

madimack

mower

Robotic Mower



INSTALLATION MANUAL

Thank you for choosing our robotic lawn mower.

Designed for private use, this advanced mower autonomously trims your lawn within a boundary wire, alternating between mowing and charging as needed. The intelligent navigation system ensures efficient coverage, eliminating the need to collect grass clippings. Operation settings can be adjusted via the control panel or app.

Important Safety Warnings

To ensure safe and optimal use, please follow these guidelines:



Read the Manual:

Read the user instructions carefully to understand meanings before using the machine.



Disable Before Handling:

Turn off the product before performing any maintenance or lifting it.



Keep Safe Distance:

Never touch moving parts; keep children and pets away from the work area.



Avoid Misuse:

Do not ride, sit on, or allow anyone near the robot during operation.



Handle Blades Carefully:

Use protective gloves when handling cutting devices to avoid injury.

Failure to observe these warnings may result in injury, property damage, or void the warranty.

These symbols can be found on the product. Make sure that you understand them.

General Usage Guidelines

- The mower is intended for residential lawn care only; modifications or improper use are prohibited.
- Operate only in the defined boundary area; supervise use in unfenced public spaces.
- Inspect the work area for obstacles like stones or toys before operation.
- Use only manufacturer-recommended batteries, chargers, and accessories.
- Do not use in adverse conditions like standing water, thunderstorms, or extreme temperatures.
- Disconnect all power sources during severe weather or when not in use.

Maintenance and Inspection

- Regularly check blades, screws, and mechanical parts for wear or damage. Replace damaged components immediately.
- Avoid placing heavy objects on the robot or charging station.

For repairs or technical issues, consult a qualified professional.

Special Considerations

- Operate within the temperature range of 0–50°C (32–122°F) and charge within 5–45°C (41–113°F).
- Avoid interference from metal objects, electric fencing, or wireless systems.

By adhering to these guidelines, you'll ensure safe and efficient performance of your robotic lawn mower.

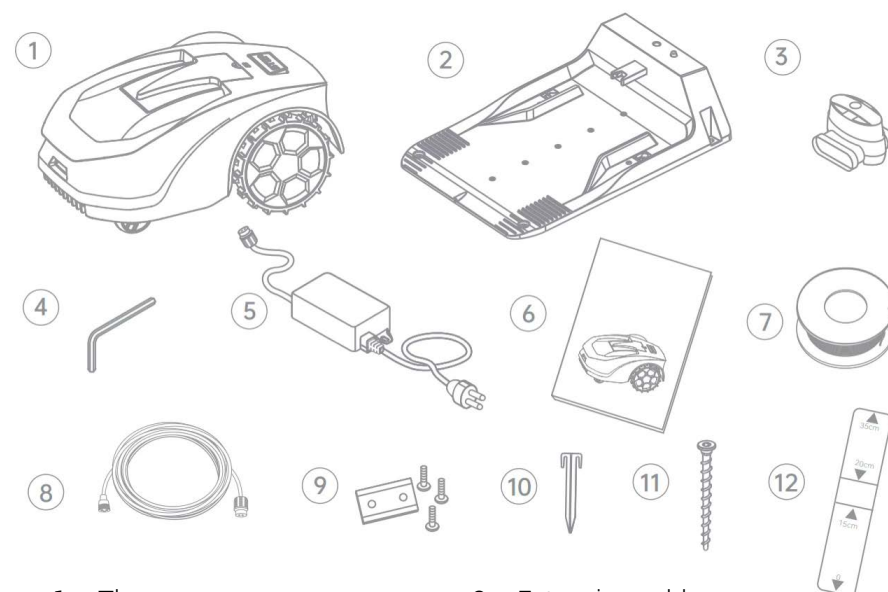
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1 | PRODUCT OVERVIEWS

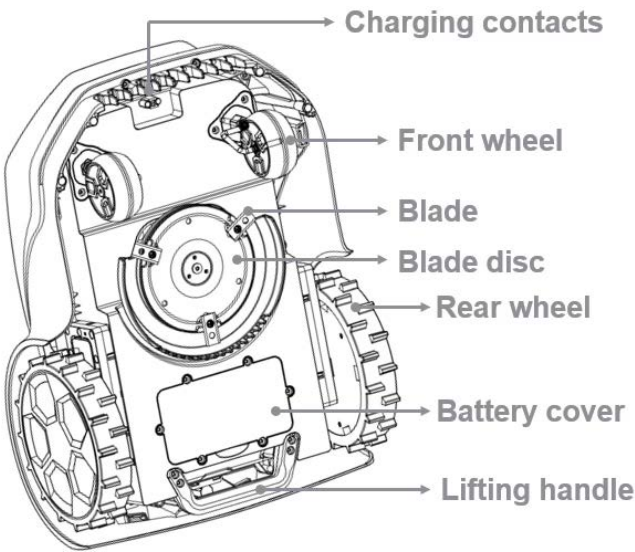
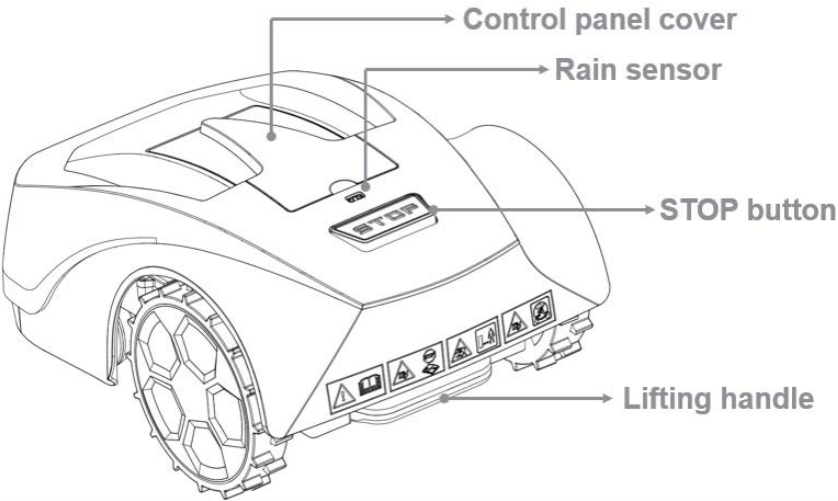
1.1 Packaging content

The following items are included in the packaging of mower, if there is any damage or loss, please contact your dealer.



