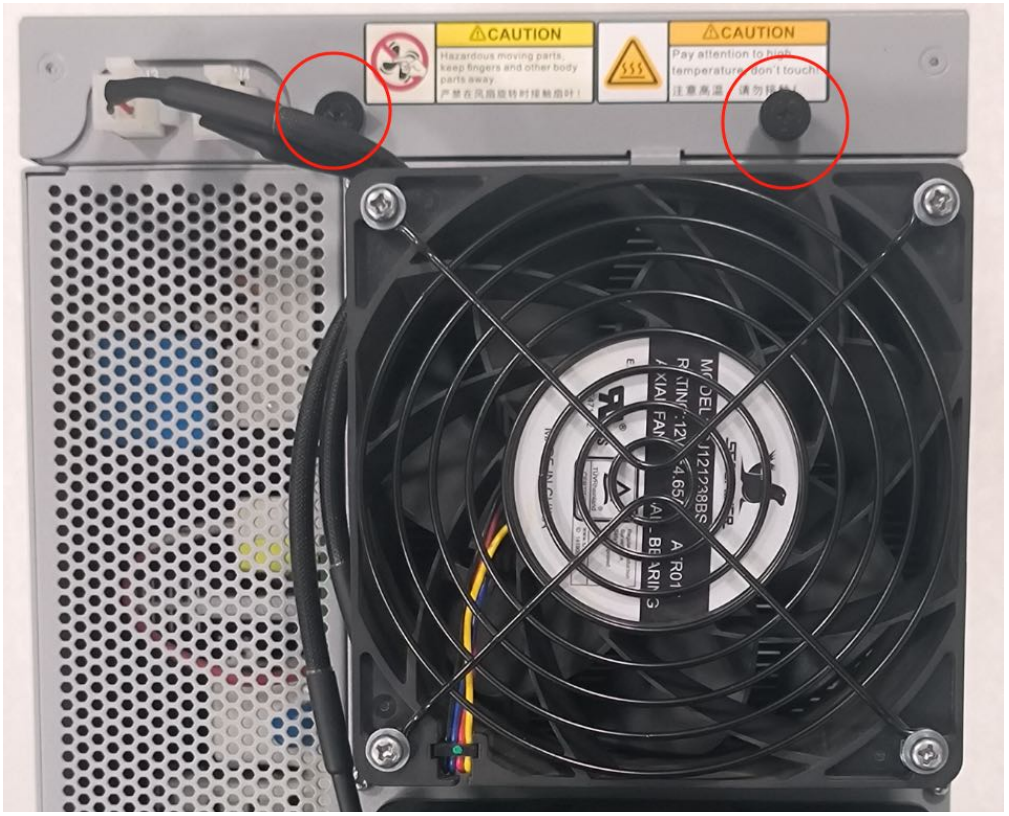
As shown in the figure below, place the control board back into place, tighten the four corner screws, insert the cable firmly, and install the control box cover.



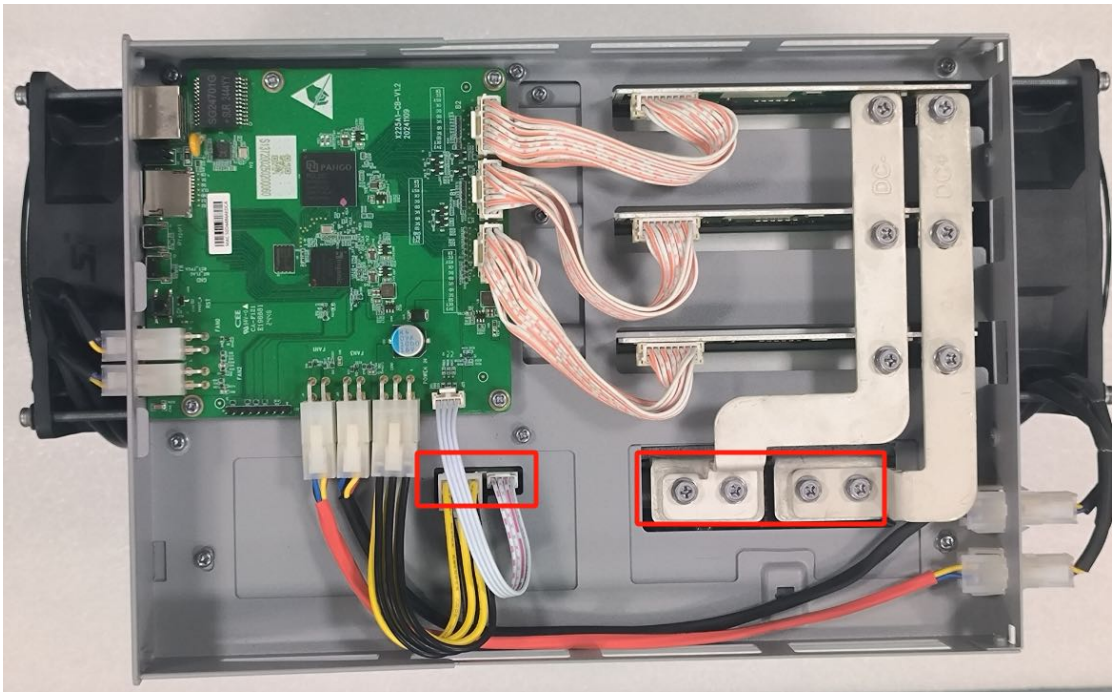
8.2 Disassembly and Installation of the Power Supply

8.2.1 Disassembly of the Power Supply

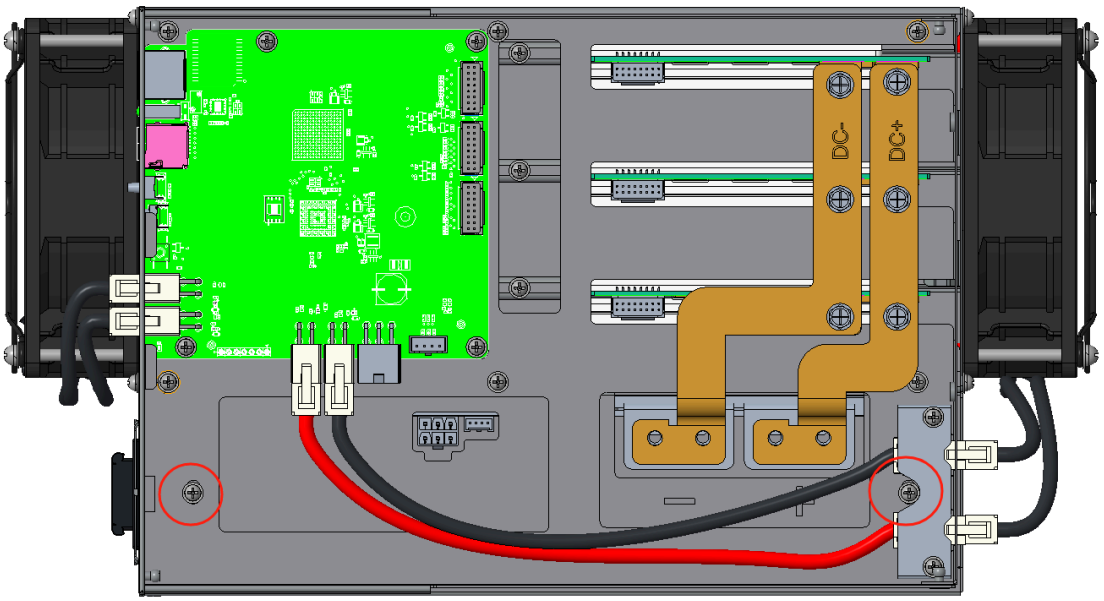
(1) Loosen the two cover screws on the control panel cover and remove the cover;



(2) Unplug the power cord and IIC wire, and remove the 4 screws of the power copper busbar as shown in the figure below;

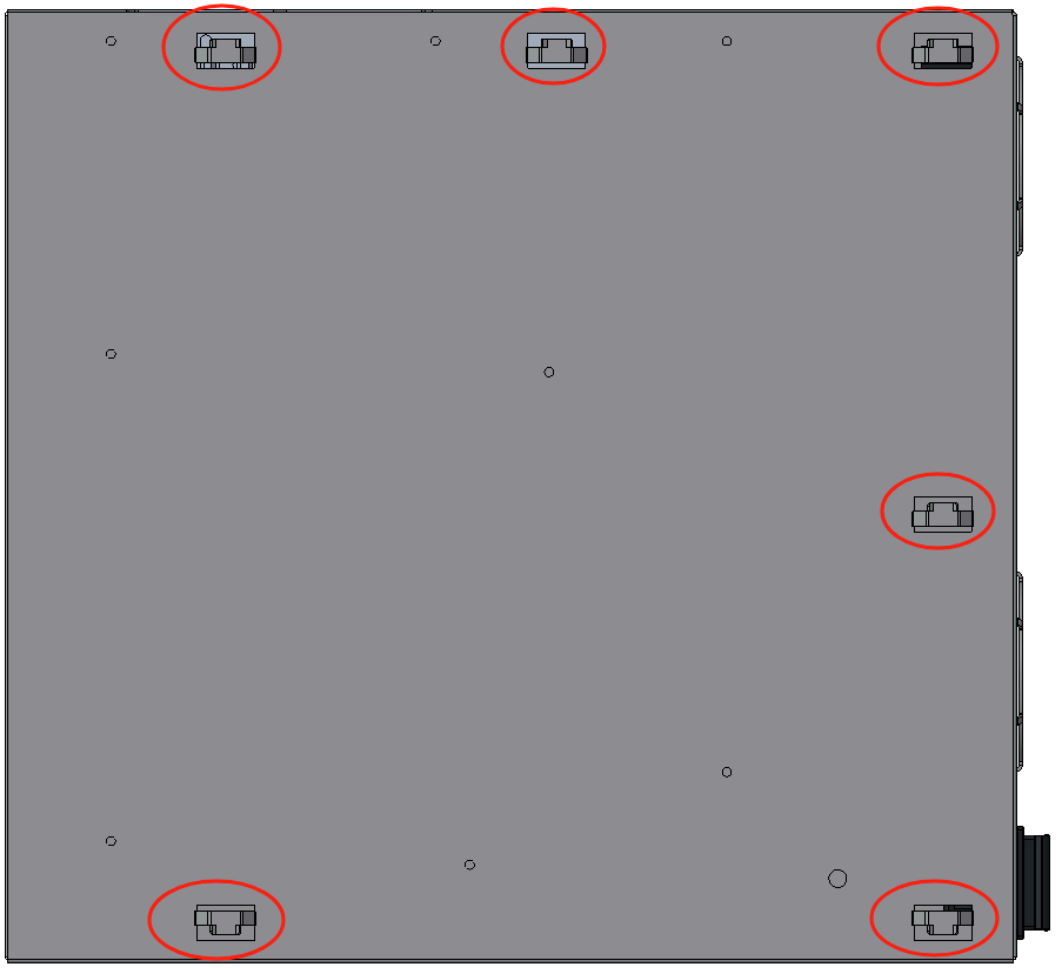


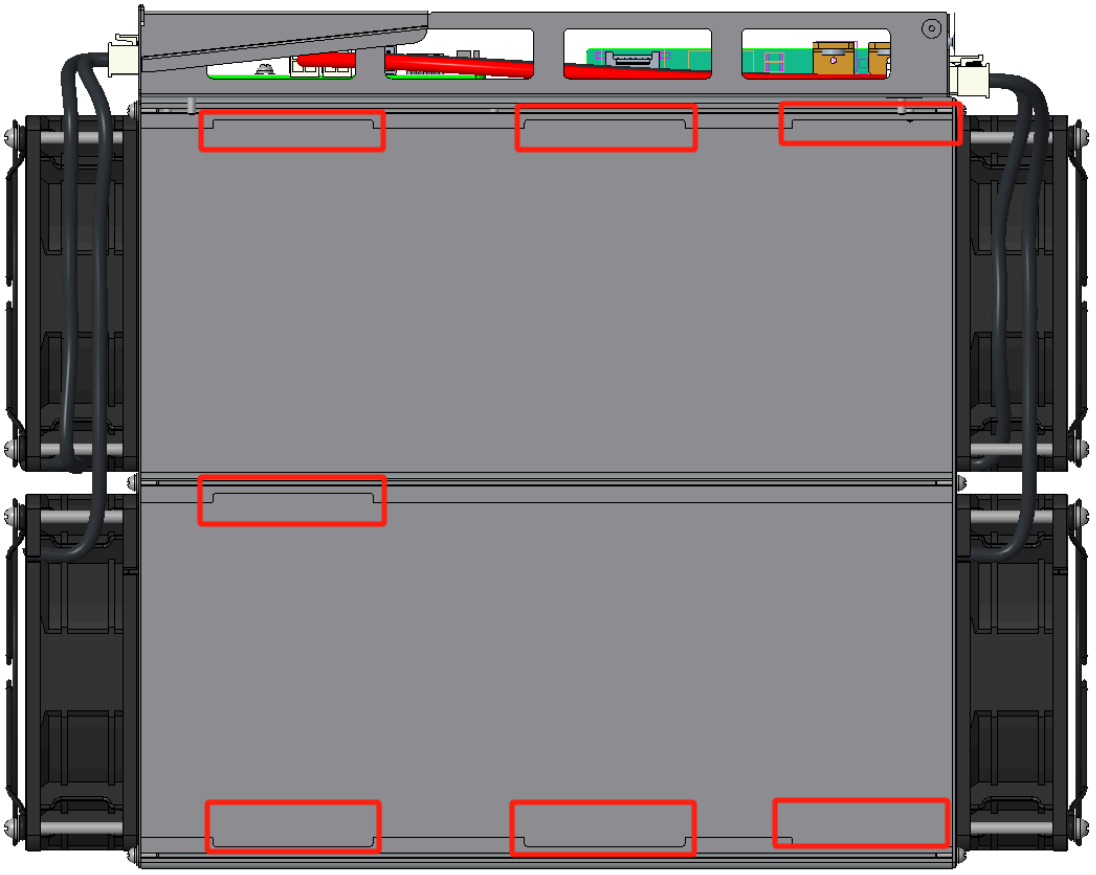
(3) Remove the two fixing screws on the top of the power supply and slide the power supply backward out of the slot;

