

PAPRITECH

# AirMotion Plus User Manual

Wireless MIDI Breath and Motion Controller

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## 1. Introduction

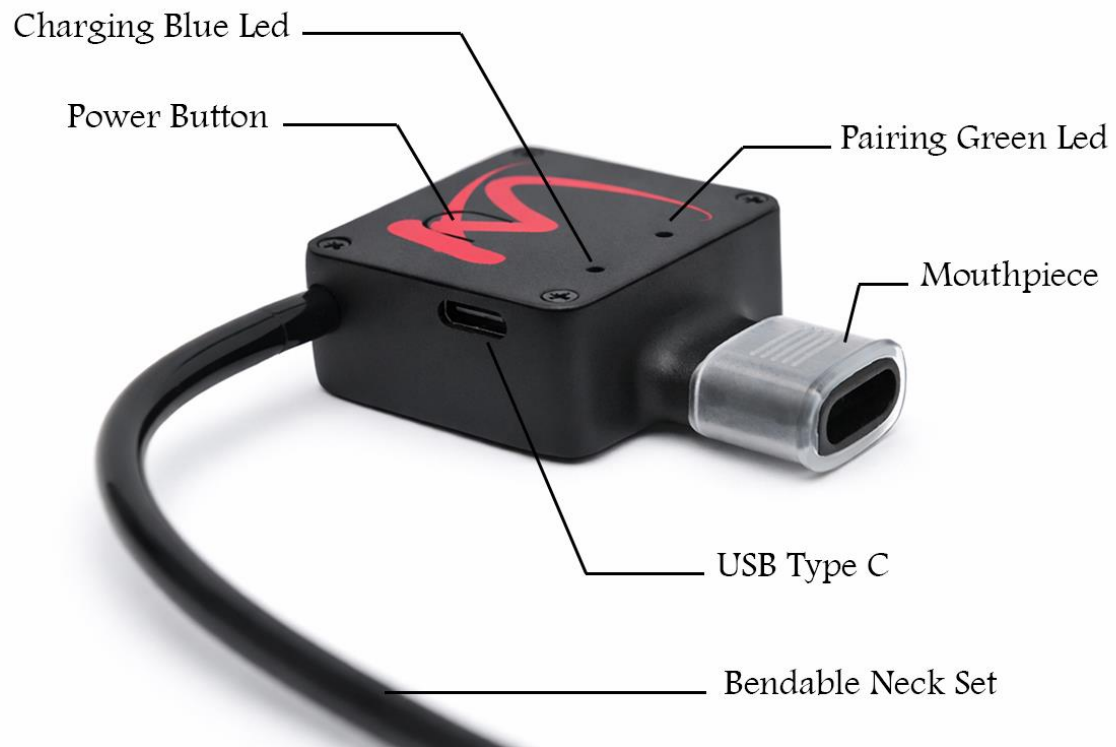
Thank you for choosing **AirMotion Plus**, the world's first wireless MIDI breath and motion controller designed to deliver natural, expressive control for musicians, producers, and performers.

AirMotion Plus converts **breath pressure** and **head motion** into MIDI data, allowing hands-free control of dynamics, filters, modulation, expression, and pitch bend—without interrupting your playing.

This manual walks you through everything: from unboxing and first power-on to advanced calibration, DAW integration, and firmware updates.



## 2. Device Overview & Hardware Diagram



### 3. Package Contents

Inside the EVA case:

- AirMotion Plus device
  - Mouthpiece
- 

### 4. Safety & General Usage

- Do not expose the device to water or high humidity
  - Use only standard USB chargers (5V)
  - Do not open or modify the device
  - Avoid impacts, bending, or excessive force
  - Always ensure sufficient battery before firmware updates
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### 5. Getting Started – Out of the Box

#### 5.1 Charging the Device

Before first use, fully charge your AirMotion Plus.

