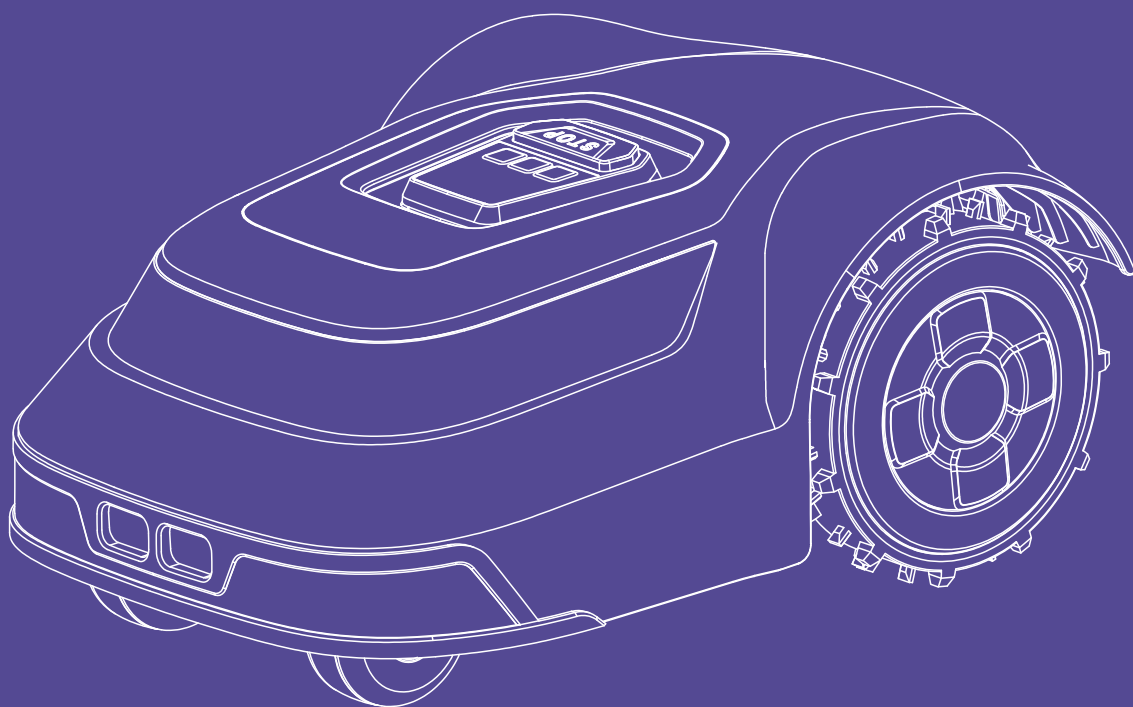




ANTHBOT
Your Lawn, Perfected



MGC Series Pion Robotic Lawn Mower

Mower instruction book

Welcome to use the MGC series mower. Please read this manual first to ensure safe and efficient operation. Note: This product should be operated, and supervised by adults when it is operated by a child.

EN

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



Welcome

Thank you for choosing the ANTHBOT robotic mower. Please read the instruction below before installing the robot.

Safety notes

Important! Read all safety warnings and all instructions. Make yourself familiar with the controls and the proper use of the mower. Please keep the instructions safe for later use!

Explanation of symbols on the machine

 	<p>WARNING -Read instruction manual before operating the machine.</p>	 	<p>WARNING -Operate the disabling device before working on or lifting the machine.</p>
 	<p>WARNING -Keep a safe distance from the machine when operating.</p>	 	<p>WARNING -Do not ride on the machine.</p>
	<p>Class III machines.</p>		<p>Electrical appliances must not be disposed of with the domestic waste.</p>
	<p>The product complies with the applicable European directives and an evaluation method of conformity for these directives was followed.</p>		<p>This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.</p>

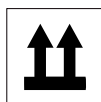
Explanation of symbols on the package



Recyclable



Fragile



This side up



Keep dry



Stacking layers limit:6



Do not step

1. Safety warnings

1.1 Operation

Before using

1. Be sure to install and operate the mower and the docking station according to the instructions.
2. Using the mower for purposes other than mowing can bring serious injury. To avoid risks of injuries, please read and understand all the warnings and cautions. Please understand that you can reduce the risk by following the instructions and warnings in this manual, but you cannot eliminate all risk. The operator or user is responsible for accidents or hazards occurring to other people on their property.
3. ANTHBOT has many safety sensors to protect our customers, however, safety risks still exist. Set a mowing time when there are no people or pets on the lawn. Inform the neighbors about the risks for accidents or hazards. When using the mower on a public lawn, or when your lawn is open to your neighbor or street, protect or fence the lawn, or put up a warning sign around the working area that says: WARNING! Automatic lawn mower! Keep away from the mower! Supervise children!
4. DO NOT modify the mower by yourself. Modifications could interfere with mower operations, result in serious injury and/or damage, or void the Limited Warranty.
5. Before working on the mower itself (e. g. maintenance, tool change, etc.) as well as during transport and storage, power off the mower by pressing and holding the ON/OFF button 15s.
6. The manufacturer recommends the user to be 18–70 years old. Be sure to get the necessary training before operating the mower.
7. Never allow children, persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge or people unfamiliar with these instructions to use the mower, local regulations may restrict the age of the operator.

Before mowing

1. Regularly check that all parts of the mower can function normally.
2. Operate the mower only when the battery compartment is shut with the cover and all the screws in place. This protects the battery against moisture.
3. DO NOT mow on areas with slopes steeper than the maximum incline inside the working area (45%), as well as the boundary (36%).
4. Keep any supply and/or extension cords away from moving hazardous parts and the working area to avoid damage to the cords which can lead to contact with live parts.
5. DO NOT to connect a damaged cord to the supply or touch a damaged cord before it is disconnected from the supply for the reason that damaged cords can lead to contact with live parts.
6. For the best mowing results, it is recommended to mow in dry weather. Mowing in the rain can make the grass stick on the product and the mower may slip. DO NOT mow in bad weather, such as heavy rain, thunderstorms or snow.
7. Periodically inspect the area where the mower is to be used and remove all stones, sticks, wires, bones and other foreign objects. The Limited Warranty does not cover damages caused by objects left on the lawn.
8. To avoid possible damage, keep the operating mower at least 1 m (3 ft.) away from sprinkler heads. The mower and sprinklers should NOT work simultaneously. Time the mower so that it works at a different time from sprinklers.
9. NEVER allow children to touch the power adapter, docking station, blades, the battery compartment, or any parts with gaps such as the wheels.
10. To connect the peripherals only to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 2A.

1. While operating and as well while approaching the mower, take sufficient precaution to keep balance at all times particularly on slopes and wet grass. DO NOT stretch yourself too much forwards. DO NOT operate the mower in a rush.
2. DO NOT operate the mower when barefoot or wearing open sandals, always wear substantial footwear and long trousers.
3. Avoid mowing in bad weather conditions especially when there is a risk of lightning.
4. If the mower vibrates abnormally or makes an abnormal sound or signals an alarm, press the STOP button immediately.
5. DO NOT leave the mower to operate unattended if you know that there are pets, children or people in the vicinity.
6. DO NOT allow children to be in the vicinity or play with the mower when it is operating.
7. DO NOT lift the mower in operation. DO NOT ride on the mower.
8. DO NOT touch moving hazardous parts before they have come to a complete stop.
9. DO NOT put other cables near by the docking station and your boundary wire.

1.2 Safe usage

1. DO NOT operate the mower outside the temperature limits: 0°C–50°C (32°F–122°F), because low/high temperatures can decrease mower performance and even lead to accidents.
2. DO NOT place anything on the mower or the docking station.
3. It is recommended to conduct regular maintenance of the mower by an adult.
4. Regularly check the warning devices to ensure they are effective. These devices include the buzzer, the LED light on the docking station, and the screen on the mower.
5. It is recommended to inspect the mower, docking station, power adapter and low-voltage cable every six months for signs of damage or aging. If the mower and docking station are faulty, or the power adapter and low voltage-cable are damaged, please do not use the mower and contact the after-sales personnel for after-sales maintenance.
6. Before charging, please read 4.4 To set the docking station and 4.5 Installation steps. Improper use may cause electric shock, overheating, or leakage of corrosive liquid.

1.3 Turn off the mower by pressing and holding the ON/OFF button

- Before clearing a blockage.
- Before checking, cleaning.
- Before storage.
- If the mower vibrates abnormally (stop and check immediately).
- After striking a foreign object, inspect the machine for damage and get advice on necessary repairs from your after-sales service.
- If the machine starts to vibrate abnormally, and to check for damage before restarting.