- | | |
|-----------------------------|--|
| 1. The mower | 8. Extension cable |
| 2. Charging station | 9. Extra blades |
| 3. Boundary wire connectors | 10. Wire pegs |
| 4. Hex key | 11. Fixing screws |
| 5. Power supply | 12. Measurement gauge for installation of the boundary wire (it is removed from the carton of the product) |
| 6. Manual | |
| 7. Boundary wire | |

1.2 Parts of the Madimack Mower



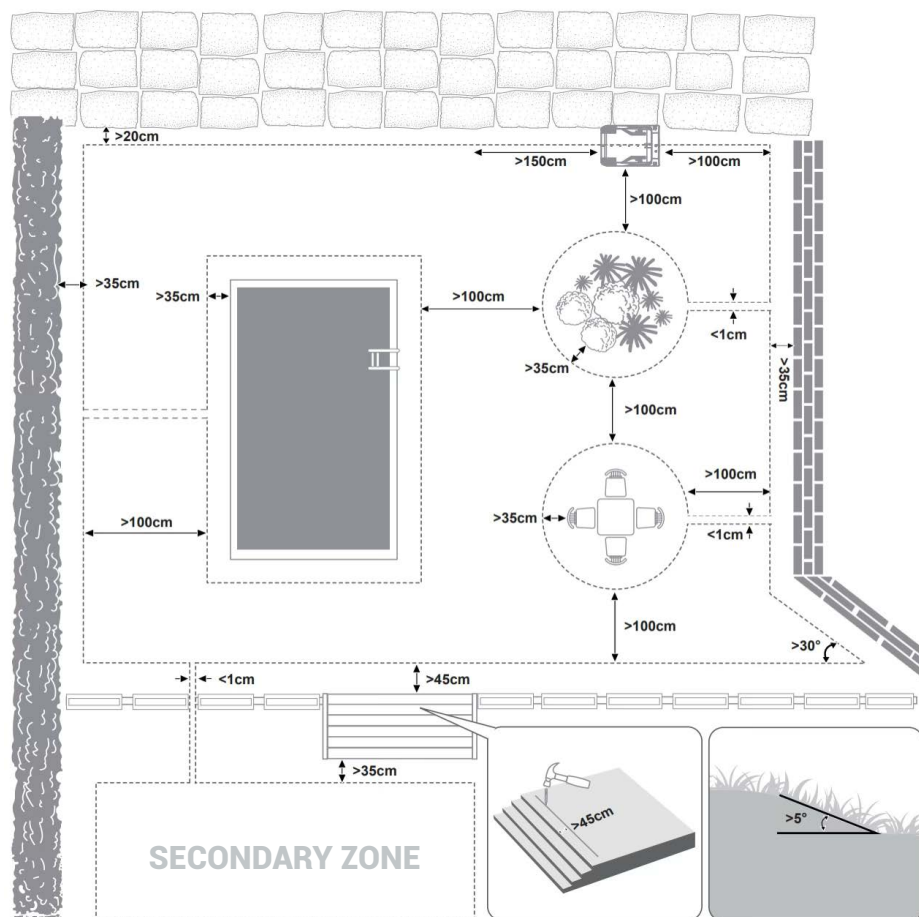
1.3 Technical Specifications

MODEL	750	1500
Power System		
Maximum Smart Path, m ²	500	800
Maximum Mowing area, m ²	750	1500
Maximum Mowing time, h	2.5	3.5
Battery type	Li-ion	Li-ion
Battery capacity, Ah	4	6
Battery voltage,V	21	21
Charging current, A	2	4
Charging time, h	2	1.5
Cutting System		
Blade	3	3
Cutting blade speed, rpm	2300-3100	2300-3100
Cutting height min/max, mm	30-60	30-60
Cutting width, mm	180	180
Moving speed, m/s	0.35	0.35
Max Slope, Inside Zone/ At boundary/ Smart Path	45% / 10% / <8%	45% / 10% / <8%
Features		
Sound level, dB(A)	54	54
APP / WiFi / Bluetooth	Yes	Yes
Optimum working temperature, °C	0-50	0-50
Protection level	IP66	IP66
Dimensions, mm	558*400*251	558*400*251
Net weight, KGS	9.8	9.9
Extension cable, m	Optional	10
Ultrasonic sensor	Yes	Yes
Navigation system	Wire + GPS	Wire + GPS

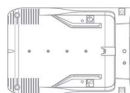
2 | INSTALLATION

2.1 General requirements

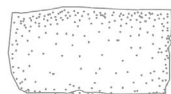
It is recommended to follow these installation instructions carefully to install your mower correctly, the general requirements are shown in the figure and detailed descriptions are as follows.



----- * Boundary wire



* Charging



* Path or others of the same height with the lawn border



* Bushes/Wall/Step or others higher than the lawn border

2.2 Installation procedures

2.2.1 Installing the charging station

The charging station automatically charges the mower and the mower will return here after each mow.

1. Place the charging station within reach of 100-240VAC outlet.
2. Place the charging station in the shade with a strong Wi-Fi signal (if possible).

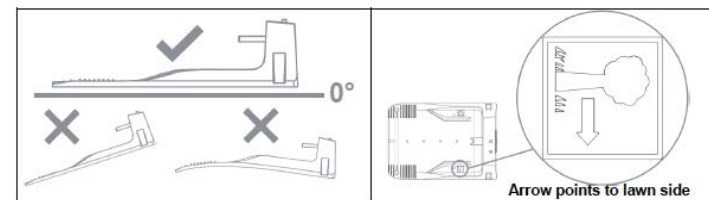
(SMART PATH REQUIREMENT)

Leaving 1.5 metres of straight wire in front of the charging station, no slopes within 1 metre. Leave at least 1 metre of boundary wire behind the charging station

Note: No obstacles within 1m vertically of the charging station

RANDOM PATH CHECKLIST Power supply ≤ 2m Extension cable ≤ 10m	
SMART PATH CHECKLIST 1. Lawn size within Smart Path Limit 2. Lawn slopes ≤ 8° (14%) 3. Off-limit zones ≤ 3 4. Narrow garden passage ≥ 1.5 m Note: You can only choose to mow with Smart Path mode, if your garden meets the above checklist	

The charging station must be placed on flat, level ground to ensure effective docking. The lawn side arrow must point towards the lawn when installing the charging station.



2.2.2 Plan for boundary wire

The boundary wire should be installed as a loop around the desired mowing area. Sensors in the mower detect when it approaches the wire and adjust its direction accordingly. The mower follows the boundary wire from the center of the robot, ensuring precise navigation and consistent operation. This placement of the wire helps the robot maintain accurate guidance.

The boundary wire must be positioned at a specific distance from the lawn's edge, and this distance depends on what lies beyond the edge. For example, different areas of the lawn may have distinct boundary conditions, such as stone paving, a fence, a pool, or other features.

① If the edge of the lawn borders a wall/bush: keep the wire 35cm from the edge.
 ② If the edge of the lawn borders a path of the same height: keep the wire 20cm from the edge.

③ If the edge of the lawn borders an underground pool:

A. Pool with hard fences higher than 10cm, keep the wire 35cm from the edge;

B. Pool without fences or with hard fences less than 10 cm, keep the wire 100cm from the edge.

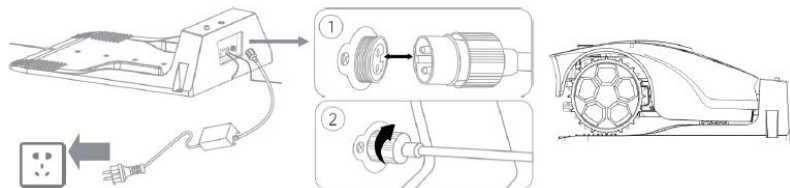
Note: If the edge of the lawn borders a river/lake: keep the wire 100cm from the edge.

④ If the edge of the lawn borders a downward step or slope ($> 5^\circ/10\%$): keep the wire 45cm from the edge.

⑤ If there are some corners in the lawn, ensure that the wire is turned at an angle greater than 30° .

- Secure the charging station to the ground with the included screws, using the provided hex key.
- Insert the wire into the hole at the bottom of charging station and pass it through the charging station, keep 15-20cm at the other side of the charging station.
- Space the pegs roughly 0.5-1m apart. For corners, turns and dips, spacing should be reduced as necessary.
- Hammer the pegs all the way into the ground so they are flush with the surface. Ensure the boundary wire is captured by the peg and securely fastened to the ground.
- Strip the start of the wire by 2cm with a wire stripper, then fold them in half and twist the wires to form a twist.
- Start the boundary wire from the red terminal and end in the black terminal.
- Wire Connectors can be used for repairing broken boundary wire or modify the original boundary wire installation. Strip 2cm of the black insulation from the start of the wire. Insert the wire and press the connector with pliers until the blue clamp is fully seated into the connector body.