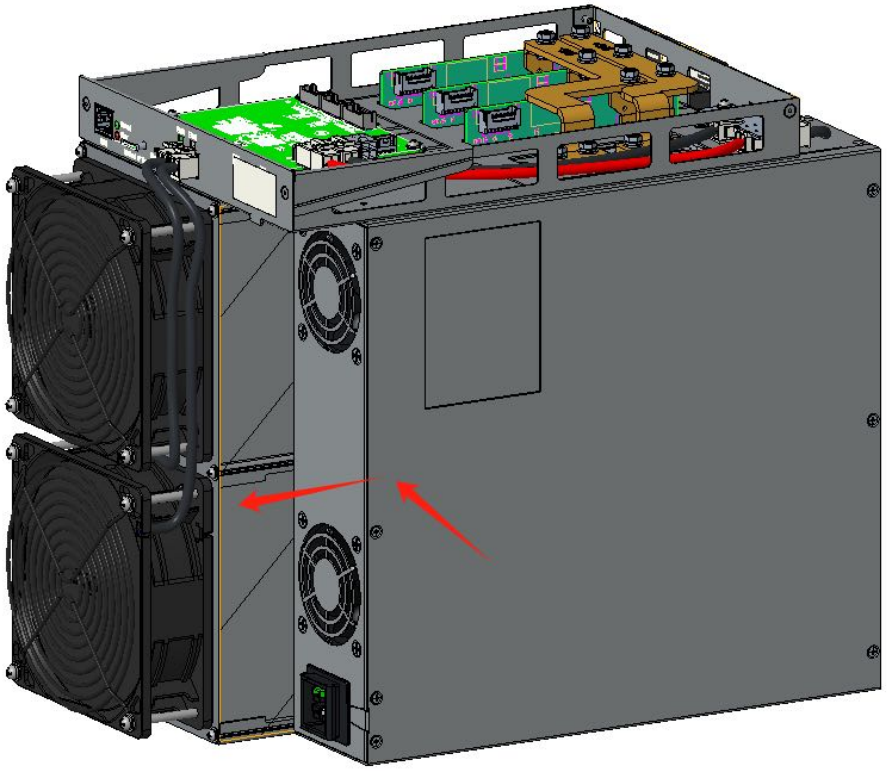


8.2.2 Installation of the Power Supply

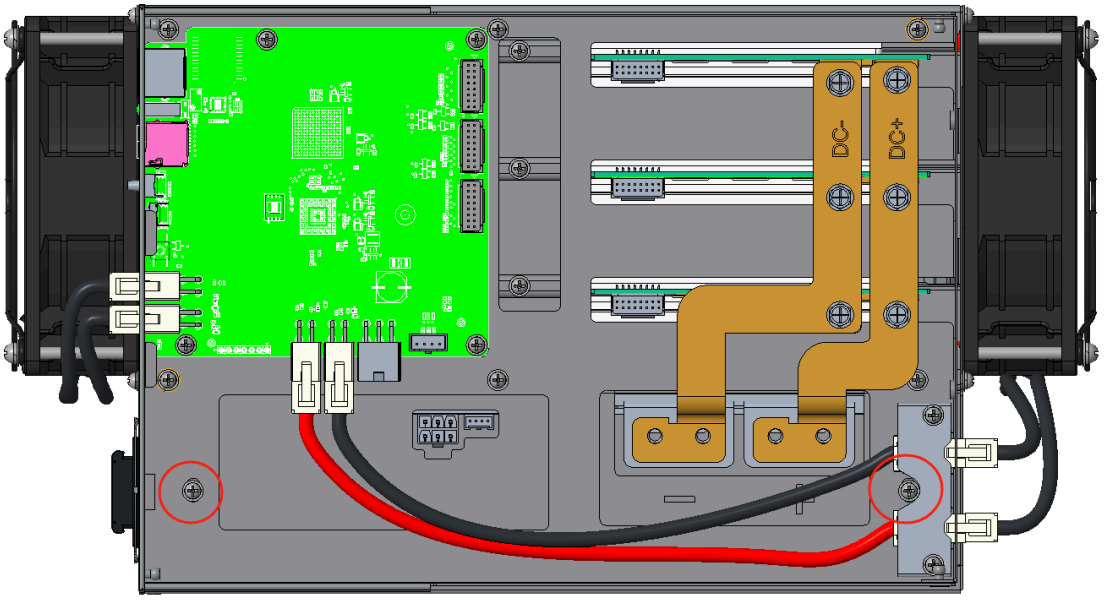
(1) Align the power clip with the chassis slide slot as shown in the figure below and gently push it into place.



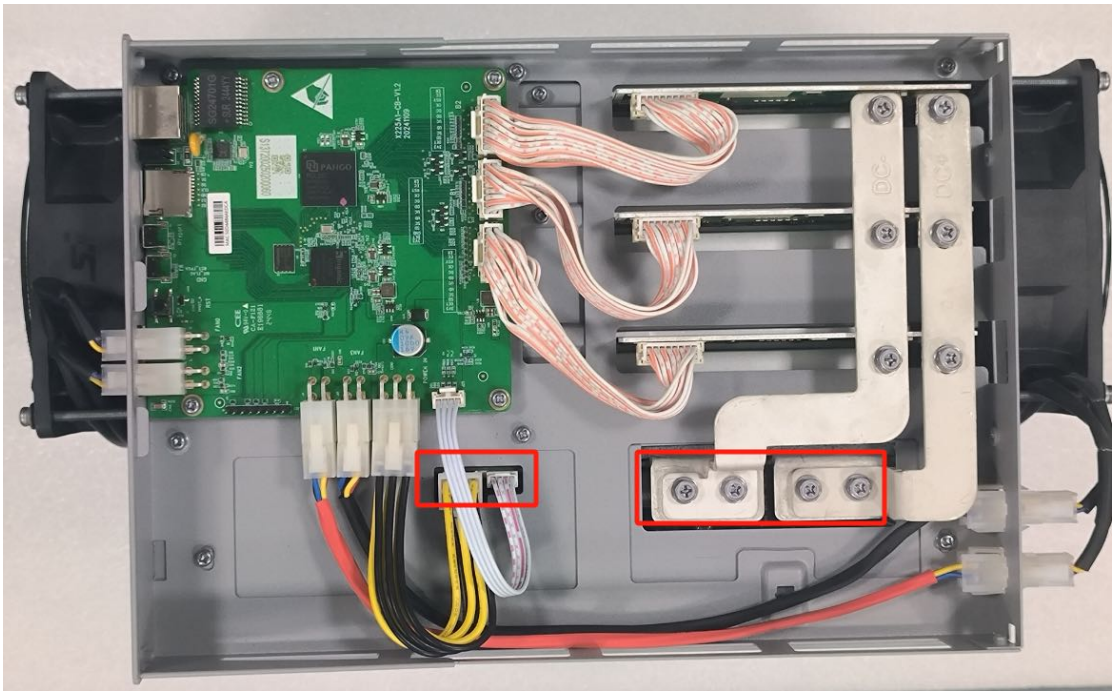




(2) Tighten the two screws shown in the figure below;



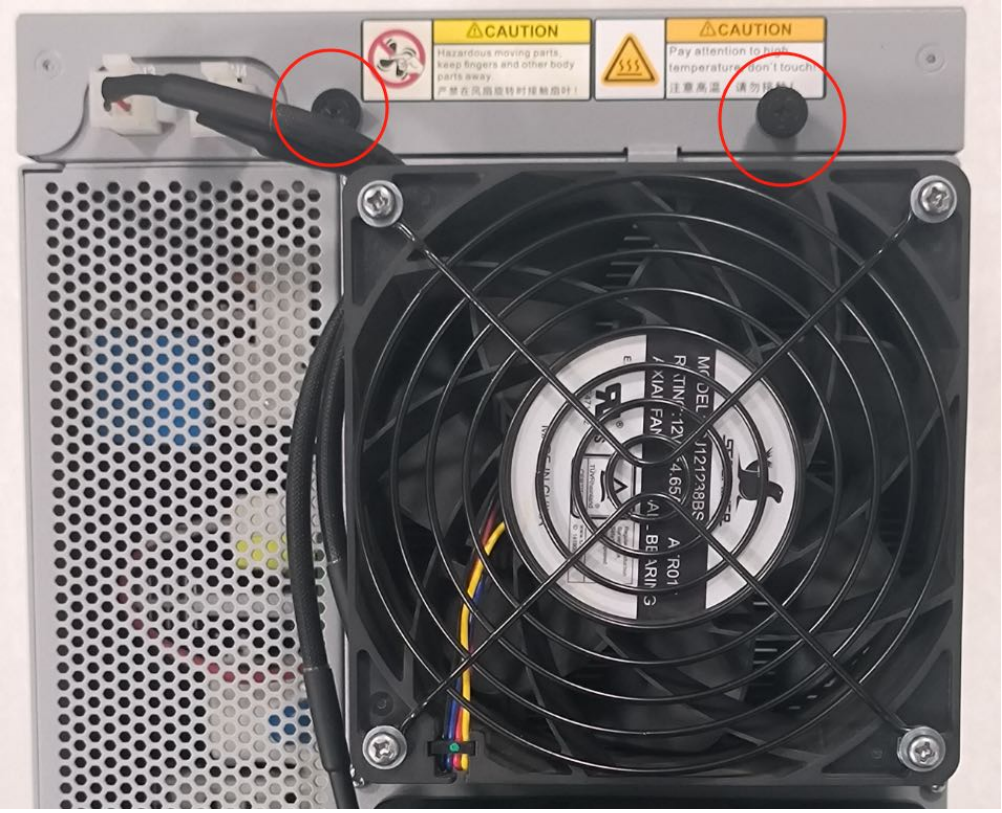
(3) Install the power cable and IIC control cable, then tighten the 4 screws on the copper busbar, and install and lock the control cover.



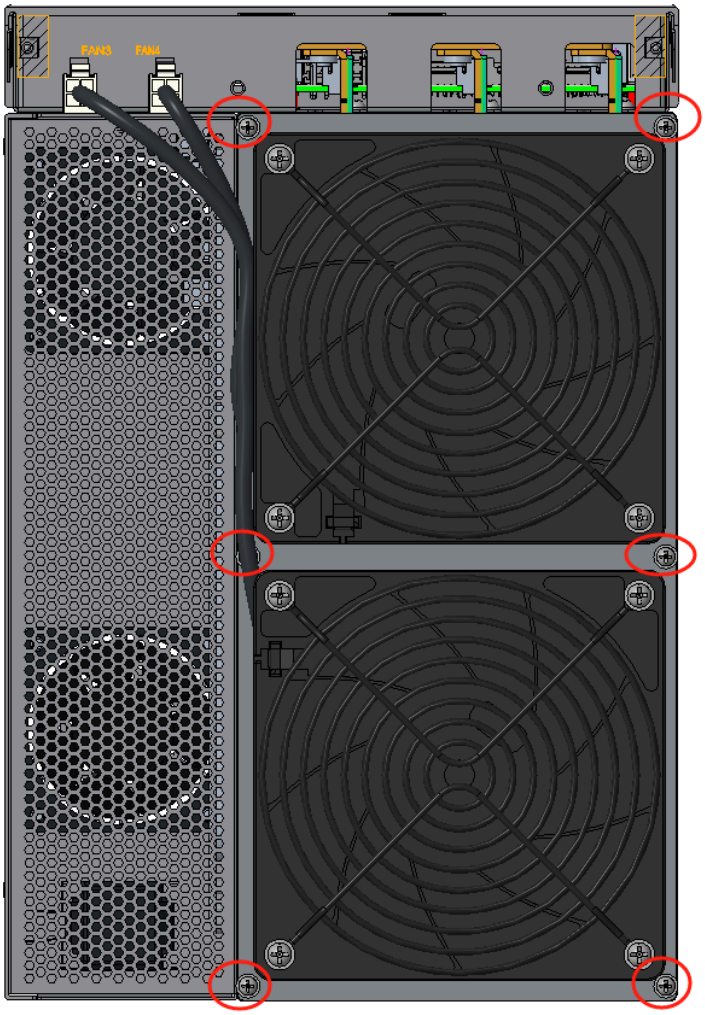
8.3 Disassembly and installation of hashboard

8.3.1 Disassembly of the Hash Board

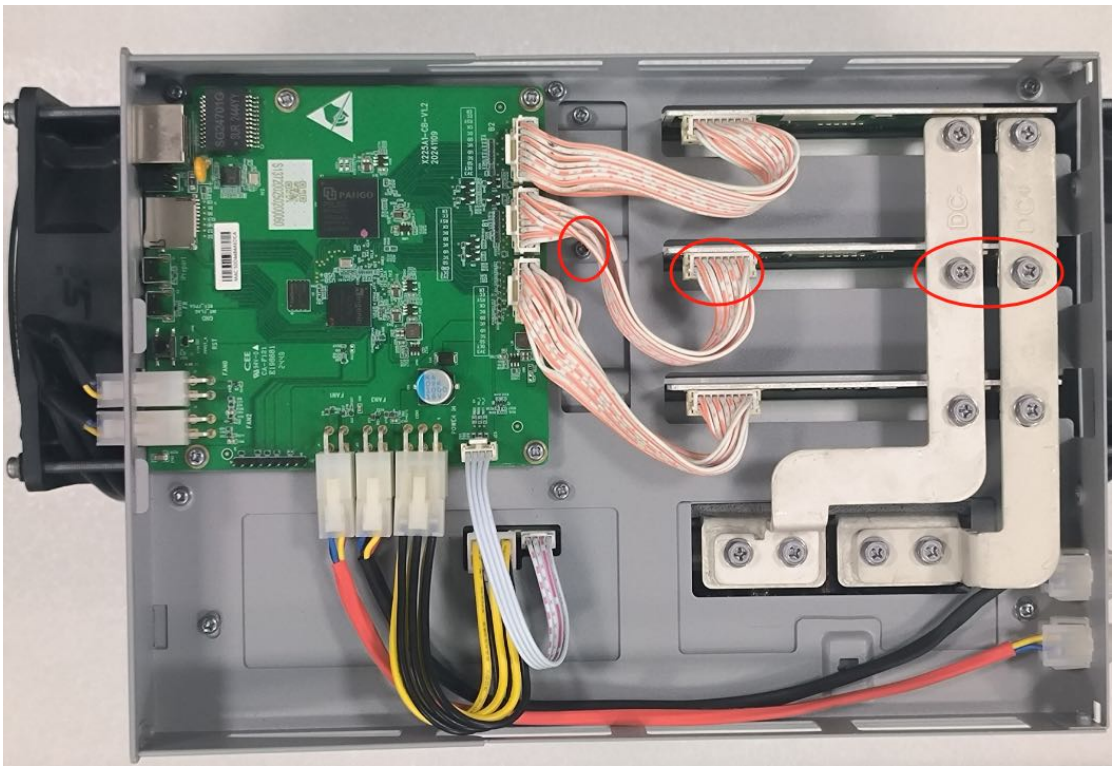
(1) Loosen the two cover screws on the control panel cover and remove the cover;



(2) Remove the six screws on the rear fan fixing plate and remove the rear fan fixing plate as shown in the figure below.