**Steps:**

1. Connect the supplied **USB Type-C cable** to AirMotion Plus
2. Plug the other end into a **standard USB charger**, computer USB port, or power bank

**Charging LED behavior:**

- **Blue LED ON** → Charging in progress
- **Blue LED OFF** → Fully charged

**Charging time:** ~ 2 hours

**Battery life:** ~ 6 hours of continuous use

 Important: Never start a firmware update with low battery.

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#### 5.2 Powering ON / OFF the Device

AirMotion Plus is available in **2 hardware models**.

*Model A – Rear ON/OFF Switch (Mechanical)*

- Located on the **back of the device**
- Works like a classic power switch

**Power ON:** - Push the switch to ON

**Power OFF:** - Push the switch to OFF

- **Green LED blinking** → Device powered ON and ready to pair
  - **Green LED OFF** → Device successfully paired
- 

#### *Model B – Front Power Button (Press & Hold)*

- Located on the **front of the device**

**Power ON:** - Press and hold the button for **2–3 seconds**

**Power OFF:** - Press and hold the same button for **2–3 seconds**

**LED indicators (both models):**

- **Green LED blinking** → Device powered ON and ready to pair
  - **Green LED OFF** → Device successfully paired
- 

## 6. Mechanical Airflow Adjuster

AirMotion Plus includes a **mechanical airflow adjuster** that allows you to physically control how much air reaches the breath sensor. This provides a hardware-level way to adjust resistance before any software calibration.

### **What the Airflow Adjuster Does**

- Changes the **resistance and sensitivity** of the breath input mechanically
- Helps prevent fatigue and ensures comfortable performance

### **How to Use the Airflow Adjuster**

#### **Slider More Open (More Airflow)**

- More air passes through
- Requires **stronger breath** to reach maximum MIDI output
- Ideal for:
  - Wind instrument players
  - Strong breath technique
  - Live performance
  - Wide expressive dynamics

### Slider More Closed (Less Airflow)

- Less air passes through
- Requires **lighter breath** to reach maximum MIDI output
- Ideal for:
  - Soft breath technique
  - Long studio sessions
  - Precise expression

### Best Practice

1. Start with the slider in a **middle position**
2. Adjust physically until breath pressure feels natural
3. Fine-tune response using software curves and sensitivity sliders in the app

Tip: Always adjust the **mechanical airflow first**, then use software curves for precision.

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## 7. Installing the AirMotion Mobile App

The AirMotion mobile app is required for configuration, calibration, presets, and firmware updates.

- **Android:** Google Play Store
- **iOS:** Apple App Store

Search for “**AirMotion**”, install, and launch the app.

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## 8. App Onboarding & Permissions (Very Important)

When launching the app for the first time:

1. You will see **4 onboarding screens** explaining AirMotion basics
2. After onboarding, the app will request system permissions

### Required Permissions

- **Location permission** (Android requirement for BLE scanning)
- **Nearby Devices / Bluetooth permission** (Android & iOS)

These permissions are **mandatory for Bluetooth Low Energy (BLE) communication**.



⚠ If these permissions are denied, **AirMotion Plus will NOT connect.**

Once permissions are granted, the app automatically opens the **Connectivity Page**.

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## 9. Connectivity – Connecting AirMotion Plus

AirMotion Plus offers **2 connection modes** depending on your workflow.

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### 9.1 Mode 2 – Built-in BLE

Recommended for: - iPad / iPhone / Android tablets - Mobile producers - macOS & Windows users who prefer direct BLE

#### Steps:

1. Power ON AirMotion Plus
2. Open the AirMotion app
3. Go to **Connectivity Page**
4. Press on “**Connect**”
5. Wait for successful connection

Then: - Navigate to the **MIDI Page** - Assign MIDI Channel and CCs

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### 9.2 Mode 2 – USB MIDI (Wired Mode)

This mode allows you to use AirMotion Plus as a **USB MIDI device** without Bluetooth.

