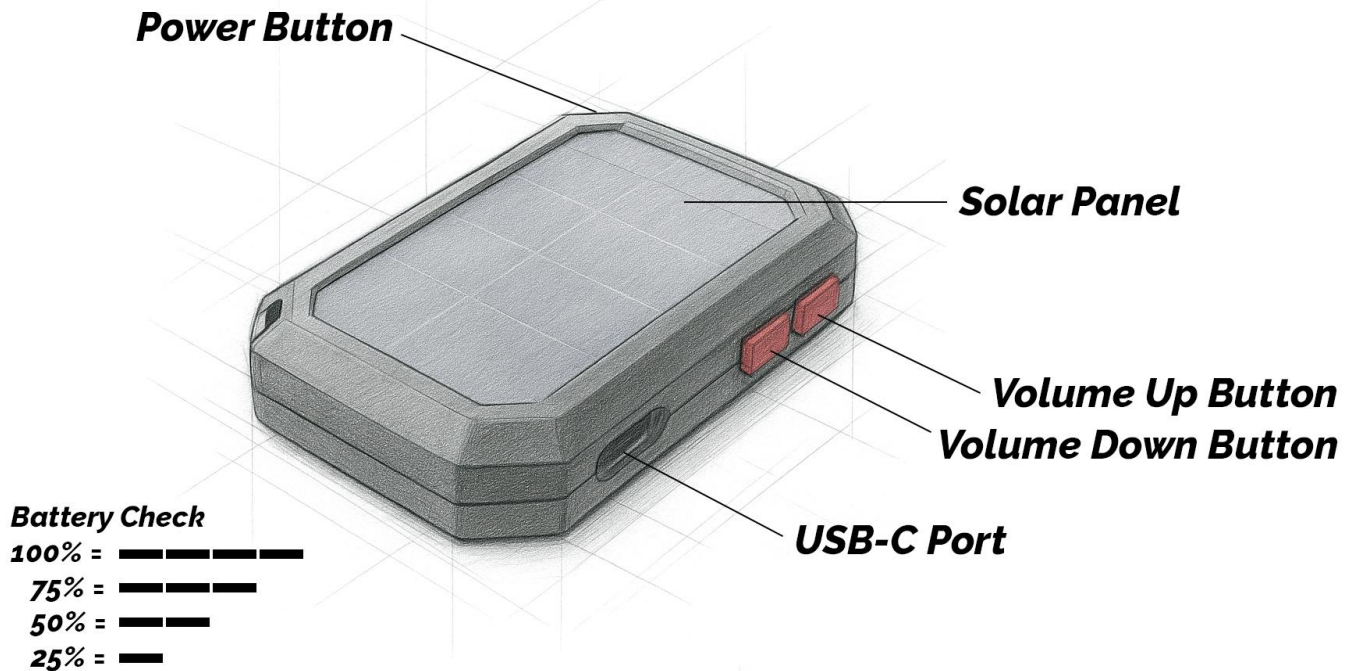


MipBipX User Guide

by MipFly



Device Overview

- Power Button** - Located on the left top corner
- Volume Up Button** - Located on the right side, top
- Volume Down Button** - Located on the right side, bottom
- Solar Panel** - Integrated charging panel
- USB-C Port** - For charging and data connection

Device Operation

Button Indicators

To make this guide more intuitive, we use these symbols:

- Short press = ●
- Long press = ██████
- Two beeps = ●●

Turning ON

Press and hold the **Power button** until you hear ●● (two beeps), then release. The device will play a distinctive crescendo sound sequence to confirm successful startup.

Turning OFF

Press and hold the **Power button** (██████). The device will play a descending sound sequence and power off.

Volume Control

Increase Volume: Press the **Volume UP** button

Decrease Volume: Press the **Volume DOWN** button

Mute: Adjust the volume all the way down

Battery Check

Short press the **Power button** for ●. The device will indicate battery level with a series of beeps:

100% = █ █ █ █ █

75% = █ █ █ █

50% = █ █ █

25% = █ █ █

Advanced Functions

Factory Reset

CAUTION: This will reset all settings to factory defaults.

1. Ensure the device is OFF
2. Press and hold **BOTH** the **Power button** AND **Volume UP button**
3. Continue holding for approximately 15 seconds
4. Release when you hear the startup sound
5. The device will reset to factory settings. Calibration and sound configuration should be performed after updating to the latest firmware

Sensor Calibration

The MipBipX features advanced MEMS sensors (accelerometer and gyroscope) that may require calibration in certain scenarios. The device comes already calibrated. Factory reset will require calibration.