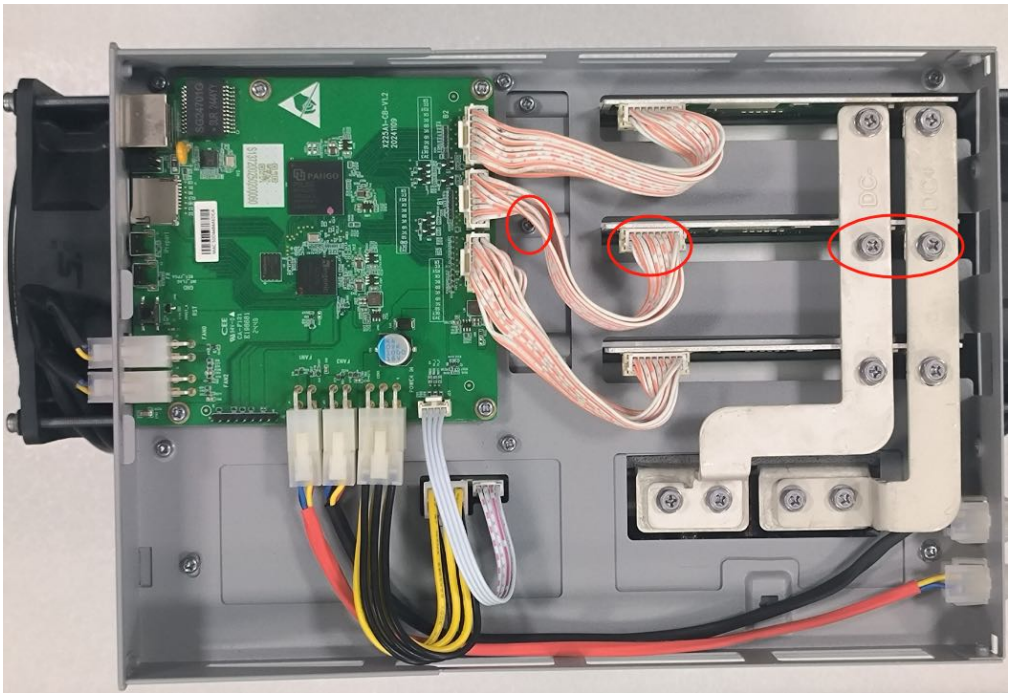


(3) As shown in the figure below, remove the two fixing screws and the two copper busbar screws, unplug the signal cables, gently pull out the hashboard backwards;

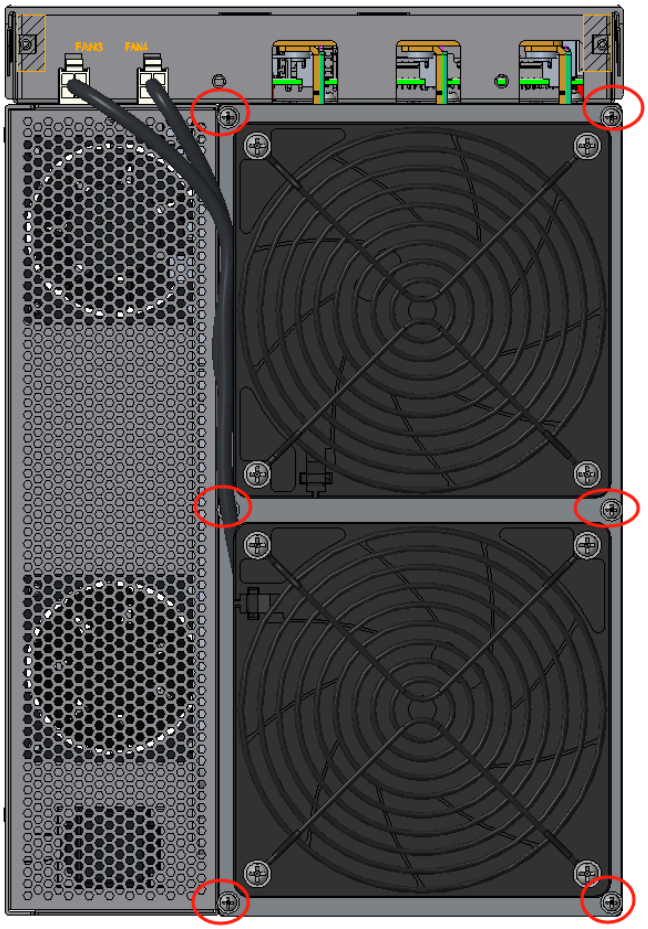


8.3.2 Installation of the Hash Board

(1) As shown in the figure below, insert the hash board through the slide slot, tighten the fixing screws on the hashboard and copper bar screws, and connect the cables ;



(2) Install the rear fan fixing plate and tighten the 6 screws as seen in the figure below;



9.Further Remarks And Considerations

9.1 Equipment Care and Maintenance

After extended operation (3-6 months), it is important to clean the dust from the computing board, control board, wiring, and other components to prevent corrosion from dust buildup. Once the machine is powered off, ensure that the storage environment maintains humidity levels below 60%, and regularly clean dust (every 3-6 months) to prevent corrosion caused by high humidity and dust accumulation.

Note: Try to avoid serious corrosion, dust accumulation, humidity and other conditions that can affect the performance and functionality of the machine.

10.After-Sales Service

At Bitdeer, prioritising user experience is our primary objective. We actively seek customer feedback to enhance our services and are dedicated to assisting customers with their issues. Bitdeer offers a 1-year warranty on A2-Air Cooling Series products, including free repair services within the warranty coverage. By making a purchase, you agree to our warranty terms. However, please note that we will not provide repairs for the following situations or failures:

1. Damage resulting from failure to install, use, maintain, or service the machine according to the requirements outlined in the official documents.
2. Unauthorised disassembly, modification, assembly, or repair without official written or electronic authorization, leading to damage to the product.
3. Damage or loss caused by mishandling, misuse, abuse, improper operation, incorrect installation, or maintenance and storage that do not comply with regulations.
4. Product damage arising from operating the mining machine in environments that do not meet the specified requirements, including but not limited to high humidity, corrosive environments, electrical surges, extreme temperatures, abnormal voltage or current (including surges, impacts, and instability), excessively low or high AC voltage.

5. Damage to the entire machine, the panel, or components due to crushing, breaking, burning, or falling, resulting from improper operation or similar issues.
6. Product damage caused by overvoltage, undervoltage, or leakage.
7. Damage or loss resulting from unforeseen natural disasters, including but not limited to floods, fires, earthquakes, tsunamis, and lightning strikes.
8. Disassembly or modifications made by anyone other than us or our authorised service agencies.
9. Product failure or damage resulting from the use of accessories, parts, or components, such as power supplies, that are not manufactured by us or our authorised agencies and do not meet our specified parameters.
10. Failure or damage resulting from the use of unauthorised firmware or drivers, including but not limited to unauthorised overclocking firmware.
11. Altered, defaced, or removed SN labels.
12. Use of non-original or mixed boards: if some or all of the computing boards, control boards, or power supplies are not original to the machine or if there is any situation preventing us from verifying the authenticity of these components.
13. Situations not caused by our company that make it impossible for us to determine whether the product is still under warranty.

11. After-sales warranty Fee terms

1. If your product is deemed non-repairable, or if you opt not to repair or return a scrapped or mixed-board product, you will be responsible for the round-trip shipping costs associated with the repair order. Additionally, for products requiring repair, you will be responsible for the shipping costs to send the product to our designated address, while we will cover the shipping costs to send the repaired or replaced product back to your designated address. We do not cover any other costs, such as tariffs.
2. Please ensure that the product is sent to our designated address via a

prepaid postage service. We cannot accept items sent with unpaid postage or to non-designated addresses (including logistics pick-up points), and any consequences of these errors will be borne by you.

3. The repaired or replaced product will be shipped according to the delivery information you or your designated contact provided in the work order. If the provided delivery information is incorrect or incomplete, you will be responsible for any additional costs incurred.

4. In the event of a Dead on Arrival (DOA) situation or secondary repair where the product is non-repairable or not eligible for free repair, you may apply for a freight subsidy after sending the product to us by post. The subsidy amount will not exceed the official logistics fee standard (insurance costs are the customer's responsibility). To qualify, you must provide us with a valid receipt for the shipping costs. The freight receipt must not be forged, altered, smeared, or tampered with in any way, and it must clearly show the total freight amount, which must align with the official logistics fee standard. If the receipt does not meet these requirements, we reserve the right to deny part or all of your freight subsidy request.

5. Please ensure that products eligible for a freight subsidy are mailed separately. If you send a package that includes both products eligible for a subsidy and those that are not, we will not be able to calculate the freight for the eligible items individually, and therefore, we will not issue any subsidy for that package.

6. The risk of damage or loss during the return process transfers to you once the product is handed over to the logistics company. If any damage or loss occurs during transit, you will be responsible for resolving any disputes directly with the logistics provider.

7. Any matters not covered in this clause shall be handled in accordance with the relevant regulations of Bitdeer. Bitdeer reserves the final right of interpretation of this clause.

A2 系列风冷服务器

操作指导书

2025/04/02

www.bitdeer.com

目录

1. 产品简介

①以太网接口 ②指示灯 ③SD卡槽 ④寻找IP按键 ⑤复位按键 ⑥FAN1接口 ⑦FAN2接口 ⑧电源接口 ⑨FAN3接口 ⑩FAN4

接口

1.1 本操作手册适用于Seal Miner A2 系列风冷服务器.

