PAPRITECH

AirMotion Lite User Manual

USB MIDI Breath and Motion Controller

Contents

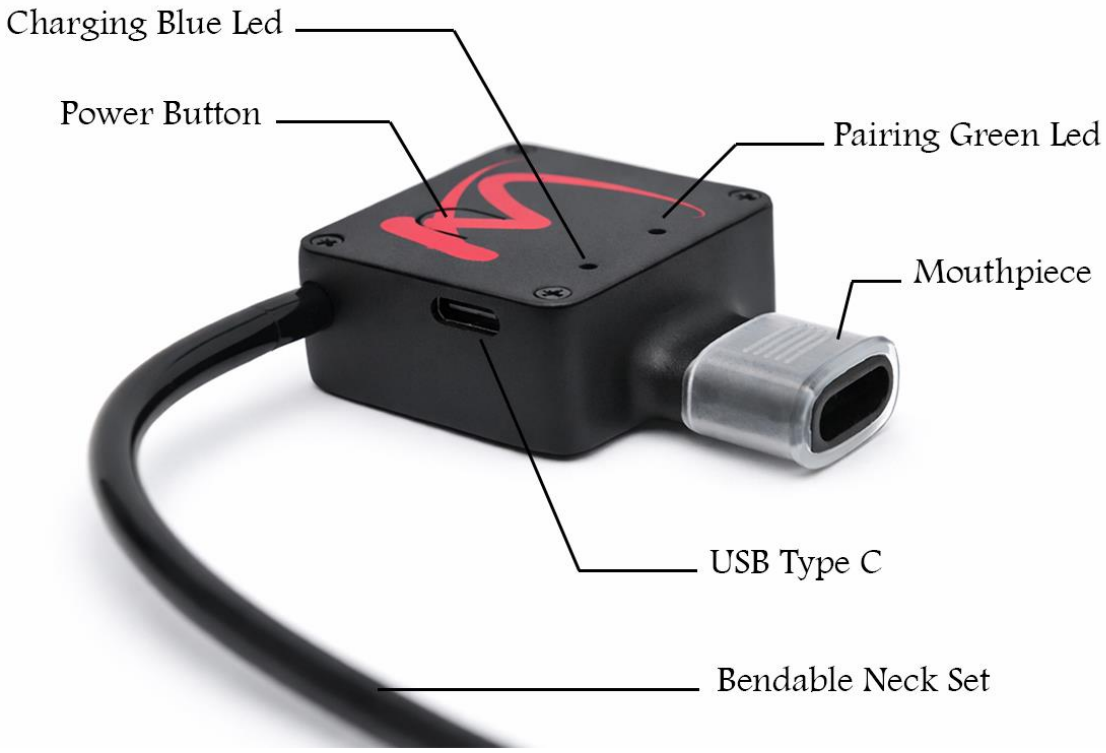
1. Introduction

Thank you for choosing **AirMotion Lite**, USB MIDI breath and motion controller designed to deliver natural, expressive control for musicians, producers, and performers.

AirMotion Lite converts **breath pressure** and **head motion** into MIDI data, allowing control of dynamics, filters, modulation, expression, and pitch bend.

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 Lite device
- Mouthpiece

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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 Lite.

Steps:

1. Connect the supplied **USB Type-C cable** to AirMotion Lite
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.

5.2 Powering ON / OFF the Device

AirMotion Lite is available in **two 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

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6. Mechanical Airflow Adjuster

AirMotion Lite 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 Lite will NOT connect**.

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

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9. Connectivity – Connecting AirMotion Lite

AirMotion Lite connect as a standard **USB MIDI device**.

Recommended for:

- Studio setups
- Users who prefer a wired connection

Steps:

1. Connect AirMotion Lite 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 Lite** as a **MIDI Input device**

No driver or additional software is required.

Once connected, AirMotion Lite 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 Lite 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.

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

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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.

Dead zone

- Ignores small movements around center
- Prevents unwanted modulation from micro-movements

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 Lite to DAWs & VSTs

12.1 Logic Pro (macOS Example)

1. Connect AirMotion Lite
2. Open **Logic Pro**
3. Go to **Logic Pro > Settings > MIDI > Inputs**
4. Enable **AirMotion Lite**
5. Load a Software Instrument
6. Ensure the track MIDI Channel matches AirMotion
7. Map CCs (e.g. CC11 Expression) if required

12.2 Cubase (macOS / Windows Example)

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

12.3 Other Common Software

AirMotion Lite 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.

Updating AirMotion Lite:

Steps:

1. Connect to AirMotion Lite 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.

Method 2 – USB Update via Platform

Visit: **firmware.papritech.com**

Updating AirMotion Lite:

1. Connect AirMotion Lite 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

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.

15. Warranty

AirMotion Lite 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**
- Email: **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 Lite.

Enjoy your music.

— Papritech Team