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› Redkey MGC1000 Robot Lawn Mower User Manual

Redkey MGC1000

Redkey MGC1000 Robot Lawn Mower User Manual

Model: MGC1000

PRODUCT OVERVIEW

The Redkey MGC1000 Robot Lawn Mower is an advanced automatic robotic lawn mower designed for efficient and precise lawn care. It features industry-first C-ToF navigation technology for inch-level accuracy, intelligent path planning, and cross-cutting patterns, delivering up to 3X faster coverage compared to traditional robotic mowers. The wired boundary system ensures stable signal transmission, allowing for reliable operation even in complex terrains and rainy conditions.

Key features include a powerful motor capable of conquering 45% steep slopes, a smart cutting deck with app-adjustable height (1.2-2.8 inches) that auto-detects grass density, and real-time mapping with live progress tracking via the companion app. The mower automatically returns to its charging station when the battery is low or during rain, ensuring continuous and safe operation.



Image: The Redkey MGC1000 Robot Lawn Mower with its charging station and a smartphone displaying the control app.

SETUP AND INSTALLATION

Proper installation of your Redkey MGC1000 is crucial for optimal performance. This section guides you through setting up the charging station and laying the boundary wire.

Unboxing and Components

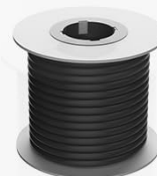
Before you begin, ensure all components are present. The package includes the main mower unit, charging station, low-voltage cable, boundary wire, ground pegs, screws, wire connectors, a measuring ruler, and the user manual.



Power supply unit*1



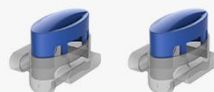
Low-voltage cable*1 (10m)



Boundary wire*1 (120m)



Docking station*1 and Screws*4、Nails*2



Wire connector*2



Extra blades*6



Screws*6



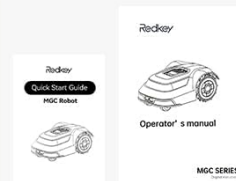
Ruler*1



Pegs*160



Wire connector*1



User Manual*1

Image: All accessories included with the Redkey MGC1000 Robot Lawn Mower, including the main unit, charging station, boundary wire, pegs, and tools.

Charging Station Placement

Place the charging station on a horizontal surface, ensuring it is not at a corner and has a minimum of 1.5 meters of clear space in front and behind it. Position it near a power source. The charging station has two parts: the left part should be within the mowing area, and the right part outside the boundary.

Boundary Wire Installation

Thread the boundary wire through the cable duct on the charging station. The wires should be straight and close to the ground, and can be buried up to 4 cm underground. Space the pegs approximately 75cm apart to secure the wire. When making turns, ensure the angle is between 90-180 degrees to prevent the mower from cutting the wire. Position the boundary wire 10cm away from roads and 35cm away from obstacles higher than 5cm. For obstacles 1-5cm high, position the wire 30cm away.