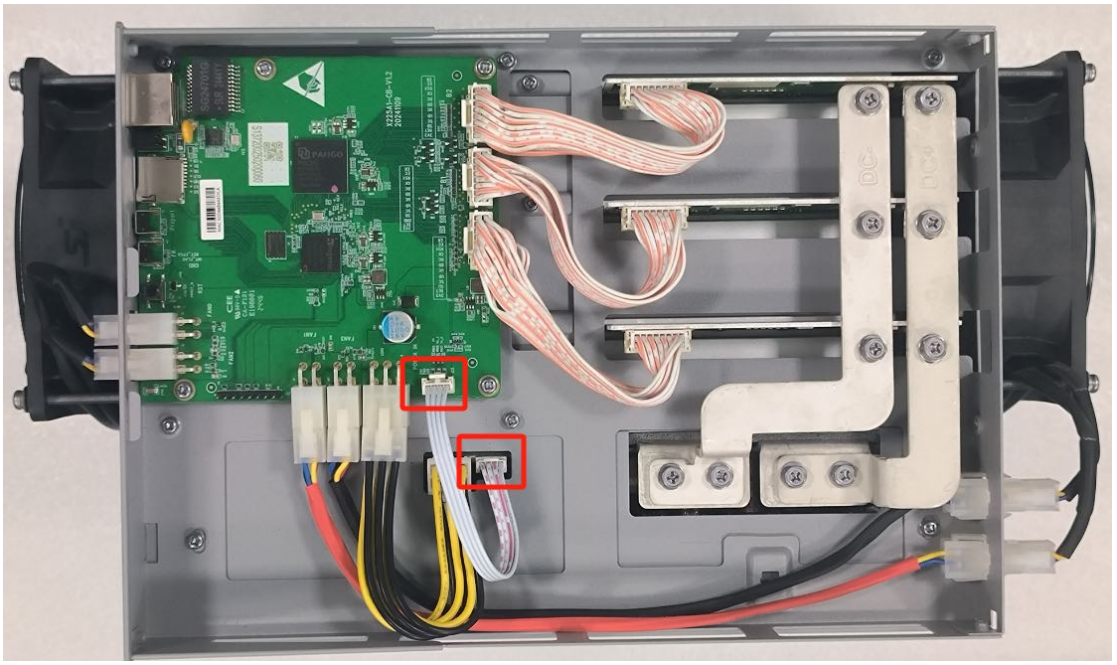
2. 服务器接线、 上架操作安全提醒

2.1 服务器接线注意事项

请按照规范正确连接控制板与风扇、电源、算力板的排线，并确保连接器卡扣锁住，不能将排线插头反向强行插入插座， 如果反插， 上电有可能烧毁控制板，烧坏信号排线。

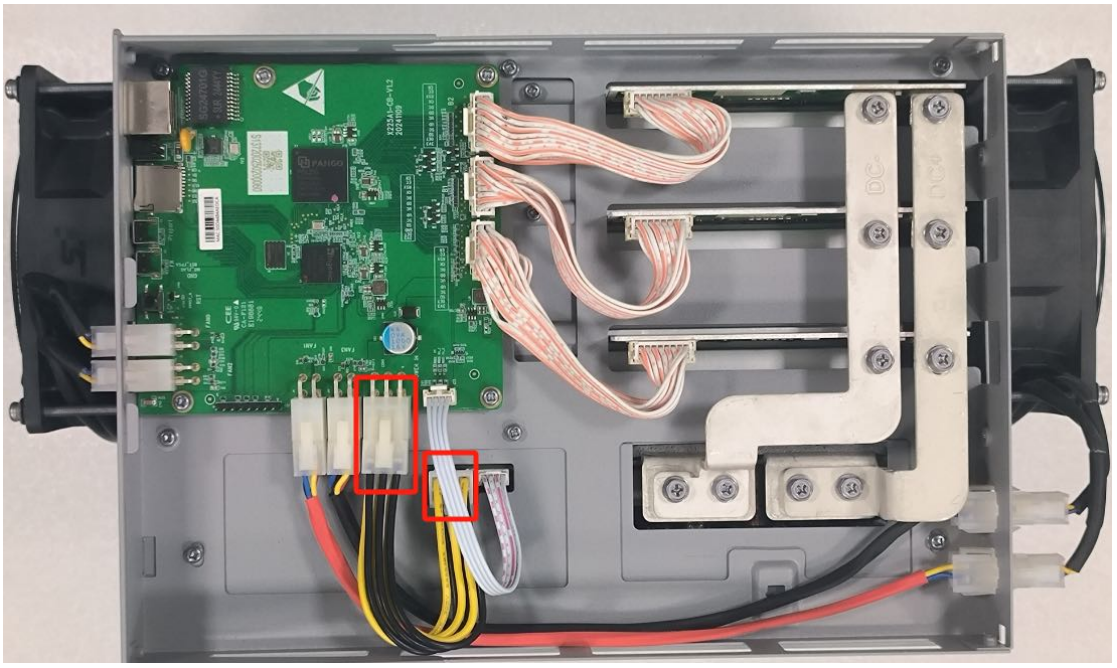
2.2 电源控制排线连接注意事项

电源IIC控制排线为4PIN的，插头带卡扣，正确接法如下图，请确保插入方向正确和卡扣到位！



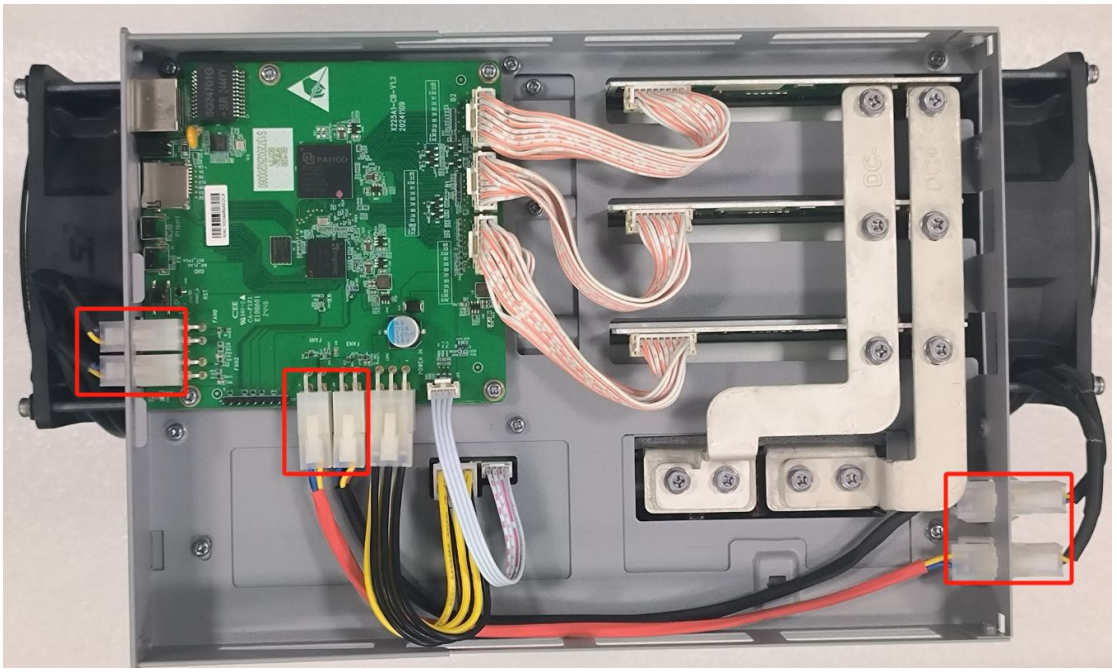
2.3 控制板供电排线连接注意事项

控制板供电排线为2*3PIN的，插头带卡扣，正确接法如下图，请确保插入方向正确和卡扣到位！



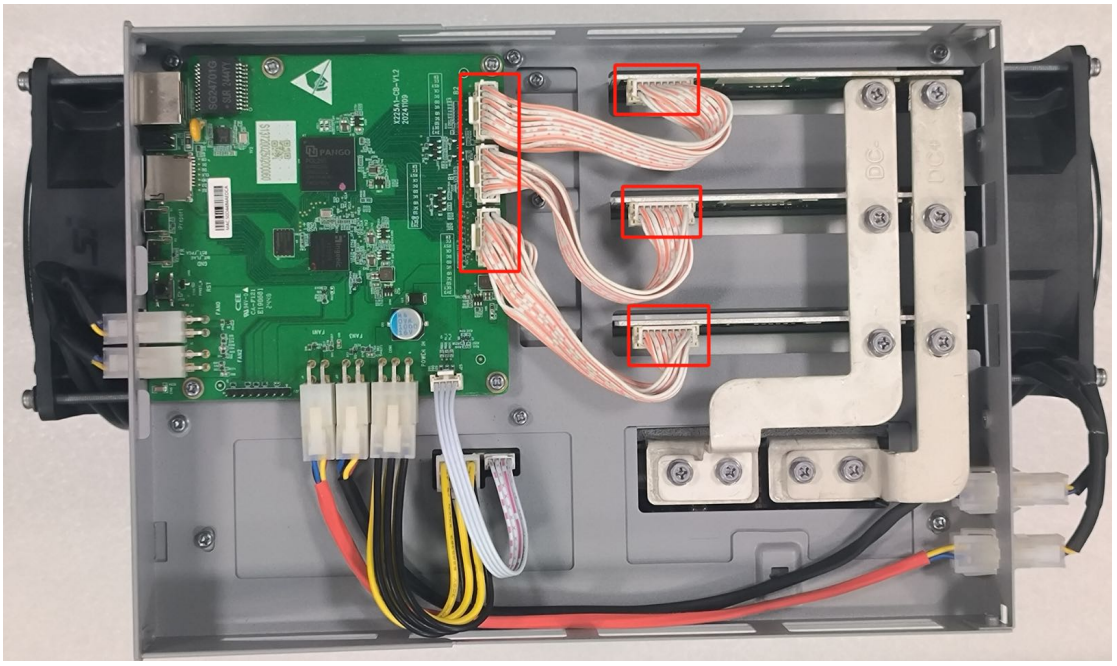
2.4 风扇排线连接注意事项

风扇排线为2*2PIN的，插头带卡扣，正确接法如下图，请确保插入方向正确和卡扣到位！



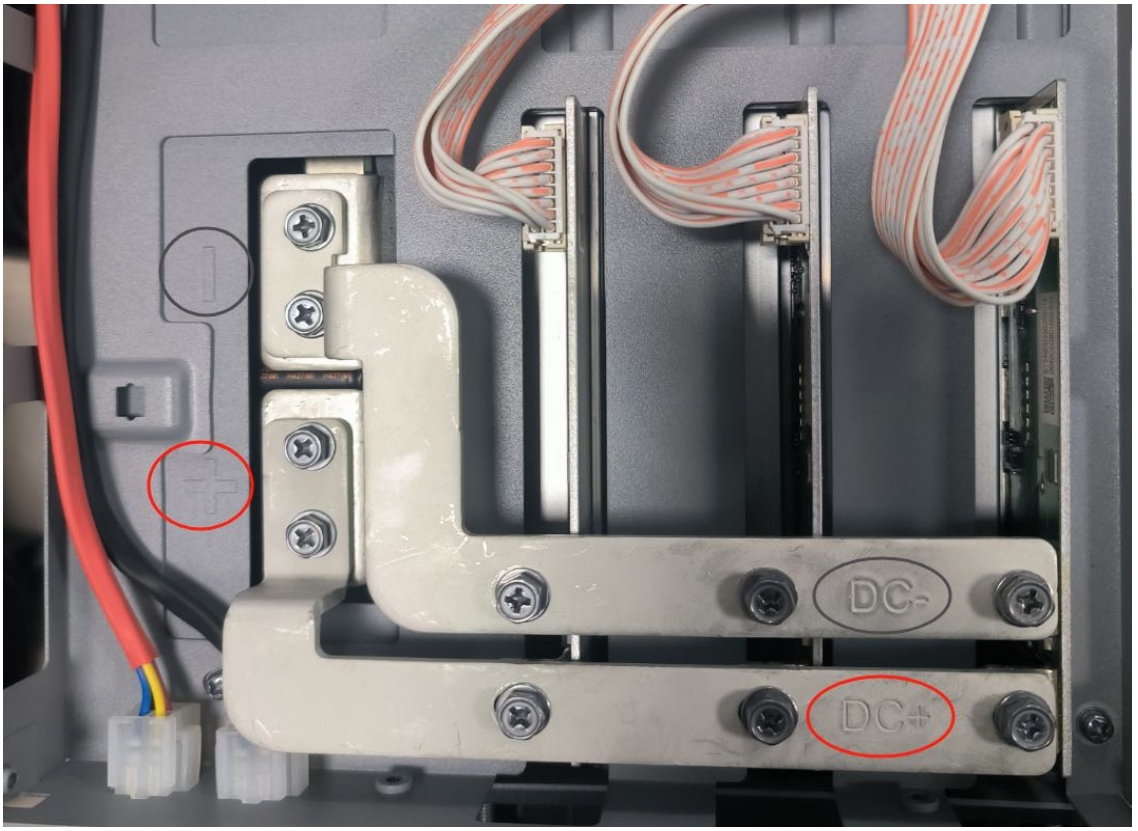
2.5 控制板与算力板连接注意事项

算力板排线为2*8PIN的，插头带卡扣，正确接法如下图，请确保插入方向正确和卡扣到位！



2.6 电源铜排连接注意事项

安装算力板铜排时，请按下图相同极性放置铜排，并确保铜排之间平行且无接触放置，铜排固定螺钉必须锁紧，然后再次确认铜条之间平行且无接触，否则可能会导致机器无法正常运行甚至烧毁！



2.7 整机接线检查

在连接所有排线后和锁紧螺钉后，再次确认排线和螺钉都正确安装！

2.8 服务器搬运、上架操作注意事项

需佩戴作业手套对服务器进行搬运和上架操作，尽量避免机器过远的手工搬运，以防止搬运过程中的跌落，上架时小心金属部件压挤到手、避免拉扯到线缆及机器跌落。

3.服务器配置环境准备

3.1 服务器配置设备列表

序号	工具名称	数量	用途	备注
1	计算机	1 台	配置服务器操作	
2	网络交换机	1 台	配置服务器和配置操作计算机网络通讯	网络交换机能连接外网
3	DHCP/路由器	1 台	为服务器初始上电时提供动态 IP 地址	服务器出厂时默认是 DHCP 获取动态 IP地 址

3.2 服务器网络环境

服务器出厂默认是DHCP获取动态IP，因此网络中必须配置有DHCP服务器，或路由器开启DHCP动态分配IP地址服务。

4.服务器连线及上电前检查

(1) 服务器在接线、 上电前， 检查是否有散热器或其他器件脱落，确保无散热器或其他期间脱落才能接线和上电。
(2) 服务器接上电源线， 网口连接到交换机， 检查电源控制线、风扇控制线、 控制线供电线、 算力板排线、风扇控制线无松脱，且铜排连接正确后才能给服务器上电。

注意：

1) 安装算力板铜排时，请正确放置正负极铜排，并确保铜排之间平行且无接触放置，铜排固定螺钉必须锁紧，然后再次确认铜条之间平行且无接触，否则可能会导致机器无法正常运行甚至烧毁！

2) 必须正确连接控制板和电源之间的电源控制排线， 否则可能由于不能控制电源电压输出，导致无算力的问题。

3) 控制板必须可靠连接风扇线，如果风扇线脱落或连接不良， 可能导致服务器无法降温，机器保护下电。

4) 服务器数据配置（网页上配置）（软件）

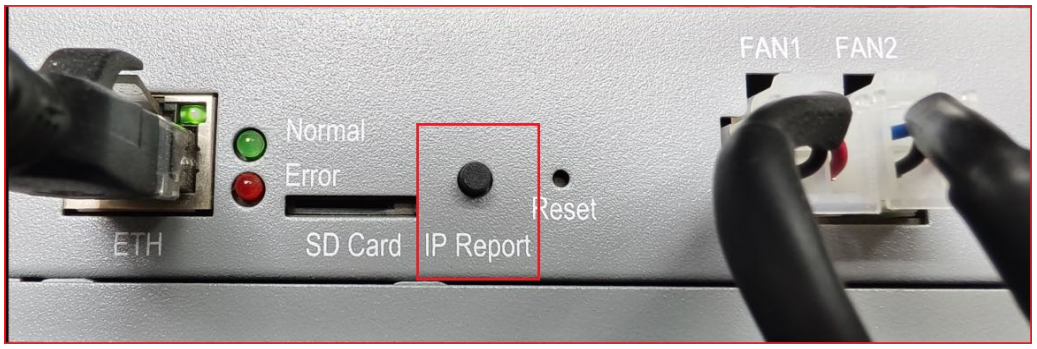
5) 查询服务器获取的动态 ip 地址

5. 服务器数据配置

5.1 查询服务器获取的动态 ip 地址

电脑连上与服务器所在的同一网段网络，使用Sealminer管理工具探测，点击“探测”打开IP探测窗口，点击窗口上的“开始”开始探。（注：下图中矿池地址，矿工名称以及密码为SEALMINER Demo样例，实际操作以客户自己的矿池地址，矿工名称以及密码为准）

上报 IP 方法：启动矿机后，长按 5 秒矿机上的 IP Report 按钮，等待几秒软件上会显示出当前设备的IP(注意：管理工具的PC与矿机需在同一局域网内)。



在Sealminer管理工具查看服务器上报的动态获取的IP、MAC地址

注意：

1) 如果上电后服务器控制板面板的所有灯都不亮，请检查电源线连接是否可靠，连接是否正确。

2) 如果服务器控制板面板右边的指示灯亮，但网口灯不亮，或绿灯不闪，请检查交换机是否正常、网线连接是否可靠，网线质量是否有问题。

3) 运行 Sealminer管理工具的电脑和服务器必须在同一个网段下，否则有可能软件接收不到服务器发出的广播报文，从而查询不到服务器IP Report按键上报的IP地址和 mac 地址信息。