8. The plug has a keyway and can only be inserted in the correct orientation, connect to 100-240VAC outlet. Place your mower on the charging station, the green LED will pulse, charge it at least 70% before use.



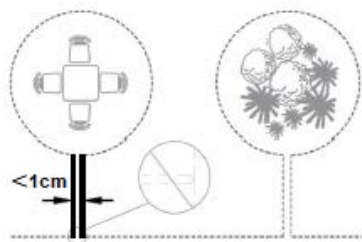
2.2.3 To create off-limit zones

Off-limit zones can be used for:

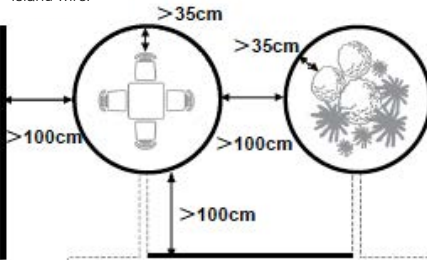
- A. Areas that affect the performances of the mower, such as slopes greater than 25°(45%).
- B. Pools, outdoor furniture and other areas where mower is prohibited to enter in.

Tip: The mower will collide with hard obstacles like trees and automatically select a new mowing path.

The boundary wire creates a continuous loop around the off limit zone. Ensure the wires 'leading to' and 'returning from' the off limit are touching.



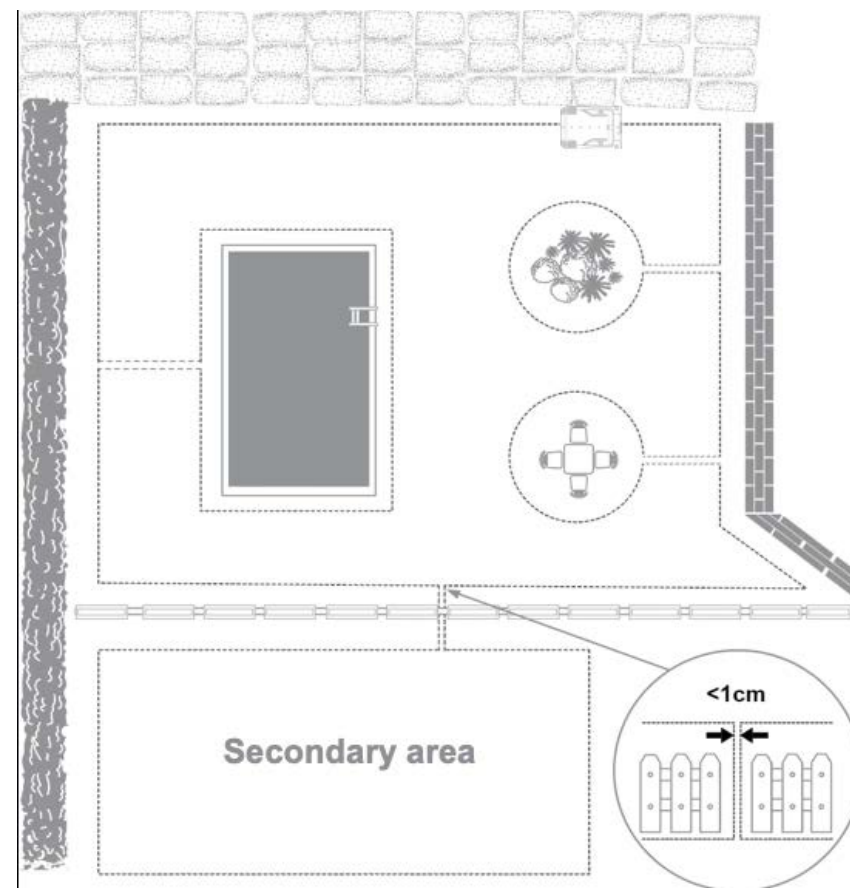
There should be a minimum of 1m from the island to the boundary wire, any island need to be more than 1m away, all objects in the island are minimum 35cm from the island wire.



2.2.4 To create secondary zones

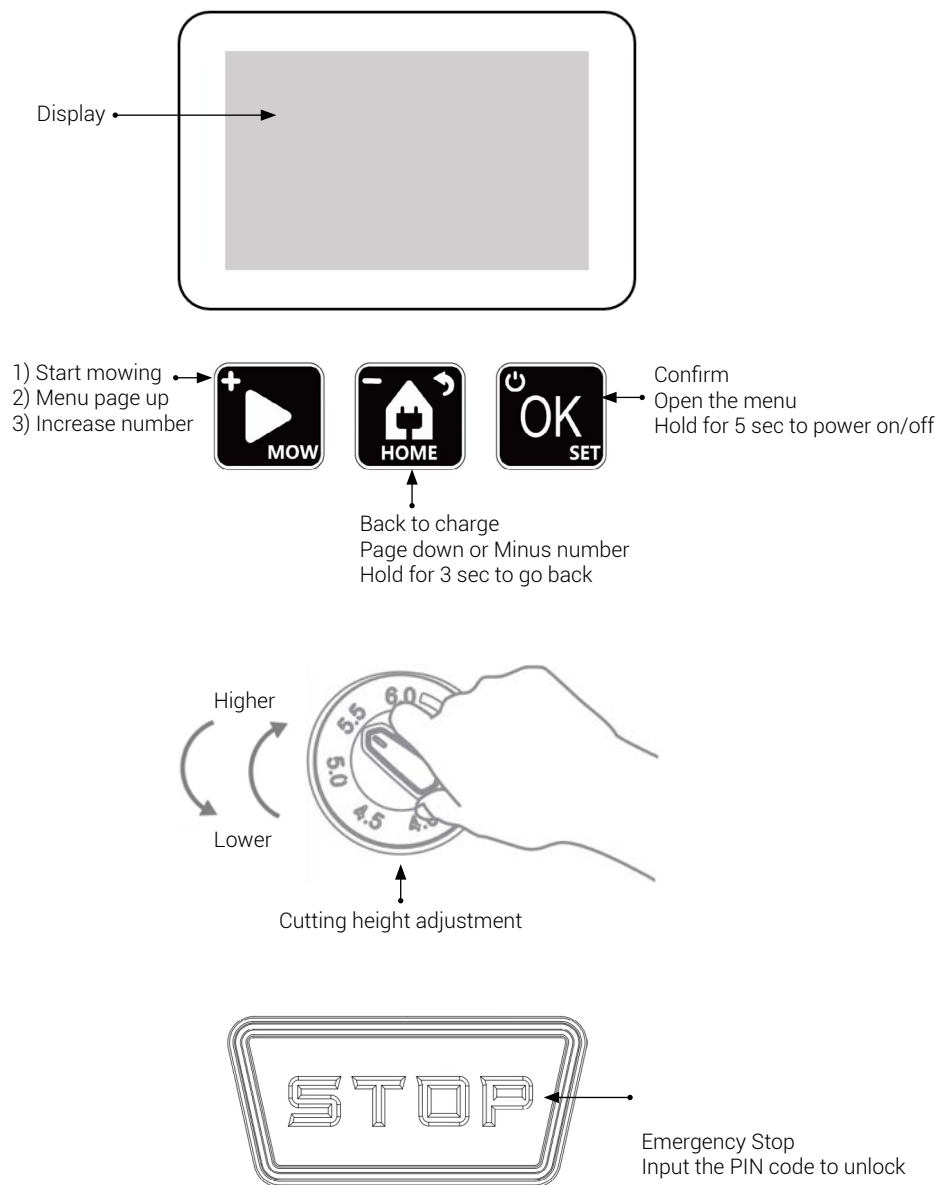
Create several secondary zones if the lawn has two or more sections that are not connected with a wide passage. The lawn area with the charging station is the main zone, others are the secondary zones. When creating secondary zones ensure the boundary wire remains one continuous run that captures the main zone and all secondary zones.