1.4 Maintenance

1. Please wear gardening gloves when handling or working near the sharp blades.
2. Before working on the docking station or power adapter, remove plug from mains.
3. Clean the exterior of the mower. Remove all grass and debris, especially from the blade disc shield.
4. Turn the mower upside down and clean the blade area and the swivel castors regularly. Use a stiff brush or water to remove compacted grass clippings.
5. Make sure all nuts, bolts and screws are tight to ensure safe working with the garden tool.
6. Periodically visually inspect the mower and replace worn or damaged parts for safety.
7. Ensure that only official replacement parts are used.
8. Replace all blades and bolts as a set as required.
9. If it was need to replace the battery, open the battery holder with symbol pointing.

1.5 Storage

1. Before storage, power off the mower by press and holding the ON/OFF button 15s till mower buzzed and charge its battery to 80% or higher to avoid over-discharge, which will cause permanent damage.
2. Store in a cool and dry place indoors.
3. Keep the mower, docking station and power adapter away from heat sources (such as stoves, radiators, etc.) or chemicals.
4. Protect the power adapter from moisture and keep it in a well-ventilated place.
5. Store the mower only within a temperature range between -20°C and 60°C . As an example, do not leave the mower in the car in summer.

1.6 About battery

1. DO NOT open the battery compartment. There is a sign pointing out the position of battery, but it is not recommend open it. There is a risk of short-circuiting.
2. Protect the battery against heat(e.g. against continuous intense sunlight), fire, water, and moisture. There is a risk of explosion.
3. Keep any unfitted battery away from paper clips, coins, keys, nails, screws or other small metal objects, that can make a connection from one terminal to another. Shorting the battery terminals together may cause burns or a fire.
4. In case of damage and improper use of the battery pack, vapours may be emitted. Ventilate the area and seek medical help in case of complaints. The vapours can irritate the respiratory system.
5. The battery can be damaged by pointed objects such as nails or screwdrivers or by force applied externally. An internal short circuit can occur and the battery can burn, smoke, explode or overheat.
6. If used incorrectly or if the battery is damaged, flammable liquid may be ejected from the battery. Contact with this liquid should be avoided. If contact accidentally occurs, rinse off with water. If the liquid comes into contact with your eyes, seek additional medical attention. Liquid ejected from the battery may cause irritation or burns.
7. DO NOT short-circuit the battery. There is a risk of explosion.
8. Use only original battery packs intended specifically for the mower. Use of any other battery packs may create a risk of injury and fire.
9. Ensure the robot has power off before inserting battery. Inserting the battery pack into mowers with power on can cause accidents.
10. The ANTHBOT will operate between 0°C and 50°C . If the battery temperature is outside this range, the APP will display a message and the robot will not leave the docking station. If operating, the robot will return to the docking station or stay in place.
11. Recharge only in the original docking station. This appliance contains batteries that are only replaceable by skilled persons.

1.7 Intended use

1. The mower is intended for domestic lawn mowing.
2. DO NOT operate the mower indoors.
3. DO NOT use the mower for any other purpose because of the increased risk of accidents and damage to the mower.
4. Never attempt to modify the mower in any way since this may result in accidents or damage to the mower.

1.8 Regulatory information



This product and - if applicable - the supplied accessories too are marked with "CE" and comply therefore with the applicable harmonized European standards listed under the Machinery Directive 2006/42/EC, the Radio Equipment Directive 2014/53/EU, and the RoHS Directive 2011/65/EU.



Products marked with this symbol cannot be disposed of as unsorted municipal waste in the European Union. For proper recycling, return this product to your local supplier upon the purchase of equivalent new equipment, or dispose of it at designated collection points.



This symbol means: This product contains a battery that cannot be disposed of as unsorted municipal waste in the European Union. See the product documentation for specific battery information. The battery is marked with this symbol, which may include lettering to indicate cadmium (Cd), lead (Pb), or mercury (Hg). For proper recycling, return the battery to your supplier or to a designated collection point.

1.9 Declaration of Conformity

Hereby, SHENZHEN LDROBOT CO.,LTD declares that the radio equipment type [MGC500,MGC750,MGC1000] is in compliance with Directive 2014/53/EU.

Hereby, SHENZHEN LDROBOT CO.,LTD declares that the Machinery equipment type [MGC500,MGC750,MGC1000] is in compliance with Directive 2006/42/EC.

The full text of the DECLARATION OF CONFORMITY is available at the following web link:
<https://www.anthbot.com/pages/doc-list>

1.10 About power supply unit

Power supply unit model	Applicable specifications
DZ048BWL240200V	Europe standard
DZ048BWL240200U	US standard
DZ048BWL240200B	British standard
DZ048BWL240200S	Australian standard

WARNING: Only use the supply unit provided with this appliance.

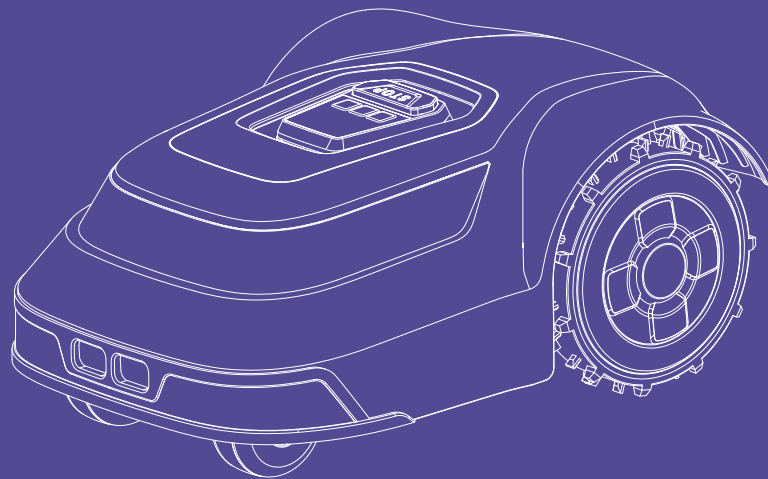
2. Technical parameters

		MGC500	MGC750	MGC1000
Basic Information	Dimensions: Length x Width x Height	606 x 420 x 258mm (23.86 x 16.54 x 10.16 in.)	606 x 420 x 258mm (23.86 x 16.54 x 10.16 in.)	606 x 420 x 258mm (23.86 x 16.54 x 10.16 in.)
	Net Weight: (Battery Included)	10.7 kg	10.7 kg	10.7 kg
Mower Parameters	Working Capacity	500 m ² (0.12 acre)	750 m ² (0.19 acre)	1000 m ² (0.25 acre)
	Typical Mowing Time Per Full Charge	70 min	70 min	70 min
	Charging Time	110 min	80 min	80 min
	Area Capacity per Hour	90 m ² (0.02 acre)		
	Cutting Width	20 cm/7.87 in.		
	Cutting Height	30-70 mm/1.18-2.76 in.		
	Obstacle Height	30 mm/1.18 in.		

		MGC500	MGC750	MGC1000
Working Conditions	Sound Data	Measured Sound Power Level L_{wA} : < 70dB(A) Sound Pressure Level L_{pA} : 55dB(A) Sound Pressure Uncertainties K_{pA} : 3.0dB(A)		
	Working Temperature	0°C—50°C		
	Storage Temperature	-20°C—60°C		
	IP Rating	Mower body IPX6; docking station IPX5; power adapter IP65		
	Maximum Slope for Work Area	45%/24°		
	Maximum Slope for Boundary Wire	15%		
	Minimum Angle for Cutting Area	90°		
Connectivity	Bluetooth	2402.0-2480.0MHz		
	Wi-Fi	Wi-Fi 2.4G		
Motor	Motor Type	Brushless motor		
	Driving Motor Rated speed	0.35 m/s(0.78mph)		
	Blade Motor Top Speed	2500/min		
Battery pack	Battery Type	Lithium-ion battery		
	Nominal Voltage	18 V		
	Capacity	2.5 Ah	2.5 Ah	2.5 Ah
Power Adapter	Input Voltage	100~240 V AC	100~240 V AC	100~240 V AC
	Output Voltage	24 V	24 V	24 V
	Output Current	1.5 A	2 A	2 A
The Docking Station	Input Voltage	24 V	24 V	24 V
	Input Current	1.5 A	2 A	2 A
	Output Voltage	24 V	24 V	24 V
	Output Current	1.5 A	2 A	2 A
Boundary Wire	Wire Supplied	120 m(393.7 ft.)	150 m(492.1 ft.)	180 m(590.6 ft.)
	Minimum Required Length	20 m(65.6 ft.)	20 m(65.6 ft.)	20 m(65.6 ft.)
	Pegs Supplied	160	200	240
	Maximum Permissible Length	180 m(590.6 ft.)	180 m(590.6 ft.)	180 m(590.6 ft.)

