Bitcoin Miner Worker

User Manual

Version 1.0.37

BTC MINER TOOLS

Bitcoin Miner Worker performs the hashing work assigned by Bitcoin Miner or Bitcoin Miner Coordinator. It does not hold pool credentials and does not submit shares to a pool itself. The Coordinator manages the pool connection and assigns this Worker a separate ExtraNonce namespace.

Before you begin

You need a current Bitcoin Miner Coordinator or Bitcoin Miner app acting as Coordinator. The Worker can be reached in one of two ways:

- Bonjour on the LAN for Macs on the same local network.
- WireGuard for a remote Mac or a private cross-network setup.

If the Worker and Coordinator are on the same LAN, WireGuard is optional. If they are on the same Mac, no network setup is needed.

For a remote Worker, configure WireGuard first with the Bitcoin Miner WireGuard Hub Guide. The Worker Setup Assistant checks an existing tunnel; it does not generate a WireGuard configuration.

Recommended order

1. For remote mining, follow the WireGuard Hub Guide in this order: Linux Hub, Linux Workers, one WireGuard tunnel per Mac, then activate the Coordinator tunnel.
2. Start this Mac Worker and complete its one-time calibration.
3. Run the Worker Setup Assistant to confirm its listener and copy the Coordinator entry.
4. Run the Coordinator Setup Assistant, add or refresh the Worker, select it and connect the pool.

First-time setup

The Worker Setup Assistant opens automatically after the initial calibration. Open it again with Setup… in the Worker window or Help › Setup Assistant.

It confirms:

1. Bonjour availability for local discovery.
2. Whether a WireGuard address is active on this Mac.
3. Whether a Coordinator is currently connected.
4. The copyable `10.20.0.x:38473` Coordinator entry - the endpoint you add in the Coordinator.

On the first launch, macOS may ask whether Bitcoin Miner Worker may accept incoming network connections. Choose Allow. If you deny it, enable the app later in System Settings › Network › Firewall.

Connecting over the LAN

Open the Worker app and the Coordinator app while both Macs are on the same LAN. The Coordinator discovers the Worker automatically through Bonjour and lists it as Bonjour · Mac.

No IP address has to be entered. If it does not appear, refresh the Coordinator and verify that the macOS firewall allows the Worker.

Connecting over WireGuard

Activate the WireGuard tunnel on the Worker. In the supported remote topology, all peers meet through an Ubuntu/Debian Linux WireGuard hub. The Worker window shows an address such as:

```
WireGuard 10.20.0.3:38473
```

Copy that entry from the Setup Assistant and enter it in the Coordinator's Add WAN Worker field. The Coordinator first tests TCP reachability and then registers the Worker.

If Worker and Coordinator run on the same Mac, they share one WireGuard tunnel and the Worker appears as Local · Mac. Do not create a second tunnel for the Worker.

The current Bitcoin Miner remote setup deliberately uses the fixed private subnet `10.20.0.0/24`. A hub commonly uses `10.20.0.1/24` while each peer uses a unique `10.20.0.x/32` address. The apps recognize and advertise this subnet; it is not an in-app setting. Keep port `38473` private to the WireGuard network; never expose it to the public Internet.

Calibration

Before it accepts mining work for the first time, the Worker calibrates its available CPU and Metal GPU resources. Calibration establishes the default limits for Low, Balanced, High and Maximum performance modes on that Mac.

Calibration is specific to the hardware and should be repeated after a meaningful hardware, OS or thermal-behaviour change. The Worker retains the resulting profiles between launches.

Performance modes

Mode	Intended use
Low	Lowest impact; suitable when the Mac is actively in use.
Balanced	Moderate background mining.
High	Stronger use of CPU/GPU while retaining more headroom than Maximum.
Maximum	Uses the calibrated maximum profile and may create substantial heat, fan noise and power draw.

The Coordinator can assign a mode with its mining job. The Worker displays the active mode in its own window and reports it back to the Coordinator.

CPU worker grid

The clickable CPU grid sets the exact number of CPU mining workers.

- Grey squares are available CPU worker slots.
- Blue squares are the calibrated recommendation for the selected performance profile.
- Orange inset squares are the active custom selection.
- Click a square to use that many CPU workers.
- Click the last active square again to reduce the count by one.
- Select 0 CPU workers to run GPU-only mining.

A custom CPU count remains a custom setting while you stay in that mode. Changing the performance profile returns the CPU count to the calibrated default for the new profile.

Metal GPU mining

Enable Use Metal GPU to use the Mac's Metal-capable GPU. The GPU can run while CPU workers are set to zero.

The GPU line reports the hash rate and the requested miner load. This is the percentage of time the Worker intentionally gives to its own GPU mining loop; it is not a measurement of the Mac's total GPU utilization. A lower mode can leave more headroom for video playback and interactive graphics.

Not every GPU benefits equally from this workload. Use the observed hashrate, temperature, noise and responsiveness of your Mac to choose a practical profile.

Start, stop and pause

When a Coordinator sends a job, the Worker starts automatically.

- Stop Work pauses mining locally and retains the latest job.
- The button changes to Start Work; use it to resume the retained job.
- If a new Coordinator job arrives while paused, the Worker keeps the latest job but remains paused.
- If the Coordinator stops its session, the Worker stops and clears that job.

The Worker can continue mining with its window hidden. Hide App Window returns it to a menu-bar process; opening the window again makes it visible in the Dock and Command-Tab switcher.

Running with the display off

The display may sleep or be switched off while the Worker continues to mine. On a desktop Mac, enable the macOS option that prevents automatic computer sleep when the display is off. The Worker deliberately has no button that forces display sleep: a sandboxed Mac app has no reliable, permission-free macOS API for that action. From a local Terminal you can wait five seconds and then put only the display to sleep with:

```
sleep 5; pmset displaysleepnow
```

Do not let the Mac itself enter sleep, because its Worker and network connection will pause. Heat, fan noise and actual power draw are determined by the selected CPU/GPU profile, not by whether the display is lit.

Worker status

Status	Meaning
Waiting for coordinator	The Worker is available but has no active Coordinator connection or job.
Ready	The Worker can accept work.
Mining	A Coordinator job is running.
Paused	Mining was stopped locally; Start Work resumes the current job.
Calibration required	Run the initial calibration before accepting work.

The Network line can show both LAN Bonjour and a WireGuard endpoint. That means both paths are available; the active Coordinator uses one of them.

Troubleshooting

The Coordinator cannot find this Worker

1. Keep the Worker app running.
2. Open the Worker Setup Assistant and refresh its checks.

3 For LAN discovery, confirm both Macs are on the same LAN and that the firewall allows the Worker.

4 For WireGuard, make sure the address shown by the Worker matches the address entered in the Coordinator.

The Worker is shown as offline

From the Coordinator Mac, test the private Worker endpoint:

```
nc -vz 10.20.0.3 38473
```

If the test cannot connect, check the WireGuard tunnel, the Worker's listening address and the firewall. A saved offline endpoint remains in the Coordinator list so it can reconnect automatically.

The Mac becomes loud or warm

Select High, Balanced or Low, reduce the CPU worker count, disable Metal GPU mining, or use GPU-only mining with an appropriate performance mode. Maximum is expected to use the most energy and may run the fans audibly.

The displayed hash rate falls to zero briefly

Hashrate is a short sampling value. It can reset while a pool job changes, when a new Worker report begins or after pausing/resuming. The Coordinator's session hashes remain the accumulated work for the session.

Security and privacy

The Worker stores no pool password. It accepts work through local Bonjour discovery or its private WireGuard listener. Use current app versions and keep the Worker endpoint off the public Internet.