

AvalonMiner1026 User Manual

Overview

Thank you for choosing AvalonMiners. Please read through this user manual carefully before mining as to ensure the correct operation and installation of the products, and keep the manual properly for future reference.

Safety Regulation

Warning: In order to prevent human safety accidents, such as Miner and power damage, fall, electric shock and fire, please install and use the machine strictly in accordance with the instructions. It's prohibited to modify the Miner or power, and replace the components personally.

- Don't use the power supply beyond the rated voltage range.
- Don't put the Minerin unstable places.
- When inspecting and repairing the MİNEr or the power supply, please entrust professional personnel for the operation.
- When abnormal phenomena of Miner or power supply occurs, cut off the power immediately and contact the after-sale personnel.

Hardware Connection

Connect the power supply and products as below Figs.





Power Connection

Please fix the conversion card with the miner via 6M3*4screwsand insert the PSU into the slot as below Figs





Please stretch the output copper wire to connect the PSU with the miner via 12 M4*8 screws as the below Fig.



Please insert the 6-pin wire into the matching socket.



Each unit is born with 2 RJ45 ports available for a daisy-chain (suggestion: better to be 12 units at most as one group). Let's take an example as follow, RJ45 cable relates to the switchboard at one end while the other one linking with the first machine that goes with the second miner and so on so forth, to form a multiple connection.





Keys and Indicator Lamps



Keys

RESET: System reset key, and system reset will not affect network series connection.

FUNC: Functional keys can be used to reset the miner back to the factory settings, enter the configuration mode, and switch lighting status in operation, etc.

Indicator Lamps

- > The indicator lamp flashes in red several times after power-on.
- > After device startup, the indicator lamp turns white for about three secs. During this period, press the FUNC key, then device will enter the configuration mode.



The indicator lamp is green under normal mining condition.

- > The indicator is yellow during system preparation.
- > The indicator lamp is red when the system is overheated.
- > During system operation, the indicator lamp turns white by FMS software or manually pressing the FUNC key, and the lamp reset to original color after the Key pressed again.

Rest Mining to factory settings: Press the FUNC function key when power on for five seconds till the white lamp flickers that means the success., and then press the RESET or power to restart.

Work Mode

The device has two work modes: "normal mode" and "configuration mode".

Normal Mode

In normal mining mode, the device runs in this mode most of its life cycle, which network can use DHCP (dynamic acquisition) or static IP, and the default is set to DHCP.

Configuration Mode

Press the FUNC key when the lamp is white (about three secs.) after startup, and the device will enter this mode.

In this mode, the IP address is static (address: 192.168.168.168, subnet mask: 255.255.255.0), which can't process the mining function. The built-in Web service of the device can be accessed through PC browser to configure network, mining pool, password and other information.

Set PC to static IP address: 192.168.168.100 (or any other non-conflicting address with the same segment), subnet mask: 255.255.255.0, connect to the same network with the device (under the same exchanger or router, or directly connect PC to the device network).

| Internet Protocol Ve | rsion 4 (TCP/IPv4) Properties |
|-------------------------------|--|
| General | |
| | d automatically if your network supports need to ask your network administrator |
| Obtain an IP address auto | matically |
| • Use the following IP addres | ss: |
| IP address: | 192 . 168. 168.100 |
| Subnet mask: | 255 . 255. 255. 0 |
| Default gateway: | 192 . 168. 168. 1 |
| Obtain DNS server address | s automatically |
| • Use the following DNS serv | ver addresses: |
| Preferred DNS server: | 114 . 114. 114. 114 |
| Alternate DNS server: | |
| Validate settings upon exi | t Advanced |

1. Please right click to "open network and internet settings";

2. Go to "change adapter options" to disable WLAN and enable Ethernet.

Then use browser to access http://192.168.168/to configure the device. (Modify static IP, etc)

After configuration, nothing will take effect unless machine rebooted. Users are free to either click Reboot key on the left part of the interface or power off manually. Note: please do remember to switch internet connection, otherwise there won't be access to internet for miners.