Recommended for:

- Studio setups
- Users who prefer a wired connection

#### Steps:

1. Connect AirMotion Plus to your **computer or instrument** using a **USB Type-C cable**
2. Power ON the device
3. Launch your DAW or instrument software
4. Open the MIDI settings in your DAW
5. Select **AirMotion Plus** as a **MIDI Input device**

No driver or additional software is required.

Once connected, AirMotion Plus will appear automatically and can be used like any standard MIDI controller.

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## 10. MIDI Page – Configuration & Presets

### 10.1 MIDI Channel & CC Assignment

From the MIDI Page:

- Select a **MIDI Channel**
- Assign **MIDI CC numbers** for:
  - Breath sensor
  - Tilt (Up / Down head motion)
  - Roll (Left / Right head motion)

⚠ Critical: MIDI Channel and CC numbers **must match** your DAW or VST settings.

**Example:** - If your VST expects **Expression = CC11**, AirMotion must also send **CC11** - If CC or channel does not match, no expression will be heard

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### 10.2 Pitch Bend Control via Head Motion

AirMotion Plus can control **Pitch Bend** using head motion.

**Steps:**

1. Go to the **MIDI Page**
2. Enable **Pitch Bend Mode**

This allows realistic bends similar to wind instruments, strings, or guitar.

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### 10.3 Preset Management

Presets store **all MIDI, breath, and motion settings**.

**Why presets are useful:** - One preset per DAW - One preset per VST or instrument - Quick switching during sessions or live performance

**Saving a preset:**

1. Configure MIDI and sensor settings

2. Tap **Save Preset**
  3. Name your preset
- 

## 11. Settings Page – Calibration & Expression

### 11.1 Breath Sensor Settings

- **Sensitivity:**
    - Higher value → more resistance → stronger airflow needed
    - Lower value → more responsive → lighter breath
  - **Breath Style:** Soft / Medium / Hard
  - **Offset:** Sets the breath starting threshold
- 

### 11.2 Curve Styles – How to Choose the Right One

Curve styles define how physical input is translated into MIDI output.

- **Linear:**
  - 1:1 response
  - Best for beginners and predictable control
- **Exponential:**
  - Soft response at start, strong at end
  - Ideal for crescendos and filter sweeps
- **Logarithmic:**
  - Strong response early
  - Great for fast attacks and expressive phrasing
- **Inverse:**
  - Reversed response behavior
  - Creative and experimental use
- **Sigmoid:**
  - Smooth S-curve
  - Very natural and musical feeling
- **Piecewise:**
  - Different response zones
  - Precise control in specific ranges
- **Cubic:**
  - Smooth but expressive
  - Works well for lead instruments
- **Power:**

- Adjustable intensity curve
    - Advanced expression shaping
  - **Quadratic:**
    - Gentle curve
    - Smooth transitions
  - **Hyperbolic:**
    - Extreme response near limits
    - Sound design and special effects
- 

## 11.3 Motion Sensor Calibration

### *Center Calibration*

1. Hold your head in a **comfortable neutral position**
2. Tap **Calibrate Center**

This position becomes the **zero reference** for all head movements.

**Example:** - When your head is at this position, AirMotion sends MIDI value 0 (or center) - Any movement left, right, up, or down is calculated relative to this point

### *Tilt & Roll Range (Important)*

- **Higher value:**
  - Requires **larger head movement** to reach maximum MIDI value
  - Example: You must tilt your head close to **90°** to reach max
- **Lower value:**
  - Requires **smaller head movement** to reach maximum MIDI value
  - Example: You reach max at **40–50°**, useful for subtle playing

This allows you to adapt AirMotion to your comfort and playing style.

