

COBRA
MOWBOT
800X-RTK

User Manual



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1. MowBot 800X-RTK Overview

1.1 Introduction

The packaging box contains a lawn mower, a charging station, and a satellite receiver base station. The lawnmower is equipped with an advanced AI visual recognition system that can autonomously mapping, automatically planning the working area, transition between areas, avoiding obstacles without contact, provide voice reminder, and automatically return to charge without any human setup. You can control it via the app, and it starts working with just a single click.

APP Download

Search 'CobraMowBot' in the Apple AppStore or the Google Play Store to download the app.

Official Website: www.cobragarden.co.uk

After-sales Service: <https://cobragarden.co.uk>

Phone: 0115 986 2161

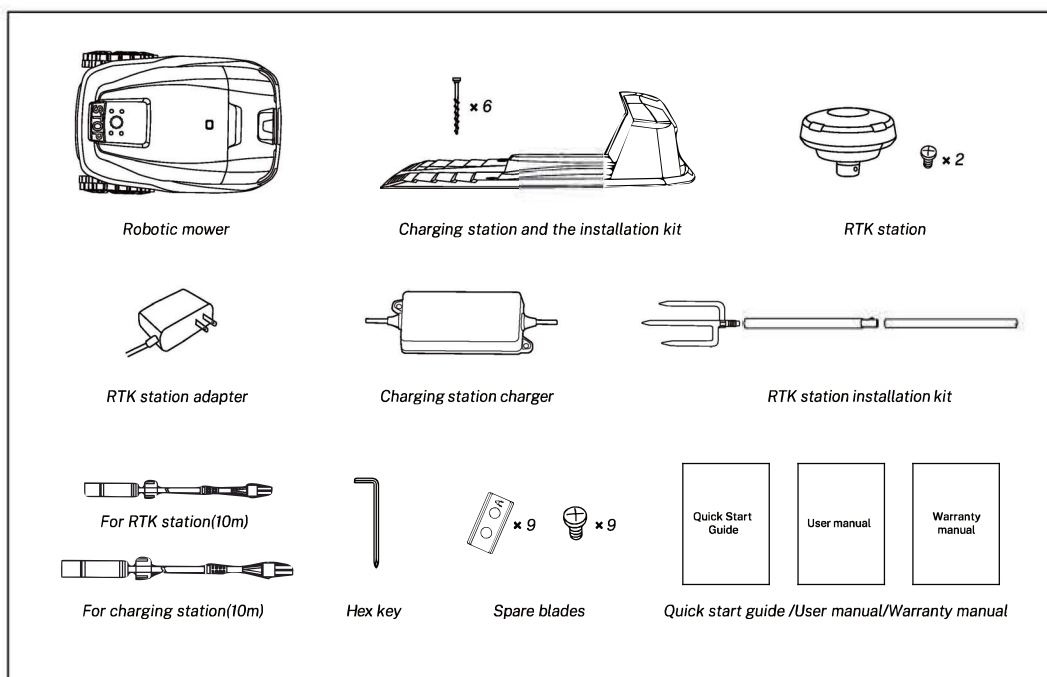
Email: info@cobragarden.co.uk



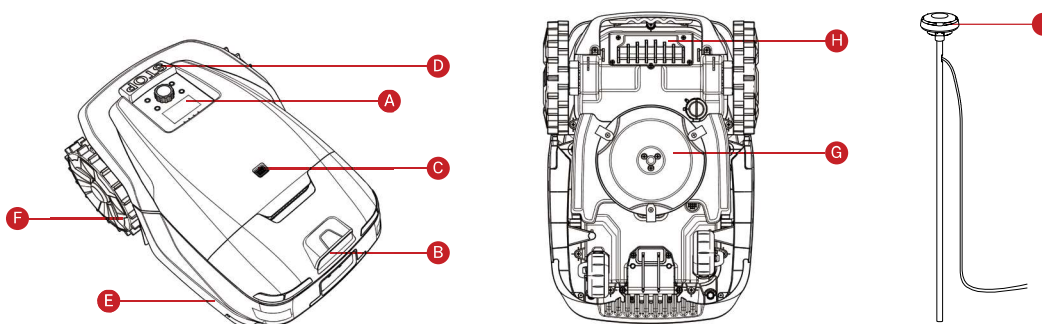
1.2 Box Contents

⚠ WARNING: Read all safety warnings and all instructions.

Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save all warnings and instructions for future reference.



1.3 Parts and Functions



- A. Control Panel:** To turn the mower's power on and off, to command the mower to work or return.
- B. TOF Camera:** The AI-assisted camera helps the mower to detect and avoid obstacles.
- C. Rain Sensor:** To detect rain and the mower can return to the charging station automatically.
- D. Stop Button:** Emergency stop button to stop the mower in case of any urgent situation.
- E. Collision Bumper:** When visual positioning is not available, the bumper can ensure the mower's normal operation and avoid obstacles.
- F. Drive Wheels:** Power output for movement with excellent off-road capabilities.
- G. Rotating Cutting Plate:** Device for trimming the lawn when the mower is operating.
- H. Battery Compartment** The storage for the battery.
- I. RTK Positioning Antenna:** Interactive positioning device for the RTK station, the mower and satellites.

1.4 Symbols

1.4.1 Symbols on the product



⚠ WARNING – robotic lawnmower can be dangerous if incorrectly used. Read through the Operator's manual carefully and understand the content before using your robotic lawnmower.



⚠ WARNING – Do not ride on the machine.



⚠ WARNING - Keep a safe distance from the machine when operating.



⚠ WARNING – Operate the disabling device before working on or lifting the machine.

1.4.2 Symbols on the battery



Do not discard the battery into fire and do not expose the battery to a heat source.



Do not immerse the battery into water.



Direct current.



This product conforms to the applicable EC Directives.



Li-ion battery. This product has been marked with a symbol relating to 'separate collection' for all battery packs and battery pack. It will then be recycled or dismantled in order to reduce the impact on the environment. Battery packs can be hazardous for the environment and for human health since they contain hazardous substances.



1.4.3 Symbols on the power supply



This product conforms to the applicable EC Directives.



Before charging, read the instructions.



Double insulation.



Polarity of the charging port.



Waste electrical products must not be disposed of with household waste. Please recycle where facilities exist. Check with your local authorities or retailer for recycling advice.

1.4.4 Symbols on the display



Power: Power switch. Long press for 3 seconds to turn on/off.



OK: Rotate to enter the settings menu and select an item. Press the OK button to confirm selection"



Start: Enter the settings interface.



STOP: Emergency stop.



Home: Return to the main menu.



The battery is charging.



Back: Return to the previous menu.



Battery level.

1.5 Product Specs

1.5.1 Technical specifications

Robotic Mower	
Rated voltage	18V
Walking speed	0.4m/s
Cutting diameter	240mm
Cutting height	25mm~65mm
Maximum slope within the work surface	45%
Battery type/model	Lithium-ion
Charger time	60min
Charger rating	Input: 100-240V~50/60Hz, 2.0A Output: 25V, 3.5A
Noise emission	Sound pressure level L_{pA} 44.11dB Sound power level L_{wA} 64.11dB Uncertainty K_{pA} & K_{wA} 3dB
Product weight	10kg
Waterproof	IPX6
APP	Y
Accessories	
RTK station	1
Installation kit	9
Blade	9
Charging station	1
Charging station charger	1
RTK station adapter	1
The extension cable(10m)	2
Charging station charger	
Charger Voltage	AC 100~240V, 50/60Hz, 2.0A
Output Voltage	21V/3A
Battery Type	Lithium-ion
RTK station adapter	
Charger Voltage	AC 100~240V, 50/60Hz, 2.0A
Output Voltage	12V/2A



Voltage measured at no load. Initial battery voltage reaches maximum of 21 volts. Nominal voltage is 18 volts.
For technical specifications regarding the rechargeable battery, refer to the battery pack label on the device body.