3. Product Introduction

What's in the box



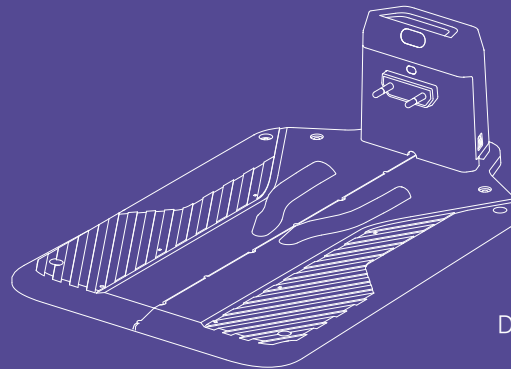
Main body



Screw



Nail

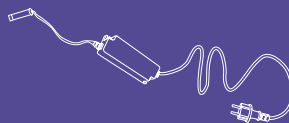


Docking station

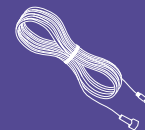
Docking station and installation kit



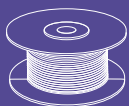
Extra Blades + Screws



Power adapter



Low-voltage cable



Boundary wire



Pegs



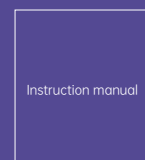
Wire connector



Hex key



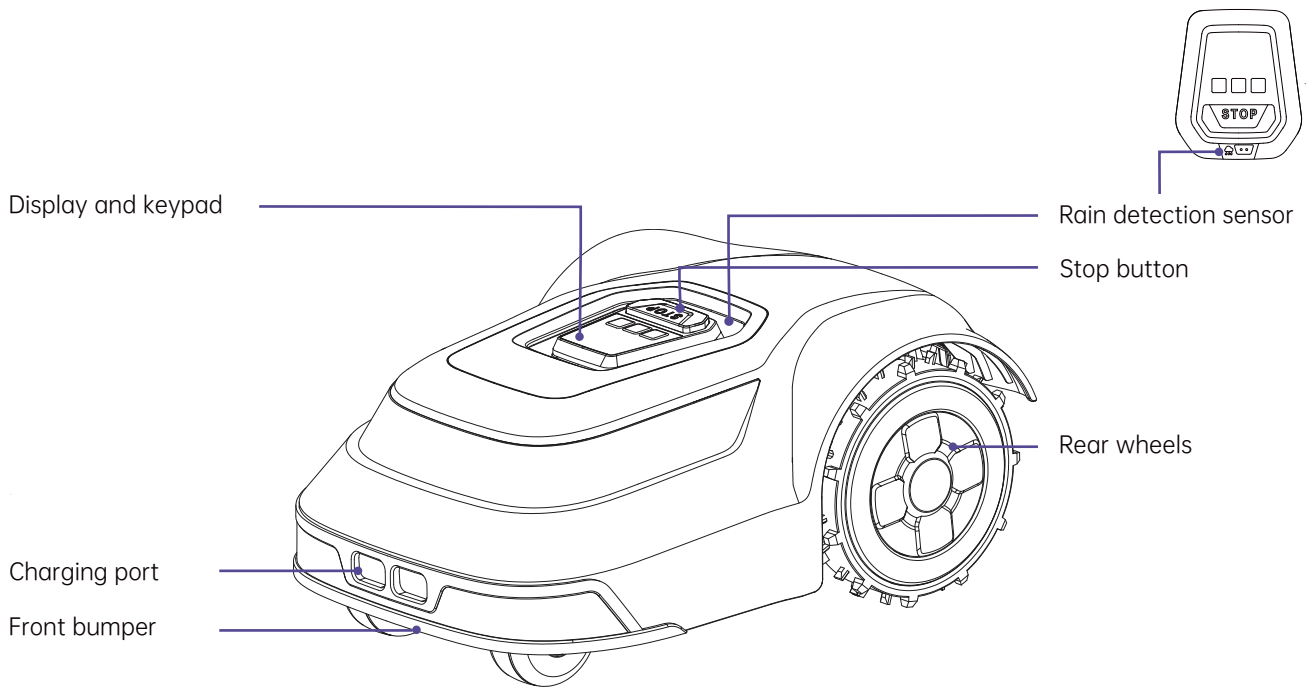
Ruler



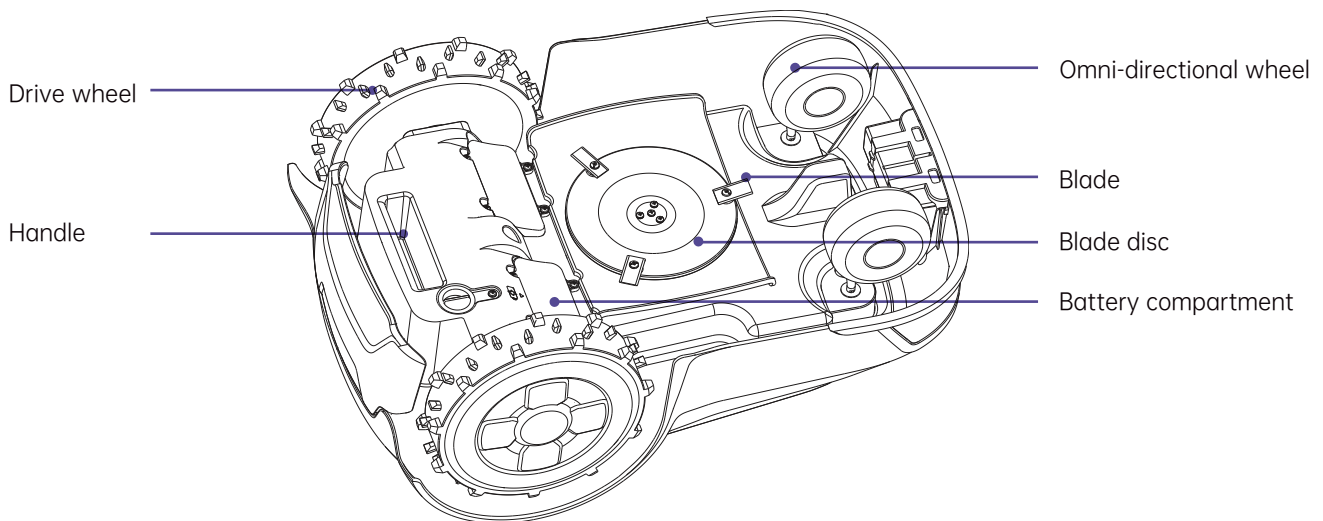
Instruction manual

Pion Robotic Lawn Mower

Top view



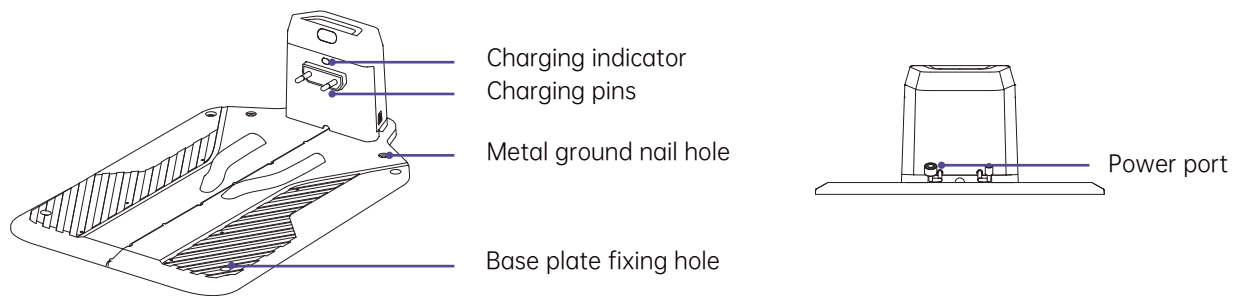
Bottom view



Blade: The blades can rotate freely after being attached to the blade disc. When mowing, the spinning blade disc will generate centrifugal force to keep the blades pointing outside so that the blades can cut grass. When hitting an obstacle, the blade will turn inside.

Blade disc: Blade disc height adjustment through the APP.