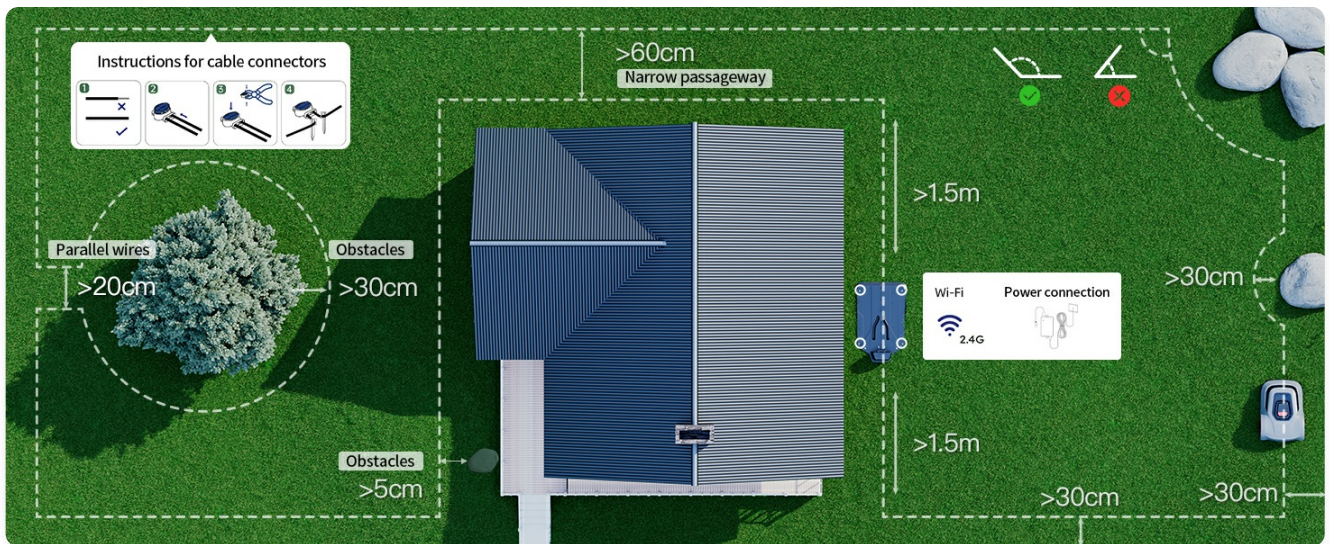


Image: A detailed diagram illustrating the recommended distances for boundary wire placement around various obstacles and edges.

Installation Video Guide

For a visual step-by-step guide on the installation process, please refer to the official installation video below.

Video: Official Redkey MGC1000 Lawn Mower Installation Guide. This video demonstrates the complete setup process, including charging station placement, boundary wire laying, and initial power-up.

OPERATING INSTRUCTIONS

The Redkey MGC1000 is designed for intelligent and autonomous operation. Understand its core functionalities to maximize its efficiency.

C-ToF Navigation and Path Planning

The mower utilizes industry-first C-ToF navigation technology for inch-level precision in positioning and mapping. It employs intelligent path planning combined with cross-cutting patterns to achieve highly efficient mowing, covering up to 100 m²/h.

Redkey MGC1000

C-TOF (the industry's first internationally patented technology)

Decimeter-level navigation accuracy Combined with horizontal and vertical cutting methods, the detection rate can reach 99.7%,

