BITMAIN · ANTMINER

# S23 Hyd
# 580 TH/s

Hydro-cooled Bitcoin miner · Version 580T-10



COIN · ALGORITHM
**Bitcoin · SHA-256**

COOLING
**Hydro (liquid loop)**

POWER INPUT
**3-phase 380–415 V**

RATED EFFICIENCY
**9.5 J/TH**

## Product Manual

Setup, operation, maintenance and OneMiners hosting guide

**Version 1.3**
Updated November 2026
Specifications verified 7 Nov 2026

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# About this manual

This manual covers the **Bitmain Antminer S23 Hyd., version 580T-10** (580 TH/s, 5,510 W). Check the version on your unit's label before following it. Other S23 Hyd variants (such as 440T and 473T) and the S23 Hyd 3U (1,160 TH/s) have different specifications and need their own documents.

Chapters 1 to 7 are based on Bitmain's documentation for the S23 Hyd. series. Each section that reproduces manufacturer content is marked with a **Source** tag. Chapters 8 to 11 cover the OneMiners platform, hosting, warranty and wallet, and are marked **OneMiners**.

# Before you start

| CHECK | POWER | COOLING | NETWORK |
|---|---|---|---|
| **Label says 580T-10** | **3-phase 380–415 V** | **8–10 L/min · 20–50 °C** | **RJ45 + DHCP** |
| This manual applies to that version only. | Earthed, surge-protected, 3-pole disconnect. | Coolant mixed for the site's lowest temperature. | A Windows PC for IP Reporter. |

# How notices are used

**DANGER**
Risk of electric shock, fire, burst pipes or injury. Do not continue until the condition is met.

**CAUTION**
Risk of damage to the miner or loss of data. Read before acting.

**NOTE**
Useful background, limits of a specification, or where to check further.

**ONEMINERS**
Applies to miners hosted in a OneMiners data center.

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Specifications are typical values published by the manufacturer and may change without notice. Always confirm against the label on your unit and the latest manufacturer documentation. Information about profitability, hosting prices and platform features is for guidance only and is not financial advice. OneMiners' supplementary chapters may not be copied or redistributed without written permission.

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# 01 CHAPTER Product Overview

The Antminer S23 Hyd. is a water-cooled SHA-256 server for Bitcoin mining. It has no fans: heat is carried away by coolant flowing through the hashboard housing. It's built for rack installation in a water-cooling container such as Bitmain's ANTSPACE series, or in a hosting facility with an equivalent cooling loop.



**Figure 1-1** Antminer S23 Hyd 580 TH/s. Image: OneMiners product photo.

## 1.1 Key figures

| 580 TH/s | 5,510 W | 9.5 J/TH | 3-phase |
|---|---|---|---|
| Typical hashrate ±3% | Power on wall @35 °C inlet ±5% | Efficiency on wall ±5% | 380–415 V · 50–60 Hz · 12 A max |

## 1.2 Specifications

| ITEM | VALUE |
|---|---|
| **PRODUCT** | |
| Model / version | **S23 Hyd. · 580T-10** |
| Algorithm / coins | **SHA-256 · BTC / BCH / BSV** |
| Typical hashrate | **580 TH/s (±3%)** |
| Power on wall @ 35 °C inlet | **5,510 W (±5%)** |
| Efficiency @ 35 °C inlet | **9.5 J/TH (±5%)** |
| **POWER SUPPLY** | |
| Phase | **3-phase** |
| Input voltage | **380–415 V AC [3]** |
| Input frequency | **50–60 Hz** |
| Maximum input current | **12 A** |

| ITEM | VALUE |
|---|---|
| **COOLING** | |
| Inlet coolant temperature | **20–50 °C** |
| Coolant flow | **8.0–10.0 L/min** |
| Coolant pressure | **≤ 3.5 bar** |
| Working coolant | **Antifreeze, pure water or deionized water** |
| Coolant pH | **Antifreeze 7.0–9.0 · Pure water 6.5–7.5 · Deionized water 8.5–9.5** |
| Coolant pipe connector | **OD 10 mm** |
| **ENVIRONMENT** | |
| Storage temperature | **−20 to 70 °C** |

| ITEM | VALUE |
|---|---|
| **HARDWARE** | |
| Network connection | **RJ45 Ethernet 10/100 Mbps** |
| Size, unpacked (L×W×H) | **410 × 170 × 209 mm** |
| Size, packed (L×W×H) | **570 × 316 × 430 mm** |
| Net weight | **13.5 kg** [1] |
| Gross weight | **14.8 kg** |

| ITEM | VALUE |
|---|---|
| Operating humidity (non-condensing) | **10–90% RH** |
| Operating altitude | **≤ 2,000 m** [2] |

[1] Bitmain manual v1.0.6 (June 2025); the May 2025 edition lists 13.0 kg. [2] From Bitmain's S23 Hyd. user guide: between 900 m and 2,000 m, the maximum operating temperature falls by 1 °C per 300 m. [3] Wrong input voltage may damage the server.

SOURCE Bitmain, S23 Hyd. Product Manual v1.0.6 (June 2025), version 580T-10. Hashrate, power and efficiency are typical values.

> **NOTE**
> Bitmain doesn't publish an ambient operating temperature range for the 580T-10. Operating conditions are set by the inlet coolant temperature (20–50 °C). If the room or container can fall below 0 °C, antifreeze is mandatory (see 2.3).

## 1.3 Components

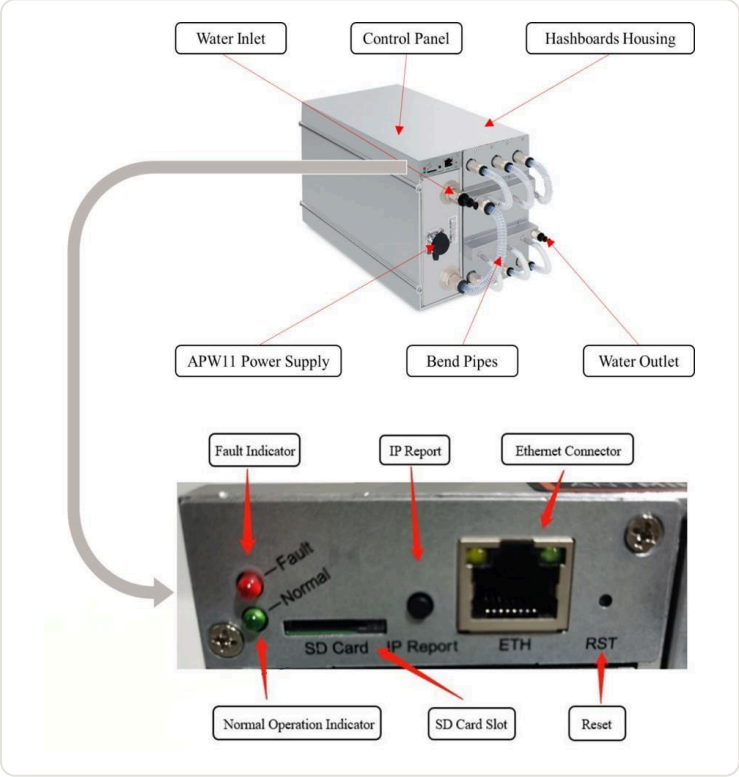



**Figure 1-1** Main components and control panel. © Bitmain.

### Power supply (APW11)

Built into the server. The power connector is waterproof. The socket sits beside the two cooling-water pipe interfaces (Figure 1-2).