Please input the IP address modified into the browser. The indicator lamp will turn green under correct operations.

System Setting

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Access the device's built-in Web service through browser and enter the device console after login.



User Login

Default username: root, default password: root, it can enter the Overview page after login.

Network Setting

Click on the left Network of the console to set it to DHCP (dynamic acquisition) or IP(Static).

Note: After pressing the save key, please remember to restart the machine to make sure your network setting effective. To restart it, users can click Reboot on the left side of the console, or press RESET key (on the miner) or just cut off the power supply.

Mining Pool Setting

The following Fig is the default of factory settings. There are two modes here: Normal Mode and High-Performance mode. When using the high-performance mode, please be noted to use high voltage power supply for output in case of any hardware damage.

Note: After pressing the save key, please remember to restart the machine to make sure your mining pool configuration effective. To restart it, users can click Reboot on the left side of the console, or press RESET key (on the miner) or restart the miner physically.

| | liner | | |
|---|-----------------|-------------------------------------|----------|
| Avalon Miner | | | |
| > Overview | Pool Configure | | |
| > Pool > Network | Pool | stratum+tcp://btc.ss.poolin.com:443 | |
| > System >> Administrator | Worker | cctrix.001 | |
| >> Logout | Password | 123 | |
| >> Reboot > Upgrade | Advanced Config | jure | |
| > Log <u>Canaan Creative Co., Ltd.</u> | Work Mode | Normal Mode | <u> </u> |
| د | | Save | |
| | | | |
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User Password

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Default username: root, default password: root

Click Administrator on the left side of the console to set a new password and save it.

Management Software FMS

FMS User Guide

- Installation
 - 1. Double click fms.exe icon to start the installer.





2. Specify the installation directory in the following installer window:

| 🖶 Setup - fms version 1.0 - | - | | × |
|--|------------|--------|------|
| Select Destination Location Where should fms be installed? | | | |
| Setup will install fms into the following folder. | | | |
| To continue, click Next. If you would like to select a different folder, | click Bi | rowse. | |
| C:\Program Files\fms | B <u>r</u> | rowse | |
| | | | |
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| | | | |
| At least 125.1 MB of free disk space is required. | | | |
| <u>N</u> ext : | > | Ca | ncel |

3. Click Next:

| fms, then |
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| fms, then |
| fms, then |
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4. Click Next:

| Setup - fms version 1.0 | | — | |
|--|------------------------------|-----------------------|-----------|
| Ready to Install Setup is now ready to begin | installing fms on your co | omputer. | 2 2 |
| Click Install to continue with change any settings. | the installation, or click I | Back if you want to i | review or |
| Destination location: C:\Program Files\fms | | | ^ |
| Additional tasks: Additional shortcuts: Create a desktop sho | rtcut | | |
| | | | |
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| | | | |

5. Click Install to start installation:



Once the progress is done:



Click finish to complete the installation.

• User interface Introduction



1. Double click the desktop icon fms to enter FMS:



| FMS FMS | | | | | | - | | × |
|---------------------------------|-----------------|------------|---------------|------------------|--------------|--------|----------|--------|
| Scan Upgrade Setting | | | | | | | | |
| Overview | | | | | | | | |
| Temperature Summary | Min | er Summar | y | Hashrate Summary | | | | |
| Max : 0°C (32°F) Min : 0°C (32 | PF) Total Cou | int: 0 Poo | ol 1: 0 Total | : 0(T) Average | : 0(T) | | | |
| Average : 0°C (32°F) | Poo | 12: 0 Poo | ol 3: 0 | | | | | |
| | | | | | | | | |
| State √ Pool & Worker Number o | Miners in Pool | IP (0) | AUC Count | Miner Count | Elapsed Time | Real-T | 'ime Ha | shrat |
| | Numers in 1 oor | 1 (0) | Neecount | Winer Count | Lupsed Thile | | inic 110 | .sm en |
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| Total : O(T) Average : O(T) hash rate mo |
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state: current status, marked or normal

Pool & Worker:, pool & worker: pool configured and miner operator No.