1.5.2 Device signal indicator lights

4G LED

Connected to the network	Green light on steadily
Disconnected from the network	Red light on steadily

RTK signal strength LED

Signal strong	Green light on steadily
Signal Medium	Green light flashing
Signal weak	Red light flashing

WiFi signal LED

Connected to the network	Green light on steadily
Disconnected from the network	Red light on steadily

Power LED

Charging	Green light flashing
Low battery	Red light flashing
Sufficient battery	Green light on steadily

1.5.3 RTK station LED

RTK signal strength LED

Signal strong	Green light on steadily
Signal Medium	Green light flashing
Signal weak	Red light flashing

LoRa signal reception

strength Good LoRa signal	Green light on steadily
Medium LoRa signal	Green light flashing
Weak LoRa signal	Red light flashing
Pairing with the network	Blue light flashing
Network pairing successful	Blue light on steadily

2. Safety Instructions

2.1 General Safety Instructions

Read all safety warnings and instructions carefully. Failure to follow the warnings and instructions may result in electric shock, fire, or other serious injury. Save all warnings and instructions for future reference.



WARNING: Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

This product is intended for lawn trimming only. Using the lawnmower for purposes other than grass cutting may result in serious injury or damage to property.

- Do not use the machine to pull or push other loads, or transport goods, children or animals.
- Do not use this machine to cut non-grass vegetation.
- Do not modify the lawnmower yourself. Modifications may interfere with its operation, cause damage, or void the limited warranty.
- For safety reasons, users should be adults.
- This product should not be used by individuals lacking physical, sensory, or mental capabilities, or those without the necessary experience and knowledge.
- The machine must be used strictly according to the instructions to ensure safety and prevent accidents.

Do not touch the metal end of the rain sensor while the machine is on, as this may cause the machine to be in an abnormal state.

2.2 Safety Instruction for Installation

Safe operating practices

Training

- a. Read the manual carefully and become familiar with the control equipment.
- b. Do not allow individuals who are unfamiliar with the operation or children to use the equipment.
- c. The operator or user is responsible for the personal safety of others and the security of their property in the vicinity.

Preparation

- a. Before use, remove all stones, sticks, wires, bones, and other debris from the working area.
- b. Regularly check for wear or damage on the blades, screws, or cables, and replace worn parts promptly to ensure safe use. (Be cautious when replacing blades, simply unscrew to replace)
- c. Do not use the equipment in severe weather, especially during thunderstorms, to avoid lightning strikes and damage to the robot.
- d. When using the equipment in public areas, place warning signs around the working area.

2.3 Safety Instruction for Daily Operation

- a. Do not operate the equipment with defective protective devices or without safety devices.
- b. Before turning on the power, ensure hands and feet are away from the rotating blades. Never place hands or feet under the lawnmower. Always stay clear of the blade rotating area.
- c. Do not use the equipment in the following circumstances:
 - When clearing blockages;
 - When cleaning or maintaining the equipment;
 - After hitting a foreign object, check the equipment for damage;
 - If the equipment vibrates abnormally, shut it down and check for damage before restarting.
- d. Do not modify or disassemble the lawnmower. Any risks arising from unauthorized modifications or disassembly are the sole responsibility of the user.
- e. Do not lift, carry, or transport the lawnmower while it is powered on.
- f. Do not place any objects on the lawnmower or its charging base.
- g. When not in use for a period of time, be sure to turn off the lawnmower's power.

2.4 Safety Instruction for Maintenance

- a. Set the product to OFF when you do maintenance on the product.
- b. Do not use a high-pressure washer to clean the product. Do not use solvents to clean the product.
- c. Disconnect the plug to the charging station before you clean or do maintenance of the charging station.

2.5 Battery Safety

- a. Lithium-ion batteries can explode or cause fire if disassembled, short-circuited, exposed to water, fire, or high temperatures. Handle carefully, do not dismantle, open the battery or use any type of electrical/mechanical abuse. Avoid storage in direct sunlight.
- b. Do not use a damaged battery. Dispose the battery if it is damaged.

2.6 Charging Safety

2.6.1 General warning

- a. Users who lack physical or mental cannot be responsible for their own actions should not use this device.
- b. Minors must use this device under adult supervision.
- c. If the power cord is damaged, it must be replaced by the manufacturer, its service agent, or a similarly qualified person to avoid danger.

2.6.2 Battery charging safety instructions

- a. Do not use an unspecified charger to charge the robotic mower.
- b. Do not charge a leaking battery or short-circuit the contacts of the battery or charger.
- c. Charge the battery in a well-ventilated area, away from flammable and explosive materials.
- d. Do not charge in damp places. Do not charge the robotic mower when the temperature is above 40°C-below 4°C.
- e. Ensure the charger matches the local AC power before charging.
- f. Ensure the correct connection between the charger and the battery, following the battery's "+/-" polarity.
- g. Supervise children to prevent them from getting electric shocks while charging.

2.6.3 Charger usage safety instructions

- a. Plug the charger directly into the power outlet. Do not disconnect the charger from the outlet by pulling the power cord.
- b. Do not use this charger with any unspecified products.
- c. Do not use a damaged charger. If damaged, replace the damaged power cord or charger at the place of purchase or with an authorized service provider.
- d. Keep the robotic mower and charger away from water, heat sources (such as radiators, heaters, stoves, etc.), flames, or chemicals. Be careful not to damage the charger's power cord, keeping it away from sharp or pointed objects.
- e. Keep the battery charger's slots free of foreign objects, and store it in a dry, frost-free place to prevent dirt and moisture.

3. Installation

3.1 Preparation

3.1.1 Prepare the APP

- For a successful setup, please make sure that you have downloaded the APP in the beginning. You can scan the QR code in the first chapter (refer to Introduction) to download the CobraMowBot APP. Alternatively, you can go to the Google Play Store (Android) or the Apple AppStore (iOS) and search for "CobraMowBot".
- Once you have installed the app, you need to register and log in. Please make sure to complete the registration process before logging in.

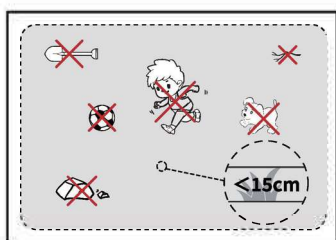
⚠ NOTE: When necessary, the app will request access to Bluetooth and Wi-Fi networking. To ensure proper setup and future functionality, it is recommended to grant all access to these features.

3.1.2 Prepare the lawn

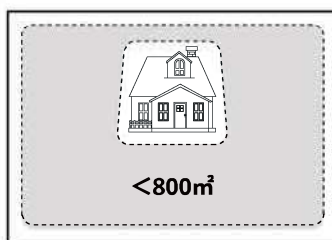
- Clear away any debris, piles of leaves, toys, wires, stones or other obstacles to ensure a perfect mowing experience.
- Keep your children and pets away from the lawn for the first installation.
- Keep your lawn to a height of under 7cm before using the mower.