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### *Dead zone*

- Ignores small movements around center
  - Prevents unwanted modulation from micro-movements
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### *Timeout (Immobility Timer)*

- The time after which the MIDI CC output is automatically forced to 0 when no motion is detected
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## 11.4 Factory Reset

- Restores all parameters to default values
  - Useful if configuration becomes unstable or inconsistent
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## 12. Connecting AirMotion Plus to DAWs & VSTs

### *Important Note for macOS & iOS Users*

If you plan to use **AirMotion Plus** with a **MacBook, iPad, or iPhone** for music production, you **must install and use a BLE MIDI connection app**.

- Download **midimittr** from the **App Store**
- Launch the app
- Connect to your AirMotion device

 **Without midimittr app running, AirMotion will not function over BLE on macOS or iOS.**

### 12.1 Logic Plus (macOS Example)

1. Connect AirMotion Plus
  2. Open **Logic Plus**
  3. Go to **Logic Plus > Settings > MIDI > Inputs**
  4. Enable **AirMotion Plus**
  5. Load a Software Instrument
  6. Ensure the track MIDI Channel matches AirMotion
  7. Map CCs (e.g. CC11 Expression) if required
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### 12.2 Cubase (macOS / Windows Example)

1. Connect AirMotion Plus
  2. Open **Cubase**
  3. Go to **Studio > Studio Setup > MIDI Port Setup**
  4. Enable AirMotion Plus as MIDI Input
  5. Create an Instrument Track
  6. Match MIDI Channel with AirMotion
  7. Use MIDI Learn or CC mapping inside the VST
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### 12.3 Other Common Software

AirMotion Plus works with all MIDI-compatible software, including:

- Ableton Live (MIDI Preferences > Track & Remote ON)
  - FL Studio (MIDI Settings > Enable Controller)
  - Pro Tools (Setup > MIDI > Input Devices)
  - MainStage
  - Any VST / AU instrument supporting MIDI CC
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## 13. Firmware Update

### Method 1 – Wi-Fi Update via Mobile App (Recommended)

This method uses your Wi-Fi credentials to temporarily connect the **device to the internet** so it can download the firmware.

#### Steps:

1. Connect to AirMotion Plus from **Connectivity Page**
  2. Go to **Info Page > Firmware update**
  3. The app checks your current firmware version
  4. If outdated, you will be prompted to enter:
    - Wi-Fi SSID (network name)
    - Wi-Fi password
  5. The AirMotion device connects to the internet and downloads the firmware
  6. Wait until the update finishes
  7. **Restart the device** when prompted. To do this, Turn the device off, then turn it on again.
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### Method 2 – USB Update via Platform

Visit: **[firmware.papritech.com](http://firmware.papritech.com)**

1. Connect AirMotion Plus to your computer **via USB**
2. Launch the firmware update platform
3. Use a tool to **press and hold the update button**



4. While holding the update button, power ON the device
  5. Green LED **does NOT blink** → Device is in update mode
  6. Release the update button
  7. Click **Update Device** on firmware update platform
  8. Choose **Update via USB JTAG**
  9. Click **Connect** and wait until completion
  10. Restart the device
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## 14. Cleaning & Maintenance

- Use a **soft, dry cloth** for the device body
- Do not use water, alcohol, or solvents

**Breath airflow hole:** - Ensure the airflow opening is always clean - Do not insert sharp objects - If needed, gently use a soft small brush.

proper cleaning ensures accurate breath sensing.

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## 15. Warranty

AirMotion Plus comes with a **1-year limited warranty** from the date of purchase.

The warranty covers: - Manufacturing defects - Hardware malfunctions under normal use

The warranty does **not** cover: - Physical damage - Liquid damage - Unauthorized modifications - Improper usage

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## 16. Support & Contact

If you need help or have questions:

- Website: **[papritech.com/contact](https://papritech.com/contact)**
  - Email: **[contact@papritech.com](mailto:contact@papritech.com)**
  - WhatsApp: **+44 7466 258715**
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## 17. Conclusion

Correct calibration, matching MIDI settings, and proper presets will unlock the full expressive power of AirMotion Plus.

Enjoy your music.

— Papritech Team