NOTE: Drainage outlet: If the mower falls into water, take it out immediately and put the mower right side up to drain it. Never submerge the mower in water, otherwise, the components may be damaged and the Limited Warranty will be voided.



4. Installation

4.1 General preparation

1. It is recommended that you mow your lawn once with a conventional lawnmower before installing and before the first mowing of the new season and whenever the grass would be higher than 10 cm/4 in.
2. The mower's cutting system is designed to cut small lengths of grass (30–70 mm/1.18-2.76 in.). The clippings can remain as mulch to fertilize the lawn, so it's no need to collect. The height of cut for mower can be adjusted to 30-70 mm/1.18-2.76 in. via the APP.
3. It is recommended to start with a higher setting and then gradually decrease the height of cut as the wire disappears under the grass. This prevents your robot from cutting the wire.

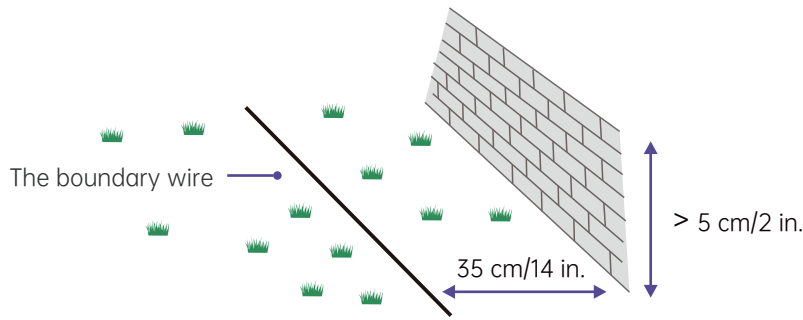
4.2 Preparing tools

- Hammer/plastic mallet: To simplify putting the pegs into the ground.
- Edge cutter/straight spade: To bury the boundary wire.
- Wire stripping pliers: For stripping the 10–15 mm/0.39-0.59 in. of insulation off the boundary wire to connect the docking station.
- Combination plier: For pressing the couplers together.

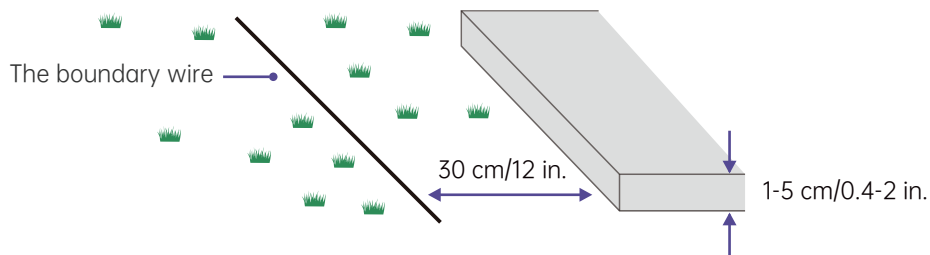
4.3 The boundary wire installation requirements

1. The recommended distance between the pegs is 75 cm/2.5 ft. Check if the boundary wire is fully pegged to the ground avoiding any slack lengths of wire, it can ensure the accuracy of broken points detection.
2. Remove stones, loose pieces of wood, sticks, wire, live mains cables and other foreign objects from the cutting area.
3. Make sure that the cutting area is even and has no ditches, grooves and steep slopes above 24 °/45% that are clear obstructions for the mower.
4. For slopes steeper than 15% along the outer edge of the lawn, put the boundary wire 20 cm/8 in. from the edge.
5. It can be add Additional boundary wire by using a wire connector.
6. The boundary wire can be extended up to a maximum length of 180 m/590.6 ft. under area limit.
7. The boundary wire can be buried up to max 5 cm/2 in. under the ground (or under non-metallic slabs).
8. To avoid causing damage to the boundary wire, do not vertical cut or rake the area where it is positioned.
9. Put the boundary wire around all of the work area. Adapt the distance between the boundary wire and obstacles.

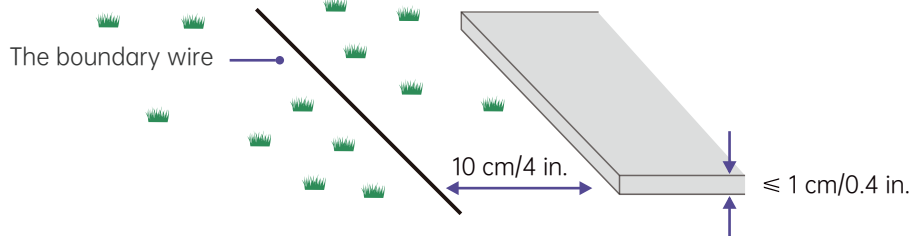
10. Install the boundary wire 35 cm/14 in. away from an obstacle which height more than 5 cm/2 in.



11. Install the boundary wire 30 cm/12 in. away from an obstacle which height is 1-5 cm/0.4-2 in.



12. Install the boundary wire 10 cm/4 in. away from an obstacle which height less than 1 cm/0.4 in.



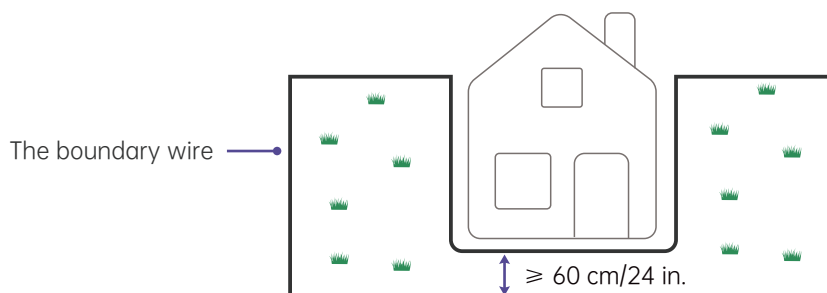
13. For slopes adjacent to a public road, put a barrier of minimum 15 cm/6 in. along the outer edge of the slope. You can use a wall or a fence as a barrier.

14. If you have a paving stone path that is in level with the lawn, put the boundary wire below the paving stone.

15. Please keep no obstacles on the boundary wire.

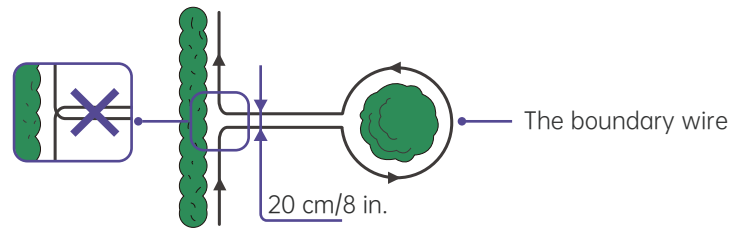
16. Passages

A passage is a section that has boundary wire on each side and that connects 2 parts of the work area. The distance between the boundary wire on each side in the passage must be a minimum of 60 cm/24 in.



17. Island

To make an island, isolate areas in the work area with the boundary wire. We recommend to isolate all stable objects in the work area.



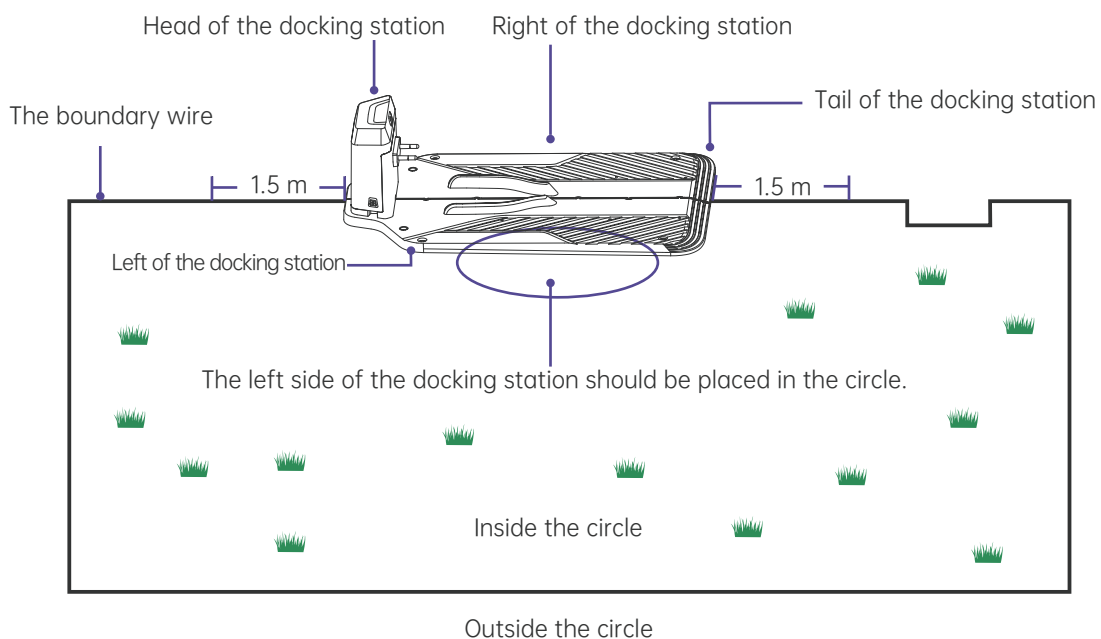
18. Some obstacles are resistant to a collision, for example, trees or bushes that are more than 5 cm/2 in. in height. The product will collide with the obstacle and then turn around or get around.