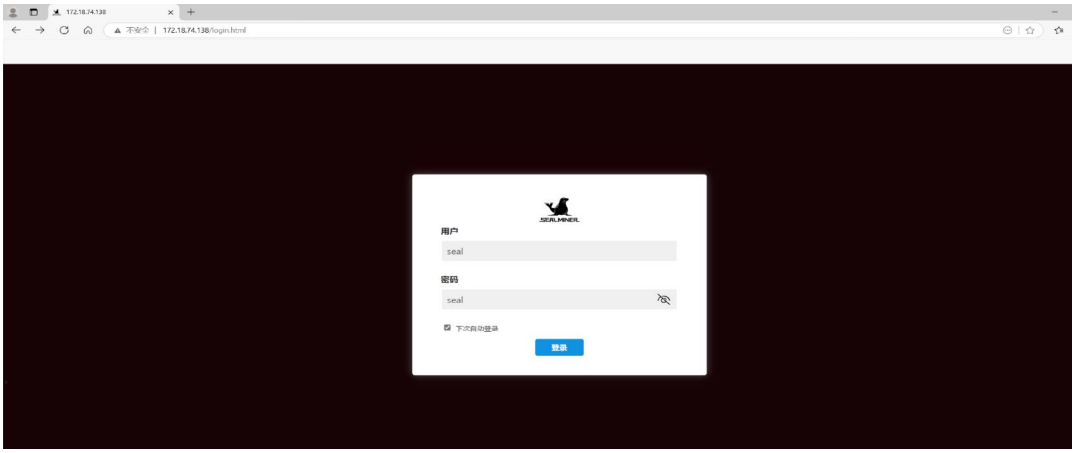
4) 如果电脑和服务器在同一个网段下，并且网络中开启了dhcp服务，按服务器 IP Report 按键后，Sealminer管理工具没有查询到服务器的 IP，长按服务器面板上的 Reset 按 键 5s 以上，恢复出厂默认配置， 再将服务器下电再上电重启，服务器正常启动后再按 IP Report按键5s检测服务器 IP 地址。

5.2 矿池&矿工数据

5.2.1 矿池&矿工配置

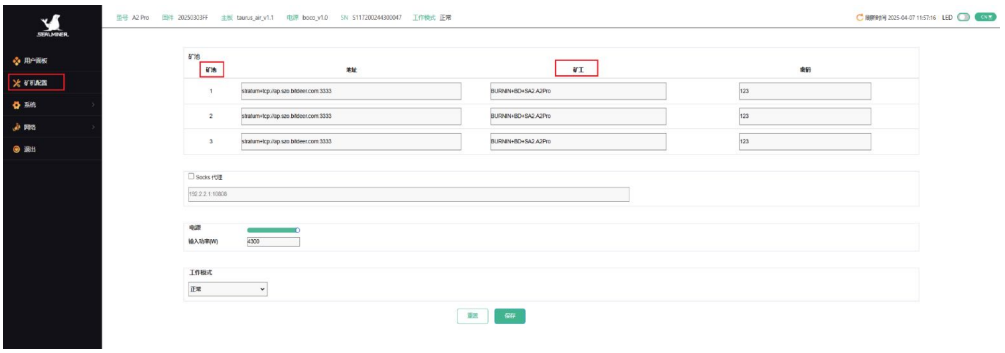
(1) 登录web页面

账号:seal,密码：seal



(2) 在矿机配置界面中，修改矿池地址，矿工名称，修改完后，点击下面的”保存”，保存修改的配置。(注：下图中矿池地址，矿工名称以及密码为SEALMINER　Demo样例，实际操作以客户自

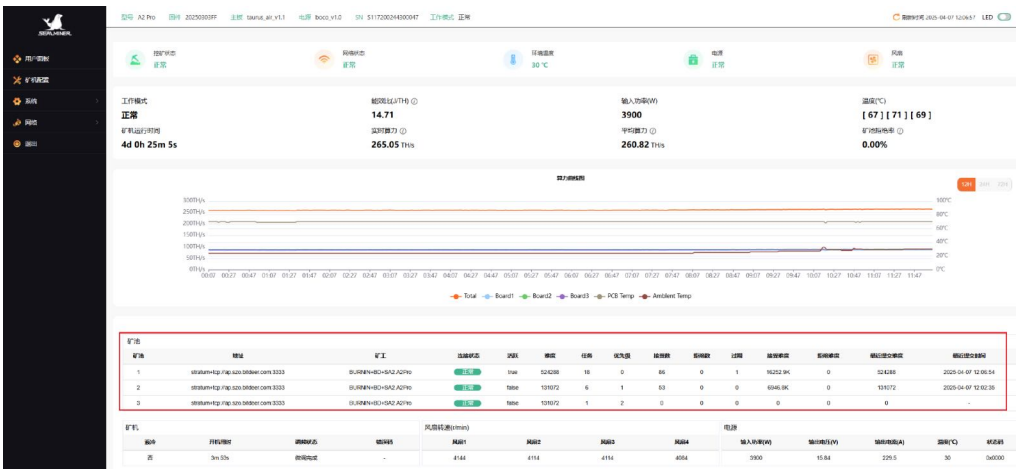
己的矿池地址，矿工名称以及密码为准）



矿池配置修改后，立即生效，不需要重启Miner程序或者矿机。

(3) 检查配置修改是否生效

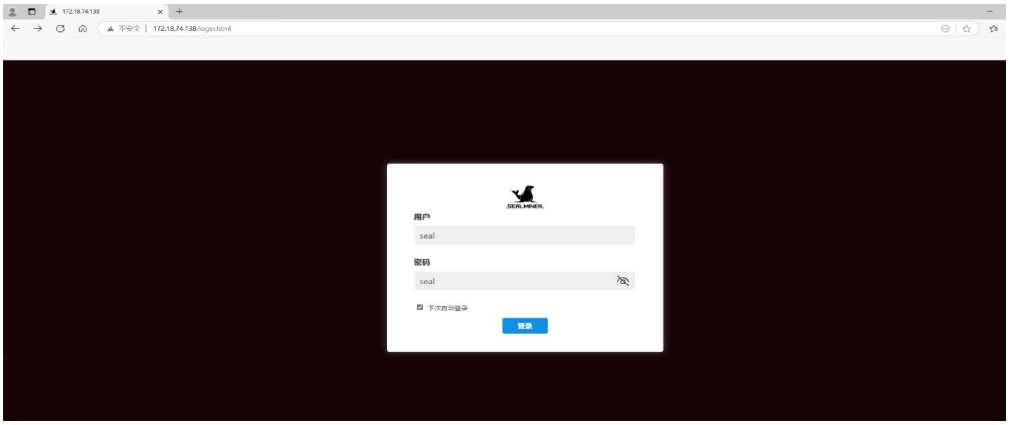
在用户面板界面，查看配置的矿池和矿工数据是否生效（注：下图中矿池地址，矿工名称以及密码为SEALMINER Demo样例，实际操作以客户自己的矿池地址，矿工名称以及密码为准）



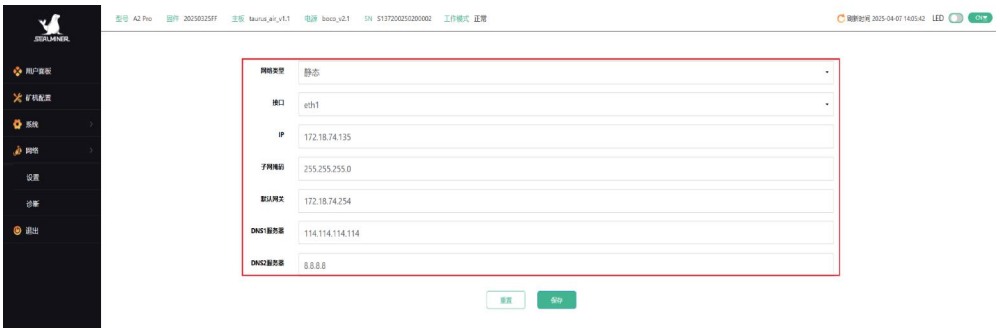
5.3.配置服务器静态 IP 地址（可选 ）

(1) 登录web页面

账号:seal,密码：seal



(2) 在网络->设置页面中，在网络类型选项中选择”静态”，将IP地址、掩码、网关、DNS地址修改为矿场实际规划的地址，点击”保存”保存配置。



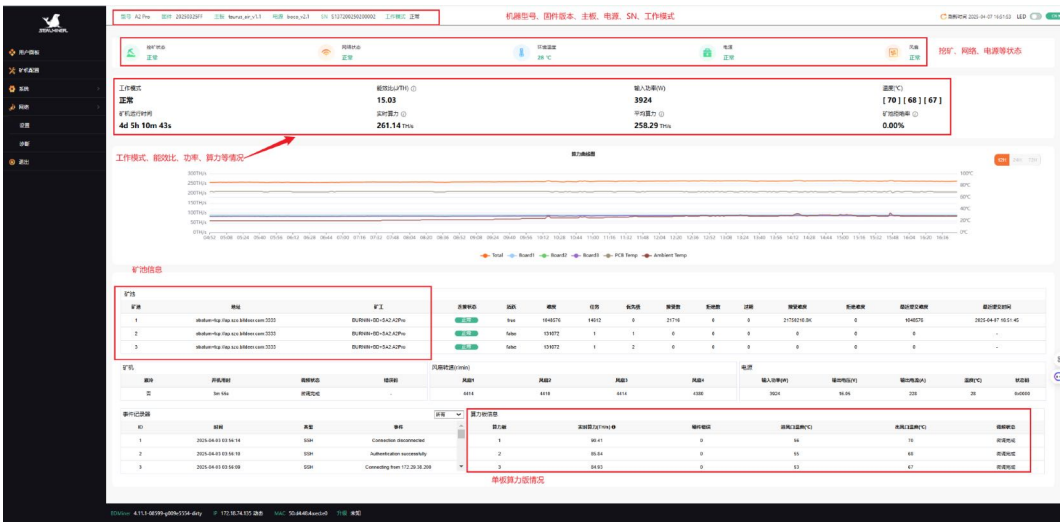
保存配置后，需要重新用新设置的静态IP地址才能登录服务器(否则一直页面显示加载中直到加载失败)

6.服务器运行状态检查

服务器接入运行网络后，登录服务器，检查服务器运行状态。

(1) 在服务器界面中，选择用户面板选项，进入Miner运行状态界面。

(2) 查看服务器整体算力、连接矿池、风扇、单板算力，单板温度等运行状态。（注：下图中矿池地址，矿工名称以及密码为SEALMINER　Demo样例，实际操作以客户自己的矿池地址，矿工名称以及密码为准）



7.服务器批量数据配置、服务器状态检查、 固件升级

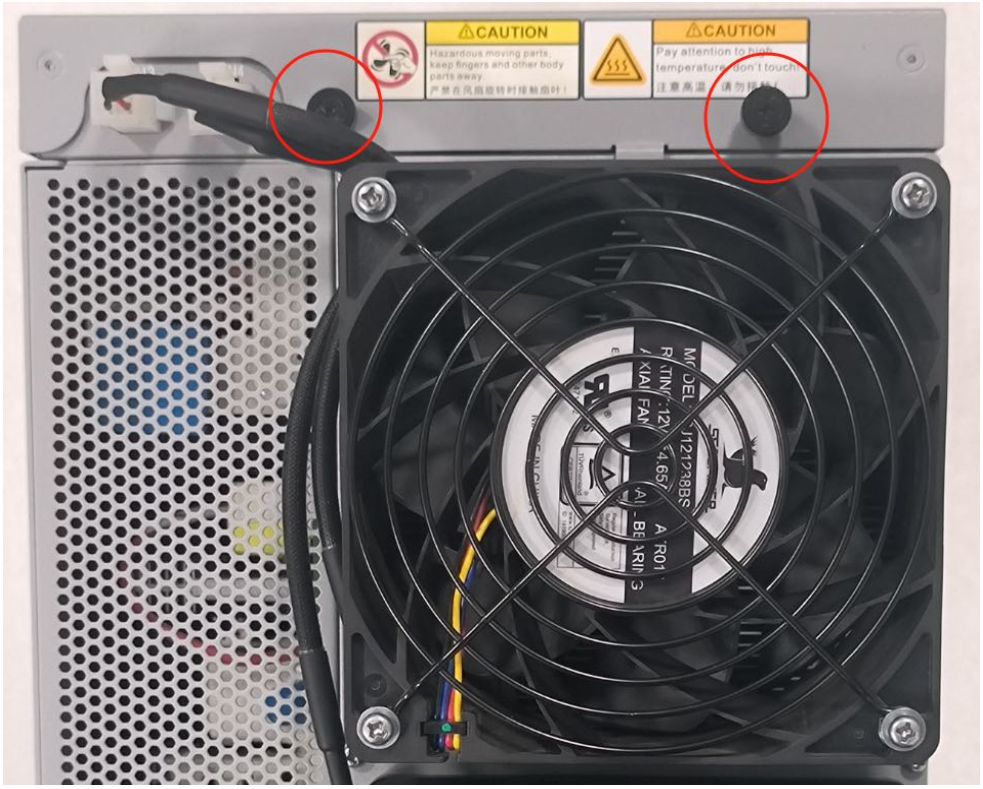
可以用Sealminer管理工具进行服务器批量数据配置、状态监测、固件升级，详细操作参见《Sealminer管理工具使用手册》