Number of Miner in Pool: Number of Miner in Pool: how many miners in pool

IP address: miner IP address

AUC count: number of AUC

Miner Count: number of miners

Elapsed Time: current operating time

Real-Time Hashrate(T),

Average Hashrate(T),

Min Ambient Temperature(°C)

Max Ambient Temperature(°C)

Miner: code number

- Usage
- 1. Miner Discovery

If the miners and the management PC are in the same network, use the following procedure to discover the miners. Click Settings to bring up the Base Config window:



| ∭ FMS Setting | | ? | \times |
|---|-----------|-------|----------|
| Base Config | | | |
| Monitor time interval : | 5 | minut | e |
| High temperature alarm threshold of ambient temperature : | 30 | | |
| Low temperature alarm threshold of ambient temperature : | 0 | | |
| Temperature unit: | ⊖ °C ● °F | | |
| Save | | | |
| IP Config + - | | | |
| P I I I I I I I I I I I I I I I I I I I | | | |
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The following figures represent: the monitoring time interval (minutes); the high temperature alarm threshold for ambient temperature; the low temperature alarm threshold for ambient temperature; the temperature unit configuration (Celsius, Fahrenheit)

| Base Config | | |
|---|-----------|--------|
| , 2400 Com. 6 | | |
| Monitor time interval : | 5 | minute |
| High temperature alarm threshold of ambient temperature : | 30 | |
| Low temperature alarm threshold of ambient temperature : | 0 | |
| Temperature unit: | ○ °C ● °F | |
| Save | | |

Click "+" button and enter the subnet IP range for the miners (e.g. 192.168.193.1-192.168.193.255), and click Confirm to auto-discover the miners.

| FMS Setting | | | ? × |
|--------------------------|---|-----------|--------|
| Base Config | | | |
| Monitor time | interval : | 5 | minute |
| High temperat | ure alarm threshold of ambient temperature : | 30 | |
| Low temperate | ure alarm threshold of ambient temperature : | 0 | |
| Temperature u | nit: | • °C ● °F | |
| Save IP Config + - | IP Rang: 192.168.193.1-192.168.193 (eg:192.168.0.1 - 192.163 Confirm Cancel | | |

AvalonMiner

Select miners and click Save, the discovered miner's IP addresses will be shown in the main window:

| Scan Upgra | ade Setting | | | | | • 0 X |
|------------|---|--------------------------|-----------------|----------------|-------------|-------------|
| Overview | | | | | | |
| | Temperature Summary | Miner Summary | Hashr | ate Summary | | |
| Max : | 32°C (89°F) Min : 32°C (89°F) | Total Count: 1 Pool 1: 1 | Total : 0(T | () Average : 0 | (T) | |
| Average : | 32°C (89°F) | Pool 2: 0 Pool 3: 0 | | | | |
| | | | | | | |
| State ∇ | Pool & Worker | Number of Miners in Pool | IP (1) | AUC Count | Miner Count | Elapsed Tim |
| □ s' | tratum+tcp://btc.ss.poolin.com:443 : cctrix.001 | 1 | 192.168.189.135 | 1 | 1 | 9m 1s |
| | | | | | | |
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2. Firmware Upgrade

