

ALEO AE3

MANUAL

ICERIVER®

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1. General Guide

We recommend reading this manual thoroughly before operating the product, and retaining it for future reference.

For more information, please refer to <https://www.iceriver.io/tutorial/>.

1.1 Installation Guide

1. Check whether the packaging appearance is deformed, whether the server appearance is deformed or damaged, check the fan and cable, and check whether the server has any abnormal noise. Please do not disassemble the server by yourself, otherwise the server warranty will be invalidated.
2. Before installing the server, check for any physical interference causing damage to the machine and be cautious of the risk of electric shock.
3. Please refer to the installation manual before connecting the power supply <https://www.iceriver.io/tutorial/>.
4. The socket should be installed near the server and easily accessible.
5. Use stable voltage.
6. Before powering on, please check if the cable connections are securely connected and correctly aligned, and pay attention to electrical safety.
7. The server should not be directly connected to a primary power source, and power should be obtained through double insulation or reinforced insulation safety isolation transformers or equivalent devices (only applicable to equipment without power supply).
8. The server uses web login, with the default account being “admin” and password being “12345678”. Please change the server password after the first startup. After completing the password change, you need to log in again with the new password.

1.2 Operating Environment

1. Due to the high surface temperature of the server during operation, avoid covering the server surface or placing flammable or explosive materials around it, and ensure that the ventilation holes are not blocked.
2. Do not place the server near water or expose it to humid environments. Please keep the environment clean to prevent dust, hair, willow catkins and other foreign objects from entering the server and causing damage. Do not insert any objects into the slots of the server. This may damage circuit components, leading to fire or electric shock. Do not splash liquids onto the server.
3. The server should be placed in an environment below an altitude of 2000 meters to operate. High altitude can lead to thin air and reduce heat dissipation efficiency, increasing the risk of

power breakdown. At the same time, it will accelerate the aging of the fan, affect stability, and shorten the lifespan of the equipment.

4. Leave some space around the server. The recommended operating temperature for the server is 0-40 °C, and the humidity is below 90% RH. Be careful to avoid condensation at lower temperatures.

5. The server should be placed in a secure location. Falling or dropping may cause damage.

6. This server is not suitable for places where children may be present.

1.3 Maintenance

1. If the server emits strange smells, sounds, or smoke, please immediately unplug the power cord and contact the service center.

2. Unauthorized replacement of the power supply is prohibited. Any server malfunction caused by unauthorized power supply replacement will not be covered by the warranty.

3. Do not allow hands or fingers near moving fan blades.

4. Unplug the device during thunderstorms or if it will not be used for an extended period. This will protect the server from damage caused by power surges.

5. Do not overload the power outlet or power cord, as this may cause a fire or electric shock.

6. Do not open the server to avoid the risk of electric shock. For safety reasons, only professional service personnel are authorized to open the server.

7. Never hit or drop the product under any circumstances.

8. When a new firmware update is released on the official website, it can be downloaded and updated via the web interface.

9. If the server experiences abnormal conditions, you can restore it to factory settings using the reset button.

10. If you need to clean the server, disconnect the server from the power source before cleaning. Do not use any liquid or aerosol cleaners. Only use a dry cloth or brush. Ensure no cleaning agents leak into the product. Any issues caused by improper cleaning will not be covered by the warranty.

1.4 Basic Troubleshooting

1. If any of the following conditions occur, the server must be inspected by professional service personnel:

- The power cord or plug is damaged
- Liquid has seeped into the server
- The server has been exposed to a humid environment
- The server has been dropped or damaged
- The server shows obvious signs of damage
- The server does not operate normally or as described in the manual

2. The server will not power on after connecting the power and switching it on:

- Check if the power connector is loose or disconnected, and ensure the power cord is securely plugged in.
- Verify that the input voltage is within the specified operating range.

3. The network port light is off:

- Check if the network cable is properly plugged in

4. The server is overheating:

- Check if the ambient temperature is too high
- Check if the inlet and outlet of the fan are blocked

1.5 Machine Repair

1. All sales are final. Returns and exchanges are not accepted, except where required by applicable consumer protection laws.

2. A 180-day warranty is provided starting from the shipping date. According to the ICERIVER warranty policy, if the server needs to be returned for repair within the warranty period, contact customer service to submit a repair ticket. ICERIVER will cover the return shipping cost for repaired equipment.

3. The following conditions are not covered by the warranty:

- Product damage caused by improper installation, use, and maintenance cannot be repaired.
- Product damage or malfunction caused by dropping, misuse, negligence, or improper operation.
- Product damage caused by physical interference, including but not limited to moisture, fire, flood, lightning strikes, transportation, and extreme environments.
- Products without original barcode or SN label, or products with altered, damaged, or removed labels.
- The server's firmware has been modified by third party.
- Removal or replacement of any components by the customer without official prior approval.
- Damage to the product, device, or any part caused by moisture, oxidation, corrosion, or short circuits. Damage to the server, board, or components caused by water immersion or humid environments.
- Missing pins or PCB damage caused by improper packaging or handling.
- Use of harmful substances like oil or cleaning agents that pose a health risk during repair.

4. If your server cannot operate according to the official standard operating terms and conditions, please submit a ticket at the following website: <https://support.iceriver.io/requests/new/>

5. Please provide the original order ID, a photo of the server's SN tag showing the hashrate, detailed information about the server status, and screenshots as a reference. If it is confirmed after troubleshooting that the server has a defect and your ICERIVER representative confirms that the server has a defect, please return the component to ICERIVER according to the following detailed information.

a) Log in to your ICERIVER account.

b) www.iceriver.io/In the top menu, click on "Support">>"Repair Order">>"Create Order"

c) Fill in all relevant fields.

