

Antminer KS5 Pro

BITMAIN Antminer KS5 Pro User Manual

Model: KS5 Pro

1. PRODUCT OVERVIEW

The BITMAIN Antminer KS5 Pro is a high-performance ASIC miner designed specifically for the kHeavyHash algorithm, primarily used for Kaspa (KAS) cryptocurrency mining. This air-cooled unit offers a formidable hashrate of 21 TH/S and operates with high energy efficiency.



Figure 1.1: Front view of the Antminer KS5 Pro, showcasing its compact design and integrated cooling fans.

Key Features:

- **Supreme Hashrate:** Delivers 21 TH/S $\pm$ 3% for efficient kHeavyHash mining.
- **Extreme Performance:** Robust operation with a power consumption of 3150 W $\pm$ 10%.
- **Unbeatable Efficiency:** Achieves 150 J/T $\pm$ 10% power efficiency, optimizing operational costs.
- **Reliable Hardware:** Equipped with a power supply supporting 47~63 Hz AC input and 20 Amp current.

- **Air-Cooling System:** Designed for effective heat dissipation to maintain stable performance.

2. SAFETY INFORMATION

Please read all safety warnings and instructions carefully before operating the Antminer KS5 Pro. Failure to comply may result in electric shock, fire, or serious injury.

- **High Voltage:** This device operates at 220V AC. Ensure proper electrical wiring and grounding. Only qualified personnel should handle electrical connections.
- **High Power Consumption:** The miner consumes up to 4000W. Ensure your electrical circuit can support this load. Do not overload power outlets.
- **Heat Generation:** The miner generates significant heat during operation. Ensure adequate ventilation and maintain a clear space around the unit to prevent overheating.
- **Noise Level:** The cooling fans produce considerable noise. Consider placement in an area where noise will not be an issue.
- **Indoor Use Only:** This device is designed for indoor use in a dry, well-ventilated environment.



Figure 2.1: The Antminer KS5 Pro, highlighting the requirement for 220V AC power input. Always ensure correct voltage supply.

3. SETUP GUIDE

3.1. Unboxing and Inspection

1. Carefully remove the Antminer KS5 Pro from its packaging.
2. Inspect the unit for any signs of physical damage during transit. If damage is found, contact your vendor immediately.
3. Verify that all components are present: Antminer KS5 Pro unit, and integrated power supply.

3.2. Physical Installation

1. **Placement:** Choose a location with good airflow, away from direct sunlight, dust, and excessive humidity. Ensure at least 20 cm (8 inches) of clear space around all sides of the miner for optimal ventilation.
2. **Power Connection:** Connect the provided power cables to the power input ports on the miner. Ensure the power

source is a stable 220V AC supply capable of delivering 4000W. Use dedicated circuits if possible.

3. **Network Connection:** Connect an Ethernet cable from your router or network switch to the Ethernet port on the miner's control board.



Figure 3.1: Side view of the Antminer KS5 Pro, showing the control board with Ethernet port and indicator lights, along with the cooling fans.

3.3. Initial Power-On

1. Once all connections are secure, plug the power cables into the wall outlets.
2. The miner will automatically power on and begin its boot sequence. The indicator lights on the control board will illuminate.
3. Allow a few minutes for the system to initialize and acquire an IP address from your network.

4. OPERATING INSTRUCTIONS

4.1. Accessing the Web Interface

1. **Find Miner IP:** Use an IP scanner tool on your network (e.g., Advanced IP Scanner, Angry IP Scanner) to find the IP address assigned to your Antminer. Alternatively, some routers display connected devices.
2. **Login:** Open a web browser and enter the miner's IP address in the address bar. The default username and password are typically "root" for both. Change these credentials immediately after the first login for security.

4.2. Configuration for Mining

1. Navigate to the "Miner Configuration" or "Pool Settings" section within the web interface.
2. Enter the details for your chosen Kaspa mining pool. You will typically need:
 - **Pool URL:** The address of your mining pool (e.g., stratum+tcp://kaspa.pool.com:port).
 - **Worker Name:** Your wallet address or a unique worker name provided by the pool.
 - **Password:** Usually "x" or a password specified by the pool.
3. Save the configuration. The miner will restart its mining process with the new settings.