3.1.3 Recommended lawn types

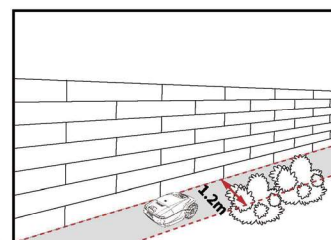
- No obstacles and the grass height is under 7cm.
- Total lawn size is under 800 m².
- Narrow lane between trees or walls should be wider than 1.2m.



3.1.3 (a)



3.1.3 (b)

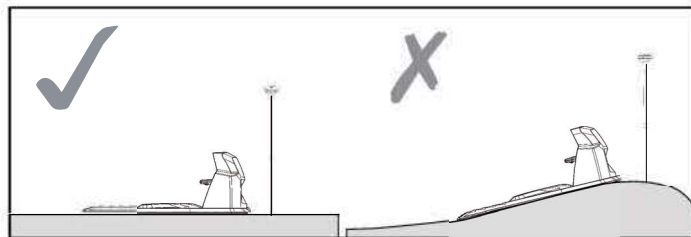


3.1.3 (c)

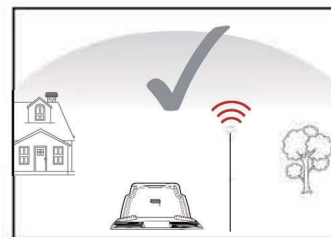
3.2 Install the Charging Station

3.2.1 Find a good location

- Please install the charging station on an open area with a flat ground.
- The location should be covered with your household Wi-Fi.



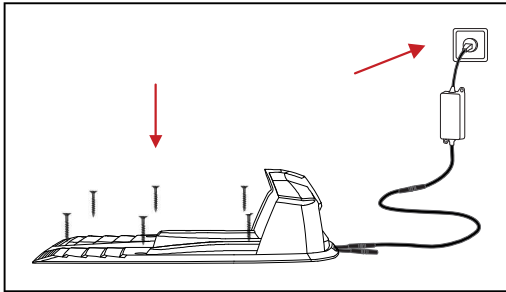
3.2.1 (a)



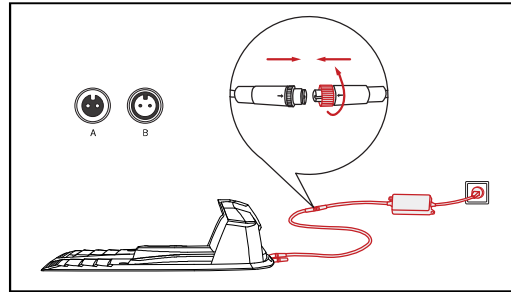
3.2.1 (b)

3.2.2 Install the charging station

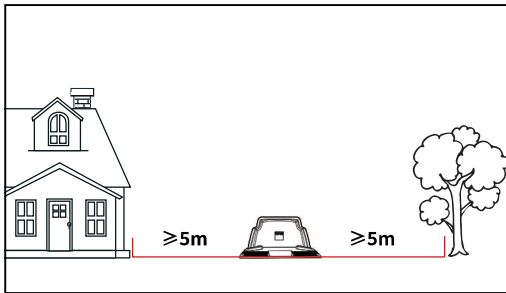
- Install the charging station with the nails supplied and plug in the power source.
- Connect the power charger and cable to the power supply. If there is a certain distance from the charging station and the power supply, the charging cable needs to be properly fixed to the ground and wall to ensure a safe operation.
- The Charging station should be installed at least 5m away from house and tree.
- The Charging station should be with a distance of more than 30cm from the edge of the lawn. The longest charging cable should be 10m.



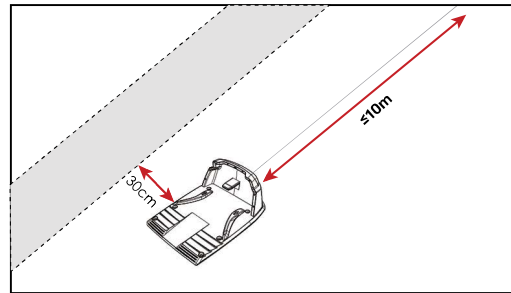
3.2.2 (a)



3.2.2 (b)



3.2.2 (c)



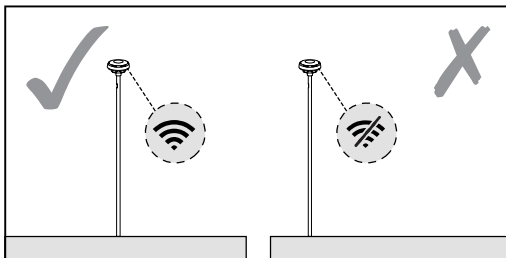
3.2.2 (d)

3.3 Install the RTK Station

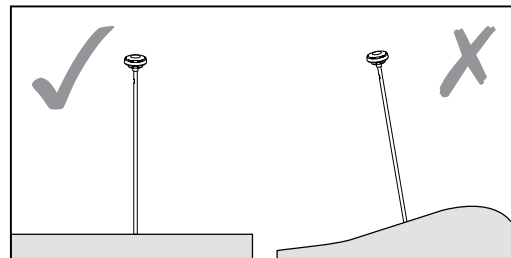
3.3.1 Find a good location

a. Installed on the lawn.

- The installation location should be able to receive signals normally.
- The installation location should be on flat ground, not steep slopes.

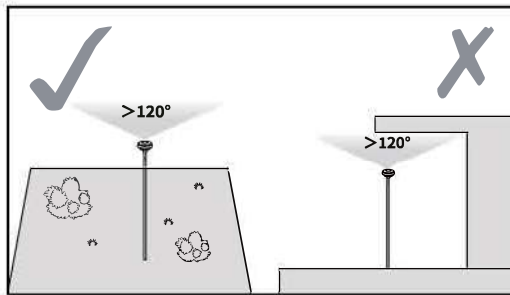


3.3.1 (a-1)

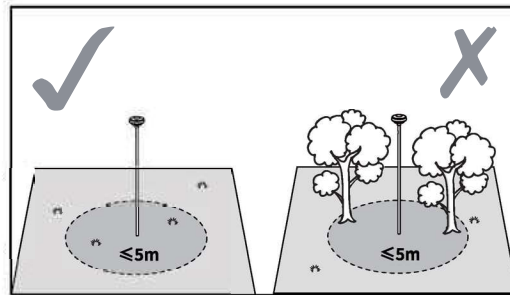


3.3.1 (a-2)

- 3) Ensure that there are no obstructions at a 120° angle above the installation location.
 4) No tall obstructions around the RTK station within 5 meters, such as tall trees, shrubs, walls, etc.