Please provide the correct server SN, item list, and tracking number related to the warranty parts, otherwise the package will be rejected.

6. The product owner will bear the cost of returning the product, parts, or components to our service facility. If the return is within the warranty period, ICERIVER will cover the shipping cost to return the product.

7. We are not responsible for any losses incurred during transportation by carriers chosen by the customer. It is highly recommended to use internationally reputable logistics companies to minimize such risks.

If further support is needed, please contact professional customer service at:

<https://support.iceriver.io/requests/new/>

1.6 Disclaimer

The information contained in this manual is subject to change without notice. The manufacturer makes no representations or warranties, either express or implied, with respect to the contents of this document, including but not limited to any implied warranties of merchantability or fitness for a particular purpose. The manufacturer reserves the right to revise this publication and to make changes to its content at any time without obligation to notify any person or organization of such revisions or changes.

1.7 FCC Compliance Statement



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.

Caution:

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

1.8 EU Compliance Statement



This product, including any applicable accessories, bears the “CE” marking and complies with relevant harmonized European standards under Directives 2014/30/EU (EMC), 2014/35/EU (LVD), and 2011/65/EU (RoHS).

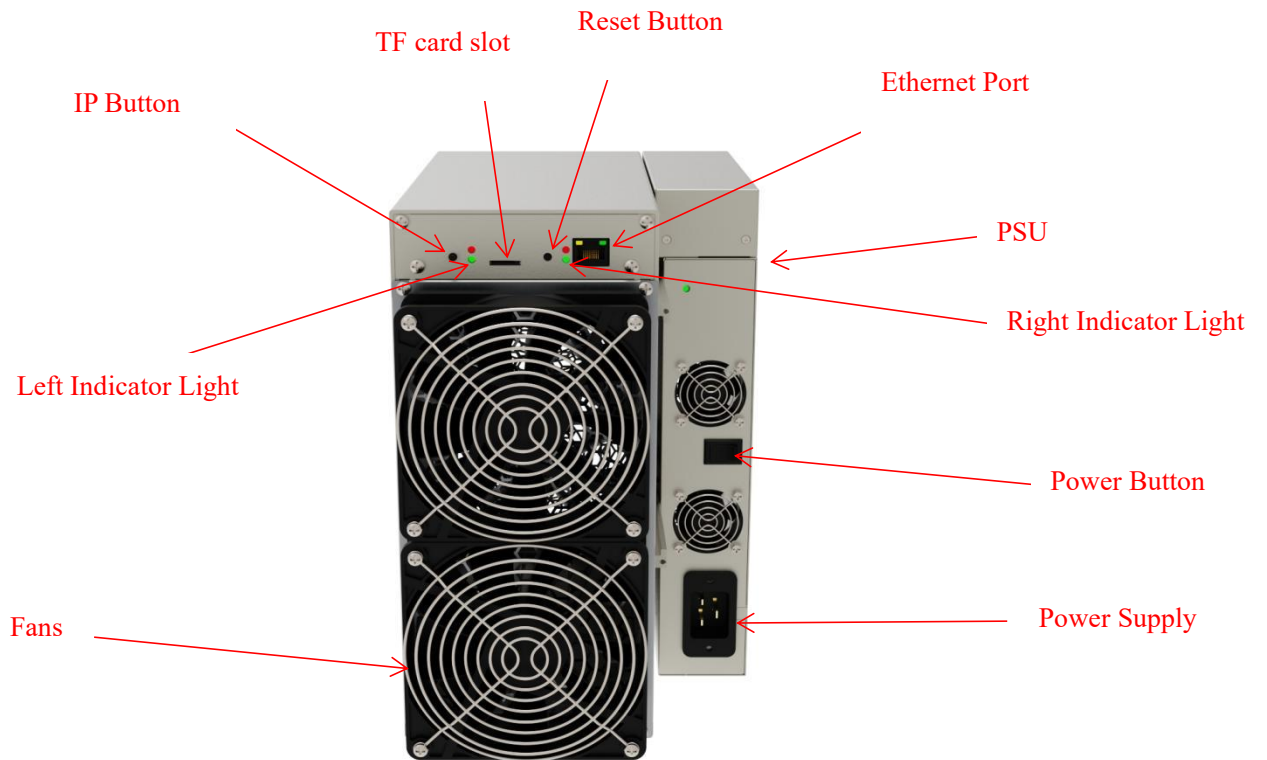
1.9 Directive 2012/19/EU (WEEE Directive)