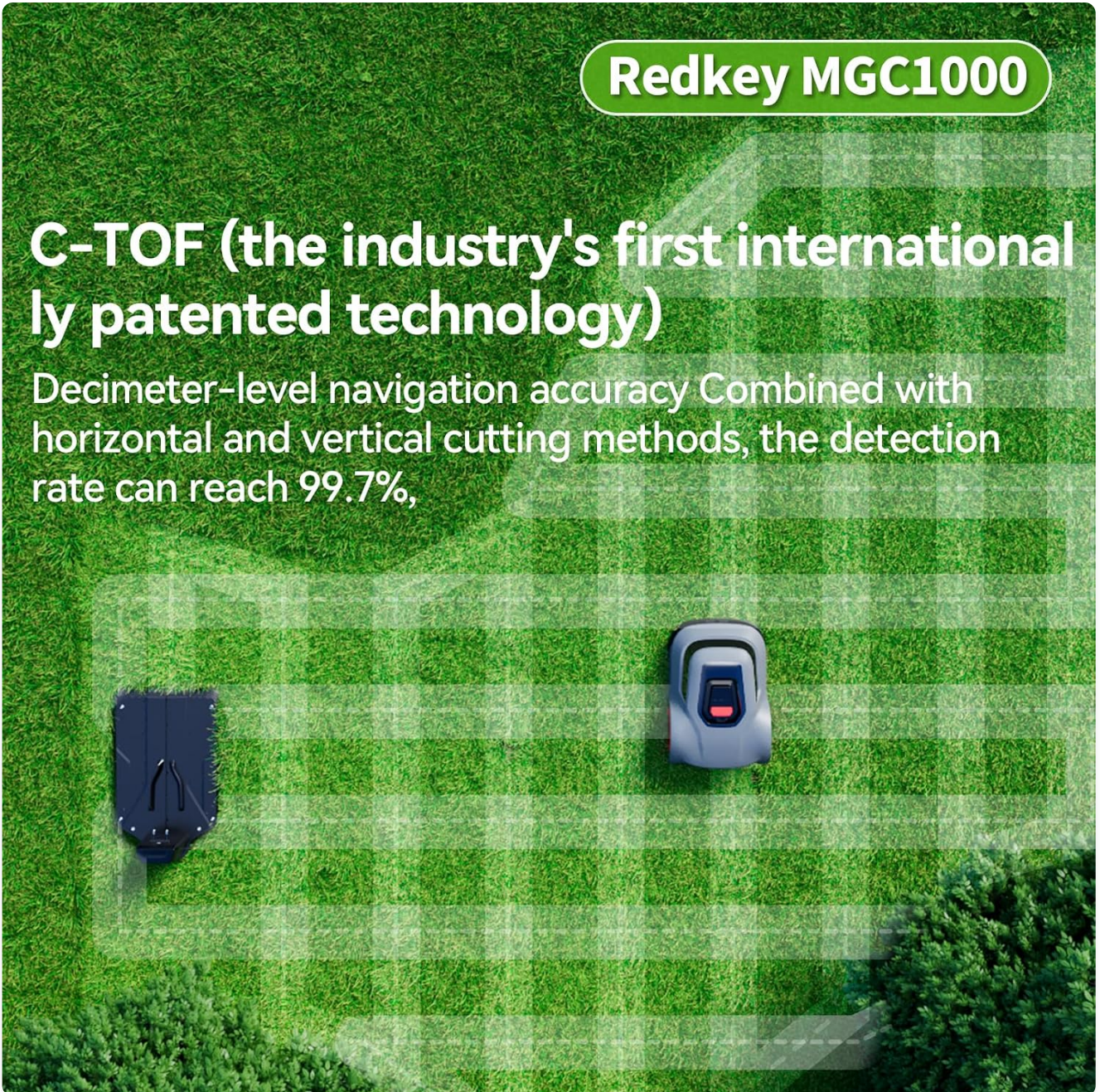


Image: Illustration of the Redkey MGC1000's C-ToF technology, showing precise navigation and efficient mowing patterns.

Automatic Cutting Height Adjustment

The MGC1000 features a smart cutting deck that automatically adjusts cutting height (1.2-2.8 inches) via the app. It can detect thick or tall grass and adjust blade speed to prevent jams, ensuring a smooth and uninterrupted cut.

Auto-Adjust Cutting Height

Adapts to different grass types automatically via app –
no manual adjustment needed.



Image: The Redkey MGC1000 demonstrating its auto-adjust cutting height feature, controlled via the mobile application.

Real-Time Mapping and Scheduling

Monitor the mower's location and live progress tracking directly from the app. You can schedule custom mowing sessions based on your lawn's growth patterns and needs.

Real-time Display of Mowing Status in APP

Making lawn mowing robots easier to control



Image: A smartphone screen showing the Redkey MGC1000's real-time mapping and mowing status within the application.

Operational Overview Videos

These videos provide a comprehensive look at the Redkey MGC1000 in action, demonstrating its various operational features and capabilities.

Video: A detailed overview of the MGC1000 Lawn Mower's features and performance in various lawn conditions.

Video: A concise demonstration of the Redkey MGC1000 Lawn Mower's key functionalities and ease of use.

MAINTENANCE

Regular maintenance ensures the longevity and optimal performance of your Redkey MGC1000 Robot Lawn Mower.

Cleaning the Mower

The Redkey MGC1000 is designed with IPX6 waterproofing, allowing it to be directly rinsed with a water pipe for

easy cleaning. Regularly remove grass clippings and debris from the cutting deck and wheels to prevent buildup and ensure smooth operation.

