

smonet

User Manual

Robotic Lawn Mower



Model: RLM1000



Read and Save the Instructions

CONTENTS

Customer Service	01
Safety Instructions	01
Introduction	06
Product Overview	06
Display & Buttons	09
Installation	10
Installation Preparation	10
Install the Charging Station	10
Lay the Boundary Wire	11
Secure the Charging Station	15
Power Connection	15
App Control	16
Create an Account	16
Unlock the Mower	16
Add the Device to the App	17
App Homepage Overview	18
Basic Operations	19
Mow	19
Pause	19
Recharge	19
How Our Mower Works	20
Automatic Mapping	20
Global (All-area) Mowing	20
Spot Mowing	21
Obstacle Avoidance	21
Auto Recharge & Auto Resume Mowing	21
Rain Detection	21
Edge Cut	22

Broken Point Detection & Repair	22
How to Repair a Broken Boundary Wire	22
About Error Codes	23
Maintenance	29
Blades Replacement	29
Cleaning	29
Storage	30
FAQs	31
How to Unlock the Mower	31
How to Charge the Mower	31
How to Change the Cutting Height	31
How to Set the Mowing Schedule	31
How to Upgrade the Firmware	31
How to Extend the Boundary Wire	32
Technical Data	33

CUSTOMER SERVICE

All SMONET products come with lifetime support. Feel free to contact us if you have any questions.

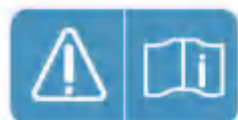
Toll-free: 1-888-821-8066

Email: techsupport@smonet.com

Mon-Sun: 12 pm-8 pm, 9 pm-6 am (EDT)

SAFETY INSTRUCTIONS

Symbols on the Machine



Warning

Read the user manual before operating the machine



Warning

Keep a safe distance from the machine while it is operating.
Keep your hands and feet away from the rotating blades.



Warning

Power off the machine before working on or lifting it.



Warning

Do not ride on the mower.
Do not put your hands close to or under the machine.

Attention Before Use

- ◆ Install and operate the mower and the charging station according to the instructions.
- ◆ Using the mower for non-mowing purposes can cause serious injury. Please read and understand all warnings and instructions to minimize risks. The operator/user is responsible for accidents or hazards to others on their property.
- ◆ The robotic lawn mower has safety sensors, but risks still exist. Schedule mowing when no people or pets are on the lawn. Inform neighbors about potential hazards. For public lawns or open areas, protect or fence the lawn and use warning signs: "WARNING! Automatic lawn mower! Keep away! Supervise children!"
- ◆ Do not modify the lawn mower. Modifications may interfere with mower operation, cause serious injury and/or damage, and void the limited warranty.
- ◆ Before working on the mower, or during transport and storage, make sure the mower is switched off and the power supply plug is removed from mains.
- ◆ Recommended user age: 18-70. Read instructions before use.
- ◆ Avoid machine use by children, individuals with reduced physical, sensory or mental capabilities, lack of experience or knowledge, and those unfamiliar with instructions. Follow local age restrictions for operators.
- ◆ DO NOT operate the mower outside the temperature limits; 0–50°C (32–122°F), because low/high temperature can decrease mower performance and even lead to accidents.
- ◆ DO NOT place anything on the mower or the charging station.
- ◆ It is recommended to conduct regular maintenance of the mower by an adult.
- ◆ Regularly check the warning devices to ensure they are effective. These devices include the buzzer, the LED light on the charging station, and the screen on the mower.
- ◆ Before charging, please read the section about How to Charge to set the charging station. Improper use may cause electric shock, overheating, or leakage of corrosive liquid.

Attention Before Mowing

- ◆ Regularly check that all parts of the mower can function normally.
- ◆ Operate the machine only when the battery compartment is shut with the cover and all the screws in place. This protects the battery against moisture.
- ◆ DO NOT mow on areas with slopes steeper than the maximum incline inside the working area (45%), as well as the boundary (15%).
- ◆ To prevent cord damage and contact with live parts, keep extension cords away from moving hazardous parts.
- ◆ Do not connect a damaged cord to the supply or touch a damaged cord before it is disconnected from the supply cause damaged cords can lead to contact with live parts.
- ◆ 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.
- ◆ Periodically inspect the working area of the machine 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.
- ◆ To avoid possible damage, keep the operating mower at least 1 m (3 feet) 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.
- ◆ NEVER allow children to touch the power supply unit, charging station, blades, the battery compartment, or any parts with gaps such as the wheels.
- ◆ To connect the peripherals only to a supply circuit protected by a residual current device (RCD) with a tripping current of not more than 3A.

Attention During Mowing

- ◆ Maintain balance and caution when operating or approaching the mower, especially on slopes and wet grass. Avoid leaning too far forward and refrain from rushing while operating the mower.
- ◆ Do not operate the machine when barefoot or wearing open sandals, always wear substantial footwear and long trousers.
- ◆ Avoid mowing in bad weather conditions especially when there is a risk of lightning.
- ◆ If the mower makes an abnormal sound or emits an alarm, press the STOP button immediately.
- ◆ DO NOT leave the machine unattended if there are pets, children or people in the vicinity.
- ◆ DO NOT allow children to be in the vicinity or play with the machine when it is operating.
- ◆ DO NOT lift the mower in operation.
- ◆ DO NOT ride on the mower.
- ◆ DO NOT touch moving hazardous parts before they have come to a complete stop.
- ◆ DO NOT put other cables near the charging station and the boundary wire.

Turn off the mower in these situations:

- ◆ Before clearing a blockage,
- ◆ Before checking, cleaning,
- ◆ Before storage,
- ◆ If the machine vibrates abnormally.
- ◆ If the machine strikes a foreign object.
- ◆ Before inspecting the machine for damage.place.

Recharge only in the original charging station. This appliance contains batteries that are only replaceable by skilled persons.