Note: The mower will need to be carried from the main zone to the secondary zones. Smart Path is not available in secondary zones.

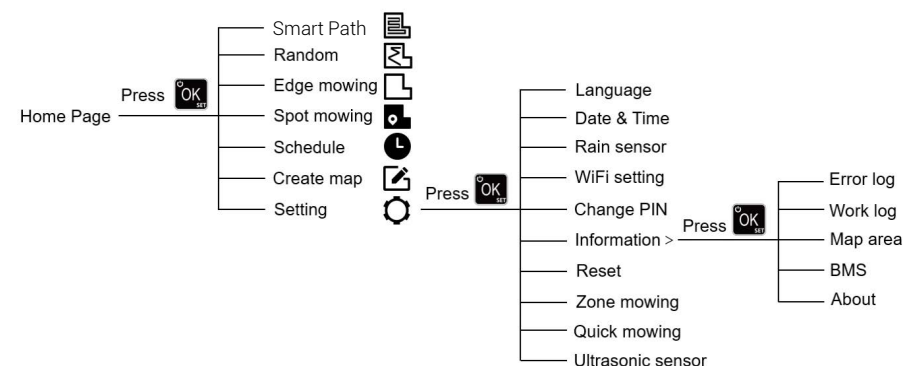


3 | OPERATION

3.1 The Control Panel



Menu Map



3.2 Operating modes

3.2.1 Random

The mower moves in a random path until it reaches low battery level and then automatically returns to the charging station.

Tip: Random mode is the everyday mode used for mowing.

3.2.2 Edge mowing

The mower moves along boundary once and then automatically returns to the charging station.

Tip: Used to ensure a neat edge along the boundary.

3.2.3 Spot mowing

The mower will mow in a spiral movement from its location (except the charging station), it won't stop until spiraling for 3 minutes and then continues the original mode as you set.

Tip: Use spot mowing if the Random mode has missed any spots or when targeted mowing is required.

3.2.4 Smart Path

1. Before using Smart Path set the cutting height to 6 to allow accurate boundary mapping.
2. The mower will map the lawn on the first use. It will follow the boundary wire and divide the lawn into 24m² sections.
3. The mower will mow the lawn in 24m² sections. There are three mowing passes to ensure full coverage. The first mow will be at 90° to the boundary wire.
4. The second pass will be at 45° and the third at 135° to the boundary wire.
5. After completing the three passes, the mower will mow once along the boundary wire and then automatically returns to the charging station.

Tip: Smart Path mode requires specific operating conditions and may not be suitable on all lawns.

3.2.5 Turbo/Smart/Silent mode

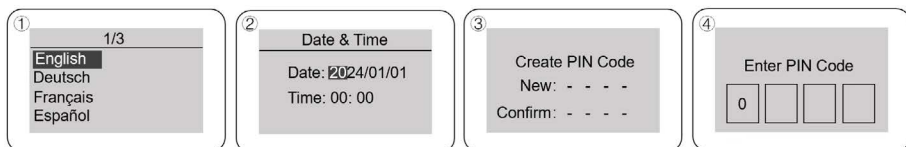
These modes adjust the cutting motor speed. Turbo for fast growing season and tough conditions, Smart for daily mowing, Silent for 1cm cutting length.

3.3 Instructions for first first time use

3.3.1

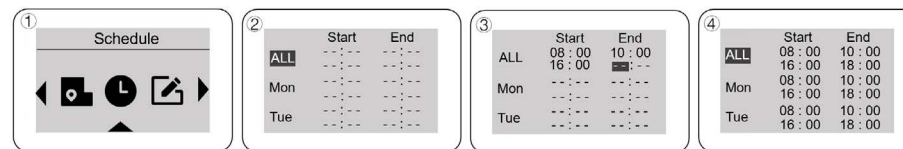
1. Press **OK** for 5s until the screen lights up.
2. Select your language. Press **▶**/**⏮** to select up/down, press **OK** to confirm.
3. Set date & time. Press **▶**/**⏮** to plus/minus the number of "Year", press **OK** to confirm. Use the same method to complete for month/date/hour/minute.
4. Set your PIN code for safety. The **▶**/**⏮** is a combination of 4 numbers between 0 and 9, press **▶**/**⏮** to plus/minus PIN number, press **OK** to confirm, input your PIN code to reconfirm and save.

Note: If you have forgotten your PIN code, you may need to send the mower to Madimack for resetting.



3.3.2 Set your schedule

1. Press **OK** to the menu page, press **▶**/**⏮** to select **L**, press **OK** to enter in.
2. Following the same method as date & time, press **▶**/**⏮** to select the day and time to schedule.
3. You can set two periods a day at most.
4. You can delete the schedule with one click: move the cursor to 'ALL' (Fig.2), then press **▶** for 3s.



3.3.3 Set the cutting height and start mowing

1. Adjust the cutting height to 6.0cm to allow area mapping
2. Press **▶** and **OK**, mower starts mowing in Random mode by default.

Tip: If the grass is tall or thick, mow the edge before creating map.

Note: Please do not press "STOP" when robot saving map on the charging station.

3.3.4 Buzzer rules

1. The buzzer will not sound when starting the mowing task and the cutter will start to rotate after 5 seconds.
2. The buzzer will sound when the GPS signal is lost. The mower will reacquire the signal before resuming.
3. A buzzer will sound when the mower triggers a collision.

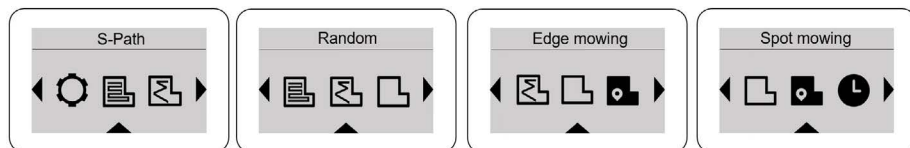
3.4 General settings

3.4.1 Select mowing mode

1. Press **OK** to enter the menu, press **▶**/**⏮** to select mowing mode, and then select the mowing speed (Turbo/Smart/Silent), press **OK** to start mowing.
2. If the main zone with the charging station is mapped, press **OK** and **▶**, the mower will mow in Smart Path mode; Without a map, the mower will mow in Random mode.

3. In a secondary zone (without charging station), the mower can only mow in Random mode. If you select Smart Path , the mower will mow for a while and then report error message because it can't detect the signal from charging station.
4. After Smart Path/Random/Edge Mowing mode has finished, the mower reverts to the previous set mode.
5. Keep the Spot Mowing start 0.75m or more away from the boundary wire. After Spot Mowing mode is finished, the mower reverts to the previous set mode.

Note: Smart Path/Create map/Quick mowing mode are ineffective in the secondary zone.



