

Mammotion LUBA 2 AWD

LUBA 2 AWD 3000 Robot Lawn Mower Instruction Manual

Brand: Mammotion

Model: LUBA 2 AWD

PRODUCT OVERVIEW

The Mammotion LUBA 2 AWD 3000 is a state-of-the-art robotic lawnmower designed for efficient and autonomous lawn care. It eliminates the need for perimeter wires, utilizing advanced navigation and mapping technologies to manage your lawn with precision. This manual will guide you through the features and functionalities of your LUBA 2 AWD 3000.

- **Perimeter Wire-Free Setup:** Utilizes RTK-GNSS and Multi-Sensor Navigation for virtual boundaries.
- **Advanced Navigation:** Features 3D Vision & RTK Fusion-Mapping System for precise positioning and obstacle avoidance.
- **All-Wheel Drive:** Capable of handling slopes up to 80% (38-degrees) and navigating rough terrain.
- **Smart Control:** APP and voice control (Amazon Alexa, Google Home) for customizing mowing settings, schedules, and monitoring progress.
- **Multi-Zone Management:** Define multiple mowing zones with different cutting heights and schedules.
- **Theft Protection:** Equipped with GPS and 4G tracking, plus a built-in alarm system.
- **Efficient Cutting:** Dual cutting discs provide a 15.7-inch cutting width for higher efficiency.

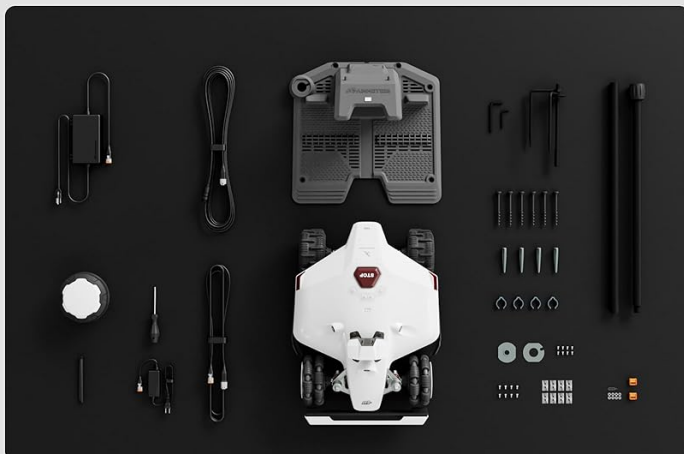


The Mammotion LUBA 2 AWD 3000 Robot Lawn Mower, a white robotic device with omni-directional wheels and a red stop button on top.

SETUP AND INSTALLATION

Setting up your LUBA 2 AWD 3000 is designed to be straightforward and wire-free, typically taking around 18 minutes. The system relies on advanced RTK-GNSS and a Multi-Sensor Navigation System for precise positioning and virtual boundary mapping.

What's in the Box



What's in the Box

- Quick Start Guide
- LUBA 2 AWD
- Power Supply
- Extra One Set of Blade
- Security Keyinstallation Kits
- Charging Station
- RTK Reference Station
- RTK Extension Cable (10m)
- RTK Power Supply
- RTK Ground Mount

An overhead view of all components included in the LUBA 2 AWD 3000 package, including the mower,

charging station, RTK reference station, and various cables and accessories.

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Initial Setup Steps

1. **Install the Vision Module:** Securely connect and attach the vision module to the LUBA using the provided screws and a 2.5mm hex screwdriver. Ensure black wires connect to black and white to white.



A diagram illustrating the two steps for installing the vision module: connecting the wires and then attaching the module with screws.

2. **Place the RTK Reference Station:** Position the RTK reference station in an open area with a clear view of the sky to ensure optimal satellite signal reception.
3. **Charge the LUBA:** Place the LUBA on its charging station and allow it to fully charge before first use.
4. **Download the Mammotion App:** Install the Mammotion app on your smartphone. This app is essential for mapping your lawn and controlling the mower.
5. **Map Your Lawn:** Use the app to drive the LUBA like a remote control car to set virtual boundaries for your mowing areas. The 3D Vision & RTK Fusion-mapping System ensures precise positioning and boundary compliance without physical wiring.