About Battery Safety

- ◆ Do not open the battery compartment. There is a sign pointing out the position of battery, but it is not recommended to open it. There is a risk of short-circuiting.
- ◆ Protect the battery against heat (e.g., against continuous intense sunlight), fire, water, and moisture. There is a risk of explosion.
- ◆ **WARNING:** For the purposes of recharging the battery, only use the power supply unit provided with this appliance.
- ◆ 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.
- ◆ In case of damage and improper use of the battery pack, vapour may be emitted. Ventilate the area and seek medical help in case of complaints. The vapour can irritate the respiratory system.
- ◆ 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.
- ◆ 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.
- ◆ Do not short-circuit the battery. There is a risk of explosion.
- ◆ Use only original battery packs intended specifically for the machine. Use of any other battery packs may create a risk of injury and fire.
- ◆ The mower 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 mower will return to the docking station or stay in place.
- ◆ Recharge only in the original charging station. This appliance contains batteries that are only replaceable by skilled persons.

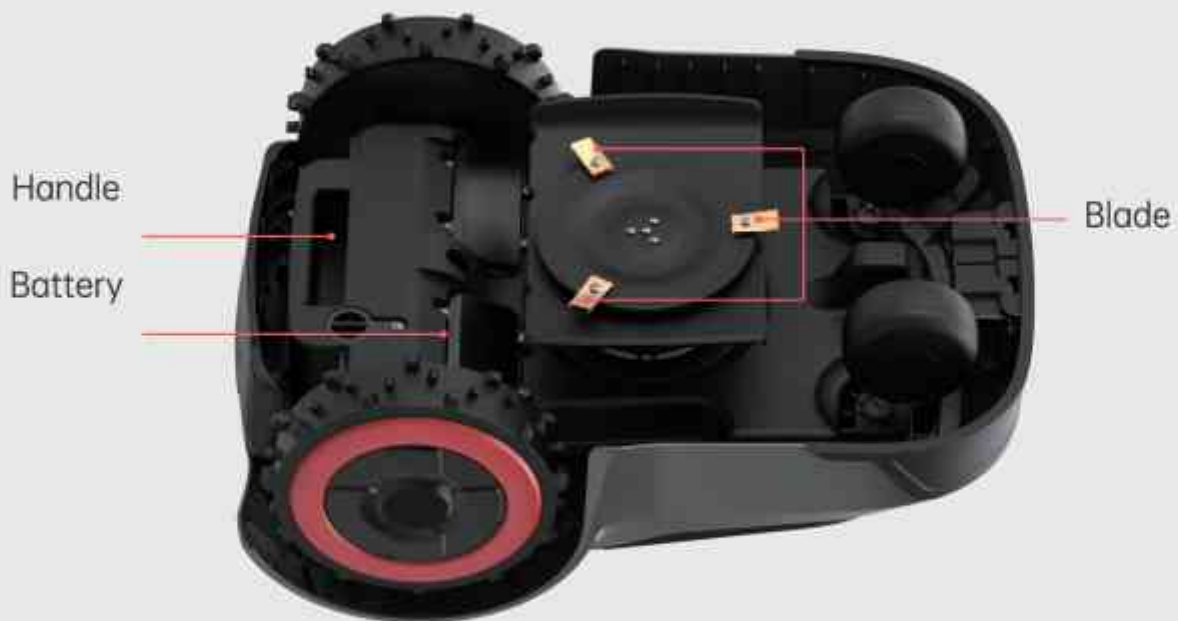
INTRODUCTION

- ◆ The mower is intended for lawn mowing.
- ◆ Do not operate the mower indoors.
- ◆ To avoid the increased risk of accidents and damage to the mower, do not use the mower for any other purposes.
- ◆ Never attempt to modify the mower in any way since this may result in accidents or damage to the mower.

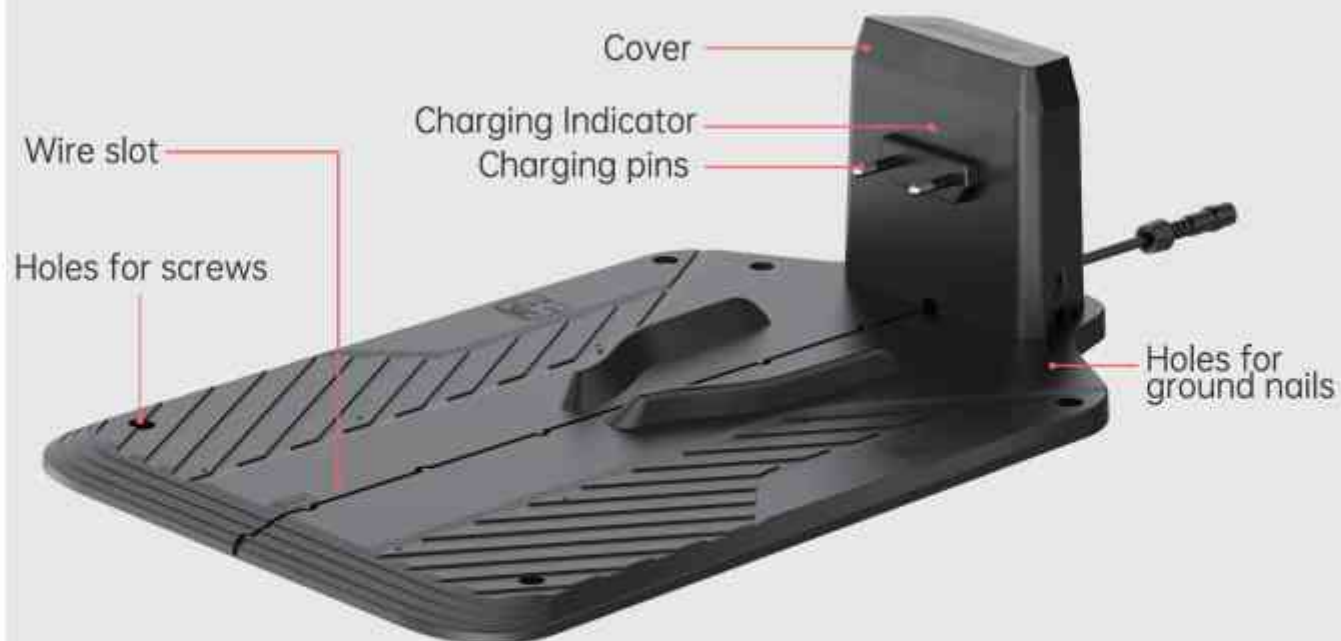
Product Overview

Lawn Mower





Charging Station



Accessories



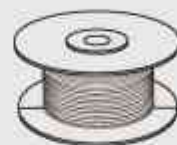
Extension cable
10m*1



Power Adapter*1



Hex Key*1



Boundary wire
180m*1



Screws*6
(For securing the
charging station)