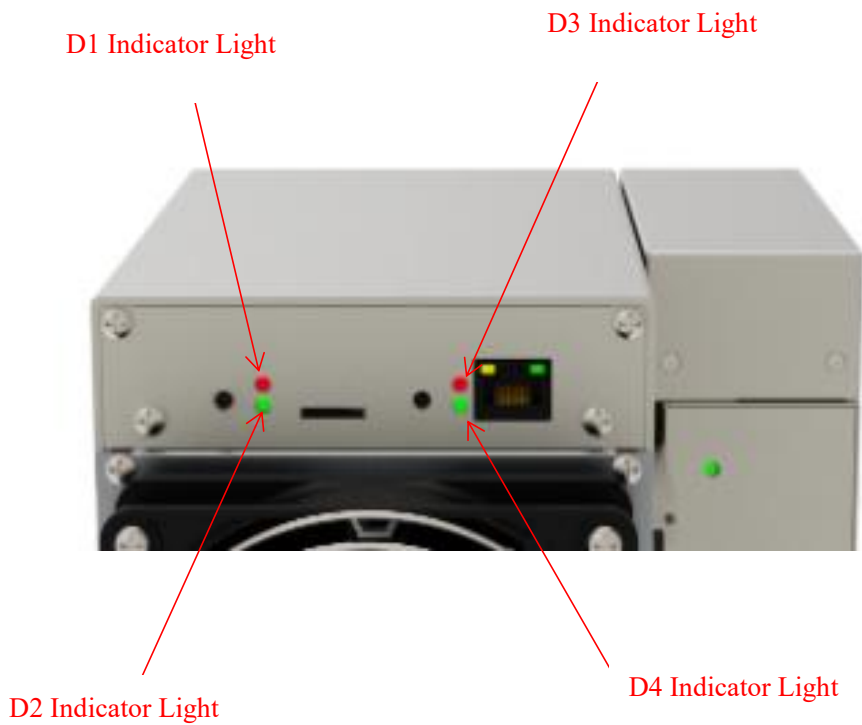


This symbol indicates that this product must not be disposed of with regular household waste in the EU. To reduce potential harm to the environment and human health, please recycle it responsibly. Return the device through an authorized collection point or retailer for environmentally safe disposal.

2.Product Overview

2.1 Appearance





***Indicator Description:**

Machine Status	Indicator light status
Running Normally	D2 light blinks, D1, D3, D4 lights are off.
Fan Abnormality	D1, D3 lights blink, D2, D4lights are off.
Network Issues	D1, D2 lights blink, D3, D4 lights are off.
High-temperature Alarm	D2, D3 lights blink, D1, D4 lights are off.

Interface specification:

Power interface	AC power input: 200V--250V 50/60HZ
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Product Description:

ALEO Hashrate	2GH/S(±5%)
DC Power	3400W/h(±10%)
Dimension	370×195×290(mm)
Net Weight	15KG
Connection	ethernet
Operating Temp	0~40 °C

3.Function

3.1 Start up

3.1.1 Precautions

- Check whether there is physical interference causing damage to the machine and beware of electric shock.
- Please check if the cable connection is firm before powering on, and pay attention to the safety of electricity.
- Keep the hash board and other parts away from water or exposed to moisture.
- Please make sure the ambient temperature is between 0-40°C.
- Machines should be operated in environments below 2000 meters in altitude.
- Please avoid covering the surface of the machine due to the high temperature of the machine surface during operation.
- Do not place flammable and explosive substances around the machine during operation.
- Please make sure the humidity of the environment is below 90%.
- Please keep the environment clean to prevent dust, hair, willow and other foreign objects from entering the machine and causing damage to the machine.
- Use a stable voltage.
- The machine, hash board or board parts being crushed or burned due to improper environment is not covered by the warranty.
- Customers should not disassemble the machine by themselves without permission from ICERIVER after-sales team.

3.1.2 Check before start up

Preliminary inspection of the miner before operation:

- Check the appearance of the package for deformation.
- Check the appearance of the machine for deformation and breakage. Also check the fan and cable.

- Check if there is any strange sound in the machine and observe if the heat sink is off.

***Note:** Please do not disassemble the machine by yourself. The machine will not be covered by the warranty if the user disassembles the machine without permission.

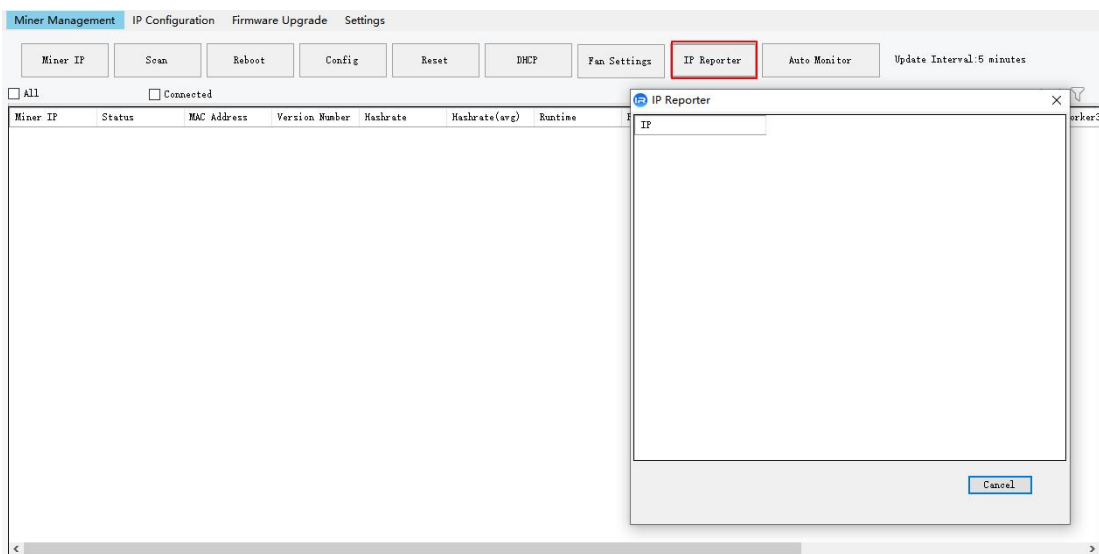
3.1.3 Boot

Please connect the miner to the Ethernet first, and then plug in the power cord. Turn on the machine, during the boot process, the red and green indicator lights on both sides will remain steady. Wait until the D2 indicator light blinks (if it doesn't blink for more than 10 minutes, please check the network), and the D1, D3, D4 indicator lights all go off. This indicates that the miner has started successfully.