8.一体机的拆卸与安装

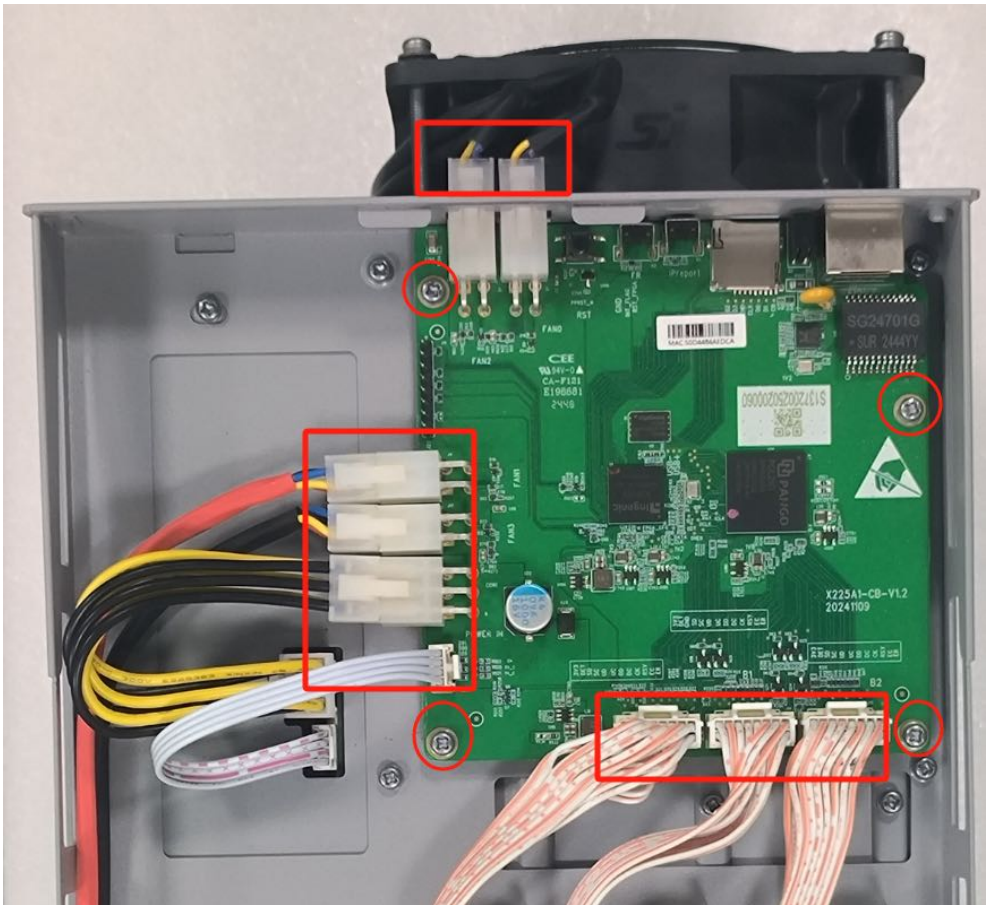
8.1 控制板的拆卸与安装

8.1.1 控制板的拆卸

(1) 先将控制盒后面的两颗松不脱螺钉拧松，如下图圆圈中标识，然后取下控制盒盖；

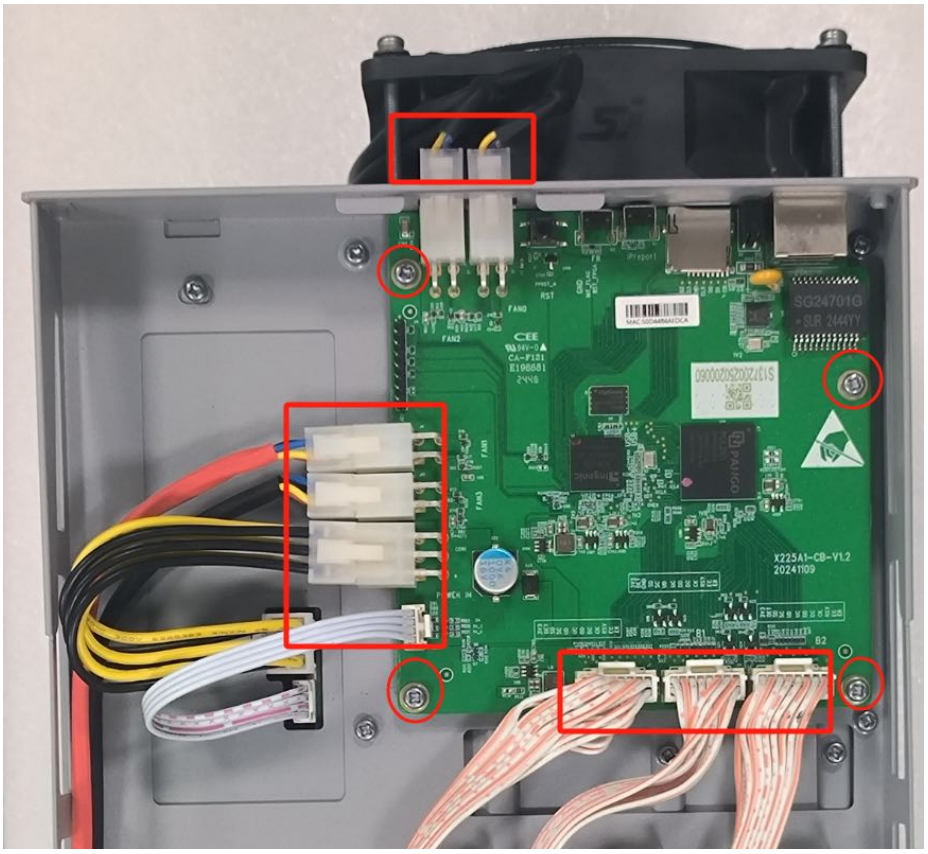


(2) 将风扇排线、控制板供电线、电源IIC控制线、算力板排线拔掉，并取下控制板四角对应的螺钉，即可取出控制板；



8.1.2 控制板的安装

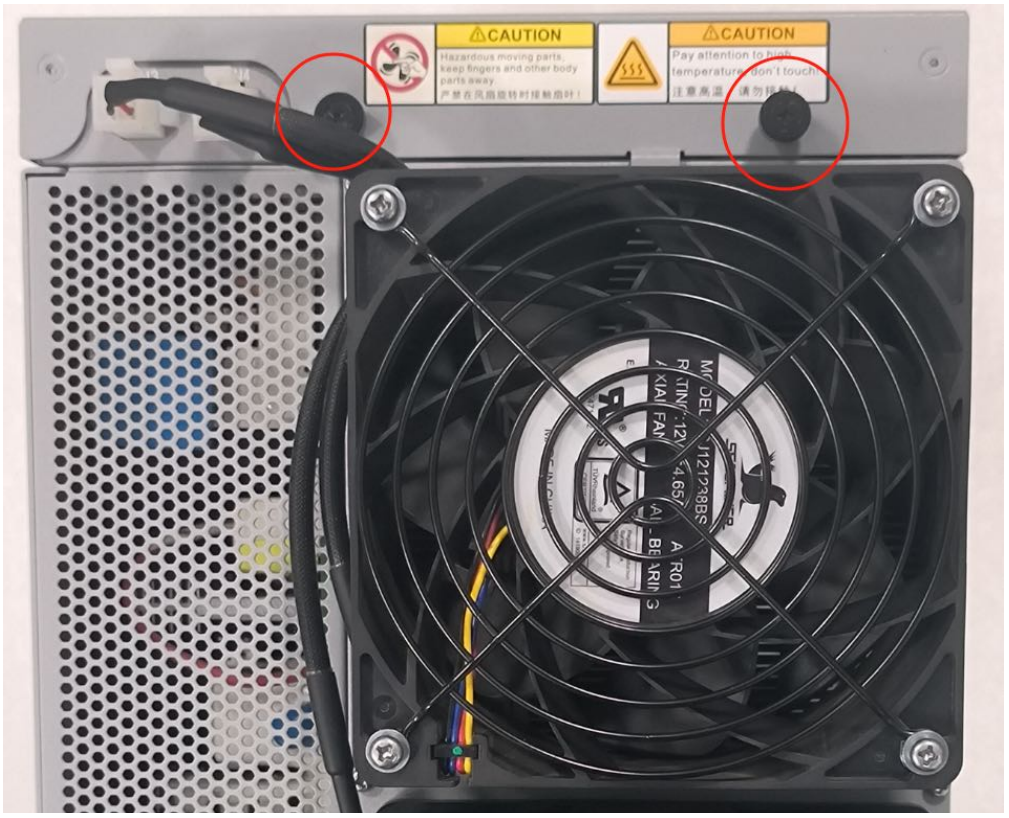
如下图所示，放置好控制板，锁紧四角螺钉，然后插稳排线，安装好控制盒盖即可。



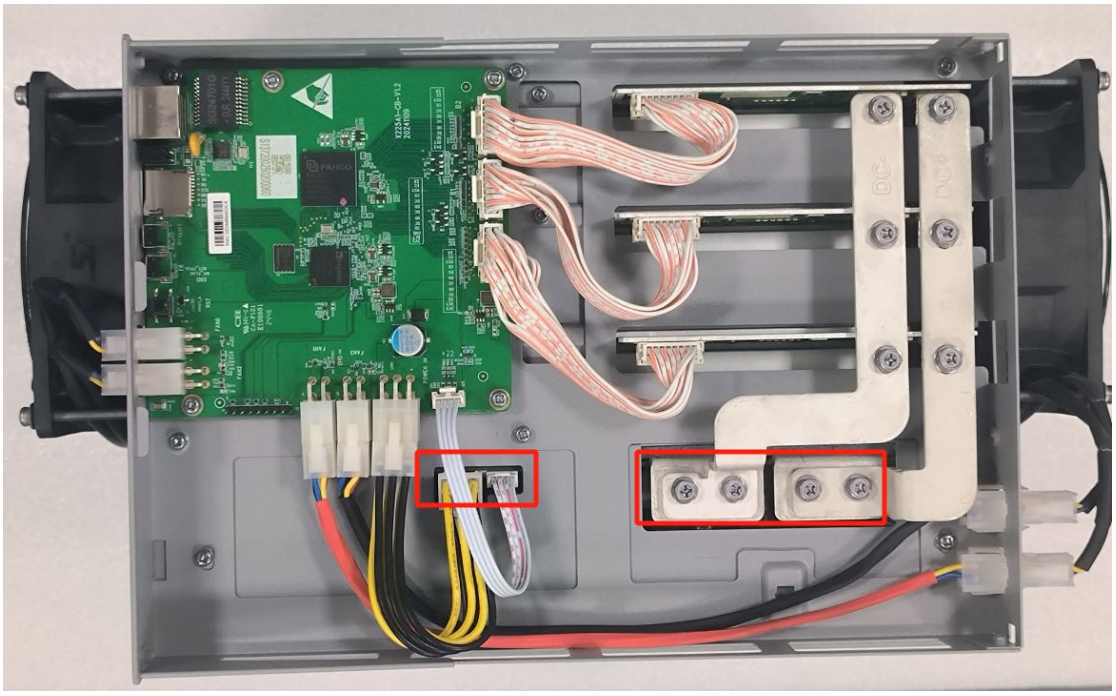
8.2 电源的拆卸与安装

8.2.1 电源的拆卸

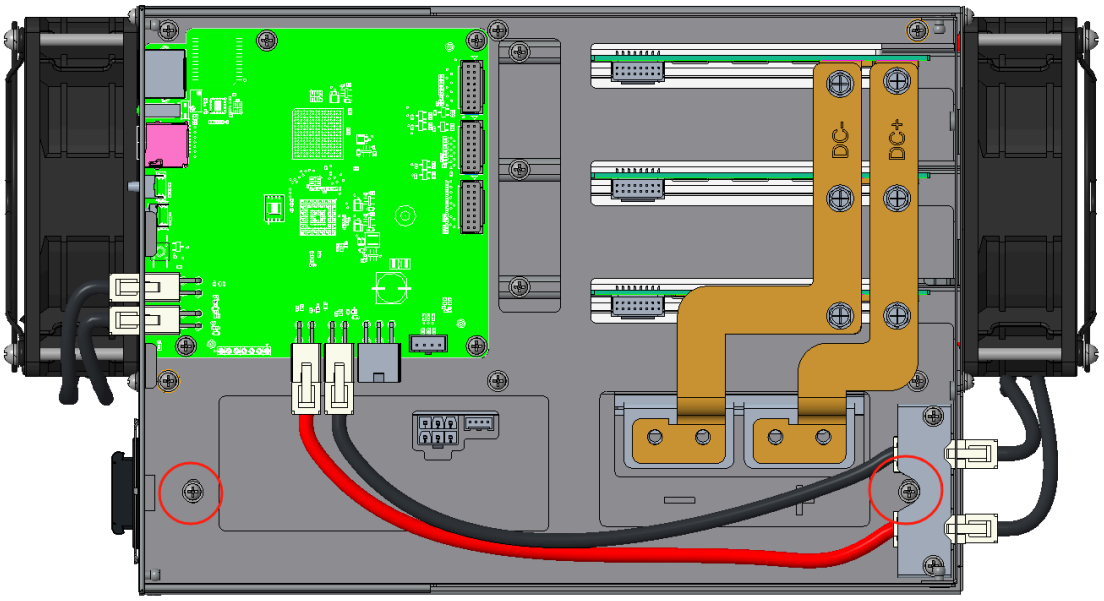