19. Run the boundary wire to the object and lay the wire around it at a distance of 35 cm/14 in., and finally return vertically to the outer boundary wire.

20. The distance between the two parallel wires should be 20 cm/8 in. not crossing.

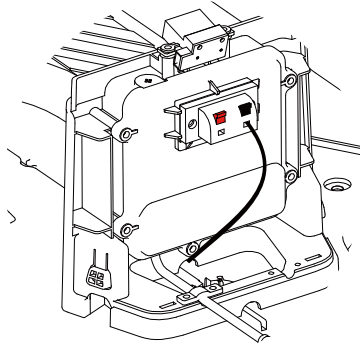
4.4 To set the docking station

1. The docking station must be positioned on the wire at an outer edge of the cutting area. It may not be positioned on the side of a tool or garden shed standing as an island within the lawn to be mowed.
2. Keep a minimum 1.5 m/5 ft. straight line in front and at the back of the docking station.
3. Put the docking station near a power outlet.
4. Put the docking station on a level surface.
5. The baseplate of the docking station must not be bent.
6. If the work area has two parts separated with a steep slope, we recommend to put the docking station in the lower section.



4.5 Installation steps

1. Read and understand the section To set the docking station.
2. Put the docking station in the selected area.
Note: DO NOT attach the docking station to the ground with the screws until the boundary wire is installed.
3. Lay the boundary wire
 - 3.1 Feed the perimeter wire through the cable duct on the docking station as indicated by the arrow until it appears on the other side.
 - 3.2 Use the pliers to carefully strip 10–15 mm/0.39-0.59 in. of insulation off the wire.

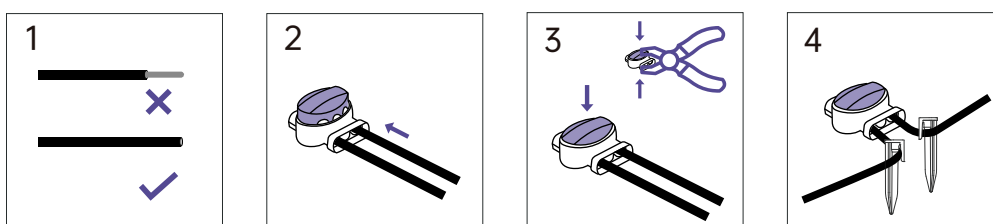


- 3.3 Connect the wire to the black connector point. Ensure that no stripped wire is visible outside of the connector points. Put the boundary wire around all of the work area. Start and complete the installation behind the docking station.
 - 3.4 Cut the other end of boundary wire. Strip off 10–15 mm/0.39-0.59 in. of insulation. Then connect to the red connector point.
 - 3.5 Finish all the above steps, close the docking cover.
4. Attach the docking station to the ground with the supplied screws after the guide wire is installed.
NOTE: The docking station is must to be pinned by supplied nails.
5. Connect the low-voltage cable to the docking station.
6. Connect the power adapter to a 100-240V power outlet.
7. When the docking station is connected, it is possible to charge the product. Place the product in the docking station while the boundary wire are being laid. Switch on the product. Do not continue with any product settings before the installation is complete.

4.6 To extend the boundary wire

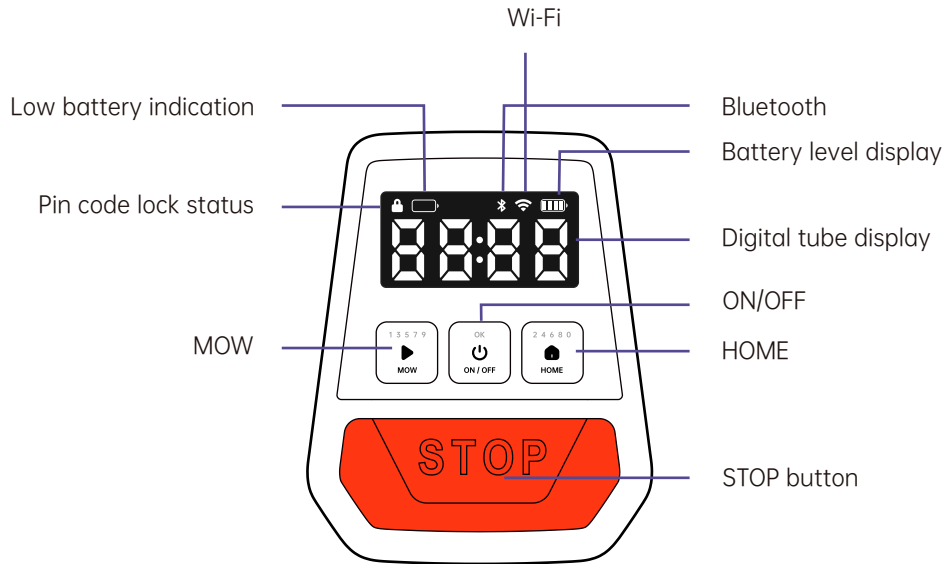
Extend the boundary wire if it is too short for the work area. Use original spare parts, for example wire connector.

1. Disconnect the docking station from the power outlet.
2. Cut the boundary wire with a pair of wire cutters where it is necessary to install the extension.
3. Add wire where it is necessary to install the extension.
4. Put the boundary wire into position.
5. Put the wire ends into a wire connector.
Note: Make sure that you can see the ends of the boundary wire through the transparent area of the connector.
6. Push down the cover on the connector with adjustable pliers to attach the wires in the connector.
7. Connect the docking station to the power outlet.



5 Mower operation instructions

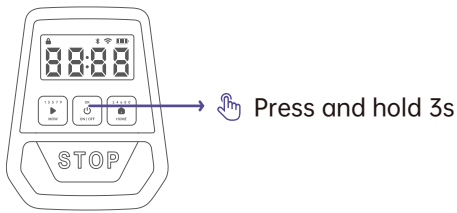
5.1 Display



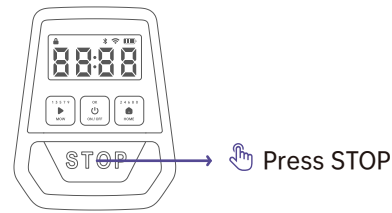
Indicator	Description
PIN code lock status	Mower locked. Please enter the PIN code to unlock
Low battery indication	The power levels below 15%. When this sign lights up, the mower will return to the station and charge.
Bluetooth	Bluetooth connected
Wi-Fi	Wi-Fi connected
Battery level	The quantity of cells indicates the battery level from 25% to 100%
Dashboard display	It shows the mowing duration, PIN code, error code, etc. Meanings of the numbers and symbols on the display : Time: Mowing duration EXXX: error code, for example, E305. See for further instruction. A-XX: Updating firmware progress