### Water inlet, outlet and bend pipes

Carry coolant into and out of the hashboard housing. Make sure bend pipes are fully tightened whenever they're fitted or removed.

### Hashboards housing

A sealed enclosure that holds and protects the hashboards and transfers their heat to the coolant.

### Control panel

| | |
|---|---|
| **ETH** | RJ45 Ethernet port, 10/100 Mbps |
| **Normal** (green LED) | On during normal operation |
| **Fault** (red LED) | On when a fault is detected |
| **IP Report** (raised button) | Sends the miner's IP address to IP Reporter |
| **RST** (recessed button) | Restores factory settings (see 6.4) |
| **SD Card** | SD card / micro-USB slot for data transfer |

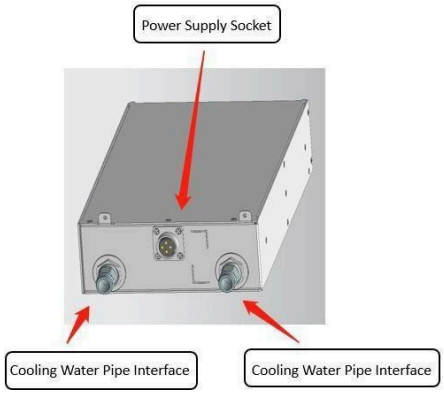



**Figure 1-2** Power supply socket and cooling-water pipe interfaces. © Bitmain.

SOURCE Bitmain S23 Hyd. user guide: component descriptions and figures.

## 1.4 Spare parts

Bitmain sells the following S23 Hyd. parts through its official store. Hosted customers don't need to order parts: OneMiners' repair team handles replacements (see Chapter 9).

| # | PART | PICTURE |
|---|---|---|
| 1 | **Control board** for Hyd. series |  |
| 2 | **Power supply** APW111721c, 17–21.6 V, RSPri_V1.25, EMC |  |
| 3 | **Manifold** for 3 hashboards | Picture in Bitmain store |
| 4 | **Corrugated pipe** D10, L = 210 mm, transparent FEP |  |

SOURCE Bitmain S23 Hyd. user guide, Table 1-1. Parts and prices: shop.bitmain.com .

CHAPTER 02

# Safety and Installation Requirements

A hydro-cooled server combines three-phase power and pressurised liquid in the same rack. Installation must be planned and carried out by qualified electrical and cooling personnel. Read this whole chapter before connecting anything.

## 2.1 Safety warnings

**DANGER · ELECTRICAL**

- Connect the equipment to an **earthed** mains supply. The socket must be installed near the equipment and be easy to reach.
- Fit an external **surge protection device** complying with IEC/EN 61643-11, either before the power supply or outside the end system (in a separate distribution box or as part of the building installation).
- The external supply must have a **disconnecting device** that breaks L1, L2 and L3 at the same time.
- **Never plug in or unplug** the device while it is powered on.

**CAUTION · EQUIPMENT**

- Don't remove any screws or cables attached to the product.
- Place equipment only in its designated position. The actual server may differ slightly from the illustrations.
- The S23 Hyd. is designed to be used with Bitmain's ANTSPACE water-cooling series or an equivalent cooling loop.
- Restart the server manually if the hashrate becomes abnormal.

SOURCE Bitmain S23 Hyd. user guide: Overview cautions.

## 2.2 Electrical requirements

| | |
|---|---|
| Supply | **3-phase, 380–415 V AC, 50–60 Hz** |
| Maximum input current | **12 A** |
| Typical load | **5,510 W per server (±5%)** |
| Protection | **Earthing, IEC/EN 61643-11 surge protection, 3-pole disconnect** |

Size breakers, cables and distribution for the number of servers per rack according to local electrical code. This must be done by a licensed electrician.

## 2.3 Coolant requirements

Check the parameters in Table 2-1 when buying coolant. If they aren't met, refill or replace the coolant.

- **pH is the main check.** Don't use coolant with a pH below 7. A pH indicator can be added; it changes colour below pH 6.8.

- **Secondary checks:** freezing point, ethylene glycol ratio and total hardness. Over time, rising Al, Fe or Cu content means contact corrosion has started.
- Add corrosion inhibitor regularly, following the coolant supplier's instructions.

**Table 2-1 · Recommended parameters for coolant**

| ITEM | INDEX | INSPECTION |
|---|---|---|
| Colour | Distinct colour | Visual |
| Exterior | No odour, sediment or suspended solids | Visual |
| Freezing point | Below the local minimum temperature | — |
| Boiling point | 108 °C (low-temperature type) | — |
| pH value | 7–9 | — |
| Reserve alkalinity | ≥ 4 ml (organic formula) · ≥ 9 ml (incl. inorganic formula) | — |
| Total hardness | < 120 mg/l | — |
| B, Si, P, Mo, Ca | each < 20 mg/kg | — |
| $Al^{3+}$, $Fe^{2+}$, $Cu^{2+}$ | each < 50 mg/L | — |

**Table 2-2 · Glycol concentration vs. freezing point**

| MASS % | VOLUME % | FREEZING °C |
|---|---|---|
| 0 | 0 | 0 |
| 10 | 8.9 | −3.2 |
| 20 | 18.1 | −7.8 |
| 25 | 22.9 | −10.7 |
| 30 | 27.7 | −14.1 |
| 35 | 32.6 | −17.9 |
| 40 | 37.5 | −22.3 |
| 45 | 42.5 | −27.5 |
| 50 | 47.6 | −33.8 |
| 55 | 52.7 | −41.1 |
| 60 | 57.8 | −48.3 |

**Table 2-3 · Deionized / pure water (above 0 °C only)**

| INDEX | REQUIREMENT |
|---|---|
| pH value | 8.5–9.5 |
| Sulfide | < 1 ppm |
| Sulfate | < 10 ppm |
| Chloride | < 5 ppm |
| Bacteria | < 100 CFU/ml |
| Total hardness ($CaCO_3$) | < 20 ppm |
| Conductivity* | < 20 µS/cm |
| Evaporation residue | 50 ppm |
| Turbidity | < 20 NTU |
| Iron / copper | 0.1 ppm / 10 ppm |
| Corrosion: carbon steel | 3 mpy (0.075 mm/a) |
| Corrosion: copper, stainless | 0.2 mpy (0.005 mm/a) |

*Reference value only. Inhibitors and fungicides raise conductivity (e.g. 1,000 µS/cm can be acceptable). Investigate any sharp rise. References: ASHRAE TC9.9, Intel 632983, GB/T 50050-2017.

**DANGER · FREEZING**

Mix coolant for the **lowest possible temperature** at the site. If the coolant freezes, the heat exchanger and internal pipes can crack. Use deionized or pure water only where the temperature always stays above 0 °C. A power cut below freezing will burst the pipes. Bitmain accepts no responsibility for freeze damage caused by incorrect coolant.