3D Vision + RTK Fusion-mapping System

18mins to Setup with No Perimeter Wire

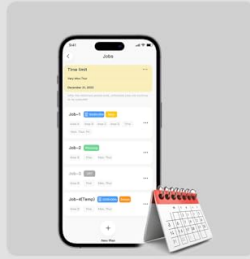


An illustration showing the LUBA 2 AWD 3000 on a lawn, receiving signals from multiple satellites and an RTK reference station, highlighting its 3D Vision + RTK Fusion-mapping System for wire-free setup.

Experience Hassle-free Lawn Care Even When You're on Holiday



Adjust Cutting Height



Set Mowing Schedule



Choose Mowing Modes



Check Mower Status

A split image showing a person remotely controlling the LUBA mower to define virtual boundaries on the left, and a mapped lawn with planned mowing routes on the right, illustrating the wire-free setup and optimized cutting paths.

6. **Define Multi-Zones and No-Go Zones:** Within the app, you can set up multiple mowing zones with varying cutting heights (25-70mm) and schedules. You can also designate 'no-go zones' for areas the mower should avoid.

When Others Get Stuck, LUBA Prevails



Steep Slopes



Potholes



Rough Terrain



Tall and Thick Grass



All-Wheel-Drive System



Adaptive Suspension Arm



Omni-Wheel

A split image demonstrating multi-zone management on the left, showing a property divided into different mowing zones (A, B, C, D) with varying cutting heights, and no-go zone management on the right, indicating an area around a pool that the mower will strictly avoid.

OPERATION GUIDE

The LUBA 2 AWD 3000 offers flexible operation through its dedicated app and voice control integration, allowing you to manage your lawn from anywhere.

Using the Mammotion App

The Mammotion app provides comprehensive control over your LUBA, enabling you to:

- **Adjust Cutting Height:** Customize the cutting height from 1.0 to 2.7 inches to suit your lawn's needs.

We Cover All Grasses Height Range.

Cool-season Grass: 2½-4 inches
Warm-season Grass: 1-3 inches



An image showing a smartphone screen displaying the cutting height adjustment interface, with a visual representation of grass height and a dial to set the desired cut, alongside a graphic indicating 'Long Endurance' for 3 hours of operation.

- **Set Mowing Schedule:** Create custom mowing schedules for different zones and times.
- **Choose Mowing Modes:** Select from various mowing modes for optimal performance.
- **Check Mower Status:** Monitor the mowing progress and location of your LUBA in real-time.

Creative Lawn Art

In the Mammotion APP you can choose different mowing patterns and create custom designs. LUBA uses advanced algorithms to adjust the mowing route cutting height and angle, ensuring precise mowing of desired lawn patterns.

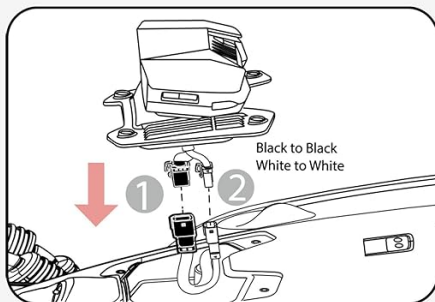


Four smartphone screens demonstrating the app's features: adjusting cutting height, setting a mowing schedule, choosing mowing modes, and checking the mower's status, all designed for hassle-free lawn care.

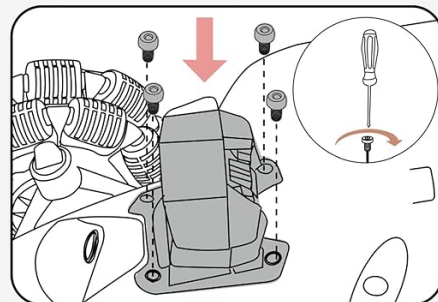
Voice Control

Integrate your LUBA 2 AWD 3000 with Amazon Alexa or Google Home for convenient voice commands, allowing you to initiate mowing tasks with simple spoken instructions.