3.2 Access Machine

3.2.1 Obtain Machine IP

1. Obtain the IP address of the machine through download and unzip the *batch processing tool* provided by our company (please refer to the official website to download: <https://www.iceriver.io/tutorial/>).
2. Click the [Detect IP] button and long press the machine's IP button for 1-2s after the pop-up window to get the machine IP.



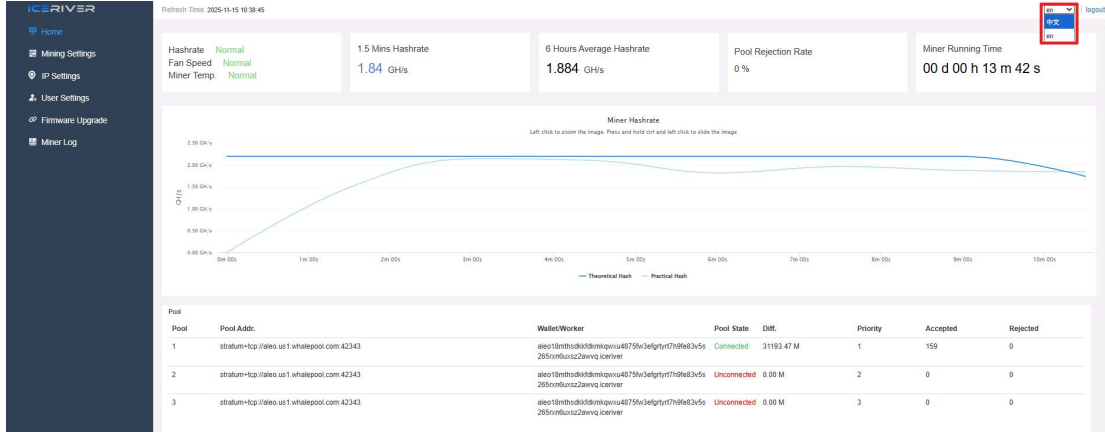
3.2.2 Access Machine

1. Open your web browser (Chrome browser is recommended) and enter the machine's IP address in the address bar. You will see the following interface.
2. Use the default username "admin" and the default login password "12345678" to log in to the machine.



3.3 Language Switch

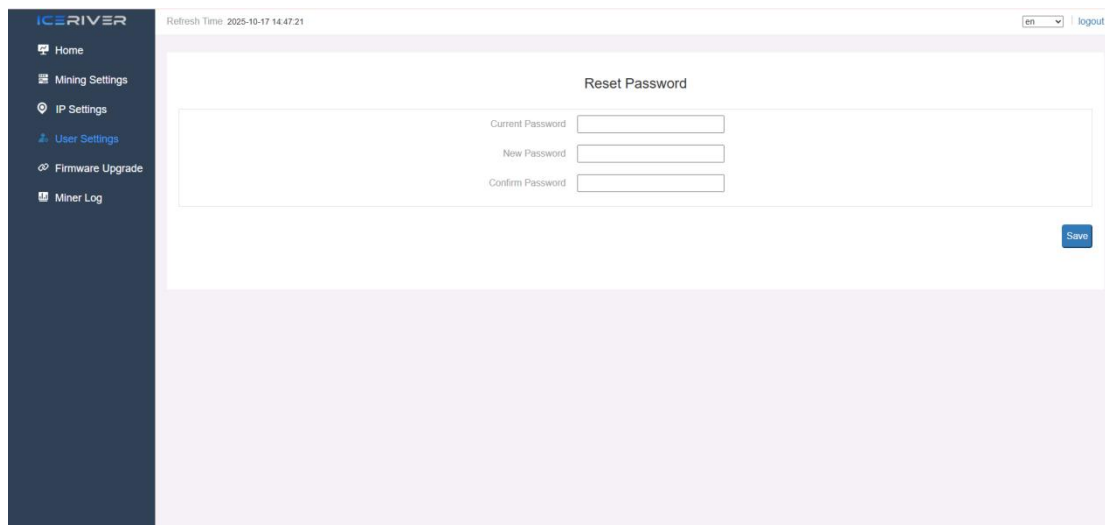
1. Click [Language] in the upper right corner of the page to switch between Chinese or English.



3.4 Change Password

To protect your property security, please change the miner password after the first time you turn on the machine.

1. Click [\[User Settings\]](#), enter the current password and the new password as shown below, and click the [\[Save\]](#) button.
2. After the password change is completed, you need to log in again with the new password.

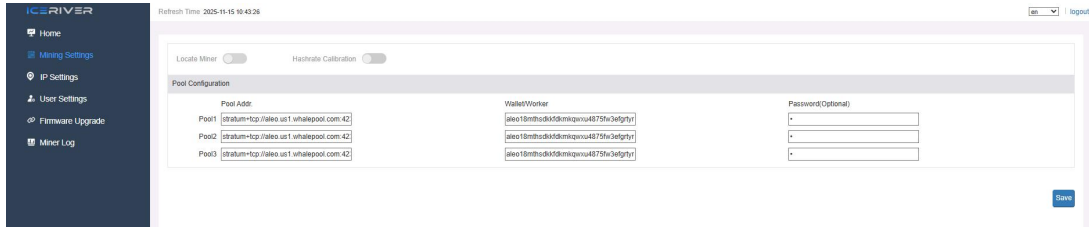


The screenshot displays the ICERIVER web interface. On the left is a dark blue sidebar with navigation options: Home, Mining Settings, IP Settings, User Settings (highlighted in blue), Firmware Upgrade, and Miner Log. The main content area has a light purple header with the ICERIVER logo, a refresh time of 2025-10-17 14:47:21, a language dropdown set to 'en', and a 'logout' link. Below the header is a white box titled 'Reset Password' containing three input fields: 'Current Password', 'New Password', and 'Confirm Password'. A blue 'Save' button is located at the bottom right of the form.