## 2.4 Cooling-system maintenance

| COOLANT TYPE | CHECK | INTERVAL |
|---|---|---|
| All coolants | Full test and record of coolant condition | At least once a year |
| All coolants | pH value | Every 6 months |
| Deionized / pure water | pH, conductivity and Table 2-3 indexes | Every 1–2 weeks |
| Deionized / pure water | Replace the internal coolant | Every 1–2 months, or as soon as Table 2-3 limits are exceeded |

SOURCE Bitmain S23 Hyd. user guide, chapter 2. Coolant maintenance for ANTSPACE systems: ANTSPACE HK3 Product Manual, ch. 9.

## 2.5 Site environment

### Distance from pollution sources

| | |
|---|---|
| Heavy (smelters, coal mines) | **> 5 km** |
| Moderate (chemical, rubber, electroplating) | **> 3.7 km** |
| Light (food, leather processing) | **> 2 km** |
| Seaside or salt lake | **> 3.7 km** |

If unavoidable, build upwind of the source; near the sea, make the room as airtight as possible with air conditioning.

### Electromagnetic environment

No AC transformers > 10 kA within 20 m, no high-voltage lines within 50 m, no radio transmitters > 1,500 W within 100 m.

SOURCE Bitmain S23 Hyd. user guide: Environmental Requirements.

### Dust and corrosive gas limits

| SUBSTANCE | LIMIT |
|---|---|
| Sand | ≤ 30 mg/m³ |
| Dust, suspended | ≤ 0.2 mg/m³ |
| Dust, deposited | ≤ 1.5 mg/m²h |
| $H_2S$ · $Cl_2$ · HF | < 3 · < 1 · < 1 ppb |
| $SO_2$ · $O_3$ | < 10 · < 2 ppb |
| $NO_2$ · $NH_3$ | < 50 · < 500 ppb |

The room must be free of explosive, conductive, magnetically conductive and corrosive dust.

## 2.6 Rack installation

Install the S23 Hyd. on the racks of the water-cooled container with the **water and electrical interfaces facing the aisle**.

| LOADING | POWER-ON | POWER-OFF | UNLOADING |
|---|---|---|---|
| **Water first** | **Fill · wait 20 s** | **Power · wait 20 s** | **Power first** |
| Then power, then network. Work from the top shelf down. | Confirm flow and water temperature meet spec, then power on. | Confirm the server is off, then disconnect water. | Then water, then network. Work from the bottom shelf up. |

## Loading a hydro-cooled miner

1. **Water**
   Close all inlet and outlet valves. Push the pipes fully into the quick connectors: **upper connector = inlet, lower connector = outlet**. Open all valves and check for leaks.
2. **Power**
   Insert the aviation-type power plug until the button resets fully.
3. **Network**
   Connect the network cable below the miner. Each cable carries a location code.

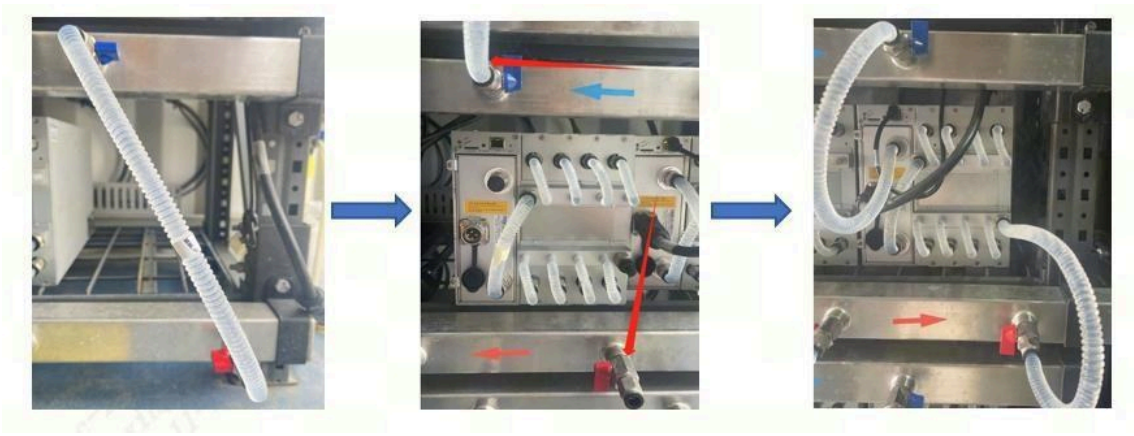


**Figure 2-1** Connecting the water pipes when loading. © Bitmain.

## Unloading a hydro-cooled miner

1. **Power**
   Switch off the miner's air switch (breaker).
2. **Water**
   Close all inlet and outlet valves fully. Pull the pipes out slowly and lower the pipe mouth so the coolant drains into a bucket until no drops remain. Check that the power plug and network connector are dry, then unplug them. Cap the miner's quick connectors with water-stop plugs. Leave the residual coolant inside, unless the miner is going for repair; then drain it completely and blow it dry with an air pump. Keep the rack position's inlet and outlet connected.
3. **Network**
   Pull out the network cable and bend it downwards so it isn't scratched as the miner comes out. Then remove the miner from the rack.

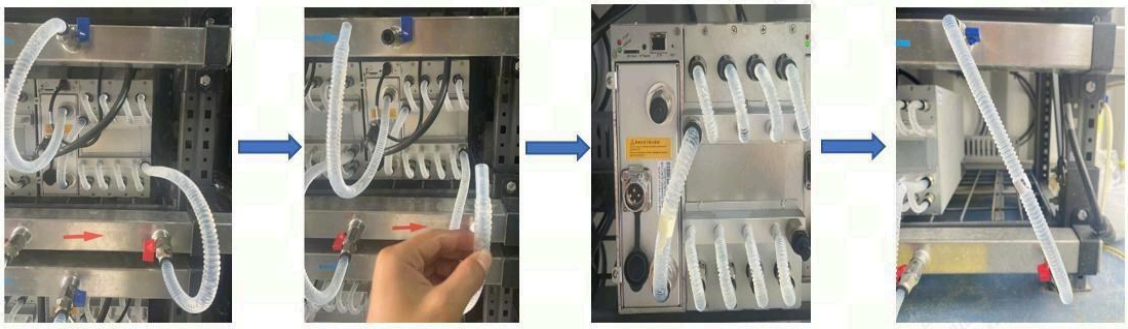


**Figure 2-2** Disconnecting the water pipes when unloading. © Bitmain.

### Precautions

1. Check every water pipe connection before filling, to prevent leaks.
2. Make sure power connections are fully seated to avoid sparks. Power the server off before plugging or unplugging the AC input.
3. If water splashes or sprays from the server, **don't power it on**. Contact after-sales service.
4. Below 0 °C, antifreeze must be used inside, or the server can freeze and crack.
5. Unplug the device during thunderstorms or long periods out of use. Don't overload outlets or power cords.
6. If the server gives off strange smells, sounds or smoke, disconnect power immediately and contact service. Never hit or drop the server.
7. Energise the miner only after all of the above is complete.
8. When shelving in batches, load from the upper layer down so residual water can't drip onto lower miners.
9. For transport, drain all coolant, dry the miner with an air pump and pack it in its original carton.