Ground Nails*2
(For securing the charging
station)



Pegs*240
(To keep the boundary
wire in place)



Ruler*1



Wire connector*6



Blades*6







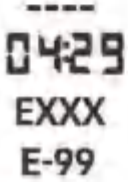

Screws*6






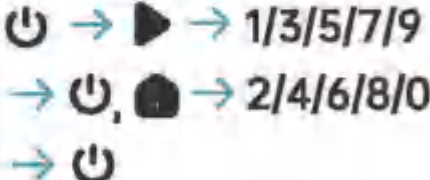


User Manual*1







Display & Buttons

Display Guidance

	PIN code	To prevent unauthorized usage, the robotic lawn mower is protected by a PIN code. The default PIN code is 0000, you can reset the PIN code in the App settings.
	Low Battery	When the battery level is below 15%, the battery icon lights up red, the mower will automatically return to the charging station to recharge.
	Bluetooth	Bluetooth connected.
	WIFI	WIFI connected.
	Other icons	----: No boundary signal. Time: Mowing duration. EXXX: Error code. Check the error codes section for details . EXXX: Updating firmware progress.
	Battery Level	The quantity of cells indicates the battery level from 25% to 100%.

Button Control

Basic operation		
Power on	Press and hold On/Off for 5s.	
Power off	Press and hold On/Off for 5s.	
Start global mowing	1.Unlock the mower first. 2.Press MOW, then press OK to confirm.	
How to unlock the mower	Enter a 4-digit PIN code. The default PIN code is 0000 (Method: press the OK button 4 times) ,you can reset the PIN code in the App settings. ◆ Press MOW to choose 1/3/5/7/9, then press OK to confirm. ◆ Press HOME to choose 2/4/6/8/0, then press OK to confirm,	
Start spot mowing	Press MOW and then press and hold HOME for 3s.	
Stop mowing	Press the STOP button.	

Mower returns to the charging station	Press HOME and then press OK.	 → 
How to restore the factory default settings	Press and hold MOW + HOME for 5s	 +  
Forced shutdown	Press and hold On/Off for 15s	

INSTALLATION

Installation Preparation

◆ Clear obstructions on the lawn

To prevent damage to your belongings, please remove small objects from the lawn that the mower might collide with. Clear branches and stones beforehand to minimize the risk of damaging the machine.

◆ Pre-mow the lawn

The cutting height can be adjusted between 30 and 70 mm. If the grass exceeds 70 mm in height, manual mowing is necessary to keep the grass height within the mower's working range.

◆ Tools Required

Claw hammer (to secure the pegs into the ground)

Wire strippers (to cut and strip the wire)

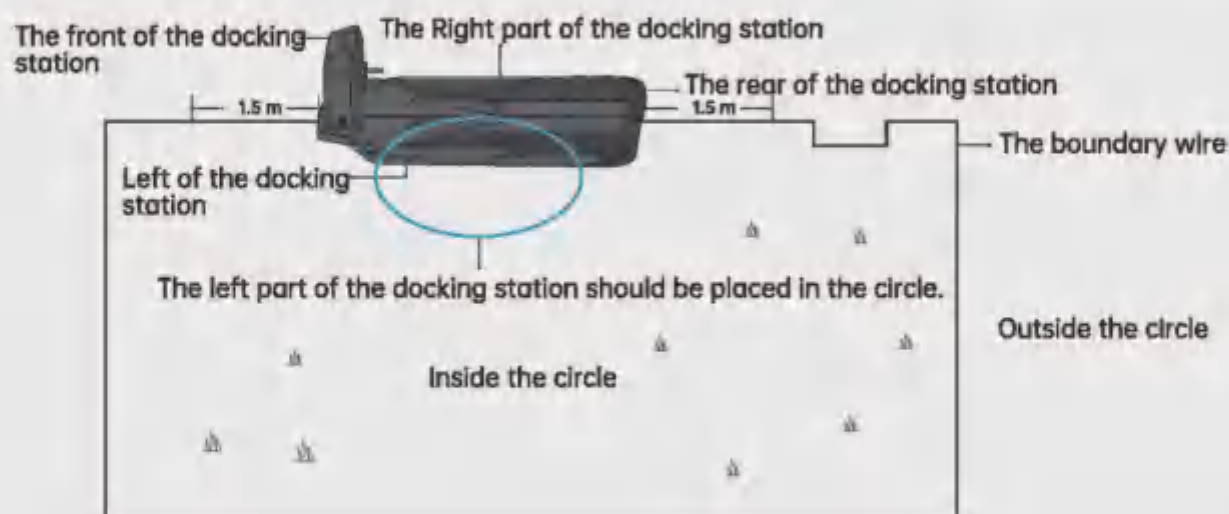
Pliers (to press the wire connector)

Gardening gloves (to avoid insect bites)

Install the Charging Station

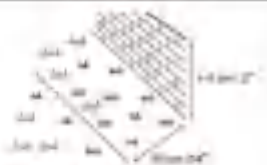


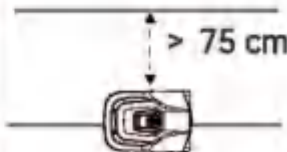
1. Position the charging station at the lawn's edge near a power source.
2. Ensure that the charging station is placed on the lawn with a flat and soft soil surface. Keep a clear space of at least 1.5 m before and after the charging station without any obstacles.
3. Position the left part of the charging station within the mowing area. Place the right part outside the mowing area.