4.3. Monitoring Performance

The web interface provides real-time statistics on your miner's performance, including:

- Current Hashrate (TH/S)
- Temperature of Hash Boards and Chips
- Fan Speed (RPM)
- Network Status
- Uptime

Regularly monitor these parameters to ensure optimal operation and prevent potential issues.



Figure 4.1: Top-down view of the Antminer KS5 Pro's control board, showing the Ethernet port, IP Report button, and status indicator LEDs (Fault, Normal).

5. MAINTENANCE

5.1. Cleaning

- **Dust Removal:** Periodically clean the miner, especially the cooling fans and heatsinks, using compressed air. Ensure the miner is powered off and unplugged before cleaning.
- **Frequency:** Cleaning frequency depends on the environment. In dusty conditions, clean monthly; in cleaner environments, quarterly.

5.2. Environmental Considerations

- **Temperature:** Operate the miner within the recommended temperature range (typically 0°C to 40°C / 32°F to 104°F). High temperatures can reduce lifespan and performance.
- **Humidity:** Maintain humidity levels between 5% and 95% (non-condensing). High humidity can lead to corrosion.

5.3. Firmware Updates

Regularly check the official Antminer website for firmware updates. Firmware updates can improve performance, stability, and security. Follow the instructions provided by Bitmain for safe firmware upgrades.

6. TROUBLESHOOTING

Common Issues and Solutions:

Problem	Possible Cause	Solution
Miner does not power on.	Loose power cable, insufficient power supply, faulty power supply unit.	Check all power connections. Ensure power source meets requirements. Test with a different power cable or outlet.
No network connection.	Loose Ethernet cable, router issue, incorrect IP settings.	Verify Ethernet cable is securely connected. Restart router/switch. Check network settings in miner's web interface.
Low hashrate or unstable mining.	Overheating, incorrect pool settings, network latency, faulty hash board.	Ensure proper ventilation. Verify pool URL, worker name, and password. Check network stability. Monitor hash board temperatures.
Red "Fault" LED is on.	Hardware malfunction, overheating, fan failure.	Check fan operation. Review miner logs in the web interface for specific error codes. Contact support if persistent.

7. SPECIFICATIONS

Attribute	Detail
Model Name	KS5 Pro
Hashrate	21 TH/S $\pm$ 3% (kHeavyHash)
Power Consumption	3150 W $\pm$ 10%
Power Efficiency	150 J/T $\pm$ 10% (on the wall at 25°C)
AC Input Frequency Range	47~63 Hz
Current	20 Amp
Product Dimensions (L x W x H)	16.93 x 7.7 x 11.42 inches (430 x 195 x 290 mm)
Item Weight	37.9 pounds (17.2 kg)
Cooling Method	Air Cooling
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	5% to 95% (non-condensing)

8. WARRANTY AND SUPPORT

BITMAIN provides a limited warranty for its Antminer products. Please refer to the official BITMAIN website for the most current warranty terms and conditions.

Important Note on Returns: For brand new BITMAIN Antminer units, if a return is not due to product malfunction, a 40% restocking fee will be applied. Please consider your purchase carefully before proceeding with a return.

For technical support, troubleshooting assistance, or warranty claims, please contact Antminer customer service through

their official support channels. Ensure you have your product’s serial number and purchase details ready.

You can often find support resources, FAQs, and contact information on the official Antminer website:www.bitmain.com

ASK A QUESTION ABOUT THIS MANUAL

Ask about setup, troubleshooting, compatibility, parts, safety, or missing instructions. Manuals+ will review the question and use this page’s manual context to help answer it.

Name

Anonymous

Email

you@example.com

After a successful submission, we securely hash the supplied account or form email before sending it to Microsoft Advertising for conversion attribution. [Privacy details](#).

Question

Example: How do I reset this device or fix this error?

Details

Model number, symptoms, what you tried, or the section of the manual you are using.

Submit question