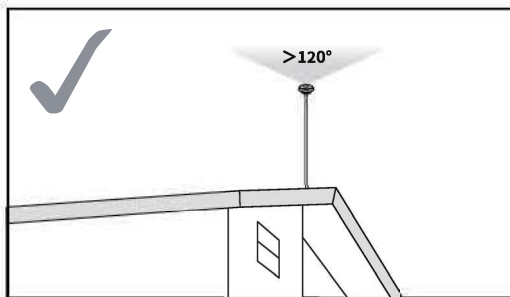
3.3.1 (a-3)



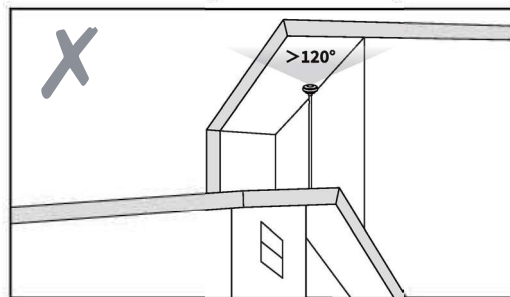
3.3.1 (a-4)

b. Installed on the roof.

Ensure that there are no obstructions at a 120° angle above the installation location



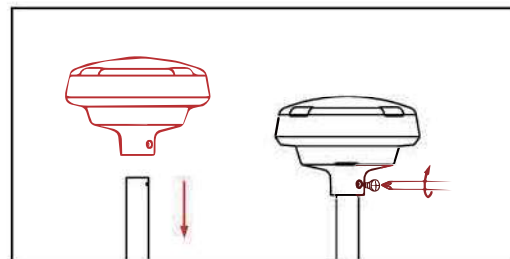
3.3.1 (b)



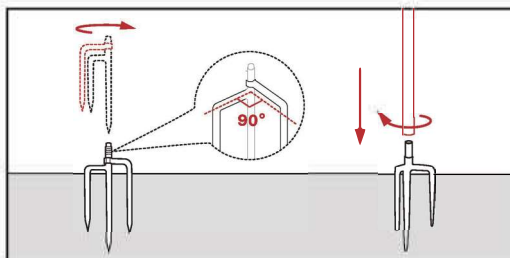
3.3.2 Install the RTK station

- Fix the RTK station on the tube.
- Unfold the base fork and insert it into the ground.
- Slide in the tube with the antenna, the installation height should be higher than 1.5m from the ground.

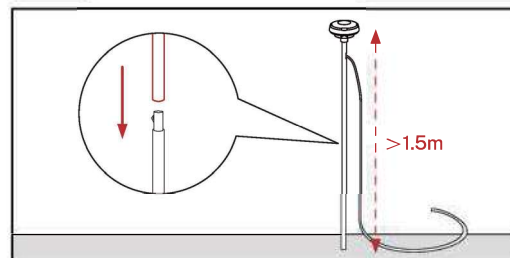
⚠ NOTE: If you have separated lawns or you have "o" or "U" shape lawns, we recommend you to install the RTK station on the roof or the wall.



3.3.2 (a)



3.3.2 (b)



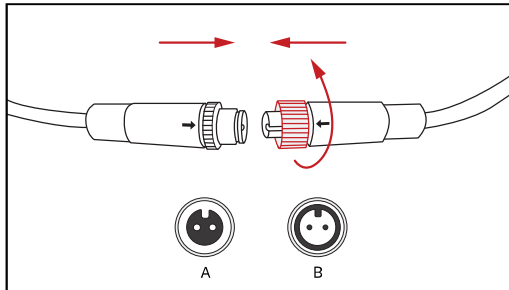
3.3.2 (c)

3.3.3 Charge the RTK station

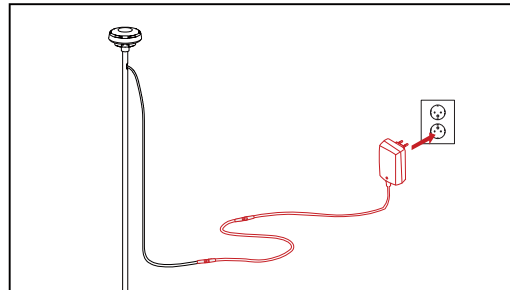
We provide two ways to charge the RTK Station:

Method A:

- Align the notch on the extension cable (A) with the groove on the power supply connector (B). Turn the nut until they are locked into each other.
- Connect the extension cable with the power supply.



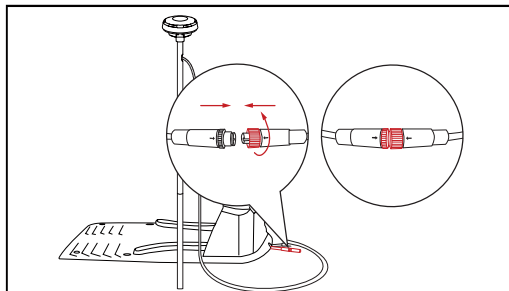
3.3.3 MethodA (a)



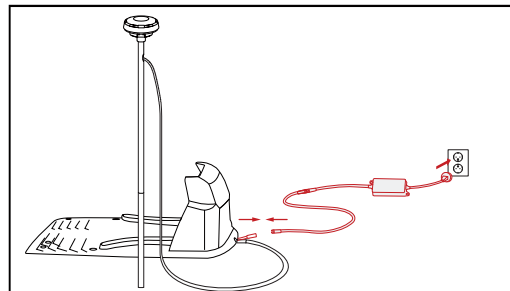
3.3.3 MethodA (b)

Method B:

- Connect the RTK extension cable to the charging station interface
- Connect the charging station to the power supply and use the charging station to charge the RTK.



3.3.3 MethodB (a)

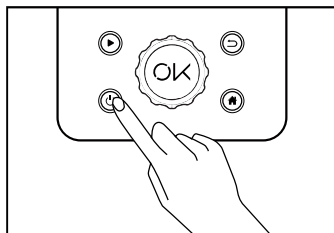


3.3.3 MethodB (b)

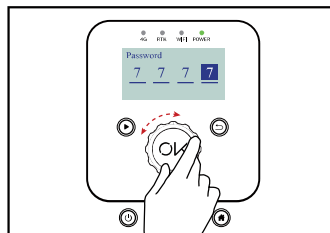
3.4 Charge and Activate the Mower

3.4.1 Activate the mower

- Press the power button on the lawn mower.
- Enter the default password "7777" by rotating the button to complete the process.



3.4.1 (a)

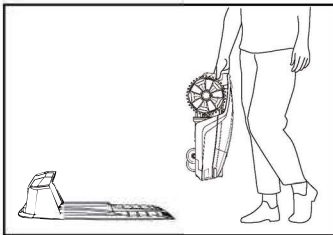


3.4.1 (b)

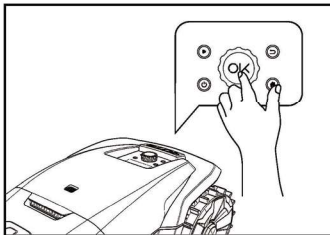
3.4.2 Charge the mower

We provide three ways to charge the mower:

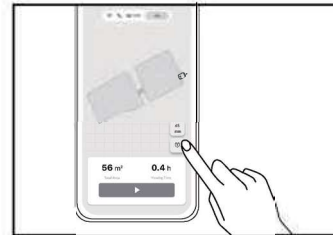
- Place the mower to the charging station if you haven't activated the mower.
- Press the Home and OK buttons simultaneously, the mower will return to the charging station automatically.
- Click the "Return" button on the APP, the mower will return to the charging station.