Installing the vision module



Connect the vision module wires (black to black and white to white)



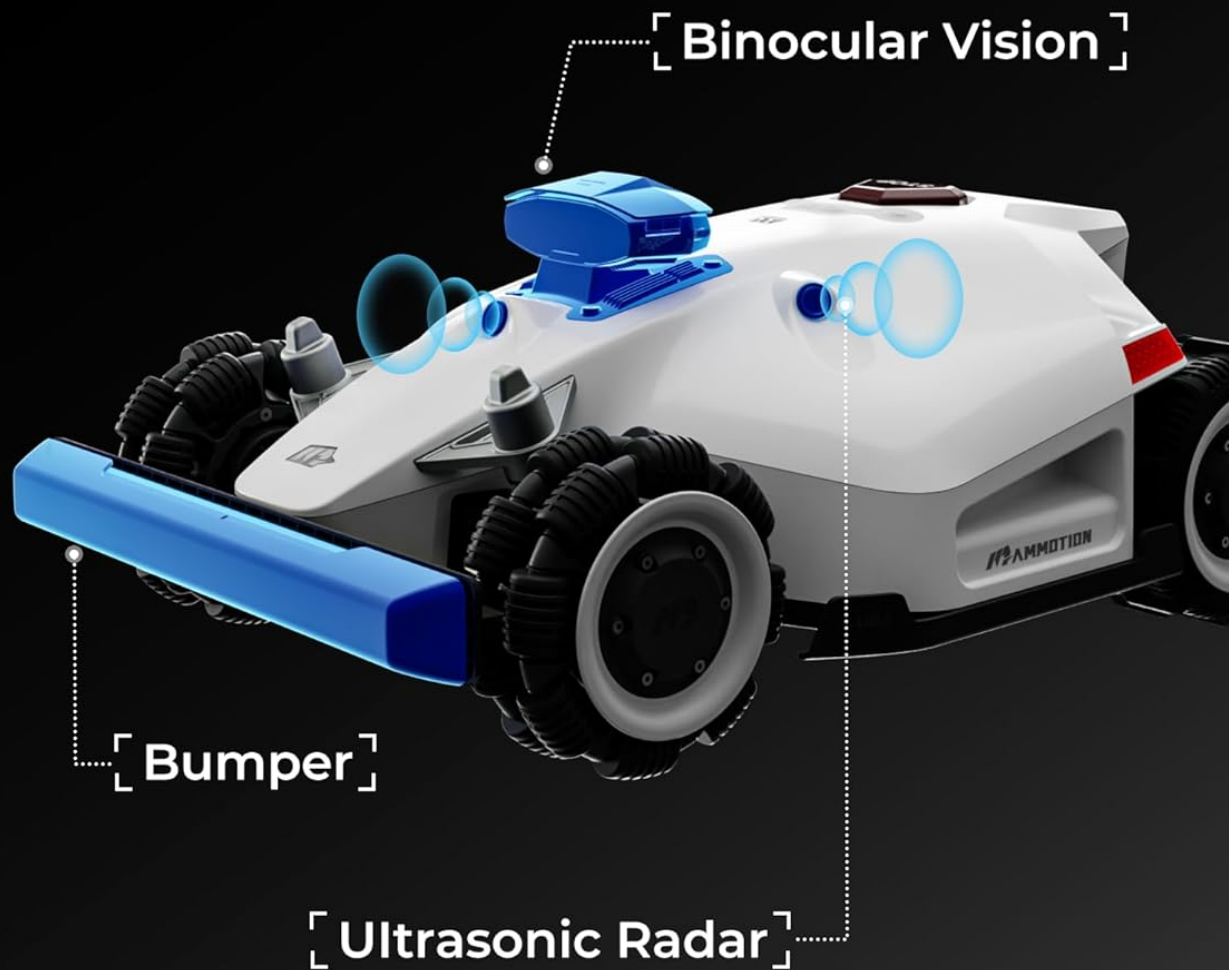
Attach the vision module to the Luba using the four screws and tighten them with a 2.5mm hex screwdriver

A man sitting in a chair on a lawn, using his smartphone to control the LUBA 2 AWD 3000, with an Alexa or Google Home smart speaker on a table beside him, illustrating the voice control capability.

Obstacle Avoidance and Terrain Handling

The LUBA 2 AWD 3000 is equipped with a triple-redundant obstacle avoidance system, combining binocular vision, ultrasonic radar, and a bumper to detect and navigate around objects. Its all-wheel drive system allows it to traverse challenging terrain, including steep slopes, potholes, rough ground, and tall grass.