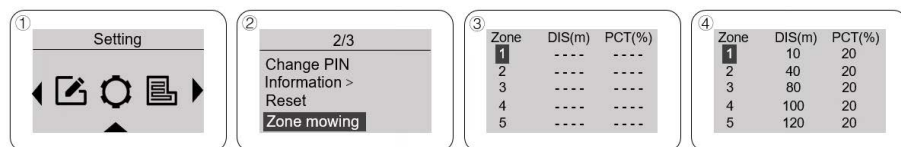
3.4.2 Zone mowing

1. Press **OK** to the menu page, press **▶** / **🏠** to select **⚙️**, press **OK** to enter the setting page, select and enter the "Zone mowing" page.
2. Enter the starting point distance along the boundary wire and the % it will start from this point.

Note: Starting point % needs to total 100%.

Note: Zone mowing is used to improve total lawn coverage by starting the mowing process at various points along the boundary wire in the lawn area that the mower can access from the charging station.

Note: Zone mowing is only available in Random mode.



3.4.3 Resetting the map

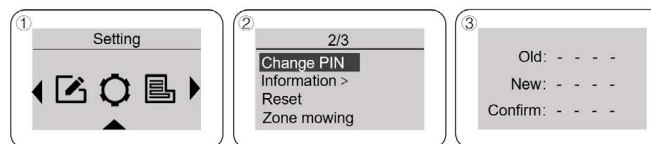
Tip: When the boundary wire is moved the original map becomes invalid. A new map must be made to continue using Smart Path mode.

1. Press **OK** to enter the menu, press **▶** / **🏠** to select **🗺️**, press **OK** to create another map.
2. The blade disc will not rotate when the mower is creating a map.



3.4.4 Changing the Pin Code

1. Press **OK** to enter the menu, press **▶** / **🏠** to select **⚙️**, press **OK** to enter the setting page, select and enter the "Change PIN" page.
2. Using **▶** / **🏠** enter your current/old pin and new pin, press **OK** to confirm, verify the new PIN by repeating it.

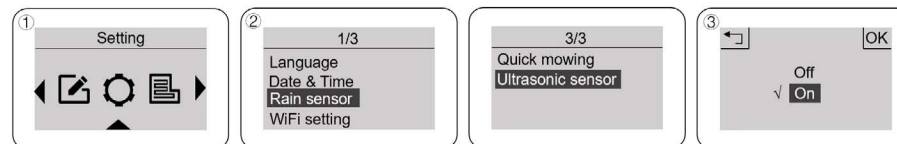


3.4.5 Switch off the Rain and Ultrasonic sensor

1. Press **OK** to enter the menu page, press **▶** / **🏠** to select **⚙️**, press **OK**, select and enter the "Rain sensor" / "Ultrasonic sensor" page.
2. Select "Off" / "On" to switch off / on the sensor.
3. The mower will keep working during rainy days if the "Rain sensor" is "Off".
4. If you need the mower to start mowing after the rain has stopped, you can set the 'Rain delay' time on the APP.

Note:

- The ultrasonic sensor will automatically switch to the "Off" state when the mower is cutting edge / returning / creating a map / repositioning and will switch back on when it is finished.
- The mower rain sensors are not active when on the charging station. If it has recently rained, check the schedule to prevent mowing wet lawns.



3.5 To charge the battery

1. Press **🏠**, robot will follow the boundary wire to the charging station and recharge to 100%.
2. When battery is low, robot will automatically return to the charging station to recharge and complete the remaining tasks when the battery is over 90% charged.

- The LED status of the charging station is a pulsing light when charging is in progress and becomes a solid light when charging is complete.

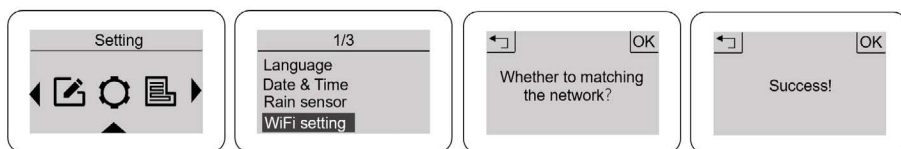
3.6 WiFi setting

3.6.1 Connecting the Mower to the Wi-Fi App

- Press **OK** to enter the menu page, press **▶/🏠** to select **⚙️**, press **OK**, select and enter the "WiFi setting" page.
- Press **OK** and then the display will say "Success!". This activates pairing mode allowing the app to locate mower.
- Confirm that you're connected to 2.4GHz Wi-Fi and your Bluetooth is on, open the "InverGo" APP click add device. The mower should now appear in your nearby devices list. If not add the mower manually.



Note: Scan the QR code to download the "InverGo" App in iOS App Store/Google Play.



3.6.2 Account Registration



Register

Mobile Number/Email

☐ I Agree [User Agreement](#) and [Privacy Policy](#)

[Get Verification Code](#)

Enter Verification Code

1 2 3 4 5

A verification code has been sent to your email
1062662394@qq.com Resend (56s)

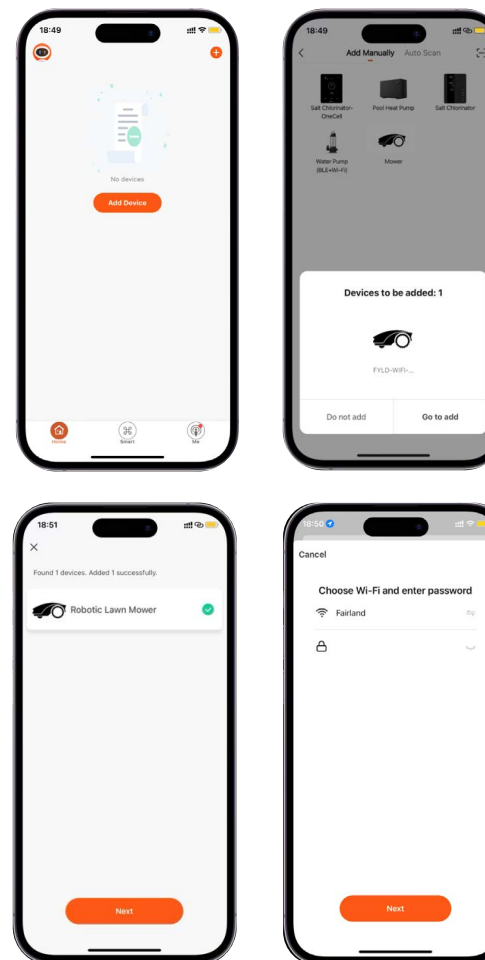
Set Password

Password

Use 6-20 characters with a mix of letters and numbers

[Get Verification Code](#)

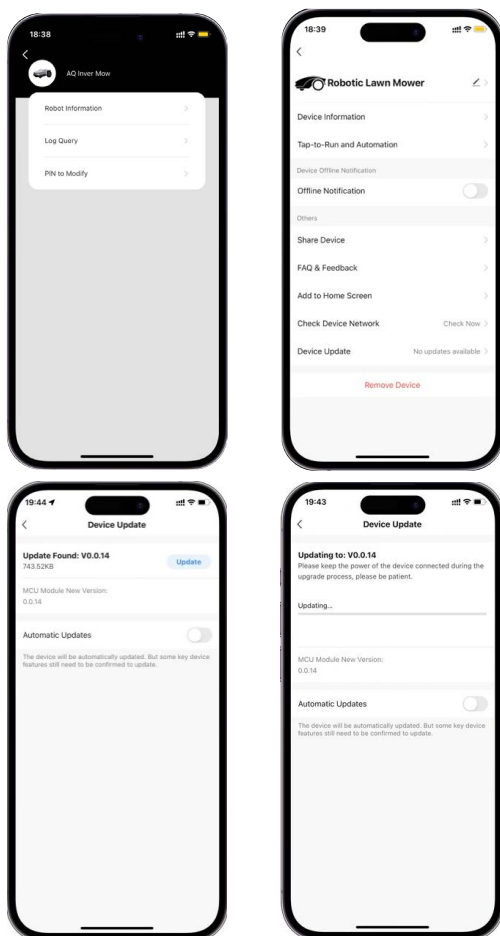
3.6.3 Add the device



Note: Find the mower and click "Add" within 2minutes, or repeat 3.6.1 to find it again. If mower add fails, please check if WIFI is 2.4GHz or use personal hotspot to reconnect.