3.5 Configuring mining pools and wallets

3.5.1 Add

1. Go to the [Mining Setting] page and find [Pool Configuration].



You can configure three mining pools with the following reference example:

Pool 1: stratum+tcp://aleo.us1.whalepool.com:42343

Wallet/Worker:

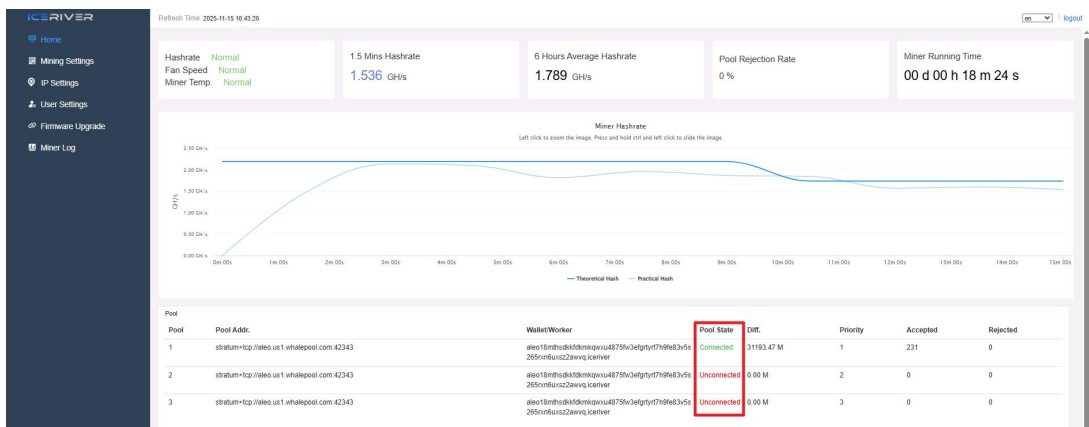
aleo18mthsdkkfdkmmkqwxu4875fw3efgrtyr7h9fe83v5s265rxn6uxsz2awvq.iceriver

↓
Wallet address

↓
Worker

* The password is optional and can be set or not, it does not affect mining.

2. Click Save and a configuration success window will pop up.
3. After successful configuration, click [Reboot] and wait for the machine to reboot (do not power off during the reboot process).
4. The information on the home page shows that the pool is " connected ", which means the pool is successfully connected.



*The default pool configuration is the configuration of our company when testing, please configure your own mining wallet address before you start mining, please do not use the default

configuration.

*If pool 1 is not connected, the machine will automatically connect to pool 2. If pool 2 is not connected, the machine will automatically connect to pool 3.

* If the configuration fails you can configure it again and restart it.

The following mining pools are known to be compatible, and will be continuously updated:

Whalepool	stratum+tcp://aleo.us1.whalepool.com:42343
ZK.WORK	stratum+tcp://aleo.hk.zk.work:20005
Dxpool	stratum+tcp://aleo.ss.dxpool.com:9090

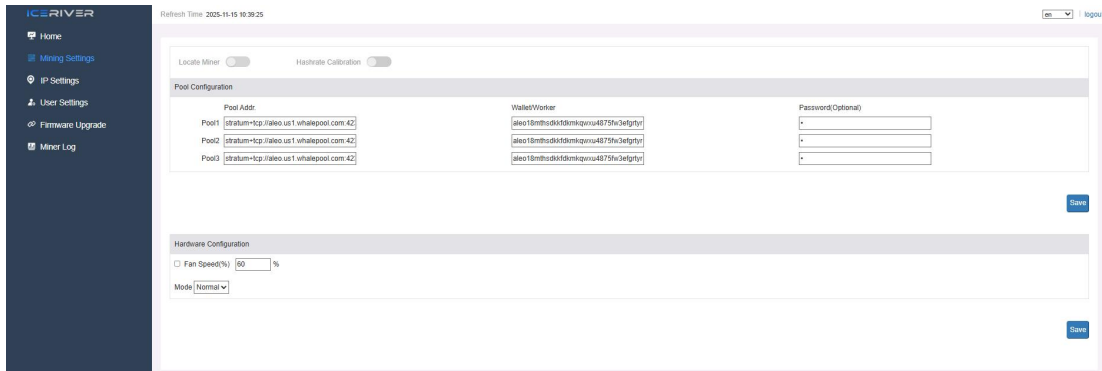
* The above mining pool information is the mining pool address we used for testing purposes. Before connecting to the mining pool, please log in to the respective mining pool's official website and check if the mining pool address has changed.

3.5.2 Remove

1. Clear the information in [Pool Configuration] and click [Save] to remove the mining pool.

3.5.3 Adjusting fan speed

1. Find [Hardware Configuration] in [Mining Setting].
2. Check [Fan Speed].
3. Select the fan mode, or manually adjust the speed, click [Save] after modification.