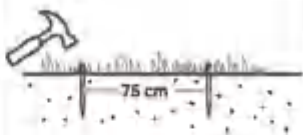
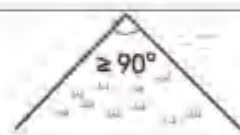

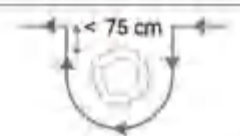




Note: For convenient adjustment of the charging station's position, don't use nails to secure the charging station onto the lawn before the boundary wire laying is completed.



Lay the Boundary Wire

Specific Requirements

Type	Requirement	Why	Example
Obstacles > 5cm in height at the edge of the lawn, like walls, fences.	35 cm	The mower needs 35 cm of space to walk along a wall or fence and turn when mowing.	
Obstacles < 5 cm at the edge of the lawn, like steps, stone slabs.	30 cm	The mower needs 30 cm of space to walk along slabs or curb stones less than 5 cm in height and turn when mowing.	
Ground at the same height as the lawn, like gravel, dirt.	10 cm	The mower can pass through surface as high as lawn. But it may slip when running in non-grassy scenes.	
Ponds, deep steps	> 75 cm	For safety reasons, if the machine loses power, it may exceed the boundary wire by 50 cm, so sufficient safety areas need to be reserved.	

Between 2 pegs	75 cm	The loosening of the boundary wire poses the risk of being cut off by the mower or tripping others. Keeping the boundary wire close to the ground can increase the positioning accuracy.	
Boundary wire corner	$\geq 90^\circ$	The machine needs sufficient space for turning.	
Slope	$< 15^\circ$	If there is a slope greater than 15° on the boundary, there is a risk that the mower will slip when mowing on the slope. For slopes greater than 15° , the boundary wire must be laid at the bottom of the slope and cannot be uphill.	
Big obstacles < 75 cm from the boundary, such as trees, boulders	Keep a 35 cm spacing around obstacles.	To help the mower reduce collision.	
Island Large obstacles ≥ 75 cm from the boundary, such as trees, boulders	Run the boundary wire to the object, lay it around the object at a 35 cm distance, and then return it vertically to the outer boundary wire. Keep the two parallel wires 20 cm apart without crossing.	To help mower reduce collision.	
Passages	Width ≥ 60 cm	Ensure that the mower can pass through narrow passages normally.	
The charging station	Lay a straight line of at least 1.5 m in the front and back.	Keep a minimum 1.5 m straight line in the front and back of the charging station.	
Maximum wire length	180 m	The maximum mowing area of the mower is 1000 square meters, so the maximum boundary wire length supported by this mower is 180 m.	

2. Plug the power adaptor into a 100-240V power outlet.

Note: The power cable can be extended by the extension cable included in the box.



APP CONTROL

Create an Account

Android: Search MOWER on Google Play.

iOS: Search MOWER on the App store.

Sign up and log into your account with an email address.



Unlock the Mower

1) Power on the mower: press and hold the ON/OFF button for 3 seconds.

2) Unlock the mower: Enter a 4-digit PIN code. The default PIN code is 0000 (Method: press the OK button 4 times).

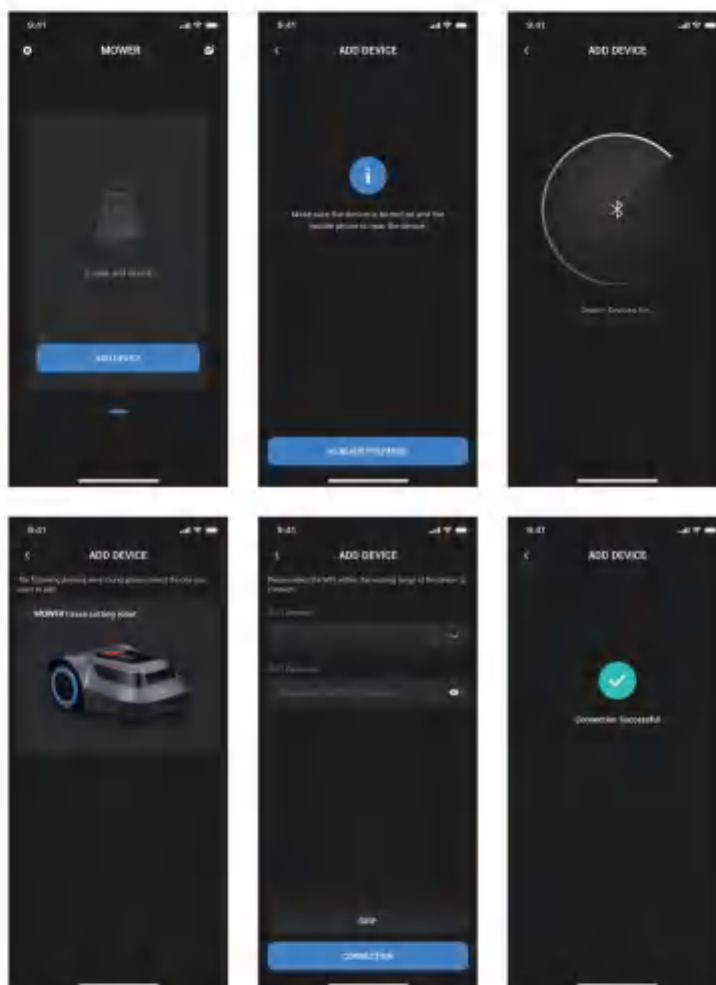
Note: For security, you can reset the PIN code in the App settings later.

Add the Device to the App

Method A: WiFi Connection

Note: Make sure your phone is connected to a 2.4GHz WiFi network and Bluetooth is enabled.