SOURCE Bitmain S23 Hyd. user guide: Installation and Rack Management.

# 03 CHAPTER Initial Setup

These steps take a new or newly racked S23 Hyd. from the box to its web dashboard. If your miner is hosted by OneMiners, our team does this for you; skip to Chapter 8.

## 3.1 Unboxing and inspection

- Check the carton for crush damage or signs of liquid before opening it.
- Confirm the label shows **S23 Hyd.** and version **580T-10**.
- Inspect the housing, water connectors and power socket for dents, cracks or bent parts.
- Make sure the quick connectors are capped and clean, and that no coolant residue is visible.
- Keep the carton and packing: Bitmain requires the original carton for transport and transfer.



Packaging



Unit as delivered

**CAUTION**
Don't open the hashboard housing. Opening the unit without authorisation can void the warranty.

ONEMINERS Photos of an S23 Hyd 580 TH/s received by OneMiners.

## 3.2 Connecting cooling, power and network

1. **Cooling**
   Connect inlet (upper) and outlet (lower) pipes and open the valves as described in 2.6. Check that the loop delivers **8.0–10.0 L/min at 20–50 °C**, ≤ 3.5 bar.
2. **Network**
   Connect an Ethernet cable to the **ETH** port. The miner gets its address by DHCP by default.
3. **Power**
   Wait 20 seconds after filling, then connect the 3-phase supply and switch on.

## 3.3 Finding the miner's IP address

**NOTE**
IP Reporter runs on Microsoft Windows only. Download it from Bitmain's support page at shop.bitmain.com/support/download (Tools section), or from the S23 Hyd 580 TH/s card in the OneMiners Manuals & Firmware Library.

1. Download and extract `IPReporter.zip`.
2. Right-click `IPReporter.exe` and choose **Run as administrator**.
3. Choose an option: **Shelf, Step, Position** to mark server locations in a farm, or **Default** for a single home server.
4. Click **Start**.
5. On the control panel, press and hold **IP Report** until the miner beeps (about 5 seconds).
6. The IP address appears in a window on your computer.

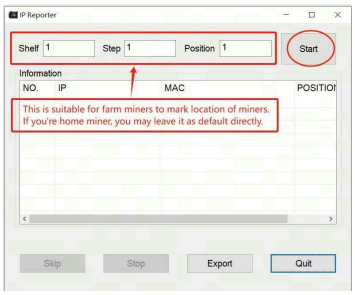



**Figure 3-1** IP Reporter: set Shelf, Step and Position, then click Start. © Bitmain.

## 3.4 Logging in to the dashboard

1. Enter the IP address in a web browser on the same network.
2. Log in with username `root` and password `root`.
3. Change the password straight away (see 6.3).

### Dashboard menu map

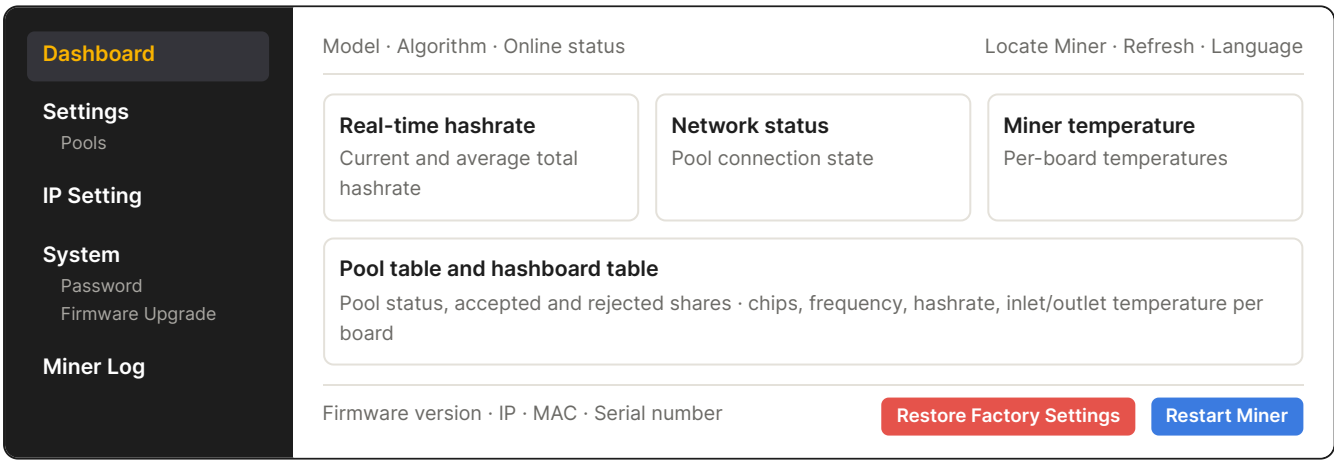



Illustration of the Antminer web interface layout, not a screenshot. Labels can differ slightly between firmware releases.

## 3.5 Network settings (optional static IP)

1. Open `IP Setting` and set **Protocol** to **Static**.
2. Enter the IP address, subnet mask, gateway and DNS server.
3. Click **Save**. Use the new address to reconnect.

SOURCE Bitmain S23 Hyd. user guide: Setting up the Server.

# 04 CHAPTER Mining Configuration

The S23 Hyd. mines SHA-256 coins: Bitcoin (BTC), Bitcoin Cash (BCH) and Bitcoin SV (BSV). It can hold three pools in priority order and switches automatically if the active pool goes offline.

## 4.1 Setting up pools

1. Open **Settings** › **Pools**.
2. Fill in up to three pools using the table below.
3. Click **Save**. The miner applies the settings and connects to Pool 1.

| FIELD | WHAT TO ENTER |
|---|---|
| **Mining address** | The pool's stratum address, in the format `stratum+tcp://host:port`. Copy it from your pool's "Connect" or "Getting started" page. |
| **Name** (miner/worker) | Your pool account plus a worker name, usually `account.worker`, for example `myaccount.s23-01`. Some pools use a wallet address instead of an account. |
| **Password** | Optional. Most pools accept any value, such as `x`. |

**HOW POOL PRIORITY WORKS**
Pool 1 is used first. Pool 2 is used only if Pool 1 is offline, and Pool 3 only if Pools 1 and 2 are both offline. Always add at least one backup pool.

**CAUTION**
Use only pool addresses from the pool's official website, and check them again if the pool announces changes. A mistyped address mines for nobody.

## 4.2 Checking that mining has started

- On the **Dashboard**, Pool 1 should show a **Normal** connection status, with accepted shares increasing.
- Real-time hashrate climbs over the first minutes. Judge performance by the **average** hashrate after the miner has run for some time (see Chapter 5).
- Your worker should appear on the pool's website within a few minutes.

**ONEMINERS**
Hosted miners are configured from the OneMiners platform rather than the miner's own dashboard. To change pools, use **Pool Settings** in your account (see 8.2).

SOURCE Bitmain S23 Hyd. user guide: Configuring the Server.