(1) 拧松控制板盒盖子对应的两颗松不脱螺钉，并取下盖子；



(2) 拔出电源线和IIC线，取下电源铜排4颗螺钉；

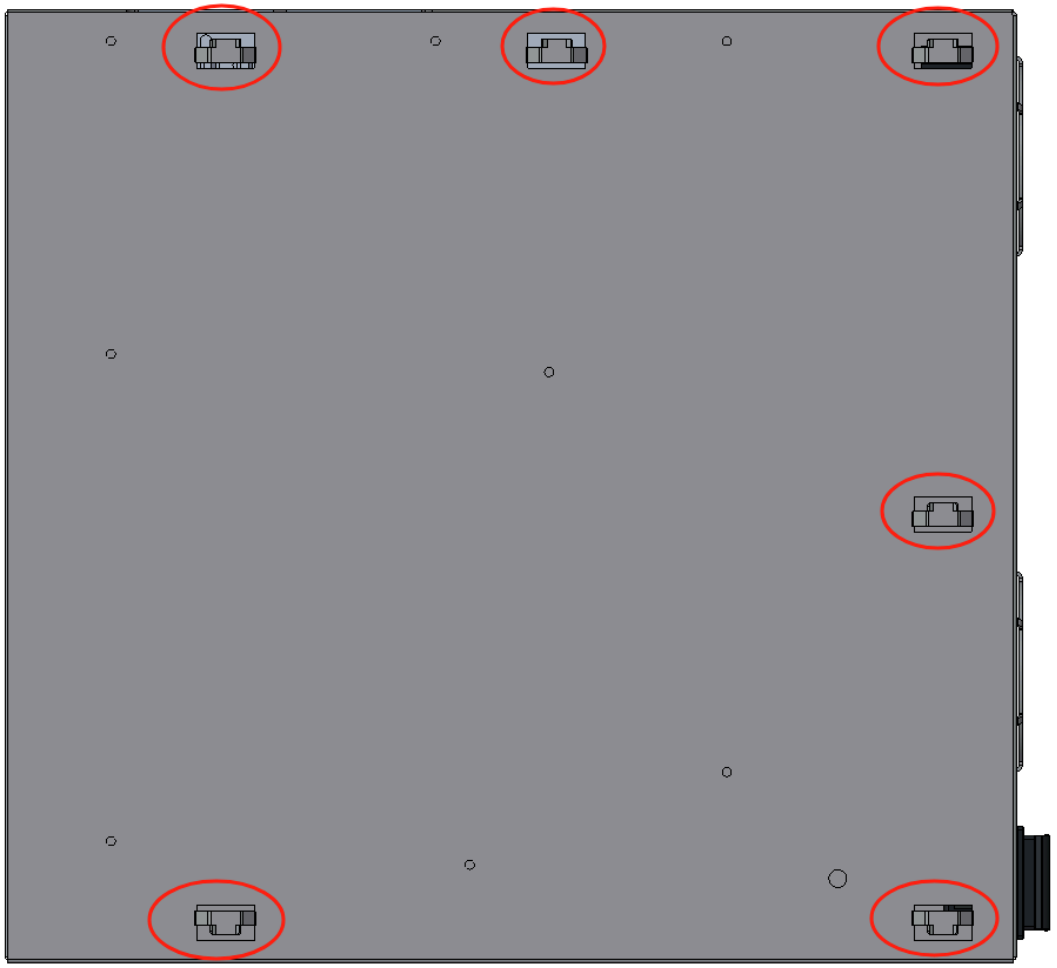


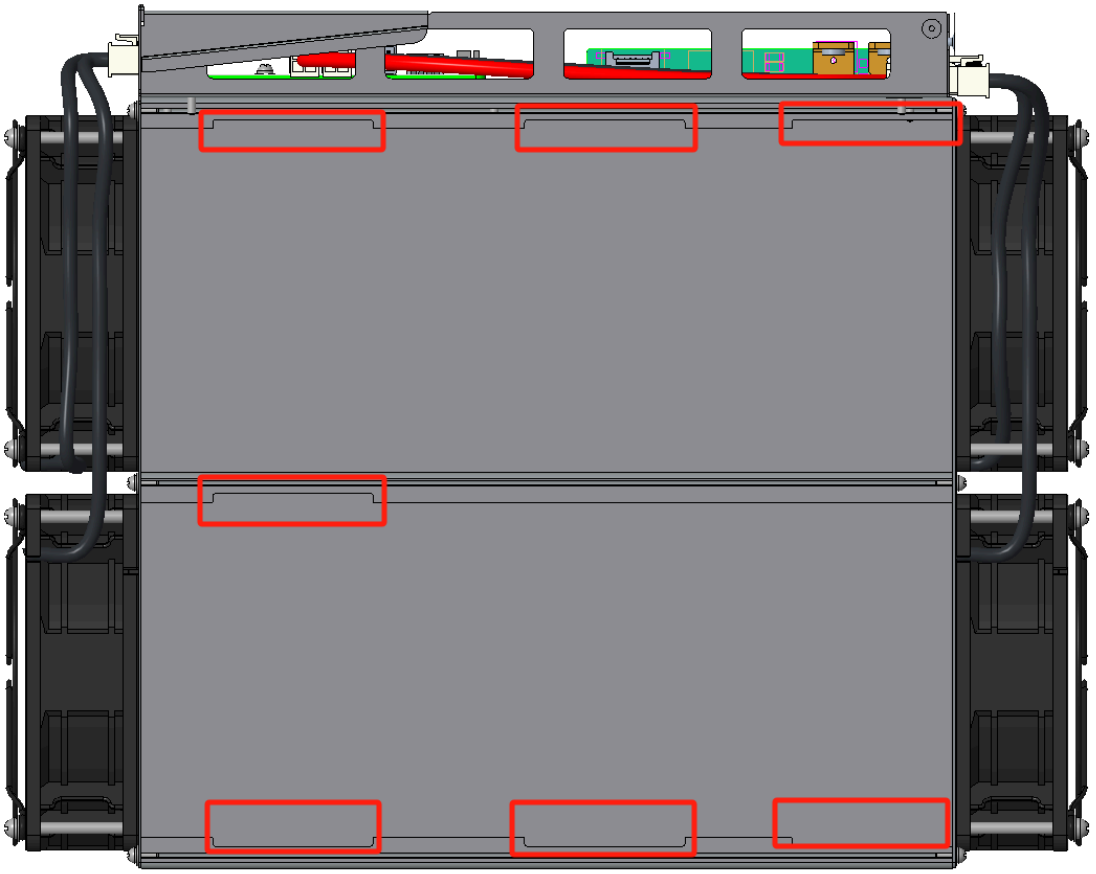
(3) 拆掉电源顶部2颗固定螺钉，将电源向后滑出卡槽即可；

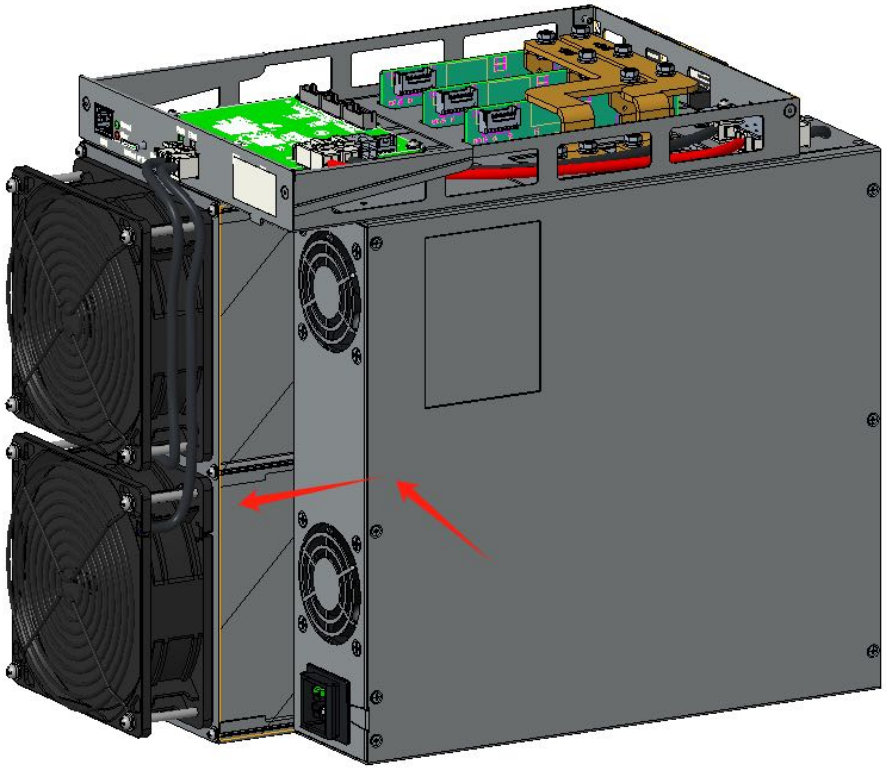


8.2.2 电源的安装

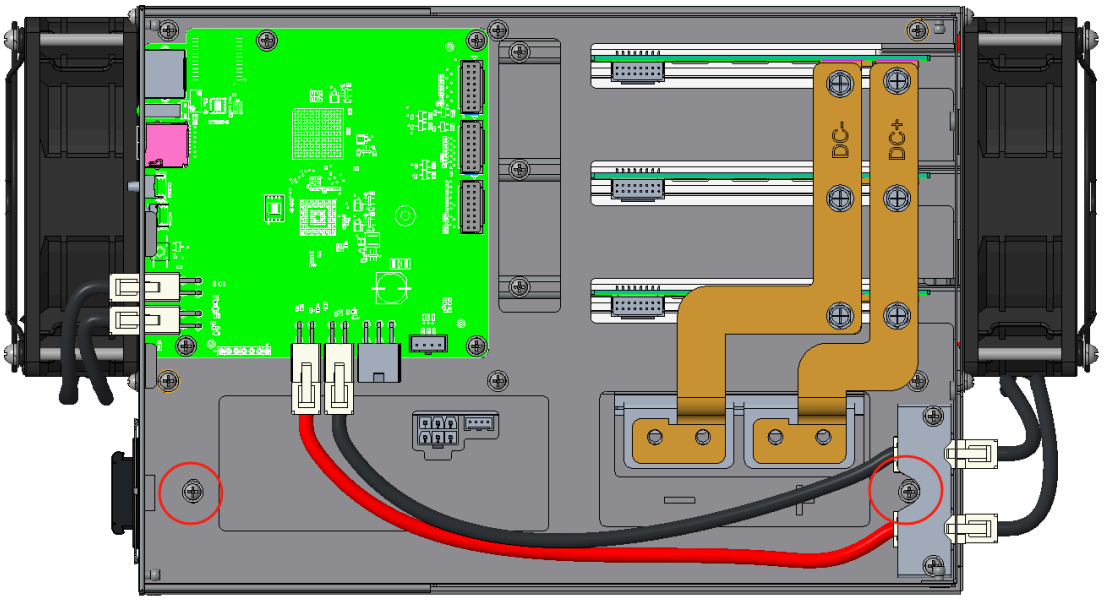
(1) 将电源卡扣对准机箱滑槽的放入，然后向前推入；



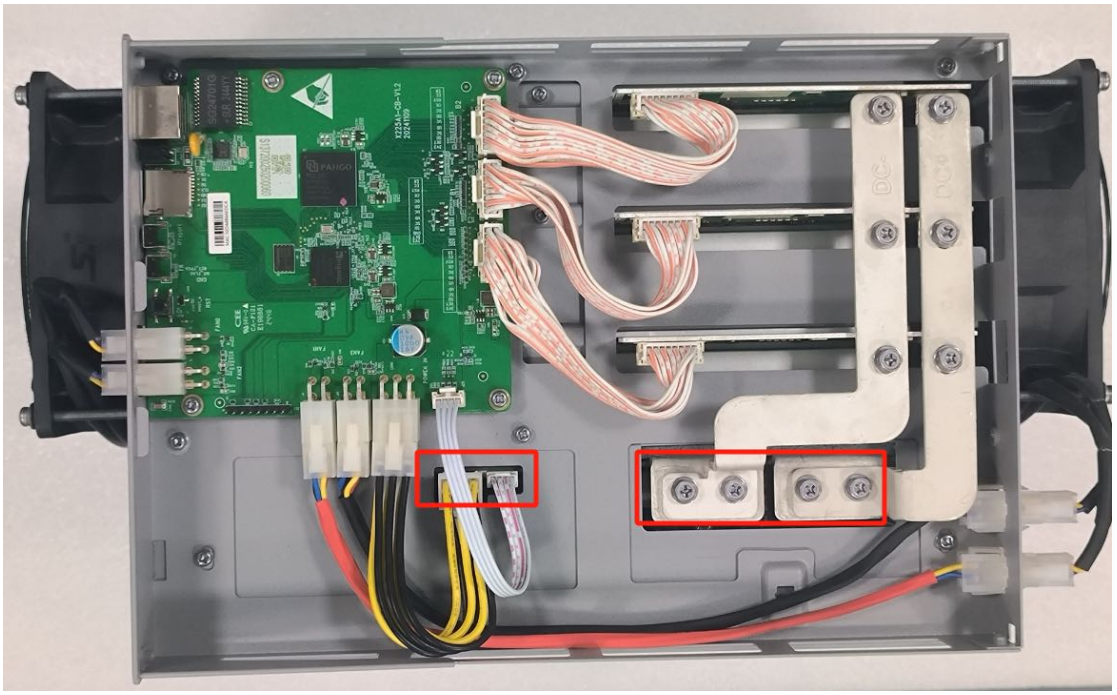




(2) 锁紧下图所示2颗电源固定螺钉；



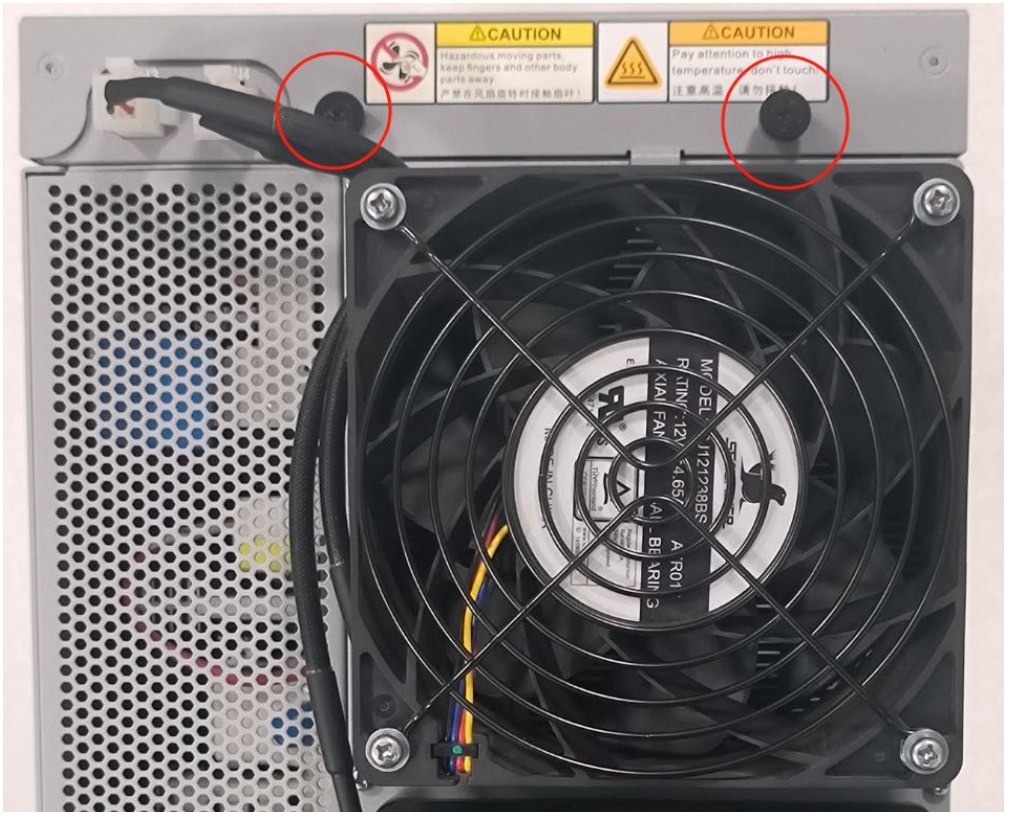
(3) 安转好电源排线和IIC控制线，然后锁紧铜排4颗螺钉钉，安装并锁好好控制盖。