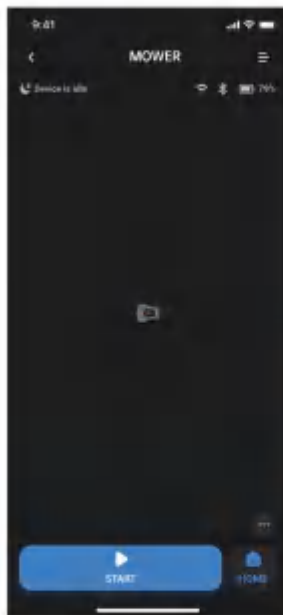
- 1) Stand near the mower, open the App, tap Add Device. (Pic 1-3)
- 2) Add the device discovered. (Pic 4)
- 3) Check the 2.4GHz WiFi name and enter its password, then tap connection. (Pic 5)
- 4) The connection is complete. (Pic 6)



Method B: Hotspot Connection

- 1) If there is no WiFi, you can turn on the personal hotspot on your phone and set the Hotspot name and password.
- 2) Stand near the mower, open the App, tap Add Device.
- 3) Add the device discovered.
- 4) Enter the hotspot name and its password, then tap connection.
- 5) The connection is complete.

App Homepage Overview



More Settings



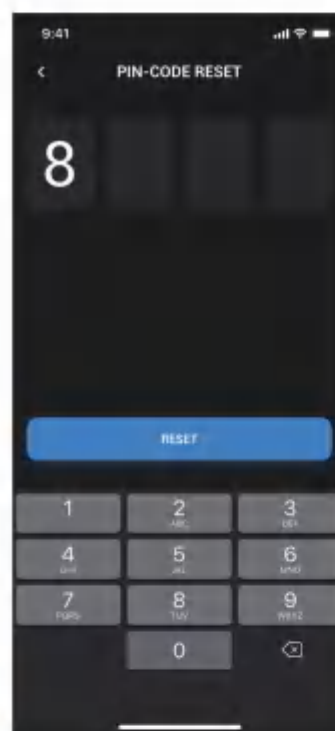
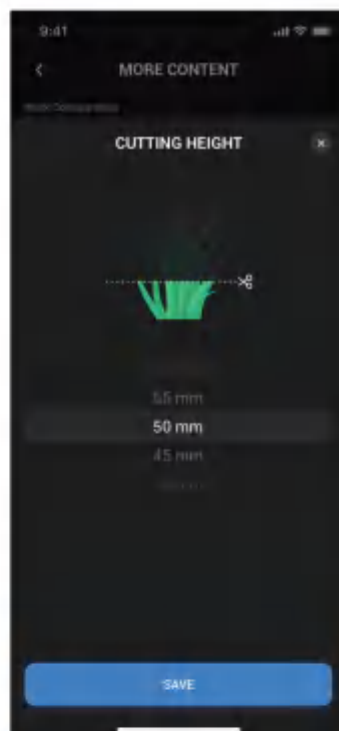
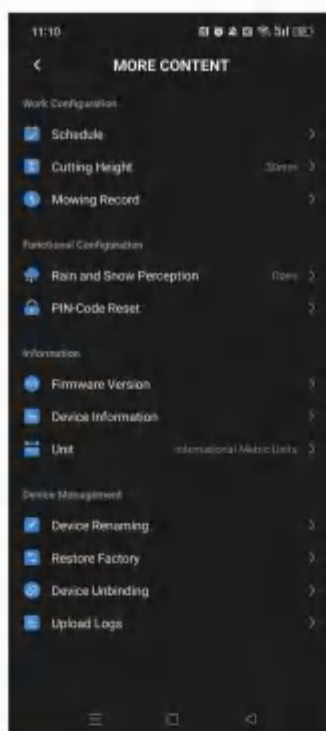
Tap here to start/stop spot mowing.



Start: Tap here to start/stop global(all-area) mowing.



Home: Tap here, the mower will return to the charging station for recharging.



Set mowing schedule



Adjust the cutting height



Mowing Records



Enable rain and snow perception



Reset the PIN code used for unlocking the mower



Check for firmware updates

BASIC OPERATIONS

Note: It's recommended to fully charge the mower before using it for the first time.

Mow

Button Control: Press Mow and OK to start mowing.

App Control: Tap Start to start mowing.

Pause

Button Control: To stop mowing, press the Stop button.

App Control: To stop mowing, tap Pause.

Recharge

Button Control: Press Home and OK, the mower automatically returns to the charging station.

App Control: Tap Home, the mower automatically returns to the charging station.



Charging Indicator

Indicator Color	Machine Status
Solid white	The mower is not on the charging station.
Solid red	Mower is charging.
Solid green	Mower is fully charged.
Flashing red	Boundary wire is broken.
Flashing green	The mower firmware is updating.
Flash red & white/green alternately	The station under error status, ground connection abnormal or broken wire detection abnormal.

HOW OUR MOWER WORKS

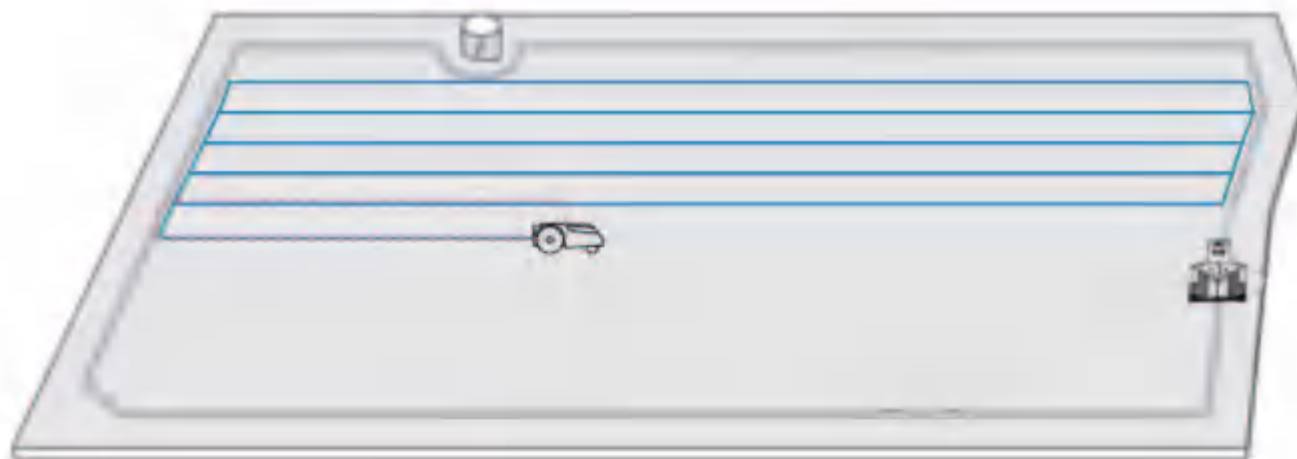
Automatic Mapping

The mower will automatically create a map by walking around the boundary wire. You can check the map on the App.