# 05 CHAPTER Monitoring Performance

Check the dashboard and the control-panel LEDs regularly. For a water-cooled miner, the coolant temperatures matter as much as the hashrate.

## 5.1 Dashboard values

| VALUE | MEANING |
|---|---|
| **Number of chips** | Chips detected on each hashboard (chain). A lower count than normal points to a hashboard fault. |
| **Frequency** | ASIC frequency set by the firmware. |
| **Real hashrate** | Real-time hashrate of each hashboard, in GH/s. |
| **Inlet temp / Outlet temp** | Temperature at the inlet and outlet side (°C). |
| **Chip state** | Green icon = normal · red icon = abnormal. |
| **Pool rejection rate** | Share of submitted work rejected by the pool. Below 1% is normal; higher rates suggest network latency or configuration problems. |

## 5.2 What "normal" looks like

| **562–597** TH/s | **5,235–5,786** W | **20–50** °C |
|---|---|---|
| Average hashrate within ±3% of 580 TH/s | Wall power within ±5% of 5,510 W | Inlet coolant temperature |

Ranges calculated from Bitmain's typical values and tolerances. Hashrate and efficiency vary with inlet coolant temperature.

## 5.3 Indicator lights

| STATUS | FAULT LED (RED) | NORMAL LED (GREEN) |
|---|---|---|
| Normal operation | Off | On |
| Over temperature | On | Off |
| Network disconnected | On | Off |
| Factory reset succeeded | Flashes once every 15 s | — |

SOURCE Bitmain S23 Hyd. user guide: Monitoring your Server.

## 5.4 Temperature protection

**AUTOMATIC SHUTDOWN**

The firmware stops mining when the **PCB temperature reaches 80 °C**, or when the **water temperature is above 50 °C or below 20 °C**. The message `Fatal Error: Temperature is too high!` appears at the bottom of the Kernel Log page. Fix the cooling problem before restarting (see Chapter 7).

CHAPTER 06

# Firmware and Maintenance

Keep the firmware current and the cooling loop healthy. Most S23 Hyd. faults trace back to coolant condition or connections, not electronics.

## 6.1 Checking the firmware version

Open the dashboard and look at the bottom of the page. **Firmware Version** (File System Version) shows the build date, for example `202410111643`.

## 6.2 Upgrading firmware safely

> **DANGER · KEEP POWER ON**
> Keep the server powered throughout the upgrade. If power fails before the upgrade completes, the server must go back to Bitmain for repair.

> **USE THE RIGHT FILE**
> Only install firmware made for the **S23 Hyd., version 580T-10**. Get it from Bitmain's official download page (shop.bitmain.com/support/download) or the OneMiners Manuals & Firmware Library, and check the model name in the file's release notes. Firmware for other S23 variants or for air-cooled models can damage the miner.

1. Open **System** › **Firmware Upgrade**.
2. Leave **Keep settings** selected to keep your current configuration (the default). Clear it to reset the server to default settings.
3. Click the file button, choose the upgrade file, and click **Update**.
4. When the upgrade is complete, restart the server. It returns to the settings page.
5. Click **Reboot** to run the new firmware now, or **Go Back** to keep mining and load it at the next restart.

## 6.3 Changing the password

1. Open **System** › **Password**.
2. Enter the current password and the new password twice, then click **Save**.

## 6.4 Restoring factory settings

1. Turn the server on and let it run for 5 minutes.
2. On the control panel, press and hold **RST** for 10 seconds.
3. The server reboots with default settings. The red LED flashes once every 15 seconds when the reset has succeeded.

You can also click **Restore Factory Settings** at the bottom of the dashboard. Pools, password and network settings are all cleared.

SOURCE Bitmain S23 Hyd. user guide: Administering your Server.

## 6.5 Preventive maintenance

| WHEN | TASK |
|---|---|
| **Daily / remotely** | Check average hashrate, rejection rate, chip states and inlet/outlet temperatures on the dashboard or OneMiners platform. |
| **Every 1–2 weeks** | Deionized or pure water loops: test pH and conductivity against Table 2-3. Look for drips at quick connectors and bend pipes. |
| **Every 1–2 months** | Deionized or pure water loops: replace the internal coolant. |
| **Every 6 months** | All loops: test coolant pH. Add corrosion inhibitor as the supplier specifies. |
| **Every year** | All loops: full coolant test and record (freezing point, glycol ratio, hardness, Al/Fe/Cu). |
| **Before winter** | Confirm the antifreeze concentration suits the site's lowest temperature (Table 2-2). |
| **Regularly** | Check the firmware version and update when Bitmain publishes a release for 580T-10. |

There are no fans or air filters to clean on the S23 Hyd. Keep the site within the dust and gas limits in 2.5.

# 07 CHAPTER Troubleshooting

Start with the symptom table. If the dashboard shows an error code, look it up in 7.2. Hosted customers: don't attempt repairs yourself; contact OneMiners service with the code.

## 7.1 Common problems

| SYMPTOM | CHECK |
|---|---|
| **Miner doesn't power on** | Check the 3-phase supply is 380–415 V and the breaker and disconnect are closed. Check the aviation plug is fully seated. If the fault persists, contact service. Don't open the unit. |
| **No network / IP not found** | Check the cable and switch port and that DHCP is available. Hold **IP Report** for about 5 s while IP Reporter is running. The red LED on with green off indicates a network disconnection. |
| **Pool won't connect** | Re-check the stratum address and port, the worker name format and DNS or gateway settings. Make sure the pool port isn't blocked by a firewall. Add a backup pool. |
| **Low or unstable hashrate** | Compare the **average** (not real-time) hashrate with 562–597 TH/s. Check every hashboard's chip count and chip state. Check inlet coolant temperature and flow. Update the firmware. Restart the server manually if the hashrate stays abnormal. |
| **Overheating / shutdown** | Confirm inlet coolant is 20–50 °C and flow is 8.0–10.0 L/min, and that valves are fully open. Look for air in the loop or a blocked filter. The miner stops at PCB 80 °C or water outside 20–50 °C. |
| **Coolant leak** | Switch off power first, then close the valves. Don't power on a server that has been sprayed or splashed. Contact after-sales service. |
| **Smell, unusual sound or smoke** | Disconnect power immediately and contact service. |

## 7.2 Error codes

Chain-specific codes use 1, 2, 4 and 8 for chains 1, 2, 3 and 4. For example, `R2:1` means chain 2 is broken or has a low hashrate.