Calibration Procedure:

1. Start with the device OFF
2. Press and hold **BOTH** the **Power button** AND **Volume DOWN button**
3. After hearing the startup sound, release the **Power and Volume DOWN buttons**
4. Quickly place the device on a flat, stable surface
5. A short beep (●) will signal the completion of gyro calibration (~25 seconds)
6. Now calibrate the accelerometer by placing the device flat on each of its 6 sides, vertically aligned as best as possible:
 - Top face up
 - Bottom face up
 - Left side up
 - Right side up
 - Front face up
 - Back face up
7. For each position, press the **Volume DOWN button (●)** to activate calibration
8. Wait for confirmation beep ● before moving to the next position

Bluetooth Telemetry

The MipBipX supports advanced telemetry with \$LK8EX1 and \$POV messages.

Connection Protocols

BLE (Bluetooth Low Energy) - Preferred for lower power consumption

SPP (Serial Port Profile) - Traditional Bluetooth connection

Pairing

Default pairing code: **1234**

Connect directly from your app for BLE connection (not from OS Bluetooth menu)

Auto Power Management

Bluetooth turns off after 5 minutes of no connection

If sound is disabled, the device will also power off after 5 minutes of no Bluetooth connectivity

To re-enable Bluetooth: Short press the Power button

USB Connection

XCTrack Connection via USB

Requires OTG support on your Android device

1. Connect MipBipX to your phone/tablet using a USB-C to USB OTG cable
2. Open XCTrack
3. Navigate to: **Preferences** → **Connection & Sensors** → **External Sensor** → **USB Sensor**
4. Select MipBipX from the device list
5. For optimal performance, set "Averaging Interval" to minimum in XCTrack's acoustic vario menu

Firmware Updates

Requirements

Google Chrome browser (latest version)

USB-C cable

MipFly account

Update Procedure

1. Power ON the MipBipX normally
2. Connect to your computer via USB-C cable
3. Enable "Experimental Web Platform Features" in Chrome:
Copy and paste into address bar: `chrome://flags/#enable-experimental-web-platform-features`
Enable the feature if not already enabled
4. Visit the MipFly website and log into your account
5. Select the **MipBipX** tab
6. Choose the desired firmware version (newest is at the top)
7. When prompted, select "MipBipX" from the device list
8. The update will proceed automatically
9. The device will turn off automatically when complete

Sound Configuration

Custom Sound Profiles

1. Power ON the MipBipX
2. Connect via USB-C to your computer
3. Log into your MipFly account using Google Chrome
4. Select the MipBipX tab
5. Choose **Tab 1** for Sound Configuration
6. Adjust settings to your preference:
 - Climb tone threshold
 - Sink tone threshold
 - Volume levels
 - Tone frequencies
7. Click "To MipBipX" to upload settings
8. Select "USB Serial Device" when prompted
9. Wait for "Upload Complete" confirmation

Specifications

Power: Integrated solar panel + USB-C charging

Battery: High-capacity Li-Po with smart power management

Sensors: Advanced MEMS accelerometer and gyroscope, precision barometer

Connectivity: Bluetooth 5.0 (BLE + SPP), USB-C

Audio: Enhanced double speakers with volume control

Dimensions: Compact and lightweight design

Operating Temperature: -20°C to +50°C

Troubleshooting

Device Won't Start

- Ensure battery is charged (connect USB-C for 30 minutes)
- Try factory reset procedure

No Bluetooth Connection

- Check if Bluetooth is enabled (short press Power button)
- Ensure device is not already connected to another device
- Try connecting directly from app (BLE mode)

Erratic Vario Behavior

- Perform sensor calibration procedure
- Update to latest firmware

Update Fails

- Ensure stable USB connection
- Try different USB port
- Verify Chrome experimental features are enabled
- Perform factory reset and retry

Safety Information

Do not expose to extreme temperatures

Avoid strong magnetic fields during use

Keep device dry; not waterproof

Use only certified USB-C cables, don't use Y splitter cables as some devices might negotiate higher voltages for fast-charge, in which case the MipBipX charging circuit might be destroyed

Do not attempt to open or modify the device

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