3.4.2 (a)



3.4.2 (b)



3.4.2 (c)

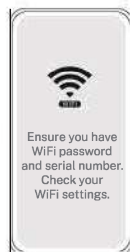
3.5 APP Connection

3.5.1 Preparation

- Ensure the APP has been uploaded in the latest version.
- To get full functionality out of your mower and keep it updated to the latest software, it must be connected to the internet via Wi-Fi 2.4G or 5G.
- Ensure you have Wi-Fi password and Series Number.
- Press the "Start" button on the device for 5 seconds to turn on Bluetooth.



3.5.1 (a)



3.5.1 (b)



3.5.1 (c)

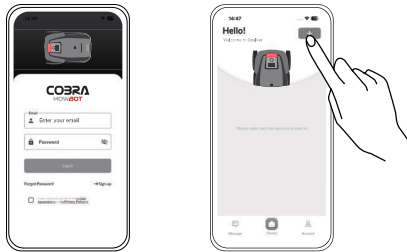


3.5.1 (d)

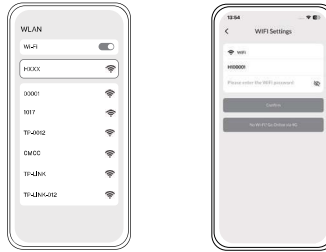
3.5.2 Connect and pair with the mower

- Create a new account and sign in. Turn on your phone's Bluetooth and Wi-Fi, add your robot mower on the app by entering the button on the right.
- Connect to the Wi-Fi, and configure your Wi-Fi for the device in the APP. The device needs to be connected to the same Wi-Fi as your mobile phone. Enter your home Wi-Fi name and password. If your home does not have a Wi-Fi, go online via 4G.
- Bind the device with a few seconds.
- Go to homepage, click the device and start mapping.

* LOCAL WIFI H1XXXXX, PASSWORD 12345678



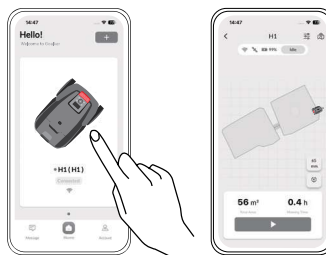
3.5.2 (a)



3.5.2 (b)



3.5.2 (c)



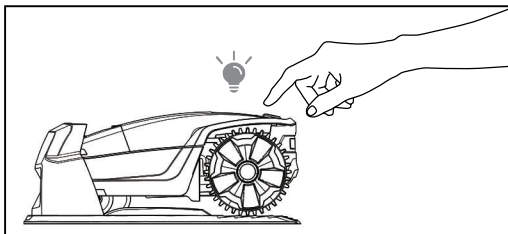
3.5.2 (d)

3.6 Set up Work Zones

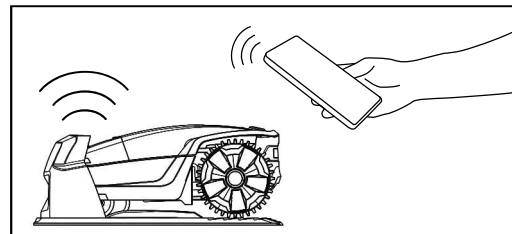
3.6.1 Preparation

Before mapping, please confirm the following matters:

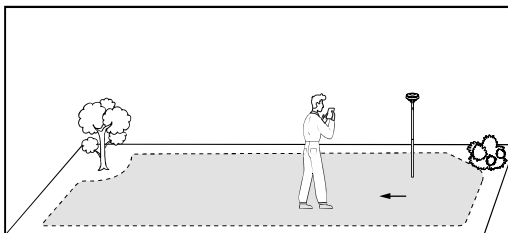
- The mower is turned on.
- The phone is connected to the mower and the wireless network.
- Select the appropriate location to start mapping.
- Select the type of work zone to create the boundaries.



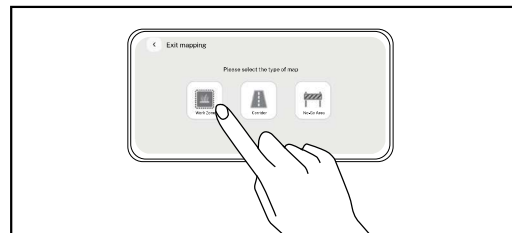
3.6.1 (a)



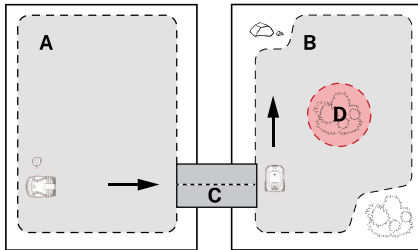
3.6.1 (b)



3.6.1 (c)



3.6.1 (d)



Explanation of zones:

A/B: Work Zone

Work zone is an area where the robot mower can operate and cut grass automatically. A work zone is specified by virtual boundaries created by users.

C: Corridor

A specified path created by users between two work zones for the mower to go through.

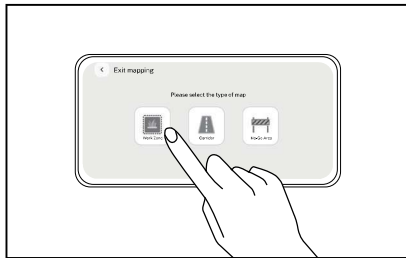
D: No-Go Area

The area that the mower cannot go through.

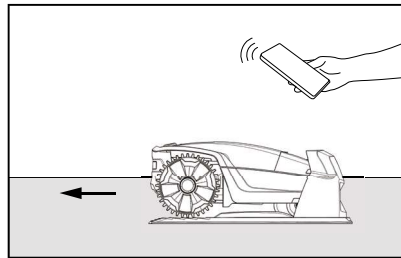
3.6.2 Create virtual boundaries for different work zones

a. Create virtual boundary for work zones:

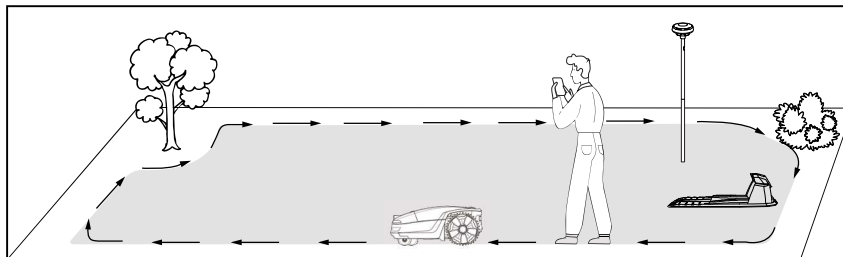
- 1) Click "Work Zone" in the app to create boundary.
- 2) Find a proper starting point, follow the instructions in the app and remote control the mower to lay the boundary.
- 3) Walk along the edge until back to the starting point to complete the process.
- 4) Make sure to follow a straight line with a smooth turning angle of no smaller than 90° .
- 5) Complete the work zones when it's done.