| CODE | REASON | SUGGESTED ACTION |
|---|---|---|
| **HASHRATE** | | |
| `R:1` | Average total hashrate is low | Update firmware, replace the power supply, or return for repair |
| `R1:1 R2:1 R4:1 R8:1` | Chain is broken or has low hashrate | Check the chain connection, update firmware, replace the hashboard, or return for repair |

| CODE | REASON | SUGGESTED ACTION |
|---|---|---|
| N:1 | Average total hashrate far exceeds the rated hashrate | Update firmware |
| N:2 | Frequency reduced too much | Update firmware |
| **CHIPS AND HASHBOARDS** | | |
| J1:1 J2:1 J4:1 J8:1 | Chain has a bad ASIC | Update firmware, replace the power supply, or return for repair |
| J1:2 J2:2 J4:2 J8:2 | Chain has fewer chips than designed | Check the chain connection, update firmware, replace the hashboard, or return for repair |
| J:8 | Fewer hashboards than designed | Check hashboard connections or replace the hashboard |
| J1:4 J2:4 J4:4 J8:4 | Chain EEPROM data error | Redo the factory test for that chain |
| J1:5 J2:5 J4:5 J8:5 | Chain PIC error | Check the chain connection, update firmware, replace the hashboard, or return for repair |
| J:6 | Temperature sensor error | Check hashboard connections, update firmware, replace the hashboard, or return for repair |
| **VOLTAGE AND FREQUENCY** | | |
| L1:1 L2:1 L4:1 L8:1 | Chain voltage or frequency exceeds the limit | Update firmware or return for repair |
| L1:2 L2:2 L4:2 L8:2 | Chain voltage or frequency mismatch | Update firmware or return for repair |
| L:2 | Cannot find mixed level | Update firmware or return for repair |
| **POWER SUPPLY** | | |
| V:1 | Power initialisation error or output voltage error | Check the power output wiring, update firmware, replace the power supply, or return for repair |
| V:2 | Power supply is not calibrated | Update firmware, replace the power supply, or return for repair |
| **TEMPERATURE, MEMORY AND NETWORK** | | |
| P:1 | High-temperature protection | Check coolant temperature and flow and the ambient temperature; check the thermal gel on the hashboard is effective |
| P:2 | Low-temperature protection | Check the ambient and coolant temperature |
| M:1 | Memory allocation error | Update firmware, replace the control board, or return for repair |
| N:4 | Network connection lost | Check the network connection |

SOURCE Bitmain S23 Hyd. user guide: Error Code table. Codes for chain 4 are listed as published by Bitmain.

**ONEMINERS**
For a hosted miner, send the error code and your miner's service ID to **service@oneminers.com** or WhatsApp **+1 305 867 6143**. Repairs under warranty are handled on site by our repair team.

# 08 CHAPTER OneMiners Platform Guide

Miners hosted by OneMiners are monitored and managed from your account at app.oneminers.com or the OneMiners mobile app. Screens in this chapter are from OneMiners platform v1.2 and show example values from other miners, not an S23 Hyd.

## 8.1 Miner details

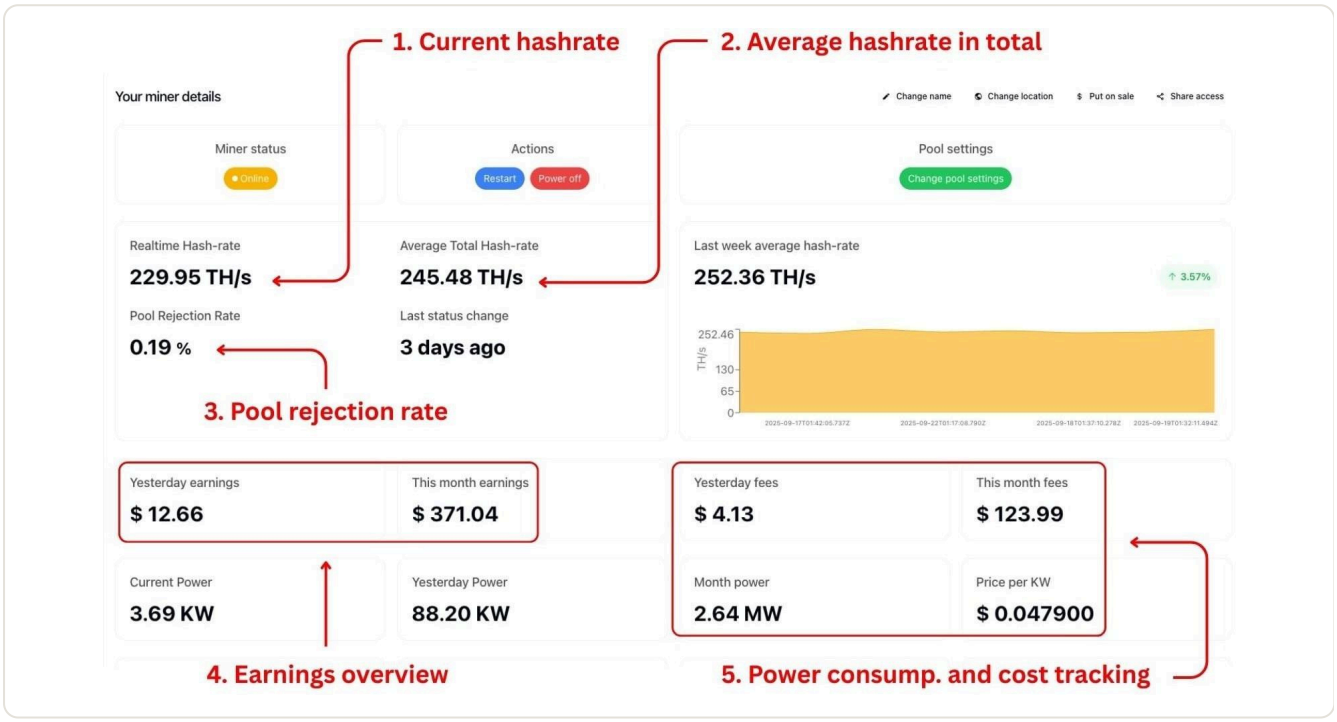



**Figure 8-1** Miner details on OneMiners platform v1.2 (example values).

| | |
|---|---|
| **1 · Current hashrate** | Real-time hashrate in TH/s. It moves with network stability, hardware and pool communication. |
| **2 · Average hashrate** | Average over a longer period (typically 24 h). The most reliable measure of performance; expect 562–597 TH/s. |
| **3 · Pool rejection rate** | Share of submitted shares the pool rejected. Below 1% is healthy. |
| **4 · Earnings overview** | Estimated earnings for the selected period, based on accepted shares. |
| **5 · Power and cost** | Real-time and historical energy use (kW) and its cost at your configured price per kWh. |

## 8.2 Pool settings

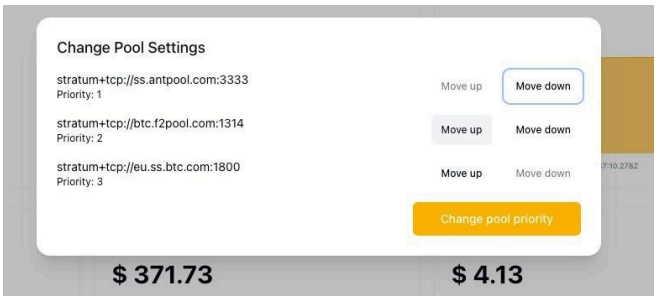



**Figure 8-2** Change Pool Settings.

- Up to three pools can be connected.
- Pools are listed in priority order. If the first is unavailable, the miner switches to the second, then the third.
- Use **Move up** / **Move down** to set the order, then **Change pool priority** to apply it.