Select the miner to be upgraded in the main window, and click Upgrade

| ∬ FMS Scan Upgra Overview | de Setting | | | | - | - 🗆 X |
|---------------------------------|--|--------------------------|-----------------|----------------|-------------|-------------|
| | Temperature Summary | Miner Summary | Hashr | ate Summary | | |
| Max : | 32°C (89°F) Min: 32°C (89°F) | Total Count: 1 Pool 1: 1 | Total: 0(1 |) Average : 0(| (T) | |
| Average : | 32°C (89°F) | Pool 2: 0 Pool 3: 0 | | | | |
| State 🗸 | Pool & Worker | Number of Miners in Pool | $\mathbb{P}(1)$ | AUC Count | Miner Count | Elapsed Tim |
| ☑ st | ratum+tcp://btc.ss.poolin.com:443 : cctrix.001 | 1 | 192.168.189.135 | 1 | 1 | 24m 1s |
| | | | | | | |
| | | | | | | |



Select the firmware file in the popup window:

| Look in:C:\Vsers\AD\Desktop\新建文件夹 (2) 💽 💿 🐼 🚺 | |
|---|----------------|
| My Computer | |
| | Open Cancel |

Click Open to begin the upgrade process.

| FMS FMS | | | | | - | - | \times |
|-----------|---|--------------------------|-------------|--------------|-------------|--------|------------|
| Scan Upgr | rade Setting | | | | | | |
| Overview | | | | | | | |
| | Temperature Summary | Miner Summary | Hashrat | e Summary | | | |
| Max : | 32°C (89°F) Min : 32°C (89°F) | Total Count: 1 Pool 1: 1 | Total: 0(T) | Average : 0(| T) | | |
| Average : | 32°C (89°F) | Pool 2: 0 Pool 3: 0 | | | | | |
| | | | | | | | |
| State ▽ | Pool & Worker | Number of Miners in Pool | IP (1) | AUC Count | Miner Count | Elapse | d Tim |
| | stratum+tcp://btc.ss.poolin.com:443 : cctrix.00 | FMS FMS | ? × 5 | 1 | 1 | 9m | 1 s |
| | | Miner upgrading | | | | | |
| | | | 86 | | | | |
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The following dialog will be shown if the upgrade is successful:



| FMS FMS | ? | × |
|-------------------------------|---|---|
| | | |
| All up grades were encoused | | |
| All upgrades were successful! | | |
| ОК | | |
| | | |

Firmware Upgrade

The upgrade package file's format of this device is *. aup, which can be downloaded through the official website or via customer service.

| Avalon Miner | |
|-----------------------------------|--|
| > Overview > Pool > Network | Upgrade Upload a .aup file here to replace the original MM firmware |
| > System >> Administrator | MM Firmware: |
| >> Logout | Browse Upload |
| >> Reboot > Upgrade | |
| > Log | |
| Canaan Creative Co., Ltd. | |
| = | |

The device's firmware upgrade can only be carried out through FMS software.

Rest the Miner to Factory Setting

Press the FUNC key for five to ten secs (Before the indicator lamp turning red) when the power is on, and the system will automatically clear the saved configuration, including network, mining



pool, password and other information. After the configuration cleared, the white indicator lamp will flash frequently indicating that the recovery configuration is successful. After loosening the FUNC key, press the RESET key to restart, or cut off the power supply to restart, and the system will use the default factory configuration to work.

Warranty

After the miner having run for some time, such machine glitches as loosened connection or abnormal damage shall be taken into consideration. For this, users are free to troubleshoot it themselves after consulting our professional engineers. If the device is damaged within the scope of warranty, contact our after-sales personnel for quick repairs.

We guarantee a 180-day warranty of the product since the date the customer receives the goods, but the following will invalidate the warranty:

- Any physical damage caused by self-disassembly of the products or other causes (including but not limited to breakage, fragmentation, parts or components missing, etc.)
- 2. Damage caused by lightning, voltage surge, etc.
- 3. Burn marks on the circuit boards or the chips burnt down.
- 4. Damage caused by water intake and immersion
- 5. Circuit boards are damped and corroded
- 6. Over the warranty period

Unfortunately, if the above circumstances occur, we can still provide fee-based maintenance services for the devices, and users can also contact after-sales personnel to purchase the parts to repair by themselves.