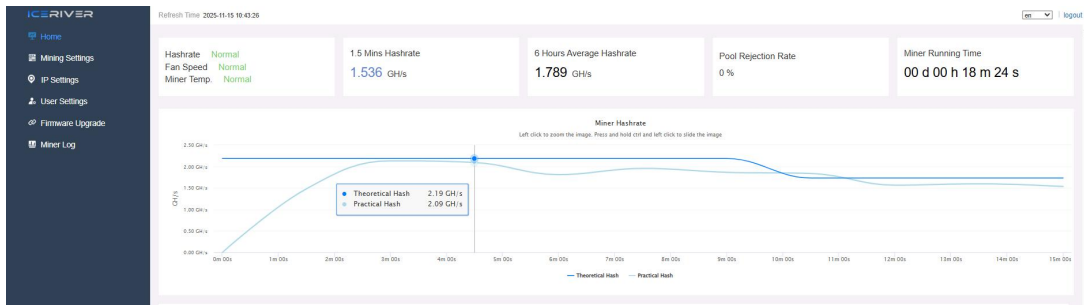


* After powering on, the fan will operate at a low speed. Only after the self-check process, the fan will start running at full speed. The default fan speed is set to maximum. If the self-check detects any fan abnormalities, the mining process will not begin.

* The machine will stop mining in sleep mode.

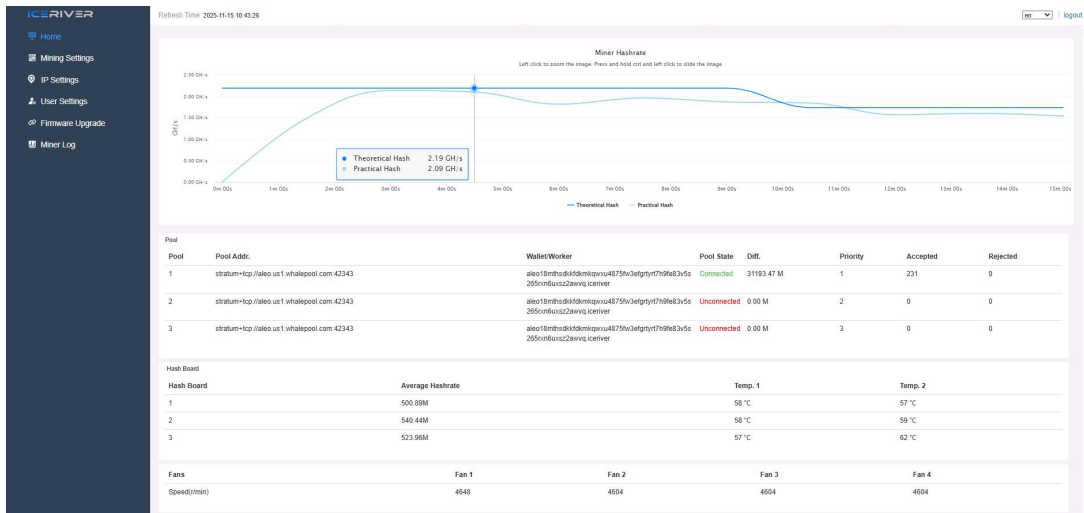
3.6 View Hashrate Chart

1. Click [Home] to view the Hashrate Chart.



* After 5 minutes of connecting to the pool, you can view the miner's hashrate and hashrate chart, the chart is updated every 5 minutes.

* Under Hash board, you can view the machine temperature and fan speed, which can monitor the working status of the machine in real time.

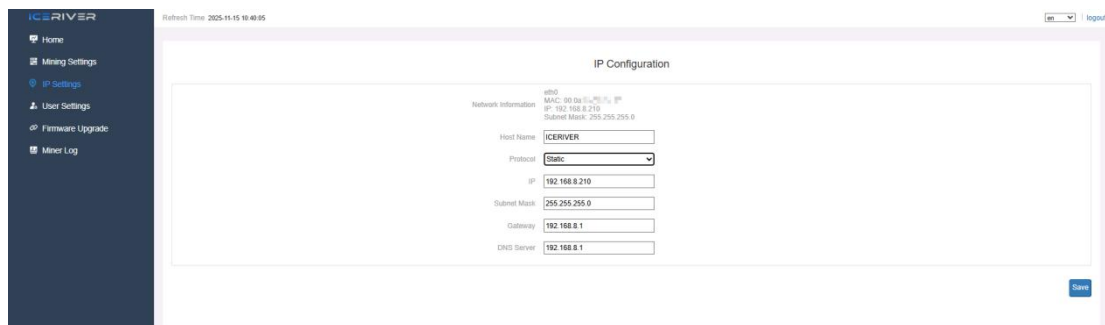


3.7 Network Settings

The factory default is DHCP mode, users can set the IP mode according to their needs.

Set static IP:

1. Click [\[IP Settings\]](#), select *Static* in [\[Protocol\]](#), fill in the IP information according to the user, and then click [\[Save\]](#) button.
2. After saving the configuration, click [\[Reboot\]](#) and wait for the machine to reboot (do not power off during the reboot).