5.2 Buttons operation

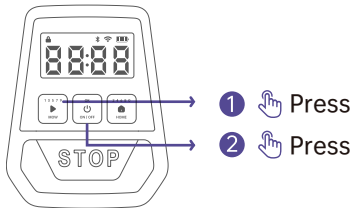
🔌 Power ON/OFF



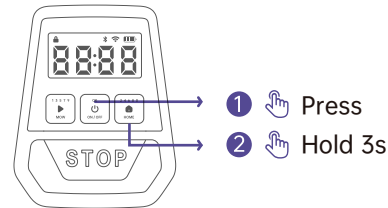
⏹ Stop mower operation



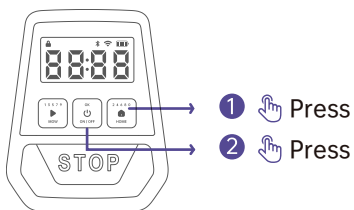
▶ Start global mowing



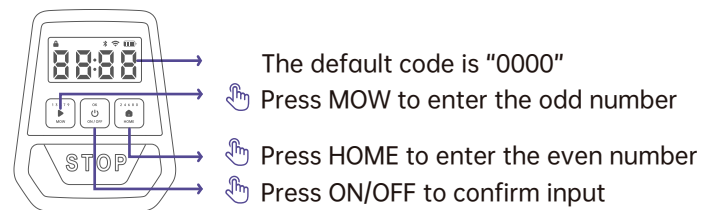
📍 Start spot mowing



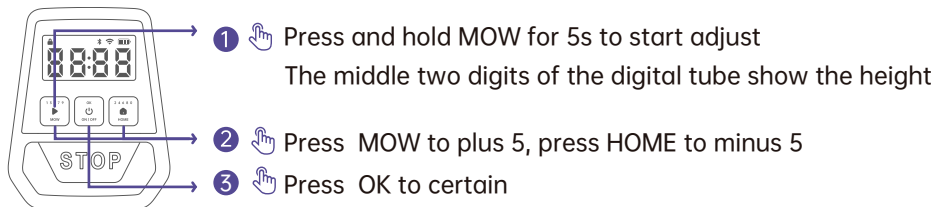
🔋 Mower returns to the docking station



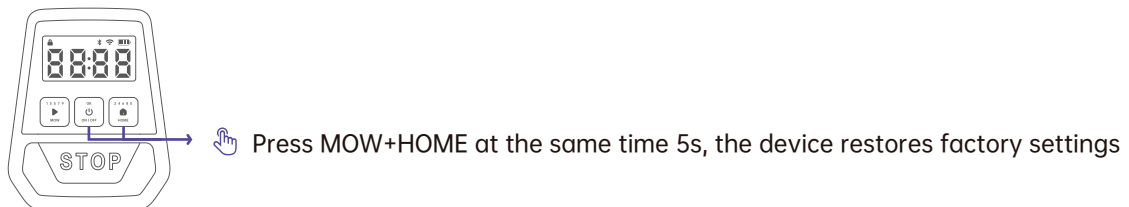
🔒 How to unlock the mower?



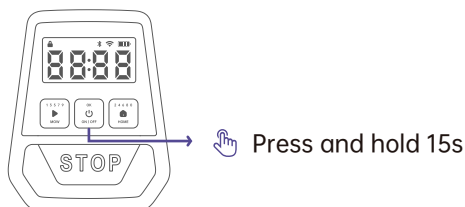
↕ Adjust cutting height



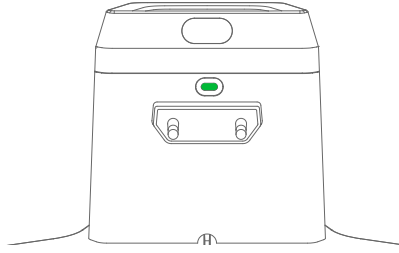
🔄 Restore factory settings



🔌 Forced shutdown



5.3 Docking station light cue



Docking station LED indicator color and meaning:

Solid white	The mower is not on the docking station.
Solid red	Mower is charging.
Solid green	Mower is fully charged.
White and red flashes alternately	Boundary wire broken.
Flashing yellow	Mower is updating firmware.

5.4 Mowing

Do not let children ride the mower.

Press the STOP button on top of the mower before lifting. Always lift the mower by its handle.

1. After successful installation, it's able to press and hold "ON/OFF" key 3s or move the robot on the docking station to power on the robot.
2. Before mowing, it is needed to enter the PIN code to unlock the device.
Note: The default code is 0000, and you can go to Device page > MORE CONTENT > PIN-Code Reset in the APP to reset the code.
3. After unlocking the device, you can begin mowing immediately by press "MOW" + "ON/OFF" on the display, or on the APP by pressing "START" .
4. You could also set up a programmed schedule in the calendar using the APP.
5. Set a schedule with frequent repetitions. This achieves good mowing results, the battery charge will last longer and you avoid debris on the lawn.

5.5 The ANTHBOT APP

ANTHBOT APP can be downloaded from Apple APP Store or Google Play. Or scan the QR code to download and install ANTHBOT APP.

Follow the APP prompts to add the device.



6. Common trouble shooting

When there is an abnormality, an error code is shown in the app and the mower display. Below is a list of the error codes, what they mean and what to do:

Error code	Meaning	Solution
E104	Error: Firmware update failed	Please restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E202	Error: Bumper sensors triggered constantly	Please gently rock the top cover. If it fails, restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E204	Error: IMU data error	Please remove the obstacles or tap the sensor gently to release it, then press the STOP button and press MOW+ON/OFF to resume mowing. If it fails, restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E207	Error: Cable-TOF sensor error	Please restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E301	Error: Mower cannot return to the docking station	Please confirm no obstacles in the path and the docking station is installed on a flat surface. Press the STOP button on the mower, then HOME+ON/OFF to return. If the error persists, please put it in the docking station manually.
E302	Error: Mower is trapped	Please press the STOP button, then put it on boundary wire or and press MOW+ON/OFF to resume mowing.
E304	Error: Mower is lifted	Please place the mower on a flat surface and check if the front wheels are stuck, then press the STOP button and press MOW+ON/OFF to resume mowing. If it fails, restart the mower and then put it in the docking station. If this happens frequently, contact after-sales service
E307	Error: Mower has turned over	Please place it in the proper position and put it back in the boundary or docking station. Press the STOP button on the mower, and then press MOW+OK to resume mowing. Please set the area where the mower turns over frequently as an off-limit island.
E310	Error: Mower is not started on the dock or boundary wire	Please relocate the mower on the boundary or the docking station, press the STOP button to clean error code, press MOW+ON/OFF to start mowing.
E311	Error: Mower has collisions on mapping	Please clear obstacles on the boundary, then move mower to the docking station and press the STOP button to clean error code, Press MOW+ON/OFF to start mowing again. Please check is the docking station set right(the left side of docking station need to be in the mowing area).
E313	Error: Mower is at tilt over limit	Please place it in the proper position and put it back in the boundary or docking station. Press the STOP button on the mower, and then press MOW+OK to resume mowing. Please set the area where the mower turns tilt over 24° as an off-limit island.
E314	Please check whether the top cover is stuck.	Please gently shake the top cover to remove any foreign objects caught in the gaps and securely close the top cover. Press MOW+OK to start mowing.
E315	Please clear the obstacles around the docking station.	Please clear away the obstacles around the docking station and the foreign object on the wheels. Place the robot back on the docking station and press MOW+OK to restart the robot.
E401	Error: Left wheel error	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E402	Error: Right wheel error	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.

Error code	Meaning	Solution
E432	Error: Cutting motor error	Please keep the mower still, and try to restart the mower. If the error persists, contact after-sales service.
E436	Error: Cutting motor error	Please press the STOP button on the mower. If the error persists, contact after-sales service.
E437	Error: Cutting motor stall protection	For your safety, power off the mower first. 1. Check if the blade disc is stuck, remove the unusual object. 2. Check if the grass is too thick and dense, cut your lawn to a height of no more than 10 cm/4 in. Restart the mower and resume mowing. If the error persists, contact after-sales service.
E440	Error : Left wheel motor error	Please press the STOP button on the mower. If the error persists, contact after-sales service.
E441	Error: Left wheel motor stall protection	Please check if the left wheel is stuck. Remove the unusual object, then press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E442	Error: Left wheel motor error	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E445	Error : Left wheel motor error	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E446	Error : Left wheel motor error	Please press the STOP button on the mower and press and hold on ON/OFF 3s to shut down the robot, then put it on the docking station, restart the mowing task. If the error persists, contact after-sales service.
E447	Error: Left wheel motor temperature anomaly	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E450	Error : Right wheel motor error	Please press the STOP button on the mower. If the error persists, contact after-sales service.
E451	Error: Right wheel motor stall protection	Please check if the right wheel is stuck. Remove the unusual object, then press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E452	Error: Right wheel motor error	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E455	Error : Right wheel motor error	Please press the STOP button on the mower and press MOW+ON/OFF to resume mowing. If the error persists, contact after-sales service.
E456	Error : Right wheel motor error	Please press the STOP button on the mower and press and hold on ON/OFF 3s to shut down the robot, then put it on the docking station, restart the mowing task. If the error persists, contact after-sales service.
E457	Error: Right wheel motor temperature anomaly	Please wait for about 1 minute before the temperature returns to normal. Then, press the STOP button on the mower and press MOW+ON/OFF resume mowing.
E501	Error: Battery error	Please restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E502	Error: Battery overvoltage protection	Please press the STOP button on the mower. If the error persists, disconnect the mower from the docking station, and contact after-sales service. Do not disassemble the battery pack and make sure to use a genuine battery.