Global (all-area) Mowing

After mapping, the mower will run regular parallel paths for efficient mowing. You can check the mowing progress on the App.



Spot Mowing

Lift the mower by its handle. Move the mower to the target spot, activate spot mowing via the app. The mower will mow in a spiral pattern until it reaches a 2m/78.7-inch coverage radius, then the task is done.

Obstacle Avoidance

When collision happens in mowing, the mower will either turn around or maneuver around the obstacle. If the mower turns around, it will mow the area behind the obstacle later.

Auto Recharge & Auto Resume Mowing

- ◆ When the mower's battery level falls below 15%, it will automatically return to the charging station to recharge itself.
- ◆ Once fully charged, the mower will automatically return to the area where the task is interrupted to continue mowing the lawn.

Rain Detection

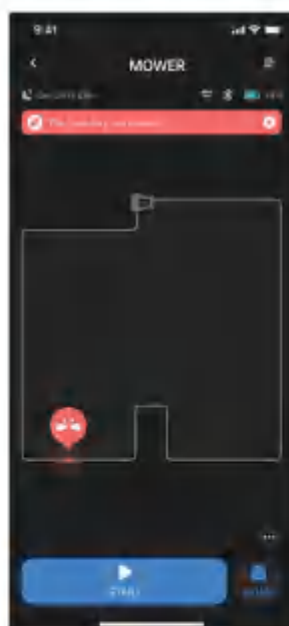
Upon detecting rainfall, the mower will stop mowing and automatically return to the charging station. If the rain stopped, the mower will wait for 3 hours (preset delay) before resuming its mowing operation.

Edge Cut

After mowing the work area, the mower will cut along the boundary automatically.

BROKEN POINT DETECTION & REPAIR

If the boundary wire is broken, the mower stops working immediately. Move the mower to the charging station, then check the App, the red light circle on the App indicates the location of the broken point.



How to Repair a Broken Boundary Wire

1. No need to strip the wires, insert the wires fully until both wire ends are visible on the other side of the wire connector.

2. Then use a pair of pliers to press the blue clamp.

Make sure the blue clamp is fully seated into the connector body. Check that the wires are securely connected by slightly pulling them. If any of the wire ends comes out, then the crimping process should be repeated.



ABOUT ERROR CODES

When an abnormality occurs, both the App and the mower display will show an error code.

Error code	Meaning	Solution
E101	Mower WiFi pairing failed	<ul style="list-style-type: none"> ◆ Press and hold MOW+HOME 3s to restart device's WiFi. ◆ If it fails, restart the mower and then put it in the charging station. ◆ Contact us if the error persists. service.
E102	WiFi connection error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower and press MOW+OK to resume mowing. ◆ If it fails, restart the mower and then put it in the charging station. ◆ Contact us if the error persists.error persists, contact after-sales service.
E103	Bluetooth connection error	
E104	Firmware update failed	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E105	Firmware download failed	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E201	Structured light sensor error	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E202	Bumper sensors triggered constantly	<ul style="list-style-type: none"> ◆ Gently shake the top cover. ◆ If it fails, restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E203	IMU Error	<ul style="list-style-type: none"> ◆ Keep the mower level and still, then restart the mower. ◆ Contact us if the error persists.
E204	IMU data error	<ul style="list-style-type: none"> ◆ Remove the obstacles or tap the mower gently to release it, then press the STOP button first, then press MOW+OK to resume mowing. ◆ If it fails, restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E205	Lift-up sensor error	
E206	CTOF sensor error	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E207	CTOF sensor error	

Error code	Meaning	Solution
E301	Mower cannot return to the charging station	<ul style="list-style-type: none"> ◆ Please confirm no obstacles in the path and the charging station is installed on a flat surface. ◆ Press the STOP button first, then press HOME+OK to return. ◆ If the error persists, put it in the charging station manually.
E302	Mower is trapped	<ul style="list-style-type: none"> ◆ Press the STOP button, then put it on the boundary wire and press MOW+OK to resume mowing.
E303	Mower positioning failed	<ul style="list-style-type: none"> ◆ Press the STOP button, then put it on the boundary wire and press MOW+OK to resume mowing ◆ Contact us if this happens frequently.
E304	Mower is lifted	<ul style="list-style-type: none"> ◆ Place the mower on a flat surface and check if the front wheels are stuck, press the STOP button first, then press MOW+OK to resume mowing. ◆ If it fails, restart the mower and then put it in the charging station. ◆ Contact us if this happens frequently.
E307	Mower has turned over	<ul style="list-style-type: none"> ◆ Turn it over first, then place it in the work area or on the charging station. Press the STOP button, then press MOW+OK to resume mowing. ◆ Set the area where the mower turns over frequently as an off-limits area.
E310	Mower is not started on the charging station or boundary wire	<ul style="list-style-type: none"> ◆ Relocate the mower on the boundary wire or the charging station. ◆ Press the STOP button first, then press MOW+OK to resume mowing.
E311	Mower has collisions on mapping	<ul style="list-style-type: none"> ◆ Clear obstacles on the boundary wire, then move the mower to the charging station, press the STOP button first, then press MOW+OK to resume mowing. ◆ Check if the charging station is installed correctly (The left part of charging station must be in the mowing area).
E313	Mower is at the tilt-over limit	<ul style="list-style-type: none"> ◆ Place it in the proper position and put it back in the work area or charging station. Press the STOP button first, and then press MOW+OK to resume mowing. ◆ Set the area where the mower tilts over 24° as an off-limits area.