## 8.3 Earnings and fees




**Figure 8-3** Earnings, fees, power and price per kWh (example values).

- **Earnings:** daily, monthly and cumulative mining rewards in USD or your selected currency.
- **Fees:** pool and platform fees deducted from earnings, shown daily and monthly.
- **Net result:** earnings minus fees, which is your net mining income.

## 8.4 Hardware status

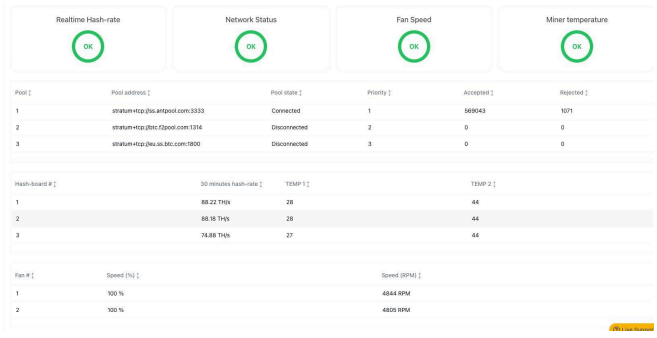



**Figure 8-4** Hardware status (example from an air-cooled miner).

- **Network status:** whether the miner is connected to its pools. Address disconnections immediately.
- **Miner temperature** and **hashboard table:** per-board hashrate and temperatures. Useful for spotting an underperforming board early.

> **HYDRO UNITS**
> The S23 Hyd. has no fans. Any fan-speed readings shown for it don't apply. Watch board temperatures and the cooling alerts instead.

ONEMINERS OneMiners platform v1.2. Confirm layout against the current version of your account.

CHAPTER 09

# OneMiners Hosting and Warranty

OneMiners hosts customer-owned miners in its data centers, providing power, cooling, racking and monitoring. Terms below reflect OneMiners' published pages as checked on 7 November 2026.

## 9.1 Hosting

- Hosting is offered across 17 data centers worldwide, **from 3.6¢ per kWh** at the time of writing.
- Locations include Nigeria, Ethiopia, Dubai, the USA (Texas, Houston, Georgia, South Carolina, Kansas and a no-service-fee option), Finland, Norway, Canada, Brazil, Czechia, China and Paraguay.
- Hosted orders are deployed turnkey; OneMiners racks, connects and monitors the miner.
- Hydro-cooled units need sites with a liquid-cooling loop. Ask sales which locations currently accept the S23 Hyd.

Current prices and locations: oneminers.com/pages/hosting-centers.

## 9.2 Warranty

**HOSTED WITH ONEMINERS**

**7-year full warranty** for miners hosted in the USA, Dubai, Norway, Finland, Ethiopia, Nigeria and China.

- Free on-site repairs
- No-cost replacement of power supplies and cables
- No labour or diagnostic fees

**SHIPPED TO YOU**

**Standard 12-month warranty**, unless the manufacturer specifies otherwise.

- Free repair of manufacturing defects
- Replacement of defective units when necessary
- Valid only when the miner is operated according to official instructions

### All customers during warranty

Remote diagnostics, real-time monitoring, 24/7 technical support, and firmware upgrades and maintenance.

### Exclusions

The warranty may be voided by damage from misuse, unauthorised modifications or non-compliant operation. For the S23 Hyd., this includes damage from incorrect coolant, freezing, or running outside the electrical and coolant specifications in Chapter 2.

### Out of warranty

Repairs typically cost **US$80–220**, depending on the fault and parts required.

### Making a claim

Contact OneMiners support with your miner's hosting details and service ID through oneminers.com/pages/contact or **service@oneminers.com**.

ONEMINERS OneMiners Warranty Policy, oneminers.com/pages/warranty-policy . The policy page prevails if it differs from this summary.

# 10 CHAPTER Wallet and Mining Rewards

Rewards from a hosted miner are credited to your OneMiners wallet, where you can withdraw them or exchange between currencies.

## 10.1 Automatic mining balance

- The miner starts generating rewards as soon as it is installed and activated.
- If no energy payment has been preloaded, mining continues and energy costs and fees are deducted automatically from the rewards.
- If funds are preloaded in advance, earnings are credited without automatic deductions.
- You can change your payout wallet address in the wallet settings.

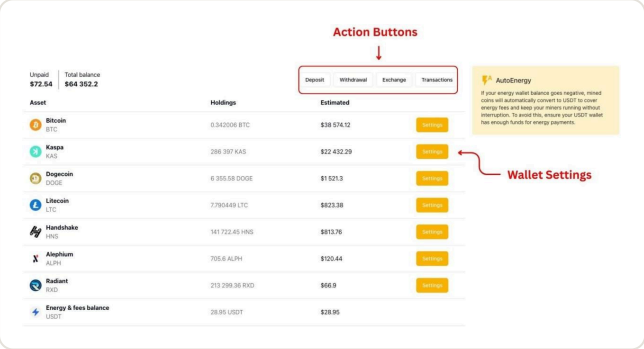



**Figure 10-1** Wallet section.

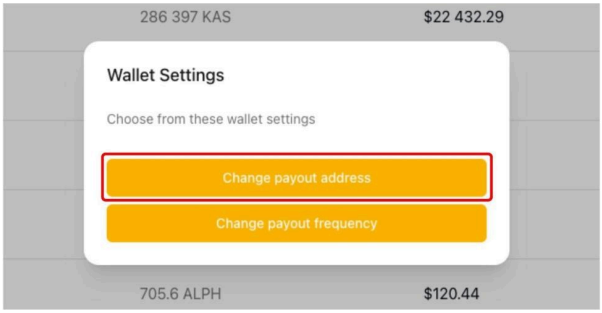



**Figure 10-2** Changing the payout address.

## 10.2 Withdrawals

1. Go to **Wallet** › **Withdrawal**.
2. Add a crypto wallet address or a bank account.
3. Select the currency, enter the amount and confirm.