Error code	Meaning	Solution
E503	Error: Battery undervoltage protection	The battery is over-discharged and needs to be charged. If the battery temperature is lower than 0 degrees or higher than 50 degrees, wait for the temperature to return to above 0 degrees or below 50 degrees before charging. After charging to 60% power, press the STOP button to clear it. If the error persists, disconnect the mower from the docking station, and contact after-sales service. Do not disassemble the battery pack and make sure to use a genuine battery.
E507	Error: Battery temperature is too low	Place the mower in a warm environment (operating temperature: 0°C–50°C), then press the STOP button on the mower. If the error persists, contact after-sales service. Do not disassemble the battery pack and make sure to use a genuine battery.
E601	Error: The docking station communication error	Please re-plug the docking station into the power adapter, then press the STOP button on the mower. If the error persists, contact after-sales service.
E604	Error: The boundary wire break	Please put the mower in the docking station, according the broken point position showed on the APP device page to find and fix it.
E605	Error: The mower out of boundary	Please put the mower in the boundary area, then adjust the boundary wire laying where the mower go out frequently.
E606	Error: The mower mapped failed	Please adjust the boundary wire laying refer to Quick Start Guide, eg. The docking station need to be set on flat lawn, the boundary wire need to be laid under 15% slope...
E607	Error: The boundary wire length or working area are overlimit	Please adjust the boundary wire laying to decrease the boundary wire length.
E609	Error: The Metal nails are pinned abnormally	Please re-pin the metal nails, or move the docking station to different place, ensure the nails sink into soil.
E610	Error: The docking station update failed	Please restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E611	Error: No boundary wire	Please lay and connect the boundary wires correctly before trying again.
E612	Docking station is reversed.	Please change the direction of the docking station, ensuring that the left side of the dock (with the grass icon) remains within the working area. After adjusting the boundary wire, press MOW+OK to start mowing.
E613	Docking station signal error.	Please turn off the power, restart both the docking station and the robot, and then start the robot to begin mowing. If the error persists, please check if the wire at the bottom of the docking station is broken and contact after-sales customer service.
E702	Error: Factory reset failed	Please restart the mower and then put it in the docking station. If the error persists, contact after-sales service.
E703	Error : The blade is missing or damaged	Please turn the robot off and check blades whether loose or missing. Tighten the blade screws after replacing the new blade. Please pay attention to safety during operation.

For the latest error code, please refer to the APP online manual.

7. FQA

Issue	Cause	Solution
Abnormal vibration when the mower is operating	A damaged blade disc	Check the blades and the blade disc. Replace if damaged or worn. The blade disc has to be replaced by an authorized technician.
The mower does not charge or it turns off automatically in the docking station	<ol style="list-style-type: none"> 1. High/low battery temperature 2. The docking station is not connected to the power socket 3. The contact strip is unclean 	<ol style="list-style-type: none"> 1. When the mower temperature returns normal, try docking again. 2. Connect the docking station to the power adapter and plug it into the power socket. 3. Clean the contact strip.
The mower does not work according to the schedule	<ol style="list-style-type: none"> 1. The STOP button is pressed down or jammed and the mower cannot start automatically 2. Low battery 3. Water on the rain sensor 	<ol style="list-style-type: none"> 1. Make sure the STOP button is completely released. Turn off the mower and check if there is any foreign object stuck in the STOP button. If yes, remove the object and try mowing again. 2. Charge the mower battery to 85%. 3. If the rain sensor is triggered, the mower cannot start working. Wait for the water to dry up or turn off the rain sensor in the APP.
The mower does not go back to the docking station	The docking station is covered or blocked by obstacles	Remove all obstacles covering, blocking or surrounding the docking station.
The mower is stuck	<ol style="list-style-type: none"> 1. The wheels lost traction because of mud or grass 2. Soft ground such as sand 3. Deep ditch 	<ol style="list-style-type: none"> 1. Remove anything that's stuck on the wheels. 2. Fill in the gap and keep the lawn surface level and flat.
The boundary wire was cut	The boundary wire is not tight to the ground	<ol style="list-style-type: none"> 1. Check if the boundary wire is overhanging, use pegs to keep boundary wire tight to the ground. 2. The boundary wire can be buried in the soil with a depth of less than 4 cm.
The mower shows mapping fail	During the mapping, obstacles may block the robot from moving along the boundary wire	Confirm if the mower collided with any obstacles during the mapping. Remove the obstacles, move the mower back to the docking station, first press STOP, then press MOW+ON to remap.
Uneven or patchy mowing	<ol style="list-style-type: none"> 1. The preset mowing time is insufficient 2. The blades are blunt 3. The grass is too high 4. The blades cannot pivot normally 	<ol style="list-style-type: none"> 1. Adjust the mowing time so that it matches the mowing area and the mower has enough time to finish the task. 2. Replace the blades. 3. Set the cutting height to a higher level and then lower to the desired height gradually. 4. Clean the blades.
The mower cannot power on	The battery is over-discharged	Place the mower in the docking station, fully charge it, and restart the mower.
The mower cannot connect to a Wi-Fi network	<ol style="list-style-type: none"> 1. The mower is too far away from the router 2. The Wi-Fi network is not 2.4 GHz 3. Wi-Fi permission is not granted to the APP 	<ol style="list-style-type: none"> 1. Place the mower closer to the router. 2. Connect the mower to a 2.4 GHz Wi-Fi network. 3. Grant permission to the APP.

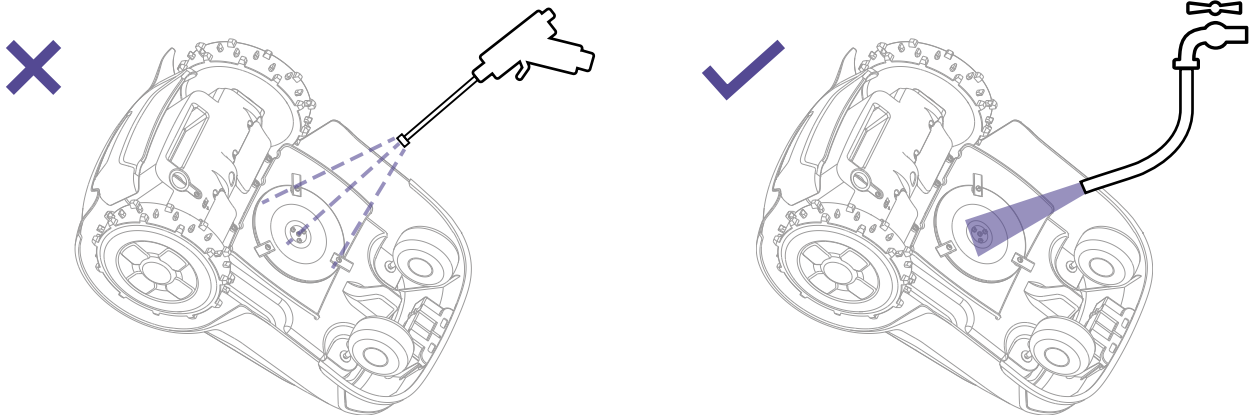
8. Maintenance and care

Regular inspection and maintenance is required to ensure optimal performance:

1. Clean debris and dirt after each use.
2. Regularly inspect critical components.
3. Check and replace worn parts.
4. Follow the manufacturer's recommended times and intervals for routine maintenance.

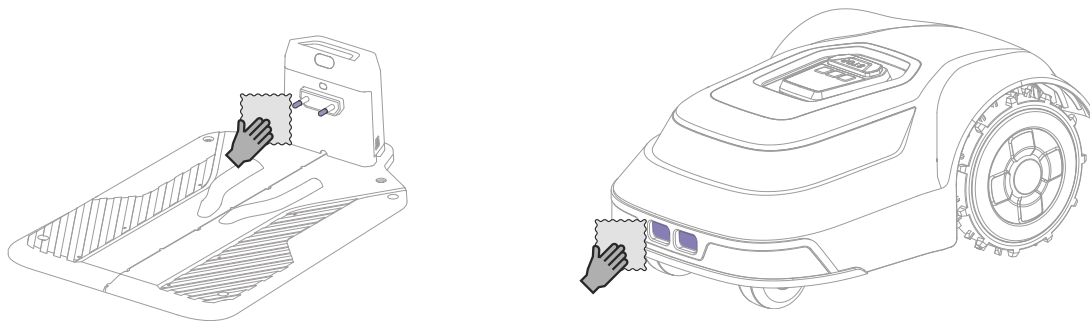
1. Cleaning the blade disc and wheel assemblies

As shown in the figure, please rinse the blade disc assembly regularly.