Error code	Meaning	Solution
E405	Drive motor stall protection	<ul style="list-style-type: none"> ◆ Check if the wheels are stuck. Remove the foreign objects, press the STOP button first, then press MOW+OK to resume mowing. ◆ Contact us if the error persists.
E406	Drive motor error	<ul style="list-style-type: none"> ◆ Press the STOP button first, then press MOW+OK to resume mowing. ◆ If it fails, restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E410	Drive motor error	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E411	Drive motor over-temperature	<ul style="list-style-type: none"> ◆ Wait about 1 minute until the temperature returns to normal. Then, press the STOP button and press MOW+OK to resume mowing.
E422	Lift motor stall protection	<ul style="list-style-type: none"> ◆ For your safety, power off the mower first. Check and remove any foreign objects above the blade fender, such as grass clippings, stones, etc. Restart the mower, and adjust the cutting height to 70 mm for testing. ◆ Contact us if the error persists.
E423	Lift motor error	
E424	Lift motor error	
E432	Cutting motor error	<ul style="list-style-type: none"> ◆ Press the STOP button to keep the mower still, and try to restart the mower. ◆ Contact us if the error persists.
E434	Cutting motor error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower. ◆ Contact us if the error persists. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.
E435	Cutting motor error	<ul style="list-style-type: none"> ◆ Charge the mower until it has more than 60% battery (the display shows 2 cells of the battery level), then press the STOP button. ◆ Contact us if the error persists. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.
E436	Cutting motor error	<ul style="list-style-type: none"> ◆ Press the STOP button. ◆ Contact us if the error persists.

Error code	Meaning	Solution
E437	Cutting motor stall protection	<ul style="list-style-type: none"> ◆ For your safety, power off the mower first. 1. Check if the blade disc is stuck, remove the foreign objects. 2. Check if the grass is too thick and dense, cut your lawn to a height of no more than 7 cm. Restart the mower and resume mowing. ◆ Contact us if the error persists.
E438	Left wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower. ◆ Contact us if the error persists. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.
E439	Left wheel motor error	<ul style="list-style-type: none"> ◆ Charge the mower until it has more than 60% battery (the display shows 2 cells of the battery level), then press the STOP button. ◆ Contact us if the error persists. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.
E440	Left wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower. ◆ Contact us if the error persists.
E441	Left wheel motor stall protection	<ul style="list-style-type: none"> ◆ Check if the left wheel is stuck. remove the foreign objects, press the STOP button, and press MOW+OK to resume mowing. ◆ Contact us if the error persists.
E444	Left wheel motor overload	<ul style="list-style-type: none"> ◆ Press the STOP button first, then press MOW+OK to resume mowing. ◆ Contact us if the error persists.
E446	Left wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button first, then press and hold the ON/OFF button for 3s to shut off the mower, then put it on the charging station, restart the mowing task. ◆ Contact us if the error persists.
E448	Right wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower. ◆ Contact us if the error persists. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.

Error code	Meaning	Solution
E449	Right wheel motor error	<ul style="list-style-type: none"> ◆ Charge the mower until it has more than 60% battery (the display shows 2 cells of the battery level), then press the STOP button. ◆ Contact us if the error persists. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.
E450	Right wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower. ◆ Contact us if the error persists.
E451	Right wheel motor stall protection	<ul style="list-style-type: none"> ◆ Check if the right wheel is stuck. Remove the foreign objects, then press the STOP button and press MOW+OK to resume mowing. ◆ Contact us if the error persists.
E455	Right wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower and press MOW+OK to resume mowing. ◆ Contact us if the error persists.
E456	Right wheel motor error	<ul style="list-style-type: none"> ◆ Press the STOP button, then press and hold the OK button for 3s to shut off the mower, put it back to the charging station, restart the mowing task. ◆ Contact us if the error persists.
E457	Right wheel motor temperature anomaly	<ul style="list-style-type: none"> ◆ Wait for about 1 minute before the temperature returns to normal. Press the STOP button first, then press MOW+OK to resume mowing.
E501	Battery error	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.
E502	Battery overvoltage protection	<ul style="list-style-type: none"> ◆ Press the STOP button on the mower. ◆ If the error persists, disconnect the mower from the charging station, and contact us. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.

Error code	Meaning	Solution
E503	Battery undervoltage protection	<ul style="list-style-type: none"> ◆ The battery is over-discharged and needs to be charged. If the battery temperature is lower than 0°C or higher than 45°C, wait for the temperature to return to above 5°C or below 44°C before charging. When the battery charges to 60%, press the STOP button to clear the code. ◆ If the error persists, disconnect the mower from the charging station, and contact us. ◆ Do not disassemble the battery pack and make sure to use a genuine battery.
E507	Battery temperature is too low	<ul style="list-style-type: none"> ◆ Place the mower in a warm environment (operating temperature: 0~40°C), then press the STOP button on the mower. ◆ Contact us if the error persists. Do not disassemble the battery pack and make sure to use a genuine battery.
E601	The charging station communication error	<ul style="list-style-type: none"> ◆ Re-plug the charging station into the power supply, then press the STOP button. ◆ Contact us if the error persists.
E604	The boundary wire breaks	<ul style="list-style-type: none"> ◆ Put the mower in the charging station, find the broken point showed in the App and connect the broken boundary wires with the wire connector provided.
E605	The mower out of boundary	<ul style="list-style-type: none"> ◆ Put the mower in the boundary area, then adjust the boundary wire laying where the mower go out frequently.
E606	The mower mapping failed	<ul style="list-style-type: none"> ◆ Adjust the boundary wire laying . ◆ The charging station must be placed on a flat lawn, and the boundary wire should be laid on a slope no steeper than 15%.
E607	The boundary wire length over limit	<ul style="list-style-type: none"> ◆ Adjust the boundary wire laying to reduce the boundary wire length.
E702	Factory reset failed	<ul style="list-style-type: none"> ◆ Restart the mower and then put it in the charging station. ◆ Contact us if the error persists.