Triple-reductant Obstacle Avoidance



*A diagram highlighting the three components of the LUBA 2 AWD 3000's obstacle avoidance system:
Binocular Vision, Ultrasonic Radar, and a physical Bumper.*

66% Higher Efficiency than the Second-best

Cutting Width 15.70"



LUBA 2: Dual Cutting Discs

Others: Single Cutting Disc

The LUBA 2 AWD 3000 robot mower navigating a steep grassy slope, with inset images showing its capability on steep slopes, potholes, rough terrain, and tall/thick grass, emphasizing its all-wheel drive system.

Smart Yard Security

The LUBA 2 AWD 3000 includes features for real-time monitoring and theft protection, providing peace of mind.

When Others Get Stuck, LUBA Prevails

All-Wheel Drive for 80% Slope (38.6°)



Steep Slope



Patholes



Rough Terrain



Tall and
Thick Grass



An image showing the LUBA 2 AWD 3000 in a backyard setting, with a smartphone displaying real-time monitoring. Below are icons representing AirTag Compatibility, Ownership Authentication, Geofence Alarm, App Notification, and GPS Tracking for enhanced security.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your LUBA 2 AWD 3000. While specific maintenance schedules are detailed in the full user manual (PDF), general practices include:

- **Blade Inspection and Replacement:** Regularly check the cutting blades for sharpness and damage. Replace them as needed to maintain cutting efficiency. An extra set of blades is included with your purchase.
- **Cleaning:** Keep the mower's body, wheels, and cutting deck free from grass clippings, dirt, and debris. Use a soft brush or cloth.
- **Sensor Cleaning:** Ensure the vision module and ultrasonic radar sensors are clean and unobstructed for accurate navigation and obstacle detection.
- **Charging Contacts:** Periodically clean the charging contacts on both the mower and the charging station to ensure a reliable connection.
- **Software Updates:** Keep the Mammotion app and your LUBA's firmware updated to benefit from the latest features and improvements.

TROUBLESHOOTING

If you encounter issues with your LUBA 2 AWD 3000, consider the following common troubleshooting steps. For more detailed solutions, refer to the Mammotion app's support section or the comprehensive user manual.

- **Mower Not Moving/Stuck:** Check for physical obstructions around the mower or in its path. Ensure the battery is charged and the mower is within its defined mowing zone.
- **Poor Navigation/Mapping Issues:** Verify that the RTK reference station has a clear view of the sky and is properly connected. Ensure there are no new obstructions blocking satellite signals. Check for strong Wi-Fi or 4G signal in the mowing area.
- **Uneven Cutting:** Inspect the cutting blades for damage or dullness and replace if necessary. Ensure the cutting height setting is appropriate for your grass type and condition.
- **App Connectivity Problems:** Ensure your smartphone has a stable internet connection and Bluetooth is enabled. Restart the app and the mower if necessary.
- **Error Messages:** Consult the Mammotion app for specific error code explanations and recommended actions.

TECHNICAL SPECIFICATIONS

Feature	Specification
Brand	Mammotion
Model Number	LUBA 2 AWD
Power Source	Battery Powered

Feature	Specification
Material	Plastic
Color	White
Item Weight	38.9 Pounds
Cutting Width	15.7 Inches
Cut Height Style	1.0"-2.7"
Number of Positions	5
Operation Mode	Automatic
Product Dimensions	27.17"D x 20.2"W x 10.75"H
Batteries	24 Lithium Ion batteries required (included)
Max Slope Capability	80% / 38-degrees
Max Mowing Area	0.75 acre

WARRANTY AND SUPPORT

Mammotion is committed to providing excellent customer service and support for your LUBA 2 AWD 3000. For detailed warranty information, please refer to the official Mammotion website or the documentation included with your product.

Support Resources:

- **User Manual (PDF):** A comprehensive user manual is available for download. [Download User Manual](#)
- **Mammotion App:** The app offers live chat support and access to installation questions and troubleshooting tips.
- **Email Support:** Contact Mammotion customer service via email for assistance.
- **Tutorial Videos:** Access helpful tutorial videos on YouTube for visual guidance.



An image illustrating Mammotion's support options: Email us, Live Chat on Mammotion App, and Tutorial videos on YouTube.