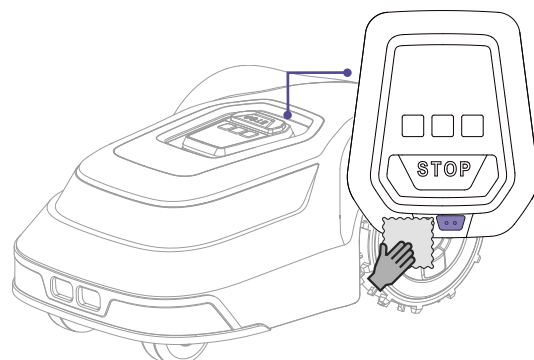
2. Cleaning charging ports and pins

As shown in the figure, please clean the charging contact plates regularly to prevent dirt from causing abnormal charging contact.



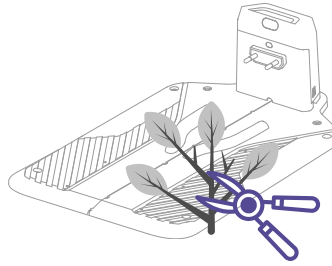
3. Cleaning the rain detection sensor

As shown in the figure, please check regularly if the rain detection sensor is dirty and clean the sensor probe points periodically to prevent false triggering of the rain sensor.

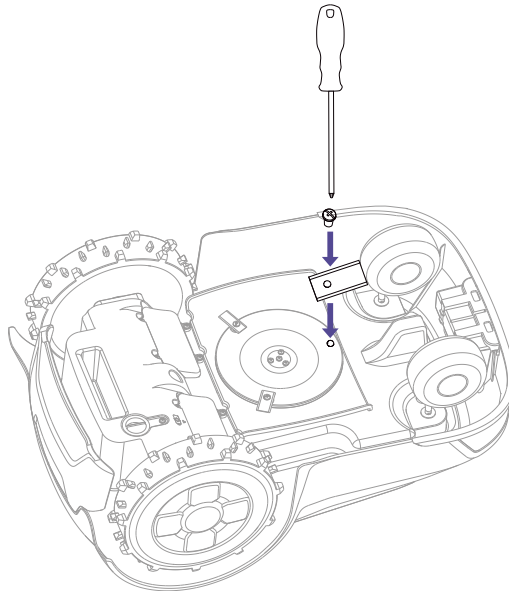


4. Clearing plants around docking station

Please ensure there are no obvious obstacles or plant obstructions near the docking station to prevent abnormal docking of the device.

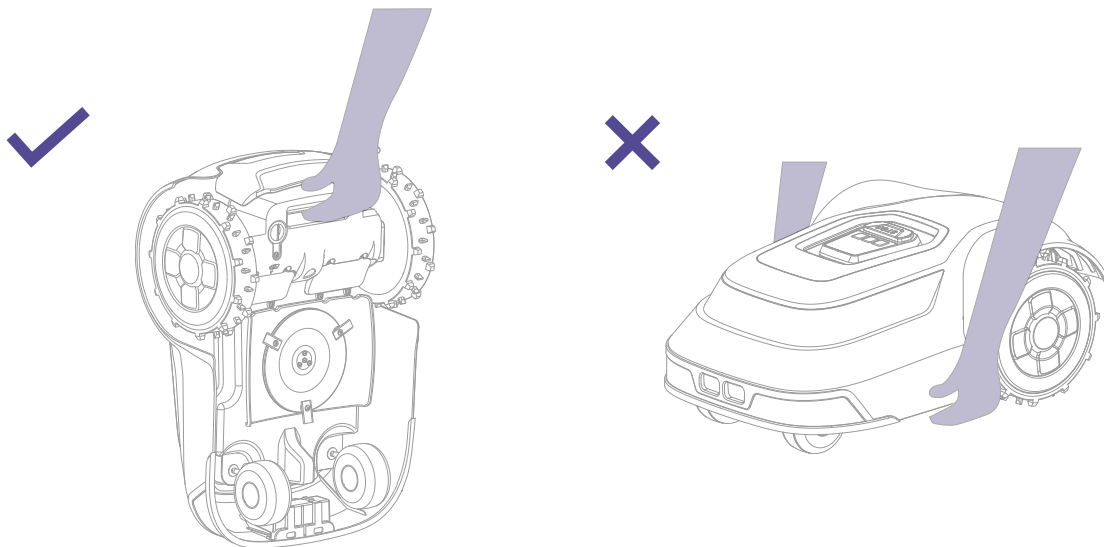


5. It is recommended to replace the blade every three months.

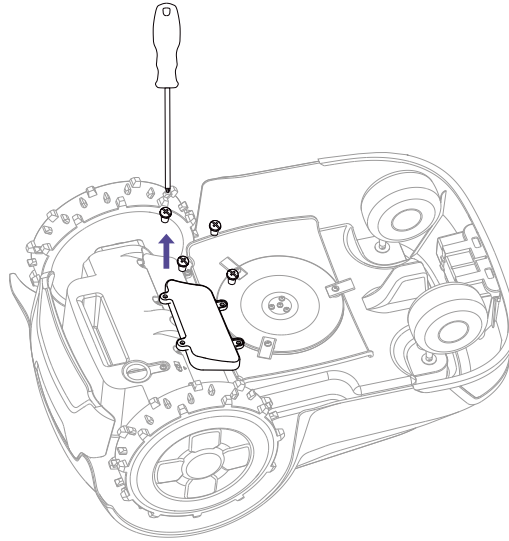


6. Device lifting operation illustrated

As shown in the figure, place both hands on the rear handle and end of the device, avoiding the blade disc assembly as much as possible.



7. How to replace the battery
 - a. Power off the device first
 - b. Lay the device down on a soft, clean platform
 - c. Use a screwdriver to unscrew the battery compartment screws and remove/replace the battery



9. Recycling and end-of-life disposal

1. DO NOT treat this product as domestic waste. For recycling information, contact your domestic waste service, your municipality, or point of sale.
2. For questions about how to remove the battery, refer to About Battery.
3. WARNING: DO NOT dispose of this product in a landfill, by incineration, or by mixing with household trash. Danger or serious injury can occur because of the electrical components.

10. Warranty terms

ANTHBOT warranty covers this product's functionality for a period of 1 year from date of purchase.

The warranty covers serious faults relating to materials or manufacturing faults. Within the warranty period, we will replace the product or repair it at no charge if the following terms are met:

- The product and the docking station may only be used in compliance with the instructions in this Operator's Manual. This manufacturer's warranty does not affect warranty entitlements against the dealer/retailer.
- End-users or non-authorized third parties must not attempt to repair the product.
Examples of faults which are not included in the warranty:
 - Damage caused by water seepage from using a high-pressure washer, or from being submerged under water, for example when heavy rain forms pools of water.
 - Damage caused by lightning.
 - Damage caused by improper battery storage or battery handling.
 - Damage caused by using a battery that is not a original battery.
 - Damage caused by not using original spare parts and accessories, such as blades and installation material.
 - Damage to the loop wire.
 - Damage caused by non-authorized changing or tampering with the product or its power adapter. The blades and wheels are seen as disposable and are not covered by the warranty.

If an error occurs with your ANTHBOT product, please contact ANTHBOT customer service for further instructions. Please have the receipt and the product's serial number at hand when contacting ANTHBOT customer service.

11. About the manual

Please update the APP to the latest version to obtain the most recent user manual. The table of contents can be found in the APP under More content > Instruction.

The features and content described in this manual are related to the model of the product that you have purchased, market, and software version. For the latest feature updates, please refer to the release notes.

This manual is copyrighted by ANTHBOT. Without the written permission of the ANTHBOT, any unit or individual shall not copy, modify, reproduce, transcribe or transmit in any way or for any reason. This manual is subject to change without notice at any time.

12. Note

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures.

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

The device must not be co-located or operating in conjunction with any other antenna or transmitter.

FCC RF Radiation Exposure Statement Caution: To maintain compliance with the FCC's RF exposure guidelines, place the product at least 20 cm/8 in. from nearby persons.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

ANTHBOT

Your Lawn, Perfected

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Customer Service: support@anthbot.com

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