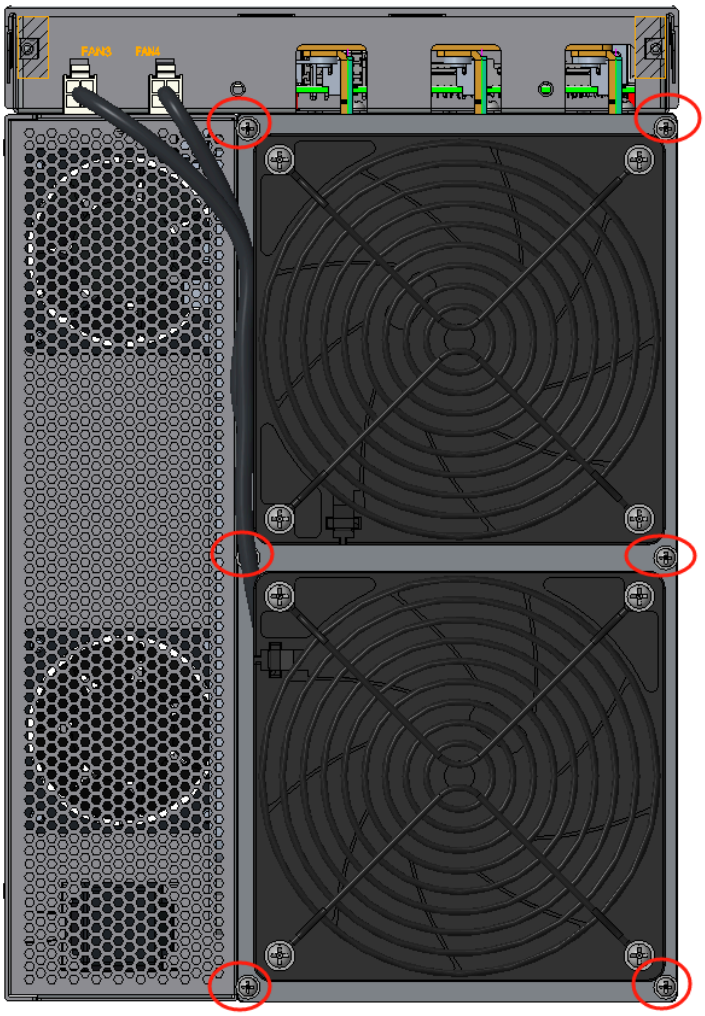
8.3 算力板的拆卸与安装

8.3.1 算力板的拆卸

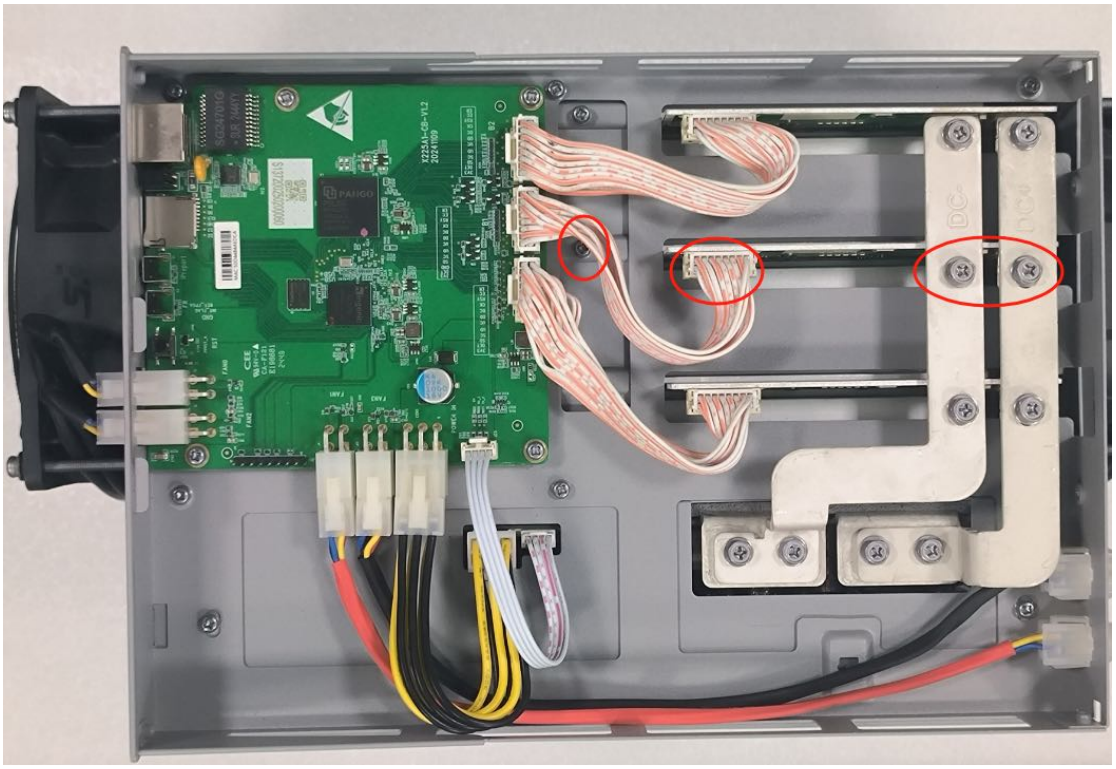
(1) 拧松控制板盒盖子对应的两颗松不脱螺钉，并取下盖子；



(2) 拆除后风扇固定板的6颗螺钉，将后风扇固定板拆除。

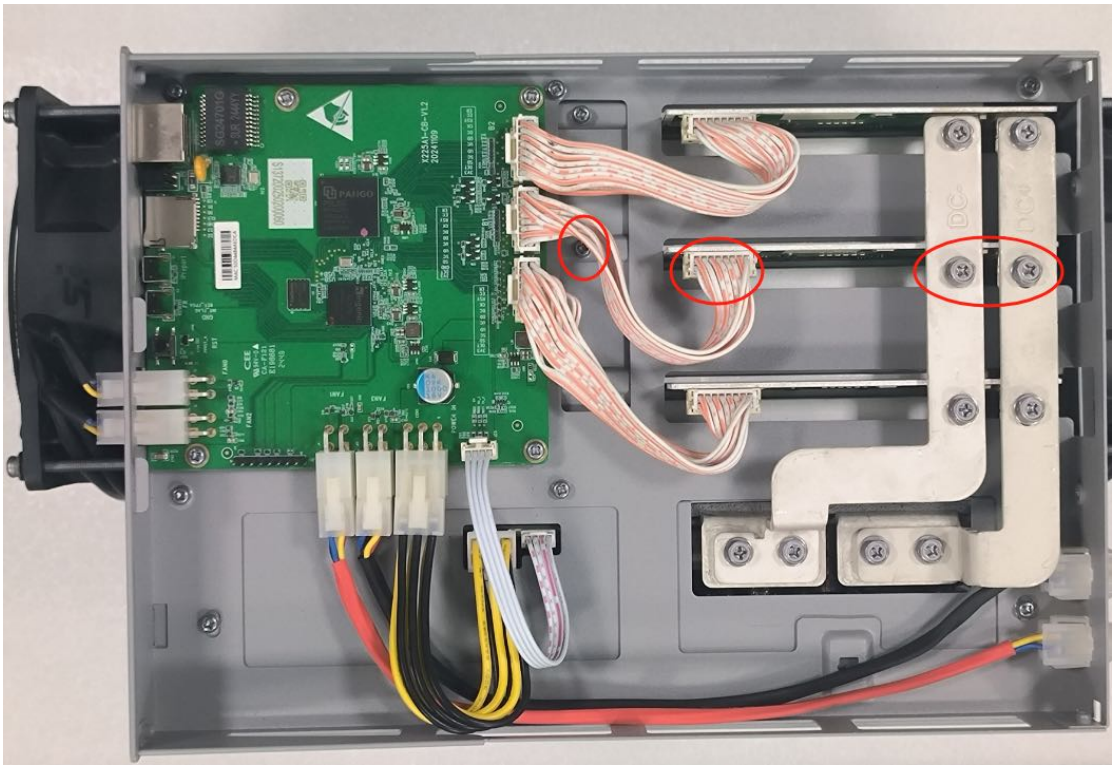

FAN3
FAN4

(3) 以中间算力板为例，取下固定螺钉和铜排螺钉，拔出信号排线，即可向后抽出算力板；

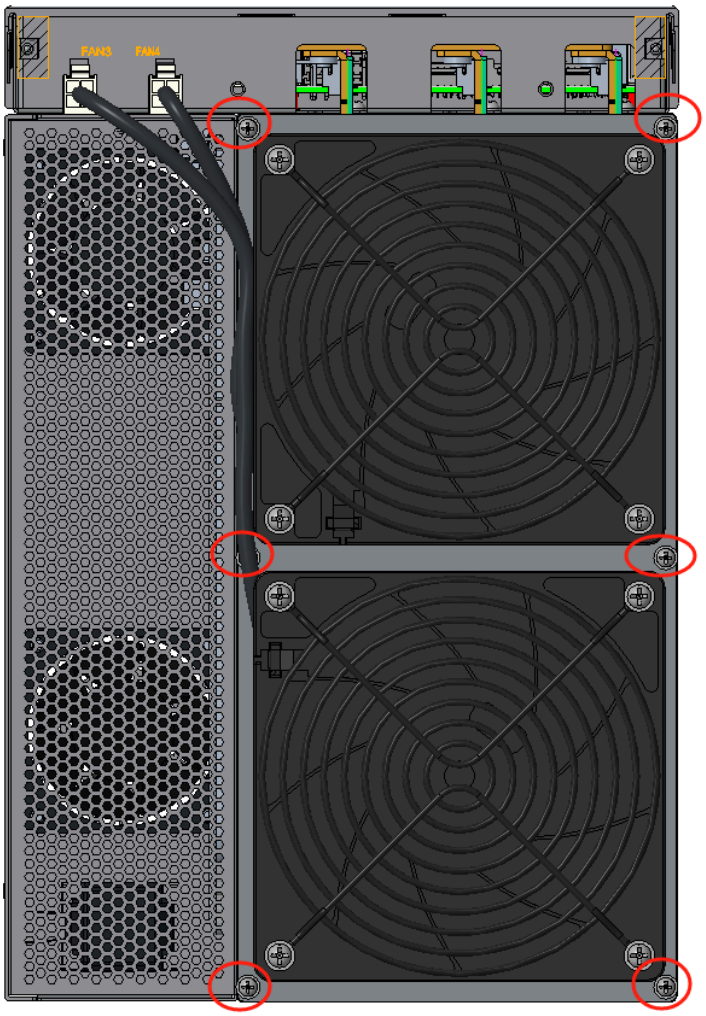


8.3.2 算力板的安装

(1) 以中间算力板为例，将算力板插入滑槽，锁紧算力板固定螺钉和铜排螺钉，插入信号排线；



(2) 安装后风扇固定板，锁紧后风扇固定板6颗螺钉；



9.其它注意事项

9.1 设备的保养和维护

长期运行后(3-6个月)请及时清理算力板、控制板、排线等部位灰尘，以防止积尘引起的腐蚀问题;在机器掉电后请确保仓储环境湿度小于60%，并定期(3-6个月)清理灰尘，以防止积尘高湿环境引起的腐蚀问题;

注意：尽量避免机器出现严重的腐蚀、 积尘、 潮湿等情况.

10.售后服务

用户体验是Bitdeer每项工作的第一目标。我们会倾听客户的反馈，不断完善我们的客户服务，真诚的帮助客户解决问题。Bitdeer为A2系列风冷服务器　产品承诺1年保修期，在保修范围内提供免费的维修服务，购买即视为认同保修条款，但对于以下情况或故障，我们将不予维修您的产品:

1. 未按官方文件的要求安装、使用、维护、保养机器等导致机器损坏;
2. 未经官方书面或电子方式授权，擅自拆卸、改装、拼装或修理导致损坏的产品;
3. 因跌落、误用、滥用、误操作、安装不当等不符合规定的维护和储存等造成的损坏或损失;
4. 由于矿机在不符合要求的环境下运行造成的产品损坏，包括但不限于潮湿、腐蚀性环境、浪涌、极端度、异常电压电流(浪涌、冲击、不稳定)、交流电压过低或过高等等;
5. 整机或板件及板件上的元器件被压坏、摔坏、烧毁或因不当操作导致的坠落损伤等;
6. 过压或欠压、漏电引起的产品损坏;
7. 由于不可预见的自然灾害造成的产品损坏或损失，包括但不限于:洪水、火灾、地震、海啸、雷击等;

8. 非由我们或我们授权的服务机构拆卸机器或对机器进行过任何更改；
9. 使用任何与非我司产品或我们授权的机构生产且不满足我方要求参数的电源等配件、零部件或组件造成的产品故障或损害；
10. 使用未经授权的固件或驱动程序造成的故障或损坏，包括但不限于使用未经授权的超频固件 ；
11. SN 标签被更改，污损或去除；
12. 混板：机器中的部分或全部运算板、控制板、电源为非该机器原装产品或任何导致我们无法判断运算板、控制板、电源 是否为该机器原装的情况；
13. 任何非我司原因导致我们无法判断产品是否在质保期的情况。

11. 售后保修费用的条款

1. 如您的产品属于不予维修的情形，或对于报废或存在混板的产品，您选择不修退回，您需承担该维修工单产品的往返运费。除上述情形外，对于需维修的产品，您承担将产品寄至我们指定地址的运费，我们承担将维修后或替换产品寄至您指定地址的运费。除此之外，我们不承担任何其它费用例如可能产生的关税等。
2. 请您以寄付方式将需维修的产品邮寄给我们指定地址。如您以到付方式邮寄，或您寄到其他非指定地址（包括物流自提点），我们将无法收到产品，所有后果将由您自行承担。
3. 我们将根据您或者您在工单中指定的联系人提供的收货信息寄出维修后或替换产品。如因您提供的收货信息不正确或不完全，您需承担由此产生的所有额外费用。
4. 对于DOA、二次返修的情形，如产品不属于不予维修或不予免费维修的情形，当您使用寄付方式将需维修的产品寄给我们后，可在本网站申请不高于物流官方收费标准的运费补贴（其中保价部分由客户自负 ）。对于可申请运费补贴的情形，您需向我们提供您支付运费的凭证。运费凭证不得造假、涂抹、修改

，运费凭证上应显示总运费，总运费不得高于物流官方收费标准。否则我们有权拒绝向您提供您申请的部分或全部运费补贴。

5. 请您务必单独邮寄可获得运费补贴的产品。如您寄出的同一个包裹中既包含可获得运费补贴的产品，也包含不可获得运费补贴的产品，我们将无法单独核算可获得运费补贴产品的运费，因此对于此包裹，我们将无法发放任何运费补贴。

6. 返还产品毁损灭失的风险自我们将包裹投递至物流公司后转移至您，如物流过程中发生产品毁损灭失的，您应自行和物流公司解决此类纠纷。

7. 本条款未尽事宜,按照Bitdeer公司相关规定执行。本条款的最终解释权归Bitdeer所有。