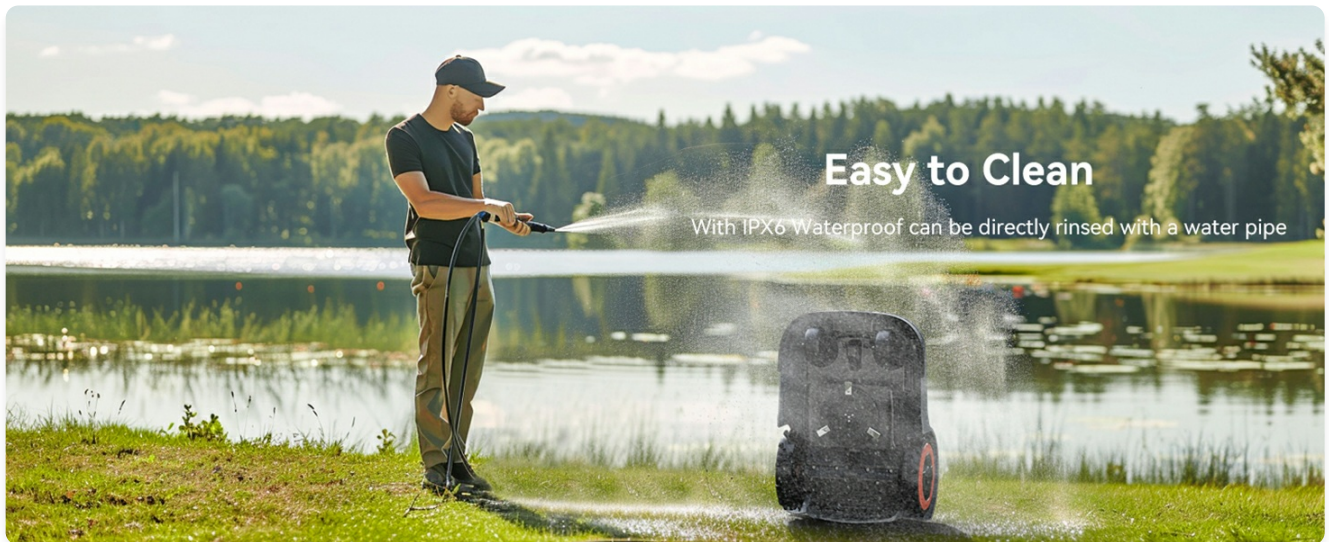


Image: A person cleaning the Redkey MGC1000 Robot Lawn Mower with a water hose, highlighting its IPX6 waterproof rating.

Blade Inspection and Replacement

Periodically inspect the cutting blades for sharpness and damage. Dull or damaged blades can affect cutting quality and mower efficiency. Replace blades as needed following the instructions in the full user guide.

TROUBLESHOOTING

If you encounter issues with your Redkey MGC1000, refer to the common troubleshooting steps and video guides below.

Error Code E611: No Boundary Wire

This error indicates that the mower is not detecting the boundary wire. Ensure the boundary wires are correctly laid and connected to the charging station. Check for any disconnections or breaks in the wire.

Video: Troubleshooting guide for E611 error, demonstrating how to correctly connect boundary wires.

Error Code E310: Mower Not Started on Dock or Boundary Wire

This error occurs if the mower is not properly placed on the docking station or within the boundary wire when attempting to start. Relocate the mower to the correct position, then press the STOP button to clear the error code. Press MOW + ON/OFF to start mowing.

Video: Troubleshooting guide for E310 error, showing how to correctly relocate the mower and restart it.

Error Code E604: Boundary Wire Break

If the boundary wire is accidentally broken, the mower will display an E604 error. The R-Home APP will show the exact location of the wire breakage, making it easy to find and fix. Use wire connectors to repair the broken section.

Precise Display of the Border Breakpoints in the APP



Image: The Redkey MGC1000 app displaying the precise location of a boundary wire break for easy repair.