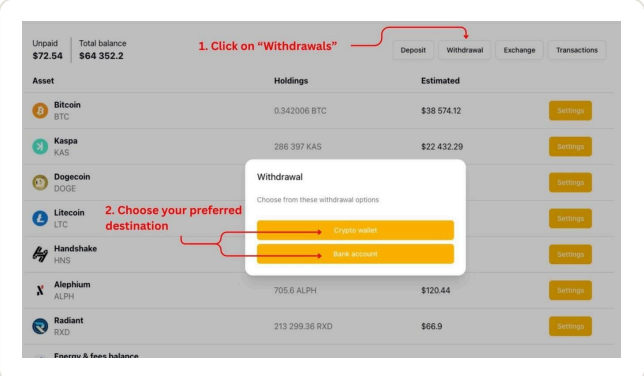



**Figure 10-3** Choosing a withdrawal destination.

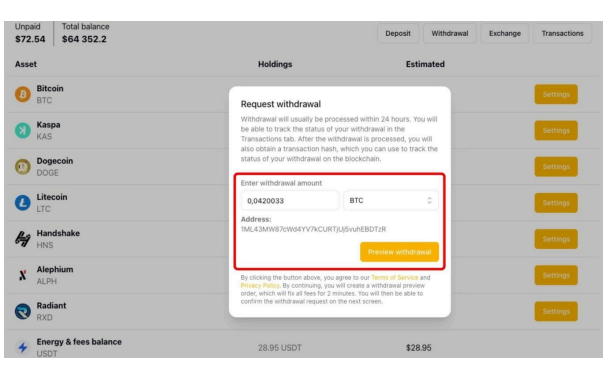
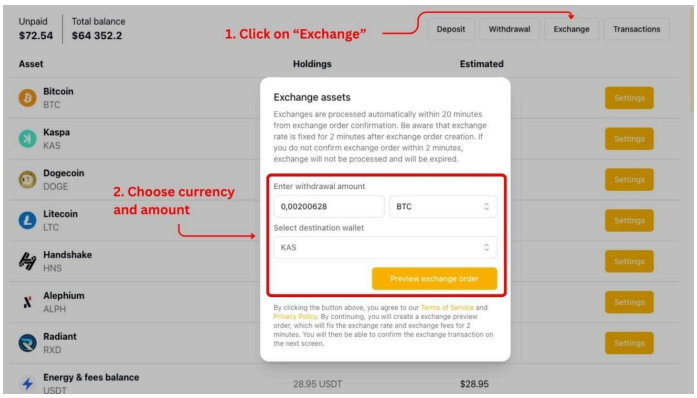



**Figure 10-4** Choosing currency and amount.

## 10.3 Exchange




1. Go to **Wallet** › **Exchange**.
2. Select the currencies to exchange. You can also convert directly into **Energy & Fees** funds to keep the miner running.
3. Enter the amount and confirm.

**Figure 10-5** Exchanging currencies.

> **BEFORE YOU WITHDRAW**
> Double-check addresses and networks. Crypto transfers to a wrong address usually can't be reversed. Keep enough Energy & Fees balance to avoid deductions from your rewards.

ONEMINERS OneMiners platform v1.2.

CHAPTER 11

# Additional OneMiners Features

Optional tools in your OneMiners account. Availability and settings can change; check your dashboard for what is active on your account.

## 11.1 AI Smart Mining

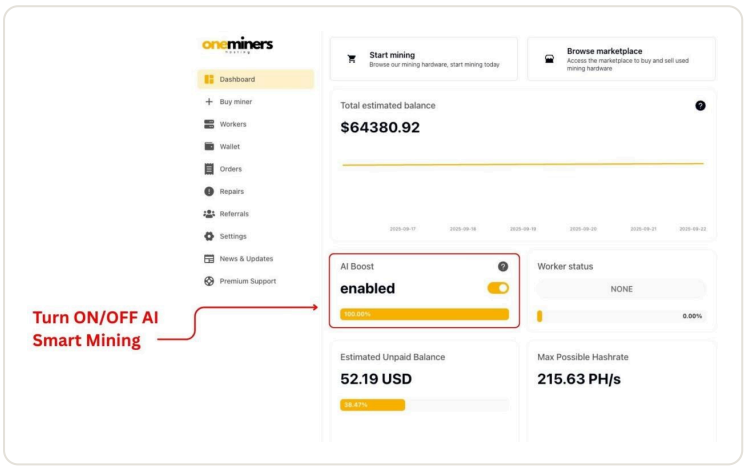



**Figure 11-1** AI Boost toggle on the dashboard (platform v1.2).

AI Smart Mining analyses market conditions and pool performance and can switch your miner to the pools it calculates are most profitable.

- Turn it on or off with the **AI Boost** toggle on your dashboard.
- Your hardware keeps mining to your own account and wallet.

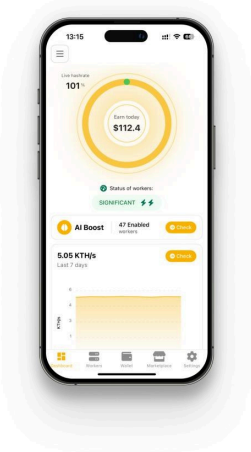
Results depend on hardware and market conditions and aren't guaranteed. More information: oneminers.com/pages/ai-smart-mining.

## 11.2 OneMiners mobile app

Monitor and manage your miners from your phone: start and stop miners, view hashrate, power use and hardware status, and manage balances and withdrawals. The app is built on the CircleHash white-label hosting platform and is free.

App Store

Google Play




## 11.3 Profitability tools

Mining income depends on Bitcoin's price, network difficulty and your electricity cost, all of which change daily. For current estimates, use the live tools rather than figures printed in a manual:

- Miner profitability table: oneminers.com/pages/miner-profitability
- Bitcoin mining calculator: oneminers.com/pages/bitcoin-mining-calculator

For an S23 Hyd 580 TH/s, enter 580 TH/s and 5,510 W with your own price per kWh. Estimates aren't financial advice.

# 12 CHAPTER Official Resources and Support

## 12.1 Resources

BITMAIN
**Firmware and IP Reporter**
shop.bitmain.com/support/download

BITMAIN
**Support centre**
support.bitmain.com

ONEMINERS
**Manuals & Firmware Library**
oneminers.com/pages/manuals-and-firmware

ONEMINERS
**Product page**
oneminers.com/products/antminer-s23-hyd-580-th-s

ONEMINERS
**Warranty policy**
oneminers.com/pages/warranty-policy

ONEMINERS
**Hosting locations**
oneminers.com/pages/hosting-centers

## 12.2 Contact OneMiners

**SUPPORT, 24/7**

**+1 305 867 6143**

WhatsApp

**+1 607 9009 004** · Sales, USA

**service@oneminers.com** · Service and repairs
**sales@oneminers.com** · Sales
**payinquire@oneminers.com** · Payments

Telegram: t.me/oneminers_hosting

**ADDRESS**

CIRCLEHASH LLC
701 Tillery Street
Austin, Texas 78702, USA

Contact page

Manuals library

## 12.3 Sources used for this version

1. Bitmain, S23 Hyd. Product Manual v1.0.6 (June 2025), version 580T-10: specifications and coolant parameters.
2. Bitmain, S23 Hyd. Product Manual (May 2025): cross-check of specifications.
3. Bitmain, S23 Hyd. user guide (as reproduced in OneMiners manual V1.1): components, cautions, coolant tables, installation, setup, monitoring, administration, error codes, environment.
4. OneMiners: Warranty Policy, product page for S23 Hyd 580 TH/s, hosting pages, AI Smart Mining page, Media Kit, site contact details. All checked 7 November 2026.

## 12.4 Revision history

| VERSION | DATE | CHANGES |
|---|---|---|
| **V1.3** | Nov 2026 | Specification table replaced with Bitmain 580T-10 values (previous table showed the 440T/473T variants). Hydro-specific monitoring and maintenance; fan references removed. Warranty, hosting and contact details updated to current OneMiners pages. Stale profitability screenshots replaced with links to live tools. Error-code table condensed. Source tags on manufacturer content. Rebuilt in the OneMiners media-kit design. |
| **V1.2** | — | Version published on the OneMiners library. Not reviewed for this revision. |
| **V1.1** | Dec 2025 | Previous edition. |