Introduction: The onoLink is an advanced multi-band, multi-constellation GNSS RTK base station, featuring an integrated NTRIP client and Wi-Fi connectivity, designed to deliver optimal results in Onocoy mining. The base station simultaneously supports GPS (L1/L2/L5), GLONASS (L1/L2), Galileo (E1/5a/5b/E6), and BDS (B1I/B2I/B3I/B1C/B2a/B2b) satellite systems.

onoLink GNSS RTK Base Station

1 - LED DESCRIPTION

LED	Action	Meaning
RED (System)	on	The miner is connected to the power supply.
Blue (Wi-Fi)	off	The miner is ready to connect to the Wi-Fi.
Blue (Wi-Fi)	on	The miner is connected to Wi-Fi.
Green (GNSS)	blinking	The miner is receiving data.
Green (GNSS)	off	The miner is online but not receiving data from the antenna.

3 – Create and configure your onocoy Account

1. **Register an Account**

   o Visit the [Onocoy website](#) and navigate to the Explore section.

   o Click Sign Up and follow the instructions to create your user account.

   o Once your account has been activated, you will receive a confirmation notification.

1. **Generate NTRIP Credentials**

   o Log in to your Onocoy account and go to Reference Stations.

   o Open the NTRIP Credentials tab.

   o Click Add new credential.

   o Choose a secure password and (optionally) add a description (e.g., "Onolink Miner – Berlin Office") to help you keep track of where the credentials are used.

   o The system will automatically generate a username for you.

1. **Credential Management**

   o Each Onolink Miner (station) requires its own set of NTRIP credentials.

   o If you plan to connect multiple stations, repeat the process for each one.

   o Should you reach the maximum number of available credentials, contact support@onocoy.com. In your message, include:

     ▪ The email address associated with your account

     ▪ Your planned station expansion (number and location of new stations**)**

Tip: Keep your credentials safe and documented. You will need them later to configure your Onolink Miner in the web interface (FW 1.3.0).

2 – Set up the Base-Station

The Onolink package includes:

- 2.4 GHz Wi-Fi antenna
- Either:
    - Multi-band GNSS antenna with 10 m cable *(if ordered in a bundle)*
    - or an antenna splitter *(if ordered as splitter option)*

⚠ Required but not included: A USB-C power adapter with at least 5V / 2A output

Tip: Using a weaker power supply will cause boot failures or unstable operation.

Step 1 – Connect the Antenna

- If you received the GNSS antenna (bundle option):
    a. Attach the Wi-Fi antenna to the port labeled "Wi-Fi" (right side of the device).
    b. Connect the GNSS antenna cable to the port labeled "GNSS" (opposite side).
    c. Mount the GNSS antenna with a clear 360° view of the sky, fixed securely in place.
- If you received the antenna splitter (splitter option):
    a. Attach the Wi-Fi antenna to the port labeled "Wi-Fi".
    b. Connect the splitter to your existing GNSS antenna setup.
    c. Plug the splitter output cable into the port labeled "GNSS" on the Onolink.

Step 2 – Power the Device

1. Plug in the USB-C power adapter (≥ 2A).
2. Turn the power switch to ON.
3. The device will start automatically.

⚠ Important: Do not move the GNSS antenna while the device is powered on.

Tip: If relocation is necessary, always disconnect power first, reposition and secure the antenna, then reconnect.
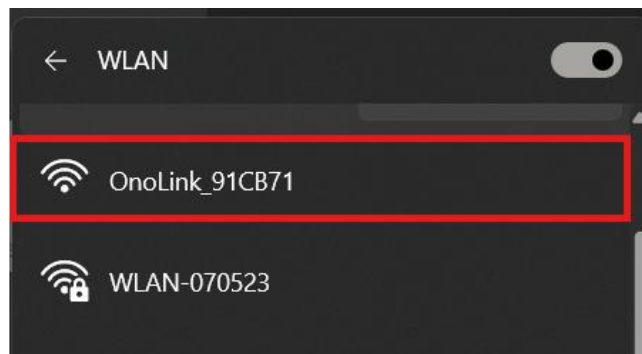
4 - Configuration

a) Reset

The Onolink device has **one button**, labeled **Function**.

- **Press and hold for 5 seconds** → The **Wi-Fi credentials** are deleted.
- After the reset, the device will automatically start in **hotspot mode**, allowing you to reconnect and configure new Wi-Fi details.
- All other configurations (e.g., NTRIP credentials, station settings) remain unchanged.

⚠ **Note:** This function is designed to quickly switch the Onolink to a new Wi-Fi network without losing your existing setup.

b) Wi-Fi / NTRIP Connection

After completing Step 2 of the setup process, the device will start in **Access Point (AP) mode** and appear as an open Wi-Fi network named **OnoLink_XXX**.

After connecting to the Onolink access point (**onoLink_XXX**) and opening the configuration page (**192.168.4.1**), the configuration screen will appear as shown below:

Wi-Fi Settings (left panel)

1. In the **Wi-Fi section**, enter your Wi-Fi network details:
   - o **SSID**: Either type the network name manually or click the **scan icon** to search and select from available networks.
   - o **Password**: Enter your Wi-Fi password.