3.6.4 Over the air (OTA) upgrade

1. Click on the right corner of home page to enter setting page, then select 'Robot Information'.
2. Click Device Update
3. If an update is available there will be an update button, otherwise it will say 'no updates available'.



Note: The mower must be in a place with strong WiFi signal to perform the OTA update.

1. You can choose to update while the mower is on the charging station.
2. You can also move the mower to a place with a strong WiFi signal for OTA update if the battery is 80% charged, but please note that you will need

4 | MAINTENANCE

For better operation and longevity of the product, please clean the product and replace worn parts regularly. Please use protective gloves during maintenance, especially when working near the blade. Before carrying out any type of maintenance, make sure the mower is turned off.

Below are some necessary routine maintenance items.

4.1 Maintenance schedule

Warning: Warranty may be void if maintenance is not completed.

Frequency	Part	Type of maintenance	Reference
Weekly	Blades	Clean and check the efficiency of the blades. If the blades are bent or badly worn, replace them	See "4.3 Replace the blades"
	Rain sensor	Clean and remove any rust	See "4.2.4 Rain sensor"
	Charging contacts	Clean and remove any rust	See "4.2.5 Charging contacts"
Fortnightly	Mower bottom	Clean the mower bottom	See "4.2.1 Bottom"
	Mower wheels	Clean the mower bottom	See "4.2.2 Wheels"
Monthly	Mower	Clean the mower	See "4.2 Clean the product"
Every year	Mower	Have the robot serviced at an authorised service centre	See "6.1 Mower storage"

4.2 Clean the product

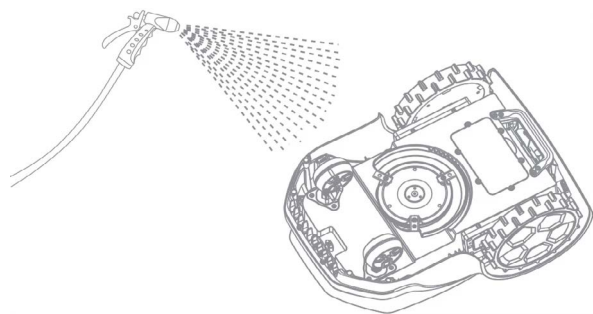
1. The mower and charging station are waterproof to IPX6 and you can use a gentle hose to clean all surfaces.
2. For better cleaning results, it is recommended to use a brush and rag to clean up grass clippings and mud before washing.

Warning: Do not clean the internal parts of the mower and do not use a high pressure water jet, as this may damage electrical and electronic parts.

4.2.1 Bottom

1. Press the emergency stop and clean it with a brush and hose.
2. After cleaning, check and make sure that the blade disc and blades rotate freely.

Note: If working on a wet lawn, clean the mower bottom immediately after finishing the operation.



4.2.2 Wheels

Remove mud and grass from the wheels with a brush and a water hose to ensure good wheel traction.

4.2.3 Body

1. Use a rag and a water hose to clean the body of the product.
2. Please do not use solvents or polishers to avoid potential damage.

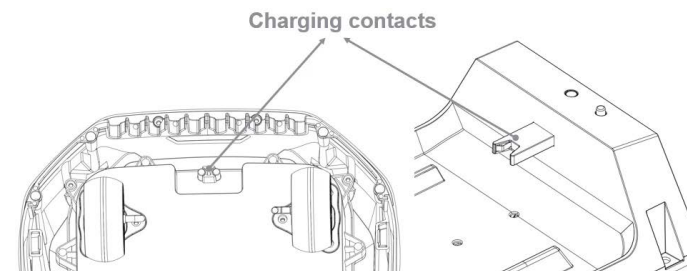
Note: Please close the control panel cover before cleaning the body, do not rinse the screen directly to avoid damaging the mower.

4.2.4 Rain sensor

Regularly clean and remove oxides from the rain sensor with a rag. Avoid rust on the rain sensor to maintain accurate sensing, especially in rainy days.

4.2.5 Charging contacts

1. Clean the charging contacts on the charging station and mower with a rag and a water hose.
2. Regularly remove grass clippings and dust from around the charging contacts to ensure the mower charges successfully each time.

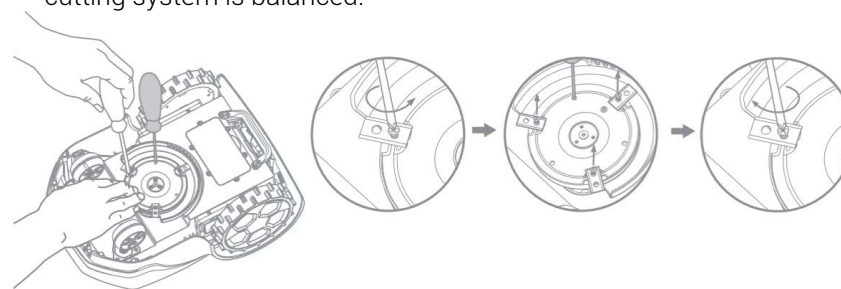


4.3 Replace the blades

1. Ensure the emergency stop button is pressed and the mower is turned off.
2. Turn the mower upside down and put it on a soft and clean surface to prevent scratching the product.
3. Before removing or installing screws, insert a long screwdriver to lock the blade disc from rotating. Avoid accidental injury due to rotation of the blade disc.
4. Use a straight slot or cross-tip screwdriver to remove the screws.
5. Remove the worn blade and attach the new one.
6. Use a straight slot or cross-tip screwdriver to tight the screws, make sure that the blades can swivel freely.

Note:

- The blades have two holes for double the life. The blades can be rotated to use the new edge.
- The usual lifetime of the blades are 1 to 3 months.
- Replace worn or damaged blades while ensuring safe operation.
- Replace the blades regularly to obtain satisfactory cutting results and low energy consumption.
- All 3 blades and screws must be replaced at the same time to ensure the cutting system is balanced.



4.4 Battery

1. It is recommended that always keep the battery in a cool dry place and replace it by your dealer for safety.
2. The life-span of battery depends on hours of usage and the length of use per day.
3. If the mower is not used for a long time, it is recommended to fully charge it at least every six months to protect the battery.