Video: Troubleshooting guide for E604 error, demonstrating how to locate and repair a broken boundary wire.

SPECIFICATIONS

Feature	Specification
Brand	Redkey
Model Number	MGC1000
Power Source	Battery Powered
Material	Aluminum
Item Weight	10.9 Kilograms (24 pounds)

Cutting Width	23.6 Inches
Adjustable Cutting Height	1.18 - 2.76 Inches
Operation Mode	Automatic
Product Dimensions	4.9"D x 16.5"W x 4.9"H
Maximum Slope	45% (24°)
Noise Level	< 57dB
Battery Runtime	70 Minutes
Waterproof Level	IPX6

WARRANTY AND SUPPORT

Redkey provides professional support for your MGC1000 Robot Lawn Mower.

Warranty Coverage

The Redkey MGC1000 comes with a 2-year coverage plan. For detailed terms and conditions, please refer to your purchase documentation or contact customer service.

Customer Support

For any inquiries, technical assistance, or troubleshooting beyond this manual, Redkey offers 24/7 customer service. You can also find quick-start guides and video tutorials on the official Redkey support channels.

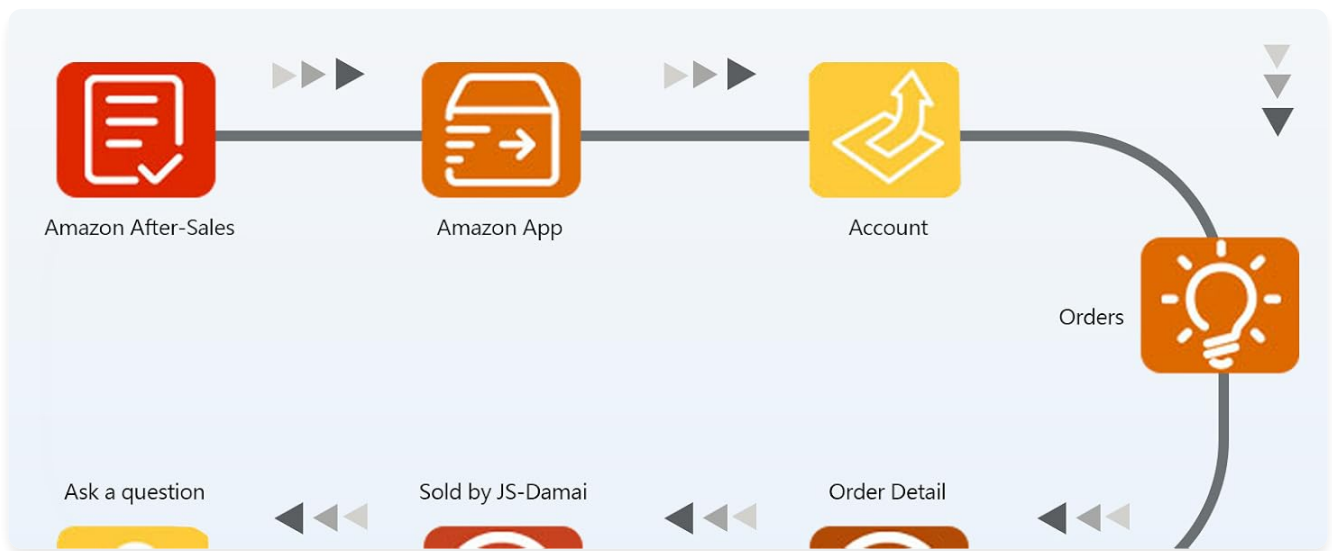


Image: Information regarding Redkey's 2-year warranty, 24/7 message reply, email support, and troubleshooting guides.

Protection Plans

Additional protection plans are available for extended coverage:

- **2-Year Protection Plan:** Available for \$47.99 (one-time payment).
- **3-Year Protection Plan:** Available for \$60.99 (one-time payment).
- **Complete Protect:** A monthly plan covering all eligible past and future purchases for \$16.99/month.