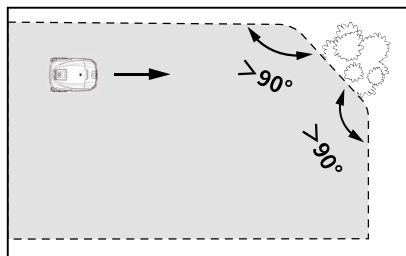
3.6.2 (a-1)



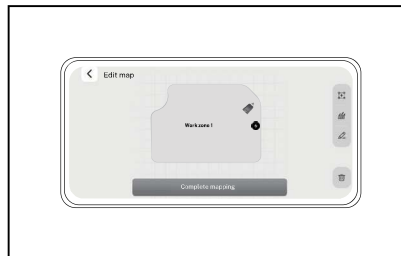
3.6.2 (a-2)



3.6.2 (a-3)



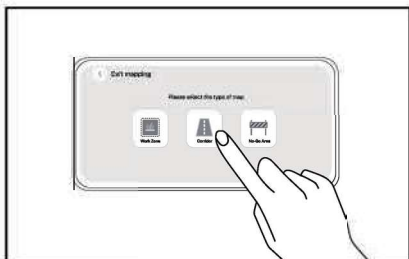
3.6.2 (a-4)



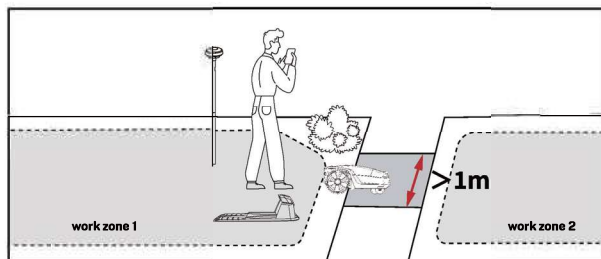
3.6.2 (a-5)

b. Create Corridor:

- 1) Click “Corridor” to create a pathway via remote control.
- 2) You can create the pathway only after you have created two work zones.
- 3) The width of a pathway between two work zones should not be under 1m.



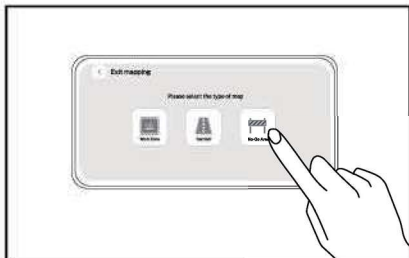
3.6.2 (b-1)



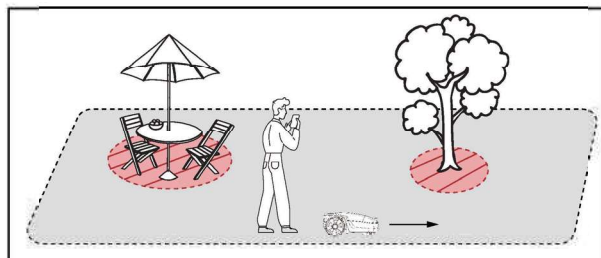
3.6.2 (b-2-3)

c. Create No-Go area:

- 1) Click the “No-Go Area” icon to enter the map creating panel
- 2) Place a no-go area on the work zone to highlight the position that the mower is not allowed to mow



3.6.2 (c-1)



3.6.2 (c-2)

3.7 App Settings**3.7.1 User account**

You can check general information on this page.



Language: You can set the language as you need. The APP currently supports 7 languages.

About: You can view the terms of use and privacy policy here.

Log out: You can log out of your account here, and your data will not be deleted after logging out.

Notifications: You can find the latest news and updates on the “Message receiving” from the *Cobra MowBot* team.

3.7.2 Settings

You can set up schedules, cutting height and the rain sensor on this page.



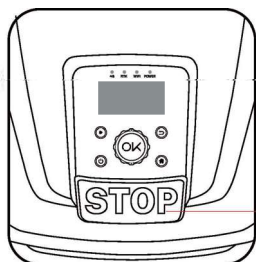
Schedule: In Schedule, you can change the schedule settings for the mower. It adapts the schedule to the size of your work areas. This function controls which hours the device operates. When the device does not operate, it is parked in the charging station. You can see which hours and days the device operates in the schedule overview in the APP.

Cutting Height: The cutting height can be adjusted from 2.5cm to 6.5 cm.

NOTE: For first use, set a higher cutting height and do not remove more than one third of the grass blade in a single cut. Lower the cutting height gradually each week.

Rain Sensor: You have the option to enable or disable the rain sensor in this setting. The default configuration is "ON," which allows the mower to detect rain and automatically return to the charging station to prevent damage. Operating the mower during rainy conditions without the rain sensor enabled can compromise the blades and adversely affect the lawn. For optimal maintenance and safety, it is recommended to keep the rain sensor activated during adverse weather.

4. Daily Operation



STOP

Turn ON/OFF icon: This icon indicates whether the mower is working.

Start icon: Enter the settings interface.

Home icon: Return to the menu.

Back icon: Return to the previous page.

OK icon: The OK icon is a jog wheel to enter the settings menu and select actions. Press OK means confirm your selection.

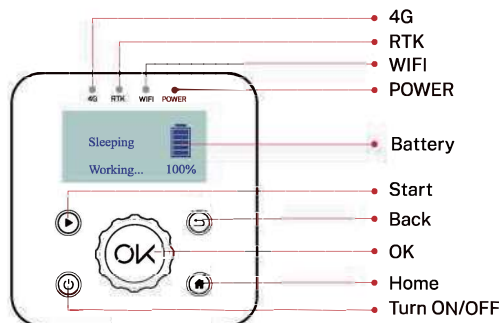
STOP button: Emergency stop button.

Start + OK combination:

To start mowing, press the Start and OK buttons together as a key combination to unlock and activate the mower.

Home + OK combination:

To return the mower to the charging station, press and hold the Home and OK buttons together.



4G icon: The 4G icon indicates that your mower has been connected with the Internet.

RTK icon: The RTK icon indicates that the RTK signal is stable and the connection with the mower is active.

Wi-Fi icon: The Wi-Fi icon shows if the mower is connected successfully; a green light means connected, and a red light means not connected.

Power icon: The power icon indicates whether the mower is charging.

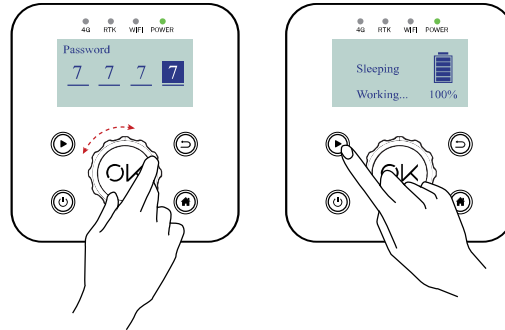
Battery icon: The battery icon shows the remaining power of the mower: 1 bar means 20% or less, and 2 bars mean between 21% and 40%. The flashing icon indicates that the mower is charging.

4.1 To Set the Mower to ON

How to enter the Pin code:

when entering the password, you can use the “START” button, input the default code 7777, press the OK button to correctly input the password.

* Please note date is YEAR/MONTH/DAY then time is referring to the start to lawn.

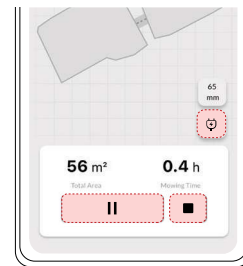


4.2 To Start the Mower

- Push the STOP button.
- Use the jog wheel to enter the PIN code.
- Use the jog wheel to select the function
- Push the START button.

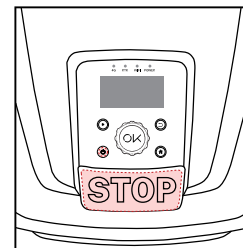
4.3 To Park the Mower

You can either press “Stop”, “Cancel” or “Return” button on the page to park the mower.



4.4 To Stop the Mower

Push the STOP button to make the product and the cutting motor stop.