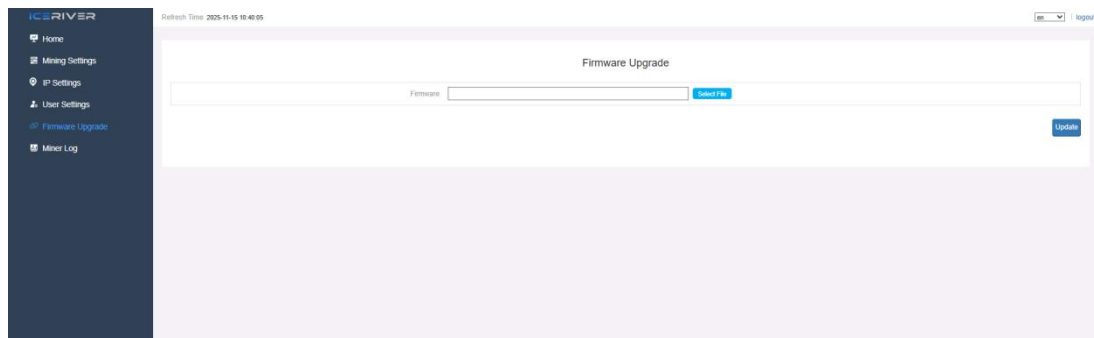


The screenshot shows the ICERIVER web interface. On the left is a dark sidebar with navigation options: Home, Mining Settings, IP Settings (selected), User Settings, Firmware Upgrade, and Miner Log. The main content area is titled "IP Configuration" and contains a "Network Information" section with the following details: Vendor: icriver, MAC: 00:0a:35:00:00:00, IP: 192.168.8.210, and Subnet Mask: 255.255.255.0. Below this are input fields for Host Name (ICERIVER), Protocol (Static), IP (192.168.8.210), Subnet Mask (255.255.255.0), Gateway (192.168.8.1), and DNS Server (192.168.8.1). A "Save" button is located at the bottom right of the configuration area. The top of the page shows a refresh time of 2025-11-15 10:40:05 and a "logout" link.

3.8 Firmware Upgrade

When the official website releases a new upgrade package, download it and upgrade it via Web.

1. Click [\[Firmware Upgrade\]](#), select the official upgrade package and click [\[Upgrade\]](#).
2. Wait for the pop-up window to show success and then click [\[Reboot\]](#) and wait for the machine to reboot (do not power off during the reboot process).
3. After reboot, the firmware upgrade is successful.



3.9 Factory Reset

When the machine has abnormal conditions, you can restore the factory settings through the Rest Button on the machine.

1. Press and hold the reset button for 5 seconds until the D3 and D4 lights start flashing simultaneously. After that, wait for the D3 and D4 lights to stop flashing and remain steady, indicating that the machine is in a reboot-ready state (Do not power off the machine during the reboot process).
2. After the machine reboot, reconfigure the mining pool and wallet to resume mining.

3.10 Shutdown/Reboot

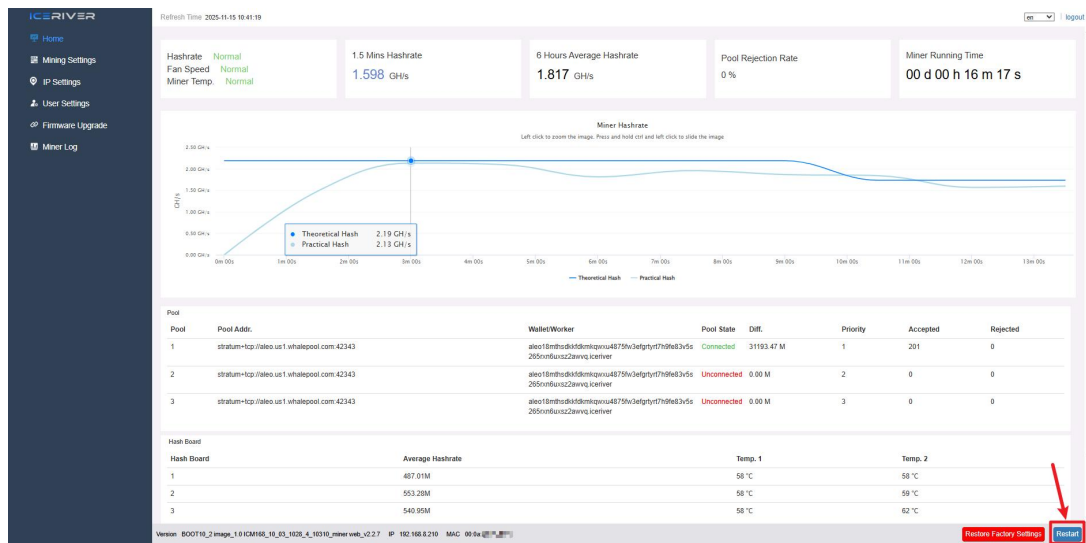
3.10.1 Shutdown

1. Turn off the machine via the miner power button.

3.10.2 Reboot

1. Click [Reboot] in the bottom right corner of the home page, then reboot the machine.

* Note: do not power off the machine during the reboot process.



3.11 Viewing Miner Logs

Miner logs are an important tool for recording the operating status of your device. They help users monitor performance, quickly identify faults, and analyze root causes. After logging into the miner, click on the "Miner Log" option in the backend to view the log content.