5 | TROUBLESHOOTING

5.1 Operation messages

Message	Cause	Mower Action
Low battery	The battery is less than 20%	Return to the charging station to recharge
	The battery is less than 70% when scheduled task begins or start mowing manually	Continue charging until the battery is over 90%
Mower not in station	Start Main garden mode but not in the charging station	Return to the charging station to start Main garden mode
Place inside the boundary and retry	Start Spot mowing mode in the charging station or boundary wire	Return to the charging station after 3s
Spot mowing finished	Mower has finished Spot mowing mode	Standby after 3s
Charging to work paused	Charging is paused manually	Standby after 3s
Irrigation time	Start mowing in irrigation time	Back to upper page after 3s
Duration at least 30mins	Duration less than 30mins between two tasks	Back to upper page after 3s
Invalid time	Task ends earlier than the start time	Back to upper page after 3s
Loading map...	Mower is loading map	Back to upper page after 3s
Saving map...	Mower is saving map	Back to upper page after 3s
Raining now, returning	Rain sensor is triggered	Return to the charging station after 3s
Rain sensor activated	Rain sensor not dry when starting to mow	Back to upper page after 3s
Update fail	Firmware updating is failed	Back to upper page after 3s
Please close the hatch	Start mowing	Back to upper page after 3s
Calibration timeout	Mower calibration over 3 mins	Back to upper page after 3s

5.2 Error messages

When performing any service on the mower ensure the emergency stop button is pressed and the mower is turned off.

Message	Cause	Mower Action
No loop signal	The power supply is damaged or not connected	If the LED on the charging station is off (not illuminated), it shows that there is no power. Examine the power outlet connection and cable to charging station
	The boundary wire is broken or not connected to the charging station or loose contact between them	If the LED on the charging station is flashing green, it shows that there is a break on the boundary wire or loose contact between them, find the break and repair it with boundary wire connector, or reconnect them with mower
	Mower too far from the boundary wire	Check that the working area does not exceed the area capacity
Left motor blocked	Grass or other objects entangled in the left rear wheel	Check the left rear wheel and remove grass or other objects
Right motor blocked	Grass or other objects entangled in the right rear wheel	Check the right rear wheel and remove grass or other objects
Cutting motor blocked	Grass or other objects entangled in the blade disc	Check the blade disc and remove grass or other objects
Left motor disconnected	Potential problem with the connection of the left motor to the main board	Restart the mower. If the problem persists, please consult your approved service dealer
Right motor disconnected	Potential problem with the connection of the right motor to the main board	Restart the mower. If the problem persists, please consult your approved service dealer
Cutting motor disconnected	Potential problem with the connection of the cutting motor to the main board	Restart the mower. If the problem persists, please consult your approved service dealer
Left motor hall error	All three hall levels of the left motor are detected to be continuously low or high	Do not lift mower, then enter the PIN code to deactivate the fault
Right motor hall error	All three hall levels of the right motor are detected to be continuously low or high	Place the mower inside the boundary wire, then enter the PIN code to deactivate the fault
Cutting motor hall error	All three hall levels of the cutting motor are detected to be continuously low or high	Place the mower horizontally inside the boundary wire, then enter the PIN code to deactivate the fault

Left motor over current	Grass or other objects entangled in the left rear wheel	Check the left rear wheel and remove grass or other objects
Right motor over current	Grass or other objects entangled in the right rear wheel	Check the right rear wheel and remove grass or other objects
Cutting motor over current	Grass or other objects are entangled in the blade disc	Check the cutting motor and remove grass or other objects
Battery low temperature	Battery temperature is too low	Mower will start mowing again when the temperature is between the set limits and the schedule setting allows it to run Please ensure that the charging station is placed in a sun protected area
Battery over temperature	Battery temperature is too high	
Battery over current	The power supply unit is faulty	Restart the mower. If the problem persists, please consult your approved service dealer
Battery damage	Battery fault detected	Use only original batteries recommended by the manufacturer
Battery low voltage	The battery has not been used for a long time	Recharge the battery. Ensure the battery is recharged at a minimum every 6 months.
Mower tilted	The mower is tilted over 35° and less than 55°	Move the mower to a flat area
Mower lifted	Two front wheels are lifted up	Move the mower to a flat area
Mower rollover	The mower is tilted over 55°	Move the mower to a flat area
Mower trapped	Trapped in the charging station over 3mins	Remove mower from charging station manually
	Auto recharge failed 3 times	Ensure that the charging station is properly installed on a level surface. Clean the charging contacts
	Duration of collision over 10 seconds or three times	Restart the mower

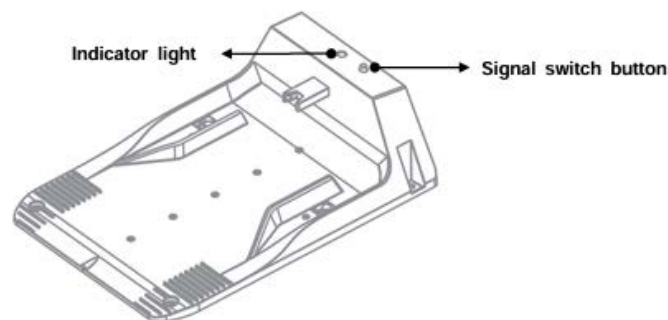
Outside working area	The boundary wire connections to the charging station are crossed	Make sure that the start and end boundary wire connections are in the correct terminal
	The boundary wire area is too steep	Ensure that boundary wire is installed correctly. Refer to 'SECTION 2. Installation'
	The boundary wire is under the minimum requirements of the work area edge	
	The boundary wire around off-limit zone is not installed correctly. The boundary wires are crossed	
	Interference from metal objects (fences, garden shed, water meter) or cables buried nearby	Adjust boundary wire to reduce interference
	The mower cannot find the correct loop signal because of interference from an outside source.	Place the mower on the charging station and create a new loop signal. Refer to '5.3'
Create map fail	There are some objects on the boundary or charging station	Remove obstacles
	Mapping was interrupted by slippery terrain or obstructions	Set mower to maximum height.
	Working area beyond the area capacity	Reduce the working area to suit the specifications of your product
EMS sensor disconnect	Potential problem on the PCB board	Restart the mower. If the problem persists, please consult your approved service dealer
IMU sensor failure		
Left Loop sensor failure	Potential problem on the PCB board	Restart the mower. If the problem persists, please consult your approved service dealer
Right Loop sensor failure		

5.3 Indicator light in the charging

Light	Description
Green pulsing	Mower is charging in the charging station
Green solid	Mower is fully charged in the charging station/The loop signal is normal
Green flashing	The loop signal is unusual
Red flashing	Pressing the button on the charging station, new loop signal is created successfully

Note: In the event two robotic mowers are in close proximity the boundary wire signal can be switched by pressing the signal switch button on the charging station. This is identified if;

1. Indicator light appears green flashing, the loop signal is unusual.
2. Signal interference caused by the boundary wires of the two robotic mowers being too close to each other.