4.5 To Set the Mower to OFF

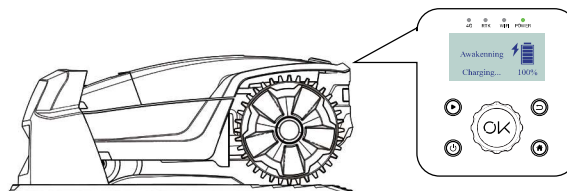
Long press “POWER” button until the mower is on “OFF” status.



4.6 To Charge the Battery

When the mower is new or after long-term storage, the battery can be empty or in low level. Charge the battery before you start the product. After your first charge, the product can return automatically when the power is under 15%.

- Set the mower to “ON”.
- Put the mower into the charging station until the charging plates touch the contact plates.
- Do a check that the mower charges in the display of the product or in the APP.



5. Maintenance

Experience superior mowing results and extend the lifespan of your mower with Maintenance. Regular inspection and upkeep by an adult every week is essential to ensure optimal performance. Safeguard your well-being by adhering to safety guidelines: refrain from performing maintenance while wearing open sandals or being barefoot. Always prioritize safety by donning long trousers and work shoes during mower servicing. Replace any damaged or worn parts promptly to guarantee seamless operation.

*** ONLY authorized service technicians are permitted to open and reseal the chassis compartment located behind the bumper. The Limited Warranty may be voided if you perform your own servicing.**

NOTICE: INSURANCE

You might not be covered for accidents involving this product by your insurance policies. Please get in touch with your insurance provider or agent to find out if coverage is offered.

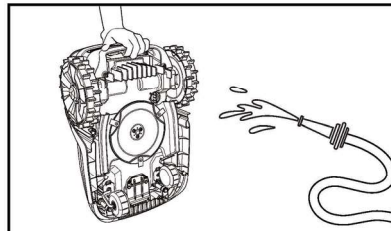
5.1 Clean the Mower

Utilize a gentle brush or cloth to meticulously clean the exterior, avoiding any corrosive solvents such as alcohol, gasoline, or acetone. These substances have the potential to cause harm to both the aesthetics and internal components of your mower.

For seamless docking, it is crucial to regularly examine and cleanse the charging station from any debris or mud accumulation. Ensure that all connecting parts of the charging station, extension cable, and power supply remain unobstructed for optimal performance.

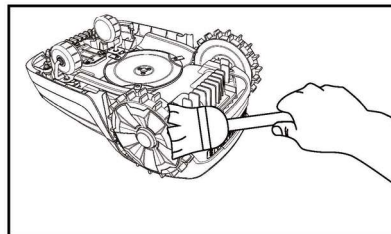
a. Chassis and blade disc

To clean the chassis and blade disc, it is recommended to use brush or a water hose. It is important to avoid use a high-pressure washer as it can cause damage. Additional, ensure that the blade disc rotates smoothly, and the blades have the ability to pivot without any restrictions.



b. Wheels

Grass on the wheels can impair the performance of the mower when climbing slopes. Remove mud or other object in between to ensure a good grip. Use a brush to clean the drive wheels.



5.2 Replacement of the Blades

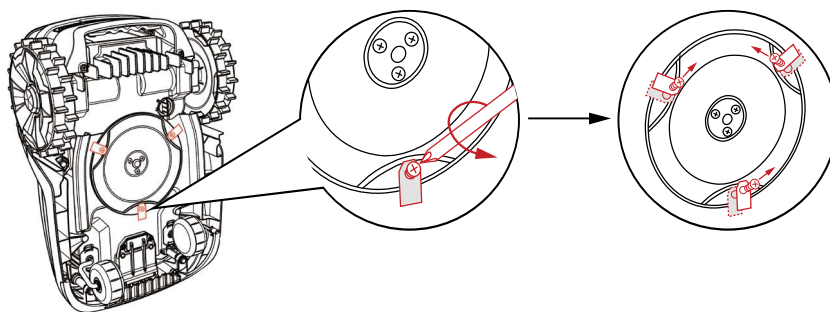
For a better mowing performance and safety, it is advised to change the screws and blades every 240 working hours 1-2 months if it is used frequently. Or change the blades and screws per year since it is activated. (You will receive a notification on the APP as a reminder) You must replace the screws when you replace the blades. The used screws can wear quickly and make the blade come loose, this can cause serious injury.

⚠ Warning

- When inspecting or serving the blades, wear thick gloves.
- We strongly advise using the correct screws and original blades that have been sold by us.
- **DO NOT** reuse the screws. All blades and screws must be replaced at the same time to get a balanced cutting system.

How to replace the blades

- Set the mower to OFF
- Put the mower with the blade disc up on a clean and soft surface
- Rotate the skid plate until the holes align with the screws for the blade.
- Remove the 3 blades and 3 screws.
- Attach new blades and screws.
- Make sure that the blades can move freely.

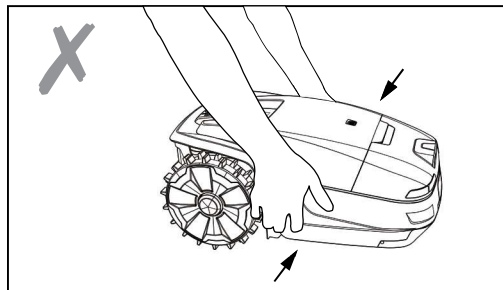
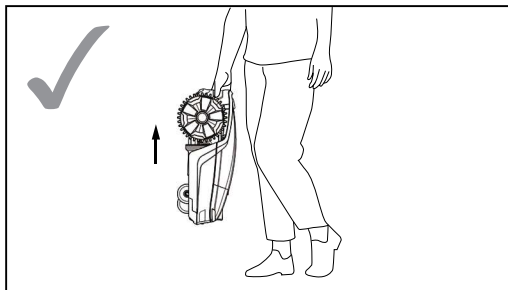


5.3 Transportation

Ensure the safety of the mower during long-distance transportation by utilizing the original packaging. Prior to lifting, moving, or transporting the product, make sure to switch it off. Handle with care and avoid violent force such as throwing and heavy pressure. Never pick up or carry the mower while the motor is running.

How to move or lift properly

Carry the mower by the handle, with the blade disc facing away from your body.



5.4 Battery

- a. Before storing, fully charge the battery to prevent over-discharge and harm to the electrical parts.
- b. The Limited Warranty will not protect against over-discharge battery damage.
- c. DO NOT charge the battery pack in air temperatures below 15°C, or above 45°C.
- d. Battery pack gives its best performance when it is operated at normal room temperature (20 °C±5 °C)

 **NOTE:** *The battery life depends on how often the product is used and the total working hours, When the operation time is significantly shorter than usual per full charge or the lawn is not well-cut, consider contacting our customer support team.*

Warning

- a. Use only the original battery pack or that of the same model as specified by Cobra. Each mower contains one battery pack.
- b. Do not use non-rechargeable batteries. For the purposes of recharging the battery, only use the detachable supply unit provided with this appliance.
Avoid breaking or disassembling the battery casing. Avoid contact with metal objects to avoid short circuits, Steers clear of heat sources, fire, and direct sunlight.
- c. It is not intended for the battery compartment to be opened frequently. If a new battery is required, only then should you open the battery compartment.
- d. The battery pack contains electrolytes. If the electrolyte leakage comes into contact with your skin, wash off with soap and water immediately. Get medical help in case of eye contact and immediately flush the eyes with plenty of water for at least 15 minutes without rubbing.
- e. Please get in touch with our customer support team for more information about battery and electrical waste.