2.11.1 Log Functions and Uses

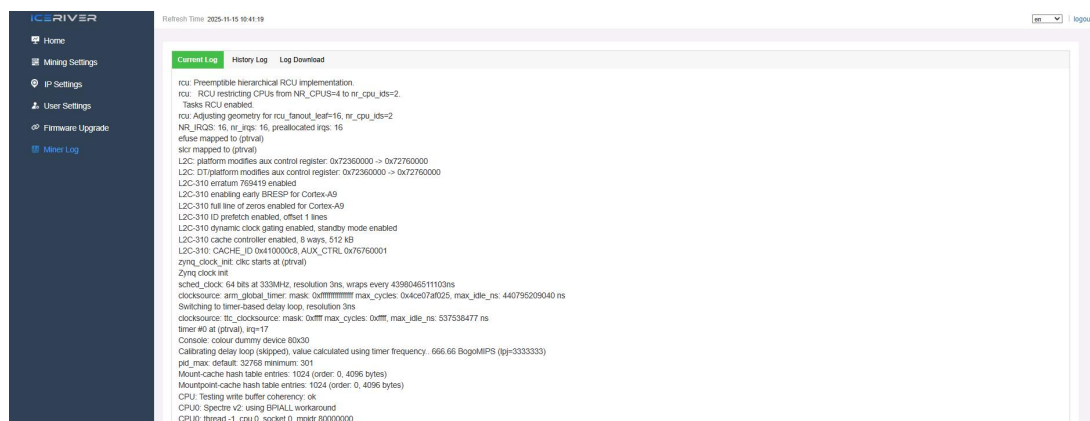
Miner logs record operational data of the miner and are used for:

- Monitoring the miner's status (such as hashrate, temperature, fan speed).
- Diagnosing common faults (such as network disconnections or hashboard errors).
- Providing historical data to trace the root cause of issues, making maintenance and optimization easier.

3.11.2 Log Categories

1. Current Logs: These logs record the miner's operational status since its last startup. They are useful for troubleshooting issues that occurred without a reboot.

2. History Logs: These contain long-term operational data. The file size is fixed, and older logs are overwritten by new ones. After a reboot, historical logs can be used to analyze the cause of faults.



```

Refresh Time: 2025-11-15 10:41:19
Current Log History Log Log Download
rcu: Preemptible hierarchical RCU implementation
rcu: RCU restricting CPUs from NR_CPUS=4 to nr_cpu_ids=2
Tasks RCU enabled.
rcu: Adjusting geometry for rcu_fanout_leaf=16, nr_cpu_ids=2
NR_IRQS: 16, nr_irqs: 16, preallocated irqs: 16
eluse mapped to (privat)
sbc mapped to (privat)
L2C: platform modifies aux control register: 0x72360000 -> 0x72760000
L2C: D1 platform modifies aux control register: 0x72360000 -> 0x72760000
L2C-310 erratum 753419 enabled
L2C-310 enabling early BRESP for Cortex-A9
L2C-310 full line of zeros enabled for Cortex-A9
L2C-310 ID prefetch enabled, offset 3 lines
L2C-310 dynamic clock gating enabled, standby mode enabled
L2C-310 cache controller enabled, 8 ways, 512 KB
L2C-310: CACHE_ID 0x41000000, AUX_CTRL 0x76760001
zynq_clock_init: clk starts at (privat)
Zynq clock init
sched_clock: 64 bits at 353MHz, resolution 3ns, wraps every 439804651110ns
clocksource: arm_global_timer: mask 0xffffffff max_cycles: 0x4c07a025, max_idle_ns: 440795209040 ns
Switching to timer-based delay loop, resolution 3ns
clocksource: ftm_clocksource: mask: 0xffff max_cycles: 0xffff max_idle_ns: 537538477 ns
timer 40 at (privat): irq=17
Console: colour dummy device 80x30
Calibrating delay loop (skipped), value calculated using timer frequency: 666.66 BogoMIPS (ppj-3333333)
pid_max: default: 32768 minimum: 301
Mount-cache hash table entries: 1024 (order: 0, 4096 bytes)
Mountpoint-cache hash table entries: 1024 (order: 0, 4096 bytes)
CPU: Testing write buffer coherency: ok
CPU0: Spectre v2: using BRILLIANT workaround
CPU0: thread -1, cpu 0, socket 0, mpidr 80000000

```

3.11.3 How to Download Logs

1. Download Current Logs: Saves the complete logs of the current session.
2. Download History Logs: Saves all historical log records for future analysis.



4. Common Faults and Solutions

4.1 Faults Solutions

4.1.1 Power Supply

- Cannot be turned on the machine after connecting power and turning on the power button:
 1. Check whether the power connector is loose or off, and whether the power cord is inserted tightly.
 2. Verify that the power supply input voltage is within the specified operating voltage range (AC 200V - 250V).

4.1.2 Network

- Network port light does not light up:

Check if the network port is plugged in.

4.1.3 Fan

- The fan does not turn after power is applied:
 1. Check the appearance of the fan and whether the metal mesh is extruded and deformed.
 2. Check if the mining pool is successfully connected.

4.1.4 High Temperature

- Machine temperature is too high:
 1. Check that the machine is not covered with.
 2. Check if the machine is placed in an environment with air convection.

4.1.5 Hashrate does not up to the target hashrate

- Hashrate does not up to the target hashrate:
 1. Check whether the machine fan is working properly, if the fan speed is abnormal, it will cause the machine temperature is too high will trigger high temperature protection.
 2. Short-term hashrate fluctuations, please observe the 12-hour average hashrate.

- The difference between the Web hashrate and the mining pool hashrate is large:

Check whether the network connection is normal.

4.1.6 Unable to enter the Web operation page

- The browser displays 404 after entering the miner IP:

Reboot the machine and re-enter the Web operation page.

4.1.7 Miner power reduces to around 150W-200W

- The miner's power will drop after the network abnormality, please check the indicator light blinking condition as well as check the network condition.