5.4 Symptoms

Symptoms	Cause	Action
LED light on charging station does not light up	No power supply	Check that the charging station is correctly connected to the charger and that the charger is connected to a suitable power supply
Green light flashing on the charging station	The boundary wire is broken or not connected, or the start and end boundary wires are in the wrong terminals	Check that the boundary wire is correctly connected to the charging station and that there are no breaks in the boundary wire
Mower turns on, but the blade disc does not rotate	Mower is creating map / returning to charging station	This is normal: when mower is creating map / returning to charging station, the blade disc does not rotate
Mower vibrates	Blade disc unbalanced, blades may be damaged	Check the blades and replace if damaged, remove debris and foreign objects from the blades and blade disc

Grass is being cut unevenly	Mower works too few hours a day	Increase the mowing time
	The blades are dull and not sharp	Change all the blades so that maximum cutting efficiency is achieved
	The cutting height is set too low for the length of the grass	Raise the cutting height and then gradually lower
	Grass or other objects entangled in the blade disc	Check the blade disc and remove any grass or other objects that might prevent the disc from rotating
Mower is in its working area and the boundary wire is connected, but the display shows 'Mower is outside'	The boundary wire ends are installed incorrectly in the start and end terminals	Reverse both ends of the boundary wire and reconnect to the start and end terminals
Charging time well in excess of rated charging time	Poor connection caused by debris on the charging station	Clean the contact paddles on the charging station and the charging contacts on the mower
	The battery temperature is too high	Place the charging station in a sun protected area or wait until the temperature down
Mower mows for shorter periods than usual between charges	The battery may be exhausted or old	Replace battery
	Grass or other foreign object blocks the blade disc	Remove and clean the blade disc
	Dull blades, more energy is needed when cutting the grass	Replace the blades
Mower does not interface properly with the charging station	Charging station uneven	Use a level to ensure that the charging station is on level ground
	Poor connection caused by debris on the charging station	Clean the contact paddles on the charging station and the charging contacts on the mower
Rear wheels slipping or repeatedly slipping	Foreign obstacles, such as branches may be obstructing the mower	Remove foreign objects from the bottom of the mower
	The lawn is too wet	Wait until lawn is dry

Ultrasonic sensor failure to avoid obstacles	The location of the obstacle is beyond the recognition range of the ultrasonic sensor. (Recognition range: 1. Angle between mower and obstacle: 60-120°, 2. Minimum size of obstacle: 25cm*3cm)	In addition to ultrasonic sensor, the mower has current collision protection.
	The mower is turning or an obstacle suddenly appears	For soft obstacles in fixed positions, it is recommended to use the boundary wire to set them as off-limit zones
Mower system crashes when charging or standby	Software or display fault	Restart the robot. If the problem persists, please consult your approved service dealer
Mower shuts off when docking in the charging station	Mower fails to charge due to over temperature protection and is powered off	Place the charging station in a sun protected area or wait until the temperature reduces
	Poor connection caused by debris on the charging station	Check the LED light on the charging station and the connection between the contact paddles located on the charging station and the charging contacts on the mower

6 | STORAGE AND DISPOSAL

6.1 Robot storage

After the end of the mowing season, it is necessary to carry out a series of maintenance to ensure that the robot operates well at the time of reuse.

1. Fully charge the battery before winter storage and ensure that they are recharged at least every 6 months.
2. Disconnect the power plug from the electrical outlet. If necessary, disconnect any cord connections on the charging station as well.
3. Clean the mower and charging station, check any worn or damaged parts (e.g. blades) and evaluate them for replacement.
4. Store the mower and charging station in a cool, dry place at an ambient temperature of between 10°- 20°C, keeping it away from children, animals, other foreign objects, etc. In order to keep the mower in good condition, it is recommended to have it routinely serviced by an authorised dealer. The maintenance usually includes the following operations:
 - Complete cleaning of the mower and all other moving parts.
 - Checking the mower is in functioning order.
 - Check any worn or damaged parts and replace them if necessary (e.g. blades).
 - Checking the battery capacity and replacing it with a new one if necessary.
 - If necessary, the dealer will update the software for the mower.

6.2 Robot disposal

At the end of its useful life, this product will be classified as WEEE (waste electrical and electronic equipment). Therefore, it must not be disposed of as ordinary household waste, mixed municipal waste (unsorted) or municipal waste (sorted).

When disposal is required, the user must ensure that the product is recycled in accordance with the requirements of local legislation; in particular, electrical and electronic components must be separated and sorted at an authorised WEEE Waste Disposal Centre or handed over to the dealer in their original condition at the time of purchasing a new product. Misuse of WEEE will be penalised by the local legislation in force.



Note:

1. Packaging - Users must dispose of product packaging in a sustainable manner in dedicated waste disposal containers or authorised waste disposal centres.
2. Batteries - Old or exhausted batteries contain substances that are harmful to the environment and human health and therefore must not be disposed of as ordinary household waste. The user must dispose of batteries in a sustainable manner in a special waste disposal container or at an authorised waste disposal centre.

7 | WARRANTY

STANDARD CONDITIONS

Madimack Pty Ltd distributes products for Australia and New Zealand and provides the following warranty conditions: the individual warranty documentation can be found online on the Madimack website location for warranty information. Visit <https://madimack.com/au> & <https://madimack.com/nz>

STATUTORY RIGHTS

The benefits to the consumer under this warranty are in addition to other rights and remedies of the consumer under the laws in relation to the goods and services to which the warranty relates. Our goods come with guarantees that cannot be excluded under Australian Consumer Law. You may be entitled to a replacement or refund for a major failure and compensation for any other loss or damage. You are also entitled to have the goods repaired if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

LIMITED WARRANTY

Please visit www.madimack.com.au for all warranty terms and conditions. Madimack will, at its discretion, repair or replace any product proven to be defective during the warranty period for either materials or manufacture. Alternatively, Madimack will pay the cost of repair or replacement within 90 days of receiving the defective product, subject to unforeseen delays. This warranty is applicable for domestic installations only, is personal to the original purchaser, and does not transfer to any subsequent purchasers.

EXCLUSIONS

To the extent permitted by law, Madimack excludes all statutory or implied conditions and warranties, as well as any other liability that may arise under statute or at law, including without limitation liability for breach of contract, negligence, or any other cause of action. The following exclusions apply:

- Incorrect installation or operation of the unit resulting from failure to follow the provided instructions
- Damage caused due to misuse or any means other than a manufacturer defect
- Repairs or servicing performed by unauthorised dealers or service stations.
- Damage caused by an unauthorised service agent repair.
- Faults in the machine's operation caused by using non-specified accessories.
- General wear and tear of consumable items.

LIMITATION OF LIABILITY

To the extent permitted by law, Madimack's liability under any condition or warranty that cannot be legally excluded in relation to the supply of goods and services is limited to one of the following options:

- Repairing the goods.
- Replacing the goods with equivalent products or services.
- Paying the cost of replacing the goods or providing equivalent products or services again. Paying the costs of repairing the goods.

PROCEDURE FOR WARRANTY CLAIMS

Making a claim

The following steps should be taken when making a warranty claim with Madimack Pty Ltd.

1. Owners experiencing issues with their system are to contact Madimack Pty Ltd service departments online portal to and provide the requested information. www.madimack.com.au
2. A service agent will review the provided information and will contact you on the provided phone number to try and solve the issue.
3. If the issue cannot be dealt with over the phone, owners will be supplied with details of service agent in their area.
4. Owners will need to contact and deal with service agents directly in relation to the booking in and payments of works related to the service or repair of their Madimack product.
5. Owners can claim reimbursement for costs of works covered under the product warranty when completed by an approved Madimack Service Agent. When making a claim, owners will need to provide the following documents.
 - Proof that you are the original system owner
 - Original invoice showing owner name and property address.
 - Copy of invoice from a Madimack approved service agent.
 - For a major defect a copy of the report for major defects from an approved Madimack Service agent.

In the event of a warranty claim, the faulty product should be returned to the place of purchase or, to an authorised service and warranty agent repair centre. You are responsible for arranging the removal of the defective product and the installation of the repaired or replacement product.

This includes all transportation costs and any applicable insurance fees associated with transporting the products to the supplier and the replaced or repaired product from the supplier.

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