5.5 Storage

- a. Please make sure the mower is fully charged and turned off before storing it to prevent over-discharge which could result in permanent damage.
- b. Exposure to sunlight and extreme temperatures — hot or cold — can accelerate the aging of the components and potentially cause permanent damage to the battery.
- c. Keep chemicals and heat sources (stoves, radiators, etc.) away from the mower, charging station, and power supply.
- d. Keep the power supply in a well-ventilated area and protect it from humidity.

Warning

The mower:

Clean the mower thoroughly before storage. Check the components subject to wear such as the blades. Repair or replace them if they are in poor condition. Store the mower in a dry and frost-free place while standing on all wheels, preferably in the original packaging.

The charging station: Disconnect from the charging station and unplug the power supply from the power outlet. Keep the charging station out of direct sunlight and bring it inside.

5.6 Recycling and Disposal

This product is not household waste. Please contact your local municipality, retailer, or waste disposal service for recycling instructions.

Warning

This product should not be landfill, burned, or mixed with regular household trash. Disposing of it improperly can pose dangers or serious harm due to its electrical components.

6. FAQ & Troubleshooting

6.1 FAQ

What should I consider when using the lawn mower for the first time?

For first-time users, if the area to be mowed consists of thick grass or if the lawn height exceeds 15 cm, it is recommended to manually trim the grass to the ideal height range for the lawn mower (2.5 cm - 6.5 cm). If there are low plants, such as wildflowers, that do not need to be preserved, they can be manually removed before mowing. If the product's AI technology detects these plants as obstacles, it will perform obstacle avoidance actions. Conversely, if there are low plants like ornamental flowers that should be preserved, you can designate the area as a no-go zone to prevent the mower from entering.

Does my garden need to have complete Wi-Fi coverage?

Try to have Wi-Fi coverage throughout the garden. If that's not possible, at least make sure Wi-Fi reaches the RTK station and charging station. This is important so the robot can update itself (OTA updates) while charging, and the RTK station can also receive updates and share information with the robot.

***Note that when binding the RTK station, it is essential to ensure that the machine is connected to the internet.**

How to connect household Wi-Fi?

Press the "+" button on the right top corner on the homepage, activate the Bluetooth by long press "START" for 5 seconds, choose the correct Bluetooth of your mower, and the household Wi-Fi on the Wi-Fi settings page, enter the password of your Wi-Fi and confirm.

How to change the Wi-Fi once your household Wi-Fi has been changed?

To reconnect, go to the "Wi-Fi connection" in the Settings menu of the paired mower. Long press the "START" button for 5 seconds to activate the mower, just as you did during the initial Wi-Fi setup. Then, select the most recent Wi-Fi network, enter the password for the new Wi-Fi, and confirm.

How to bind and pair with the mower?

For the initial use, you will automatically go to the binding page once your household Wi-Fi is connected. Press "Bind" and the mower will be bound. If you do not have a household Wi-Fi, press "No Wi-Fi/Go Online via 4G" button and bind it again.

How to create a map?

Go to the "Maps" page by clicking the product on the homepage, choose "create a new map" and select the correct household Wi-Fi, and then pick the map type. Make sure that the RTK signal is connected, and the battery power of the mower is over 50%.

Can the base station and charging station be moved after the map is created?

You can move the charging station before mapping. However, once the map is finished, the station must stay in place—moving it afterward will prevent the mower from returning and working properly. If you move the RTK station after the map is created, you will need to make a new map.

How to edit, delete and rename the maps?

Choose the maps you have created on the "Maps" page, choose the map you would like to edit, rename or delete.

Can the mower go through the narrow pathway?

Yes, the mower can pass through narrow pathways measuring between over 1.2 meter wide.

How to ensure a stable signal coverage from RTK station?

Please refer to the guideline at 10 page above, we advise customers to choose a right location to install the RTK station.

How to unbind the mower?

Go to “setting” on the homepage, click “ delete device” to delete the mower.

How can I restart it if I pressed the “STOP” button on the mower?

For safety, pressing the “STOP” button will put the mower into “stop” mode. To restart it, press “Start” and “OK” together on the control panel.

How do I know if the mower needs an update?

You will receive notifications in the APP if there are new software updates.

How often should I replace the blades?

It is advised to change the screws and blades every 240 working hours 1-2 months if it is used frequently. Or change the blades and screws per year since it is activated. You will receive a notification on the APP as a reminder.

Can I clean the mower with water?

Yes, but ensure all screws are tightly secured before cleaning, and use a regular water hose to avoid high-pressure water to prevent potential damage.

6.2 Troubleshooting

Reasons for failure to start the mower successfully

The battery power is under 5% if you cannot start the power by a long press for 3 seconds. Charge the mower for a few minutes and restart it.

Reasons for failure to connect the Bluetooth.

- Permissions are not enabled: When the application attempts to connect to Bluetooth, a permission prompt will appear. Please authorize the connection to enable the app to establish a successful Bluetooth link with the mower.
- Phone compatibility issues: Close the connecting devices with Bluetooth and restart it. Re-install the APP or phone to restart it if the above steps do not work.

Reasons for failure to connect with the APP

- Unconnected Internet affects the connection to the APP. Check the 4G icon or Wi-Fi icon on the control panel and see if they are on the “green light” status. If not, restart the Internet connection.
- The mower has been bound by more than 1 user. Please unbind the current user and re-bind it.

Reasons for failure to connect the Wi-Fi/4G

- Incorrect Wi-Fi password: re-check the password of your household Wi-Fi.
- Weak Internet signal: Recheck the Internet status or change to another Wi-Fi or use 4G Internet.

NOTE: If you are not bound to a machine or have an arrears on the 4G network, you will not be able to use the 4G network

Reasons why RTK icon does not show a Green Light (indicating working status)

- During initial use, please allow a few moments for the RTK system to locate; wait until the indicator shows a green light to confirm readiness.
- Verify that the RTK station's location is correct by referring to the installation instructions above and rechecking if necessary.
- If the RTK indicator is flashing blue, it indicates a disconnection between the mower and the RTK station. Ensure both devices are within 100 meters of each other and that the mower is turned ON.

Reasons why the mower is not in the “charging” status

- a. The mower is not in a right position to charge. Check whether the mower is on the charging station properly.
- b. The charging station is not charging. Check if the charging station is correctly connect the supply power.

Reasons why the maps are not completed

The constructed map is considered valid only after the robot has traveled ≥ 1 meter from the starting point. Upon completing the mapping process, automatic loop closure is achieved if the robot's final position is within 0.5 meters of the starting point.

Reasons why a map cannot be created

- a. The mower's battery power is below 15% or insufficient for operation.
- b. The RTK signal is unstable or not functioning properly. For further troubleshooting, please refer to the common reasons why the RTK station may not be working.

Reason why the mower is beeping

When the mower triggers a collision or is lifted, it will emit a beeping sound. Please ensure that the mower is properly positioned on the ground and confirm whether the collision bar is jammed and cannot be reset.

Reasons for failure to mow

- a. The blades are stuck by grass or objects.
- b. The wheels are stuck by objects.

You can check the mower and remove the objects on the blades and wheels.