Blades Replacement

Attention: To avoid being cut, wear gardening gloves when handling blades. Replace the blade when the blade is not sharp enough.

1. Power off the mower and remove the plug from the mains.
2. Turn over the mower.
3. Use a cross-tip screwdriver to remove the screw and blade.
4. Fasten the new blade and screw.

Cleaning

Clean the Main Body

1. Power off the mower and remove the plug from the mains.
2. Rinse the mower with tap water, and air dry the mower completely.



Clean the Charging Station Chassis

1. Disconnect the charging station from the power supply.
2. Rinse the chassis of charging station with tap water.

Note: Do not rinse the head of the charging station.



Clean & Care

- ◆ Clean the exterior of the machine. Remove all grass and debris, especially from the blade disc shield.
- ◆ Turn the mower upside down and clean the blade area and wheels regularly. Use a stiff brush or water to remove compacted grass clippings.
- ◆ Make sure all nuts, bolts and screws are tight to ensure safe working with the garden tool.
- ◆ Periodically check the machine and replace worn or damaged parts for safety.
- ◆ Ensure that only official replacement parts are used.
- ◆ Replace all blades and bolts as a set as required.

Storage

1. Power off the machine by pressing and holding the ON/OFF button for 15 seconds.
2. Clean the machine thoroughly.
3. Fully charge the machine.
4. Store the mower and the charging station in a dry environment of -10°C-60°C.

Notes:

- ◆ Keep the mower, charging station and power adaptor away from heat sources (such as stoves, radiators, etc.) or chemicals.
- ◆ Do not leave the mower in the car in summer.

Q: How to unlock the mower?

A: Enter a 4-digit PIN code.

The default PIN code is 0000, you can reset the PIN code in the App settings.

Press MOW to choose 1/3/5/7/9, and then press OK to confirm.

Press HOME to choose 2/4/6/8/0, and then press OK to confirm.

Q: How to charge the mower?

A: Place the mower onto the charging station, ensuring the charging ports are aligned firmly with the charging pins. The charging indicator is solid red during charging and turns solid green once fully charged.

Q: How to change the cutting height?

A: The cutting height can be adjusted in App: Settings→Cutting height, the adjustment range is 30~70mm, and the minimum adjustable segment is 5mm.

Q: How to set the mowing schedule?

A: Set the mowing schedule in the App: Settings.

The mower will work automatically according to the schedule.

Choose a specific date and time period on the schedule page:

-Tap the Hour bar on the page to add or delete working hours in the pop-up page.

-Tap a day of the week to toggle the mowing schedule on/off for that day.

Note: A single work period is at least half an hour, and a maximum of 4 work periods can be added per day.

Q: How to upgrade the firmware?

A:

1. If the firmware version needs update, the APP will push the firmware upgrade pop-up window when connected to the network.

2. Keep the state of mower to meet the upgrade conditions: located on the charging station (the power of the charging station remains on), and the robot's power is $\geq 20\%$.

3. Tap upgrade, the robot will be upgraded. Keep the robot on the charging station during the upgrade.
4. During the upgrade, the upgrade progress of each sub-firmware package will be displayed on the robot.
5. The robot will restart automatically after the upgrade is complete.

Q: How to extend the boundary wire?

A: Use the wire connector provided to extend the boundary wire if it is too short for the work area.

1. Disconnect the charging station from the power outlet.
2. Use a wire cutter to cut the boundary wire at the desired extension installation point.
3. Add the wire at the desired extension installation point .
4. Insert the wire ends into the wire connector until you can clearly see the ends of the boundary wire through the transparent area of the connector.
5. Press down the blue upper cover with pliers to secure the wires in the connector.
6. Connect the charging station to the power outlet.

Note: The maximum length of boundary wire can't exceed 180m, otherwise the mower can't work.

TECHNICAL DATA

Model	RLM1000	
Basic Information	Dimensions: Length x Width x Height	606 x 420 x 258mm
	Net Weight: (Battery Included)	10.7kg
Mower Parameters	Working Capacity	10890 Sq Ft (1/4 Acre)
	Typical Mowing Time Per Full Charge	70min
	Charging time	110min
	Area Capacity per Hour	968 Sq Ft (90 m ²)
	Cutting Width	20cm
	Cutting Height	30-70mm
	Obstacle Height	30mm
Working Conditions	Sound Data	Measured Sound Power Level LWA: < 70dB(A) Sound Pressure Level LpA: 55 dB(A) Sound Pressure Uncertainties KpA: 3.0dB(A)
	Working Temperature	0°C—50°C
	Storage Temperature	-10°C—60°C
	IP Rating	Mower body IPX6; Charging station IPX5; Power supply IPX5
	Maximum slope for work area	45%/24°
	Maximum slope for boundary wire	15%
	Minimum Angle for Cutting Area	90°
Connectivity	Bluetooth	2400.0–2483.5 MHz
	WiFi	2.4GHz

Model	RLM1000	
Motor	Motor Type	Brushless motor
	Driving Motor Rated speed	0.35m/s
Battery pack	Blade Motor Top Speed	2500/min
	Charging time	Lithium-ion battery
	Nominal Voltage	18V
	Capacity	2.5Ah
Power Supply	Input Voltage	100~240V AC
	Output Voltage	24V
	Output Current	1.5A
The charging station	Input Voltage	24V
	Input Current	1.5A
	Output Voltage	24V
	Output Current	1.5A
Boundary wire	Wire Supplied	180m
	Minimum Required Length	20m
	Pegs Supplied	240
	Maximum Permissible Length	180m

FCC Warning

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.

NOTE 1: 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.

NOTE 2: Any 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.

RF Exposure Statement

To maintain compliance with FCC'S RF Exposure guidelines, This equipment should be installed and operated with minimum distance of 20cm the radiator your body. This device and its antenna(s) must not be co-located or operation in conjunction with any other antenna or transmitter.



smonet

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