NTRIP Client Settings (right panel)

1. In the **NTRIP server section**, enter the credentials provided by **Onocoy**:
   - o **Host and Port**: Default is servers.onocoy.com : 2101
   - o **Username**: As shown in your Onocoy account
   - o **Password**: As shown in your Onocoy account

Save and Apply

1. Once both **Wi-Fi** and **NTRIP credentials** are entered, click the **Apply** button at the bottom of the page.
2. The device will reboot and automatically:
    - Connect to the configured Wi-Fi network
    - Establish a connection to the Onocoy NTRIP server

⚠ **Important:**

- Both sections (**Wi-Fi + NTRIP**) must be filled out before you can apply the settings.
- If details are missing or incorrect, the connection will fail.
- After reboot, the device leaves **Access Point mode after 15 minutes**. If you need to reconfigure, restart the device to re-enable AP mode.

Step 5 – Admin Mode vs. Hosting Mode

The Onolink Miner offers two operating modes:
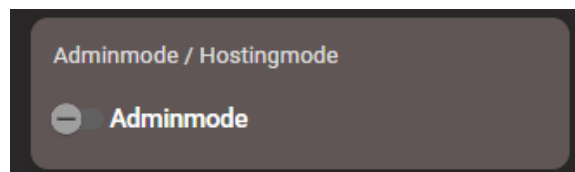
Admin Mode

- Full access to all configuration options:
    - Wi-Fi settings
    - NTRIP credentials
    - Advanced network settings
- This mode should only be used by the device owner or installer to set up the station.

Hosting Mode

- Designed for secure decentralized hosting.
- In this mode:
    - Only Wi-Fi settings can be changed.

- o   The NTRIP configuration panel is hidden, preventing unauthorized changes.
- o   This protects the host from having their device hijacked with different NTRIP credentials.

Switching Between Modes

- When switching from Admin Mode → Hosting Mode, you must set a temporary password.
- When switching from Hosting Mode → Admin Mode, this password must be entered.
- ⚠ Important: The password is valid only for the current session.
  - o   If you switch again from Admin to Hosting, you will need to create a new password.

💡 **Tip:**
Use Hosting Mode if the device is operated in a location outside your direct control. This ensures that the Onolink can only connect via the authorized NTRIP credentials.

You're all set up—happy mining! If you have any questions or encounter any issues, feel free to reach out to us at support@onolink.io.

Troubleshooting Guide – OnoLink Miner

1. Device does not power on

- Cause: Inadequate power supply.
- Solution:
  - Use a USB-C adapter with at least 5V / 2A output.
  - Avoid using weak phone chargers or PC USB ports.
  - Check the red System LED – it should light up when power is supplied.

2. No Wi-Fi connection possible

- Cause: Wi-Fi credentials incorrect or device not in AP mode.
- Solution:
  - Perform a Wi-Fi reset: Hold the Function button for 5 seconds.
  - Connect to the open Wi-Fi network onoLink_XXX.
  - Open browser → enter 192.168.4.1 → reconfigure Wi-Fi.
  - ⚠ Remember: The AP mode is only active for 15 minutes after startup. Restart the device if needed.

3. Cannot save configuration (Apply button greyed out)

- Cause: Not all required fields are filled.
- Solution:
  - Ensure both Wi-Fi (SSID + password) and NTRIP credentials (Host, Port, Username, Password) are entered.
  - Only then will the Apply button be active.

4. Device connected to Wi-Fi, but no NTRIP connection

- Cause: Wrong NTRIP credentials or server not reachable.
- Solution:
  - Verify credentials in your Onocoy account → NTRIP Credentials.
  - Default server: servers.onocoy.com : 2101.
  - Ensure green GNSS LED is blinking (receiving satellite data).
  - If still failing → test network stability (router, firewall, mobile hotspot).

5. AP not visible after restart

- Cause: AP mode expired (15 min limit).
- Solution:
  - Restart the device to re-enable AP mode.
  - The AP SSID format is onoLink_XXX.

6. GNSS LED not blinking (no satellite reception)

- Cause: GNSS antenna not properly placed or connected.
- Solution:
  - Check antenna is firmly connected to the GNSS port.
  - Ensure antenna has clear 360° sky view (not inside, not under trees or metal roof).
  - Avoid moving antenna while device is powered on.

7. Lost access to NTRIP settings (NTRIP panel hidden)

- Cause: Device is in Hosting Mode.
- Solution:
  - Switch to Admin Mode.
  - Enter the temporary password that was set when switching into Hosting Mode.
  - ⚠ Passwords are session-based: When switching back into Hosting Mode, you must set a new password.

8. Device resets unexpectedly

- Cause: Power supply drops / unstable adapter.
- Solution:
  - Replace with a high-quality adapter ≥ 2A.
  - Check USB-C cable for damage.